16

TRANSPORTATION

INTRODUCTION

PURPOSE

This chapter discusses the potential impacts of the implementation of the proposed Project on transportation.

The discussion in this chapter presents the results of the transportation impact study conducted by Hexagon Transportation Consultants, Inc. for the proposed Project. The complete analysis is included as Appendix I.

SETTING

This section describes the existing transportation conditions in the Project study area, including the roadway network and transit, pedestrian, equestrian, and bicycle facilities in the vicinity of the Project site.

ROADWAY SYSTEM

Regional access to the Project site is provided by Interstate 280 (I-280). Local access to the Project site is provided on Alpine Road via Portola Road, Westridge Drive, and Arastradero Road.

I-280 is an eight-lane freeway in the vicinity of the site. I-280 extends northward through San Francisco and southward to US 101 in San Jose. East of US 101, it makes a transition into I-680 to Oakland. Access to and from the site is provided via a full interchange at Alpine Road.

Alpine Road is a north-south two-lane road that transitions from Santa Cruz Avenue at Junipero Serra Boulevard in the north and transitions into Ciervos Street in the south. It serves as an arterial from Junipero Serra Boulevard to Portola Road in the Project vicinity. Striped shoulders exist along both sides of Alpine Road, between Corte Madera Road and Junipero Serra Boulevard. A pedestrian/equestrian trail exists along the east side of the street near the Project site. On-street parking is prohibited along the project frontage on the west side of the street. The speed limit ranges from 35 miles per hour (mph) to 40 mph. Alpine Road provides direct access to the site.

Portola Road is a two-lane arterial that mainly runs in a north-south direction from Alpine Road in the south to Mountain Home Road in the north, where it transitions into Sand Hill Road. Striped shoulders exist along both sides of the street. A pedestrian/equestrian trail exists along one side of the street. On-street parking is prohibited. The speed limit is 35 mph. Portola Road provides access to the Project via its intersection with Alpine Road.

Westridge Drive is an east-west two-lane major collector from Portola Road in the west to Alpine Road in the east. A pedestrian/equestrian trail exists along the north side of the street. On-street parking is

prohibited along both sides of the street. The speed limit is 30 mph. Westridge Drive provides access to the Project via its intersection with Alpine Road.

Arastradero Road is an east-west two-lane road from Alpine Road in the west to Page Mill Road in the east. A bike route is designated between Alpine Road and Tracy Court in the City of Palo Alto, where it transitions into bike lanes along both sides of the street for the rest of the street. On-street parking is prohibited along both sides of the street. The speed limit is 35 mph. Arastradero Road provides access to the Project via its intersection with Alpine Road.

PEDESTRIAN AND EQUESTRIAN FACILITIES

Pedestrian and equestrian facilities consist of trails and crosswalks in the Project vicinity. A paved pedestrian trail exists on the east side of Alpine Road, and an unpaved pedestrian/equestrian trail exists on the west side of Alpine Road. Pedestrian/equestrian trails also exist along one side of Portola Road and the north side of Westridge Drive. Crosswalks are present along all of the study area roadways at unsignalized study intersections. Crosswalks are present crossing Alpine Road at La Cuesta Drive, La Mesa Drive, and Portola Road. Crosswalks are also present along the east leg of the Alpine Road and Arastradero Road intersection and along the west leg of the Alpine Road/Portola Road intersection.

BICYCLE FACILITIES

Although the Town has not designated any bicycle facilities on its roadways, bicycle usage is allowed on Town roadways. Within one mile of the Project site, striped shoulders on Alpine Road and Portola Road are commonly used by cyclists as bike lanes. Arastradero Road is mostly within the City of Palo Alto, where it is a designated bike route marked with painted shared lane markings (sharrows) on the roadway.

TRANSIT SERVICE

Existing public transit services in the study area are provided by the San Mateo County Transit District (SamTrans). SamTrans operates bus services in San Mateo County. SamTrans Routes 87 and 286 ran along Alpine Road prior to April 2020. Due to COVID-19 and shelter-in-place orders, both routes have been temporarily suspended within the Project vicinity. The nearest bus stop was located on Westridge Drive at Alpine Road, approximately 1,000 feet from the Project site, and was served by both Routes 87 and 286 on school days, during school start and end hours.

Stanford University provides free Marguerite shuttles between the campus and various points of interest near the campus. The shuttle route with a stop closest to the site is the SLAC route that operates on weekdays. The nearest stop is located on Sand Hill Road at Sharon Park Drive, approximately 2.8 miles from the Residential Development Area.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

The following thresholds are based on Appendix G of the CEQA Guidelines:

1. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

2. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) [relative to VMT]?

3. Would the project substantially increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

4. Would the project result in inadequate emergency access?

ROADWAY AND INTERSECTION OPERATIONS

1. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Impact Trans-1: Consistency with Circulation System Plans and Policies. The Project would improve pedestrian and equestrian facilities at the site and while it would add some use of bicycle, pedestrian, transit, and roadway facilities, it would not conflict with applicable plans and policies. This is a ***less than significant*** impact.

Pedestrian facilities in the vicinity consist of trails and crosswalks in the Project vicinity. A paved pedestrian trail exists on the east side of Alpine Road, and an unpaved pedestrian/equestrian trail exists on the west side of Alpine Road. Pedestrian/equestrian trails also exist along one side of Portola Road and the north side of Westridge Drive. Crosswalks are present along all of the study area roadways at unsignalized study intersections, except at the freeway ramp intersections. Crosswalks are present crossing Alpine Road at La Cuesta Drive, La Mesa Drive, and Portola Road. Crosswalks are also present along the east leg of the Alpine Road and Arastradero Road intersection and along the west leg of the Alpine Road/Portola Road intersection.

Although the Town has not designated any bicycle facilities on its roadways, bicycle usage is allowed on Town roadways. Within one mile of the Project site, striped shoulders on Alpine Road and Portola Road are commonly used by cyclists as bike lanes. Arastradero Road is mostly within the City of Palo Alto, where it is a designated bike route marked with painted shared lane markings (sharrows) on the roadway.

Potential Effects on Pedestrians, Equestrian, Bicycles, and Transit Facilities

Pedestrian and Equestrian Trails

Impact Trans-2: Additional Vehicle Crossings Across Alpine Road Trail. The Project would increase in vehicle access points and vehicle crossings across the Alpine Road trail, which would increase the potential for conflict between vehicles and trail users and is considered a potential safety hazard. This impact is ***less than significant with mitigation***.

In the Project vicinity, an unpaved pedestrian/equestrian trail runs on the west side of Alpine Road along the Project frontage, and a paved pedestrian trail exists on the east side of Alpine Road. Pedestrian/equestrian trails also exist along one side of Portola Road and the north side of Westridge Drive. It is expected that the Project would generate some pedestrian/equestrian trips, which could utilize these trails. However, the increase in trail usage is not expected to degrade the quality of these trails because of the small number of pedestrian/equestrian trips that would be generated by the Project.

The Project proposes to construct a new loop trail within its property boundaries to the south of the housing development site. The trail would be accessible to the general public and would connect to the existing pedestrian/equestrian trail that runs on the west side of Alpine Road at two locations. The Project would also improve the existing dirt trail along the frontage of the entire property. Both the new loop trail and the existing trail along Alpine Road would have a minimum six-foot width with all-

weather compacted base-rock surface. The new loop trail and improvement to the existing trail would increase the capacity and quality of the Town's trail system.

The Project would have two driveways crossing the pedestrian/equestrian trail that runs along its frontage. As discussed below, under Site Design Hazards and Emergency Access, the Project would provide adequate sight distance at the driveways with low-level landscaping to ensure a clear line of sight between exiting drivers and pedestrians/horses on the trail. The Project would install split rail fencing along the Project frontage. Split rail fencing enables pedestrians/equestrians on the trail and outbound vehicles to see each other when approaching the driveway.

Based on observations at the site, the trail along the Project's Alpine Road frontage is lightly used and the Project traffic on the Project intersections would also be low; therefore, the chance of the pedestrians/horses and the Project traffic arriving at the crossing simultaneously is expected to be small. Regardless, any increase in vehicle access points along the trail would increase the potential for conflict between pedestrians/equestrians and is considered a potential safety impact.

Mitigation Measure

Trans-2: **Trail Crossing Warning.** The Project shall install a sign at the driveways "STOP HERE LOOK FOR TRAIL USERS STOP AGAIN AT ROAD" for outbound traffic approaching the trail to alert the exiting drivers of the presence of trail users.

Implementation of mitigation measure Trans-2 would reduce potential safety impacts related to additional vehicle crossings across the Alpine Road trail to a level of ***less than significant with mitigation***.

Bicycle Facilities

Although the Town has not designated any bicycle facilities on its roadways, the striped shoulders on Alpine Road and Portola Road are commonly used by cyclists as bike lanes. Cyclists riding on Alpine Road can connect to the bike lanes on Junipero Serra Boulevard and Sand Hill Road to Stanford University. The small number of vehicle trips added by the Project would not substantially impact bicycle travel on Alpine Road or the surrounding roadways.

The Town does not require developments to provide bicycle parking. However, the site plan shows that each garage would provide wall-hung bike racks for two bicycles (long-term spaces) and 9 bicycle racks (short term spaces) for 18 bicycles around the Project site.

The Project would not conflict with any adopted plans or policies associated with bicycle facilities.

Transit Services

The Project site is served by SamTrans Routes 87 and 286 with the bus stops approximately 1,000 feet from the Project site. Due to COVID-19, both routes have been temporarily suspended within the Project vicinity, but are expected to be reinstated with a return to normal operations. Regardless, the Project is expected to create minimal, if any, transit ridership given that Routes 87 and 286 only provide a few busses per day near the Project site, which could be accommodated by normal service.

The Project would not remove any transit facilities, nor would it conflict with any adopted plans or policies associated with new transit facilities.

Pedestrian and Bicycle Access to Schools

The Town of Portola Valley has two public schools and two private schools within Town limits. The Town's public schools include Ormondale School for grades Kindergarten through 3 and Corte Madera School for grades 4 through 8. Both schools are located two or more miles away from the Project site. The Town's private schools include Woodland School for grades preschool to 8, approximately 1.2 miles north of the Project site, and Woodside Priory for grades 6 to 12, approximately 3.1 miles southwest of the Project site. Some older students at Woodland School may ride their bikes, using the striped shoulders on Alpine Road and the trail behind the plaza north of La Mesa Drive. The distances to the other schools are longer than typical walking (one mile) or bike (3 miles) distance for students. Thus, it is likely that most students would be driven to school, rather than walk or bike.

Access to Stanford University

The Project site is located approximately 4 miles southwest of Stanford University. Bicyclists could utilize Alpine Road and Junipero Serra Boulevard to access Stanford University. Currently, the Stanford University Marguerite Shuttle does not provide any shuttle lines along Alpine Road. Although new residents could utilize SamTrans Routes 87 or 286 when bus services return to pre-COVID conditions to access the Marguerite Shuttle Line S, Routes 87 and 286 only provide a few busses per day during school operational hours.

To reduce vehicle trips and promote alternative transportation, Stanford University has a transportation demand management (TDM) program that offers various programs to eligible university employees. Although the Stanford University Marguerite Shuttle does not currently provide service along Alpine Road, future residents who wish to commute to the University using alternative transportation modes could utilize the following programs/resources:

- Free transit passes for eligible university employees.
- Free parking passes and reserved spaces for employees who commute by carpool or vanpool.
- Commute Club – an incentive program that offers various rewards and services for alternative transportation commuters, including vanpool subsidies, emergency ride home, free rental car vouchers, and Zipcar driving credit. (The Commute Club was suspended in April 2020 due to the COVID-19 pandemic but is expected to reinstated with a return to normal operations.)
- Zipcar fleet on Campus with discounted rates.
- Discounted rates on rental cars.
- Ride matching services.

VEHICLE MILES TRAVELED

2. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Vehicle Miles Traveled Methodology

Per California Senate Bill 743, the California Natural Resources Agency, with assistance from the Governor's Office of Planning and Research (OPR), adopted new CEQA guidelines in December 2018. The new guidelines state that automobile delay, as measured by level of service (LOS), will no longer constitute a significant environmental impact under CEQA, and that Vehicle Miles Traveled (VMT) is considered the most appropriate metric to evaluate a Project's transportation impacts. The new guidelines became effective July 1, 2020. The legislation is intended to promote infill development, a

diversity of land uses, transit, and active transportation modes while reducing greenhouse gas emissions. OPR recommends the following threshold for residential projects:

"A proposed project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or a city VMT per capita."

Lead agencies have the discretion to choose the VMT analysis methodology and to set or apply their own thresholds of significance different from OPRs guidance. Otherwise, as in Portola Valley and therefore for this Project, OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018, with the relevant section detailed in the quote above) can be used.

The Project's VMT was estimated based on home-based trips as described in the OPR recommendations. The OPR's Technical Advisory states that the VMT thresholds "can be applied to either household (i.e., tour-based) VMT or home-based (i.e., trip-based) VMT assessments." In simple terms, tour-based analyses capture all types of trips persons make in a day, including various stops on a trip, whereas trip-based analyses focus on the primary trip (generally commuting to and from work). As excerpted above, the advisory allows for assessment using either methodology. The market rate housing units would be reserved for Stanford University faculty. Because it is known that some of the residents' daily primary trip would be the commute trip to Stanford University, the trip-based analysis contains the most reliable project-specific data and is therefore most appropriate for this Project.

The VMT analysis for the Project was conducted by comparing the daily VMT estimated for the proposed development to the average VMT for the Town of Portola Valley. The OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA states that "Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita." Therefore, the advisory allows for assessment using regional or city VMT averages. In practice, this allows for cities with high relative VMT, which is the case in Portola Valley, to use this as a mechanism to encourage reductions against their own averages. (Conversely, it also allows projects in denser/transit rich cities to show how location in those areas helps reduce regional VMT even though they may not be able to reduce much from their own city average.)

The VMT estimates were obtained from the Metropolitan Transportation Commission (MTC)'s VMT database, which is estimated using the MTC travel demand forecast model for Plan Bay Area 2040. MTC's forecasted average daily VMT per capita for residential projects in Portola Valley is 25.68 in year 2020, 25.09 in year 2030, and 25.04 in year 2040.

Per state guidelines, LOS has not been considered in this CEQA analysis. An analysis and discussion of LOS is included as an informational item in Appendix I.

Trip Generation

Through empirical research, data have been collected that quantify the estimated amount of traffic produced by many types of land uses. The data are published in the Institute of Transportation Engineers' (ITE) manual, the most recent of which is the Trip Generation, 10th Edition (2017). The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. The rates published for Single-Family Housing (Land Use 210) and Multi-Family Housing (Low-Rise) (Land Use 220) were used to estimate the trips generated by the proposed Project. The ITE Trip Generation Manual describes low-rise multi-family housing as residential buildings with one or two floors. The BMR buildings consist of two floors each, so would fall into this category. The Project is estimated to

generate 26 trips during the AM peak hour (6 in and 20 out), and 34 trips during the PM peak hour (21 in and 13 out) (see **Table 16.1**).

Table 16.1: Trip Generation Table

Land Use	Size	Unit[2]	Daily Trips	AM Peak Hour Trips[1]			PM Peak Hour Trips[1]		
				Total	In	Out	Total	In	Out
Single-Family Residential	27	DU	255	20	5	15	27	17	10
Multi-Family Housing	12	DU	88	6	1	5	7	4	3

Notes:
[1] All trip rates (in trips per dwelling unit) are from ITE Trip Generation (10th Edition) land use category 210 (Single-Family Detached Housing) or category 220 (Low-Rise Multi-Family).
[2] DU = Dwelling Units

Source: Hexagon, 2021 (Appendix I)

Population Estimates

In order to calculate trips made by the various types of residents (faculty, non-faculty, and BMR residents), the Project population needed to be determined for each type of resident, because the different types have different levels of VMT. The Town of Portola Valley Housing Element, prepared in 2015, reported persons per household based on the decennial US Census data as 2.58 in 2000 and 2.47 in 2010.

The California Department of Finance generates yearly population and housing tables, and those are the usual source for population data outside of the decennial census. As of January 1, 2020, the California Department of Finance estimated the average number of persons per household within Portola Valley as 2.58.[1]

Neither of these sources further break down this average by type of unit or by number of bedrooms. Inherent to any average, it will be above the population of some units and below the population of other units but should be a reasonable estimate for the project as a whole. Therefore, the study uses the 2020 average (2.58 persons per household, which is consistent with the higher of the reported averages from the Town's Housing Element) across the entire Project for both the market rate and Below Market Rate (BMR) units and is also consistent with the most recent reported data published by the California Department of Finance.

Impact Assessment

Impact Trans-3: **Consistency with Circulation System Plans and Policies.** The Project would add trips to the circulation system, but would have an average Vehicle Miles Traveled below the Town of Portola Valley and below applicable significance thresholds. This is a ***less than significant*** impact.

As detailed in Table 16.2 below, because each single-family unit was assumed to have at least one person working at the Stanford University campus on typical weekdays, the roundtrip distance between

[1] State of California, Department of Finance, May 2020, E-5 Population and Housing Estimates for Cities, Counties and the State, January 1, 2011-2020, 2019 Persons per Household for Portola Valley.

the Project site and the campus (9.5 miles) was used for those working on campus (one person in each of the single-family homes).

Table 16.2: Project VMT

Land Use	Units	Persons per Household	Total Persons	Daily VMT per Capita	Total Daily VMT
Stanford Housing	27	2.58			
Stanford Faculty[1]		1.0	27	9.50[2]	256.50
Non-Stanford Household Member		1.58	43	25.68[3]	1104.24
Affordable Housing	12	2.58	31	23.11[4]	716.47
Total	***39***		***101***		***2077.21***
Average VMT for the Project				***20.57*** [5]	
Year 2020 VMT per capita for Portola Valley				25.68	
VMT Threshold (15% below Portola Valley Average VMT)				21.83	
Does Project Exceed VMT Threshold?				***No***	

Notes:

[1] Each Single-Family home was assumed to have one person working at the campus on typical weekdays.

[2] Daily VMT for Stanford Faculty is the round trip distance between the site and Stanford Campus.

[3] Daily VMT for non-Stanford household members in the single-family homes is based on the year 2020 VMT per capita for Portola Valley.

[4] Daily VMT for the affordable housing units is set to 10% below the year 2020 VMT per capita for Portola Valley. This is an industry-standard reduction and is supported by the following research: Income, Location Efficiency, and VMT: Affordable Housing as a Climate Strategy paper published by Gregory L. Newmark, Ph.D and Meter M. Haas Ph.D from the Center for Neighborhood Technology in December 2015.

[5] Average VMT for the Project was calculated by dividing the total VMT by the total population of the site.

Source: Hexagon, 2021

As discussed in the methodology section above, OPR recommends a threshold of 15 percent below the existing VMT per capita for residential projects, which equates to 21.83 for Portola Valley. As shown in Table 16.2 above, the average VMT for the Project was calculated to be 20.57 VMT per capita, which is more than 15 percent below the Portola Valley average VMT. Thus, the Project is expected to have a ***less-than-significant*** transportation impact.

Additional requirements for BMR units that may consider prioritizing local workers, existing Portola Valley residents, or similar were being considered by the Town during preparation of this analysis. While such potential requirements have not been taken into account in this analysis, the results would be the same or improved from that reported here if they were implemented.

SITE DESIGN HAZARDS AND EMERGENCY ACCESS

3. Would the project substantially increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

4. Would the project result in inadequate emergency access?

Impact Trans-4: **Site Access and Circulation.** The design of the Project would meet all applicable Town and safety standards related to circulation and emergency access. This is a ***less than significant*** impact.

The Project's site access and circulation were evaluated in accordance with generally accepted traffic engineering standards. The Project would provide two new full access intersections on Alpine Road. Within the site, a two-way internal road would be provided to access the private garages and surface parking spaces. For the single-family homes, parking would be provided within each attached one car garage and on the driveway to each single-family home. For the BMR housing units, parking would be provided within private garages and surface parking spaces in various locations on site.

On-Site Circulation

Within the site, a two-way internal road would be provided to access the private garages and surface parking spaces. The internal road would range from 20 feet to 27 feet wide. The pavement width meets the minimum pavement width of 20 feet for residential service streets and fire access roads, according to the Portola Valley Municipal Code and the Woodside Fire Protection Department Fire Code. The Project would provide 90-degree street parking spaces in five areas along the internal road. The roadway width would be 27 feet where street parking is provided, and the drive aisles to the BMR parking spaces would be 25 to 28 feet wide, both of which meet the Town's requirement of 25-foot aisles where surface parking is directly accessed. The Project would provide 90-degree uniform parking stalls within the site.

Project Roadway Design and Sight Distance

The proposed roadway intersections on Alpine Road measure 20 feet in width, which meets the Town's maximum of 20 feet for roadways entering a road. The two roadway intersections would be approximately 550 feet apart.

The proposed roadway intersection locations were evaluated to determine if the sight distance at the intersections would be adequate. Adequate sight distance reduces the likelihood of a collision at intersections and provides drivers with the ability to locate sufficient gaps in traffic to exit a driveway. Sight distance of an intersection is evaluated based on the stopping sight distance recommended by Caltrans for a given design speed.

Alpine Road has a speed limit of 40 mph near the Project intersections. The Caltrans stopping sight distance is 350 feet (based on a design speed of 45 mph). Thus, a driver must be able to see 350 feet in both directions of Alpine Road to locate a sufficient gap to turn out of the Project roadway. Both intersections have a sight distance of greater than 350 feet in both directions. Therefore, the sight distance is adequate.

The Project would provide adequate sight distance at the Project intersections with low-level landscaping to ensure that exiting drivers would be able to see any pedestrians on the trail along the Project frontage as well as oncoming vehicles. According to the site plan, the landscape plan shows street trees would be added along the Project frontage. Note that street trees have a high canopy and would not obstruct the view of drivers exiting the Project roadway, and the trees would not be placed within the sight triangles of the intersections. The Project would also install low split rail fencing along the Project frontage. Split rail fencing enables trail users and outbound vehicles to see each other when approaching the roadway. Thus, the landscaping features shown on the site plan are not expected to obstruct the vision of exiting drivers.

Project Intersection Operations

As shown in Table 16.1, the Project is expected to generate 6 inbound and 20 outbound trips during the AM peak hour and 21 inbound and 13 outbound trips during the PM peak hour between the two driveways. The peak hour with the greater number of trips for any given turn movement is discussed below.

For outbound trips leaving the Project site, some minor on-site vehicle queuing could occur due to a combination of the inherent unpredictability of vehicle arrivals at the intersection and the random occurrence of gaps in traffic along Alpine Road. However, given the estimated 20 outbound trips in the AM peak hour between the two Project intersections, which calculates to an average of about one outbound trip every 6 minutes, the probability of two or more outbound vehicles exiting the site at the same time from the same intersection would be low. The maximum outbound queue is not expected to substantially affect the on-site circulation.

Most of inbound trips would make southbound right turns, which would be a generally free-flowing movement not requiring breaks in traffic. Of the 21 inbound PM peak hour trips, the 17 southbound vehicles turning right into the Project site from Alpine Road may momentarily affect the southbound traffic flow due to vehicles slowing down to turn into the driveway, but such temporary slowing for turn movements is a normal occurrence along roadways, and would not have a substantial adverse effect on traffic operations.

Of the 21 inbound PM peak hour trips, 4 of those trips would be making northbound left turns into the site. The estimated 4 trips turning from northbound Alpine Road into the site calculates to approximately one inbound vehicle every 30 minutes split between the two driveways, so would be unlikely to cause substantial queues.

Therefore, no operational issues related to vehicle queueing and/or vehicle delay are expected to occur on Alpine Road at the driveways.

Passenger Loading

The Project does not propose any specific passenger loading area on-site for residents. However, it is presumed that loading could occur on the internal road, as the Project traffic is expected to be very low.

Bike and Pedestrian On-Site Circulation

The site plan provides some pedestrian paths within the common open area space and play area, but there are no sidewalks along the internal road or pedestrian paths leading to the common area. Due to the low traffic volume and speed within the internal neighborhood, it is presumed that bicyclists would be able to safely utilize the internal road.

Emergency Response Vehicles and Truck Access and Circulation

Emergency response vehicles and garbage collection vehicles would access the Project site from the internal road. As is a standard requirement, it is presumed that trash bins would be wheeled out to the internal road for garbage truck pickup. Per the Project description, vehicle parking on the internal road will be prohibited, which should be enforced by the HOA to ensure that access and circulation for emergency response vehicles and other large vehicles is not obstructed by parked vehicles. As a private roadway, the Sherriff would not enforce parking rules on the proposed Project roadway. It is customary for private roads to include signage indicating no parking at any time and who to contact if towed. Chapter 18: Wildfire includes a further discussion of emergency evacuation.

Adequacy of Parking

Because the project proposes 12 BMR units, according to State of California Density Bonus Law (SDBL) (Government Code section 65915(p)), for a development that meets the density bonus requirements, a city, county, or city and county shall not require a vehicular parking ratio, inclusive of handicapped and guest parking, that exceeds the following ratios:

- 1 on-site space for each studio or one-bedroom unit.
- 1.5 on-site spaces for each dwelling with two or three bedrooms.
- 2.5 on-site spaces for each dwelling with four or more bedrooms.

The single-family homes would consist of 19 three-bedroom units and 8 four-bedroom units, which would require a total of 49 spaces. Each BMR building consists of 2 studio units, one one-bedroom unit, and one two-bedroom unit, which would require 5 spaces for each building. The three BMR buildings would require 15 spaces. The Project would require a total of 64 residential parking spaces in accordance with SDBL.

The site plan shows all single-family homes would be provided one garage parking space and one driveway space. Each BMR building would provide two garage parking spaces and three adjacent surface parking spaces. There would be an additional 20 off-street surface parking spaces indicated on the site plans as for use by visitors. In total, the Project would provide 89 parking spaces (33 spaces in garages, 27 spaces on single-family home driveways, 9 spaces in multi-family lots, and 20 off-street surface parking spaces). The Project meets the SDBL-required number of parking spaces, and parking on site would be adequate.

According to the General Plan Circulation Element Section 3105.9, on-road parking should be discouraged. The General Plan Alpine Scenic Corridor Plan Section 6211.8 also states that on-street parking should be limited to the maximum extent possible. On-street parking is prohibited along the Project site frontage on the west side of Alpine Road with signs to indicate no parking at any time. However, on-street parking on the east side of Alpine Road is not expressly prohibited. As discussed above, the Project would provide more on-site parking spaces than required by 25 spaces. Therefore, parking demand is expected to be accommodated within the site and the Project would not significantly generate demand for parking on Alpine Road.

The Project would install electric vehicle charging infrastructure to facilitate future installation and use of electric vehicle chargers at all the single-family units, which meets the requirement of the California Green Building Standards Code (Section 4.106.4).

Conclusions

The site plan shows adequate site access and on-site circulation. The Project would not have an adverse effect related to site hazards or emergency access.

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