

APPENDIX H
FOCUSED TRANSPORTATION AND PARKING ANALYSIS



August 7, 2015

Ms. Reema Mahamood
Environmental Analyst
Panorama Environmental, Inc.
One Embarcadero Center, Suite 740
San Francisco, CA 94111

RE: Focused Transportation and Parking Analysis; Douglas Avenue Multi-Family Residential Development Project

Dear Ms. Mahamood:

The following letter report provides a focused trip generation and parking analysis for a proposed multi-family residential project in the City of Burlingame. The project site would be located on two adjacent parcels (1128 and 1132) on the north side of Douglas Avenue between Primrose Road and California Drive. The proposed multi-family project would consist of a five-story, 29-unit apartment building. Vehicle access would be gained directly from Douglas Avenue via an existing driveway (shared access) and a new driveway that would provide access to a lower-level parking garage. The project site would maintain existing significant trees as well as parking for 34 vehicles.

It should be noted that (as part of proposed project description), an existing single-family home located at 524 Oak Grove Avenue would be demolished. This site is located approximately six-tenths of a mile from the proposed project site east of California Drive. The demolition of this home would be required to accommodate an historical residence being re-located from the 1128 Douglas Boulevard proposed project site that the City has deemed historical in nature. The re-location of this historical single-family home to 524 Oak Grove Avenue is a permitted activity and would not generate additional long term project trips (see Construction Traffic).

As part of the environmental review, the City of Burlingame indicates that the proposed project is subject to R-4 District Regulations, Off-Street Parking Regulations, and Design Standards for Residential Areas of the Downtown Specific Plan. In addition, the City's Public Works Department preliminary review of the proposed project indicates that they believe it may cause adverse impacts to vehicular traffic, pedestrian traffic, and public on-street parking.¹ Consistent with City guidelines, overall project trip generation has been estimated using the Institute of Transportation Engineers (ITE) and other recent studies performed for similar residential projects in the area. Similarly, project parking demand has been based on City parking code requirements and parking studies performed for other multi-family residential units. Potential construction traffic has been based on discussions with the project applicant, expected truck/employee traffic, and hours of operation.

¹ *City of Burlingame, Request for Work Scope, Tentative Schedule and Cost Proposal for a New Five-Story, 29-Unit Residential Apartment Building, Memorandum from Mr. Ruben Hurin, Senior Planner, Burlingame Community Development Department to Ms. Tania Treis, Principal, Panorama Environmental, Inc., February 11, 2015.*

City of Burlingame Transportation Significance Thresholds

A transportation impact is considered significant if the proposed Douglas Avenue Multi-Family Residential project would result in any of the following:

- 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;
- 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;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Existing Site Uses

As noted, the proposed project site would be located on two adjacent parcels off Douglas Avenue (see Figure 1—Project Site Vicinity Map R-4 1128/1132 Douglas Avenue, attached). Currently, residential dwelling units exist on both the 1128 and 1132 parcels. Specifically, the 1128 Douglas Avenue parcel has an existing two-story, single-family residence. In addition, there are four (4) multi-family units located on the rear of the parcel. The 1132 Douglas Avenue parcel also has an existing two-story, single-family residence.

Based on these existing residential site uses, proposed project trip generation would represent the net increase in vehicle trips between existing site uses and new development resulting from the proposed 29-unit apartment building.

Trip Generation Methodology

Existing and proposed project trip generation has been based on the Institute of Transportation Engineers (ITE) trip research on single and multi-family residences.² It is noted that the project site on Douglas Avenue is located within two blocks (approximately) of the Burlingame Caltrain Station. This train station is located just to the south adjacent to the Burlingame Avenue/California Drive intersection. It is likely that a portion of the residents would use this Caltrain Station for commuting (10-15%). However, as a conservative measure no credit in project trip generation has been given for transit use.

² Institute of Transportation Engineers (ITE), *Trip Generation, 9th Edition, Single-family detached units (#210), Apartment (#220), 2012.*



Existing Site Trip Generation

Based on ITE daily and peak hour trip generation rates for single-family detached and multi-family residences currently on-site, existing trip generation has been shown in Table 1. As calculated, the existing residential units on the adjacent parcels are currently generating 46 daily trips with four (4) AM peak hour trips and five (5) PM peak hour trips. Relative to specific residence type, this would equate to 27 daily trips for existing apartment uses with two (2) AM peak hour trips and three (3) PM peak hour trips. Single-family units are generating two (2) peak hour trips (each) during the AM and the PM peak hours.

Proposed Project Trip Generation

The proposed project would consist of 29 apartment units. Based on ITE daily and peak hour trip generation for multi-family (apartment) units, the project would be expected to generate 193 daily trips with 15 AM peak hour trips and 18 PM peak hour trips as shown in Table 1.

The net increase in proposed project trips would represent the difference between existing residential uses on-site and proposed project trip generation. As shown in Table 2, this “net” increase in site vehicle trips would amount to 147 daily trips with 11 AM peak hour trips (3 in, 8 out) and 13 PM peak hour trips (9 in, 4 out) for proposed project uses.

Table 1
Existing Site Daily and Peak Hour Trip Generation
1128-1132 Douglas Avenue

Land Use Category	Unit	Daily Trip	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit			
		Rate	Total	In %	Out %	Total	In %	Out%	
Apartment	du	6.65	0.51	20	80	0.62	65	35	
Single-Family	du	9.52	0.75	25	75	1.00	63	37	
		Size	Daily	AM Peak Hour Trips		PM Peak Hour Trips			
Existing Uses		Trips	Total	In	Out	Total	In	Out	
Apartment		4	27	2	0	2	3	2	1
Single-Family		2	19	2	0	2	2	1	1
Existing Project Trips			46	4	0	4	5	3	2

Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Single-Family Detached Housing (#210) and Apartment (#220), 2012.

Table 2
Proposed and Net New Project Daily and Peak Hour Trip Generation
1128-1132 Douglas Avenue Residential Project

Land Use Category	Unit	Daily Trip	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit			
		Rate	Total	In %	Out %	Total	In %	Out%	
Apartment	du	6.65	0.51	20	80	0.62	65	35	
		Size	Daily	AM Peak Hour Trips		PM Peak Hour Trips			
Project Uses		Trips	Total	In	Out	Total	In	Out	
Apartment		29	193	15	3	12	18	12	6
Proposed Project Trips			193	15	3	12	18	12	6
Existing Project Trips			(46)	(4)	(0)	(4)	(5)	(3)	(2)
Net New Project Trips			147	11	3	8	13	9	4

Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Single-Family Detached Housing (#210) and Apartment (#220), 2012.



Effects of Proposed Project Traffic on Downtown Specific Plan Circulation

Based on the City of Burlingame's Downtown Specific Plan's Circulation and Parking (Chapter 7.0), network improvements have been recommended for key intersections and roadways in the downtown area.³ The Plan indicates that, with respect to the downtown area, "the majority of project-traffic would occur along California Drive heading towards Burlingame Avenue and Howard Avenue from the north and south. Additional project traffic would occur along Howard Avenue, Burlingame Avenue, Peninsula Avenue, and Primrose Road."

Specific quantitative traffic analyses have been conducted as part of the Downtown Specific Plan Circulation and Parking element.⁴ For the purpose of this analysis, existing and future traffic volumes (and intersection levels-of-service) were taken directly from the traffic analysis conducted for the Downtown Specific Plan. This was done at the direction of City Planning staff to maintain consistency with land uses projections and comparisons of existing and future intersection operations. Based on these traffic studies, an intersection LOS of D or better would be considered acceptable operation. An intersection LOS of E-F would be considered a significant impact.⁵ The traffic analysis evaluated nine intersections in the Downtown area for operating conditions with/without the Downtown Specific Plan. The intersections closest to the project site include Primrose/Chapin, Primrose/Bellevue, and Primrose/Douglas Avenue (directly west of the project site). Under Year 2030 plus Project (Downtown Specific Plan Build Options #1 and #2) conditions, these intersections are all projected to operate at the following PM peak hour LOS:

<u>Intersection:</u>	<u>Option #1 PM Delay/LOS</u>	<u>Option #2 PM Delay/LOS</u>
Primrose Road/Chapin Avenue:	30.9/C	20.6/C
Primrose Road/Bellevue Avenue:	29.3/D	31.0/D
Primrose Road/Douglas Avenue:	11.7/B	11.7/B

As shown above, the adjacent study intersections located off of Primrose Road would be operating at LOS D or better during the PM peak hour under Year 2030 plus Downtown Specific Plan conditions (Options #1 or #2). The Downtown Specific Plan assumed 1,232 residential units would be developed within the various "focus areas" of the Downtown. It is reasonable to assume that the net increase in residential uses (23 units) as a result of proposed project have been included in these land use projections.⁶

Related to the proposed Douglas Avenue residential project, the addition of 11 AM peak hour trips and 13 PM peak hour trips from proposed project uses would not be considered significant in nature. Based on the project site location, it is estimated that approximately 50-75% of the project trips would be to/from the east via California Drive. This would equate to approximately 5-6 AM peak hour trips and 6-7 PM peak hour trips. The remaining project trips (5 AM peak and 6 PM peak) would use Primrose Road to the west to access downtown areas both north and south of the project site. This small amount of project trips would not change projected LOS conditions at these intersections. However, these three intersections operate in a complex

³ Burlingame Downtown Specific Plan, Chapter 7.0, Circulation and Parking, 2010.

⁴ Wilbur Smith Associates, Burlingame Downtown Specific Plan: Traffic Impact Analysis Technical Memorandum, March 27, 2009.

⁵ Wilbur Smith Associates, Burlingame Downtown Specific Plan: Traffic Impact Analysis, Ibid.....

⁶ Wilbur Smith Associates, Burlingame Downtown Specific Plan, Ibid.....



manner. The Plan states that “The intersection of Primrose Road, Bellevue Avenue, and Douglas Avenue between the Library and City Hall currently is complex, inefficient, and confusing. The existing divided traffic islands could be replaced with a single traffic circle, with crosswalks connecting each corner of the streets leading to the circle. The circle could provide a small open space, as described in Chapter 4: Streetscapes and Open Space. This reconfiguration would improve the function of the intersection and provide an additional open space amenity.”

In addition to intersections on Primrose Road, the Downtown Specific Plan traffic analysis also evaluated the California Drive/Lorton Avenue intersection which is located one block south of the California Drive/Douglas Avenue intersection. Under both build options for Year 2030 plus Downtown Specific Plan conditions, the intersection is projected to operate at LOS F (>50 seconds of delay). Based on recent City actions, a roundabout design concept is currently being evaluated for this intersection and would be installed with future funding.

No significant impacts are anticipated for these intersections. However, given the poor operation of the Primrose Road/Bellevue Avenue/Douglas Avenue and California Drive/Lorton Avenue intersections, the City may wish to consider a proposed project condition to contribute a “fair share” contribution towards circulation improvements at this intersection as described in the City’s Downtown Specific Plan. Fair share contribution could be based on the amount of PM peak hour traffic volumes added to the intersection (as an overall percentage) and/or traffic impact fee based on total PM peak hour trips generated. As calculated (above), this would equate to 6-7 PM peak hour trips through the intersections (each) or 13 PM peak hour trips for overall total project trip generation.

Parking

Proposed project parking would be provided by 34 standard size parking spaces located on-site. Specifically, 12 parking spaces would be accessed on the first floor level via a shared driveway off Douglas Avenue (eastern-most) through a shared easement with the 1124 Douglas Avenue parcel. The remaining 22 off-site parking spaces would be provided for in a lower garage level via a new driveway (western-most) off of Douglas Avenue (see Figure 2—Project Site Plan, attached).

Proposed project parking requirements have been based on the City of Burlingame’s off-street parking requirements for duplexes, apartments, hotels, and condominiums.⁷ With the proposed project site located within the Downtown Specific Plan area, overall parking requirements have been reduced as per City code and would apply as follows:

Proposed Project Residential Components/Parking Rates:

3 studio units @ 1 space/unit	=	3
18 1-bedroom units @ 1 space/unit	=	18
7 2-bedroom units @ 1.5 spaces/unit	=	10.5
<u>1 3-bedroom unit @ 2 spaces/unit</u>	<u>=</u>	<u>2</u>
29 units	=	33.5 or 34 spaces

As calculated above, the proposed project would require 34 off-street parking spaces which would exactly match proposed supply.

⁷ City of Burlingame, Title 25 Zoning, Chapter 25.70, Off-Street Parking, Duplexes, apartment, hotels, condominiums, 2015 (adjusted for Downtown Specific Plan).



Published/Surveyed Parking Demand Data

In addition to City parking code requirements, the proposed project parking was evaluated against established parking rates data published by ITE.⁸ The ITE rates are based on the number of dwelling units. The ITE peak parking demand rate for high-rise apartments (5-story or more) is 1.37 parking spaces per unit.

Parking demand research based on other similar multi-unit housing developments was also reviewed. This included parking demand based on previous residential surveys in the City of Concord.⁹ Specifically, the parking surveys were conducted at apartments and condominiums which had private internal streets and parking spaces with units in close proximity to each other. The surveys identified demand based on the number of units and the number of bedrooms. The surveys identified an average demand of 1.40 spaces per unit, but the developments had several studio and one-bedroom units (similar to the proposed project). On a per bedroom basis, the surveys identified an average demand of 0.77 spaces per bedroom. It is noted that parking surveys conducted for City of Concord multi-family units do not reflect close proximity to transit uses (i.e. BART). Therefore, surveyed parking rates are likely conservative in nature.

Based on both published and surveyed parking demand data for multi-housing units, the total parking demand per unit would equate to 1.37-1.40 spaces per unit. This parking demand rate would result in a 40-41 space demand for the proposed project based on 29 apartment units. If parking demand for the proposed project was based on just the surveyed rate per bedroom, overall demand would equal 29 spaces based on a project description of 38 bedrooms (total).

Overall Parking Demand

Based on City parking code requirements, the proposed project would require 34 off-street parking spaces. Due to the project site being located in the Downtown Specific Plan area, parking demand rates are allowed to be reduced due to the likelihood of increased transit and walk/bike travel modes. However, a 34 space supply would allow for all resident parking (self-parked), but would likely not accommodate associated guest parking. A parking ratio based on published/surveyed parking data would be 1.40 spaces per unit. This 1.40 parking ratio would allow for some guest parking or a 40-space supply. The proposed project would therefore meet City parking code requirements, but there could be a “spillover” demand of 5-6 guest vehicles per day onto public street parking. However, the proposed project development is designed to allow residents to take full advantage of public transit opportunities and overall City code requirements for the Downtown areas reflect this trend. Residents living in downtown areas typically walk to many destinations. Guests may park in public parking areas.

Similar to proposed project trip generation, the proximity to the Burlingame Caltrain Station could lower the overall parking demand. This train station is located just to the south adjacent to the Burlingame Avenue/California Drive intersection. It is likely that a portion of the residents would use the Caltrain Station or other transit mode for commuting (10-15%). Based on the most recent transportation analyses of parking and circulation in the Burlingame Downtown area, 16 percent of commuters use some form of transit mode.¹⁰ This includes carpool, bus,

⁸Institute of Transportation Engineers, *Parking Generation Manual*, 4th Edition, Single-Family and Multi-Unit Residential, 2010.

⁹Omnni-Means Engineers & Planners, “Focused Parking Study for the Proposed Palm Terrace Condominium Project”, July 2006.

¹⁰Wilbur Smith Associates, *Burlingame Downtown Specific Plan: Parking and Circulation Analysis Technical Memorandum*, Table 9 (Commute to Work Mode Split), June 2, 2009.



railroad (Caltrain), and walk modes. Overall use of Caltrain made up 5 percent of the overall 16 percent transit modes. Therefore, it is likely that overall parking demand could be reduced by 1-2 parking spaces allowing for surveyed Caltrain transit uses.

Currently, 2-hour on-street parking is available on both sides of Douglas Avenue (8:00 am – 6:00 pm). Due to the residential mix of single and multi-family housing along the street, on-street parking is generally in-demand during most time periods. However, parking demand for 4-5 vehicles could likely be accommodated within the overall neighborhood if not on Douglas Avenue.

Construction Traffic

Currently, the existing single-family residence at 1128 Douglas Avenue has been deemed to have historic significance by the City of Burlingame. As such, it would be re-located to 524 Oak Street as part of the overall project proposal. Correspondence from the project applicant indicates that the house would be dis-assembled into four components.¹¹ Each of the house components would then be lifted by a crane onto a flatbed trailer and transported to 524 Oak Street. Transport of the home would occur in the early morning hours or overnight to reduce overall impacts to neighborhood traffic. However, the applicant indicates that due to the logistics of moving the home it would require intermittent closures of Douglas Avenue for one day and/or during the overnight period.

Due to the potential for intermittent road closures on Douglas Avenue, the City of Burlingame should consider having the project applicant prepare a construction traffic plan prior to start of any work activity on the site (pending project approval). These traffic plan(s) should address both the removal of the historic single-family residence as well as activities associated with construction of the proposed 29-unit residential building. The plan should address potential road closures, residential access, construction hours/activities, temporary detours (if required), coordination with emergency vehicles (Fire-Ambulance), and parking for worksite employees.

Project Site Access/Circulation

Vehicle access to the proposed project site would be gained directly from Douglas Avenue. As shown in the Project Site Plan (Figure 2--attached), two driveways would serve the site; the eastern-most driveway would be a shared driveway with the adjacent 1124 Douglas Avenue parcel directly east of the project site. The existing driveway easement would allow for an 8-9 foot driveway that would provide access to 12 ground level parking spaces at the rear of the proposed apartment building. Given the narrow width of the driveway (8-9 feet), this width would generally be adequate only for one-way vehicle travel. In addition, there would be a 4-foot vehicle "pull-out" approximately mid-driveway that is intended to allow outbound vehicles to pull out of the drive lane and allow inbound traffic the right-of-way. However, the combined 8-foot driveway width (with 4-foot pull-out) would still not allow adequate vehicle clearance for two-way travel. (It is noted that City code requirements for parking areas of not more than 30 parking spaces require a minimum 12-foot driveway. Based on City plan review comments, a parking variance has been submitted for this driveway as part of the overall project application).¹² The entire driveway's length would extend for approximately 120-feet from Douglas Avenue to the rear parking area. Vehicles would then access 12 ground level parking

¹¹ Ms. Reema Mahamood, Senior Environmental Planner, Panorama Environmental, Inc., Correspondence with City of Burlingame, June 18, 2015.

¹² City of Burlingame, Planning Division, 1128-1132 Douglas Avenue, Plan Review Comments, Plans dated January 21, 2015.



spaces of which seven spaces would be against the rear property frontage and five spaces against the building proper. A 24-foot east-west driveway aisle would provide access to the parking spaces that would allow for adequate parking access and circulation (backing vehicles).

The second project driveway would be located approximately 60-feet west of the first project driveway off Douglas Avenue. This driveway would serve 22 parking spaces located in a lower garage level. Overall driveway width for this access would meet City code requirements at 14-feet.

Significant Impact 1: The proposed east and west project driveways would not have adequate width for two-way vehicle travel. While both driveways would meet the minimum City code requirements for driveway width (12-feet), they would not allow for safe two-way vehicle travel.

Mitigation 1: It is recommended that flashing light sensors be placed within the project parking garage and rear surface parking areas to alert outbound motorists from the project parking areas that vehicles are inbound from Douglas Avenue. (These could be video or loop detected). Signs should also be placed at the proposed project's Douglas Avenue entrances that indicate: "Caution—Watch For Outbound Vehicles".

Combined with recommended improvements (above) and low peak hour driveway volumes, overall driveway operations would be acceptable (less than significant). Based on PM peak hour trip generation (worst case), there would be 13 total trips (9 inbound vehicle trips and 4 outbound trips). On a proportional driveway basis, this would equate to five (5) project trips (4 in, 1 out) at the eastern-most driveway and eight project trips (5 in, 3 out) at the project's western driveway. As part of the overall project description, the western driveway would be a "shared access driveway" with the existing 1124 Douglas Avenue parcel. Currently, there is one multi-family home on-site with five bedrooms and three bathrooms on this property. During the PM peak hour, this existing unit would be expected to generate 2 vehicle trips. Combined with proposed project trips, this would not be significant in nature with suggested mitigation measures.

Deliveries

With proposed project residential uses, there would likely be slight increases in deliveries to the site (UPS, FedEx, Google, Amazon, etc.). The City of Burlingame has expressed concern over the potential increase in delivery trucks along Douglas Avenue that would be serving the residential project. Empirical data for residential deliveries is very sparse for residential uses. However, ITE indicates that delivery vehicle trip generation is inherently included in the overall trip rates for residential uses. Therefore, the increase in vehicle trip generation as a result of proposed project uses includes some delivery traffic.

The City may wish to consider installing a white curb (or more restrictive yellow) curb space along a portion of the project frontage on Douglas Avenue. This curb space would be restricted to parking between 8:00 a.m. and 6:00 p.m. to allow for the loading or unloading of passengers, freight, or mail (deliveries). This restricted curb space would be installed at the discretion of the City Engineer. A field review of Douglas Avenue indicates that there are no such restrictive yellow or white curb spaces serving other similar multi-unit (multi-story) residential buildings along the roadway segment. As previously noted, limited on-street parking is available during the daytime hours for potential delivery vehicles.



Summary/Conclusions

The proposed Douglas Avenue Multi-Family Apartment project (29 units) would not significantly affect traffic flows in the project study area. Allowing for vehicle trips from existing residential development currently on-site, the proposed project would be expected to generate 147 net new daily trips with 11 net new AM peak hour trips and 13 net new PM peak hour trips. Proposed project development would be consistent with land use assumptions contained within the City of Burlingame's Downtown Specific Plan that assumed 1,232 residential units could be constructed within the Downtown area. Based on a review of traffic analyses performed for the Downtown Specific Plan, the adjacent intersections near the proposed project site would continue to operate at acceptable levels (LOS D or better) during the PM peak hour under both existing and Year 2030 plus Downtown Specific Plan conditions. These would include the intersections of Chapin Avenue, Bellevue Avenue, and Douglas Avenue at Primrose Road. Due to the relatively minor AM and PM peak hour trip generation from the proposed project (11 AM trips, 13 PM trips) intersection operations would be unchanged from project levels. However, the combined operations of the Primrose Road/Bellevue Avenue/Douglas Avenue and the California Drive/Lorton Avenue intersections are projected to LOS E-F during the PM peak hour. The City may wish to consider a proposed project condition where the applicant contributes a "fair share" contribution towards future circulation improvements at these intersections.

The proposed project parking supply would consist of 34 parking spaces; 12 parking spaces would be provided in a surface lot located at the rear of the project building and 22 spaces in a lower level garage. City parking code requirements would typically require 1.5 spaces per unit. However, since the proposed project site is located within the Downtown Specific Plan area, overall parking rates are reduced. Based on City code requirements the proposed project would need to provide 34 parking spaces. Therefore, proposed project supply would match parking code requirements. It is noted that City parking code requirements for the Downtown area reflect increased use of transit and less of a need for some residents to own vehicles. The parking code does not provide for guest parking. However, this is intentional to encourage less vehicle dependence. Allowing for transit use, there may be a small "spillover" parking demand of 4-5 spaces for occasional guest use. Field reviews indicate that there is on-street parking (2-hr. 8:00 am to 6:00 pm) along Douglas Avenue and other adjacent streets that could easily absorb this small parking demand.

As part of the overall project description, an existing single-family residence at the 1128 Douglas Avenue parcel would be moved to 524 Oak Street for historical purposes. During removal of this home (and by extension construction of proposed project) there would likely be traffic delays and on Douglas Boulevard. The City of Burlingame should consider having the project applicant prepare a construction management/traffic plan to address potential road closures, residential access, construction hours/activities, temporary detours (if required), coordination with emergency vehicles and access, and construction parking for worksite employees.

Project access would be gained from directly from Douglas Boulevard via two project driveways. The eastern-most driveway would extend along the project's eastern frontage and share access with an existing residence (1124 Douglas Boulevard). This driveway would provide access to the 12 surface parking spaces located at the rear of the site and would range from 9-12 feet in width. The western-most driveway would provide access to the lower garage area. This driveway would have a 14-foot width. City code requires a minimum width of 12-feet for any driveway serving 30 parking spaces or less. However, both proposed project driveways would not have adequate driving width to provide for safe two-way travel.



Significant Impact 1: The proposed east and west project driveways would not have adequate width for two-way vehicle travel. While both driveways would meet the minimum City code requirements for driveway width (12-feet), they would not allow for safe two-way vehicle travel.

Mitigation 1: It is recommended that flashing light sensors be placed within the project parking garage and rear surface parking areas to alert outbound motorists from the project parking areas that vehicles are inbound from Douglas Avenue. (These could be video or loop detected). Signs should also be placed at the proposed project's Douglas Avenue entrances that indicate: "Caution—Watch For Outbound Vehicles".

With proposed project residential uses, there would likely be slight increases in deliveries to the site (UPS, FedEx, Google, Amazon, etc.). The City of Burlingame has expressed concern over the potential increase in delivery trucks along Douglas Avenue that would be serving the residential project. Empirical data for residential deliveries is very sparse for residential uses. However, ITE indicates that delivery vehicle trip generation is inherently included in the overall trip rates for residential uses. Therefore, the increase in vehicle trip generation as a result of proposed project uses includes some delivery traffic.

The City may wish to consider installing a white curb (or more restrictive yellow) curb space along a portion of the project frontage on Douglas Avenue. This curb space would be restricted to parking between 8:00 a.m. and 6:00 p.m. to allow for the loading or unloading of passengers, freight, or mail (deliveries). This restricted curb space would be installed at the discretion of the City Engineer. A field review of Douglas Avenue indicates that there are no such restrictive yellow or white curb spaces serving other similar multi-unit (multi-story) residential buildings along the roadway segment. As previously noted, limited on-street parking is available during the daytime hours for potential delivery vehicles.

Sincerely,

Omni-Means, Ltd.



Peter Galloway
Project Manager/Transportation Planner

Cc: Mr. George W. Nickelson, P.E.

Enc. Figure 1---Project Site Vicinity Map, Figure 2—Project Site Plan

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Project Site Location



Setback Calculations

Address	Setback
505 California Street	2' (not used - corner)
1118 Douglas Ave	11'-3"
1114 Douglas Ave	22'-1"
1120 Douglas Ave	10'-3" (not used - smallest)
1124 Douglas Ave	26'-3"
1128 Douglas Ave	33'-10" (not used - largest)
1132 Douglas Ave	27'-6"
1136 Douglas Ave	11'-10"
1138 Douglas Ave	20'-0"
500 Pinecone Ave	23'-7" (not used - corner)
Block Average	19'-10"

Site Notes

- Topographic information used for design and contained in these documents is derived from incidental measurements prepared by Architect and Civil Engineer. Contractor shall verify all grades during layout and coordinate discrepancies in conjunction with Architect.
 - Drainage system components shown are schematic only. Contractor shall size all pipe, fittings, components.
 - Design contours and drainage shown are schematic only and shall not be taken to represent final grading and drainage plans.
 - Refer Building Floor Plans and Sections for all dimensional information.
 - Refer Foundation Plans for foundation dimensions and vertical controls.
 - Existing finish grades shall be restored upon completion of construction unless changes are specified in the Drainage.
 - Remove excess subgrade debris in work areas. Debris may include broken concrete, rocks, utilities and misc. submerged junk.
 - Roofsides shall be maintained clear of construction equipment or materials at all times. Debris shall be removed from roofsides and sidewalks immediately. Contractor shall sweep or wash roof surfaces after operations that generate debris.
 - Dust control measures shall be implemented as necessary. Provide watering during excavation and backfill to prevent dust from crossing property lines.
 - All backfill slopes shall be compacted to 90% min.
 - A minimum of 18" of sub-grade soil in the new building area shall be over-excavated and re-compacted per Geotechnical Report.
 - The minimum front setback requirement is 15'-0" to 1st floor and 20'-0" to 2nd floor, or the block average, whichever is greater.
 - All exterior bearing walls less than five feet from the property line will be built of one hour fire-rated construction.
 - Addresses and Numbers shall conform with their background. Shall be a min. of 1/2" stroke by 2-1/2" high. The cover of such illumination shall not be normally setbackable. City of Burlingame Municipal Code 18.08.010, 2010090 501.2
 - Soils Engineer: TBD
- Soils Engineer shall inspect and approve the following in writing:
- Establish that subsurface conditions are compatible with those used in the original design.
 - Observe compliance with the design concepts, specifications and recommendations.
 - Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The nature and extent of variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate the recommendations.
- Foundation excavation, earthwork and site drainage shall be performed in accordance with the geotechnical report prepared by Soils Engineer. Soils Engineer shall be notified at least 48 hours in advance of any earthwork operations, and shall observe and test the earthwork and foundation installation phases of the project as recommended in the geotechnical report.

Project Data

zoning	R-4
occupancy	R-2, S-2
type of construction	V-A over 1 Podium
allowable area	(calculated area allowed for 2 stories of type V-A over 1 Podium)
proposed area	18,442 sf for type V-A over 1 Podium
building code	2013 IBC
allowed stories	5
proposed stories	5
allowed height per 2013 IBC	40 feet
proposed height	40 feet
setbacks:	
front	15 feet min.
side	2 feet min. 1st floor 2 feet min. above 1st
rear	20 feet min.
proposed front setback	11'-0"
proposed side setback	11 feet
proposed rear setback	20 feet
unit count	
studio	3
one bedroom	18
two bedroom	7
three bedroom	1
parking required	333 spaces
parking proposed	24 spaces
proposed fire separation distances	1st floor: 10'-0" 2nd floor: 10'-0" 3rd floor: 10'-0" 4th floor: 10'-0" 5th floor: 10'-0" 6th floor: 10'-0" 7th floor: 10'-0" 8th floor: 10'-0" 9th floor: 10'-0" 10th floor: 10'-0" 11th floor: 10'-0" 12th floor: 10'-0" 13th floor: 10'-0" 14th floor: 10'-0" 15th floor: 10'-0" 16th floor: 10'-0" 17th floor: 10'-0" 18th floor: 10'-0" 19th floor: 10'-0" 20th floor: 10'-0" 21st floor: 10'-0" 22nd floor: 10'-0" 23rd floor: 10'-0" 24th floor: 10'-0" 25th floor: 10'-0" 26th floor: 10'-0" 27th floor: 10'-0" 28th floor: 10'-0" 29th floor: 10'-0" 30th floor: 10'-0" 31st floor: 10'-0" 32nd floor: 10'-0" 33rd floor: 10'-0" 34th floor: 10'-0" 35th floor: 10'-0" 36th floor: 10'-0" 37th floor: 10'-0" 38th floor: 10'-0" 39th floor: 10'-0" 40th floor: 10'-0" 41st floor: 10'-0" 42nd floor: 10'-0" 43rd floor: 10'-0" 44th floor: 10'-0" 45th floor: 10'-0" 46th floor: 10'-0" 47th floor: 10'-0" 48th floor: 10'-0" 49th floor: 10'-0" 50th floor: 10'-0" 51st floor: 10'-0" 52nd 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