ATTACHMENT D
INITIAL STUDY

Initial Study/Mitigated Negative Declaration

PASEO COLORADO REDEVELOPMENT PROJECT

August 2014

City of Pasadena
175 North Garfield Avenue
Pasadena, CA 91101-1704

PMC®

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August 2014

Lead agency:

City of Pasadena

175 North Garfield Avenue
Pasadena, CA 91101-1704

Prepared by:

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CITY OF PASADENA
175 NORTH GARFIELD AVENUE
PASADENA, CA 91101-1704

INITIAL STUDY

In accordance with the Environmental Policy Guidelines of the City of Pasadena, this analysis, the associated "Master Application Form," and/or Environmental Assessment Form (EAF), and supporting data constitute the Initial Study for the subject project. This Initial Study provides the assessment for a determination whether the project may have a significant effect on the environment.

SECTION I—PROJECT INFORMATION

1. Project Title:	Paseo Colorado Redevelopment Project
2. Lead Agency Name and Address:	City of Pasadena Planning and Community Development Department 175 North Garfield Avenue Pasadena, CA 91101
3. Contact Person and Phone Number:	David Sinclair, Planner (626) 744-6766
4. Project Location:	260-400 East Colorado Boulevard (Paseo Colorado) Pasadena, Los Angeles County, CA 91105 Paseo Colorado includes the area bounded by Colorado Boulevard to the north, Los Robles Avenue to the east, Green Street to the south, and Marengo Avenue to the west. The proposed project is limited to the easternmost portion of the Paseo, currently occupied by the vacant Macy's building along Los Robles Avenue.
5. Project Sponsor's Name and Address:	Paseo Colorado Holdings LLC 3300 Enterprise Parkway Beachwood, OH 44122 Contact: Mark Giles; (626) 796-8230
6. General Plan Designation:	Central District Specific Plan
7. Zoning:	CD-2 (Central District Specific Plan, Civic Center/Midtown sub-district)

7a. Overlays:

Transit District – The project is located in a Transit-Oriented Development (TOD) area. A Minor Conditional Use Permit (CUP) is required for a project with over 15,000 square feet of new construction. The Minor CUP also includes additional findings related to the project being transit and pedestrian friendly.

8. Description of the Project

The proposed project consists of the redevelopment of the Macy's portion of the Paseo Colorado shopping center (the "Paseo"), located on the south side of Colorado Boulevard between Marengo and Los Robles avenues in the Central District of Pasadena (the "project").

In particular, the project would demolish the existing 158,879-square-foot vacant Macy's building and adjacent street-front tenant spaces and, in their place, develop a Hyatt Place hotel and new six-story mixed-use residential and commercial building. The Paseo's central pedestrian mall would also be reconfigured to improve internal pedestrian circulation and create a new pedestrian entry from the east.

The proposed 179-room hotel would be located at the southern portion of the site at the northwest corner of Green Street and Los Robles Avenue. The proposed hotel would be six stories, and most of the building would reach approximately 70 feet in height, with limited areas reaching almost 80 feet. The hotel building would be L-shaped, creating a pool deck on the second floor facing to the southwest. The proposed hotel would also include limited amenities (including a lobby bar/food service area, meeting space, a business center, and a fitness room). Approximately 5,965 square feet of ground-floor retail space would also be included in the hotel building, fronting on the Paseo's central pedestrian mall and on Los Robles Avenue. Vehicular access to the proposed hotel would be along Green Street, which would access a proposed loading/drop-off roundabout and the existing underground parking garage.

The proposed six-story mixed-use building would be located on the northern portion of the existing Macy's footprint, oriented to the corner of Colorado Boulevard and Los Robles Avenue. It would be approximately 125,000 square feet in size. Most of the building would reach approximately 75 feet in height, with a maximum height of 90 feet at the Colorado Boulevard/Los Robles Avenue corner. The ground floor would include approximately 3,550 square-feet of retail space and 20,500 square-feet of restaurant space. The second to sixth floors would consist of a maximum of 100 for-sale residential units[1] (one-, two-, and three-bedroom) with lounge spaces and a small fitness center.

The proposed project would result in a total net increase in building square footage of approximately 70,000 square feet (total new square footage of the proposed project less square footage of the Macy's building proposed for demolition). **Tables 1** and **2** summarize the proposed project's total square footage.

[1] Current project plans (Appendix A) show a total of 71 residential units. To foster a conservative analysis and allow the developer flexibility in final design and unit count, 100-residential units were used for analysis in this Initial Study.

Table 1
Mixed Use Building Development Summary

	Number of Units	Per Unit Square Footage	Total Square Footage
Ground Floor Summary			
Restaurant 1	1	7,000	7000
Restaurant 2	1	6,500	6500
Restaurant 3	1	7,000	7000
Retail 1	1	1,400	1400
Retail 2	1	2,150	2150
Trash/Service	1	1,300	1300
Lobby	1	860	860
Lobby 2	1	2,400	2400
Total		**28,610**	**28,610**
2nd Floor Summary			
1 bedroom (1-bath)			
A-1	1	750	750
A-2	1	920	920
2 bedroom (2 bath)			
B-1	7	1,350	9,450
B-2	1	1,400	1,400
3 Bedroom (2 Bath)			
C	1	1,890	1,890
Fitness Center		1,760	1,760
Lobby		670	670
Lounge/Meeting A		1,130	1,130
Lounge/Meeting B		920	920
Total	**11**	**10,790**	**18,890**
Upper Floor Summary (Floors 3-6)[1]			
1 Bedroom (1 Bath)			
A-1	2	750	1,500
A-2	1	920	920
2 Bedroom (2 Bath)			
B-1	9	1,350	12,150
B-2	2	1,400	2,800
3 Bedroom (2 Bath)			
C	1	1,890	1,890
Total (for 1 floor)	**15**		**19,260**
Total (for floors 3-6)[1]	**60**		**77,040**

Source: DLR Group 2014 (Appendix A)
[1] Based on site plans (Appendix A), the footprint for floors 3-6 are anticipated to be the same.

Table 2
Hotel Building Programming Summary

	Number of Rooms	Per Room Square Footage	Total Square Footage
Ground Floor (Lobby Level)			9,435
Ground Floor (Retail)			5,965
Second Floor (Fitness Pool Level)	27		18,350
Upper Floors (Floor 3-6)	152		70,800
Total	**179**		**104,550**

Source: DLR Group 2014 (Appendix A)

Figures 1 through **6** include maps of the project site and "before and after" visual simulations from key vantage points. Please refer to **Appendix A** for the complete project plan set submitted by the applicant.

Discretionary Approvals

Project entitlements from the City of Pasadena will likely include most or all of the following:

- Conditional Use Permit (CUP) for hotel use
- CUP for a major project over 25,000 square feet
- Minor CUP for on-site shared parking
- Minor CUP for valet parking
- Minor CUP for a project over 15,000 square feet in the Transit-Oriented Development (TOD) area
- Minor Variance for setbacks along Green Street (Central District Specific Plan allows a maximum setback of 5 feet; proposed project would have setbacks up to 60 feet)
- Design Review

These entitlements will be considered for approval by the Planning Commission and the Design Commission.

9. Surrounding Land Uses and Setting

The project site is bounded by Colorado Boulevard to the north, Green Street to the south, Los Robles Avenue to the east, and Marengo Avenue to the west. This area of Pasadena is generally referred to as part of "downtown," and the site is situated in the City's Central District Specific Plan area. Land uses surrounding the Paseo Colorado consist primarily of commercial, residential, and mixed-use buildings. The western portion of the Paseo Colorado (along the Garfield Promenade) lies within the Pasadena Civic Center Historic District, although the Macy's portion of the complex lies outside of the Historic District. The Pasadena Playhouse District lies to the east of the site, across Los Robles Avenue. Both the Pasadena Civic Center Historic District and the Pasadena Playhouse District are listed in the National Register of Historic Places. The Foothill Freeway (I- 210) is located less than one-half mile north of the project site, and South Arroyo Parkway (I-110) is about one-third of a mile to the west of the site.

Two Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line light rail stations are located a short walk (less than a quarter of a mile) from the project site—the Memorial Station to the northwest and the Del Mar Station to the southwest. Some destinations and landmarks surrounding the project site include Memorial Park (4 blocks northwest), Pasadena Civic Auditorium (1 block south), the Pasadena Museum of California Art (1 block to the northeast), and Pasadena City Hall (2 blocks north).

10. Other public agencies whose approval is required

No discretionary approvals from public agencies other than the City of Pasadena are known or expected to be required for the project.

Figure 1

Regional Vicinity

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Document Path: T:_GIS\Los_Angeles_County\Mxds\Pasadena\Paseo_Colorado\Figure 1 Regional Vicinity.mxd

Document Path: T:_GIS\Los_Angeles_County\Mxds\Pasadena\Paseo_Colorado\Figure 2 Project Location.mxd

Figure 2

Project Location

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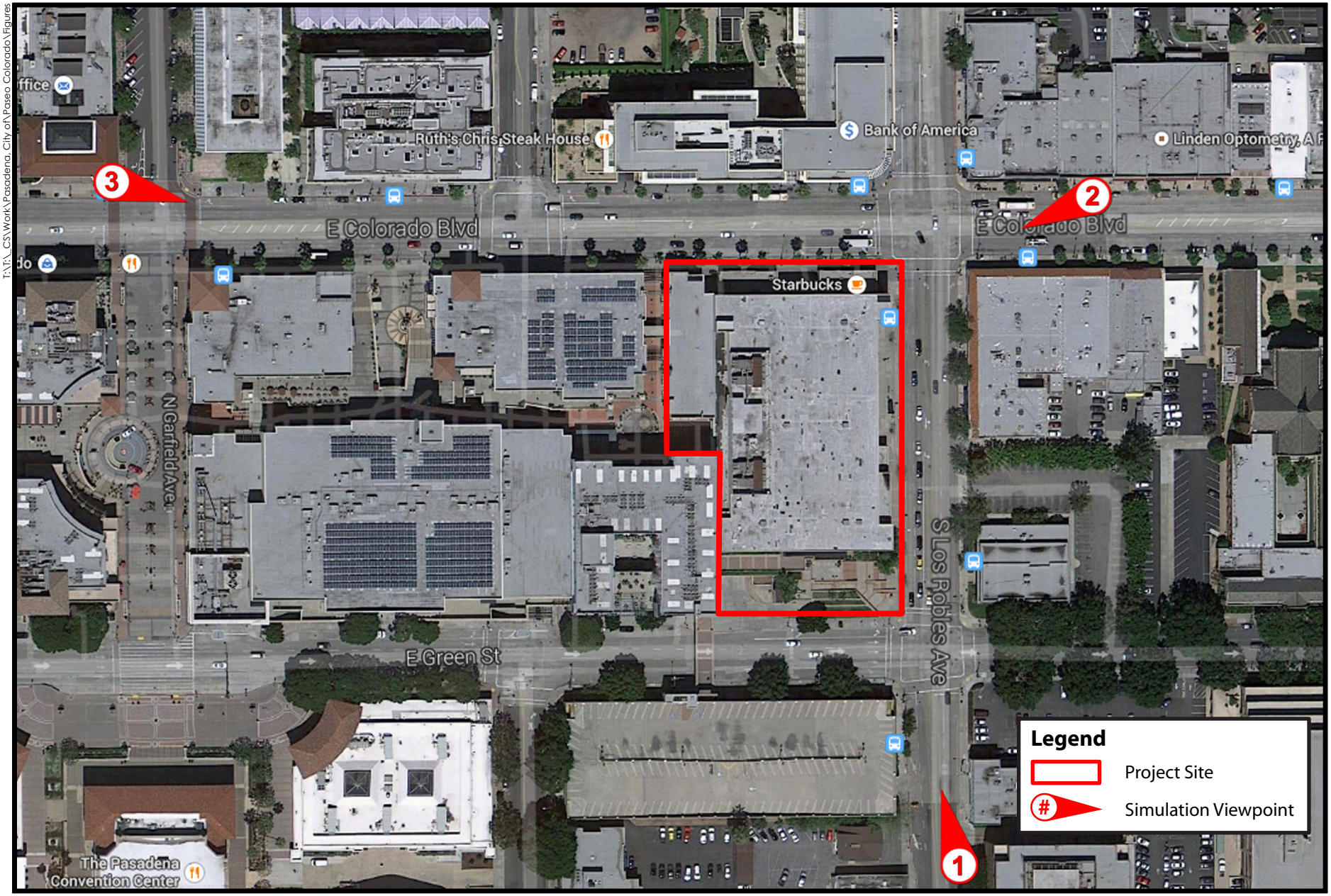

Source: VisionScape Imagery

Figure 3

Visual Simulation Key Map

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Source: VisionScape Imagery

Figure 4
Visual Simulation 1

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Source: VisionScape Imagery

Figure 5
Visual Simulation 2

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Source: VisionScape Imagery

Figure 6
Visual Simulation 3

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

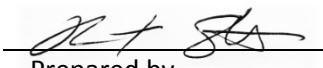
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gases	☐ Public Services
☐ Agricultural and Forest Resources	☐ Hazards and Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology and Water Quality	☐ Transportation/Traffic
☐ Biological Resources	☐ Land Use and Planning	☐ Utilities and Service Systems
☐ Cultural Resources	☐ Mineral Resources	☐ Mandatory Findings of Significance
☐ Energy	☐ Noise	
☐ Geology and Soils	☐ Population and Housing	

DETERMINATION (To be completed by lead agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.	**X**
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

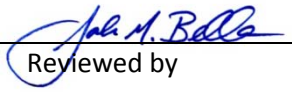


8/19/2014

Prepared by

Bob Stark, AICP

Printed Name



8/19/2014

Reviewed by

John Bellas

Printed Name

SECTION II – CHECKLIST SUMMARY

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
1. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
2. AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	☐	☐	☐	☒

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
d. Result in the loss of forestland or conversion of forestland to a non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use?	☐	☐	☐	☒

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project**:**

a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

4. BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
6. ENERGY. Would the project:				
a. Conflict with adopted energy conservation plans?	☐	☐	☒	☐
b. Use nonrenewable resources in a wasteful and inefficient manner?	☐	☐	☒	☐
7. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction and lateral spreading?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
8. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐
9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
10. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or dam inundation area as shown in the City of Pasadena adopted Safety Element of the General Plan or other flood or inundation delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
11. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☒	☐
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
12. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
13. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
14. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
15. PUBLIC SERVICES. Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☒	☐
b. Libraries?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Parks?	☐	☐	☒	☐
d. Police protection?	☐	☐	☒	☐
e. Schools?	☐	☐	☒	☐
f. Other public facilities?	☐	☐	☒	☐
16. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
17. TRANSPORTATION/TRAFFIC. Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐
18. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
19. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

SECTION III – ENVIRONMENTAL CHECKLIST FORM

BACKGROUND

Date checklist submitted: August 19, 2014

Department requiring checklist: Planning and Community Development Department

Case Manager: David Sinclair

ENVIRONMENTAL IMPACTS (explanations for all answers are required)

1. AESTHETICS. Would the project:

a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

WHY? The project site is within an urbanized area located in the western portion of Pasadena. Specifically, the project site is within the Central District Specific Plan area. The project site is not in an area with visible views of the Arroyo Seco, the San Rafael Hills, or Eaton Canyon; however, views of the San Gabriel Mountains to the north are visible in the public right-of-way along Los Robles Avenue. The existing Macy's building and the other buildings fronting Los Robles Avenue south of Colorado Boulevard partially obstruct north-facing views and limit views of the San Gabriel Mountains. Once constructed, the proposed project would not further obstruct views of the San Gabriel Mountains that are currently unobstructed (**Figures 3** through **6**).

The height limit in the CD-2 zoning district is 75 feet (90-foot maximum height is permitted using height averaging and requires the approval of the Design Commission).2 The proposed height for the new mixed-use residential and commercial building exceeds 75 feet along both Colorado Boulevard and Los Robles Avenue. As a result, review and approval by the Design Commission is required. Although the building would result in little or no change with regard to scenic vistas, this regulatory procedure would provide an additional layer of review that would analyze in detail, and incorporate conditions to address building massing, exterior materials, and overall building height. As such, impacts to scenic vistas are considered less than significant.

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[2] The additional height is permitted over no more than 30 percent of the building footprint on a development parcel (excluding parking garages), provided that the average height of that footprint does not exceed the otherwise required maximum building height. Height averaging requires the approval of the Design Commission.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

WHY? The only designated state scenic highway in Pasadena is the Angeles Crest Highway (State Highway 2), which is located north of Arroyo Seco Canyon in the northwest portion of the city. The project site is not within the viewshed of the Angeles Crest Highway; thus, the project would have no impacts to a state scenic highway. The project site is also not within the viewshed of any City-designated scenic corridors identified in the City's General Plan. Furthermore, the proposed project would not result in the destruction of any landmark eligible trees, stand of trees, rock outcropping, or natural feature recognized as having significant aesthetic value.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒

WHY? The project site is located in the urban core of Pasadena. The visual character of the surrounding area includes a range of land uses, building styles, and heights similar to the proposed project. Along Los Robles Avenue, the Macy's building appears as a boxlike structure with little articulation, no windows, and minimal landscaping. It obstructs pedestrian access to the Paseo from the east and is not aesthetically compatible with other buildings in the area. The proposed project would replace the Macy's building with structures that are compatible with the visual character of the surroundings and allow pedestrian access from the east.

"Before and after" visual simulations of the project site and surroundings illustrate existing views with the Macy's building in place and simulations of future views once the proposed project is completed **(Figures 3** through **6)**. As illustrated, the proposed buildings would result in greater visual continuity with the surrounding built environment.

Additionally, as required by Section 17.61.030 of the Pasadena Municipal Code, the design of the project will be reviewed by the City's Design Commission. This regulatory procedure was established to ensure that development projects comply with adopted design guidelines and achieve compatibility with the surrounding area. Although the project would not substantially degrade the visual character of the site and surroundings, this regulatory procedure provides the City with an additional layer of review for aesthetics and an opportunity to incorporate additional conditions to increase the aesthetic value of the project. As such, the proposed project would result in beneficial effects to the visual character and quality of the site and its surroundings.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

WHY? A potentially significant impact would occur if light or glare substantially altered the character of off-site areas surrounding a project or interfered with the performance of an off-site activity. Light impacts are typically associated with the use of artificial light during the evening and nighttime hours. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades largely or entirely comprising highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with bright point source lighting that contrasts with existing low ambient light conditions.

The project site area is typical of urban areas, exhibiting moderate levels of interior and exterior lighting for security, parking, and landscaping. The streets in the area are lined with light fixtures for visibility and safety purposes, and traffic on these streets also contributes to overall ambient lighting levels. No unique lighting components of the project or building materials would be expected to generate glare. Additionally, the proposed project would generate light consistent with the surrounding neighborhood and would not adversely affect day or nighttime views. Resulting impacts are considered less than significant.

2. AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒

WHY? Pasadena is a developed urban area surrounded by hillsides to the north and northwest. The city contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on maps prepared pursuant to the Farmland Mapping

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

and Monitoring Program of the California Resources Agency. No impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur as a result of the proposed project.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

WHY? Pasadena has no land zoned for agricultural use other than commercial growing areas. Commercial growing areas/grounds are permitted in the CG (Commercial General), CL (Commercial Limited), and IG (Industrial General) zones and conditionally permitted in the RS (Single-Family Residential) and RM (Multi-Family Residential) districts. No agricultural uses exist in the proposed project area; therefore, no impacts would occur with regard to Williamson Act contract lands or agricultural zoning.

c. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	☐	☐	☐	☒

WHY? Pasadena has no timberland or timberland production land and has no land zoned for forestland. Although the City's General Plan Open Space and Conservation Element discusses various types of natural open space (e.g., Wild Open Space, Modified Open Space, and Undeveloped Lands), the project site is located in an urbanized area. As a result, no impacts would occur to forestland or timberland resources.

d. Result in the loss of forestland or conversion of forestland to a non-forest use?	☐	☐	☐	☒

WHY? As discussed above, there is no forestland in Pasadena; therefore the proposed project would not result in the conversion or loss of forestland.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use?	☐	☐	☐	☒

WHY? As discussed above, there is no known farmland in Pasadena; therefore, the proposed project would not result in the conversion of farmland to a nonagricultural use and no impacts would occur.

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

WHY? Pasadena is within the South Coast Air Basin (SCAB), which is bounded by the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east and by the Pacific Ocean to the south and west. The air quality in the SCAB is managed by the South Coast Air Quality Management District (SCAQMD). The SCAB has a history of recorded air quality violations and is an area where both state and federal ambient air quality standards are exceeded. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The air quality in the SCAB does not meet the ambient air quality standards for ozone, coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), nitrogen oxide (NO_x), and lead, and is therefore classified as a nonattainment area for these pollutants. The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of the air pollutants for which the basin is in nonattainment.

In order to reduce emissions for which the SCAB is in nonattainment, the SCAQMD adopted the 2012 Air Quality Management Plan (AQMP), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state and national air quality standards. The AQMP is a regional and multi-agency effort including the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the US Environmental Protection Agency (EPA).

The AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for

various source categories, and SCAG's latest growth forecasts. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.) The project is subject to the SCAQMD's Air Quality Management Plan. The SCAQMD considers projects that are consistent with the AQMP to have less than significant cumulative impacts. (Because air quality impacts are measured across the entire SCAB, SCAQMD determines project-level emissions to have a significant impact when considered cumulatively with other sources.)

SCAQMD determines consistency with the AQMP using two criteria:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP.

The violations to which Consistency Criterion No. 1 refers are the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). SCAQMD has developed thresholds of significance to determine if the CAAQS or NAAQS standards have been exceeded. As evaluated under Issue b) below, the project would not exceed the SCAQMD's short-term construction thresholds of significance, or long-term operational thresholds of significance. Thus, it would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards under Consistency Criterion No. 1. Additionally, the analysis for long-term local air quality impacts shows that future carbon monoxide (CO) concentration levels along roadways and at intersections affected by project traffic would not exceed the 1-hour and 8-hour state CO pollutant concentration standards. Thus, a less than significant impact is expected, and the project would be consistent with the first criterion.

In regard to Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts. The proposed project is consistent with the land use designation and development density presented in the City of Pasadena's General Plan and therefore would not exceed the population or job growth projections used by the SCAQMD to develop the Air Quality Management Plan. Thus, no significant impact would occur, as the project is consistent with both criteria.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
b. Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐

WHY? As discussed above, the project site and the city are located in the SCAB, which is considered nonattainment for certain criteria pollutants. Because the project would involve demolition and other construction activities, and result in new uses of the project site, it would contribute to regional and localized pollutant emissions during construction (short-term) and project occupancy (long-term). The potential for the project's construction and operation activities to violate any air quality standard or contribute to an existing or projected air quality violation is as follows.

Construction Emissions

Construction of the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern in the project area include ozone-precursor pollutants (i.e., reactive organic gases (ROG and NO_x) and PM_{10} and $PM_{2.5}$.) Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from demolition and site preparation, motor vehicle exhaust associated with construction equipment and worker trips, the movement of construction equipment, especially on unpaved surfaces, and the application of paints and other architectural coatings. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

Construction-generated emissions associated with the proposed project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Predicted maximum daily construction-generated emissions for the proposed project are summarized in **Table 3**.

Table 3
Construction-Related Criteria Pollutant and Precursor Emissions – Maximum Pounds per Day

Construction Activities	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_X)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Demolition & Construction of Proposed Project	24.86	65.33	60.94	0.10	21.35	12.82
SCAQMD Potentially Significant Impact Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2013.2.2. Refer to **Appendix B** for model inputs/outputs.*

As shown, all criteria pollutant emissions would remain below their respective thresholds during the construction phase of the project and therefore would represent a less than significant impact.

Localized Construction Significance Analysis

As part of the SCAQMD's environmental justice program, attention has been focused on the localized effects of air quality. SCAQMD staff has developed localized significance threshold (LST) methodology that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (SCAQMD 2008). This analysis seeks to determine whether an area may bear a disproportionate share of air quality impacts even if the proposed project itself does not exceed thresholds of significance. LSTs represent the threshold at which a project's emissions would combine with other emissions in the area to exceed the most stringent applicable federal or state ambient air quality standard. LSTs are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The project site is located within SRA 8 (West San Gabriel Valley).

The pollutant emissions analyzed under the LST methodology are nitrogen dioxide (NO_2), CO, PM_{10}, and $PM_{2.5}$. LSTs for NO_2 and CO are derived by adding the peak incremental emission impacts from the project activity to the peak background NO_2 and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards. The most stringent standard for NO_2 is the 1-hour state standard of 18 parts per hundred million and for CO is the 1-hour and 8-hour state standards of 9 parts per million (ppm) and 20 ppm, respectively. For PM_{10} and $PM_{2.5}$, the localized significance thresholds are derived using an air quality dispersion model to reverse-calculate the emissions that would be necessary to worsen an existing violation in the

specific source receptor area, using the allowable change in concentration thresholds approved by the SCAQMD. For PM_{10} and $PM_{2.5}$, the approved 24-hour concentration thresholds for construction are 10.4 µg/m^3.[3]

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of project-related construction, the following process is undertaken:

- The CalEEMod model is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to 5 acres per day, the SCAQMD's screening look-up tables (SCAQMD 2009) are utilized to determine if a project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than 5 acres per day, the SCAQMD recommends dispersion modeling to be conducted to determine the actual pollutant concentrations for applicable LSTs in the air.

According to the LST methodology, only on-site emissions need to be analyzed. Emissions associated with hauling, vendor trips, and worker trips are mobile source emissions that occur off-site and need not be considered according to LST methodology, since they do not contribute to isolated local concentrations of air pollution.

Table 4 is used to determine the maximum daily disturbed acreage for use in determining the applicability of the SCAQMD's LST look-up tables. Based on **Table 4**, construction activities on the project site could actively disturb approximately 3.5 acres per day and thus would not exceed the limit of 5 acres per day established by the SCAQMD's LST look-up tables. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size; since project construction is projected to disturb an area of 3.5 acres in size, SCAQMD LST look-up tables for 5 acres of disturbance are used to determine localized impacts consistent with SCAQMD protocol.

[3] µg/m^3 = microgram per cubic meter

Table 4
Maximum Daily Disturbed Acreage

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day (individually)	Operating Hours per Day	Acres Graded per Day
Site Preparation	Crawler Tractors	4	0.5	8	2.0
	Rubber-Tired Dozers	3	0.5	8	1.5
Total Acres Disturbed per Day					**3.5**
Applicable LST Mass Rate Look-Up Table					5.0

Source: CalEEMod User Guide Appendix B

The nearest sensitive receptor is the Terraces at Paseo Colorado Apartment homes located directly adjacent (>1 meter) to the proposed construction site's western boundary. The closest receptor distance on the LST look-up tables is 25 meters. According to the LST methodology, projects with boundaries closer than 25 meters to the nearest receptor should use screening thresholds for receptors located at 25 meters (SCAQMD 2008). Accordingly, LSTs for receptors at 25 meters are utilized in this analysis and provide for a conservative, i.e., "health protective," standard of care.

Table 5
Uncontrolled Construction Local Significance Threshold Impacts – Pounds per Day

Emissions Source	Nitrogen Oxide	Carbon Monoxide	PM_{10}	$PM_{2.5}$
On-Site Site Preparation Emissions	56.88	42.63	**21.15**	**12.77**
LST Screening Threshold (5 acres of disturbance, receptors within 25 meters)[1]	148	1,540	12	7
Exceed Screening Threshold?	**No**	**No**	**Yes**	**Yes**

[1] *Source: SCAQMD 2009. Bolded numbers represent emissions projections that exceed applicable thresholds.*

Table 5 shows that, if uncontrolled, construction could potentially exceed the LST screening thresholds for particulate matter (PM) at nearby sensitive receptors. However, the proposed project is subject to SCAQMD rules and regulations. The SCAQMD is responsible for adopting and enforcing rules and regulations concerning air pollutant sources, and all development projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of noteworthy SCAQMD rules that are required of the proposed project during construction activities:

- Rule 402 (Nuisance) – This rule prohibits the discharge from any source whatsoever of such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 (Fugitive Dust) – This rule requires fugitive dust sources to implement Best Available Control Measures for all sources and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.
  a. Portions of the construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  b. All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
  c. All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  d. The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized at all times.
  e. Where vehicles leave the construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
  f. Restrict on-site vehicle speeds to 15 miles per hour on unpaved surfaces.

Table 6
Rule 403 Controlled Construction Local Significance Threshold Impacts – Pounds per Day

Emissions Source	Nitrogen Oxide	Carbon Monoxide	PM_{10}	$PM_{2.5}$
On-Site Site Preparation Emissions	56.88	42.63	10.31	6.71
LST Screening Threshold (5 acres of disturbance, receptors within 25 meters)[1]	148	1,540	12	7
Exceed Screening Threshold?	**No**	**No**	**No**	**No**

[1] *Source: SCAQMD 2009*

As shown in **Table 6**, the SCAQMD requirement to periodically water on-site roads of the construction site and restrict on-site vehicle speeds to 15 miles per hour would reduce on-site emissions below LST screening thresholds and, thus, impacts would be less than significant.

Operational Emissions

Project-generated increases in emissions would be predominantly associated with motor vehicle use. However, area sources such as hearths in residential uses, natural-gas-fired appliances, landscape maintenance equipment, and application/reapplication of architectural coatings can also be a substantial source of emissions. Long-term operational increases in emissions of criteria air pollutants were calculated using the CalEEMod model. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Modeling was conducted for the proposed project based on data, specifically trip generation rates obtained from the traffic analysis prepared for the proposed project which estimates 2,867 average daily trips resulting from the proposed project (Raju Associates Inc. 2014). The air emission modeling conducted for the project also account for SCAQMD Rule 445, which prohibits the installation of wood-burning hearth in all residential development.

Long-term operational emissions attributable to the proposed project are summarized in **Table 7.** At completion, the project would result in a maximum net increase of approximately 40.99 pounds per day (lbs/day) of ROG, 28.57 lbs/day of NO_x, 117.66 lbs/day of CO, 15.88 lbs/day of PM_{10}, and 4.71 lbs/day of $PM_{2.5}$.

Table 7
Unmitigated Long-Term Operational Emissions – Pounds per Day

Source	Emissions					
	Reactive Organic Gases (ROG)	**Nitrogen Oxide (NO_X)**	**Carbon Monoxide (CO)**	**Sulfur Dioxide (SO_2)**	**Coarse Particulate Matter (PM_{10})**	**Fine Particulate Matter ($PM_{2.5}$)**
Proposed Project – Summer Emissions						
Area Source	10.24	0.09	8.39	0.00	0.16	0.16
Energy Use	0.22	2.01	1.58	0.01	0.15	0.15
Mobile Source	26.34	25.12	105.94	0.23	15.56	4.39
Total	**36.81**	**27.23**	**115.92**	**0.24**	**15.88**	**4.71**
Proposed Project – Winter Emissions						
Area Source	10.24	0.09	8.39	0.00	0.16	0.16
Energy Use	0.22	2.01	1.58	0.01	0.15	0.15
Mobile Source	30.52	26.46	107.68	0.22	15.56	4.39
Total	**40.99**	**28.57**	**117.66**	**0.23**	**15.88**	**4.71**
SCAQMD Potentially Significant Impact Threshold	55 pounds/day	55 pounds/day	550 pounds/day	150 pounds/day	150 pounds/day	55 pounds/day
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2013.2.2. Projected emissions account for emissions from vehicle trips derived from the traffic study prepared for the project. Refer to ***Appendix B*** *for model data output.*

As shown, estimated operational emissions would not exceed SCAQMD significance thresholds. Therefore, this impact is less than significant.

Localized Operational Significance Analysis

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources such as smoke stacks or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is needed, as there would be no impact.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

Nonetheless, for disclosure purposes, **Table 8** shows the calculated emissions for the proposed operational activities compared with the appropriate localized significance thresholds. The LST analysis is limited to on-site sources; however, the CalEEMod model outputs do not separate on- and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in **Table 8** include all on-site project-related area source emitters such as hearths and consumer products and 5 percent of the project-related new mobile sources. Considering that the weighted trip length used in CalEEMod for the project is approximately 16.6 miles, 5 percent of this total would represent an on-site travel distance for each car and truck of approximately 1 mile. Since on-site travel would be limited to the parking garage, a one-mile travel assumption would be conservative.

Table 8 shows that the operational emission rates would not exceed the LST thresholds for receptors adjacent to the project site. Therefore, the proposed operational activity would not result in a localized significant air quality impact.

Table 8
Operational Local Significance Threshold (LST) Impacts (Pounds per Day)

Emissions Source	Nitrogen Oxide	Carbon Monoxide	PM_{10}	$PM_{2.5}$
On-Site Emissions	3.32	15.35	1.08	0.52
LST Threshold[1]	148	1,540	3	2
Significant Emissions?	**No**	**No**	**No**	**No**

[1] *Source: SCAQMD 2009*

Impacts associated with construction and operational air quality would be considered less than significant, as SCAQMD significance thresholds for criteria emissions would not be surpassed (see **Tables 3, 6, 7,** and **8**).

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐

WHY? Pasadena is within the SCAB, which is an air basin that regularly exceeds ambient air quality standards (AAQS), i.e., a nonattainment area.

The proposed project may contribute to the net increase of ozone precursors and other criteria pollutants. As discussed about in section a., SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and California Clean Air Acts. In other words, the SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the basin into attainment for all criteria pollutants, to also have less than significant cumulative impacts.[4] The discussion under Issue a) describes the SCAQMD criteria for determining consistency with the AQMP and further demonstrates that the proposed project would be consistent with it.

For example, as stated under Issue a), the criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP.

The violations to which Consistency Criterion No. 1 refers are the CAAQS and the NAAQS. As evaluated under Issue b) above, the project will not exceed the short-term construction thresholds or long-term operational thresholds. It will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards. Thus, a less than significant impact is expected, and the project would be consistent with the first criterion. Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The proposed project is consistent with the land use designation and development density presented in the City's General Plan and therefore would not exceed the population or job growth projections used by the SCAQMD to develop the Air Quality Management Plan.

[4] CEQA Guidelines Section 15064(h)(3) states, "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency."

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

As such, cumulative impacts would be less than significant per the SCAQMD significance threshold since the project would be consistent with the AQMP.

d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

WHY? Sensitive land uses are generally defined as locations where people reside or where the presence of air emissions could adversely affect the use of the land. Typical sensitive receptors include residents, schoolchildren, hospital patients, and the elderly.

Air Toxics

The project would not be a source of air toxics as it only proposes residential units, a hotel, and retail-related uses, and these types of land uses do not typically generate air toxics.

In terms of residential land uses being developed near an existing stationary source of air toxics, the issuance of SCAQMD air quality permits and compliance with all SCAQMD, state, and federal regulations regarding stationary toxic air contaminants would reduce potential stationary sources of air toxics emissions such that sensitive receptors would not be exposed to substantial air pollutant concentrations. The SCAQMD limits public exposure to air toxics through a number of programs and reviews the potential for air toxic emissions from new and modified stationary sources through the SCAQMD permitting process for stationary sources. Air toxic emissions from existing stationary sources are limited by:

1) SCAQMD Rule 1401, which requires that construction or reconstruction of a major stationary source emitting hazardous air pollutants listed in Section 112(b) of the Clean Air Act be constructed with Best Available Control Technology and comply with all other applicable requirements.

2) Implementation of the Air Toxics “Hot Spots” (AB 2588) Program.

3) Implementation of the federal Title III Toxics Program.

Facilities and equipment that require permits from the SCAQMD are screened for risks from toxic emissions and can be required to install Toxic Best Available Control Technology (T-BACT) to reduce the risks if deemed necessary by the SCAQMD. T-BACTs are the most up-to-date methods, systems, techniques, and production processes available to achieve the greatest feasible emission reductions for air toxics. In addition, the proposed project is not located near any existing stationary sources of air toxics. Therefore, the future residential development allowed under the proposed project would not be adversely affected by stationary sources of air toxics.

Mobile sources of air toxics include freeways and major roadways, which are sources of diesel particulate matter (DPM). DPM has been listed as an air toxic by CARB. In April 2005, CARB released the *Land Use and Air Quality Handbook: A Community Health Perspective*, which offers guidance on siting sensitive land uses in proximity to sources of air toxics. The handbook recommends that sensitive land uses be sited no closer than 500 feet from a freeway or major roadway, a buffer area that was developed to protect sensitive receptors from exposure to DPM, which was based on traffic-related studies that showed a 70 percent drop in particulate matter concentrations at a distance of 500 feet from the roadway. Presumably, acute and chronic risks as well as lifetime cancer risk due to DPM exposure are lowered proportionately. Per Google Earth (2014), Interstate 210 is located approximately 2,287 feet north of the project site, and South Arroyo Parkway (I-110) is 1,767 feet to the west of the site. Therefore, the site lies outside of the CARB-recommended buffer area, and future onsite receptors would not be negatively affected by toxic air contaminants generated on I-210 or South Arroyo Parkway. The proposed project would not result in a significant impact concerning DPM.

Carbon Monoxide

Typically, substantial pollutant concentrations of CO are associated with mobile sources (e.g., idling vehicles). Localized concentrations of CO are associated with congested roadways or signalized intersections operating at poor levels of service (level of service E or lower). High concentrations of CO may negatively affect local sensitive receptors (e.g., residents, schoolchildren, or hospital patients).

A CO “hot spot” would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. When the SCAQMD CEQA Handbook was first prepared in 1993, the South Coast Air Basin was designated nonattainment under the CAAQS and NAAQS for carbon monoxide. The analysis prepared for CO attainment in the air basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the SCAB. CO attainment was thoroughly analyzed as part of the SCAQMD’s 2003 Air Quality Management Plan and the Revision to the 1992 Carbon Monoxide Attainment Plan (SCAQMD 1994). As discussed in the 1994 document, peak CO concentrations in the SCAB are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region’s unique meteorological conditions and the increasingly stringent CO emissions standards, carbon monoxide modeling was performed as part of the 1992 CO plan and subsequent plan updates and air quality management plans.

In the 1992 CO plan, a carbon monoxide hot spot analysis was conducted for four of the busiest intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard

(Inglewood). The busiest intersection evaluated in the 1992 CO plan and the subsequent 2003 AQMP was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day (SCAQMD 2003). The Los Angeles County Metropolitan Transportation Authority (MTA) evaluated the level of service (LOS) in the vicinity of the Wilshire Boulevard /Veteran Avenue intersection and found it to be level E at peak morning traffic and Level F at peak afternoon traffic (MTA 2004). These analyses did not predict a violation of CO standards.

In comparison, the project would not produce maximum peak hour traffic volumes traffic exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. In addition, as stated in subsection 19, Transportation/Traffic, the proposed project will not result in any level of service at E or lower at the traffic facilities analyzed (see Issue a) in subsection 19, Transportation/Traffic). For these reasons, impacts related to CO hotspots would be less than significant.

e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

WHY? Land uses generally associated with odor complaints include agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. The project does not contain land uses typically associated with emissions of objectionable odors. Potential odor sources associated with the proposed project may result from construction equipment exhaust and architectural coatings during construction activities, and the temporary storage of typical solid waste (refuse) associated with the proposed project's (long-term operational) uses. Standard construction requirements would minimize odor impacts resulting from construction activity. Any construction odor emissions generated would be temporary, short term, and intermittent in nature and would cease on completion of the respective phase of construction activity and are thus considered less than significant. It is expected that project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed project construction and operations would be less than significant.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

4. BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒

WHY? The project site is situated in urban Pasadena. Although ornamental trees are present on the project site, no known candidate, sensitive, or special-status species exist on or in the immediate vicinity of the site, per the California Natural Diversity Database (CDFW 2014). In addition, the project site and surrounding area do not provide suitable habitat for sensitive species, and the project would not directly affect or modify the habitat of any identified sensitive species. No impacts would occur.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒

WHY? As discussed above, the project site is located in an urbanized area of Pasadena. Vegetation present on-site is limited to ornamental landscaping. The project site is not located within a biological resources area, and no riparian habitat or other sensitive natural communities are present in the project area as identified in regional plans or regulations of the California Department of Fish and Wildlife or US Fish and Wildlife Service.

There are no designated natural communities in the city. Natural habitat areas within the city's boundaries are largely limited to the upper and lower portions of the Arroyo Seco, the city's western hillside area, and Eaton Canyon. The project is not located near any of these natural habitat areas. Therefore, the proposed project would not result in any impacts on riparian habitat or other sensitive communities.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

WHY? Drainage courses with definable bed and bank and their adjacent wetlands are "waters of the United States" and fall under the jurisdiction of the US Army Corps of Engineers (USACE) in accordance with Section 404 of the Clean Water Act. Jurisdictional wetlands, as defined by the USACE, are lands that, during normal conditions, possess hydric soils, are dominated by wetland vegetation, and are inundated with water for a portion of the growing season.

As discussed above, the project site is in an urbanized area and does not include any discernible drainage courses, inundated areas, wetland vegetation, or hydric soils, and thus does not include USACE jurisdictional drainages or wetlands. There are no federally protected waters or wetlands, as defined by Section 404 of the Clean Water Act, on the site. No water features or other topographic depressions are present on the site that could support wetlands. No impacts to wetlands would occur as a result of the proposed project.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

WHY? No native resident, migratory fish, or wildlife species or established native resident or migratory wildlife corridors are present on-site or in the project vicinity, nor would the project impede any use of native wildlife nursery sites. Only wildlife commonly found in developed, urban areas are expected to be found within the project site. Therefore, no impacts to migratory species, wildlife movement corridors, or native wildlife nursery sites would occur as a result of the proposed project.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

WHY? The City of Pasadena's Ordinance 6896, City Trees and Tree Protection Ordinance, as amended by Ordinance No. 7184, codified in Chapter 8.52 of the Pasadena Municipal Code, aims to protect the tree canopy in the city. The six categories of trees protected by the ordinance include public, landmark, landmark-eligible, specimen, mature, and native trees. Based on the project's conceptual plan and a tree inventory prepared by Carlberg Associates (2013; **Appendix C**), the project contains 17 private trees (numerically labeled 1 through 17 in the tree inventory exhibit found in **Appendix C**); however, none of the private trees meet the City's protection criteria based on either size or species (Carlsberg Associates 2013). Additionally, the Carlberg Associates tree inventory found there are 17 public trees (alphanumerically labeled A1 through A17 in the tree inventory exhibit found in **Appendix C**), all of which are afforded protection by the City Trees and Tree Protection Ordinance. Based on the Master Application Form submitted by the applicant, all trees (public and private) will remain on site to be preserved and to remain in place. As none of the public trees would be removed, the proposed project would not conflict with the City's tree ordinance. Impacts are less than significant.

f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

WHY? Currently, no adopted habitat conservation plan or natural community conservation plans exist in Pasadena. There are also no approved local, regional, or state habitat conservation plans in the project vicinity. As such, no impacts would occur as a result of the proposed project.

5. CULTURAL RESOURCES. Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

WHY? Section 15064.5 of the CEQA Guidelines defines a historical resource as (1) a resource that is listed in, or determined to be eligible by the State Historic Resources Commission, for listing in the California Register of Historical Resources; (2) a resource listed in a local register of historical resources or identified as significant in a historical resource survey meeting certain state guidelines; or (3) an object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

Pasadena is well known for having a number of landmark buildings and historic districts and neighborhoods. The city contains nine historic districts and more than 130 buildings that are individually listed in the National Register of Historic Places. The proposed project is located within the Central District Specific Plan area, and a number of historically significant structures are located in the Specific Plan area.

While neither the involved portion of the Paseo Colorado nor its structures are listed on a state or federal register of historical places, resources, landmarks, or points of interest, the Garfield Promenade portion of the Paseo Colorado is located within the Pasadena Civic Center Historic District, which is a National Register Historic District. The Garfield Promenade is a fully paved linear open space connecting Colorado Boulevard and Green Street and is considered an important visual connection between buildings in the district (ARG 2014). It is within the Pasadena Civic Center Historic District and within proximity to the proposed project.

As second National Register Historic District, the Pasadena Playhouse District, is located just east of the project site, across Los Robles Avenue.

Given the historical significance of buildings in proximity to the project site, and of the location of the Garfield Promenade, a study was prepared by Architectural Resources Group, Inc. (2014; **Appendix D**) to determine the potential impact of the proposed project to the historic setting. The Macy's portion of the complex to be torn down dates to 1981. To the south of the proposed hotel site, dated 1980, is a parking garage that serves the Pasadena Convention Center and the Paseo. To the north is the Western Asset Building, a circa 2004 5-story office building. The study concluded that due to the age of the buildings in the eastern portion of the Paseo Colorado where the proposed buildings would be constructed, none appears to be a potential historical resource. The project site is within proximity to the Pasadena Playhouse Historic District, listed in the National Register; however, this district ends within half a block of the intersection of Colorado and Los Robles and would not be impacted by the proposed project. This portion of the project does not have the potential for impacts to historic resources. Additionally, although located within proximity to the Garfield Promenade, which is in Pasadena Civic Center Historic District boundaries, the proposed project would not result in significant impacts to historical resources under CEQA. Therefore, impacts would be less than significant.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☒	☐

WHY? Section 15064.5(a)(3)(D) of the CEQA Guidelines generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history."

There are no known prehistoric or historic archeological sites on the project site, and the site was previously graded and disturbed to support the existing development. Additionally, the proposed project would develop a parking structure to accommodate visitor parking; however, the parking structure will be built atop the existing parking garage, and therefore, would not require additional excavation. Therefore, impacts associated with this issue area are less than significant.

Incorporation of this mitigation measure will ensure the proposed project would not significantly impact archaeological resources.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

WHY? The project site lies on the valley floor in an urbanized portion of the city. This portion of Pasadena does not contain any unique geologic features and is not known or expected to contain paleontological resources. As indicated above, the project site has been subject to extensive ground disturbance due to previous development of the site and surrounding areas. If paleontological resources once existed on-site, it is likely that previous grading, construction, and modern use of the site have either removed or destroyed them. Consequently, surficial soils on the project site are devoid of archaeological resources. As such, impacts would be less than significant.

d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

WHY? There are no known human remains on the site. The project site is not part of a formal cemetery and is not known to have been used for disposal or burial of historic or prehistoric human remains. Thus, human remains are not expected to be encountered during construction of the proposed project. In the unlikely event that human remains are encountered during project construction, California Health and Safety Code Section 7050.5 requires the project to halt until the county coroner has made the necessary

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

findings as to the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. Compliance with these regulations would ensure the proposed project would not result in significant impacts due to disturbing human remains.

6. ENERGY. Would the project:

a. Conflict with adopted energy conservation plans?	☐	☐	☒	☐

WHY? As adopted per Pasadena Municipal Code Section 14.04.010, the proposed project is required to comply with the amended 2013 edition of the California Green Building Standards Code and the 2013 California Energy Code.[5] In addition to the mandatory measures, the following projects are required to comply with "Tier 1" or "Tier 2", local regimes which contain other standards more stringent than the California Green Building Standards Code, per Pasadena Municipal Code Section 14.04.504:

- Tier 1
    1. Municipal buildings of 5,000 square feet or more of new construction
    2. Non-residential buildings with 25,000 square feet or more of new construction
    3. Tenant improvements of 25,000 square feet or more
    4. Mixed use and multi-family residential buildings four stories or more in height
- Tier 2
    1. New municipal buildings
    2. Municipal renovations of 15,000 square feet or more
    3. Commercial type buildings of over 50,000 square feet

As such, the proposed project is required to comply with Tier 1, given that it is a mixed-use, multi-family residential project greater than four stories in height. The proposed project would therefore be required to comply with the energy standards in the California Energy Code, Part 6 of the California Building Standards Code (Title 24). Measures to meet these energy standards may include high-efficiency heating,

[5] The 2013 edition of the California Building Standards Code became effective January 1, 2014.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

ventilation, and air conditioning (HVAC) and hot water storage tank equipment, lighting conservation features, higher than required rated insulation, and dual-glazed windows. Compliance with these regulations would ensure the proposed project would not conflict with adopted energy conservation plans. Impacts would be less than significant.

b. Use nonrenewable resources in a wasteful and inefficient manner?	☐	☐	☒	☐

WHY?

Oil-Based Products

Construction of the proposed project would result in a short-term consumption of oil-based energy products to power construction vehicles and equipment. During project operations, motor vehicle travel would account for nearly all of the consumption of oil-based energy products. The level of consumption attributable to the proposed project would not create a high enough demand to require the development of new energy sources or a significant reduction in available supplies. Additionally, consumption of gasoline generated by project vehicle trips would be reduced by adherence to the Trip Reduction Ordinance (Pasadena Municipal Code Chapter 10.64) to a level that is not significant. Thus, impacts due to the consumption of oil-based products would be less than significant.

Energy

An increase in energy consumption would result from the development of new residences, commercial uses, and hotel rooms. The proposed project would result in the estimated consumption of 6,663 kilowatt-hours of electrical energy per day and approximately 41,442 cubic feet per day of natural gas.[6] Utility estimation calculations can be found in **Appendix E** of this Initial Study. These consumption rates are conservative in nature, and actual consumption is anticipated to be substantially lower given that the project must comply with the amended 2013 edition of the California Green Building Standards Code and the 2013 California Energy Code. Energy-efficient project components may include high-efficiency HVAC and hot water storage tank equipment, lighting conservation features, insulation with a rating higher than required, and double-glazed windows. The energy conservation measures would be prepared by the developer and shown on building plans. The building plans would be submitted to Pasadena Water and Power (PWP) and to the Building Official for review and approval prior to the issuance of a building permit.

[6] Natural gas consumption was based on the South Coast Air Quality Management District's (1993) CEQA Air Quality Handbook.

The long-term impact from increased energy use by the proposed project is not significant in relationship to the number of customers currently served by the electrical and gas utility companies. Supplies are available from existing mains, lines, and substations in the area. The surrounding area is completely developed with urban uses; therefore, new infrastructure would not have to be constructed to accommodate the proposed project. The amount of resources consumed by the proposed project would result in a less than significant impact, and the existing service providers would be able to supply the resources.

Water

This project would result in approximately 55,054 gallons per day in water consumption. This number represents approximately 0.2 percent of the total water consumption for Pasadena and would therefore represent a less than significant increase in water consumption in the city.[7] Additionally, during drought periods the applicant is required to adhere to the Comprehensive Water Conservation Plan and the Water Shortage Procedure Ordinance, which restricts water consumption to 90 percent of expected consumption during each billing period.

Over the past several years, Pasadena Water and Power (PWP) has been impacted by several factors that have restricted local and regional water supply. PWP's groundwater rights in the Raymond Basin have been curtailed in order to mitigate groundwater depletion experienced over the last half century. With respect to imported supplies, a decade-long drought has reduced the ability to replenish regional groundwater supplies; drought conditions in the American Southwest have reduced deliveries of water from the Colorado River, and legal and environmental issues have resulted in reduced water deliveries through the State Water Project. The City accounted for these conditions in its current Water Integrated Resources Plan (2011b) and Urban Water Management Plan (2011a). As of 2011, the Metropolitan Water District (MWD) has lifted allocation restrictions as a result of improvements in Southern California's water reserves. However, although no restrictions have been enacted, record drought conditions during 2013–2014 prompted the release of the January 2014 Drought Declaration with the goal of reducing per capita water consumption by 20 percent. Additionally, the MWD is continuing to closely monitoring water supply conditions in the Southwest.

Pasadena approved a Comprehensive Water Conservation Plan (CWCP) in 2009 that includes a variety of approaches and recommendations for achieving 10 percent, 20 percent, and 30 percent reductions in water consumption. As a long-term goal, the CWCP presupposes an initial target of reducing per-capita potable water consumption 10 percent by 2015 and 20 percent by 2020. The Water Waste Prohibitions and Water Supply Shortage Plan Ordinance also became effective in 2009 and established 13

[7] Water demand was based on Table 3-1 of the City of Pasadena's 2010 Urban Water Management Plan.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

permanent mandatory restrictions on wasteful water use activities. Statewide water demand reduction requirements also began in 2009, pursuant to the State's 20x2020 Water Conservation Plan.

Additionally, if the proposed project results in new landscaping of 2,500 square feet or more, the project would also be required to adhere to the requirements of the Water Efficient Landscape Ordinance, which was adopted in 2010. This ordinance is a result of Assembly Bill 1881 (AB 1881), which mandates that all local jurisdictions follow specific regulations for the efficient use of water in the irrigation of landscapes. The project must adhere to all applicable provisions in this ordinance, which are contained in Title 13 (Utilities and Services) of the Pasadena Municipal Code. The ordinance may require design features that include specific plant types, the use of recycled water for irrigation and/or water features, etc. Adherence to the requirements will reduce the amount of water used in the project landscaping and will aid the project in complying with all related water reduction provisions.

To meet these water policy goals, a water conservation plan is required that demonstrates the proposed project's water consumption would be 80 percent of its originally anticipated demand. With PWP and Building Division approval of this plan, the project would not have any individual or cumulative impacts on water supply. Impacts would be less than significant.

7. GEOLOGY AND SOILS. Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐

WHY? Fault rupture is caused by the actual breakage of the ground surface overlying a fault as a result of seismic activity. This can range in offsets from less than 1 inch to up to 20 feet, depending on the fault and earthquake magnitude. Under the Alquist-Priolo Act, the California State Geologist identifies areas in the state that are at risk from surface fault rupture. The main purpose of the act is to prevent the construction of

buildings used for human occupancy where traces of active faults are evident on the earth's surface. These zones are known as Alquist-Priolo Earthquake Fault Zones. Impacts resulting from fault rupture generally occur in the immediate vicinity overlying the fault. The zones vary in width, but average about one-quarter mile across.

According to the Safety Element of the City of Pasadena's General Plan, the San Andreas Fault is a "master" active fault and controls seismic hazard in Southern California. This fault is located approximately 21 miles north of Pasadena.

The County of Los Angeles and the City of Pasadena are both affected by Alquist-Priolo Earthquake Fault Zones. Pasadena lies within four 7.5-minute US Geological Survey (USGS) quadrangles: the Los Angeles, Mt. Wilson, El Monte, and Pasadena quadrangles. The Los Angeles, Mt. Wilson, and El Monte 7.5-minute quadrangles were mapped for earthquake fault zones under the Alquist-Priolo Act in 1977. The Pasadena 7.5-minute USGS quadrangle has not yet been mapped per the Alquist-Priolo Act. The proposed project is located within the Pasadena 7.5-minute USGS quadrangle.

These Alquist-Priolo maps show only one fault zone in or adjacent to Pasadena, the Raymond (Hill) Fault Zone. This fault is located primarily south of the city limits; however, the southernmost portions of the city lie within the fault's mapped fault zone. The City's General Plan Safety Element identifies the following three additional zones of potential fault rupture in the city:

- Eagle Rock Fault Hazard Management Zone, which traverses the southwestern portion of the city.

- Sierra Madre Fault Hazard Management Zone, which includes the Tujunga Fault, the North Sawpit Fault, and South Branch of the San Gabriel Fault. This fault zone is primarily north of the city, and only the very northeast portion of the city and portions of the Upper Arroyo lie within the mapped fault zone.

- Possible Active Strand of the Sierra Madre Fault, which appears to join a continuation of the Sycamore Canyon Fault. This fault area traverses the northern portion of the city and is identified as a Fault Hazard Management Zone for Critical Facilities Only.

While the project site is located in the seismically active region of Southern California, according to the General Plan Safety Element, the project site is not located on or adjacent to any of these potential fault rupture zones and does not lie within a designated Alquist-Priolo Earthquake Fault Zone. The closest mapped fault zone, the Eagle Rock Fault Zone, is 2 miles south of the project site. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects caused by the rupture of a known fault. Therefore, impacts would be less than significant.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
ii. Strong seismic ground shaking?	☐	☐	☒	☐

WHY? As with most locations in Southern California, the project site is susceptible to ground shaking emanating from causative faults during an earthquake. Seismic activity along the San Andreas, Raymond, Eagle Rock, and Sierra Madre faults, or on any other of the numerous faults within the Southern California area, could affect the proposed project and would be considered during project design.

Since Pasadena is within a larger area traversed by active fault systems, such as the San Andreas and Newport-Inglewood faults, any major earthquake along these systems could cause seismic ground shaking in Pasadena. Much of the city is on sandy, stony, or gravelly loam formed on the alluvial fan adjacent to the San Gabriel Mountains. This soil is more porous and loosely compacted than bedrock, and thus subject to greater impacts from seismic ground shaking than bedrock.

The National Seismic Zone maps, published by the International Code Council in the California Building Code, divide the United States into four major seismic zones numbered from 1 through 4. Zone 1 has the lowest earthquake danger, while Zone 4 has the highest earthquake danger. According to this map, Pasadena is in Seismic Zone 4, which has the highest earthquake danger (California Seismic Safety Commission 2005, pp 7 and 38). However, earthquake-resistant design and materials used in new construction or seismic retrofitting must meet or exceed the current seismic engineering standards of the Uniform Building Code, California Building Code Seismic Zone 4 requirements, and other applicable codes. Buildings constructed or retrofitted according to these standards would have the highest level of resistance to building collapse and major injury during a seismic event. As a result, impacts would be less than significant with conformance to these required standards.

iii. Seismic-related ground failure, including liquefaction and lateral spreading?	☐	☐	☒	☐

WHY? Liquefaction typically occurs when near-surface (usually upper 50 feet) saturated, clean, fine-grained loose sands are subject to intense ground shaking causing the soil to loose strength and behave similar to liquid. The potential for liquefaction depends on the magnitude of ground shaking, groundwater conditions, the relative density of the soils, and the age of site-specific geologic units. Seismic-induced liquefaction occurs when a saturated, granular deposit of low relative density is subject to extreme shaking and loses strength or stiffness due to increased pore water pressure. The consequences of liquefaction are typically characterized by settlement, uplift on structures, and increases in the lateral pressure of buried structures. If building foundations are not designed properly, the effects of severe liquefaction during seismic

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

conditions may result in structural failure, leading to substantial structural damage and injury or loss of life.

The project site is not within a liquefaction hazard zone as shown on Plate P-1 of the City's General Plan Safety Element. This plate was developed considering the liquefaction hazard zones, as shown on the State of California Seismic Hazard Zone maps for the city (California Department of Conservation, Division of Mines and Geology 1998). As such, less than significant impacts from seismic-related ground liquefaction are anticipated.

iv. Landslides?	☐	☐	☐	☒

WHY? Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides and rock fall—processes that are commonly triggered by intense precipitation, which varies according to climactic shifts. Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil. The project site and surrounding area is relatively flat and in an urbanized area of the city, making the possibility of landslides extremely remote. Additionally, the project site is not within a Landslide Hazard Zone as shown on Plate P-1 of the General Plan Safety Element. This plate was developed considering the earthquake-induced landslide areas as shown on the State of California Seismic Hazard Zone maps for the city (California Department of Conservation, Division of Mines and Geology 1998). As such, no impacts from seismic-induced landslides are anticipated.

b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

WHY? Construction of the project would entail some earthwork. Construction activities would include clearing the site of debris and/or vegetation, soil excavation, grading, asphalt paving, building construction, and landscaping. The natural water erosion potential of soils in Pasadena is low, unless these soils are disturbed during the wet season. Both the Ramona and Hanford soils, which underlay much of the city, have high permeability, low surface runoff, and slight erosion hazard due to the gravelly surface layer and low topographic relief away from the steeper foothill areas of the San Gabriel Mountains.

The displacement of soil through cut and fill will be controlled by the City's Grading Ordinance, Chapter 33 of the California Building Code relating to grading and excavation, other applicable building regulations, and standard construction techniques. Therefore, there will be no significant impact.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

In accordance with Clean Water Act and National Pollutant Discharge Elimination System (NPDES) requirements, water erosion during construction would be minimized by limiting certain construction activities to dry weather, covering exposed excavated dirt during periods of rain, and protecting excavated areas from flooding with temporary berms. In addition, site preparation would be conducted in compliance with the City's requirement for best management practices (BMPs) and state and local codes and requirements for erosion control, grading, and soil remediation.

Construction may also temporarily expose the soil to wind erosion. Fugitive dust would be controlled in compliance with SCAQMD Rules 403 and 1166. The following erosion control features associated with SCAQMD rules utilized during remedial activities would be employed: covering stockpiles with plastic sheeting; covering loaded soils with secured tarps; prohibiting work during periods of high winds; and watering exposed soils during construction.

As the proposed project would require more than 250 cubic yards of cut or fill, the applicant will be required to submit an erosion and sediment transport control plan as part of the project grading plan. The grading plan is subject to review and approval by the Building Official and the Public Works Department prior to the issuance of any building permits.

With the implementation of these required erosion control features, potential impacts associated with erosion during project construction and operation would be less than significant.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐

WHY? Pasadena rests primarily on an alluvial plain. To the north, the San Gabriel Mountains are relatively new in geological time. These mountains run generally east–west, with the San Andreas Fault on the north and the Sierra Madre Fault on the south. The action of these two faults in conjunction with the north–south compression of the San Andreas tectonic plate is pushing up the San Gabriel Mountains. This uplifting, combined with erosion, has helped form the alluvial plain. As shown on Plate 2-4 of the technical background report to the City's General Plan Safety Element, the majority of the city lies on the flat portion of the alluvial fan, which is expected to be stable.

According to Plates 2-2 and 2-4 of the Safety Element technical background report, the project site is not located on known unstable soils or geologic units and therefore would

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

not likely cause on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. As indicated above, the project area is not known to be in an area susceptible to landslide or liquefaction.

Soil excavation and grading activities associated with the project would be required to comply with the City's Grading Ordinance, Chapter 33 of the California Building Code related to grading and excavation, other applicable building regulations, and standard construction techniques. The displacement of soil through cut and fill will be controlled by Chapter 33 of the California Building Code related to grading and excavation. Modern engineering practices and compliance with established building standards, including the California Building Code, which require special design and construction methods, will reduce impacts to a less than significant level.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

WHY? According to the City’s General Plan Safety Element, the project site is underlain by alluvial material from the San Gabriel Mountains. This soil consists primarily of sand and gravel and is in the low to moderate range for expansion potential. Modern engineering practices and compliance with established building standards, including the California Building Code, will reduce impacts to a less than significant level.

e. Have soils incapable of adequately supporting the use of on-site wastewater treatment systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

WHY? The proposed project would connect to the City’s existing sewer system. No septic systems and/or other alternative forms of wastewater disposal would be utilized, and no impacts would occur.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
8. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐

WHY? Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHG). The main components of GHGs include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Greenhouse gases are emitted by both natural processes and human activities. In response to growing scientific and political concern with global climate change, California has adopted a series of laws to reduce emissions of GHGs to the atmosphere from commercial and private activities in the state. Construction and operation of the proposed project would generate GHG emissions. Overall, the following activities associated with the future residential development could directly or indirectly contribute to the generation of GHG emissions:

- **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane, and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment.

- **Gas, Electric, and Water Use:** Natural gas use results in the emissions of two GHGs: methane (the major component of natural gas) and carbon dioxide from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive.

- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of methane from the anaerobic decomposition of organic materials. Methane is 21 times more potent a GHG than carbon dioxide. However, landfill methane can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.

- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips

GHG emissions associated with the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with project-related new vehicular trips and stationary source emissions, such as natural gas used for heating and electricity usage for lighting. The CEQA Guidelines, preliminary guidance from the Office of Planning and Research (OPR), and letters from the Attorney General critical of CEQA documents indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, and construction activities. The calculation presented below includes construction as well as long-term operational emissions in terms of annual carbon dioxide equivalents (CO_2e) associated with the anticipated operations of the proposed project. The resultant emissions of these activities were calculated using the CalEEMod air quality model (**Appendix F**). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals.

Determining a threshold of significance for a project's climate change impacts poses a special difficulty for lead agencies. Much of the science in this area is new and evolving. At the same time, no state or local agency is specialized in this area, and there are currently no applicable local, regional, or state thresholds for determining whether the proposed project has a significant impact on climate change. (The SCAQMD has recommended a screening threshold of 3,000 metric tons of CO_2e annually for mixed-use projects. The SCAQMD recommends that mixed-use projects that are estimated to emit less than 3,000 metric tons of CO_2e are exempt from further analysis. As shown in **Table 9**, the proposed project exceeds this screening threshold and thus further analysis is warranted.) Neither CEQA nor the CEQA Guidelines prescribe specific significance thresholds but instead leave considerable discretion to lead agencies to develop appropriate thresholds to apply to projects within their jurisdiction.

For all but the biggest projects, GHG emissions impacts, like air quality impacts, are evaluated based on the project's contribution to cumulative effects. A lead agency may determine that a project's contribution to a potentially significant cumulative effect will be rendered less than cumulatively considerable through application of mitigation measures. The proposed project's contribution to cumulative impacts would be rendered less than cumulatively considerable by implementation of the mitigation measure set forth below.

The California Global Warming Solutions Act of 2006 (AB 32) (Health and Safety Code Sections 38500 et seq.) requires that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset its contribution to the cumulative climate change problem to reach 1990 levels. Since AB 32 is the only statutory regime for the reduction of GHGs, it can be used as the basis on which the

agency can develop its standard to determine whether a project's impacts are cumulatively considerable.

In 2008, CARB adopted the Scoping Plan to achieve the goals of AB 32, which determined that achieving the 1990 emission level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business as usual" or BAU).[8] However, in 2012 CARB released revised estimates of the expected 2020 emissions reductions, which were updated to account for the economic downturn since 2008 as well as reduction measures already approved and put in place. This reduced the projected 2020 emissions and thereby revised the BAU reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 to 21.7 percent. CARB also provided a lower 2020 inventory forecast which took credit for certain State-led GHG emission reduction measures already in place. When this lower forecast is considered, the necessary reduction from BAU needed to achieve the goals of AB 32 is approximately 16 percent.

For the purposes of evaluating the proposed project's GHG contribution and the potential to conflict with the implementation of an applicable GHG-reducing regulation, the proposed project is compared to AB 32's goal to achieve at least a 16 percent reduction in GHG emissions as compared to business as usual. This reduction is consistent with the GHG emissions reduction targets established in CARB's AB 32 Scoping Plan.

In order to ascertain the achievement of a 16 percent reduction compared to BAU, the project-specific GHG emissions must be quantified. Projects demonstrated to have reduced or mitigated project-specific GHG emissions by at least 16 percent compared to BAU, consistent with GHG emissions reduction targets established in the CARB AB 32 Scoping Plan, would be determined to have a less than significant individual and cumulative impact on global climate change. To be conservative, and in accordance with the SCAQMD guidance, total construction-generated GHG emissions were amortized over the estimated life of the project and included with operational emissions for comparison to the significance thresholds. A project life of 30 years was assumed for the proposed project.

[8] Business as usual (BAU) is the project's projected GHG emissions level in 2020 under the assumption that consumption patterns and efficiencies are maintained at their 2009 levels. Under a BAU scenario, state, regional, and project-level efforts to reduce GHG emissions are not taken into consideration; rather, the BAU assumes the Year 2009 status quo.

As shown in **Table 9**, the project could produce 6,666 metric tons of CO_2e annually under BAU conditions, primarily from motor vehicles that travel to and from the site. This would contribute to a net increase in GHGs from the proposed project. For purposes of this analysis, the total emissions of 6,666 metric tons of CO_2e per year are considered the BAU figure.

Table 9
Construction-Related and Operational Greenhouse Gas Emissions Under BAU Operations
(Metric Tons per Year)

Emission Type	CO_2e
Construction (amortized over 30 years)	42
Indirect Emissions from Energy Consumption	2,348
Water Demand	222
Waste Generation	117
Area Source (hearth, landscaping)	34
Mobile Source (vehicles)	3,903
Operations Total	**6,666**

Source: CalEEMod version 2013.2.2. Emission projections based on modeling software with the exception of vehicle trip generation, which was derived from the traffic study prepared for the project. Per SCAQMD guidance, construction emissions are amortized over 30 years, which is considered to represent the life span of residential development. Refer to Appendix F for model data outputs.

In order to reduce GHG emissions, the following mitigation is required.

Mitigation Measure GHG-1: The project applicant shall be required to implement the following measures to reduce emissions of GHGs associated with the proposed project:

a. All buildings constructed shall achieve Tier 1 of Title 24, Part 1 green building standards, to exceed minimum Title 24 energy efficiency standards by 15 percent.

b. All buildings constructed shall include prewiring or conduit for solar photovoltaic (PV). The intent of prewiring for solar PV systems is to reduce barriers to later installation of on-site solar PVs. The proposed project may also satisfy the intent of this mitigation by installing on-site solar PV systems.

c. Nonresidential land uses shall provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. Composting of a limited amount of food waste that may be generated as a byproduct of on-

site food preparation shall be completed by agreement with a waste hauler. Cooking oils shall be directed off-site for reuse.

d. Indoor water conservation measures shall be incorporated, such as use of low-flow toilets, urinals, and faucets.

Implementation of Mitigation Measure GHG-1 would reduce GHG emissions generated by the project; however, only the reductions attributable to exceeding minimum Title 24 energy efficiency standards (Mitigation Measure GHG-1a) and incorporating indoor water conservation measures (Mitigation Measure GHG-1d) are able to be quantified (see **Table 10**).

In addition to the GHG emissions-reducing measures contained in Mitigation Measure GHG-1, several State-led GHG emissions-reducing regulations have recently taken effect, and changes to regulations will continue to take effect in the near future that will substantially reduce GHG emissions. For instance, implementation of AB 1493 (Pavley) will significantly reduce the amount of GHGs emitted from passenger vehicles. As passenger vehicles represent the single largest source of GHGs associated with the proposed project, the anticipated reduction associated with State-led GHG emissions-reducing regulations represents 619 fewer metric tons per year of GHGs attributed to the project (see **Table 10**).

The electricity provider for Pasadena, Pasadena Water and Power (PWP), is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020, which will have the effect of reducing GHG emissions generated during energy production. For example, from 2006 to 2012, PWP reduced its purchase of coal-generated electricity from 67 percent of its total power mix to 47 percent, a reduction of 23 percent (PWP 2013). Over the same time span, PWP increased its purchase of renewable forms of electricity generation by 24 percent (PWP 2013). Largely due to this strategy, PWP's reduction of its CO_2 emission intensity factor between BAU and project implementation would result in 1,142 fewer metric tons per year of GHGs attributed to the project (109 fewer metric tons per year attributed to water conveyance) as shown in **Table 10**.

Table 10
GHG Reductions from Application of Project Mitigation and Recent Regulations

Reduction Source	CO_2e Emissions Reductions (metric tons/year)
Mitigation Measure GHG-1	-109
State-Led GHG Reducing Regulations	
AB 1493 (Pavley) and Low Carbon Fuel Standard[1]	-619
2011 Renewables Portfolio Standard[2]	-1,142
Total	**-1,870**

Notes:

1 Emissions reductions from AB 1493 and Low Carbon Fuel Standard are derived from the difference between 2005 automobile emissions factors and 2016 automobile emissions factors contained in CalEEMod version 2013.2.

2 Emissions reductions from the RPS are derived from the difference between PWP's BAU CO2 emission intensity factor of 1,409.65 pounds of CO2 per megawatt of energy generated (Climate Registry 2011) and Pasadena Water and Power Company's current CO2 emission intensity factor of 659 pounds of CO2 per megawatt of energy generated (EPA 2012).

Data output is included as ***Appendix F.***

Implementation of Mitigation Measure GHG-1 in conjunction with State-led GHG reduction measures such as Pavley, the Low Carbon Fuel Standard, and the State RPS would reduce project GHG emissions by 28 percent compared with BAU, which is well beyond the 16 percent reduction threshold. Additionally, SCAQMD Rule 445, which as described previously prohibits the installation of wood-burning hearth within the proposed residential units proposed by the project, would further reduce GHG emissions. **Table 11** provides a summary of project GHG reductions attributable to state regulations enacted subsequent to CARB determining the 16 percent reduction needed to achieve compliance with AB 32.

Table 11
Summary of Project GHG Reductions

Emissions Reduction Summary	CO_2 Emissions (Metric Tons/Year)
Total Business-as-Usual (BAU) Emissions	**6,666**
State-Led Regulatory Reduction	-1,761
SCAQMD Rule 445	-11
Mitigation Measure GHG-1	-109
Project Emissions After Reductions	**4,785**
Percentage Reduction from Business as Usual	28
Percentage Reduction Threshold for Less than Significant Determination	16

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

The GHG emissions from implementation of the proposed project are projected to result in 4,785 metric tons of CO_2e per year (**Table 11**). As projected, BAU emissions would be reduced by 28 percent, which is greater than the 16 percent threshold, so the project is considered consistent with the State of California's ability to meet its GHG reduction goals.

b. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

WHY? California has adopted several policies and regulations for the purpose of reducing GHG emissions. AB 32 was enacted in 2006 to reduce statewide GHG emissions to 1990 levels by 2020. As identified under Issue a) above, the proposed project would reduce GHG emissions under the BAU condition by 28 percent after mitigation, which is greater than the 16 percent reduction goal contained in AB 32. Therefore, with the incorporation of Mitigation Measure GHG-1, the project complies with the requirements of AB 32.

Senate Bill (SB) 375 (Linking Regional Transportation Plans to State Greenhouse Gas Reduction Goals; codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01 as well as Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.) was enacted in 2009 with the goal of reducing GHG emissions by limiting urban sprawl and its associated vehicle emissions. Per the requirements of SB 375, SCAG created a "sustainable communities strategy" (SCS) that integrates transportation and land use elements in order to achieve the emissions reduction target. The SCS encourages Transit-Oriented Development (TOD), which places residential uses and employment centers near mass transit stations to increase use of mass transit and reduce vehicle trips. The proposed project is considered a TOD, as it is located less than a quarter-mile from both the Del Mar and Memorial Park Gold Line light rail stations.

With implementation of Mitigation Measure GHG-1, the proposed project would not conflict with either AB 32 or SB 375.

9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

WHY? The project's construction activities could involve the use of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. While grading and construction activities may involve the transport, storage, use, or disposal of some hazardous materials, such as on-site fueling and/or servicing of construction equipment, activity would be short term. Operation of the proposed project would not involve the use or storage of hazardous substances other than the small amounts of pesticides, fertilizers, and cleaning agents required for normal maintenance of the structure and landscaping. However, such activities during construction and operation would be subject to federal, state, and local health and safety requirements. The storage, handling, and disposal of hazardous materials are regulated by the US Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the Pasadena Fire Department. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☐	☐	☒	☐

WHY? The proposed project would not create a hazard through upset or accident conditions involving hazardous materials. The use of hazardous materials and substances at the project would be minimal, in small quantities, and would involve routine maintenance and landscaping. Use, storage, and disposal of materials and substances would be subject to federal, state, and local health and safety requirements. Hazardous materials are regulated by state, federal, and local agencies, including the EPA, OSHA, and the Pasadena Fire Department. Therefore, there is no significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions that could release hazardous material. Impacts would be less than significant.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

WHY? No schools are located, or proposed to be located, within one-quarter mile (1,320 feet) of the project site. The proposed project is a mixed-use commercial and

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

residential development. The nearest school is Mayfield Junior School, located approximately 1,500 feet south of the project site (Google Earth 2014). The nearest public school is McKinley School, located approximately 2,000 feet southeast of the project site (Google Earth 2014). As described in response to Issue a) above, hazards to the public or to the environment through the routine use, handling, transport, and storage of hazardous materials would be subject to federal, state, and local health and safety requirements. The storage, handling, and disposal of hazardous materials are regulated by the EPA, OSHA, and the Pasadena Fire Department. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. As such, impacts would be less than significant. .

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

WHY? The project site is not located on the State of California Hazardous Waste and Substances Sites List of sites published by the California Department of Toxic Substances Control (DTSC) (2014). The site is not a land use associated with hazardous materials. The project site is not known or anticipated to have been contaminated with hazardous materials, and no hazardous material storage facilities are known to exist on-site. Therefore, the project would not result in any impacts associated with hazardous materials sites.

e. For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

WHY? The project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport. The nearest public use airport is the Burbank Bob Hope Airport in Burbank, which is located approximately 15 miles northwest of the project site (Google Earth 2014). The proposed project would not result in a safety hazard for people residing or working in the vicinity of an airport. No impacts would occur as a result of the proposed project.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

WHY? The project site is not within 2 miles of a private airstrip. Therefore, the proposed project would not result in a safety hazard for people residing or working in the vicinity of a private airstrip. No impacts would occur as a result of the proposed project.

g. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

WHY? The City of Pasadena maintains a citywide emergency response plan, which goes into effect at the onset of a major disaster. In addition, the Pasadena Fire Department maintains a citywide disaster plan. In the case of a disaster, the Fire Department is responsible for implementing the plan, while the Pasadena Police Department determines evacuation routes based on the specific circumstances of the emergency. The City has preplanned evacuation routes for the dam inundation areas associated with Devil's Gate Dam, Eaton Wash, and Jones Reservoir.

The construction and operation of the proposed project would not place any permanent physical barriers on any existing public streets. Construction would take place within the project site, and no roadway closures are anticipated. To ensure compliance with zoning, building, and fire codes, the applicant is required to submit appropriate plans for plan review prior to the issuance of a building permit. Adherence to these requirements would ensure that the project would not have a significant impact on emergency response and evacuation plans. A less than significant impact would occur as a result of the proposed project.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

WHY? As shown on Plate P-2 of the City's General Plan Safety Element, the project site is not located in an area of moderate or very high fire hazard. In addition, the project site is surrounded by urban development and not adjacent to any wildlands. Therefore,

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No wildland fire impacts would occur as a result of the proposed project.

10. HYDROLOGY AND WATER QUALITY. Would the project:

a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

WHY? Section 303 of the federal Clean Water Act requires states to develop water quality standards to protect the beneficial uses of receiving waters. In accordance with California's Porter/Cologne Act, the Regional Water Quality Control Boards (RWQCBs) of the State Water Resources Control Board (SWRCB) are required to develop water quality objectives that ensure their region meets the requirements of Section 303 of the Clean Water Act.

Pasadena lies within the greater Los Angeles River watershed and thus within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB adopted water quality objectives for individual projects in its Stormwater Quality Management Plan (SQMP). This SQMP is designed to ensure a project's stormwater runoff achieves compliance with receiving water limitations. As such, stormwater generated by a development that complies with the SQMP does not exceed the limitations of receiving waters and therefore does not exceed water quality standards.

Compliance with the SQMP is enforced by application of Section 402 of the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES). Under this regime, municipalities are required to obtain permits for the water pollution generated by stormwater in their jurisdiction. These permits are known as Municipal Separate Storm Sewer Systems (MS4) permits. The City of Pasadena is a co-permittee in the Los Angeles County MS4 permit (Order No. 01-182; NPDES No. CAS0041 as amended by Orders R4-2006-0074 and R4-2007-0042). Under this MS4, each permitted municipality is required to implement the SQMP.

In accordance with the countywide MS4 permit, all new developments must comply with the SQMP. In addition, as required by the MS4 permit, the City of Pasadena has adopted a Standard Urban Stormwater Mitigation Plan (SUSMP) ordinance to ensure new developments comply with the SQMP. This ordinance requires most new developments to submit a plan to the City that demonstrates how the project will comply with the City's SUSMP.

The proposed project consists of demolishing an existing commercial retail structure and replacing it with mixed-use residential, commercial, and retail uses. None of the

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

proposed uses are point source generators of water pollutants (e.g., an identifiable source of measurable pollutants, such as a sewage treatment plant, oil refinery, or manufacturer). Thus, no quantifiable water quality standards apply to the project. As an urban development, the proposed project would add typical urban, nonpoint-source pollutants to stormwater runoff. As discussed, these pollutants are permitted by the countywide MS4 permit and would not exceed any receiving water limitations. In addition, since the proposed development meets the City's SUSMP requirement thresholds, the applicant is required to submit and implement a SUSMP compliance plan, which would require measures to limit pollutants and stormwater runoff. Compliance with the MS4 permit and the SUSMP would ensure that the proposed project would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

WHY? A project would normally have a significant impact on groundwater supplies if it were to result in a demonstrable and sustained reduction of groundwater recharge capacity or change the potable water levels such that it would reduce the ability of a water utility to use the groundwater basin for public water supplies or storage of imported water, reduce the yields of adjacent wells or well fields, or adversely change the rate or direction of groundwater flow.

The proposed project would not install any groundwater wells and would not otherwise directly withdraw any groundwater. In addition, there are no known aquifer conditions at the project site or in the surrounding area that could be intercepted by excavation or development of the project. Therefore, the proposed project would not physically interfere with any groundwater supplies.

The proposed project would use the existing water supply system provided by PWP. The source of some of this water supply is groundwater, stored in the Raymond Basin. Thus, the project could indirectly withdraw groundwater. However, the proposed project's water usage would be negligible in comparison to the overall water service provided by PWP. Under normal operation, the project would use approximately 55,054

gallons of water per day. This is a total of 20,094,710 gallons per year or the equivalent of 62-acre feet a year (AFY). According to Table 4-13 of the City's 2010 Urban Water Management Plan (UWMP) (PWP 2011a), the total water supply (including groundwater) for 2015 is estimated to be 37,440 (AFY). The proposed project would result in a 0.2 percent water demand increase. Adequate sources can serve the proposed project (PWP 2011a) and this incremental increase in water use would not result in significant impacts associated with depletion of groundwater supplies.

A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program.

As noted in subsection 6, Energy, Issue b), over the past several years, Pasadena Water and Power has been impacted by several factors that have restricted local and regional water supply. PWP's groundwater rights in the Raymond Basin have been curtailed in order to mitigate groundwater depletion experienced over the last half century. With respect to imported supplies, a decade-long drought has reduced the ability to replenish regional groundwater supplies, drought conditions in the American Southwest have reduced deliveries of water from the Colorado River, and legal and environmental issues have resulted in reduced water deliveries through the State Water Project.

Pasadena Municipal Code Chapter 13.10 establishes 13 permanent mandatory restrictions on wasteful water use activities. In addition, there are also statewide water demand reduction requirements such as the 20x2020 Plan, and the current work being done by the California Department of Water Resources, the SWRCB, and other state agencies to implement the Governor's 20x2020 Water Conservation Initiative Program.

As a result, to meet these water policy goals, the proposed project must comply with the CWCP Water Conservation Plan, Municipal Code Chapter 13.10, and the City's goal to meet the 20x2020 goals by submitting a water conservation plan limiting water consumption to 80 percent of the project's originally anticipated amount. Through compliance with the above, the project would have no individual impacts on water supply, and its incremental contribution to a cumulative effect on water supply would not be cumulatively considerable. This plan is subject to review and approval by PWP and the Building Division before the issuance of a building permit. The applicant's irrigation and plumbing plans are also required to comply with the approved water conservation plan and the City's requirements for landscape irrigation.

Additionally, projects resulting in new landscaping of 2,500 square feet or more must adhere to the requirements of the Water Efficient Landscape Ordinance (Pasadena Municipal Code Chapter 13.22), which was adopted in 2010. This ordinance is a result of SB 1881, which mandates that all local jurisdictions follow specific regulations for the efficient use of water in the irrigation of landscapes. Under this ordinance, the applicant

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

is required to prepare and submit a Landscape Documentation Package that includes a water efficient landscape worksheet, a soil management report, a landscape design plan, an irrigation design plan, and a grading design plan to demonstrate the efficient use of water in the design of the project. The project proposes approximately 3,000 square feet of landscaping and therefore, will adhere to requirements set forth in Chapter 13.22 of the Pasadena Municipal Code.

The efficient use of irrigation and plant materials is also required by Chapter 17.44, Landscaping, of the Zoning Code. As discussed in subsection 6, Energy, Issue a), the City has adopted the amended California Green Building Standards Code (Pasadena Municipal Code Section 14.04.500) for all new construction and tenant improvements.

Compliance with existing City requirements would result in less than significant impacts on groundwater supplies.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

WHY? The project site does not contain any streams, rivers, or other drainage features. Development of the site would involve some land alterations such as excavation and grading, but would not substantially alter the drainage pattern of the site or the surrounding area.

The drainage of surface water from the project would be controlled by building regulations and directed toward the existing streets, flood control channels, storm drains, and catch basins. The proposed drainage of the site would not channel runoff on exposed soil, would not direct flows over unvegetated soils, and would not otherwise increase the erosion or siltation potential of the site or any downstream areas.

As previously discussed, the proposed project is subject to NPDES requirements, including the countywide MS4 permit and the City's SUSMP ordinance. In accordance with these requirements, the project applicant is required to submit a plan to the City that demonstrates how the project will comply with the City's Standard Urban Stormwater Mitigation Plan. To comply with the SUSMP ordinance, the proposed project must implement best management practices that reduce water quality impacts, including erosion and siltation, to the maximum extent practicable. Compliance with the City's SUSMP ordinance and implementation of the required BMPs would ensure that

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

the proposed project would not result in significant erosion or siltation impacts from changes to drainage patterns.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐

WHY? As discussed, the project would not substantially change the site's drainage patterns and does not involve altering a discernable drainage course. The proposed changes to the site's drainage patterns would not be a potential cause of flooding. Furthermore, the City's SUSMP ordinance requires that post-development peak stormwater runoff rates not exceed pre-development peak stormwater runoff rates. Compliance with this SUSMP requirement will be ensured through the City's drainage plan review and approval process.

Since the proposed project does not involve the alteration of a discernible watercourse and post-development runoff discharge rates are required to not exceed pre-development rates, the project does not have the potential to alter drainage patterns or increase runoff that would result in flooding. Therefore, the proposed project would not cause flooding and would result in less than significant impacts.

e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

WHY? As discussed above in Issues c) and d) above, compliance with the City's SUSMP ordinance would ensure that post-development peak stormwater runoff rates do not exceed pre-development peak stormwater runoff rates. Therefore, the City's existing storm drain system can adequately serve the proposed development.

Similarly, as discussed above in Issues a) and c), the project would generate typical urban nonpoint source stormwater pollutants. These pollutants are covered by the countywide MS4 permit. The project, through the City's SUSMP ordinance, is required to implement BMPs to reduce stormwater pollutants to the maximum extent practicable. Therefore, the proposed project would not create runoff that would exceed the capacity

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

of the storm drain system and would not provide a substantial additional source of polluted runoff.

f. Otherwise substantially degrade water quality?	☐	☐	☒	☐

WHY? As discussed above, the proposed development will not be a point-source generator of water pollutants. The only long-term water pollutants expected to be generated on-site are typical urban stormwater pollutants. Compliance with the City's SUSMP ordinance will ensure these stormwater pollutants would not substantially degrade water quality.

The project, however, also has the potential to generate short-term water pollutants during construction, including sediment, trash, construction materials, and equipment fluids. The countywide MS4 permit requires construction sites to implement BMPs to reduce the potential for construction-induced water pollutant impacts. These BMPs include methods to prevent contaminated construction site stormwater from entering the drainage system and preventing construction-induced contaminants from entering the drainage system. The MS4 identifies the following minimum requirements for construction sites in Los Angeles County:

Sediments generated on the project site shall be retained using adequate treatment control or structural BMPs:

- Construction-related materials, wastes, spills, or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff;

- Non-stormwater runoff from equipment and vehicle washing and any other activity shall be contained at the project site; and

- Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs (as approved in Regional Board Resolution No. 99-03), such as the limiting of grading scheduled during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering erosion- susceptible slopes.

Compliance with both the MS4's construction site requirements and the City's SUSMP ordinance will ensure that construction of the proposed project would not substantially degrade water quality.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or dam inundation area as shown in the City of Pasadena adopted Safety Element of the General Plan or other flood or inundation delineation map?	☐	☐	☐	☒

WHY? According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Pasadena, no portions of the city are in a 100-year floodplain. As shown on FEMA FIRM panel 06037C1375F, the proposed project site is located in Zone X. Zone X is located outside of the special flood hazard areas subject to inundation by the 1 percent annual chance of flood (100-year floodplain), and no floodplain management regulations are required.

In addition, according to the City's Dam Failure Inundation Map (Plate 3-1 of the City's General Plan Safety Element), the project is not located in a dam inundation area. No impacts would occur.

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

WHY? As discussed in Issue g) above, no portions of Pasadena are within a 100-year floodplain identified by FEMA. As shown on FEMA FIRM panel 06037C1375F, the proposed project site is located in Zone X, for which no floodplain management regulations are required. Therefore, the proposed project would not place structures within the flow of the 100-year flood, and the project would have no related impacts.

i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒

WHY? No portions of Pasadena are within a 100-year floodplain identified by FEMA. As shown on FEMA Community Map Number 065050, most of the city is in Zone X with some scattered areas in Zone D, for which no floodplain management regulations are required. In addition, according to the City's Dam Failure Inundation Map (Plate P-2 of the General Plan Safety Element), the project is not located in a dam inundation area. Therefore, the project would not have a significant impact from exposing people or

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

structures to flooding risks, including flooding as a result of the failure of a levee or dam. No impact would occur.

j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

WHY? Pasadena is not located near any inland bodies of water or the Pacific Ocean so as to be inundated by either a seiche or tsunami. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity. The project site would not be susceptible to mudflow due to its relatively flat geography and distance from hillside soils. No impacts would occur.

11. LAND USE AND PLANNING. Would the project:

a. Physically divide an established community?	☐	☐	☒	☐

WHY? The project site is located in a highly urbanized area characterized by a mix of land uses. The surrounding area includes a mix of commercial, institutional, and office uses. The project site is located within the Central District Specific Plan, which includes Old Pasadena and a number of historic structures and districts.

In summary, the proposed project would include demolition of the existing vacant Macy's store, construction of a new hotel on the southern portion of the Macy's footprint, and construction of mixed-use commercial and residential uses on the northern portion of the Macy's footprint. The proposed project would result in a beneficial effect by removing the eastern wall of the Macy's building, a physical impediment to pedestrian access to the Paseo. By opening the eastern end of the Paseo to pedestrians and adding commercial, residential, and hotel uses to the site, an established community would be provided greater connectivity and opportunities for public engagement. Therefore, the project would not physically divide an established community and beneficial effects would result.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

WHY?

Zoning

The proposed Project is a mixed-use commercial and residential development project. The project site is zoned CD-2. According to Section 17.30.020 of the Pasadena Municipal Code, the objective of the CD-2 sub-district is to strengthen its role as the symbolic and governmental center of the city, supporting civic, cultural, and public service institutions, while augmenting the character of the area with a complementary mixture of uses.

Per Section 17.30.030 of the Pasadena Municipal Code (Figure 3-3, Pedestrian-Oriented Areas), commercial uses (including retail sales and services) are required on the ground floor of the project site that fronts Colorado Boulevard, with at least 50 percent of the building frontage along Colorado Boulevard being pedestrian-oriented. Additionally, according to Section 17.30.030 of the Pasadena Municipal Code (Figure 3-4, Central District Housing/Ground Floor Map), residential uses are prohibited on the ground floor of the project site. The commercial uses proposed as part of the project would be located on the ground floor, fronting Colorado Boulevard, and the residential uses would be located above the commercial uses. Therefore, the proposed project would be consistent with the allowed land uses in the CD-2 zoning district for the project site and associated land use restrictions.

While the project complies with allowed land uses for the site, the project proposes a height of 90 feet at the northern portion of the mixed-use residential and commercial building on Colorado Boulevard and 82 feet along the southern portion of the same building, exceeding the 75-foot maximum building height allowed for the CD-2 zone. Similarly, the proposed hotel building exceeds the 75-foot maximum building height, with limited areas reaching almost 80 feet (most of the building would reach approximately 70 feet). However, according to Section 17.30.030(b)(2) of the Pasadena Municipal Code, the 75-foot maximum building height may be exceeded in the CD-2 zone through the use of height averaging for a maximum height of 90 feet. This additional building height is permitted over no more than 30 percent of the building footprint on a development parcel (excludes parking garages) and requires the approval of the Design Commission.

General Plan

The City's existing General Plan Land Use Element includes a series of Guiding Principles, which set forth the overall framework for developing, interpreting, and implementing the City's General Plan. The existing Land Use Element establishes a framework that promotes higher-density mixed-use urban environments oriented to transit and pedestrian activity within specific areas that are high quality and reflect the historic scale and character of Pasadena. The Land Use Element also identifies a series of objectives and policies targeted toward the implementation of this framework as well

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

as all of the other Guiding Principles. With regard to the project site, the Guiding Principles are implemented via the Central District Specific Plan. The intent of the Specific Plan is to create a diverse mix of land uses that serve as the primary business, financial, retailing, and government center of the city.

The proposed project would not conflict with any applicable land use plan, policy, or regulation and would be compatible with surrounding land uses. As such, land use impacts would be less than significant.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

WHY? There are no adopted habitat conservation plans or natural community conservation plans in Pasadena. There are also no approved local, regional, or state habitat conservation plans within the city. As a result, no impacts would occur to any applicable habitat conservation plans or natural community conservation plans.

12. MINERAL RESOURCES. Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

WHY? Two areas in Pasadena may contain mineral resources. These two areas are Eaton Wash, which was formerly mined for sand and gravel, and Devil's Gate Reservoir, which was formerly mined for cement concrete aggregate. The project site is not located near these areas. In addition, the project site is not located in an area known to contain mineral deposits, and neither the project site nor surrounding areas are utilized for mineral production. Implementation of the proposed project would not result in the loss of an available known mineral resource with value to the region. As such, no mineral resource impacts would occur.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

WHY? The City's General Plan Land Use Element does not identify any mineral recovery sites within the city. Furthermore, there are no mineral resource recovery sites in the city shown on the 1999 "Aggregate Resources in the Los Angeles Metropolitan Area" map published by the California Department of Conservation, Division of Mines and Geology (1999). As such, no impacts to mineral resources would occur as a result of project implementation.

13. NOISE. Would the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

WHY? The following discussion is a summary of the noise technical study prepared for the project by BonTerra Psomas in 2014. Please refer to **Appendix G** for more detail on methodologies and computer modeling assumptions and inputs.

Existing Noise Conditions

Noise level measurements were collected in late 2013 at three locations on and adjacent to the project site as presented in **Table 12**. The existing background noise environment (i.e., ambient noise) in the project area is primarily influenced by vehicle traffic on the roads adjacent to the project site.

Table 12
Summary of Short-Term Ambient Noise Level Measurements

Measurement Number*	Location	Start Time, Duration	Noise Levels (dBA)			Primary Noise Source
			Leq	Lmax	Lmin	
1	South edge of the project site, approximately 25 feet from Green Street's northern edge	11:00 a.m., 20 minutes	65	83	52	Vehicles on Green Street
2	East side of the project site across Los Robles Avenue, approximately 25 feet from Los Robles Avenue's eastern edge	11:38 a.m., 20 minutes	66	83	53	Vehicles on Los Robles Avenue
3	North edge of the project site, approximately 25 feet from Colorado Boulevard's southern edge	12:15 p.m., 20 minutes	69	82	59	Vehicles on Colorado Boulevard

dBA: A-weighted decibels; Leq: equivalent noise level; Lmax: maximum noise level; Lmin: minimum noise level

**See Exhibit 3 in Appendix G for measurement locations.*

Noise is measured using the Community Noise Equivalent Level (CNEL), a weighted average of sound levels gathered throughout a 24-hour period. Considering the location of the residences in the existing Terraces at Paseo Colorado Apartment Homes adjacent and to the west of the project site and the exposure of those residences to the traffic in the surrounding area, the existing average daytime noise level at the east façade of the Terraces at Paseo Colorado Apartment Homes is estimated at 59 dBA L_{eq}. Based on 24-hour traffic counts (Raju Associates 2014), the CNEL at receptors adjacent to Green Street west of Los Robles Avenue would be 2 dBA higher than the 11:00 a.m. noise level, which is typical of urban and suburban areas. Thus, the CNEL at the existing Terraces at Paseo Colorado Apartment Homes is estimated at 61 dBA.

The project itself will not lead to a significant increase in ambient noise. The project does not involve installing a stationary noise source, and long-term noise generated by the project would be typical urban environment noise. Furthermore, in Pasadena many urban environment noises, such as leaf-blowing and amplified sounds, are subject to the restrictions in Chapters 9.36 and 9.37 of the Pasadena Municipal Code.

Construction Noise Sources

The primary noise sources during typical construction activities are the diesel engines of construction equipment and the impact noise from operations such as pile driving, blasting, and jackhammering. There would be no pile driving or blasting during construction of the proposed project. Variation in power is an element in characterizing the noise source level from construction equipment and is accounted for by describing the full power or maximum noise level and the duty cycle. The duty cycle is the percentage of time that the equipment is operating at full power. Typical maximum noise levels and duty cycles of representative types of equipment are listed in **Table 13**.

During construction, nearby receptors would be exposed to occasional high noise levels associated with operation of heavy equipment, including jackhammers, forklifts, cranes, and concrete pumps. The noisiest phase of the project would be demolition of the existing Macy's building, which would occur for approximately three months. The primary noise sources would be the operation of jackhammers, loaders, and trucks. Following demolition, there would be less use of heavy equipment, and noise levels would be lower. Construction activities would be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturday, as required by the Pasadena Municipal Code.

Table 13
Typical Maximum Noise Levels and Duty Cycles for Construction Equipment

Equipment	Noise Level (dBA) at 50 Feet	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Chain Saw	85	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 KVA or less)	70	50%
Generator (more than 25 KVA)	82	50%
Grader	85	40%
Jackhammer	85	20%
Mounted Jackhammer (hoe ram)	90	20%
Paver	85	50%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%

Source: Thalheimer 2000

dBA: A-weighted decibels; ft: feet; KVA: kilovolt amps

Note: Machinery equipped with noise-control devices or other noise-reducing design features do not generate the same level of noise emissions as those shown in this table.

Construction equipment noise would not be constant because of the variations of power, cycles, and equipment location. Average noise levels are calculated assuming all equipment is operating at the center of the site. For maximum noise events, the analysis considers a single piece of equipment operating at the shortest distance from the work area to the receptor.

The closest noise-sensitive receptors to the project site are the residences at the Terraces at Paseo Colorado Apartments, which are adjacent to the project site's western limit (west edge of the Macy's building). The distance from the Terraces at Paseo Colorado Apartments to the center of the hotel site is approximately 100 feet. For average noise levels during demolition activities, it is assumed that a jackhammer, a hoe ram, and a heavy truck would be operating simultaneously.

The average noise level at the Terraces at Paseo Colorado Apartments during demolition (the loudest phase of construction) is estimated to be 80 dBA L_{eq} (see **Table 14**). The demolition phase is estimated to last for about three months. Following demolition, there would be an approximate one-month period of grading for foundations and utilities and then approximately 18 months for building the hotel and mixed-use building.

Estimated average noise levels at the Terraces at Paseo Colorado Apartments for each phase are shown in **Table 14**. Where a range of values is shown, the higher number is calculated from the "specification" noise values shown in **Table 13**. The lower number represents "actual" values based on many measurements made at work sites (FHWA 2011). Where there is no range shown, the results using specification and actual values are the same.

Table 14 also shows maximum noise levels, which could occur occasionally and intermittently when the loudest piece of equipment is at full power and is operating at a location on the site closest to the Terraces at Paseo Colorado Apartments.

Table 14
Construction Noise Levels at the Terraces at Paseo Colorado Apartments

Construction Phase	Existing Average Daytime Noise Level (dBA Leq)	Average Construction Noise Level at 100 ft. from Center of Project Site (dBA Leq)	Maximum Construction Noise Level at 100 ft. from Noise Source (dBA Lmax)	Maximum Construction Noise Level at Nearest Receptor (dBA Lmax)
Demolition	63	80	84	96
Grading	63	76–79	79	87–91
Building	63	73–75	79	85–86

dBA: A-weighted decibels; Leq: equivalent energy noise level; Lmax: maximum noise level

During construction, the increase in average noise levels at the Terraces at Paseo Colorado Apartments would be in the range of 14 to 21 dBA L_{eq} and maximum noise levels would not exceed 85 dBA at a distance of 100 feet from the noise source. Therefore, construction noise levels would not exceed City's Noise Ordinance threshold of 85 dBA at 100 feet and the impact associated with construction noise would be less than significant.

Given the proximity of existing residential uses to the project site, and consistent with General Plan Policy 7b, Mitigation Measures Noise-1 and MM Noise-2 would be incorporated into the project to reduce noise impacts. Mitigation Measure Noise-1 includes general noise abatement measures relative to equipment noise and the location and orientation of noise sources. Mitigation Measure Noise-2 requires the hotel construction plan to enclose the west walls of the hotel at the earliest feasible time in order to reduce noise impacts to the residents at the Terraces at Paseo Colorado Apartments.

Project demolition would generate approximately 15 haul truck round trips per day for three months. It is assumed that the trucks will use Colorado Boulevard and similar arterials to access and depart from the project site. During this period, truck trips would increase the average hourly noise level adjacent to Colorado Boulevard by approximately 1 dBA, which is barely perceptible and not a significant impact.

Construction Mitigation Measures

Mitigation Measure NOISE-1 Prior to approval of grading plans and/or prior to issuance of demolition, grading, and building permits, the following noise reduction measures shall be included in the construction plans or specifications:

a. Noise-generating construction shall be limited to the hours of 7 a.m. to 7 p.m. on Monday through Friday and from 8 a.m. to 5 p.m. on Saturday and are prohibited on Sunday and holidays (as specified in Chapter 9.36 of the Pasadena Municipal Code).

b. The construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

c. The construction contractors shall place all stationary construction equipment so that the equipment is as far as feasible from noise-

sensitive receptors and orient the equipment so emitted noise is directed away from noise-sensitive receptors.

d. The construction contractors shall locate equipment staging in areas that will create the greatest distance between staging area noise sources and noise-sensitive receptors.

e. The construction contractors shall use the quietest equipment and methods reasonably feasible when planning and executing demolition and grading within 50 feet of the windows in the Terraces at Paseo Colorado Apartments

Mitigation Measure NOISE-2 Prior to the issuance of the building permits for the hotel, the applicant shall present data to the Director of Planning and Community Development demonstrating that the construction plans include requirements to install temporary or permanent exterior wall sections opposite the Terraces at Paseo Colorado Building at the earliest feasible time.

Without the implementation of Mitigation Measures NOISE-1 and NOISE-2, construction-related noise levels would not exceed the standards set forth in the City's Municipal Code or General Plan and would therefore be less than significant. With the implementation of Mitigation Measure NOISE-1 and NOISE-2, construction-related noise levels would be further reduced to provide enhanced mitigation in light of existing residential uses proximate to the project site.

Operational Noise Sources

Operational noise sources associated with the proposed uses would include but would not be limited to mechanical equipment (e.g., HVAC units and swimming pool pumps), outdoor activities at the swimming pool area, and vehicles entering and leaving the subterranean parking area and loading docks.

As previously noted, the threshold of significance for operational noise sources is set forth in Section 9.36.050 of the Noise Ordinance, which prohibits making noise that exceeds the ambient noise levels by 5 dBA.

Stationary Sources

HVAC units, swimming pool pumps, and other stationary equipment would be required to be selected and installed to comply with Section 9.36.050 of the City Noise Ordinance. HVAC units and pool pumps would potentially operate continuously at night. Based on a review of traffic count data, nighttime traffic noise levels at the Terraces at Paseo Colorado Apartments may be as low as 41 dBA L_{eq}, occurring in the early morning hours. Therefore, in order to avoid exceeding the ambient noise level by more than 5 dBA, stationary equipment should be selected, located, and shielded to ensure that the noise levels at the property lines do not exceed 45 dBA. Because the stationary sources would be installed as required by the Noise Ordinance, the impact would be less than significant. However, Mitigation Measure NOISE-3 would be incorporated into the project to ensure compliance with the ordinance.

Pool Area Activities

Noise would be generated at the hotel swimming pool area, which would be east of the Terraces at Paseo Colorado Apartments. Noise from exuberant children's play and typical pool area activities may be heard by nearby residents because the character of the noise would be different than the existing traffic noise and noise from nearby commercial activities. The magnitude of the pool area noise at the closest Terraces at Paseo Colorado Apartments is calculated based on the following scenario:

- Yelling children: Children making noise of 70 dBA measured at a distance of 5 feet for 10 minutes in an hour.

- Loud talking: Assumed as five people talking simultaneously, each making noise of 65 dBA measured at a distance of 5 feet for 30 minutes in an hour.

- Noise may be generated throughout the pool area, which would have an east–west length of approximately 98 feet. The average location of the above noise sources would be at the center of the pool area, and the distance from the center of the pool area to the closest point of the Terraces building would be approximately 63 feet.

- The daytime average hourly background noise at the east edge of the Terraces at Paseo Colorado Apartments building is calculated at 59 dBA L_{eq}, and the 11:00 p.m. background noise is calculated at approximately 52 dBA L_{eq}, based on the existing traffic volume on Green Street.

With this scenario, the noise from the pool area at the nearest point of the Terraces at Paseo Colorado Apartments building would be approximately 52 dBA L_{eq}. Noise from the pool area would be less than the daytime ambient noise level and approximately the

same as the 11:00 p.m. noise level; therefore, noise would not exceed the ambient noise level by 5 dBA.

Noise from amplified music at any time in the pool area could be disturbing to adjacent residents. This would violate the general Noise Ordinance provision that prohibits noise that causes annoyance to persons of normal sensitiveness residing in the area and would be a potential significant impact. Similarly, noise from nighttime activities in the pool area after 11:00 p.m., when the ambient traffic noise would likely be less than 50 dBA L_{eq}, could be disturbing to adjacent residents and would be a potential significant impact. To avoid these impacts, Mitigation Measures NOISE-4 and NOISE-5 would be incorporated into the project. Mitigation Measure NOISE-4 would prohibit the use of amplified noise equipment in the pool area, while Mitigation Measure NOISE-5 would prohibit use of the pool area after 10:00 p.m.

Driveway/Loading Dock

The loading docks for the hotel would be the same loading docks used for the Macy's store. Vehicles would access the hotel garage and loading docks through the same driveway used for the loading docks. The structure covering the hotel garage entry and loading docks would block the loading dock and garage entry noise to the Terraces at Paseo Colorado residences.

Traffic Noise Impacts to Proposed Residential Uses

Los Robles Avenue

As shown in **Table 12**, the existing daytime noise level measured adjacent to Los Robles Avenue was 66 dBA L_{eq}. This value is consistent with traffic volume and speed data published by the City of Pasadena (Pasadena 2010, 2013a). The existing traffic volume on Los Robles Avenue is 17,512 average daily trips (ADT); the future traffic volume with cumulative projects and the proposed project is estimated at 18,067 ADT (Raju 2014). As described in greater detail below under Issue c) and based on the incremental noise increases, shown in Table 15-9, the future CNEL at the proposed hotel's and mixed-use building's Los Robles Avenue facades is estimated at 68 dBA. These estimated noise levels are considered "normally acceptable" by the City's General Plan Noise Element.

Colorado Boulevard

As shown in **Table 12**, the existing daytime noise level measured on the project site adjacent to Colorado Boulevard was 69 dBA L_{eq}. This value is consistent with traffic volume and speed data published by the City of Pasadena (Pasadena 2013, 2011). The CNEL is estimated at 70 dBA. The existing traffic volume on Colorado Boulevard is 20,690 ADT; the future traffic volume with cumulative projects and the proposed project

is estimated at 21,670 ADT (Raju 2014). As described in greater detail below under Section 15.c) and based on the incremental noise increases, shown in **Table 20**, the future CNEL at the Colorado Boulevard façade of the proposed mixed-use building is estimated at 70 to 71 dBA. These estimated noise levels are classified as "conditionally acceptable" by the City's General Plan Noise Element.

As required by Title 24 of the California Code of Regulations and Mitigation Measure Noise-7, the interior noise level must be 45 dBA CNEL or less. Thus, the building construction must reduce the estimated 70 to 71 dBA CNEL exterior noise level by at least 26 dBA. The proposed mixed-use building would have conventional construction for multi-family buildings and air conditioning. The following would achieve a 25–30 dBA reduction:

a. The following measures:

    1. Air conditioning or a mechanical ventilation system;

    2. Windows and sliding glass doors should be double-paned glass and mounted in low air infiltration rate frames (0.5 cubic feet per minute or less, per American National Standard Institute [ANSI] specifications);

    3. Solid core exterior doors with perimeter weather stripping and threshold seals;

    4. Exterior walls consist of stucco or brick veneer. Wood siding with a ½″ minimum thickness fiberboard underlayer may also be used;

    5. Glass in both windows and doors should not exceed 20% of the floor area in a room; and

    6. Roof or attic vents facing the noise source should be baffled.

b. The interior sheetrock of exterior wall assemblies should be attached to studs by resilient channels. Staggered studs or double walls are acceptable alternatives.

c. Window assemblies should have a laboratory-tested STC [sound transmission class] rating of 30 or greater. (Windows that provide superior noise reduction capability and that are laboratory-tested are sometimes called "sound-rated" windows. In general, these windows have thicker glass and/or increased air space between panes. In contrast, standard energy conservation double-pane glazing with a $^1/_8$″ or $^1/_4$″ air space may be less effective in reducing noise from

some noise sources than single-pane glazing. The project will be required to use windows which achieve both energy conservation and noise reduction goals.)

Because the proposed mixed-use building would be located in an area experiencing above "normally acceptable" noise levels, the impact would be potentially significant and mitigation is required. Therefore, Mitigation Measure Noise-7 would be included in the project, requiring an analysis of the noise reduction capability for residential units facing Colorado Boulevard.

Other Noise Impacts to Proposed Residential Uses

The proposed project would be located in a mixed-use area with nearby commercial uses and restaurants. Commercial activities may generate noise that could be unusual and disturbing because of the loudness, the character of the noise, or the time of occurrence. Noise events exceeding the traffic noise levels are expected to be occasional and not of a frequency and magnitude so as to substantially increase the CNEL. Therefore, this would not be a significant impact and no mitigation is required. However, Mitigation Measure Noise-8, implementing Measure 26 of the General Plan Noise Element, requiring residents of the proposed project to be advised of the potential for noise disturbances, would be incorporated into the project.

Operational Mitigation Measures

Mitigation Measure NOISE-3 Prior to the issuance of each building permit, the applicant shall provide data to the Director of Planning and Community Development demonstrating that the noise level from heating, ventilation, and air conditioning (HVAC) units, swimming pool equipment, and similar mechanical equipment would be less than 45 A-weighted decibels (dBA) when measured at the property line.

Mitigation Measure NOISE-4 Prior to the issuance of the hotel occupancy permit, the applicant shall provide data to the Director of Planning and Community Development demonstrating that the hotel regulations include a prohibition on the use of radios, televisions, "boom boxes," and similar devices in the pool area and other outdoor common areas unless the devices are used with headphones, ear buds, or similar devices.

Mitigation Measure NOISE-5 Prior to the issuance of the hotel occupancy permit, the applicant shall provide data to the Director of Planning and Community Development demonstrating

that the building's Covenants, Conditions, and Restrictions (CC&Rs) or equivalent regulations include a prohibition on the use of the pool area between 10:00 p.m. and 5:00 a.m. and that signs with pool hours are posted at the pool area.

Mitigation Measure NOISE-6 Prior to approval of grading plans and/or prior to issuance of demolition, grading and building permits, the construction hours limits stated in Pasadena Municipal Code Section 9.36.070, as stated below, shall be included in the construction plans or specifications:

a. No person shall operate any pile driver, power shovel, pneumatic hammer, derrick power hoist, forklift, cement mixer or any other similar construction equipment at any time other than as listed below:

   1. From 7:00 AM to 7:00 PM Monday through Friday;

   2. From 8:00 AM to 5:00 PM on Saturday; and;

   3. Operation of any of the listed construction equipment is prohibited on Sundays and holidays.

b. No person shall perform any construction or repair work on buildings, structures or projects in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance at any time other than as listed below:

   1. From 7:00 AM to 7:00 PM Monday through Friday;

2. From 8:00 AM to 5:00 PM on Saturday; and

3. Performance of construction or repair work is prohibited on Sundays and holidays.

4. Applicable holidays are New Year's Day, Martin Luther King Jr. Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, and Christmas.

Mitigation Measure NOISE-7 Prior to the issuance of the building permits for the mixed-use building and the hotel, the applicant shall present data to the Director of Planning and Community Development demonstrating that the interior noise levels in habitable rooms facing Colorado Boulevard or Los Robles Avenue will not exceed 45 decibels (dB) on the Community Noise Equivalent Level (CNEL).

Mitigation Measure NOISE-8 Prior to the issuance of the occupancy permit for the mixed-use building, the applicant shall present information to the Director of Planning and Community Development demonstrating that appropriate sale or lease transfer documents for residential units include an advisory that the residence is located in the Central District Specific Plan area, an area where there is a potential for noise from commercial and nighttime activities. The following language is provided as an example:

All potential buyers and/or renters of residential property in the building at the southwest corner of Colorado Boulevard and Los Robles Avenue, which is in Pasadena's Central District Specific Plan area, are hereby notified that they may be subject to audible noise levels attributed to business and entertainment-related activities common to such areas, including amplified sound,

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

music, delivery vehicles, pedestrian and vehicular traffic, and other urban noise.

Operational noise levels associated with the proposed project could potentially exceed the limits set forth in the City's Municipal Code or General Plan. Implementation of Mitigation Measures NOISE-3 through NOISE-8 would ensure the proposed project noise levels would stay below such limits and therefore reduce this impact to less than significant.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐

WHY? The project is not located near any sources of groundborne noise or vibration. Construction of the proposed project has the potential to generate vibration to the adjacent structures and their occupants. Operation of heavy construction equipment—particularly pile drivers and other impact devices such as pavement breakers—creates seismic waves that radiate along the surface of the ground and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance to structural damage.

Construction that can result in significant levels of ground vibration generally falls into two categories that are best characterized by the cause of the vibration and its duration. Vibration that is steady-state and more or less continuous can be caused by vibratory compaction of soil, vibratory pile driving, movement of large equipment, and other sources. In contrast, vibration that is much more transient in nature and intermittent due to impulsive forces can be caused by pile driving and blasting. The proposed project would not include pile driving or blasting.

Thresholds of Significance

There are no standards for structural damage from vibration directly applicable to the residential uses adjacent to the proposed project. The California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in **Table 15**. Federal Transit Authority (FTA) guidelines for vibration damage criteria are shown in **Table 16**.

Table 15
Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum ppv (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2013
ppv: peak particle velocity; in/sec: inch(es) per second
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 16
Construction Vibration Damage Criteria

Building Category	ppv (in/sec)
I. Reinforced concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2006
ppv: peak particle velocity; in/sec: inch(es) per second

The Terraces at Paseo Colorado Apartments building is located adjacent to the proposed project along the western boundary and is a relatively new residential structure; however, the type of concrete and reinforcement is not known. Based on the guidance in **Tables 15** and **16** and preliminary assessment of the building age and construction, a vibration level of 0.4 peak particle velocity (ppv) inches per second (in/sec) was selected to represent an average of the thresholds for the Category I and II building types shown in **Table 16**.

There are likewise no applicable standards for human annoyance from vibration. The Caltrans guidelines for human response to vibration are shown in **Table 17**.

Table 17
Human Response to Transient Vibration

Average Human Response	ppv (in/sec)
Severe	2.0
Strongly perceptible	0.9
Distinctly perceptible	0.24
Barely perceptible	0.035

Source: Caltrans 2013
ppv: peak particle velocity; in/sec: inch(es) per second

For the anticipated limited periods of demolition and construction activity that would occur near sensitive receptors, the perception of some vibration is considered acceptable. Therefore, based on the guidance in **Table 17,** the vibration level of 0.24 ppv in/sec is used in this analysis as threshold for a potential significant vibration impact for human annoyance.

Construction of the proposed hotel and mixed-use building would not require pile driving or blasting, which are generally the sources of the most severe vibration. However, conventional construction equipment would be used for demolition of the existing buildings and paving and heavy trucks may be used for the export of demolished and excavated materials. **Table 18** summarizes typical vibration levels measured during construction activities for various vibration-inducing pieces of equipment at a distance of 25 feet.

Table 18
Vibration Levels During Construction

Equipment	ppv at 25 ft (in/sec)
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: FTA 2006
ppv: peak particle velocity; ft: feet; in/sec: inches per second

Demolition and construction activities could occur closer than 25 feet to the existing Terraces at Paseo Colorado Apartments building. Based on FTA and Caltrans methods, if large bulldozers, loaded trucks, or similar equipment were to operate at a distance of 15 feet from the Terraces at Paseo Colorado, the vibration level is estimated at less

than 0.2 ppv in/sec. Thus, the vibration level would not exceed the 0.4 ppv in/sec significance threshold for damage or the 0.24 ppv in/sec threshold for annoyance. Additional data relative to construction equipment vibration are shown in **Table 19**; testing at one particular site indicates the 0.4 ppv in/sec threshold would not likely be exceeded when light to moderate equipment is located within 15 feet of the vibration-sensitive receptor. Based on the available data, demolition and construction occurring more than 15 feet from the Terraces at Paseo Colorado Apartments would not cause significant vibration impacts.

Table 19
Example of Estimated Standoff Distances in Feet for Construction Activities Needed to Maintain Vibration Intensities (PPV) Below Specified Levels, Based on Site-Specific Testing at One Particular Site

ppv (in/sec)	Demolition		Site Clearing and Excavation		New Foundations	
	Light-to-Moderate Equipment[a]	Heavy Equipment[b]	Light-to-Moderate Equipment[c]	Heavy Equipment[d]	Drilled Piers	Micropiles
0.5	9	12	5	12	8	3
0.4[e]	11	14.5	6	14	9	3.5
0.3	13	17	7	16	10	4
0.12	21	28	12	27	17	6
0.05	34	45	19	43	28	10

Source: Johnson, Hanner, and Zuccari 2013
pv: peak particle velocity; ft: feet; in/sec: inches per second
Note: Values at other sites will vary.
a "Light-to-moderate demolition equipment" includes pneumatic chipping hammers, small hydraulic breakers, small excavators, and loaders.
b "Heavy demolition equipment" includes large hydraulic breakers, excavators, loaders, and bulldozers.
c "Light-to-moderate equipment" includes small and large bulldozers, excavators, and loaders.
d "Heavy equipment" includes pavement breakers and similar heavy equipment.
e Data for 0.4 ppv (in/sec) interpolated.

However, at certain locations, demolition would occur closer than 15 feet to the Terraces at Paseo Colorado Apartments and thus Mitigation Measure NOISE-9 would be required to ensure vibration impacts remain below a level of significance. Mitigation Measure NOISE-9 is a performance standard requirement that would ensure that vibration levels at the Terraces at Paseo Colorado do not exceed 0.24 ppv in/sec threshold or an alternative threshold, based on new site data, if determined appropriate by a professional structural engineer. With the implementation of Mitigation Measure NOISE-9, the vibration impacts would be less than significant.

Construction Vibration Mitigation Measures

Mitigation Measure NOISE-9 Prior to approval of grading plans and/or prior to issuance of demolition, grading, and building permits, the applicant shall retain a Professional Structural Engineer with experience in structural vibration analysis and monitoring to perform the following tasks:

- Review the project plans for demolition and construction.
- Survey the project site and the Terraces at Paseo Colorado Apartments, including geological testing, if required.
- Prepare and submit a report to the Director of Planning and Community Development to include but not be limited to the following:
  - Description of existing conditions at the Terraces at Paseo Colorado;
  - Vibration level limits based on building conditions, soil conditions, and planned demolition and construction methods to ensure vibration levels below the potential for damage to the Terraces at Paseo Colorado;
  - Specific measures to be taken during construction to ensure the specified vibration level limits are not exceeded; and
  - If considered appropriate, a monitoring plan to be implemented during demolition and construction that includes post-construction and post-demolition surveys of the Terraces at Paseo Colorado.
- Examples of measures that may be specified for implementation during demolition or construction include, but are not limited to
  - Prohibition of certain types of impact equipment;
  - Requirement for lighter tracked or wheeled equipment;

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

- The specification that demolition occur by non-impact methods, such as sawing concrete;
- The specification that phasing operations avoid simultaneous vibration sources; and
- Installation of vibration-measuring devices to guide decision making for subsequent activities.

Vibration levels are not anticipated to exceed the thresholds of significance at the Terraces at Paseo Colorado Apartments. Implementation of Mitigation Measure NOISE-8 would ensure that this impact remains less than significant.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

WHY? The proposed project would generate traffic along roadways in the project vicinity. The average daily trips (ADT) generated by the proposed project, minus the trips generated by retail uses removed by the project (not including Macy's, which is vacant) would be 2,867 ADT (Raju 2014). **Table 20** shows traffic volume and traffic noise increases attributable to the proposed project. As shown in **Table 20**, noise increases would not exceed 0.16 dBA, which would be less than the 5 dBA threshold and would not be perceptible. The impact would be less than significant.

Table 20
Traffic Noise Level Increases

Street Segment	Average Daily Traffic			Noise Increase dBA
	Existing (2013) Baseline	Project	Existing (2013) Plus Project	
Marengo Ave between Corson St and Walnut St	19,328	293	19,621	0.07
Marengo Ave between Walnut St and Holly St	19,140	387	19,527	0.09
Marengo Ave between Cordova St and Del Mar Blvd	13,443	186	13,629	0.06
Marengo Ave between Del Mar Blvd and California Blvd	14,545	143	14,688	0.04
Euclid Ave between Corson St and Walnut St	2,765	75	2,840	0.12
Euclid Ave between Cordova St and Del Mar Blvd	2,546	14	2,560	0.02
Los Robles Ave between Walnut St and Union St	20,594	319	20,913	0.07
Los Robles Ave between Colorado Blvd and Green St	17,512	555	18,067	0.14
Los Robles Ave between Cordova St & Del Mar Blvd	13,570	220	13,790	0.07

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

Street Segment	Average Daily Traffic			Noise Increase dBA
	Existing (2013) Baseline	Project	Existing (2013) Plus Project	
Los Robles Ave between Del Mar Blvd and California Blvd	12,803	104	12,907	0.04
El Molino Ave between Walnut St and Union St	7,151	72	7,223	0.04
El Molino Ave between Del Mar Blvd and California Blvd	5,550	28	5,578	0.02
Walnut St between Raymond Ave and Marengo Ave	11,871	244	12,115	0.09
Union St between Garfield Ave and Euclid Ave	7,987	39	8,026	0.02
Union St between Oak Knoll Ave and Hudson Ave	7,013	43	7,056	0.03
Colorado Blvd between Arroyo Pkwy and Marengo Ave	21,071	416	21,487	0.08
Colorado Blvd between Marengo Ave and Garfield Ave	20,943	674	21,617	0.14
Colorado Blvd between Euclid Ave and Los Robles Ave	20,999	671	21,670	0.14
Colorado Blvd between Los Robles Ave and Oakland Ave	21,465	312	21,777	0.06
Green St between Arroyo Pkwy and Marengo Ave	12,995	161	13,156	0.05
Green St between Marengo Ave and Euclid Ave	12,123	153	12,276	0.05
Green St between Euclid Ave and Los Robles Ave	11,851	454	12,305	0.16
Green St between Los Robles Ave and Oakland Ave	8,934	221	9,155	0.11
Green St between Oakland Ave and Madison Ave	8,676	221	8,897	0.11
Cordova St between Los Robles Ave and Oakland Ave	10,076	58	10,134	0.02

Source: Raju 2014
dBA: A-weighted decibel

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐

WHY? The project would generate short-term noise due to construction activities. However, the project will adhere to City regulations governing hours of construction and noise levels generated by construction and mechanical equipment (Chapter 9.36 of the Pasadena Municipal Code). In accordance with these regulations and Mitigation Measure NOISE-1, construction noise will be limited to normal working hours (7 a.m. to 7 p.m. Monday through Friday, 8 a.m. to 5 p.m. on Saturday, in or within 500 feet of a residential area). A Construction Staging and Traffic Management Plan is also required to ensure that truck routes for transportation of materials and equipment are established with consideration for sensitive uses in the neighborhood. Such a plan for the

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

construction phase is required to be submitted for approval to the Department of Transportation and to the Zoning Administrator prior to the issuance of any permits. As described in Issue a) above, Mitigation Measures NOISE-1 and NOISE-2 would be incorporated into the project to reduce noise impacts. Mitigation Measure NOISE-6 includes general noise abatement measures relative to equipment noise and the location and orientation of noise sources. Mitigation Measure NOISE-2 requires the hotel construction plan to enclose the west walls of the hotel at the earliest feasible time in order to reduce noise impacts to the residents at the Terraces at Paseo Colorado Apartments. After implementation of all mitigation measures, temporary or periodic increases in ambient noise levels would be less than significant.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

WHY? There are no airports or airport land use plans in Pasadena. The closest airport is the Burbank Bob Hope Airport (formerly the Burbank-Glendale-Pasadena Airport), which is located approximately 15 miles northwest of the project site (Google Earth 2014). Therefore, the proposed project would not expose people to excessive airport-related noise and would have no associated impacts.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

WHY? There are no private use airports or airstrips within or near Pasadena.

14. POPULATION AND HOUSING. Would the project:

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

WHY? The Southern California Association of Governments (SCAG), as part of its Regional Transportation Plan, forecasts population, household, and employment growth for all cities within SCAG's jurisdictional boundaries, including Pasadena. SCAG currently projects that Pasadena's population will increase from 135,300 in 2008 to 143,400 in 2020, an increase of 8,100 people over the 12-year projection period.

Over this same 12-year period, SCAG projects that the number of households in Pasadena will increase from 54,500 in 2008 to 58,400, an increase of 3,800 households. The Department of Finance (DOF 2014) identifies an average household size of 2.45 persons for housing units in the city, which when applied to the proposed project would result in an on-site residential population of 245, or approximately 0.17 percent of the city's forecast population in 2020.

It is also anticipated that new on-site employment under the project would not induce substantial population growth given the size of the existing labor pool in the area. Thus, the proposed project would not substantially induce population growth due to the increase in on-site employees and residents, as the growth that would occur at the project site is consistent with growth already anticipated to occur in the city.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

WHY? The project site is currently occupied by commercial retail uses and does not contain any existing dwelling units. Therefore, the proposed project would not displace any residents or housing, and would have no related impacts.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

WHY? The project site is currently occupied by commercial uses, and no persons currently reside on the project site. No people would be displaced as a result of project implementation; thus, no impacts would occur.

15. PUBLIC SERVICES. Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
a. Fire protection?	☐	☐	☒	☐

WHY? The project site is currently developed and therefore would not result in a substantial increase in on-site development. The proposed project would introduce new land uses (i.e., residential and hotel) that are not currently found within the project footprint; however, the project would not result in significant residential population increases in the area. Therefore, the proposed project would not require the development of additional Fire Department facilities and would not significantly impact fire protection services.

The nearest fire station to the project site is Pasadena Fire Department Station 31, located at 135 S. Fair Oaks Avenue, approximately 0.4 miles southwest of the project site. Over the 2008–2010 time period, the latest available published information, Fire Station 31 responded to an average of 3,606 calls per year, with a total number of responses in 2010 of 3,563 (Pasadena Fire Department 2011). Additionally, the project site is located in an urbanized area and is considered a low fire hazard area according to the City's General Plan Safety Element. See also subsection 11, Ha

b. Libraries?	☐	☐	☒	☐

WHY? The City operates its own library system. The system includes the Central Library, located at 285 East Walnut Street in the Central District Specific Plan area, and nine branch library facilities located throughout the city. Branch libraries are designed such that no Pasadena resident lives more than 1 mile from a library and residents can walk to their neighborhood library (City of Pasadena 2004a). As a basic municipal service, the mission of the Pasadena Public Library is to be an information center for the Pasadena community in order to preserve and encourage an informed citizenry. The City's Central Library, located approximately 0.25 mile east of the project site, is the library facility located closest to the project site. Over 345,000 items are held at the Central Library, which is visited by an average of more than 55,000 people each month. A wide variety of services, programs, and collections to meet the community's information needs are available utilizing the latest in electronic technology. In addition to circulating a wide range of books in a variety of formats, an array of programs for adults and children, service to the homebound, preschool story hours, and the Summer Reading Program are also available at the Central Library.

The city as a whole is well served by its Public Information (library) System, and the project would not significantly impact library services. By introducing new residents to the site, the project would increase the demand for City library services. However, the proposed project is consistent with the growth anticipated and accommodated by the City's General Plan and would not induce substantial population growth. Because the proposed project would not induce substantial population growth, no additional demands to the library system would occur and impacts would be less than significant.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
c. Parks?	☐	☐	☒	☐

WHY? Parks can be classified by type based primarily on their size, function, and character. The Pasadena Municipal Code (Section 4.17.040) contains three park classifications: neighborhood, community, and citywide. The City operates four community centers and 24 parks ranging in size from large citywide parks to neighborhood parks to serve the recreational and park needs of the city's residents (City of Pasadena 2007). In the city, there are a total of three citywide parks, five community parks, and 15 neighborhood parks totaling 338.2 park acres and 502.3 open space acres.

Two community parks, Memorial Park and Central Park, are located near the project site. Memorial Park, located approximately 0.25 mile northwest of the project site, is 5.3 acres in size and is one of the older parks in the city. Park facilities include a band shell with a seating capacity of 400, picnic facilities, benches, a large open grass area, an exercise walk, restrooms, and drinking fountains. The Pasadena Senior Center is also located in the park.

Central Park, located approximately 0.34 mile southeast of the project site, is 9.2 acres in size and includes horseshoe pits, picnic tables, a rose garden, a children's playground area, benches, restrooms, and drinking fountains. In addition, two lawn bowling greens and a clubhouse located are located in the park.

In terms of citywide parks, Brookside Park, located approximately 1.25 miles northwest of the project site, is 61.1 acres in size and is Pasadena's largest fully maintained park facility. The park contains one lighted regulation baseball diamond with seating for 4,200; two lighted softball diamonds each with seating for 240; a large, lighted multipurpose field for flag football and soccer; a speaker's platform with permanent seating; numerous picnic tables; a play area; restrooms; and drinking fountains.

The City collects park impact fees from new residential (Ordinance No. 6252) developments. According to the City's park impact fee nexus study (Brion and Associates 2004), for every 1,000 residents, the city as a whole has 2.17 acres of developed parkland and 1.49 acres of open space parkland, for a total of 3.66 acres of park and open space per 1,000 residents.

As previously discussed, the residential component of the proposed project would not result in substantial growth in population. As such, implementation of the proposed project would not lead to the construction of additional park space or physical deterioration of any recreational facilities with the payment of park impact fees. Thus, impacts would be less than significant.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
d. Police protection?	☐	☐	☒	☐

WHY? The proposed project would be served by the Pasadena Police Department, which has established five community service areas (West, Northwest, Central, East, and Midtown) across the city. The project site is located in the Northwest Community Service Area. For the five-month period of January through May 2014, based on the Police Department's published monthly crime reports (City of Pasadena 2014b), there were a total of 1,772 calls for service on a citywide basis, with 421 (24 percent) of those calls for service occurring in the Midtown Community Service Area. Of these calls for service, calls pertaining theft are the most prevalent, comprising 42 percent of citywide calls for service and 31 percent of the calls for service in the Northwest Community Service Area. The nearest police station to the project site is located at 207 N. Garfield Avenue, approximately 0.22 mile from the project site.

Although the proposed project would introduce new land uses to the site (i.e., residential, commercial, and hotel), project implementation would not result in a substantial population increase or the introduction of uses or activities typically associated with high demand for police services. As such, project impacts are less than significant for this issue area.

e. Schools?	☐	☐	☒	☐

WHY? The Pasadena Unified School District serves pre-K to twelfth grade students located in Pasadena, as well as the communities of Altadena and Sierra Madre and adjacent areas of unincorporated Los Angeles County. The proposed project involves the construction of a maximum of 100 residential units, which is expected to generate approximately 245 residents with children attending schools in the Pasadena Unified School District. The City collects a school district construction tax on all new construction, residential, and nonresidential development. Payment of the school impact fees would result in a less than significant impact on schools.

f. Other public facilities?	☐	☐	☒	☐

WHY? Other public facilities available to future occupants of the project include roads, transit, and utility systems including water and sewer infrastructure, as well as other general public facilities. Please refer to subsection 19, Transportation/Circulation, of this Initial Study for a discussion of traffic and transit impacts and to subsection 20, Utilities and Service Systems, for a discussion of impacts on the City's public utility infrastructure.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

16. RECREATION.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

WHY? The project is located approximately four blocks from the nearest park, Memorial Park. According to the City's park impact fee nexus study prepared in 2004, for every 1,000 residents, the city as a whole has 2.17 acres of developed parkland and 1.49 acres of open space parkland, for a total of 3.66 acres of park and open space per 1,000 residents. The City collects park impact fees for residential projects (Ordinance No. 6252).

Since the proposed project involves the construction of up to 100 residential units within walking distance to Memorial Park, there is the potential for an increase in usage of park space. With the increase in City revenue that would result from the project, including from the expanded tax base and from the payment of park impact fees, the proposed project would contribute to the ongoing maintenance, operation, and improvement of recreational facilities. Thus, impacts would be less than significant.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

WHY? The project includes a private gym facility for the residences as well as a pool and fitness room in the hotel and would not require the construction or expansion of existing recreational facilities. Therefore, the proposed project does not involve the development of recreational facilities that would have an adverse effect on the environment, and would have no associated impacts.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
17. TRANSPORTATION/TRAFFIC. Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐

WHY? The following discussion is a summary of the traffic study prepared for the project by Raju Associates, Inc. (2014). The traffic study is included in **Appendix H**. In order to afford a conservative analysis, the traffic impact assessment was modeled without including vehicle trips associated with the former operation of the now vacant Macy's building to be demolished (i.e., without deducting the Macy's-related vehicle trips from the project's vehicle trips).

Intersection Analysis

Forty intersections were identified for analysis, all of which are controlled by traffic signals. The traffic generated by the proposed project was estimated and assigned to the street system to determine impacts to study intersections. **Table 21** summarizes intersection Level of Service (LOS) for Baseline (2013) Conditions, Baseline (2013) Plus Project Conditions, and Cumulative (2016) Conditions (with and without project). The locations of the intersections analyzed are mapped in the traffic study (see **Appendix H**).

Table 21
Summary of Intersection Level of Service Analysis

Map #	Intersection	Peak Hour	Baseline (2013) Conditions		Baseline (2013) Plus Project Conditions		Project Increase in V/C	Significant Impact	Future (2016) Pre-Project w/Ambient Growth [1]		Cumulative (2016) without Project Conditions [2]		Cumulative (2016) Plus Project - Conditions [3]		Project Increase in V/C	Significant Impact
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS	V/C	LOS		
1	Fair Oaks Avenue & Maple Street	AM	0.639	B	0.640	B	0.001	No	0.678	B	0.733	C	0.735	C	0.002	No
		PM	0.648	B	0.650	B	0.002	No	0.668	B	0.716	C	0.719	C	0.003	No
2	Fair Oaks Avenue & Corson Street	AM	0.561	A	0.564	A	0.003	No	0.580	A	0.621	B	0.623	B	0.002	No
		PM	0.624	B	0.631	B	0.007	No	0.639	B	0.698	B	0.705	C	0.007	No
3	Fair Oaks Avenue & Walnut Street	AM	0.622	B	0.624	B	0.002	No	0.644	B	0.739	C	0.740	C	0.001	No
		PM	0.748	C	0.753	C	0.005	No	0.772	C	0.899	D	0.904	E	0.005	No
4	Arroyo Parkway & Colorado Boulevard	AM	0.407	A	0.412	A	0.005	No	0.418	A	0.488	A	0.493	A	0.005	No
		PM	0.628	B	0.640	B	0.012	No	0.640	B	0.732	C	0.743	C	0.011	No
5	Arroyo Parkway & Green Street	AM	0.335	A	0.336	A	0.001	No	0.343	A	0.385	A	0.387	A	0.002	No
		PM	0.457	A	0.466	A	0.009	No	0.465	A	0.516	A	0.525	A	0.009	No
6	Arroyo Parkway & Cordova Street	AM	0.373	A	0.376	A	0.003	No	0.383	A	0.423	A	0.425	A	0.002	No
		PM	0.482	A	0.484	A	0.002	No	0.492	A	0.551	A	0.554	A	0.003	No
7	Arroyo Parkway & Del Mar Boulevard	AM	0.626	B	0.628	B	0.002	No	0.649	B	0.704	C	0.706	C	0.002	No
		PM	0.773	C	0.776	C	0.003	No	0.798	C	0.887	D	0.890	D	0.003	No
8	Arroyo Parkway & California Boulevard [4]	AM	0.716	C	0.717	C	0.001	No	0.742	C	0.804	D	0.805	D	0.001	No
		PM	0.955	E	0.957	E	0.002	No	0.987	E	1.057	F	1.059	F	0.002	No
9	Marengo Avenue & Maple Street	AM	0.605	B	0.608	B	0.003	No	0.627	B	0.672	B	0.673	B	0.001	No
		PM	0.579	A	0.581	A	0.002	No	0.595	A	0.655	B	0.657	B	0.002	No
10	Marengo Avenue & Corson Street	AM	0.542	A	0.544	A	0.002	No	0.561	A	0.599	A	0.601	B	0.002	No
		PM	0.526	A	0.531	A	0.005	No	0.541	A	0.588	A	0.593	A	0.005	No
11	Marengo Avenue & Walnut Street	AM	0.722	C	0.726	C	0.004	No	0.747	C	0.808	D	0.812	D	0.004	No
		PM	0.695	B	0.702	C	0.007	No	0.716	C	0.796	C	0.803	D	0.007	No
12	Marengo Avenue & Union Street	AM	0.423	A	0.428	A	0.005	No	0.435	A	0.478	A	0.482	A	0.004	No
		PM	0.511	A	0.517	A	0.006	No	0.522	A	0.583	A	0.588	A	0.005	No
13	Marengo Avenue & Colorado Boulevard	AM	0.484	A	0.492	A	0.008	No	0.496	A	0.552	A	0.560	A	0.008	No
		PM	0.604	B	0.613	B	0.009	No	0.613	B	0.707	C	0.714	C	0.007	No
14	Marengo Avenue & Green Street	AM	0.508	A	0.519	A	0.011	No	0.523	A	0.564	A	0.575	A	0.011	No
		PM	0.515	A	0.516	A	0.001	No	0.516	A	0.566	A	0.571	A	0.005	No
15	Marengo Avenue & Cordova Street	AM	0.600	A	0.598	A	-0.002	No	0.618	B	0.665	B	0.663	B	-0.002	No
		PM	0.654	B	0.661	B	0.007	No	0.667	B	0.728	C	0.736	C	0.008	No
16	Marengo Avenue & Del Mar Boulevard	AM	0.659	B	0.658	B	-0.001	No	0.681	B	0.733	C	0.733	C	0.000	No
		PM	0.758	C	0.761	C	0.003	No	0.778	C	0.847	D	0.850	D	0.003	No
17	Marengo Avenue & California Boulevard	AM	0.721	C	0.722	C	0.001	No	0.747	C	0.787	C	0.786	C	-0.001	No
		PM	0.775	C	0.776	C	0.001	No	0.798	C	0.856	D	0.857	D	0.001	No
18	Garfield Avenue & Colorado Boulevard	AM	0.293	A	0.300	A	0.007	No	0.300	A	0.344	A	0.352	A	0.008	No
		PM	0.407	A	0.416	A	0.009	No	0.410	A	0.494	A	0.503	A	0.009	No
19	Garfield Avenue & Green Street	AM	0.294	A	0.283	A	-0.011	No	0.298	A	0.326	A	0.316	A	-0.010	No
		PM	0.423	A	0.380	A	-0.043	No	0.413	A	0.458	A	0.414	A	-0.044	No
20	Euclid Avenue & Colorado Boulevard	AM	0.331	A	0.344	A	0.013	No	0.337	A	0.383	A	0.395	A	0.012	No
		PM	0.535	A	0.555	A	0.020	No	0.506	A	0.602	B	0.623	B	0.021	No

Map #	Intersection	Peak Hour	Baseline (2013) Conditions		Baseline (2013) Plus Project Conditions		Project Increase in V/C	Significant Impact	Future (2016) Pre-Project w/Ambient Growth [1]		Cumulative (2016) without Project Conditions [2]		Cumulative (2016) Plus Project - Conditions [3]		Project Increase in V/C	Significant Impact
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS	V/C	LOS		
21	Euclid Avenue & Green Street	AM	0.283	A	0.292	A	0.009	No	0.289	A	0.314	A	0.323	A	0.009	No
		PM	0.368	A	0.375	A	0.007	No	0.365	A	0.399	A	0.407	A	0.008	No
22	Los Robles Avenue & Maple Street	AM	0.551	A	0.554	A	0.003	No	0.570	A	0.625	B	0.628	B	0.003	No
		PM	0.567	A	0.572	A	0.005	No	0.584	A	0.653	B	0.657	B	0.004	No
23	Los Robles Avenue & Corson Street	AM	0.501	A	0.503	A	0.002	No	0.518	A	0.548	A	0.550	A	0.002	No
		PM	0.626	B	0.626	B	0.000	No	0.649	B	0.712	C	0.712	C	0.000	No
24	Los Robles Avenue & Walnut Street	AM	0.620	B	0.623	B	0.003	No	0.642	B	0.719	C	0.722	C	0.003	No
		PM	0.688	B	0.688	B	0.000	No	0.708	C	0.813	D	0.814	D	0.001	No
25	Los Robles Avenue & Union Street	AM	0.471	A	0.473	A	0.002	No	0.486	A	0.531	A	0.532	A	0.001	No
		PM	0.488	A	0.489	A	0.001	No	0.500	A	0.548	A	0.549	A	0.001	No
26	Los Robles Avenue & Colorado Boulevard	AM	0.511	A	0.518	A	0.007	No	0.525	A	0.600	A	0.605	B	0.005	No
		PM	0.644	B	0.651	B	0.007	No	0.650	B	0.769	C	0.776	C	0.007	No
27	Los Robles Avenue & Green Street	AM	0.523	A	0.526	A	0.003	No	0.542	A	0.599	A	0.601	B	0.002	No
		PM	0.560	A	0.566	A	0.006	No	0.576	A	0.631	B	0.637	B	0.006	No
28	Los Robles Avenue & Cordova Street	AM	0.500	A	0.501	A	0.001	No	0.515	A	0.555	A	0.556	A	0.001	No
		PM	0.531	A	0.533	A	0.002	No	0.647	B	0.602	B	0.606	B	0.004	No
29	Los Robles Avenue & Del Mar Boulevard	AM	0.717	C	0.719	C	0.002	No	0.742	C	0.803	D	0.804	D	0.001	No
		PM	0.682	B	0.686	B	0.004	No	0.702	C	0.770	C	0.774	C	0.004	No
30	Los Robles Avenue & California Boulevard	AM	0.677	B	0.677	B	0.000	No	0.700	B	0.746	C	0.746	C	0.000	No
		PM	0.685	B	0.686	B	0.001	No	0.707	C	0.761	C	0.762	C	0.001	No
31	El Molino Avenue & Maple Street	AM	0.404	A	0.406	A	0.002	No	0.418	A	0.459	A	0.460	A	0.001	No
		PM	0.464	A	0.469	A	0.005	No	0.476	A	0.544	A	0.549	A	0.005	No
32	El Molino Avenue & Corson Street	AM	0.328	A	0.329	A	0.001	No	0.337	A	0.386	A	0.388	A	0.002	No
		PM	0.553	A	0.553	A	0.000	No	0.567	A	0.647	B	0.648	B	0.001	No
33	El Molino Avenue & Walnut Street	AM	0.544	A	0.546	A	0.002	No	0.564	A	0.670	B	0.670	B	0.000	No
		PM	0.569	A	0.572	A	0.003	No	0.587	A	0.766	C	0.769	C	0.003	No
34	El Molino Avenue & Colorado Boulevard	AM	0.464	A	0.465	A	0.001	No	0.478	A	0.611	B	0.611	B	0.000	No
		PM	0.598	A	0.604	B	0.006	No	0.612	B	0.807	D	0.814	D	0.007	No
35	Lake Avenue & Maple Street	AM	0.907	E	0.908	E	0.001	No	0.945	E	0.977	E	0.977	E	0.000	No
		PM	0.763	C	0.766	C	0.003	No	0.790	C	0.862	D	0.867	D	0.005	No
36	Lake Avenue & Corson Street	AM	0.601	B	0.604	B	0.003	No	0.624	B	0.658	B	0.661	B	0.003	No
		PM	0.763	C	0.765	C	0.002	No	0.790	C	0.840	D	0.841	D	0.001	No
37	Lake Avenue & Walnut Street	AM	0.776	C	0.777	C	0.001	No	0.808	D	0.861	D	0.861	D	0.000	No
		PM	0.675	B	0.677	B	0.002	No	0.698	B	0.767	C	0.769	C	0.002	No
38	Lake Avenue & Colorado Boulevard	AM	0.667	B	0.668	B	0.001	No	0.690	B	0.748	C	0.749	C	0.001	No
		PM	0.714	C	0.718	C	0.004	No	0.735	C	0.882	D	0.885	D	0.003	No
39	Lake Avenue & Del Mar Boulevard	AM	0.666	B	0.667	B	0.001	No	0.692	B	0.726	C	0.726	C	0.000	No
		PM	0.702	C	0.703	C	0.001	No	0.728	C	0.774	C	0.775	C	0.001	No
40	Lake Avenue & California Boulevard	AM	0.789	C	0.790	C	0.001	No	0.819	D	0.854	D	0.856	D	0.002	No
		PM	0.923	E	0.924	E	0.001	No	0.955	E	0.981	E	0.983	E	0.002	No

The City of Pasadena DOT has established threshold criteria to determine if a project has a significant traffic impact at a specific intersection (**Table 22**). According to the criteria, project impacts are evaluated for significance based on a sliding scale that takes into account the existing LOS and project-related increases to the volume/capacity (V/C) ratio. The V/C ratio is a measure of intersection performance, with a ratio of 1.0 meaning the intersection is at full capacity, a ratio of 0.5 equating to 50 percent capacity, and so forth.

Table 22
Intersection Level of Service (LOS) Thresholds

Intersection LOS Project Conditions	Project-Related Increase in V/C Ratio
A	0.06
B	0.05
C	0.04
D	0.03
E	0.02
F	0.01

Source: Raju 2014

Table 22 indicates, for example, that a project would have a significant impact at an intersection if the intersection is operating at a LOS A and the increase in V/C ratio due to the proposed project is 0.06 or greater. Similarly, the sliding scale criteria indicates that a project would have a significant impact at an intersection if the incremental increase in the V/C ratio is 0.01 or greater when the intersection is operating at LOS F.

Peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio and corresponding level of service for baseline and future conditions. The following summarizes impacts at the analyzed intersections, which are based on **Table 21**.

Baseline (2013) Conditions. As shown in **Table 21**, 39 of the 40 intersections analyzed are projected to operate at LOS C or better during the morning peak hour and 38 of the 40 intersections are projected to operate at LOS C or better during the evening peak hour. The following intersections are projected to operate at LOS E:

- Arroyo Parkway/California Boulevard – PM Peak Hour: LOS E
- Lake Avenue/Maple Street – AM Peak Hour: LOS E
- Lake Avenue/California Boulevard – PM Peak Hour: LOS E

Baseline (2013) plus Project. The results of this analysis are similar to Baseline (2013) conditions and are also summarized in **Table 21**.

Cumulative (2016) without Proposed Project. As shown in **Table 21**, 39 of the 40 analyzed intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 38 of the 40 analyzed intersections are projected to operate at LOS D or better. The remaining intersections are projected to operate at LOS E or F as listed below:

- Arroyo Parkway/California Boulevard – PM Peak Hour: LOS F
- Lake Avenue/Maple Street – AM Peak Hour: LOS E
- Lake Avenue/California Boulevard – PM Peak Hour: LOS E

Cumulative (2016) plus Project. As shown in **Table 21**, 39 of the 40 analyzed intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 37 of the 40 analyzed intersections are projected to operate at LOS D or better. The remaining intersections are projected to operate at LOS E or F:

- Fair Oaks Avenue/Walnut Street – PM Peak Hour: LOS E
- Arroyo Parkway/California Boulevard – PM Peak Hour: LOS F
- Lake Avenue/California Boulevard – PM Peak Hour: LOS E

Using the intersection LOS thresholds shown in **Table 22**, the traffic impacts at the 40 analyzed locations due to the Proposed Project were determined. **Table 21** identifies the traffic impacts during both AM and PM peak hours at each of the study intersections. As indicated in **Table 21**, the proposed project does not cause significant impacts at any of the analyzed intersections during morning and evening peak hours under any of the modeled scenarios.

Roadway Segment Analysis

The traffic study also identified 25 roadway segment locations for analysis and assessment of existing and future conditions. **Table 23** identifies Baseline (2013) along with project contributions and the resultant change in roadway segment as a result of the project.

As shown, the proposed project would increase the daily traffic ranging from 0.5-percent to 2.1-percent on 18 of the 25 analyzed street segments. Per the City's street segment thresholds (as shown in Table 13 of the Traffic Study in **Appendix H**), these 18 street segments are below the 2.4-percent threshold and therefore subject to staff review and conditions. Traffic on the remaining seven roadway segments would increase from 2.5-percent to 3.8-percent. These segments are above the 2.4-percent threshold, but below the City's 4.9-percent threshold for physical improvements and thus trigger "soft measure" requirements that do not physically alter roadways. All required transportation measures required by the City as conditions of project approval follow **Table 23**. No

roadway segments would exceed the 4.9-percent increase threshold requiring physical improvements. As such, the proposed project would result in less-than-significant traffic impacts.

Table 23
Street Segment Analysis

Street Segment	Average Daily Traffic Baseline (2013) Conditions	Project	% Change	Required Multi- Modal Measure
Marengo Avenue				
between Corson Street & Walnut Street	19,328	293	1.5%	Staff review and conditions.
Marengo Avenue				
between Walnut Street & Holly Street	19,140	387	2.0%	Staff review and conditions.
Marengo Avenue				
between Cordova Street & Del Mar Boulevard	13,443	186	1.4%	Staff review and conditions.
Marengo Avenue				
between Del Mar Boulevard & California Boulevard	14,545	143	1.0%	Staff review and conditions.
Euclid Avenue				
between Corson Street & Walnut Street	2,765	75	2.7%	Soft measures required
Euclid Avenue				
between Cordova Street & Del Mar Boulevard	2,546	14	0.5%	Staff review and conditions.
Los Robles Avenue				
between Walnut Street & Union Street	20,594	319	1.5%	Staff review and conditions.
Los Robles Avenue				
between Colorado Boulevard & Green Street	17,512	555	3.2%	Soft measures required
Los Robles Avenue				
between Cordova Street & Del Mar Boulevard	13,570	220	1.6%	Staff review and conditions.
Los Robles Avenue				
between Del Mar Boulevard & California Boulevard	12,803	104	0.8%	Staff review and conditions.
El Molino Avenue				
between Walnut Street & Union Street	7,151	72	1.0%	Staff review and conditions.
El Molino Avenue				
between Del Mar Boulevard & California Boulevard	5,550	28	0.5%	Staff review and conditions.

Street Segment	Average Daily Traffic Baseline (2013) Conditions	Project	% Change	Required Multi- Modal Measure
Walnut Street				
between Raymond Avenue & Marengo Avenue	11,871	244	2.1%	Staff review and conditions.
Union Street				
between Garfield Avenue & Euclid Avenue	7,987	39	0.5%	Staff review and conditions.
Union Street				
between Oak Knoll Avenue & Hudson Avenue	7,013	43	0.6%	Staff review and conditions.
Colorado Boulevard				
between Arroyo Parkway & Marengo Avenue	21,071	416	2.0%	Staff review and conditions.
Colorado Boulevard				
between Marengo Avenue & Garfield Avenue	20,943	674	3.2%	Soft measures required
Colorado Boulevard				
between Euclid Avenue & Los Robles Avenue	20,999	671	3.2%	Soft measures required
Colorado Boulevard				
between Los Robles Avenue & Oakland Avenue	21,465	312	1.5%	Staff review and conditions.
Green Street				
between Arroyo Parkway & Marengo Avenue	12,995	161	1.2%	Staff review and conditions.
Green Street				
between Marengo Avenue & Euclid Avenue	12,123	153	1.3%	Staff review and conditions.
Green Street				
between Euclid Avenue & Los Robles Avenue	11,851	454	3.8%	Soft measures required.
Green Street				
between Los Robles Avenue and Oakland Avenue	8,934	221	2.5%	Soft measures required
Green Street				
between Oakland Avenue & Madison Avenue	8,676	221	2.5%	Soft measures required
Cordova Street				
between Los Robles Avenue & Oakland Avenue	10,076	58	0.6%	Staff review and conditions.

Source: Raju 2014

Pursuant to the City's Traffic Impact Study guidelines and as conditions of project approval[9] outlined in the Memorandum from the City of Pasadena DOT[10], dated June 26, 2014 (**Appendix H**), the applicant will be required to implement the following measures:

- **Provide a uniform 15-foot wide sidewalk on the west side of Los Robles Avenue between Colorado Boulevard and Green Street along the project frontage**. This would be consistent with the city's policies requiring a comfortable and convenient walking environment in areas with existing or forecasted high pedestrian usage.
- **Improve the quality of bicycling around the project site**. The applicant shall pay for the purchase and installation of bicycle racks in the vicinity of the project.
- **Maintain all existing bus zone**s. In addition, the city may require that the applicant extend or reorient bus zone(s). Further, tree wells, street lights, fire hydrants, and other items may not be placed in the public right of way within bus zone(s) without prior approval from DOT.
- **Pay the Traffic Reduction and Transportation Fee (TR-TIF) for the proposed project[11].** In November 2006, the City Council adopted Ordinance No. 7076 establishing the Traffic Reduction and Transportation Improvement Fee (TR-TIF). This fee anticipates and mitigates the impacts of growth on city streets, including protecting neighborhoods from increased traffic. The Fee will credit existing uses that are demolished as part of the development. For example, a new eight unit residential development that demolishes two existing units would pay the Fee for six units (City of Pasadena 2013b).
- **Prepare a Transportation Demand Management plan.** The proposed project is subject to the City's Transportation Demand Management (TDM)/ Trip Reduction Ordinance (TRO) requirements. The purpose of the trip reduction requirement is to reduce the demand for automobile commute trips by ensuring that the design of major nonresidential development projects accommodates facilities for alternative modes of transportation. The TDM plan

[9] Timing and implementation of each condition of approval is included in the Memorandum from the City of Pasadena Department of Transportation (DOT 2014c), which is included in **Appendix H** of this Initial Study.

[10] The Memorandum outlines fees and deposits associated with project related traffic improvements. The fees and deposits listed in the Memorandum are based on the Current General Fee Schedule and are subject to change. As such, these fees will have to be verified through DOT and/or Department of Planning.

[11] Total payment would be based on the final scope at the time of project approval (DOT 2014c).

will address the project's programs to promote alternative modes of transportation and shall meet the requirements for carpool and vanpool parking and bicycle parking as outlined in the Memorandum from DOT (**Appendix H**). In addition, the applicant shall submit a Transportation Demand Management (TDM) Program Plan, which complies with Chapter 10.64 of the City of Pasadena Municipal Code (Transportation Demand Program) (DOT 2014c).

Deposits and fees associated with TDM plan requirements are outlined in the Memorandum issued by DOT (**Appendix H**).

- **Submit a Construction Staging & Traffic Management Plan to the Department of Public Works.** This plan shall show the impact of the various construction stages on the public right-of-way including street occupations, closures, detours, staging areas, and routes of construction vehicles entering and exiting the construction site.
- **Adhere to construction traffic restrictions.** Pursuant to Section 9.36.070 of the Pasadena Municipal Code, project construction must occur between the hours of 7:00am and 7:00pm Monday through Friday and between 8:00am and 5:00pm on Saturday. However, hours for construction traffic (delivery trucks or haul trucks) shall be restricted to the hours between 9:00am and 3:00pm to limit peak hour traffic conflict along the local street network. Additionally, the construction staging shall not block any lanes in traffic along the project frontage.
- **Notify future residents of the unavailability of on-street, overnight parking.** To minimize on-street parking impacts, the City will not issue overnight parking permits to the future residents of this projects.
- **Adhere to specific parking and loading/unloading design requirements.** Items 12 through 16 of the Memorandum from DOT has specific parking and project loading/unloading requirements for both residential and commercial uses (DOT 2014) that must be implemented and approved by DOT and/or the Department of Planning (as specified in the Memorandum).

The implementation of the required conditions of approval from the DOT would ensure that the project complies with the City's Traffic Impact Study Guidelines and also meets the required parking and loading/unloading requirements. Therefore, impacts associated with this issue area would be less than significant.

Alternative Transportation Analysis

The City's Department of Transportation (DOT) also reviews a project to determine whether it is in compliance with plans and policies related to alternative modes of

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

circulation (i.e., the Bicycle and Pedestrian Master Plans). Following their review of the project, DOT determined that the project would not conflict with such plans and would not interfere with the effectiveness of the overall circulation system. Accordingly, impacts to alternative transportation would be less than significant.

b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

WHY? The Congestion Management Program (CMP) is a State-mandated program designed to address the impact of local growth on the regional transportation system. The Los Angeles Metropolitan Transportation Authority (Metro) is the agency responsible for implementing the CMP for all of Los Angeles County. The CMP guidelines specify that all freeway segments where a project could add 150 or more trips in each direction during the peak hours be evaluated. The guidelines also require evaluation of all designated CMP roadway intersections where a project could add 50 or more trips during either peak hour. Based on analysis conducted by Raju Associates (**Appendix H**), impacts to CMP roadway facilities resulting from the proposed project would be less than significant.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

WHY? The project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport. Consequently, the proposed project would not affect any airport facilities and would not cause a change in the directional patterns of aircraft. Therefore, the proposed project would have no impact to air traffic patterns..

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

WHY? The proposed project would not create any safety hazards from project design features and would not introduce incompatible uses into the existing traffic pattern. All ingress and egress to the project site would be provided in compliance with the specifications of the City's Public Works and Transportation departments to ensure adequate visibility and safety distances are provided at these access points. No changes to existing street configurations would occur. Consequently, the proposed project would have no impact related to design hazards.

e. Result in inadequate emergency access?	☐	☐	☐	☒

WHY? A potentially significant impact would occur if the project resulted in inadequate emergency access. Site ingress and egress would comply with all building, fire, and safety codes and with final plans subject to review and approval by the City's Public Works and Transportation departments, the Building Division, and the Fire Department. No permanent lane closures or obstructions that could impede emergency response to or from the project site from surrounding streets would occur as a result of the proposed project. Consequently, the proposed project would have a no impact related to emergency access.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

WHY? The project site is located within a City of Pasadena designated transit oriented district, due to the site's proximity to a variety of transit options. The benefit of accommodating alternative transportation modes is also recognized by the California Green Building Standards Code, which provides credit for a site design that reduces personal automobile use through the implementation of alternative transportation programs encouraging the use of public transportation, bicycles, and low-emission and fuel-efficient vehicles. Further, Objective 3.2.2 of the City's General Plan Mobility Element is to "Encourage Non-Auto Travel." The project would have beneficial effects in creating residential uses and shopping opportunities within walking distance of major transit stops and corridors. As such, no adverse impacts would occur.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

18. UTILITIES AND SERVICE SYSTEMS. Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐

WHY? The proposed project would generate approximately 55,836 gallons per day of wastewater in the form of domestic sewage (Sanitation Districts of Los Angeles County 2014b). Individual projects are subject to a Sanitation Districts sewer connection fee when connected to a sewer line. Pasadena is in Los Angeles County Sanitation District 16. All sewage from the project site would be conveyed to existing City sewer lines and facilities. Wastewater discharge from the project site would be regulated by applicable standards and requirements that are imposed and enforced by the City's Department of Public Works, Engineering Division. All wastewater generated by the proposed project would be treated in compliance with the requirements of the Los Angeles Regional Water Quality Control Board (LARWQCB). Therefore, the proposed project would not exceed the wastewater treatment requirements of the LARWQCB, and impacts would be less than significant.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

WHY? The City's Department of Public Works, Engineering Division, maintains the local sewer system. Flows from the local system are currently carried to the trunk sewers operated by the Sanitation Districts of Los Angeles County. As noted above, the proposed project would generate approximately 55,836 gallons of wastewater per day, while the proposed project would use 72,816 gallons of water per day. There are no existing deficiencies in the City's collection system or the Sanitation Districts' collection and treatment facilities serving Pasadena that would be exacerbated by the proposed project. Wastewater is currently treated at the Whittier Narrows Reclamation Plant, San Jose Creek Water Reclamation Plant, and Los Coyotes Water Reclamation Plant. Because Sanitation District 16 treats the City's wastewater, the proposed project would be subject to a sewer connection fee when the project is connected to a sewer line. Connection of the main sewer lines would occur during construction and would not result in environmental impacts beyond those analyzed in this Initial Study.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

In conformance with the California Green Building Program, the City has adopted an amended California Green Building Standards Code (Pasadena Municipal Code Section 14.04.500) for all new construction and tenant improvements. Additionally, the proposed project would be subject to the Water Waste Prohibitions and Water Supply Shortage Plans Ordinance (Pasadena Municipal Code Chapter 13.10), which imposes mandatory water conservation measures during Level 1 (least restrictive) through Level 4 (most restrictive) water supply shortages, the Water Efficient Landscape Ordinance (Pasadena Municipal Code Chapter 13.22), and the Landscaping Ordinance (Pasadena Municipal Code Chapter 17.44) to further reduce water demand and any corresponding requirement for new water facilities.

No deficiencies have been identified for the water mains and treatment facilities that currently serve the project area. In addition, as a priority project for the City's water system identified in the current Capital Improvement Program, new and replacement water distribution mains would be installed at various locations throughout the city, which would be funded, in part, by development fees (City of Pasadena 2011c). The proposed project would also be required to pay fees to connect to the existing water mains available to serve the site.

Overall, because existing wastewater and water facilities are available to serve the proposed project and no new wastewater or water treatment facilities or expansion of existing facilities would be required, impacts would be less than significant.

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

WHY? The proposed project would not require the construction of new stormwater drainage facilities or the expansion of existing facilities. The project site is located in a developed urban area where storm drainage is provided by existing streets, storm drains, flood control channels, and catch basins. As discussed in subsection 12, Hydrology and Water Quality, the project would involve only minor changes in the site's drainage patterns and does not involve altering any drainage courses or flood control channels. The project applicant would be required to submit and implement an on-site drainage plan that meets the approval of the City's Building Official and Public Works Department. Therefore, the proposed project would not require or result in any stormwater drainage improvements, and impacts would be less than significant.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

WHY? As indicated above, the proposed project would generate demand for approximately 72,816 gallons of water per day. Implementation of the proposed project would not demand an amount of water equivalent to or greater than a 500-dwelling-unit project and would therefore not trigger the requirement for the preparation of a water supply assessment as described in Sections 10910–10912 of the California Water Code.[12]

Over the past several years, Pasadena Water and Power has been impacted by several factors that have restricted local and regional water supply. PWP's groundwater rights in the Raymond Basin have been curtailed in order to mitigate groundwater depletion experienced over the last half century. With respect to imported supplies, a decade-long drought has reduced the ability to replenish regional groundwater supplies, drought conditions in the American Southwest have reduced deliveries of water from the Colorado River, and legal and environmental issues have resulted in reduced water deliveries through the State Water Project. The City accounted for these conditions in its current Water Integrated Resources Plan (2011b) and Urban Water Management Plan (2011a). The Metropolitan Water District (MWD) of Southern California is a cooperative of 26 cities and water districts that provides drinking water to nearly 19 million people in Southern California, including parts of Los Angeles (which includes Pasadena). As of 2011, the MWD has lifted allocation restrictions as a result of improvements in Southern California's water reserves. However, although no restrictions have been enacted, record drought conditions during 2013–2014 prompted the release of the January 2014 Drought Declaration with goals of reducing per capita water consumption by 20 percent. Additionally, the MWD is continuing to closely monitor water supply conditions in the Southwest.

Locally, Pasadena Municipal Code Chapter 13.10 establishes 13 permanent mandatory restrictions on wasteful water use activities. In addition, statewide water demand reduction requirements, such as the 20X2020 Plan and the current work being done by the California Department of Water Resources, the SWRCB, and other state agencies, implement the State's 20X2020 Water Conservation Initiative Program.

[12] Based on the factors presented in the Department of Water Resources' (2003) Guidebook for Implementation of Senate Bill 610 and Senate Bill 2001 of 0.3 to 0.5 acre-feet per unit per year, the water demand associated with 500 dwelling units would range from approximately 134,267 to 223,767 gallons per day.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

The proposed project must comply with the City's Comprehensive Water Conservation Plan and Pasadena Municipal Code Chapter 13.10, which implement the City's water conservation and supply shortage program intended to reduce water consumption within the city and the City's service territory through conservation, enable effective water supply planning, and ensure reasonable and beneficial use of water to avoid and minimize the effect and hardship of water shortage to the greatest possible extent. Per this requirement, the applicant will be required to demonstrate that the project will be able to reduce water consumption by a minimum of 10 percent. With submission of this plan, the proposed project would not have any individual or cumulative significant impacts on water supply. This plan would be subject to review and approval by PWP and the Building Division prior to the issuance of a building permit. The proposed project's irrigation and plumbing plans would also be required to comply with the approved water conservation plan and the City's requirements for landscape irrigation. Therefore, with compliance with existing City requirements, impacts on water supplies would be less than significant.

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

WHY? Implementation of the proposed project is expected to generate approximately 55,836 gallons of wastewater per day. This estimated increase to wastewater service demand is negligible in comparison to the existing service area of the Sanitation Districts of Los Angeles County.[13] Wastewater from the city is currently treated at the Sanitation Districts' Whittier Narrows Reclamation Plant, San Jose Creek Water Reclamation Plant, and Los Coyotes Water Reclamation Plant. No deficiencies have been identified in these wastewater treatment facilities. Furthermore, the proposed project would be subject to the Sanitation Districts' sewer connection fee when the project is connected to a sewer line. The proposed project would also be subject to a Sewer Facility Charge as specified in Pasadena Municipal Code Chapter 4.53. Impacts related to the wastewater treatment capacity of the wastewater treatment plants that serve the project site would be less than significant.

[13] According to the Sanitation Districts of Los Angeles County (2014b), the districts own, operate, and maintain approximately 1,400 miles of sewers that convey approximately 500 million gallons per day to 11 wastewater treatment plants.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

WHY? A potentially significant impact would occur if the proposed project's solid waste generation exceeded the capacity of permitted landfills. The proposed project would generate approximately 1,415 pounds of solid waste per day (City of Los Angeles 1961). Solid waste would be collected by a private hauler and transported primarily to the Scholl Canyon Landfill, which is permitted until 2025. The Scholl Canyon Landfill has a maximum daily capacity of 3,400 tons and a total remaining capacity of 9,900,000 cubic yards (CalRecycle 2014). Because there is adequate remaining capacity to accommodate the amount of solid waste generated by the proposed project, the proposed project's impacts to landfill capacity would be less than significant.

The proposed project would be subject to Chapter 8.62 of the Pasadena Municipal Code, which is the construction demolition and waste management ordinance. Pursuant to this ordinance, the proposed project would be required to divert a minimum of 75 percent of the construction and demolition debris from the project. Additionally, the proposed project would be required to meet the standards of the California Green Building Standards Code. Proposed project impacts related to solid waste generation would be less than significant.

g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

WHY? In 1992, the City adopted the Source Reduction and Recycling Element to comply with the California Integrated Waste Management Act. This act requires that jurisdictions maintain a 50 percent or better diversion rate for solid waste. The City implements this requirement through Section 8.61 of the Pasadena Municipal Code, which establishes the City's solid waste collection franchise system. As described in Pasadena Municipal Code Section 8.61.175, each franchisee is responsible for meeting the minimum recycling diversion rate of 75 percent on both a monthly basis and an annual basis for construction and demolition debris and 60 percent on a monthly basis and on an annual basis for other solid waste. The proposed project is required to comply with the applicable solid waste franchise's recycling system and thus would meet Pasadena's and California's solid waste diversion regulations. The project must comply with the City's Construction and Demolition Ordinance (Pasadena Municipal Code Chapter 8.62), which includes preparation of a construction waste management plan for new structures over 1,000 square feet. In addition, the project is required to comply with design requirements for refuse storage areas (Pasadena Municipal Code Section 17.40.120). Therefore, the proposed project would result in less than significant impacts related to federal, state, and local solid waste statutes and regulations.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*

19. EARLIER ANALYSIS

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. See CEQA Guidelines Section 15063(c)(3)(D).

No program EIR, tiering, or other process was used as part of the analysis of the proposed Project's environmental effects.

20. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐

WHY? As discussed previously, the proposed project would not result in any significant impacts. As discussed in subsection 6, Biological Resources, the proposed project would have no impacts to special-status species, stream habitat, or wildlife dispersal and migration. Furthermore, the proposed project would not affect the local, regional, or national populations or ranges of any plant or animal species and would not threaten any plant communities. Similarly, as discussed in subsection 7, Cultural Resources, after mitigation the proposed project would result in less than significant impacts to historical resources, archaeological resources, and paleontological resources.

	Potentially Significant Impact	*Significant Unless Mitigation Is Incorporated*	*Less Than Significant Impact*	*No Impact*
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐

WHY? A significant impact may occur if the project, in conjunction with the related projects, would result in impacts that are less than significant when viewed separately but would be significant when viewed together. When considering the proposed project in combination with other past, present, and reasonably foreseeable future projects in the vicinity of the project site, the proposed project does not have the potential to cause impacts that are cumulatively considerable. As detailed in the above discussions, the proposed project would not result in any significant and unmitigable impacts in any environmental categories. In all cases, the impacts associated with the project are limited to the project site or are of such a negligible degree that they would not result in a significant contribution to any cumulative impacts.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

WHY? As detailed above, implementation of the proposed project does not have the potential to result in direct or indirect substantial adverse effects to human beings. The proposed project does not approach or exceed any significance thresholds for environmental issues typically associated with indirect or direct effects to people, such as hazardous materials handling, air, water, and land pollution, or adverse effects to emergency service response.

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Raju Associates – Traffic Study
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