TRAFFIC IMPACT ANALYSIS REPORT

Proposed Mixed-Use Development
(37 Apartments and 7,300 Square Feet of Retail)
12803 Washington Boulevard
Culver City, California

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TRAFFIC
STATE OF CALIFORNIA

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EXECUTIVE SUMMARY

The project under consideration is the development of a new mixed-use residential and retail project at 12803 Washington Boulevard, on a currently-vacant parcel on the north side of the street between Moore Street and Meier Street in the western portion of the City of Culver City. The proposed project will contain a total of 37 apartment units (including three "affordable" units) along with a total of approximately 7,300 square feet of ground floor retail use fronting along Washington Boulevard. Once the project is completed and fully occupied, anticipated by the end of the year 2017, it is expected to result in a total of approximately 570 net new daily trips, including a total of about 29 net trips (10 inbound, 19 outbound) during the AM peak hour, and about 43 net trips (24 inbound, 19 outbound) during the PM peak hour.

The project will provide a total of approximately 99 site-serving vehicular parking spaces, including 70 residential spaces, 21 retail spaces, and eight "surplus" (unassigned) spaces (potentially available as residential guest parking) within a two-level (at-grade and subterranean) on-site parking garage. A total of 21 on-site public parking spaces are also provided as a voluntary project feature (not required by the current City code). The proposed project will also provide a total of 13 on-site bicycle parking spaces, including seven "residential" bicycle spaces and six "retail" bicycle spaces (five more than are required). The proposed amounts of both vehicular and bicycle parking will meet the applicable parking requirements for the project.

The 21 public parking spaces and 14 of the project's required 21 retail parking spaces will be located on the at-grade level of the on-site parking garage, while the remaining seven required retail parking spaces (assumed to be employee parking), plus all of the 70 required residential parking spaces and the eight "surplus" (potentially, residential guest) parking spaces, will be provided on the subterranean parking level. Access to the at-grade level of the parking garage, containing the public parking spaces and most of the project's retail parking, will be provided via a two-way (entry and exit) driveway on Meier Street, while the subterranean parking level, containing all of the parking for the project's residential component, along with the remainder of the project's required retail parking and the eight "surplus" parking spaces, will be accessed by a two-way driveway on Moore Street. Loading for the project is proposed via two on-street loading spaces, one each located along the project's Moore Street and Meier Street frontages, as is permitted by the City (subject to review and approval). The proposed driveway and loading area locations and operations are acceptable, and therefore, no project-related parking, access, or loading impacts are expected, and no mitigation measures are warranted.

The project applicant retained Hirsch/Green Transportation Consulting, Inc. ("Hirsch/Green") to prepare a traffic and parking analysis for the project. The scope of this study was discussed with City of Culver City Public Works Department and City Traffic Engineer to assure that appropriate study methodologies and assumptions were utilized. Based on those discussions, this study evaluated the existing (year 2015) and forecast future (year 2017) conditions at a total of nine intersections in the vicinity of the project during both the AM and PM peak hours, and along five local/residential streets adjacent to or near the project that are anticipated to be used as access routes to and from the project site. The potential for project-related impacts on the various freeways and other regionally-significant transportation facilities in the project vicinity, as well as to the public transportation facilities serving the study area, was also evaluated.

The results of the analyses summarized in this report indicate that the proposed project would not significantly impact any of the study intersections, nor would it produce sufficient net new traffic to create significant impacts to any of the adjacent local/residential streets, or to the area regional arterial roadways of freeways. Additionally, no significant impacts to the operations of the existing public transit facilities in the project vicinity are expected. Further, as noted earlier, the proposed project will provide sufficient on-site vehicular and bicycle parking to meet its applicable requirements, in addition to providing a total of 21 new on-site public parking spaces. Therefore, no significant project-related traffic, parking, or site access impacts are anticipated, and as such, no off-site traffic mitigation measures are warranted for the project. However, the City Public Works Department has requested that the project improve the existing curb returns at the northeast corner of Washington Boulevard and Moore Street, and at the northwest corner of Washington Boulevard and Meier Street from the current substandard 15-foot radius to a larger (standard) 25-foot radius, and dedicate the necessary rights-of-way for implementation of these improvements. These improvements will allow for easier turns between both of these local streets and Washington Boulevard, and will improve traffic flow in the project vicinity.

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INTRODUCTION

This report summarizes the results of a traffic and parking impact analysis for a proposed new mixed-use residential and retail development located at 12803 Washington Boulevard, on the north side of the street between Moore Street and Meier Street in the western portion of the City of Culver City. The proposed project will contain a total of approximately 37 apartment units (including three "affordable" units) and approximately 7,300 square feet of ground floor retail fronting on Washington Boulevard. The subject site is currently vacant. The location of the project site and the surrounding vicinity are shown in Figure 1.

The project applicant retained Hirsch/Green Transportation Consulting, Inc. ("Hirsch/Green") to study the impacts of the proposed development on the surrounding street system, in order to address concerns related to existing and potential future traffic congestion in the project area. The proposed scope of study was reviewed by the City of Culver City Public Works Department traffic engineering staff to ensure that appropriate analysis methodologies and assumptions were utilized. Based on those reviews, this study evaluates the existing (year 2015) and forecast future (year 2017) conditions at nine intersections adjacent to or in close proximity of the project site during the peak weekday AM and PM traffic hours. These nine intersections, listed below, represent the locations most likely to be affected by project-generated traffic.

1. Washington Boulevard and Costco Driveway
2. Washington Boulevard and Glencoe Avenue/Costco Driveway
3. Washington Boulevard and Walgrove Avenue
4. Washington Boulevard and Redwood Avenue
5. Washington Boulevard and Beethoven Street
6. Washington Boulevard and Washington Place/Zanja Street
7. Washington Place and Centinela Avenue
8. Washington Boulevard and Centinela Avenue
9. Washington Boulevard and Lincoln Boulevard (City of Los Angeles)

In addition to the nine study intersections, the potential for project-related impacts to several of the local access streets adjacent to and serving the project site were also investigated, including Beethoven Street, Zanja Street, Moore Street, and Meier Street. The locations of each of the study intersections and street segments in relation to the project site are shown in Figure 2.

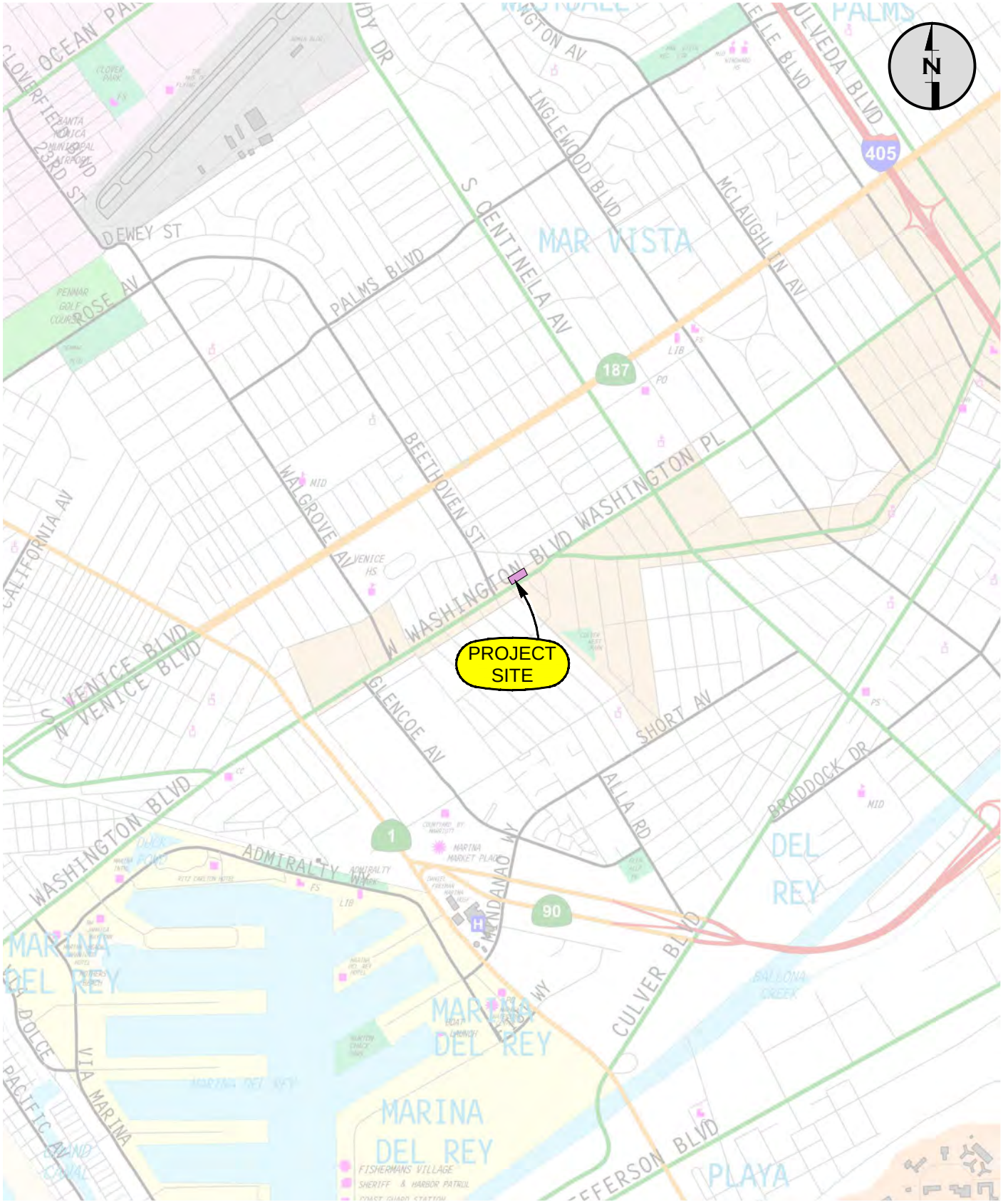

FIGURE 1

IRSCH REEN
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12803 WASHINGTON BOULEVARD
PROJECT SITE VICINITY MAP

12803 WASHINGTON (2015) \ STUDY-INTS

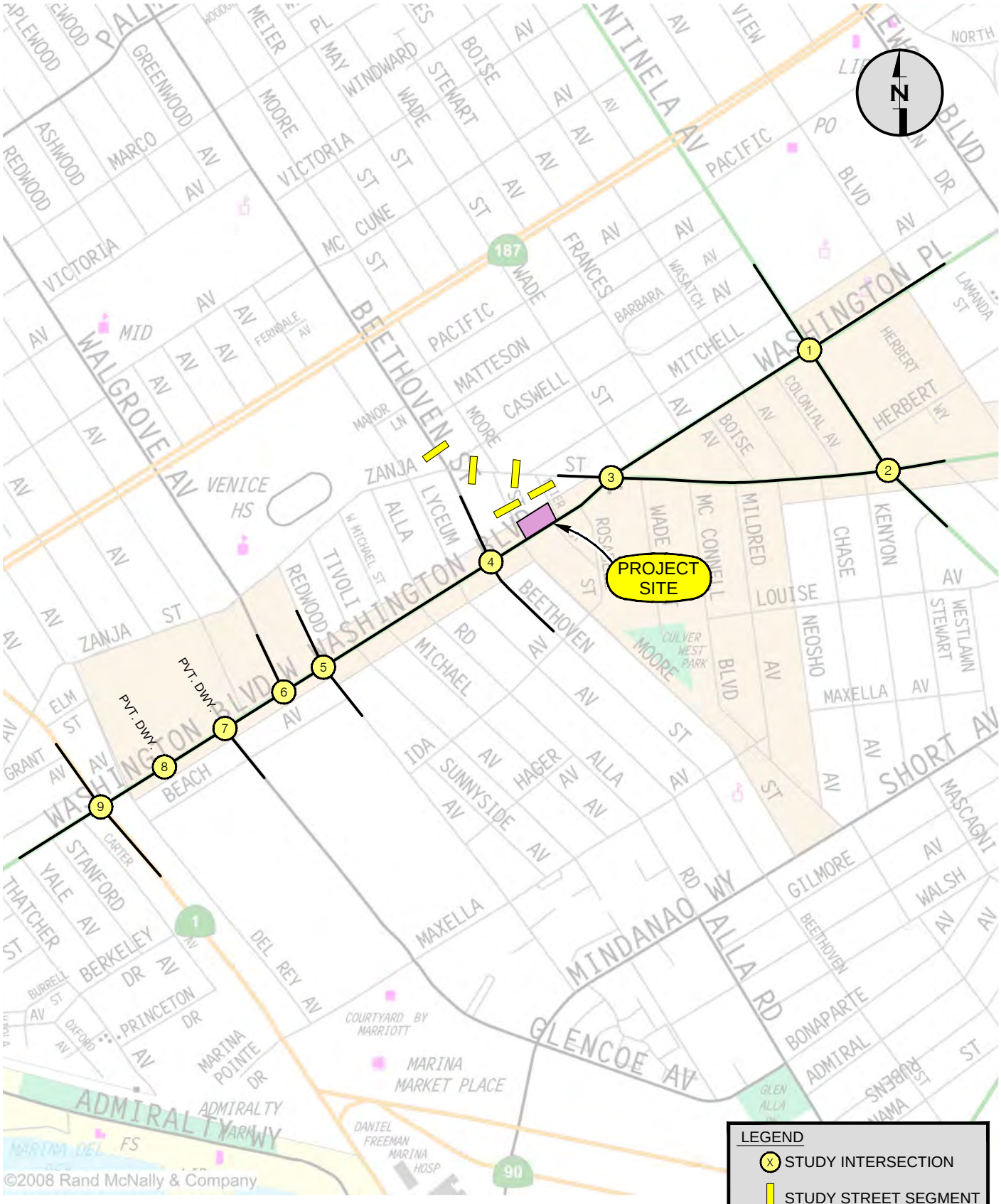

FIGURE 2

11/5/2015

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

STUDY INTERSECTION AND
STREET SEGMENT LOCATIONS

PROJECT DESCRIPTION

The project under consideration is the construction of a new mixed-use residential (apartment) and retail development on a currently vacant parcel of land at 12803 Washington Boulevard, on the north side of the street between Moore Street and Meier Street in the western portion of the City of Culver City (although the north property line of the project site coincides with the City of Culver City/City of Los Angeles boundary, and the east-west access alley north of the site is within the City of Los Angeles). The proposed project will construct a new four-story building containing a total of approximately 37 apartments (including three "affordable" units) over a total of approximately 7,300 square feet of ground floor retail area fronting Washington Boulevard. The project will provide a total of approximately 120 on-site vehicular parking spaces, including a total of approximately 99 site-serving (70 residential, 21 retail, and eight "surplus") spaces, along with a total of 21 on-site public parking spaces, located within a two-level (at-grade and subterranean) parking structure. Most of the retail parking and all of the public parking spaces will be located on the at-grade level of the parking garage behind the ground floor retail use, with access to these spaces provided via a two-way (entry and exit) driveway on Meier Street. The remaining retail spaces, along with the resident and "surplus" (potentially residential guest) parking spaces will be provided on the subterranean parking level of the garage, accessed by a two-way (entry and exit) driveway on Moore Street. The proposed project's first floor layout is shown in Figure 3(a), while the subterranean parking level layout is shown in Figure 3(b).

Project Traffic Generation

The traffic-generating characteristics of various land uses, including apartment and retail uses like those envisioned in the proposed project, have been extensively surveyed and documented in studies conducted under the auspices of the Institute of Transportation Engineers (ITE), with the most current information provided in the 9th Edition of the ITE's *Trip Generation Manual*.[1] The trip generation data contained in the ITE manual are nationally recognized, and are used as the basis for most traffic studies conducted throughout the Southern California region, including the City of Culver City and the adjacent City of Los Angeles, and pursuant to the traffic study requirements for both jurisdictions, the City of Culver City traffic engineering staff recommended the use of the applicable ITE rates in the preparation of this study. The trip generation rates utilized to estimate the traffic resulting from the development of the proposed project, including both the residential and retail components, are summarized in Table 1.

[1] *Trip Generation*, 9th Edition, Institute of Transportation Engineers, Washington, D.C., 2012.

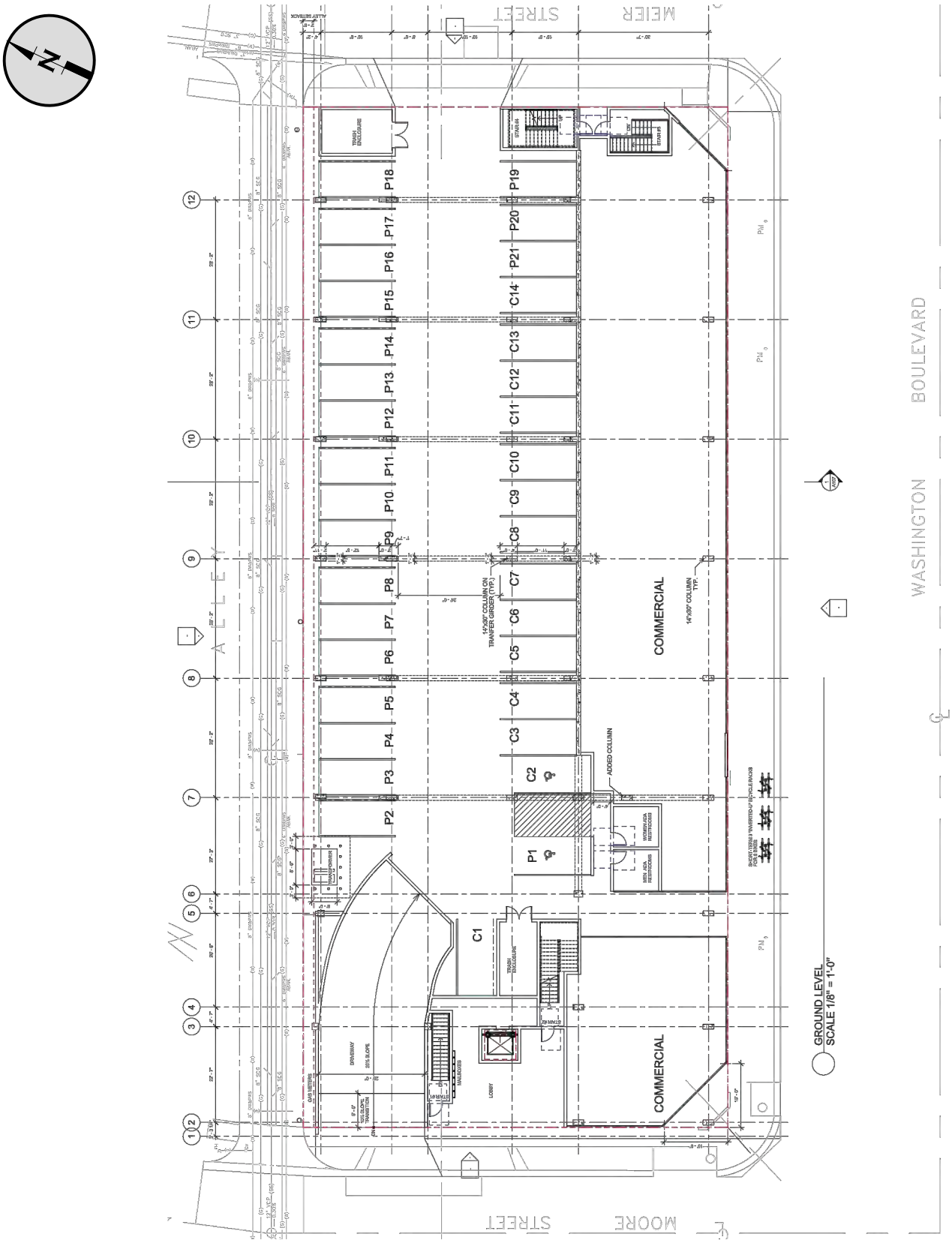

FIGURE 3(a)

Hirsch/Green Transportation Consulting, Inc.

12803 WASHINGTON BOULEVARD
PROJECT SITE LAYOUT
GROUND (AT-GRADE) FLOOR

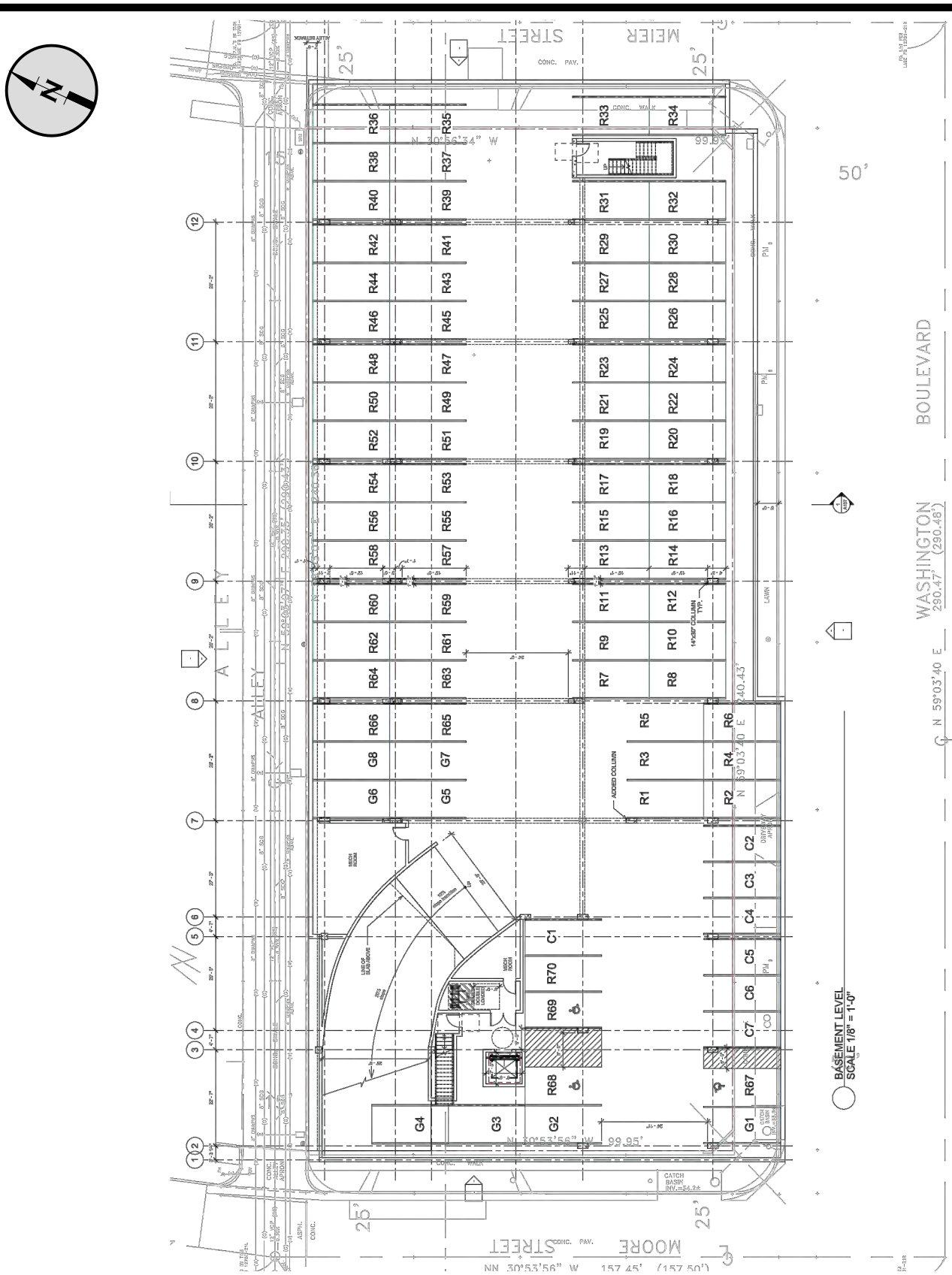

FIGURE 3(b)

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12803 WASHINGTON BOULEVARD
PROJECT SITE LAYOUT
SUBTERRANEAN PARKING LEVEL

Table 1
Project Trip Generation Rates*

Apartment - per dwelling unit (ITE Land Use 220)

Daily Trips:	T = 6.65 (U)
AM Peak Hour:	T = 0.51 (U); I/B = 20%, O/B = 80%
PM Peak Hour:	T = 0.62 (U); I/B = 65%, O/B = 35%

Specialty Retail Center - per 1,000 gross square feet of floor area (Land Use 826)

Daily Trips:	T = 44.32 (A)
AM Peak Hour:	T = 1.33 (A); I/B = 60%, O/B = 40% [1]
PM Peak Hour:	T = 2.71 (A); I/B = 44%, O/B = 56%

Where: T = Trip Ends; U = Number of Residential Units; A = Building Area in 1,000 sq. ft.
I/B = Inbound Trip Percentage; O/B = Outbound Trip Percentage

Notes:

All trip generation rates 9th Ed. ITE *Trip Generation Manual*, unless otherwise noted.

[1] 3% of "Daily" trips; I/B and O/B percentages per San Diego Association of Governments ("SanDAG"), *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002.

However, the “baseline” ITE trip generation rates shown in Table 1 are usually derived from actual counts of vehicles entering and exiting the driveways of the subject land uses, and do not generally account for a variety of factors that influence the amount of “net” traffic generation for the developments. For typical mixed-use residential/retail developments, the most significant of these factors involves the effects of “internal interaction”, “pass-by” traffic activity, and use of available public transit on the estimates of “net” new traffic added to the area roadways.

“Internal interaction” generally reflects the use of on-site services and amenities by residents of a mixed-use development. It is anticipated that some residents of the proposed project will patronize the convenient ground floor retail facilities, thereby reducing the number of vehicles traveling to and from the site’s proposed retail uses. The internal interaction adjustment also includes consideration of “multi-purpose” trips, where customers of one retail store shop at other stores located at the site during a single trip. This factor also reduces the traffic generation of a mixed-use development compared to an individual “stand alone” use, as is generally reflected by the ITE data. Further, it is expected that the project’s proposed retail components will provide local-serving facilities within convenient walking distance of the nearby neighborhoods. The ability of area residents to conveniently walk to these nearby retail establishments also reduces vehicle traffic not only to and from the site, but throughout the area, as area residents would not need to drive to other stores. However, in order to provide for a more conservative

assessment of the potential traffic-related impacts of the proposed project, it was assumed that no significant "internal interaction" between the project's residential and retail components, or "multi-purpose trips" between the various on-site retail uses themselves, would occur.

The second adjustment factor accounts for the effects of pass-by traffic activity on the number of trips generated by the proposed project's retail component. The concept of pass-by traffic involves the "capture" of an existing trip passing by the project site. These existing trips are already on the area roadway network for other purposes, such as a trip to or from work, or perhaps to or from other shopping destinations. As these trips travel past the project site, the specific convenient facilities provided by the project (or other factors) induce a stop at the site. Such activity is generally considered to be an interim stop along a trip which existed without the development of the project, and therefore vehicles making these stops are not considered to be newly generated project-related traffic. Although the City of Culver City does recognize the effects of pass-by traffic, in general, any trip reductions associated with this factor are limited to a maximum of about 10 percent of the peak hour traffic for the subject land use (without detailed empirical evidence that a specific land use exhibits a higher pass-by factor). Therefore, since the project's proposed retail component is relatively small (maximum total of 7,300 square feet), and would likely consist of a number of even smaller individual businesses (which tend to be "destination" uses with little pass-by traffic), it was again conservatively assumed for purposes of this study that no significant retail pass-by trip activity would occur for the proposed project.

The use of available public transit services by project residents or retail employees or patrons to travel to and from the project site is expected to reduce the number of trips generated by the proposed new development. As described in more detail later in this study, there are a number of existing bus transit lines that provide regular stops within convenient walking distance (typically, approximately one-quarter mile) of the project site, and it can reasonably be expected that some of the project's residents and/or retail employees or patrons will utilize the available public transit facilities serving the project site itself and the surrounding area. However, such utilization would be dependent on a number of specific factors related to the proposed project, such as the ability of project residents to reach their off-site destinations, or for the project's retail employees to travel to and from their on-site workplace by public transit in a convenient and time effective manner. As a result, since these project details are currently unknown, it was also conservatively assumed that no significant transit utilization by either project residents or by employees or patrons of the proposed retail facilities, beyond the nominal amount intrinsically included in the ITE trip generation rates shown in Table 1, were applicable for this study.

Finally, it is of note that the standard ITE trip generation rates used to develop the trip estimates for the proposed residential component of the project are based on the traffic characteristics of typical "market rate" residential units; the ITE data does not include specific trip generation profiles for "affordable" or "low income" residential units. Although not extensively documented, it is generally acknowledged that low-income residential units exhibit a lower "per unit" trip rate than market rate residential units, due primarily to lower per capita vehicle ownership and a higher reliance on public transit or other non-vehicular means of transportation, which would result in a reduction in the amount of traffic generated by the residential component of the proposed project. However, although the adjacent City of Los Angeles (LADOT) does identify trip generation adjustments to account for this factor, the City of Culver City does not currently provide for such adjustments. Therefore, for the purposes of this study, the more conservative trip generation rates associated with typical (market rate) apartment uses were used to calculate the trip generation potential for the proposed project's entire residential component, producing a "worst case" estimate of the amount of traffic resulting from the project's residential component.

Therefore, using these highly conservative assumptions, which assumed no internal interaction, pass-by traffic, or public transit utilization adjustments to the baseline ITE trip generation rates shown in Table 1, the potential "worst case" trip generation estimates for the proposed project (including both the residential and retail uses) were calculated, and are summarized in Table 2.

Table 2
Project Trip Generation

Size/Use	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Project Roadway Trips							
37 -unit Apartment [1]	246	4	15	19	15	8	23
7,300 sq. ft. Retail	324	6	4	10	9	11	20
Total Proposed Project Trips	**570**	**10**	**19**	**29**	**24**	**19**	**43**
Project Driveway Trips							
37 -unit Apartment [1]	*246*	*4*	*15*	*19*	*15*	*8*	*23*
7,300 sq. ft. Retail	*324*	*6*	*4*	*10*	*9*	*11*	*20*
21 -space Public Parking	*210*	*11*	*10*	*21*	*10*	*11*	*21*
Total Project Driveway Trips	***780***	***21***	***29***	***50***	***34***	***30***	***64***

Note:
[1] Total number of residential units; includes three "affordable" units.

As identified in Table 2, once it is completed and fully occupied, the proposed project itself is expected to result in a total of approximately 570 trips per day, with about 29 trips (10 inbound, 19 outbound) occurring during the AM peak hour and about 43 trips (24 inbound, 19 outbound) occurring during the PM peak hour. More specifically, of the total 570 daily trips, approximately 246 daily trips are associated with the 37 apartments, and about 324 daily trips are associated with the 7,300 square foot retail component. Similarly, during the AM peak hour, the project's residential component is anticipated to produce about 19 trips (four inbound, 15 outbound), with about 10 trips (six inbound, four outbound) generated by the retail component during this period. During the PM peak hour, approximately 23 residential trips (15 inbound, eight outbound), and approximately 20 retail component trips (nine inbound, 11 outbound) are expected. Note that since the project site is currently vacant, these trip generation estimates are assumed to reflect new traffic that would be added to the roadway network in the project vicinity.

Table 2 also identifies the amount of traffic anticipated to enter and exit the project's driveways. Note that the estimated project "roadway" trip generation calculations shown in Table 2 and discussed earlier do not include any specific traffic associated with the 21 public parking spaces proposed to be provided by the project. This is because the public parking spaces are intended to serve the existing latent public parking needs of the project vicinity, and therefore, are not expected to result in any new traffic in the area. The public parking spaces would, however, result in traffic at the project's at-grade parking level driveways beyond the project-specific trips generated by the residential and retail components proposed for the development, and were therefore included in the estimates of the total project site driveway volumes. For purposes of this study, it was assumed that the public parking spaces would result in a total of approximately 10.0 trips per space per day, including about 1.0 trip per space (0.5 inbound, 0.5 outbound) during each of the peak hours Based on these assumptions, the 21 public parking spaces would generate a total of approximately 210 trips per day, including about 21 trips (11 inbound, 10 outbound) during the AM peak hour, and about 21 trips (10 inbound, 11 outbound) during the PM peak hour, bringing the total project driveway trips to approximately 780 trips per day, including about 50 trips (21 inbound, 29 outbound) during the AM peak hour, and about 64 trips (34 inbound, 30 outbound) during the PM peak hour.

Project Geographic Trip Distribution

Next, the general geographic distributions of the project's proposed residential and retail uses were identified, based primarily on a review of existing travel patterns in the general site vicinity, although local and regional demographic information was also researched to provide data on

the relative distribution of likely employment opportunities, shopping and entertainment venues, and other services used by residents of the proposed project, as well as the general locations of the population from which potential employees and/or patrons of the project's retail uses would be drawn. Differences in trip-making characteristics (including origin and destination locations) between typical residential and retail uses were also considered, resulting in somewhat different general geographic trip distributions for the project's residential and retail components.

This information was used to identify the general geographic distribution of the traffic associated with the proposed project-related trips throughout the local area and surrounding region, as summarized in Table 3. Note that, for purposes of this analysis, it was further assumed that the general geographic trip distributions shown in Table 3 are representative of the travel patterns for the subject uses during both the AM and PM commute peak hours.

Table 3
General Geographic Project Trip Distribution Percentages

Direction	Proposed Residential	Proposed Retail
North	35%	35%
South	30%	35%
East	25%	25%
West	10%	5%
Totals	100%	100%

Project Traffic Assignment

Next, using the general geographic directional trip distribution percentages identified in Table 3, the approximate percentages of the traffic associated with both the residential and retail uses of the proposed project were assigned to the key surface street facilities serving the study area. This process considered many factors influencing the potential travel routes, including turn restrictions at various intersections along the travel routes, one-way or limited access streets, "connectivity" of the local streets to regional transportation facilities (freeways), and the overall "completeness" of the street system in the study area (accounting for any discontinuities in travel routes). The resulting trip assignment percentages to the key transportation facilities in the study area are shown for the project's proposed residential component in Figure 4(a), and for the proposed retail component in Figure 4(b). As noted earlier, these trip assignments are assumed to reflect the travel patterns during both the AM and PM peak commute traffic hours.

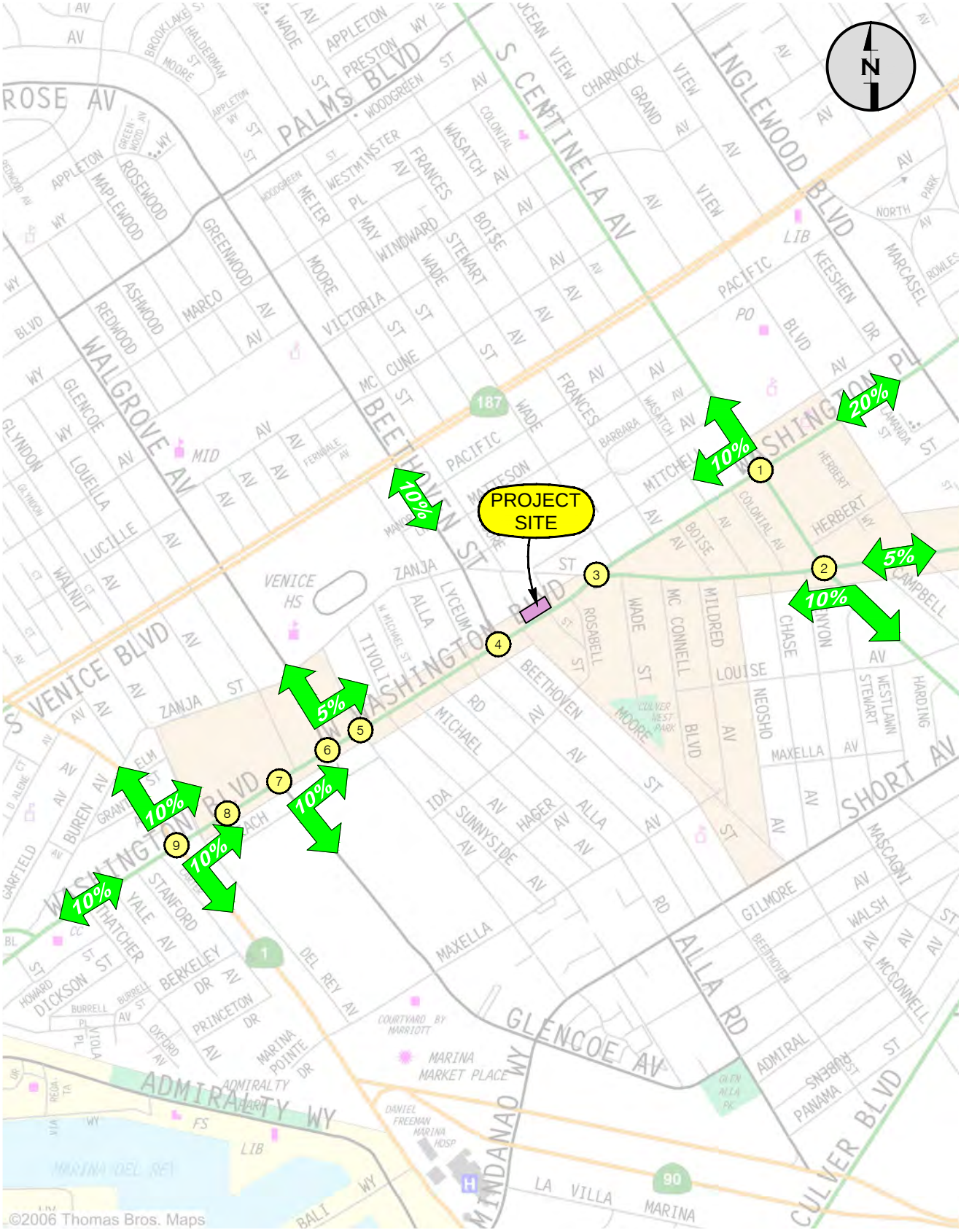

FIGURE 4(a)

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GENERAL GEOGRAPHIC PROJECT TRIP DISTRIBUTIONS
RESIDENTIAL COMPONENT

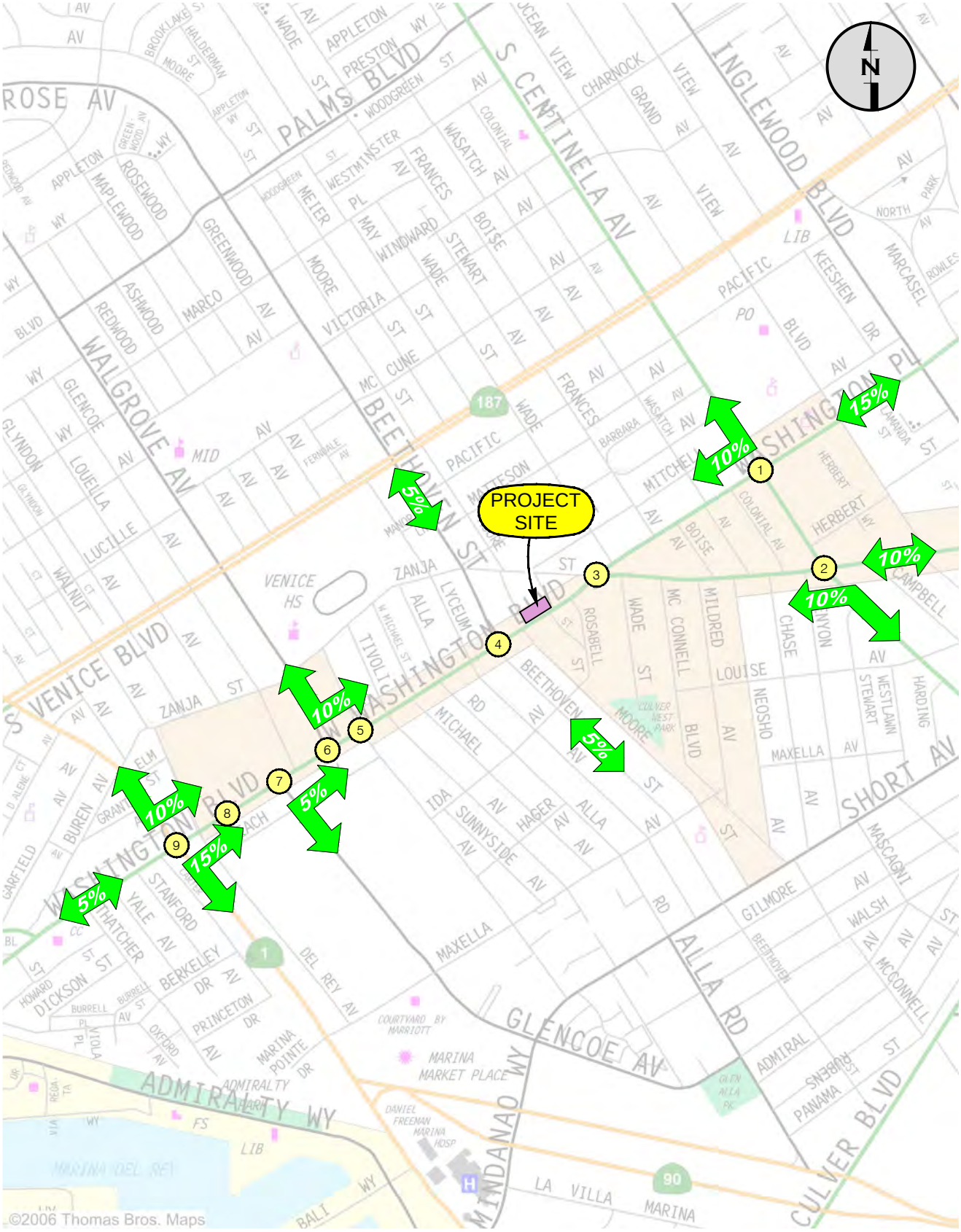

FIGURE 4(b)

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GENERAL GEOGRAPHIC PROJECT TRIP DISTRIBUTIONS
RETAIL/COMMERCIAL COMPONENT

The general geographic traffic assignments shown in Figures 4(a) and 4(b) were then further refined to identify the specific movement of project-related traffic through each of the nine study intersections as it travels to and from the project site. Further, in addition to the same factors described earlier in the discussion of the general geographic trip distribution assignments, this step also assessed the more localized effects of the proposed locations and operations of the project's driveways on the site-related traffic travel patterns. As noted earlier in this report, each of the project's driveways are anticipated to serve different components of the project (such as the residential, retail, and public parking spaces), and therefore, the various project components exhibit slightly different "localized" access assumptions at the site-adjacent intersections.

Finally, consideration was also given to the existing traffic conditions on the key streets and at intersections near the project site; high peak hour traffic volumes and/or traffic congestion along Washington Boulevard near the project site can cause moves such as left-turns between the project site and Washington Boulevard to be difficult and time consuming. As a result, some of the more "direct" travel paths to or from the project site were assumed to be at least partially restricted by heavy traffic volumes or congestion, resulting in more circuitous "around the block" travel patterns in the area for some of the project's residents, employees, and patrons/visitors. Observations of current traffic patterns around the project site noted these conditions, and their effects were therefore incorporated into the development of the project's traffic assignments. The resulting project traffic assignments, identifying the anticipated specific travel routes for the project's trips through each of the study intersections, are shown in Figure 5(a) for the proposed residential component and in Figure 5(b) for the proposed retail component.

The final step was to calculate the number of net new project trips traveling through each of the study intersections. The net project traffic additions to each of the nine study intersections are shown individually for each of the project's components; the AM peak hour trips are shown in Figure 6(a) for the proposed residential component and in Figure 6(b) for the retail uses, while the PM peak hour trips for the proposed project's residential and retail components are shown in Figures 7(a) and 7(b), respectively. These individual trip assignments were then combined to identify the total project-related traffic anticipated at each of the study intersections, and the results are shown in Figures 8(a) and 8(b) for the AM and PM peak hours, respectively. The values shown in these figures represent the potential increases in peak hour traffic attributable to the proposed project at each of the study intersections and site-adjacent streets, and provide the level of detail necessary to conduct the analyses and identify the potential incremental project-related traffic impacts to these facilities, as described in detail later in this report.

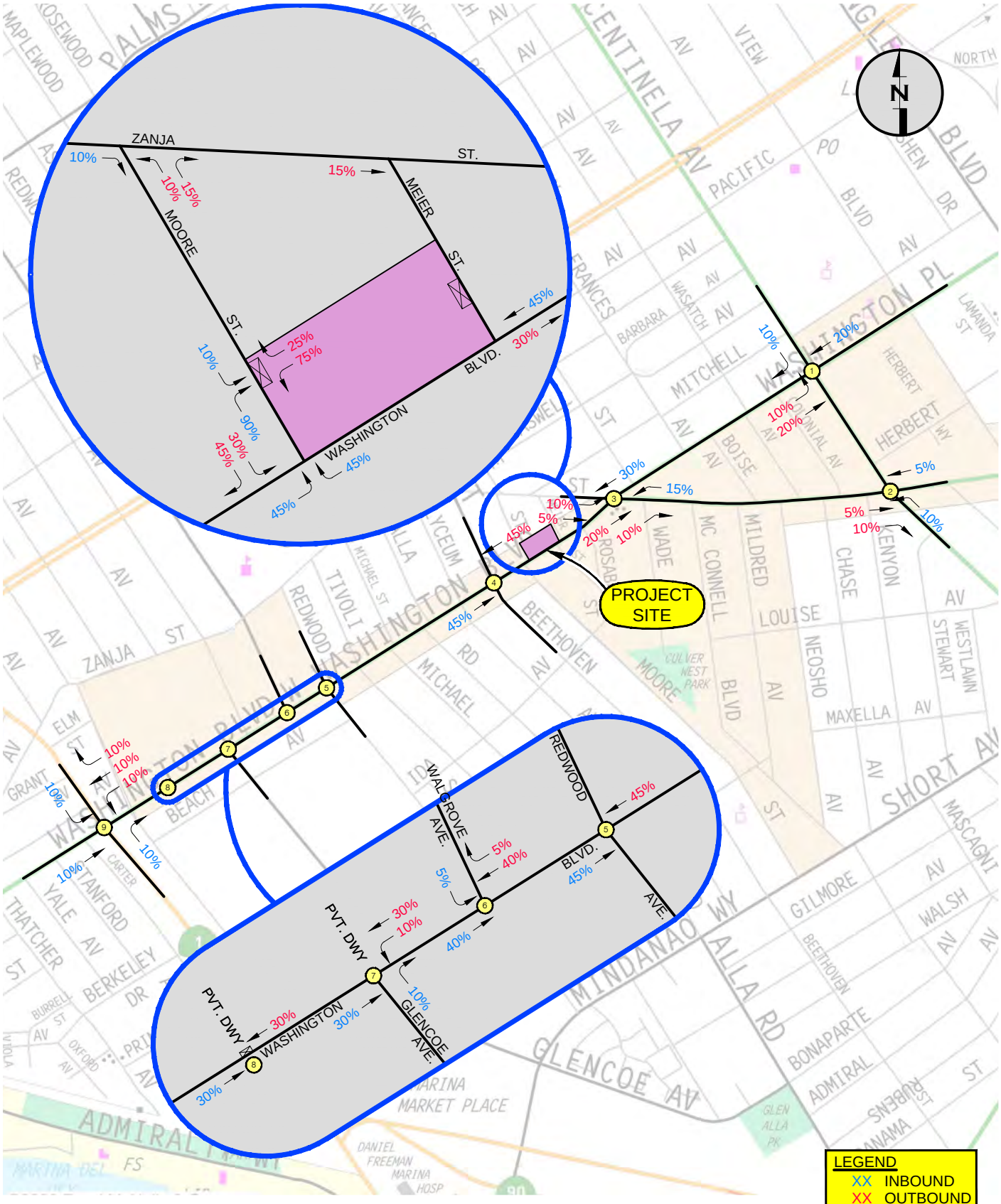

FIGURE 5(a)

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12803 WASHINGTON BOULEVARD
PROJECT TRAFFIC DISTRIBUTION PERCENTAGES
RESIDENTIAL COMPONENT

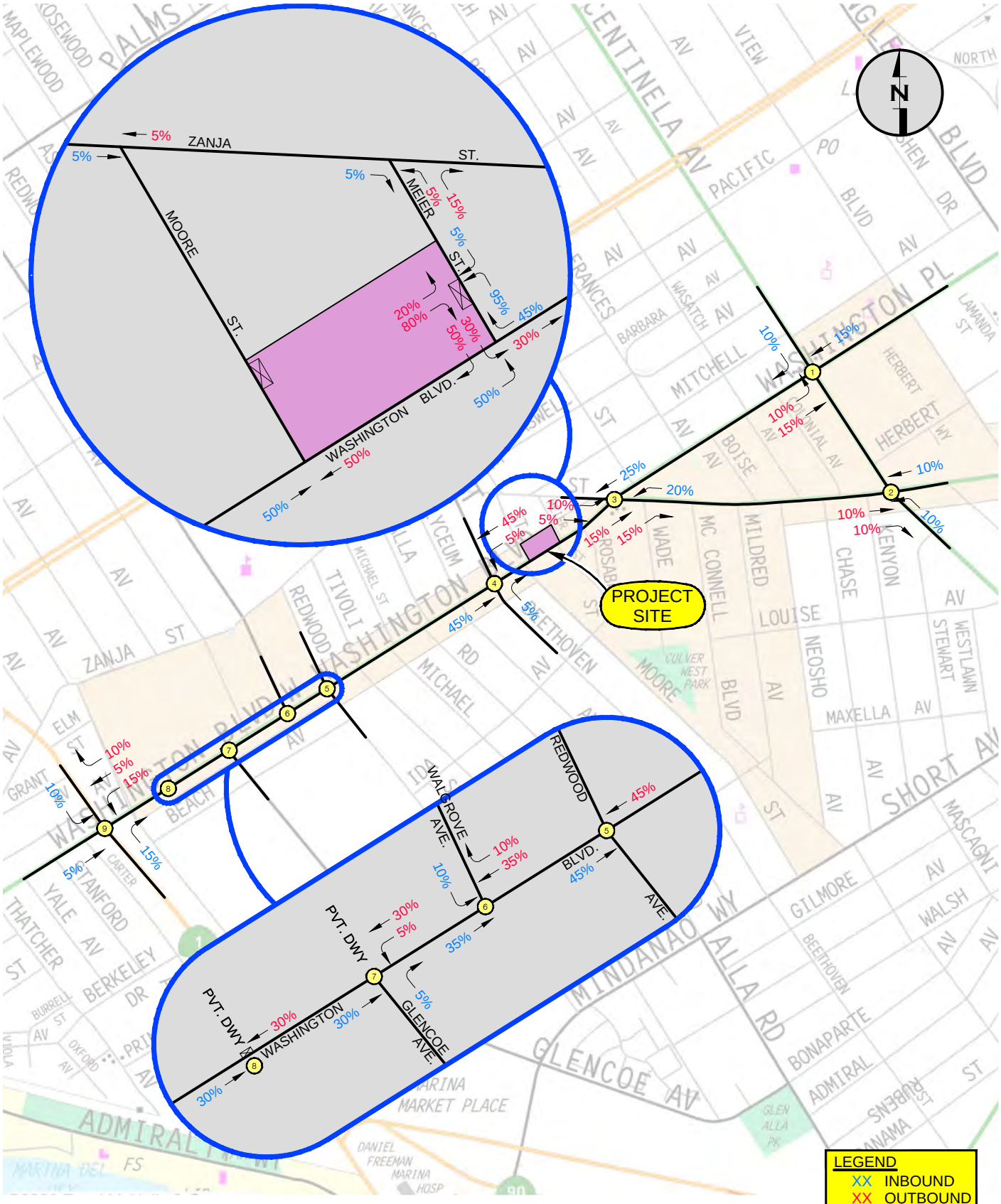

FIGURE 5(b)

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12803 WASHINGTON BOULEVARD
PROJECT TRAFFIC DISTRIBUTION PERCENTAGES
RETAIL/COMMERCIAL COMPONENT

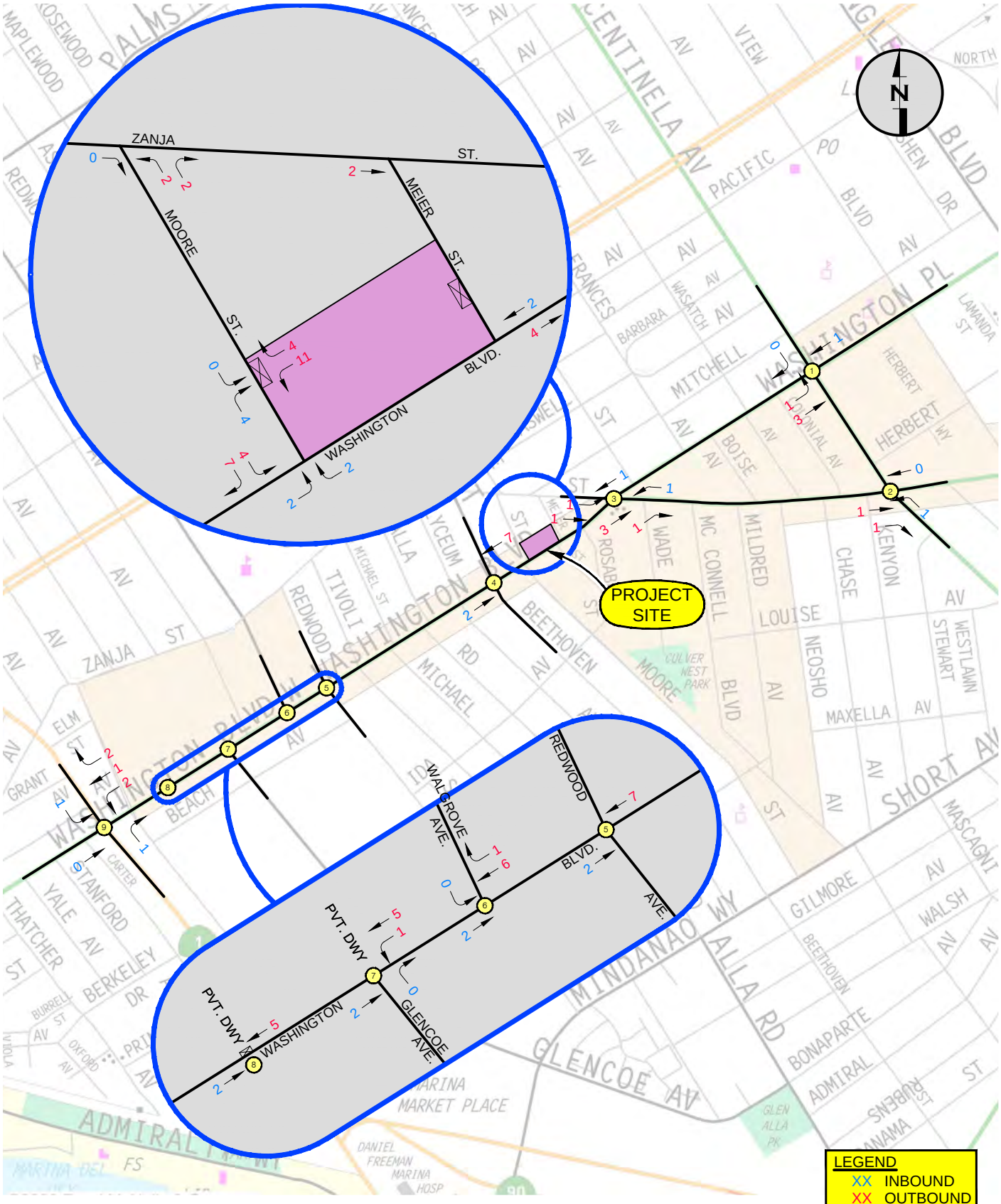

FIGURE 6(a)

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12803 WASHINGTON BOULEVARD
PROJECT TRIPS - RESIDENTIAL COMPONENT
AM PEAK HOUR

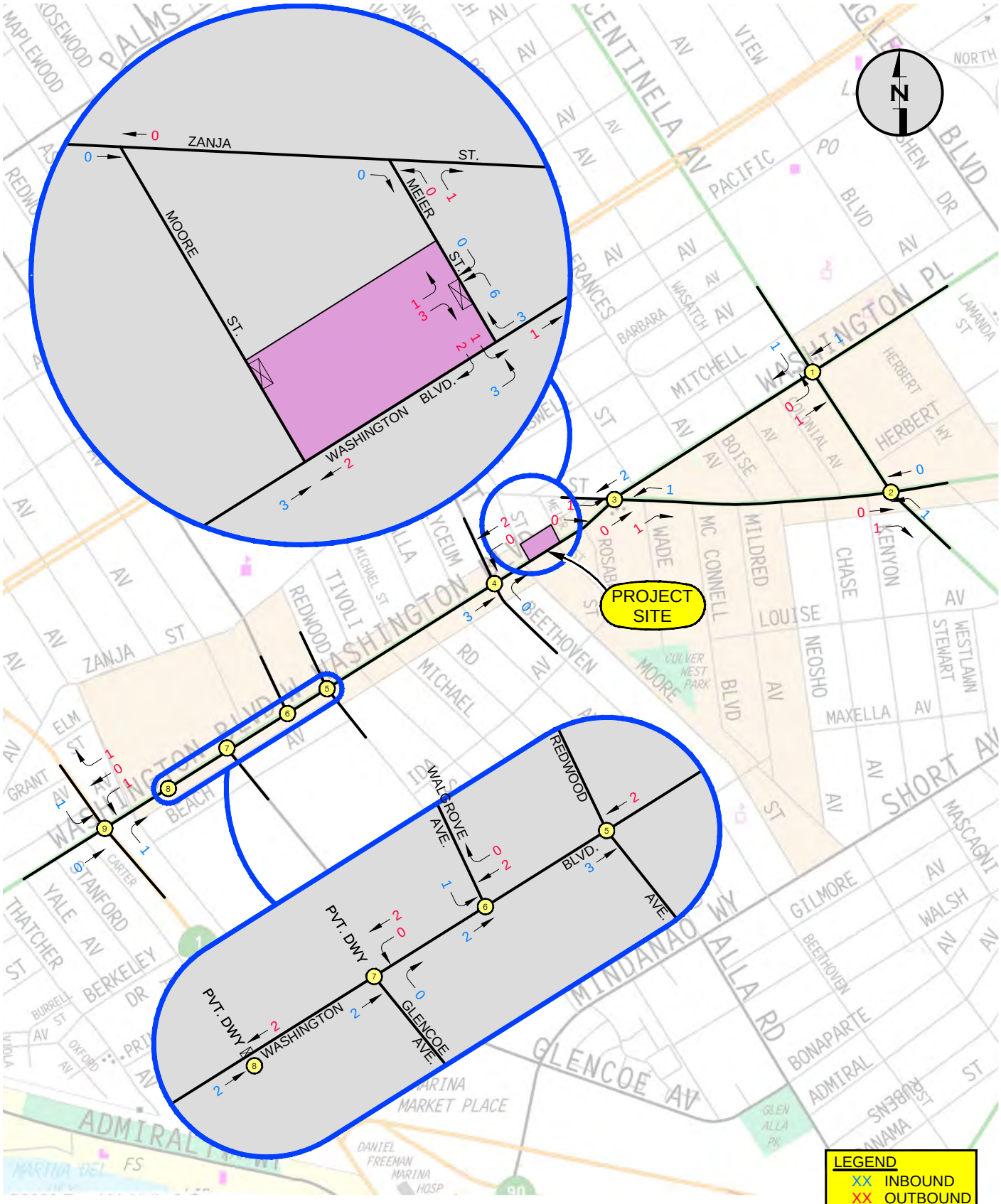

FIGURE 6(b)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

12803 WASHINGTON BOULEVARD
PROJECT TRIPS - RETAIL COMPONENT
AM PEAK HOUR

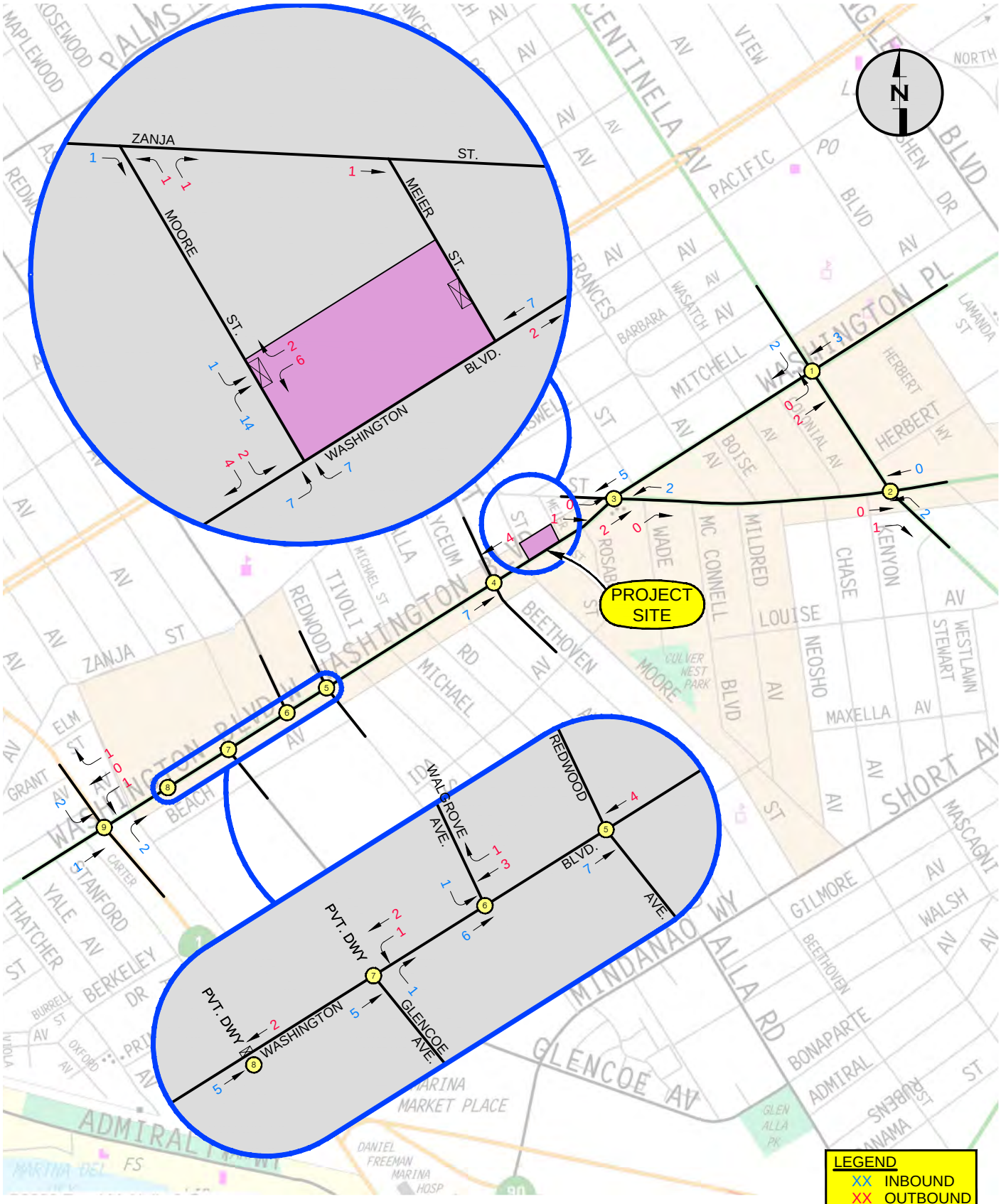

FIGURE 7(a)

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

12803 WASHINGTON BOULEVARD
PROJECT TRIPS - RESIDENTIAL COMPONENT
PM PEAK HOUR

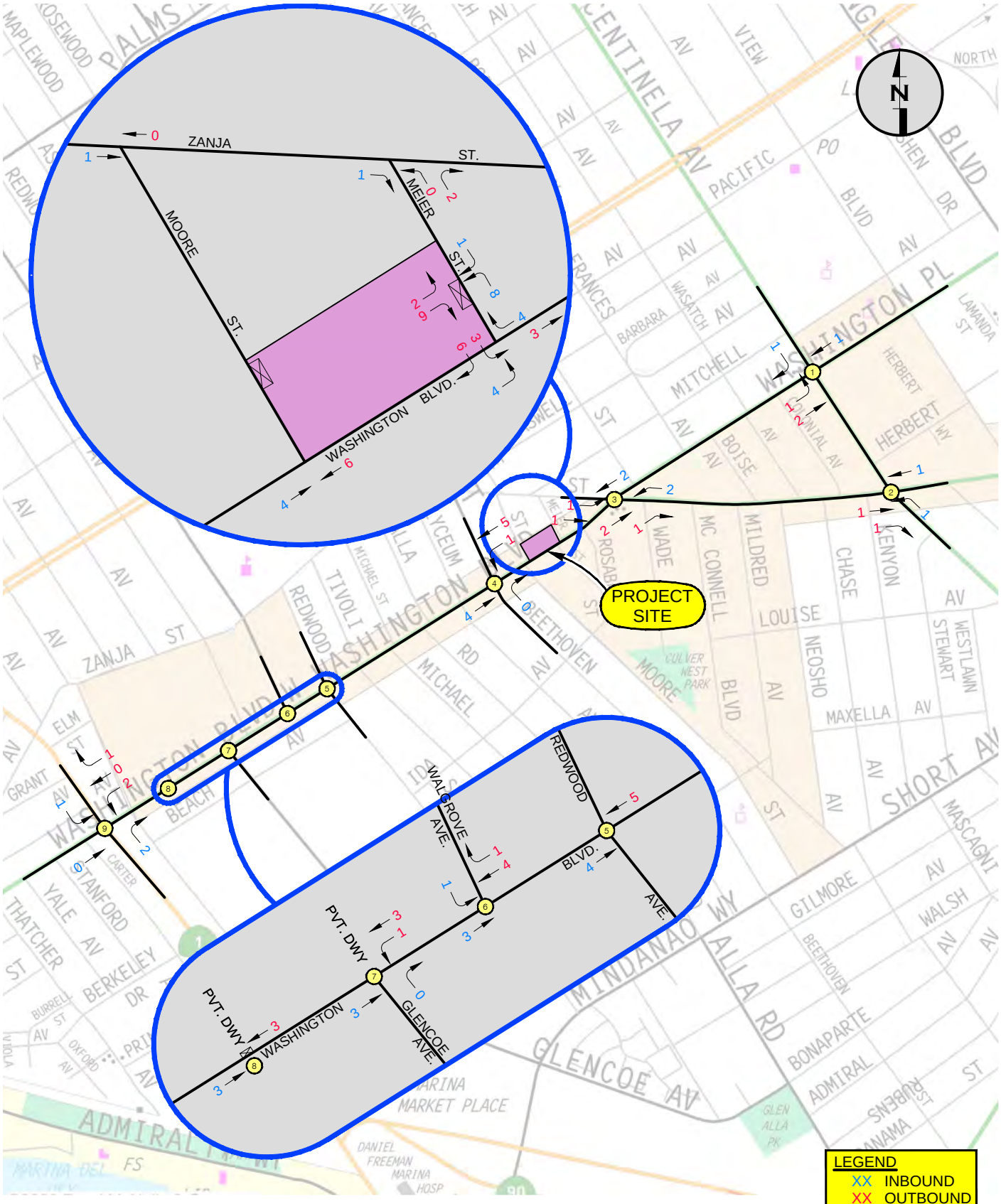

FIGURE 7(b)

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

12803 WASHINGTON BOULEVARD
PROJECT TRIPS - RETAIL COMPONENT
PM PEAK HOUR

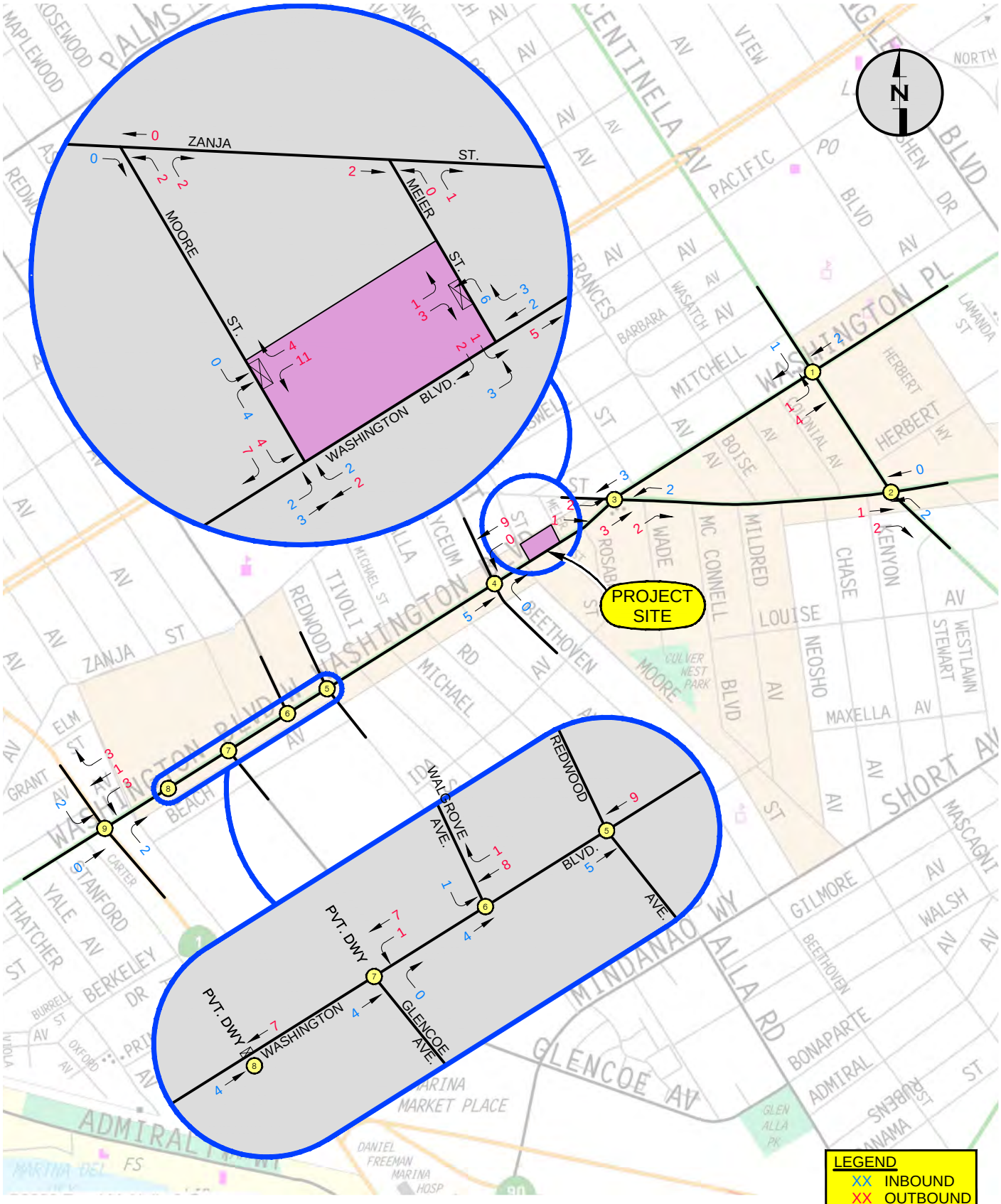

FIGURE 8(a)

HIRSCH GREEN
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12803 WASHINGTON BOULEVARD
TOTAL PROJECT-ONLY TRIPS
AM PEAK HOUR

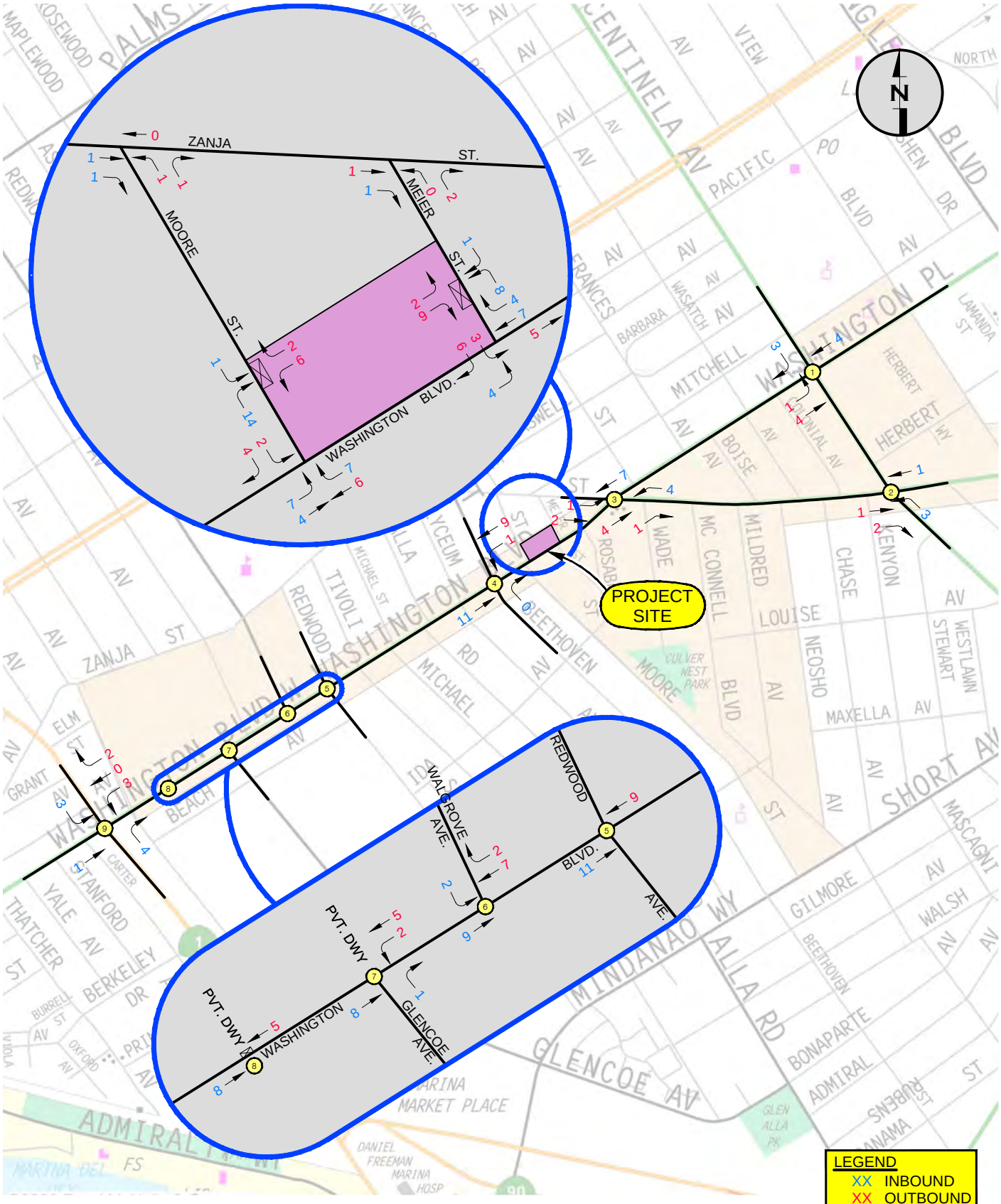


FIGURE 8(b)

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

12803 WASHINGTON BOULEVARD
TOTAL PROJECT-ONLY TRIPS
PM PEAK HOUR

Project Parking and Access

Vehicular Parking Requirements

The City of Culver City Zoning Code identifies off-street parking requirements for various types of land uses, including residential and retail uses such as those proposed for the subject project. For "residential" uses, the Zoning Code requires that parking for residents be provided at a ratio of one space per unit for studio and 1-bedroom units smaller than 900 square feet, with such units larger than 900 square feet, as well as all 2- and 3-bedroom units (regardless of size) requiring 2.0 spaces per unit, and 4-bedroom units requiring 3.0 spaces per unit; one additional parking space per unit is required for each bedroom in excess of four bedrooms. Further, all residential developments are required to provide one guest parking space for every four units contained in the project. The Zoning Code's current "commercial" use parking requirements, which are applicable for typical retail uses, call for 1.0 space per 350 square feet of floor area.

However, as described previously, the proposed project will also include three "affordable" units, and as a result, the project will meet the criteria defined in the California Government Code, Sections 65915(b)(1)(B) and 65915(c)(1). As such, the vehicular parking requirements for the project's entire residential component (including both the market-rate and affordable units) can be reduced pursuant to California Government Code Section 65915(p). These provisions supersede the normally applicable City of Culver City Zoning Code parking requirements for multi-family residential developments, and establish the following alternative parking ratios:

(1) Upon the request of the developer, no city, county or city and county shall require a vehicular parking ratio, inclusive of handicapped and guest parking, of a development meeting the criteria of subdivision (b), that exceeds the following ratios:

  (A) Zero to one bedrooms: one onsite parking space.

  (B) Two to three bedrooms: two onsite parking spaces.

  (C) Four and more bedrooms: two and one-half parking spaces.

(2) If the total number of parking spaces required for a development is other than a whole number, the number shall be rounded up to the next whole number. For purposes of this subdivision, a development may provide "onsite parking" through tandem parking or uncovered parking, but not through on-street parking.

(3) This subdivision shall apply to a development that meets the requirements of subdivision (b) but only at the request of the applicant. An applicant may request additional parking incentives or concessions beyond those provided in this section, subject to subdivision (d).

Note that the California Government Code Section 65915(p) modified residential parking ratios are based only on the number of bedrooms in each residential unit, and do not consider the size of the units, as does the City of Culver City Zoning Code parking requirements.

As described earlier in this report, the proposed project will contain a total of 37 residential units (including three "affordable" units); these 37 units are currently envisioned to be configured as four 1-bedroom units, 31 2-bedroom units, and two 3-bedroom units. The retail component of the project will contain a total of approximately 7,300 square feet of floor area. Based on this description of the proposed project, and using the applicable (reduced) residential parking ratios noted earlier for the residential component, along with the City's standard parking requirement for the proposed retail component, the amount of vehicular parking required for the project itself was calculated, and is summarized in Table 4.

Table 4
Project Vehicular Parking Requirements

Project Component	No. of Units/ Component Size	Parking Ratio	Parking Required
Residential			
1-Bedroom Units	4 units	1.00 space/unit	4 spaces
2-Bedroom Units	31 units	2.00 spaces/unit	62 spaces
3-Bedroom Units	2 units	2.00 spaces/unit	4 spaces
Total Resident Parking Required	37 units		70 spaces
Guest Parking	37 units	not applicable [1]	0 spaces
	Total Residential Componment Parking Required		70 spaces
Commercial			
Retail	7,300 sq. ft	1.00 space/350 sq. ft.	21 spaces
Total Vehicular Parking Required			**91 spaces**

Note:

[1] Residential guest parking not required pursuant to California Government Code Section 65915(p).

As identified in Table 4, the proposed project will be required to provide a total of approximately 91 vehicular parking spaces, including a total of approximately 70 resident-only parking spaces and 21 "commercial" (retail) parking spaces. As described earlier, the project will provide a total of approximately 120 vehicular parking spaces, including the required 70 residential spaces and 21 retail spaces, along with eight "surplus" (unassigned) spaces that could potentially be used

for residential guest parking (no residential guest parking is specifically required to be provided), along with an additional 21 general public parking spaces, which are provided as a voluntary project feature, and are not required by the current City of Culver City Zoning Code. A total of 14 of the project's required 21 retail parking spaces, and all of the 21 public parking spaces, will be located on the at-grade level of the proposed project's on-site parking garage, while the remaining seven required retail parking spaces (anticipated to be used as employee parking), along with all of the 70 required residential parking spaces and the eight "surplus" (potentially, residential guest) parking spaces will be provided on the subterranean parking level. A total of 66 of the 70 total residential parking spaces will be configured as front/back "tandem" spaces, with one "pair" of tandem spaces (2 total spaces) assigned to each of the 32 2-bedroom and to the one 3-bedroom units (as is permitted by the current City parking code as long as each "pair" of tandem parking spaces is assigned to a single residential unit), while the four remaining residential parking spaces are configured as "single" (direct access) spaces, with one space assigned to each of the four 1-bedroom units. The project's retail component parking spaces, as well as the 21 public parking spaces, are also configured as "single" (direct access) spaces. Finally, the eight "surplus" parking spaces (which are currently unassigned, but could potentially be used for residential guest parking) are configured as two "pairs" of front/back tandem spaces and one set of triple tandem (three front-to-back "stacked") spaces; triple tandem parking is allowed pursuant to approval by the Director of the City's Planning Department. However, use of any of the tandem spaces as guest parking may require valet or assisted parking operations.

Bicycle Parking Requirements

In addition to the vehicular parking requirements for the project described earlier and shown above in Table 4, the City also requires both residential and commercial uses to provide on-site bicycle parking. As also identified in the City's Municipal Code, multi-family residential projects are required to provide bicycle parking at a minimum ratio of 10 percent of the amount of vehicular parking required for the residential units; note that the Municipal Code does not specify whether this requirement applies to only "resident" parking spaces, or if it also includes guest parking; for purposes of this study, the City's residential bicycle parking requirement was conservatively interpreted to apply to the total resident and guest vehicular parking requirement. Similarly, commercial uses (including "retail" uses) are required to provide bicycle parking at a minimum ratio of five percent of the required number of vehicular parking spaces. Therefore, the proposed project would be required to provide a total of approximately eight bicycle spaces, including seven "residential" bicycle parking spaces and one "retail" bicycle parking space.

Additionally, the current City Zoning code identifies that the residential bicycle parking spaces should be distributed throughout the project's parking structure (to the extent feasible), while the commercial bicycle parking spaces should be located so as to best serve the employees and visitors to the project site. As shown earlier on the project site plans in Figures 3(a) and 3(b), the seven required residential bicycle parking spaces will be located in the subterranean level of the project's parking garage (near the driveway ramp), while a total of six bicycle parking spaces (five more than required) will be located on the sidewalk in front of the project's retail space.

Therefore, the proposed project will meet the City's applicable vehicular and bicycle parking space requirements for both its individual residential and retail components, as well as for the development as a whole, in addition to providing 21 new public parking spaces (which as noted earlier, are not required under the City code). As a result, no project-related "overflow" parking in the adjacent residential neighborhoods or commercial areas by project residents, employees, or patrons/visitors due to insufficient on-site parking is anticipated.

Parking Space and Vehicular Circulation Design Standards

Each of the on-site parking spaces will also meet the City's current parking design standards. As shown earlier in the project site layouts in Figures 3(a) and 3(b), all on-site parking spaces will be "standard" spaces; the residential parking spaces (including tandem and "single" spaces) will provide a minimum interior dimension of nine feet in width and 18 feet in depth, while each of the commercial spaces (including the public parking spaces) will provide a minimum interior width of eight feet six inches and a depth of 18 feet (as required for parking facilities with a parking angle of 90 degrees, such as the proposed project). All of the handicap spaces within the project parking garage exhibit a width of nine feet and depth of 18 feet, in addition to an individual or shared eight-foot wide "No Parking" area located adjacent to one side of each of the handicap spaces (as required for van accessible spaces).

The City's design standards also require a minimum "commercial" drive aisle width of 24 feet for a "90-degree, double loaded" (parking on both sides) drive aisle carrying two-way traffic, as is the case for the project's at-grade retail/public parking level, although the drive aisle widths for the project's subterranean residential parking areas are slightly less, at a minimum of 23 feet (due to the wider residential parking space requirements). As also shown earlier in Figures 3(a) and 3(b), the project's proposed parking level layouts will meet the applicable requirements, with a 24-foot wide "commercial" drive aisle provided on the at-grade (retail and public parking) level, and a 24-foot wide drive aisle width on the subterranean (primarily residential) parking level.

The Zoning Code also identifies that driveways serving nonresidential uses with 20 or more parking spaces are required to provide a minimum driveway width of 25 feet. As noted earlier, the at-grade level of the proposed project's parking garage will provide most of the project's "nonresidential" parking spaces, including 14 of the 21 required retail parking spaces and all of the 21 public parking spaces. Therefore, the at-grade level of the project's parking garage will contain a total of approximately 35 parking spaces, and as such, will require a minimum driveway width of 25 feet. A review of the project's at-grade level layout, shown previously in Figure 3(a), indicates that the driveway on Meier Street accessing this parking level will be approximately 27 feet wide, and will therefore meet the applicable driveway width requirements.

For residential developments, two-way (entry/exit) driveways serving 20 or more parking spaces are required to provide a minimum width of 18 feet; a review of the project's proposed subterranean parking layout shown earlier in Figure 3(b) shows that the driveway serving this parking level is approximately 25 feet wide, exceeding the requirements for this access location. Therefore, the project's proposed parking garage design, including the overall layout, as well as the widths of the parking stalls, drive aisles, and access driveways, will meet the applicable City requirements, and no significant internal circulation or site access-related impacts are expected.

The proposed project will also be required to provide one "small" (eight foot six inch by 18 foot) on-site loading area for its retail component; no loading areas are specifically required for the proposed residential component. The required retail loading area cannot be provided on-site, although two off-site loading areas are proposed, one each along the project's Moore Street and Meier Street frontages (between the site driveways on each street and Washington Boulevard), as is permitted through approval by the City Engineer or Traffic Committee. Since on-street parking is currently allowed along the project frontages of both Moore Street and Meier Street, no operational or access issues related to these proposed on-street loading areas are expected.

Site Vehicular Access and Operations

Access to the project's parking garage will be provided via a combination of driveways located along both Moore Street and Meier Street; no vehicular site access will be provided from Washington Boulevard. The project's at-grade "retail and public parking" level is accessed by a single two-way (entry and exit) driveway on Meier Street, while the subterranean parking level, providing parking primarily for the project's residents, is accessed by a single two-way driveway on Moore Street. Note that each of the parking levels operates independently, and no internal vehicular circulation between the at-grade and subterranean parking levels is provided.

Each of the project's driveways was examined in detail in order to assure that safe operations and sufficient capacity to accommodate the anticipated vehicular access demands of the project are provided. The total traffic volumes at each of the project's driveways were determined using the project traffic assignment percentages shown previously in Figures 5(a) and 5(b), along with the project's trip generation estimates earlier shown in Table 2. Note that, in addition to the project-specific (residential and retail component) traffic volumes utilizing the site driveways, the examination of the project's driveway operations also included the traffic anticipated to use the 21 new public parking spaces provided on the at-grade level of the on-site garage; the number of public parking-related trips are identified in the "Project Driveway Trips" section of Table 2, and were included in order to assure that all potential access or capacity issues were identified.

Based on the anticipated site-related trip generation estimates and travel routes, the amount of traffic accessing each of the project driveways was calculated, and the resulting daily traffic at each location, along with the number of trips occurring during both the AM and PM peak hours, are shown in Figure 9. As shown in this figure, the proposed project's two driveways are anticipated to experience a total vehicular demand of approximately 780 trips per day (including approximately 570 project-related trips and about 210 non-project related public parking trips). Specifically, the Meier Street driveway, accessing the at-grade (retail and public parking) level, is expected to exhibit a total vehicular demand of about 534 trips per day (324 project-related and 210 public parking trips), including approximately 267 inbound and 267 outbound trips, while the Moor Street driveway, serving the subterranean parking level (providing access to all of the resident as well as some of the retail parking) is anticipated to accommodate a total of approximately 246 daily trips (123 inbound, 123 outbound). During the AM peak hour, the project's driveways are anticipated to exhibit a total vehicular demand of approximately 50 trips (21 inbound, 29 outbound), including a total of about 31 (17 inbound, 14 outbound) retail and public parking-related trips accessing the at-grade level via the Meier Street driveway, and a total of about 19 trips (four inbound, 15 outbound) accessing the subterranean parking level via the Moore Street driveway. During the PM peak hour, the project's driveways are expected to accommodate a total vehicular demand of about 64 trips (34 inbound, 30 outbound), including about 41 total trips (19 inbound, 22 outbound) using the at-grade parking level driveway on Meier Street, while the project's subterranean parking level driveway along Moore Street is expected to exhibit a total vehicular demand of about 23 trips (15 inbound, eight outbound). These values represent the actual number of vehicles expected to enter and exit the project's driveways during a typical weekday, including the traffic generated by the proposed project itself and the "latent" area traffic related to the provision of the 21 on-site public parking spaces.

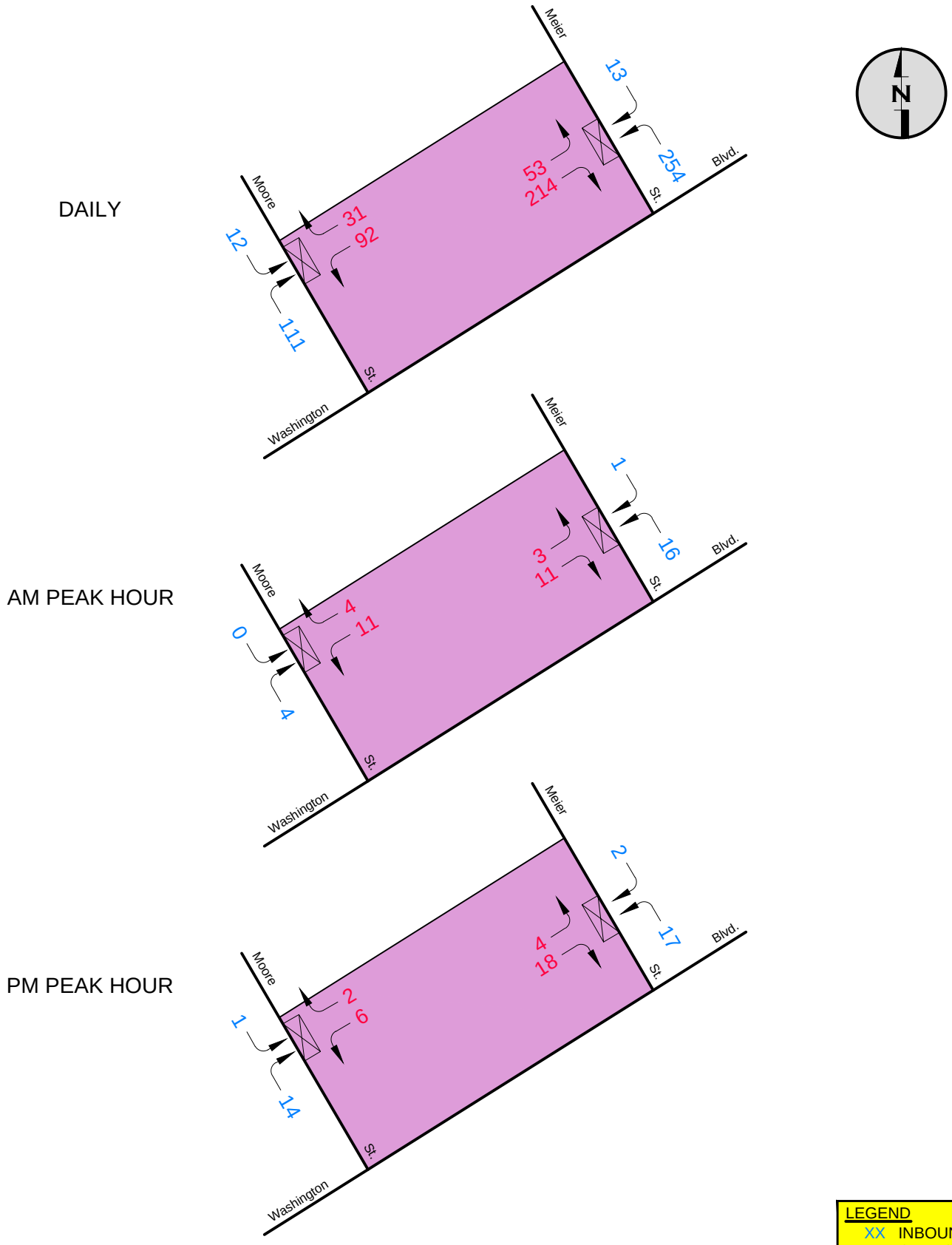


FIGURE 9

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

TOTAL PROJECT SITE DRIVEWAY TRAFFIC VOLUMES
DAILY, AM AND PM PEAK HOURS
(INCLUDES PUBLIC PARKING TRAFFIC)

Typically, uncontrolled driveways (no access control gates) provide entry capacities of between 750 and 1,000 vehicles per hour per lane, while driveway exit capacities, which are dependent on the amount of traffic or level of congestion on the site-fronting streets, usually range between approximately 400 and 500 vehicles per hour per lane for lower-volume street locations such as Moore Street or Meier Street. A review of the peak project driveway volumes shown in Figure 9 indicates that the inbound and outbound vehicular demand at each of the project driveways will be substantially below these levels during both the AM and PM peak hours. Therefore, the proposed project's parking access locations will operate adequately, with no external vehicular queuing on the fronting streets, and no significant internal queuing within the parking structures.

In addition to the project driveway entry and exit capacity evaluations, the access operations for each of the proposed site driveways were also investigated. As shown earlier in the project's site plans in Figures 3(a) and 3(b), both the Meier Street at-grade parking level access driveway and the subterranean parking level access driveway on Moore Street are configured as typical two-way driveways along two-way local streets, and as such, no particular concerns related to the operations of either of these site driveways are expected. Further, as described in the preceding driveway demand and capacity evaluations, the relatively nominal levels of traffic anticipated at each of these site driveways are not expected to result in any significant on-street or on-site operational issues such as extended delays, vehicular queuing, or congestion.

Visibility for drivers entering or exiting the site driveways is also not anticipated to be a concern. Vehicles entering the site's driveways are provided with adequate maneuvering room along both of the fronting streets and within the site itself, and as discussed earlier, no significant conflicts between vehicles entering and exiting any of the project's driveways are anticipated. Further, sight distance and driver visibility of oncoming traffic for vehicles exiting either of the driveways will also be acceptable. As shown earlier in Figure 3(a), the proposed building will be set back from the street by 10 feet along both the Meier Street and Moore Street frontages, thereby minimizing interference with driver's views of approaching vehicles. Additionally, the project driveway on Moore Street is located more than 100 feet from Washington Boulevard, while the driveway on Meier Street is nearly 70 feet from the intersection with Washington Boulevard, providing sufficient distances for drivers exiting the project site to evaluate oncoming traffic. Finally, no walls, building projections, or other project-related or street furniture obstructions are anticipated at any of the project's driveways that would restrict driver visibility in either direction, and as a result, no significant site driveway visibility or access issues are anticipated.

Project Roadway Improvements

Discussions with the City of Culver City Public Works Department and City Engineer have indicated that, in general, no right-of-way dedications or roadway widenings are required along the project's Washington Boulevard, Moore Street, or Meier Street frontages, or to the alley bordering the project site on the north, although the project will be required to repair or replace any site-adjacent curb and gutter and/or sidewalks that are currently in disrepair, or that may be damaged during construction of the project. Additionally, the City's Public Works Department has requested that the proposed project improve the curb return radii at the northeast corner of Washington Boulevard and Moore Street, and at the northwest corner of Washington Boulevard and Meier Street from the current approximately 15-foot radius to a 25-foot radius, including localized rights-of-way dedications (typically, a 15-foot by 15-foot triangular dedication) at each location as needed in order to implement these improvements, which will allow for easier turns and provide better visibility between these two local access streets and Washington Boulevard.

PROJECT TRAFFIC IMPACT ANALYSIS STUDY AREA

Environmental Setting

The project site is located on the north side of Washington Boulevard, between Moore Street and Meier Street, in the western portion of the City of Culver City. The area surrounding the site is developed predominantly with single and multi-family residential uses, although the frontages of Washington Boulevard and other arterial roadways in the project vicinity exhibit primarily commercial and retail development, including a small retail shopping center located immediately to the east of the site (across Meier Street), and a major retail shopping center ("Costco Plaza") less than one-half mile to the west. Additionally, Venice High School is located approximately one-quarter mile to the northwest of the project. The project site itself is currently vacant.

Area Transportation Facilities

The study area is relatively well served by a variety of local and regional transportation facilities. While not located within the study area itself, two freeways allow for relatively easy regional access to and from the project vicinity, including the San Diego (I-405) Freeway, approximately one and one-half miles east of the project site, and the Marina Freeway/Expressway (SR-90), approximately one and one-quarter miles south of the project site. In addition to these regional transportation facilities, the area is also served by a number of major and secondary arterials, along with a well-developed local and residential street grid. The key transportation facilities in the project vicinity are identified and described in more detail in the following pages.

Freeways

San Diego (I-405) Freeway – The most important transportation facility in the project vicinity, this north-south freeway is generally configured to provide four mixed-flow travel lanes plus a high-occupancy vehicle ("HOV", or carpool) lane in each direction, with additional auxiliary lanes provided at surface street access ramps and interchanges. The I-405 Freeway serves the entire western portion of the San Fernando Valley and Los Angeles basin, from its departure from the Golden State (I-5) Freeway in the Sylmar community approximately 20 miles to the north of the study area to its merge back with the Golden State Freeway in the City of Irvine in Orange County, approximately 50 miles to the south. The I-405 Freeway provides a partial interchange with the Marina Freeway/Expressway (SR-90), although northbound-to-eastbound, and westbound-to-southbound movements are not available. Surface street access to and from the I-405 Freeway in the project vicinity is provided by ramps located along Sawtelle Boulevard

(southbound only on and off) and Sepulveda Boulevard (northbound only on and off) between Venice Boulevard and Washington Boulevard, by a full ramp set (northbound and southbound on- and off-ramps) at and near Culver Boulevard, and by a southbound only on-ramp from Sawtelle Boulevard and extending through and also provides access from Braddock Drive.

Marina Freeway/Expressway (State Route 90) – Exhibiting a roughly east-west alignment, and containing both elevated and at-grade elements, the Marina Freeway/Expressway is a short sub-regional facility connecting Slauson Avenue (east of Sepulveda Boulevard) on the east with Lincoln Boulevard on the west. The elevated (freeway) section of this facility, from just west of Culver Boulevard on the west to the Slauson Avenue terminus on the east, typically provides three lanes per direction, with additional auxiliary lanes provided at surface street ramps, and at the interchange with the I-405 Freeway. Surface street access ramps in the study area are provided only at Sepulveda Boulevard (on-ramp only to the eastbound Marina Freeway), at Centinela Avenue (full ramp set), and at Culver Boulevard (full ramp set). The at-grade (expressway) portion of the facility, between Culver Boulevard and Lincoln Boulevard, is developed with two lanes per direction, although localized flairings or striping improvements at the intersections with Culver Boulevard and Mindanao Way accommodate additional left and/or right-turn lanes. The Expressway portion of the facility is a divided roadway, with crossover traffic prohibited except at its intersections with Culver Boulevard and Mindanao Way.

Primary (Major) and Secondary Arterial Highways

The City of Culver City designates key regional and sub-regional roadways within its boundaries as “Primary Arterials” and “Secondary Arterials”, while the adjacent City of Los Angeles has recently adopted new roadway designations for such facilities (under its “Mobility Plan 2035”) as “Boulevards” (Major Highways) and “Avenues” (Secondary Highways), respectively. Although the two sets of roadway designations are generally interchangeable, for purposes of this report, the city-appropriate designations for each roadway have been utilized to avoid confusion.

Washington Boulevard – This east-west oriented facility, which provides the southern frontage of the project site, is designated as a Primary Arterial throughout the City of Culver City, and as a Boulevard II (Major Highway Class II) within the City of Los Angeles (west of the boundary between the City of Culver City and City of Los Angeles at Walnut Avenue/Del Rey Avenue). Washington Boulevard is an important transportation facility throughout the study area, providing uninterrupted service between Pacific Avenue near Venice Beach on the west and its eastern terminus at Santa Fe Springs Road opposite Whittier Boulevard in the City of Whittier,

passing through the Venice community of the City of Los Angeles, the City of Culver City, the Mid-City and Harvard Heights communities of the City of Los Angeles, the southern portion of downtown Los Angeles, and the Cities of Vernon, Commerce, and Pico Rivera along its route. Within the project vicinity (including both the City of Culver City and City of Los Angeles), Washington Boulevard is typically configured to provide two travel lanes in each direction, along with a median two-way left-turn lane that converts to provide exclusive left-turn channelization at most cross streets, with dual left-turn lanes provided at major intersections in the study area, including at Centinela Avenue in the City of Culver City, and at Lincoln Boulevard in the City of Los Angeles (where additional right-turn only lanes are also provided). On-street parking is generally allowed along both sides of Washington Boulevard throughout the project vicinity.

Washington Place – This short east-west facility is located entirely within the City of Culver City, and is designated as a Primary Arterial within the study area (and throughout its length). Washington Place provides an essentially parallel alternative to Washington Boulevard within the City of Culver City between approximately Zanja Street on the west (near the project site) and Tilden Avenue on the east. Like Washington Boulevard, Washington Place is typically striped to provide two travel lanes in each direction, plus a median two-way left-turn lane that converts to provide exclusive left-turn channelization at most intersections. On-street parking is generally permitted along both sides of Washington Place.

Lincoln Boulevard – This generally north-south oriented Boulevard I (Major Highway) is located approximately three-quarters of a mile west of the project site, just beyond the western border of the City of Culver City, and provides an important connection between San Vicente Boulevard in the northern portion of the City of Santa Monica on the north and its southern terminus at Sepulveda Boulevard near the Los Angeles International Airport ("LAX"). In the project vicinity, Lincoln Boulevard is generally developed to provide three peak hour travel lanes per direction at most intersections throughout the study area, although only two lanes per direction are provided through a short segment between Fiji Way and the Culver Boulevard overcrossing. South of this location, the roadway widens to again provide three travel lanes per direction through the Westchester community of the City of Los Angeles, although four travel lanes in each direction exist between the Westchester Parkway overcrossing and Sepulveda Boulevard. A median two-way left-turn lane exists along most segments of this facility, and exclusive left-turn lanes are provided at all intersections within the study area. Time-limited on-street parking is generally allowed on both sides of the street in the project vicinity, although parking restrictions are in effect to provide the third travel lane during the morning and evening commute periods.

Centinela Avenue – Another generally north-south oriented facility, Centinela Avenue is located approximately one-half mile east of the project site, and is classified as a Primary Arterial within the City of Culver City (generally between Washington Place and Washington Boulevard), although within the City of Los Angeles, it is designated as an Avenue I (Secondary Highway) north of Washington Place, and an Modified Avenue I (Secondary Highway) to the south of Washington Boulevard. This roadway provides a connection between Montana Avenue in the City of Santa Monica on the north and Florence Avenue in the City of Inglewood on the south, although the roadway is discontinuous at several locations, including north of the study area between Stanwood Drive and Ocean Park Boulevard/Gateway Boulevard, where the north leg of Centinela Avenue jogs approximately three blocks to the west of the southern approach, which continues northward as Bundy Drive, and again to the south of the project vicinity, where Centinela Avenue intersects with Jefferson Boulevard and shares the alignment of that roadway until splitting off again near Inglewood Boulevard to continue south into the City of Inglewood. Within the study area, Centinela Avenue typically provides two travel lanes per direction, plus a median two-way left-turn lane and/or exclusive left-turn channelization at most intersections. On-street parking is generally allowed along both sides of the roadway within the study area.

Glencoe Avenue – This short, generally north-south oriented roadway is located approximately one-half mile west of the project site, and exists primarily within the City of Los Angeles, where it is designated as a Modified Avenue II (Secondary Highway) south of Washington Boulevard, and as a Local Street north of Washington Boulevard; only a short segment of Glencoe Avenue (less than 100 feet of its northbound approach to Washington Boulevard) is located within the City of Culver City, where it is classified as a Secondary Arterial. Although Glencoe Avenue actually exists between approximately Lake Street (south of Rose Avenue) on the north and its southern terminus at Alla Road opposite Bonaparte Avenue, the Local Street portion of this facility is discontinuous at several locations, including within the immediate study area, between Zanja Street and Washington Boulevard (across the Costco Plaza shopping center site). Glencoe Avenue exhibits a Modified Avenue II (Secondary Highway) designation along the segment between Washington Boulevard and Maxella Avenue, although it is configured with only one travel lane per direction, plus on-street parking, while between Maxella Avenue and Mindanao Way, Glencoe Avenue is downgraded to a Collector Street designation, but widens to provide two travel lanes in each direction plus a median two-way left-turn lane, along with some limited on-street parking. South of Mindanao Way, the roadway is again reduced to only a single travel lane per direction plus on-street parking for the remainder of its length.

Collector Street, Neighborhood Feeders, and Local Streets

Similar to the different designations for the Primary/Major and Secondary Arterials/Highway facilities described previously, the City of Culver City and City of Los Angeles also identify different designations for the feeder/collector and local-serving roadways located within their respective jurisdictions. Therefore, as before, each of the following roadways is identified with the appropriate, city-specific designation.

Collector Streets

Walgrove Avenue – This generally north-south roadway is located less than one-half mile west of the project site, and is designated as a Collector Street within both the City of Culver City and the City of Los Angeles. Walgrove Avenue provides a connection from its northern terminus at the City of Los Angeles/City of Santa Monica boundary (where it connects with 23rd Street, which itself continues northward into the City of Santa Monica) and its southern terminus at Washington Boulevard. Within the immediate study area, Walgrove Avenue is generally striped to provide one travel lane per direction plus on-street parking on both sides of the street, although at some key intersections, parking is removed from one or both sides of the street to allow for the provision of exclusive left-turn lanes. The "tee" intersection of Walgrove Avenue and Washington Boulevard (study intersection number 3 in this analysis) is not signalized, but is STOP sign controlled along the (southbound) Walgrove Avenue approach.

Redwood Avenue - This short roadway is located just east of Walgrove Avenue, and provides a connection between approximately Psomas Way (south of Rose Avenue) on the north and Mindanao Way on the south, although the roadway is discontinuous at several locations between Psomas Way and Washington Boulevard, including within the study area between Zanja Street and Venice Boulevard (across the Venice High School campus site). Similar to Glencoe Avenue, Redwood Avenue is located primarily within the City of Los Angeles, except for a short portion from Zanja Street to just south of Washington Boulevard. Within the City of Los Angeles (north of Venice Boulevard), Redwood Avenue is designated as a Local Street, although to the south of Zanja Street, this facility is designated as a Collector Street (including within the City of Culver City on the segment between Zanja Street and Washington Boulevard). Throughout its entire length (including both the Local Street and Collector Street segments, and within both the City of Culver City and the City of Los Angeles), although many segments do not exhibit any striping, Redwood Avenue typically provides a single travel lane in each direction, and on-street parking is generally permitted along both sides of the street throughout.

Beethoven Street – This generally north-south oriented roadway is located one block west of the project site, and runs between Morningside Way (opposite Rose Avenue) just south of the Santa Monica Airport on the north and Jefferson Boulevard on the south, although it is discontinuous between Panama Street (one block north of Culver Boulevard) and approximately Coral Tree Place (one block north of Jefferson Boulevard) across the Ballona Creek channel and the Marina Expressway right-of-way, and as such, does not provide direct access between the project vicinity and Jefferson Boulevard. Beethoven Street is also located primarily within the City of Los Angeles, with only the short segment across the Washington Boulevard corridor located within the City of Culver City. Beethoven Street is designated as a Collector Street between Morningside Way and Short Avenue (including through the City of Culver City), but is downgraded to Local Street status south of Short Avenue. This street provides one travel lane in each direction plus on-street parking on both sides of the street throughout its entire length.

Local Streets

Moore Street – This north-south oriented roadway serves as the western boundary of the project site, and provides a connection between Rose Avenue (opposite Warren Avenue) on the north and Short Avenue (the eastward continuation of Mindanao Way) on the south. As with several of the other roadways examined in this study, Moore Street is located primarily within the City of Los Angeles, except for the short segment between the alley north of the project site and just south of Washington Boulevard, although the eastern right-of-way line of Moore Street provides the City of Culver City/City of Los Angeles city boundary from Washington Boulevard to Short Avenue. Moore Street is designated as a Local Street throughout its length (within both the City of Los Angeles and the City of Culver City), and provides one travel lane per direction plus on-street parking on both sides of the street. Its intersection with Washington Boulevard adjacent to the project site is STOP sign controlled along both of the Moore Street approaches.

Meier Street – This north-south oriented street provides the eastern boundary of the project site, and generally runs between Rose Avenue on the north and Rosabell Street (just south of Washington Boulevard) on the south, although it is discontinuous through several areas, including immediately north of the project site between Zanja Street and Venice Boulevard. Meier Street is located primarily within the City of Los Angeles except for the segment within the City of Culver City (from the alley north of the project site to Rosabell Street), and is designated as a Local Street in both jurisdictions. Meier Street provides one travel lane per direction plus on-street parking along both sides of the street. Its intersection with Washington Boulevard adjacent to the project site is STOP sign controlled along both of the Meier Street approaches.

Zanja Street – This short, generally east-west oriented street is located approximately one block north of the project site, and connects Washington Place (opposite Washington Boulevard) on the east with Lincoln Boulevard (opposite Van Buren Avenue) on the west, running along the south side of the Venice High School campus (and including a school-related driveway just to the east of Walgrove Avenue) and the north side of the Costco Plaza site (no access to the Costco Plaza site is provided) along its route. Zanja Street is located almost entirely within the City of Los Angeles, except for a short segment near its eastern terminus at Washington Place, and another short segment between Redwood Avenue and Walgrove Avenue, both of which are within the City of Culver City; additionally, the southern right-of-way of Zanja Street coincides with the City of Culver City/City of Los Angeles city boundary between Redwood Avenue and Walnut Avenue (approximately one block east of Lincoln Boulevard). Zanja Street is designated as a Local Street within both the City of Culver City and City of Los Angeles, and typically provides one travel lane in each direction throughout its length, although westbound traffic (from Lincoln Boulevard) is required to turn right at Walnut Avenue to minimize cut-through traffic. On-street parking is generally allowed along the south side of the street on most segments of this facility, although due to its relatively narrow width, on-street parking is typically prohibited along the north side of this roadway throughout its length.

Public Transportation

The project site and general vicinity are served by a number of public transit service providers, including the City of Culver City CityBus, the City of Santa Monica Big Blue Bus ("SMBBB"), and the Los Angeles County Metropolitan Transportation Authority ("Metro"), although current service to the project site itself is relatively limited, with only two bus lines, Culver CityBus Line 1 and Culver CityBus Line 2, providing stops at or near the project site. Although several other bus lines serve the area near the project site along Lincoln Boulevard, Venice Boulevard, Centinela Avenue, and Mindanao Way/Short Street, including Metro's Routes 33, 733, 108, and 358, and Santa Monica Big Blue Bus ("SMBBB") Lines 2, 3, and Rapid 3, none of these lines is located within the approximately one-quarter mile distance from the project site considered to be the typical maximum "convenient" walking distance for regular use by project residents, employees, and/or patrons. However, transfer connections between these other lines and the two site-serving Culver CityBus lines allow for a wider transit service area than the direct service to the project site would itself provide. A map of the current transit service in the project vicinity is shown in Figure 10, and the two key Culver CityBus bus transit lines serving the project site and immediate project vicinity are described in more detail in the following pages.

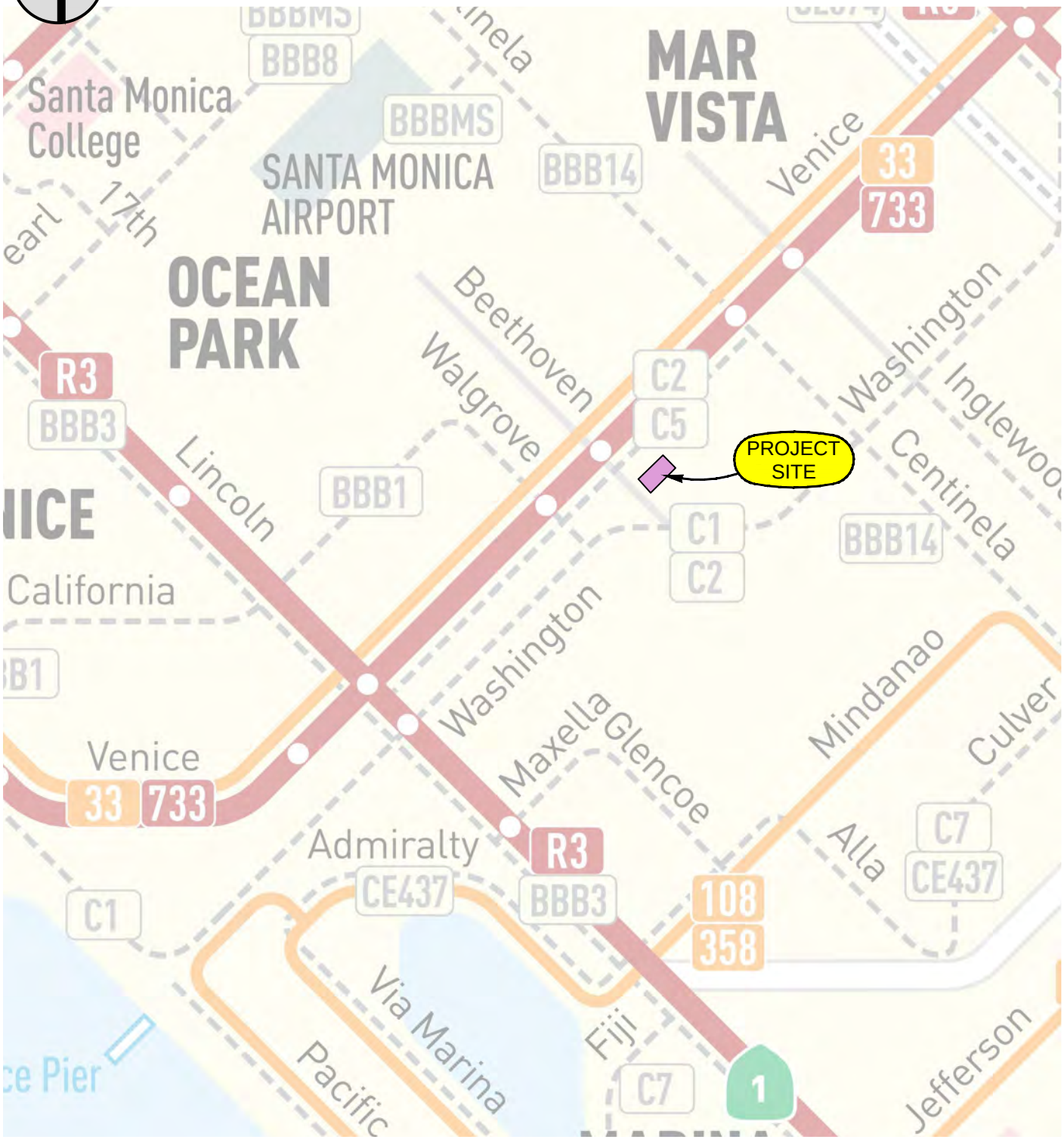


FIGURE 10

PROJECT AREA TRANSIT SERVICE MAP

Culver CityBus Line 1 – This bus line provides weekday, weekend, and holiday local-stop service between Pacific Avenue and Windward Avenue in the Venice community of the City of Los Angeles on the west and the West Los Angeles Transit Center along Fairfax Avenue at the Santa Monica (I-10) Freeway on the east. Line 1 travels along Pacific Avenue between Windward Avenue and Washington Boulevard, then along Washington Boulevard past the project site, including site-serving stops at Meier Street (for westbound service only), and at Beethoven Street and Rosabell Street, one block west and east of the project site, respectively (eastbound service only), and through the City of Culver City and the Mar Vista community of the City of Los Angeles to the West Los Angeles Transit Center. Line 1 also includes stops at a number of business and recreational locations that may be utilized or patronized by residents of the proposed project, including the Helms Bakery District, the Expo Line Culver City station, Culver City City Hall, and Venice Beach. Line 1 is in service on weekdays generally between about 5:30 AM and 11:30 PM, with headways through the project vicinity of 10 to 20 minutes in each direction throughout the day. Line 1 provides service on weekends and holidays between about 6:00 AM and 12:00 midnight, with headways of about 15 to 20 minutes in both directions throughout much of the service period, although headways can increase to 30 or 40 minutes during the off-peak (early morning and late evening) periods on these days.

Culver CityBus Line 2 – This bus line provides weekday-only local-stop service between the project vicinity and the Fox Hills Transit Center, in the Westfield Culver City Mall parking lot at Sepulveda Boulevard and Slauson Avenue in the southern portion of the City of Culver City. Line 2 runs along Slauson Avenue, Jefferson Boulevard, and Inglewood Avenue in both directions between the Fox Hills Transit Center and Washington Boulevard, then travels along Washington Boulevard in both directions between Inglewood Avenue and Centinela Avenue, where it completes its route with a one-way loop west along Washington Boulevard past the project site, including a (westbound-only) site-serving stop at Meier Street, to Lincoln Boulevard, then north along Lincoln Boulevard to Venice Boulevard, east along Venice Boulevard to Centinela Avenue, and finally south along Centinela Avenue back to Washington Boulevard before returning to the Fox Hills Transit Center along the reverse of its “outbound” path. Line 2 is typically in service between approximately 5:30 AM and 6:15 PM, with one-hour headways in both directions throughout the day; this line does not provide weekend or holiday service.

As described in the preceding pages, although some convenient public transportation services are currently available within the project vicinity, direct service to the project site is limited, and access to the larger regional area via the existing public transit facilities would generally require

project-related public transit patrons to walk substantial distances to other service stops or to make one or more transfers to other transit providers. Therefore, as described earlier in this report in the discussion of the proposed project's trip generation estimates, no significant use of public transportation by project residents, employees, or visitors/patrons was assumed beyond that nominal amount intrinsically included in the ITE *Trip Generation Manual* data.

STUDY AREA TRAFFIC VOLUMES

Existing (Year 2015) Traffic Volumes

Existing (No Project) Conditions

Current traffic volumes at each of the intersections analyzed in this study were obtained from new counts conducted in late October of 2015 specifically for Hirsch/Green for use in this study. The counts, contained in Appendix C, represent typical mid-week (Tuesday through Thursday) conditions during weeks with no holidays or other notable special events, and with all area schools and businesses generally exhibiting normal operations. The "peak hour" traffic volumes used in this analysis represent the four highest-volume consecutive 15-minute periods occurring within the larger "peak period" count windows of 7:00 AM to 10:00 AM, and 3:00 PM to 6:00 PM; the peak hour volumes were determined individually for each intersection, assuring that the "worst case" conditions at each location were analyzed. Based on these assumptions and methodologies, the "existing" (year 2015) traffic volumes at each of the nine study intersections are shown in Figures 11(a) and 11(b) for the AM and PM peak hour conditions, respectively.

Existing With Project Conditions

Both LADOT and the City of West Hollywood require analysis of the potential project-related impacts on existing conditions in the study, in order to identify any "immediate" traffic impacts within the project vicinity which may result from development of the proposed project alone. The traffic volumes associated with this scenario were developed by adding the net site-related traffic volumes, shown earlier in Figures 6(a) and 6(b), to the existing (year 2015) traffic volumes shown in Figures 11(a) and 11(b). The "Existing (2015) With Project" scenario traffic volumes are shown in Figure 12(a) for the AM peak hour and in Figure 12(b) for the PM peak hour.

Future (Year 2017) Traffic Volumes

In addition to the "Existing With Project" analyses, an evaluation of the effects of the proposed project on future traffic conditions in the area at the time the project is expected to be completed is also required. According the project applicant, the proposed project is anticipated to be completed by the end of the year 2017, and therefore, for purposes of this analysis, that date was assumed as the future study year. The "future conditions" analyses include the effects of both anticipated non-project traffic growth and the project's own traffic on area traffic operations, as well as the identification of potential project-specific impacts on the future roadway system.

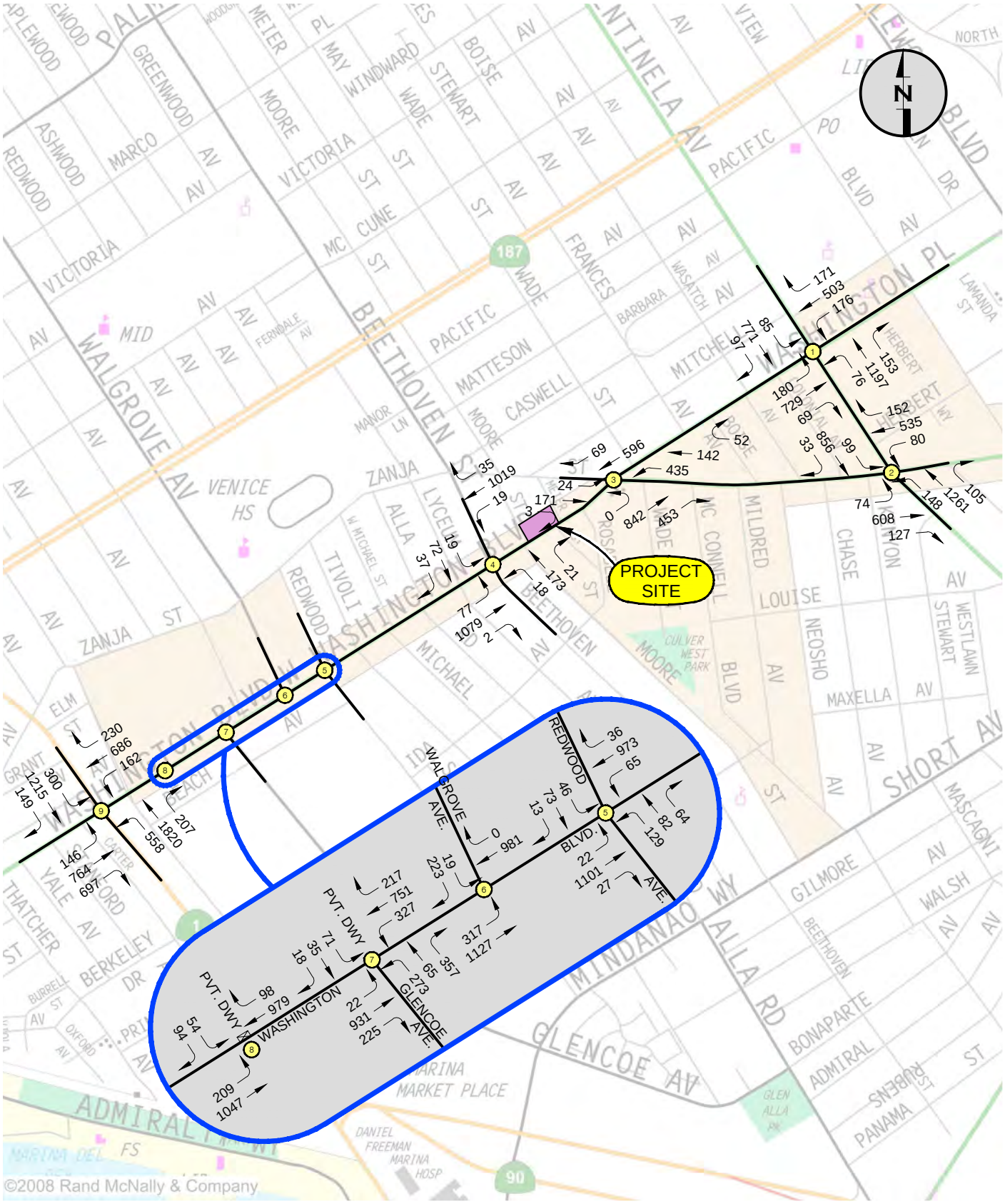


FIGURE 11(a)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

EXISTING (2015) TRAFFIC VOLUMES
AM PEAK HOUR

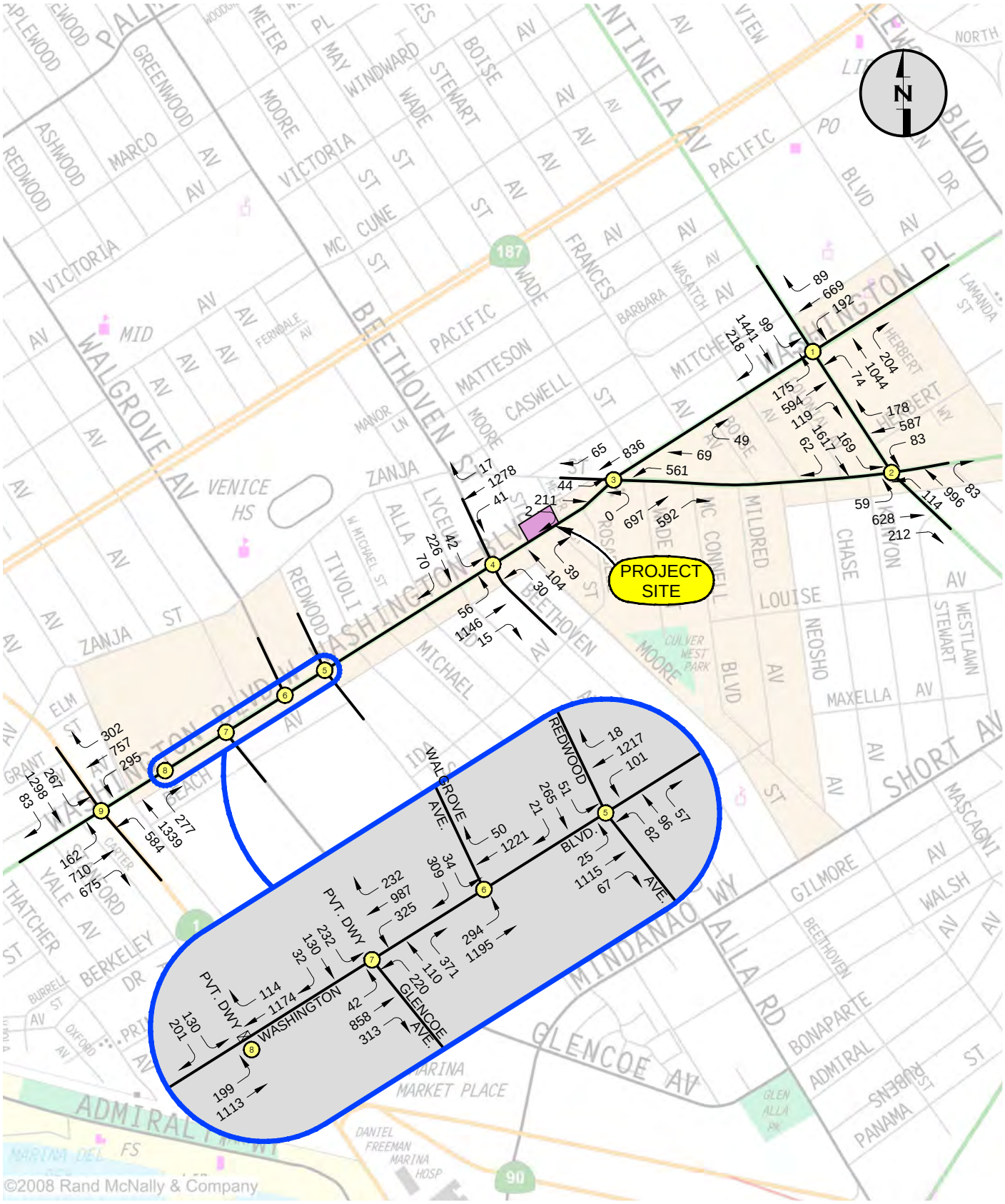


FIGURE 11(b)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

EXISTING (2015) TRAFFIC VOLUMES
PM PEAK HOUR

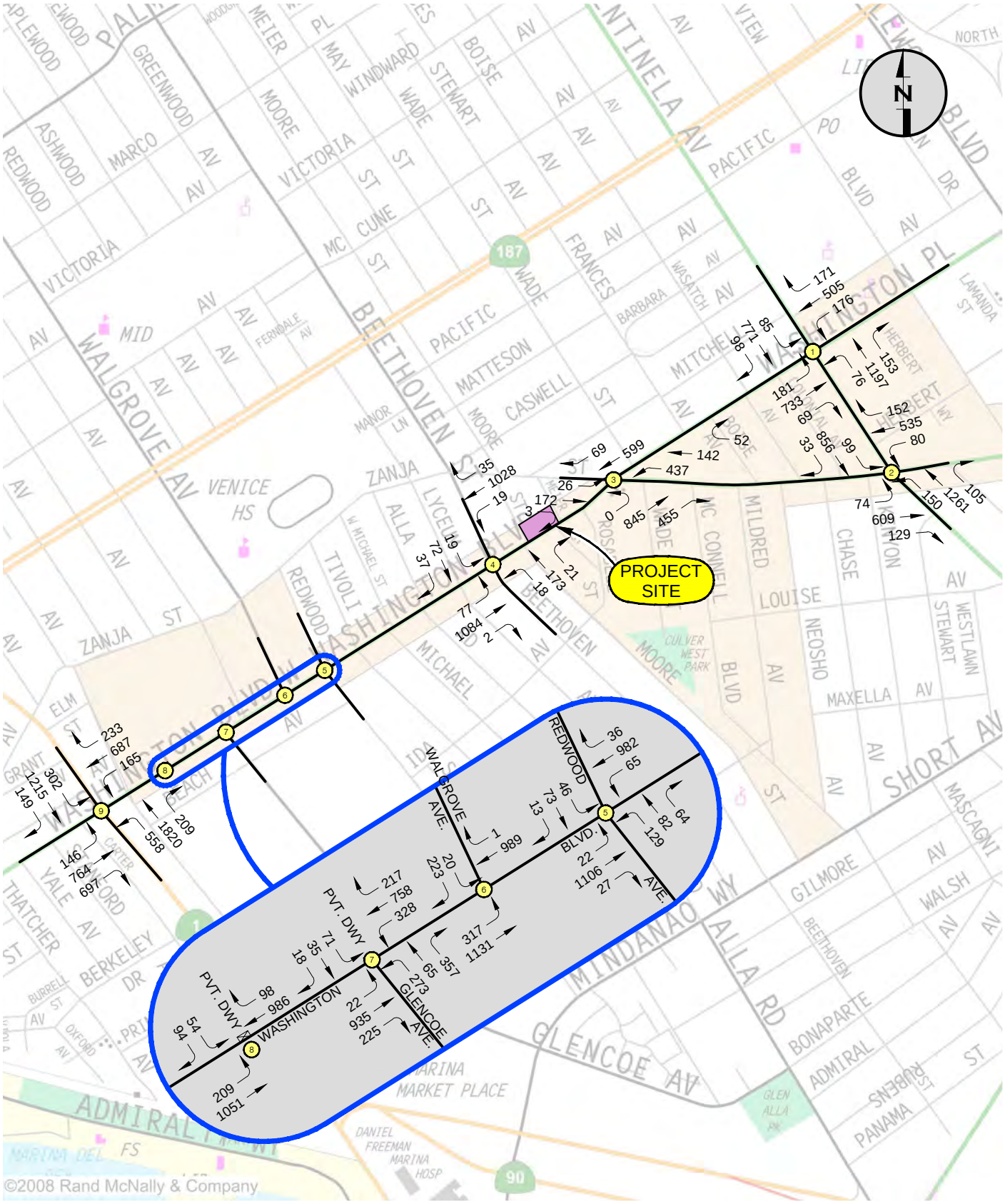


FIGURE 12(a)

EXISTING (2015) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

IRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

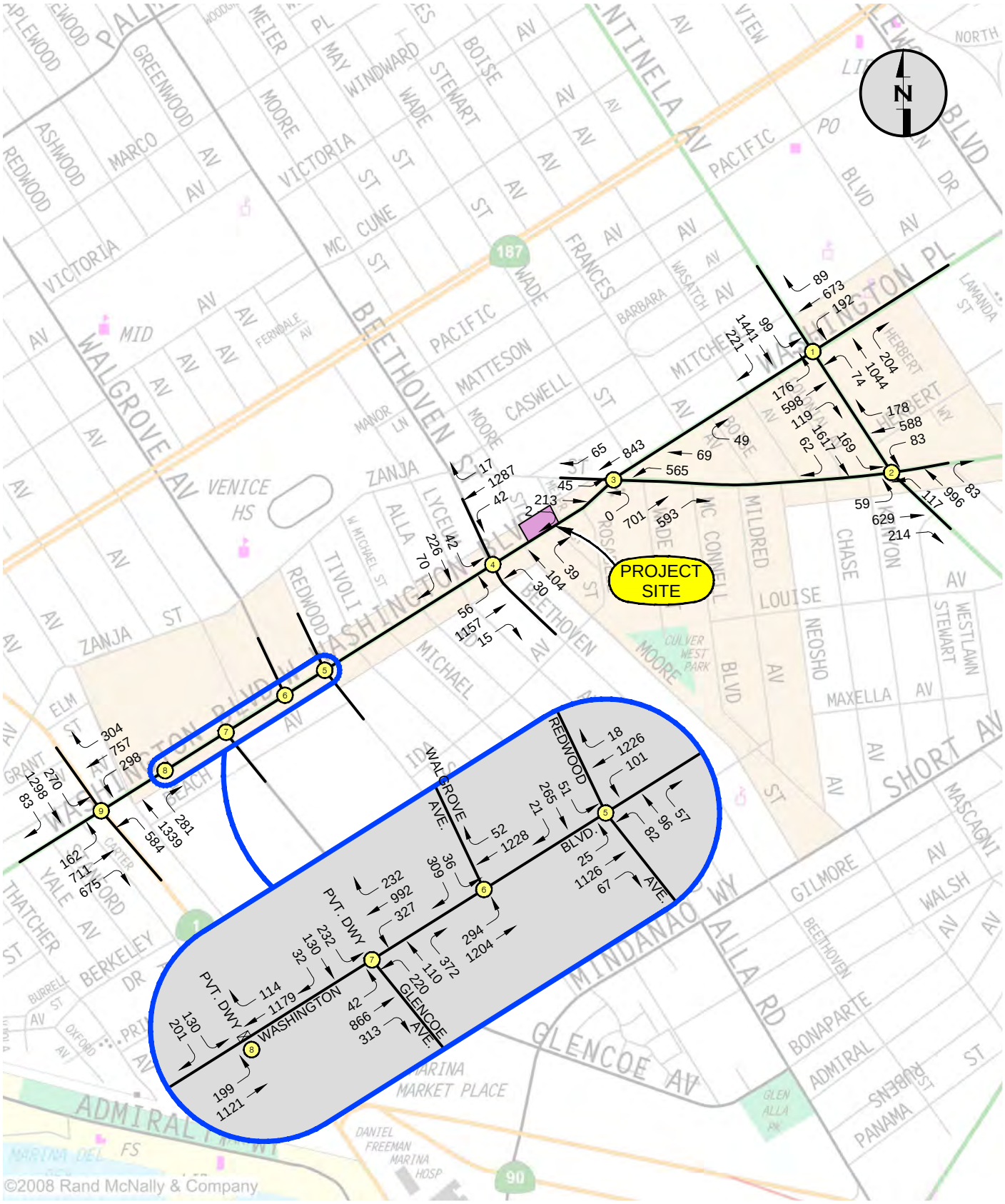


FIGURE 12(b)

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

EXISTING (2015) TRAFFIC VOLUMES
WITH PROJECT
PM PEAK HOUR

Future traffic volumes in the project vicinity, and indeed throughout the region, are anticipated to increase as a result of a number of factors, although two factors contribute most significantly to area traffic growth. The first of these factors is ambient traffic growth, which occurs on both a local and regional basis due to a number of reasons, including but not limited to increases in population (not tied to development), additional vehicles for existing households (as children become driving age, or new multi-vehicle status for current single-vehicle families), economic factors such as new jobs creating new worker trips, and other factors.

The second factor is new traffic resulting from ongoing and continued development. This factor is generally regarded as more localized than the general ambient growth factor described earlier, and is based on information regarding specific development activity within or in close proximity to the project area. A survey of such development activity in the project vicinity indicated that there are a number of other projects currently either under construction or planned for development which will likely contribute to future traffic growth within the study area.

Therefore, since the project is not expected to be built and occupied immediately, the analysis of potential project-related traffic impacts was expanded to evaluate future forecast traffic conditions in the study area, including potential traffic volume increases expected from both ambient growth and from traffic generated by projects that have not yet been developed. These "Future (2017) Without Project" volumes represent the forecast traffic conditions in the study area at the time the project is expected to be completed, but prior to its occupancy, and form the "baseline" conditions against which the project's incremental traffic additions (calculated earlier) to future roadway and intersection operations are assessed.

Briefly, the methodology for estimating the future traffic volumes used in this study was as follows: First, as described in a preceding section of this report, the current (year 2015) traffic volumes were determined by traffic counts. These existing traffic volumes were then increased through the use of an "ambient traffic growth factor" to estimate the "baseline" traffic volumes for the future study year of 2017. Traffic generated by other nearby development projects was then added to these baseline traffic estimates to form the future year "Without Project" conditions.

Ambient Traffic Growth

The "ambient traffic growth factor" is used to account for expected increases in traffic in the study area resulting from ongoing regional population growth, including traffic generated by potential development projects not yet proposed or located outside of the study area. Based on a review of traffic growth trends in the study area, the City of Culver City Traffic Engineer has

determined that an annual traffic growth factor of 1.0 percent is appropriate. In fact, the current (2010) Los Angeles County Congestion Management Program ("CMP") foresees traffic growth in the "West/Central Los Angeles" area encompassing the project site and surrounding vicinity to be approximately 0.14 percent annually, including both general ambient growth and traffic resulting from cumulative development in the area, through the year 2020, and therefore, the assumed 1.0 percent annual ambient traffic growth factor used in this study is expected to be highly conservative. This ambient traffic growth factor, compounded annually, was applied to the existing year 2015 traffic volumes at each of the study intersections in order to develop the "baseline" traffic volume estimates for the future year 2017 conditions.

Related Projects

In addition to the 1.0 percent annual traffic growth rate used for this study, a listing of specific projects located within the study area – an approximately 1.5-mile radius from the project site – were obtained from the City of Culver City Community Development Department, as well as from LADOT, and the Los Angeles County Regional Planning Department (for projects located within the City of Los Angeles, and Marina del Rey community of Los Angeles County, respectively). As noted previously, the 1.0 percent annual ambient traffic growth factor is expected to adequately represent all traffic growth occurring within the general project vicinity during the study period, and as such, the inclusion of traffic due to specific projects in the study area in addition to the assumed ambient background traffic growth may tend to overstate cumulative conditions. Therefore, so as not to artificially deteriorate future traffic conditions, projects located outside of the 1.5-mile study radius were generally assumed to be included within the traffic increases resulting from the 1.0 percent annual ambient traffic growth factor, and were not included as specific traffic generators, although five "significant" developments located beyond the assumed 1.5-mile radius were included in this study. A field survey of the study area was also conducted in order to identify any other significant potential developments that were not specifically identified on these lists, although no such projects were identified.

Using these assumptions as guidelines, a review of the list of projects provided by the City of Culver City, LADOT, and County of Los Angeles indicated that a total of 40 individual projects near the study site might produce additional traffic at study intersections in the future. As such, the potential traffic from these prospective area developments was added to the 1.0 percent annual ambient traffic growth to produce the estimates of the future 2017 study year traffic volumes. The locations of the 40 identified related projects assumed in this analysis are shown in Figure 13, while each of the related projects is individually listed and described in Table 5.

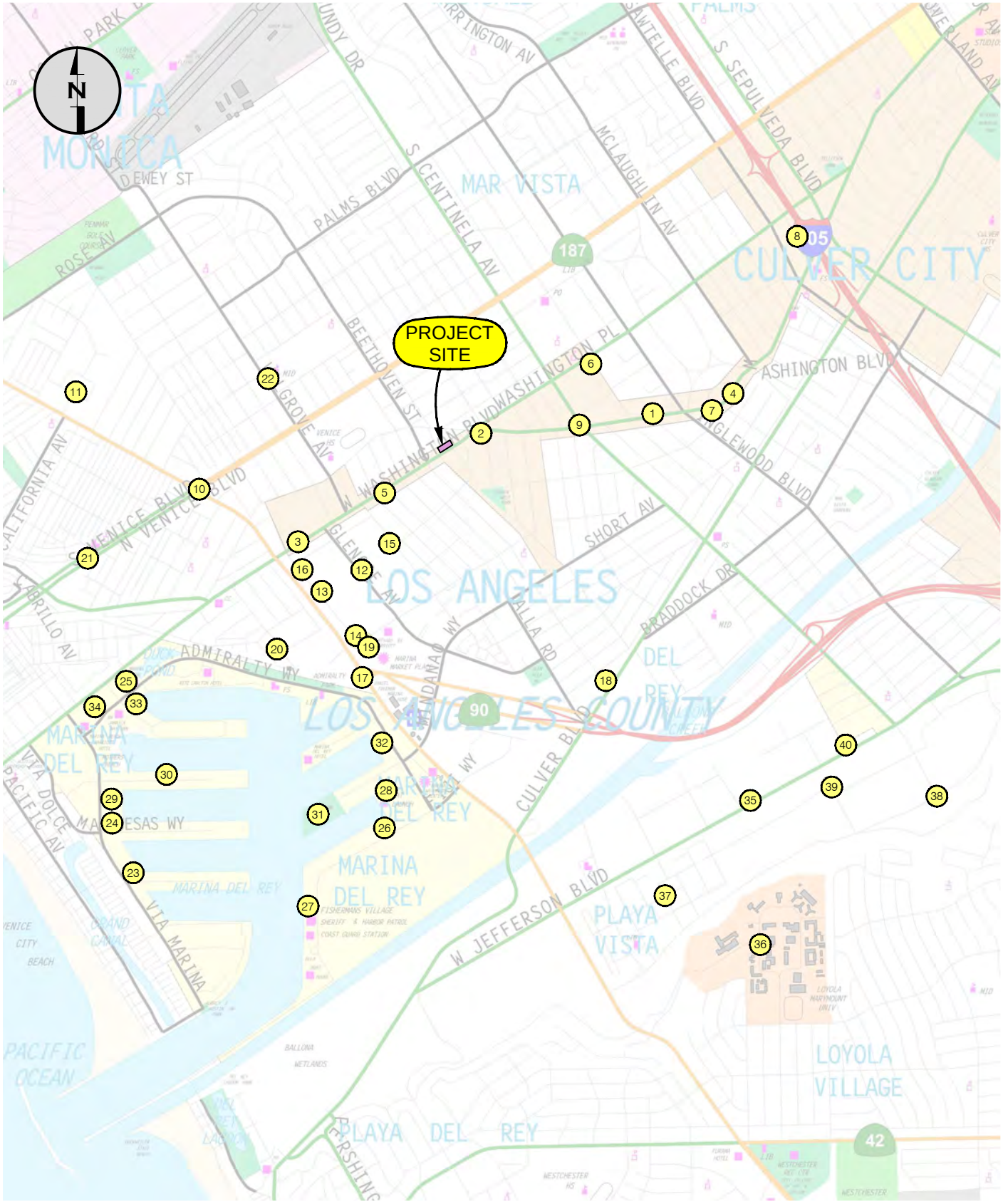


FIGURE 13

RELATED PROJECTS LOCATIONS MAP

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

Table 5
Related Projects Descriptions

Map No.	Land Use/Description	Size/Units	Address
City of Culver City Projects			
1.	The Help Group		12095-12101 Washington Boulevard
	School (Enrollment Increase)	50 students	
2.	Mixed Use		12712-12718 Washington Boulevard
	Apartments	5 units	
	Retail	3,308 sq. ft.	
	Furniture Store	*2,340 sq. ft.*	
3.	Costco		13463 Washington Boulevard
	Retail (Expansion)	29,111 sq. ft.	
	Supermarket	*63,213 sq. ft.*	
4.	School (Private K-8)	128 students	11828 Washington Boulevard
5.	Mixed Use		13112-13114 Washington Boulevard
	Restaurant	1,536 sq. ft.	
	Office	3,702 sq. ft.	
	Apartments	2 units	
6.	Apartments	36 units	4025 Grand View Boulevard
	Mobile Home Park	*20 units*	
7.	Mixed Use		11924 Washington Boulevard
	Apartments	98 units	
	Restaurant	3,750 sq. ft.	
	Retail	11,250 sq. ft.	
8.	Single-Family	10 units	4044-4068 Globe Avenue
9.	Mixed Use		12403 Washington Boulevard
	Supermarket	13,300 sq. ft.	
	Retail	20,000 sq. ft.	
	Restaurant	3,300 sq. ft.	
City of Los Angeles Projects			
10.	Restaurant	3,895 sq. ft.	1020 W. Venice Boulevard
11.	Apartments	90 units	1054 S. Frederick Street
12.	Mixed Use		4140 S. Glencoe Avenue
	Aparatments	67 units	
	Office	3,211 sq. ft.	

Table 5 (continued)
Related Projects Descriptions

Map No.	Land Use/Description	Size/Units	Address
City of Los Angeles Projects (continued)			
13.		51 units	4090 Del Rey Avenue
14.	Mixed-Use		4210 S. Del Rey Avenue
	Condominiums	136 units	
	Office	20,000 sq. ft.	
15.	Mixed Use		4091 S. Redwood Avenue
	Condominiums	67 units	
	Office	7,525 sq. ft.	
16.	Mixed Use - Option 1		4040 S. Del Rey Avenue
	Apartments	195 units	
	Office	15,000 sq. ft.	
	Mini Warehouse	80,000 sq. ft.	
	Mixed-Use Option 2 (Preferred)		
	Apartments	235 units	
	Office	15,000 sq. ft.	
17.	Mixed Use		4363 Lincoln Boulevard
	Condominiums	80 units	
	Retail	15,100 sq. ft.	
18.	Mixed Use		5000 S. Beethoven Street
	Apartments	156 units	
	Office	33,484 sq. ft.	
19.	Villa Marina		13488 W. Maxella Avenue
	Condominium	244 unit	
	Shopping Center	9,000 sq. ft.	
	Shopping Center	*21,038 sq. ft.*	
20.	LADPW Maintenance Yard Expansion	n/a	3233 Thatcher Avenue
21.	Mixed-Use		580 Venice Boulevard
	Residential	5 unit	
	Retail	5,700 sq. ft.	
22.	Elementary School (K-5)	567 students	2224 S. Walgrove Avenue

Table 5 (continued)
Related Projects Descriptions

Map No.	Land Use/Description	Size/Units	Address
Los Angeles County Projects			
23.	Marina del Rey Parcel 9		NEC Tahiti Way/Via Marina
	Hotel	288 room	
	Public Park	1 acre	
24.	Marina del Rey Parcels FF and 10R		E/s Via Marina near Marquesas Way
	Apartment	526 unit	
	Boat dock	168 slip	
	Apartment	*136 unit*	
	Boat Dock	*184 slip*	
25.	Marina del Rey Parcel OT		E/o Palawan Way between Washington
	Senior Care	114 unit	Boulevard and Admiralty Way
	Speciality Retail	3,000 sq. ft.	
26.	Marina del Rey Parcels 52,GG		Fiji Way, W/o Admiralty Way
	Storage	375 boat	
	County Office	*2,000 sq.ft.*	
	Public Parking Lot	*236 space*	
27.	Fisherman's Village (Parcels 55, 56, W)		Near southern terminius of Fiji Way
	Retail	29,150 sq.ft.	
	Resturants and Food Court	37,100 sq.ft.	
	Ferry Terminal and Office	6,500 sq.ft.	
	Hotel	132 room	
	Boat Slips	26 slip	
	Retail	*2,580 sq.ft.*	
	Office	*10,404 sq.ft.*	
	Resturants	*16,149 sq.ft.*	
	Boat Slips	*17 slip*	
28.	Marina del Rey Parcels 49, 77		W/o Admiralty Way between Mindanao Way
	Retail	135,000 sq. ft.	and Fiji Way
	Office	26,000 sq. ft.	
29.	Esprit Phase 2 (Parcel 15)		E/o Via Marina between Panay Way
	Apartments	297 unit	and Marquesas Way
	Retail	8,000 sq. ft.	
	Boat Slips	*41 slip*	
	Restaurant	*4,400 sq. ft.*	

Table 5 (continued)
Related Projects Descriptions

Map No.	Land Use/Description	Size/Units	Address
Los Angeles County Projects (continued)			
30.	Marina del Rey Parcel 21		13953 Panay Way
	Health Club	10,000 sq. ft.	
	Retail	2,916 sq. ft.	
	Marine Commercial Offices	11,432 sq. ft.	
	Yacht Club	92 slip	
	Health Club	*16,000 sq. ft.*	
	Retail	*2,916 sq. ft.*	
	Marine Commercial Offices	*5,432 sq. ft.*	
	Yacht Club	*64 slip*	
31.	Burton Chace Park Expansion	6.64 acres	Western terminus of Mindanao Way
32.	Marina del Rey Parcel 44		W/o Admiralty Way between Bali Way
	Retail (Visitor-Serving)	13,795 sq. ft.	and Mindanao Way
	Retail (Marine-Related)	25,000 sq. ft.	
	Restaurant(s)	9,855 sq. ft.	
	Boat Repair Offices	700 sq. ft.	
	Boat Storage	*69 boat*	
	Supermarket	*13,625 sq. ft.*	
	Boat Broaker Offices	*5,133 sq. ft.*	
	General Offices	*9,170 sq. ft.*	
	Marine Administrative Offices	2,285 sq. ft.	
	Yacht Club	1,150 sq. ft.	
	Community Room/Boater Lounge	*840 sq. ft.*	
	Boat Slips	*148 slip*	
	Boater Bathrooms and Laundry	*1,700 sq. ft.*	
33.	Marina del Rey Parcel 33/NR		SEC Admiralty Way and Palawan Way
	Apartment	292 unit	
	Supermarket	14,700 sq. ft.	
	Pharmacy/Drugstore	11,000 sq. ft.	
	Retail	2,300 sq. ft.	
	Restaurants	16,670 sq. ft.	
	Restaurant/Entertainment	*17,000 sq. ft.*	

Table 5 (continued)
Related Projects Descriptions

Map No.	Land Use/Description	Size/Units	Address
Los Angeles County Projects (continued)			
34.	Marina del Rey Parcel 95		S/o Washington Boulevard between
	Apartments	153 units	Via Marina and Via Dolce
	Retail	21,400 sq. ft.	
	Restaurant (Islands)	5,500 sq. ft.	
	Restaurant	7,700 sq. ft.	
	Adjacent Café (LA County)	800 sq. ft.	
	Office	*9,180 sq. ft.*	
	Retail (Art Gallery)	*7,500 sq. ft.*	
	Restaurant (Islands)	*5,713 sq. ft.*	
Other Major Projects Outside 1.5-Mile Study Area Radius			
35.	Office	49,950 sq. ft.	12777 W. Jefferson Boulevard
36.	Loyola Marymount University (student increase)	2,540 student	1 LMU Drive
37.	Playa Vista-Phase 1		S/o Jefferson Boulevard, E/o Lincoln Boulevard
	Office	1,922,050 sq.ft.	
	Condominium	3,246 unit	
	Retail	35,000 sq.ft.	
	Production and Stage Support	1,129,900 sq.ft.	
	Community Service Uses	120,000 sq.ft.	
38.	Playa Vista Plant Site (Spruce Goose)		Campus Center Drive & Bluff Creek Drive
	Production	1,129,900 sq. ft.	
	Office	572,050 sq. ft.	
39.	The Village at Playa Vista		S/o Jefferson Boulevard/Westlawn Avenue
	Office	175,000 sq.ft.	
	Apartment	2,600 unit	
	Retail	150,000 sq.ft.	
	Community Serving Uses	40,000 sq.ft.	
40.	Condominiums	215 units	5550 Grosvenor Boulevard

Note:

Uses identified in *italics* are existing uses removed in order to develop proposed project.

Estimates of the traffic generated by each of the 40 related projects were also obtained from the City of Culver City, LADOT, or Los Angeles County, or from traffic studies prepared for several of the projects by Hirsch/Green, and the number of trips associated with each related project is shown in Table 6. The related project's traffic volumes shown in this table were then distributed through the study area and assigned to the nine study intersections in a manner similar to that used for the proposed project's trips. The resulting related project trips at each of the study intersections are shown in Figures 14(a) and 14(b) for the AM and PM peak hours, respectively.

Future Without Project Conditions

The "Future (2017) Without Project" scenario traffic volumes for this analysis were developed by adding the combined effects of the assumed 1.0 percent annual ambient traffic growth factor with the additional traffic anticipated to be generated by the potential cumulative development in the project vicinity, shown in Figures 14(a) and 14(b), to the "Existing (2015)" traffic volumes shown previously in Figures 11(a) and 11(b). The resulting traffic volume estimates for the "Future (2017) Without Project" conditions are shown in Figure 15(a) for the AM peak hour, and in Figure 15(b) for the PM peak hour. As described earlier, the values shown in these figures represent the anticipated traffic volumes in the project vicinity prior to the development of the proposed project, and form the "benchmark" values for determining and evaluating the project's potential future traffic impacts on the area street system.

Future With Project Conditions

Finally, the net site-related traffic volumes from Figures 6(a) and 6(b) were combined with the forecast future "Without Project" benchmark volumes shown earlier in Figures 15(a) and 15(b) to produce the anticipated "Future (2017) With Project" traffic volume estimates for the study area, which are shown in Figure 16(a) for the AM peak hour and in Figure 16(b) for the PM peak hour. These future year (2017) "Without Project" and "With Project" traffic volume forecasts were used as the basis for determining the incremental traffic impacts attributable to the development of the proposed project at the expected time of its completion and occupancy.

The methodologies and assumptions used in the analysis of the intersection operations for both the existing (year 2015) and forecast future (year 2017) evaluation scenarios are described in detail in the following section of this report, including summaries of the "without project" traffic conditions (representing intersection operations prior to development of the proposed project) and "with project" conditions at each of the nine study intersections, as well as identification and discussion of any potential project-related traffic impacts at these locations.

Table 6
Related Projects Trip Generation Estimates

Map No.	Land Use/Description	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
City of Culver City Projects							
1.	The Help Group [1]						
	School (Enrollment Increase)	50 students	124	18	7	2	5
2.	Mixed Use						
	Apartments	5 units	33	1	2	2	1
	Retail	3,308 sq. ft.	147	2	2	4	5
	Furniture Store	*2,340 sq. ft.*	*(12)*	*0*	*0*	*0*	*(1)*
			168	**3**	**4**	**6**	**5**
3.	Costco [2]						
	Retail (Expansion)	29,111 sq. ft.	2,107	38	31	100	108
	Supermarket	*63,213 sq. ft.*	*(6,463)*	*(133)*	*(82)*	*(305)*	*(294)*
			(4,356)	**(95)**	**(51)**	**(205)**	**(186)**
4.	School (Private K-8)	128 students	165	63	52	9	10
5.	Mixed Use						
	Restaurant	1,536 sq. ft.	195	9	8	9	6
	Office	3,702 sq. ft.	41	5	1	1	5
	Apartments	2 units	13	0	1	1	0
			249	**14**	**10**	**11**	**11**
6.	Apartments	36 units	239	4	14	14	8
	Mobile Home Park	*20 units*	*(100)*	*(2)*	*(7)*	*(7)*	*(5)*
			139	**2**	**7**	**7**	**3**
7.	Mixed Use [3]						
	Apartments	98 units	652	10	40	39	22
	Restaurant	3,750 sq. ft.	330	2	1	14	7
	Retail	11,250 sq. ft.	499	9	6	13	17
			1,481	**21**	**47**	**66**	**46**
8.	Single-Family	10 units	67	1	4	4	2
9.	Mixed Use [4]						
	Supermarket	13,300 sq. ft.	1,360	28	17	64	62
	Retail	20,000 sq. ft.	886	16	11	24	30

Table 6 (continued)
Related Projects Trip Generation Estimates

Map No.	Land Use/Description	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
City of Los Angeles Projects							
10.	Restaurant	3,895 sq. ft.	396	17	16	20	13
11.	Apartments	90 units	665	10	40	45	24
12.	Mixed Use [5]		481	11	28	33	23
	Aparatments	67 units					
	Office	3,211 sq. ft.					
13.	Apartments [6]	51 units	339	5	21	23	13
14.	Mixed-Use		627	29	42	44	41
	Condominiums	136 units					
	Office	20,000 sq. ft.					
15.	Mixed Use		391	4	21	29	22
	Condominiums	67 units					
	Office	7,525 sq. ft.					
16.	Mixed Use - Option 1		931	16	31	36	26
	Apartments	195 units					
	Office	15,000 sq. ft.					
	Mini Warehouse	80,000 sq. ft.					
	Mixed-Use Option 2 (Preferred)						
	Apartments	235 units					
	Office	15,000 sq. ft.					
17.	Mixed Use		1,543	28	42	80	61
	Condominiums	80 units					
	Retail	15,100 sq. ft.					
18.	Mixed Use		1,406	62	70	102	101
	Apartments	156 units					
	Office	33,484 sq. ft.					
19.	Villa Marina [7]		896	11	84	72	11
	Condominium	244 unit					
	Shopping Center	9,000 sq. ft.					
	Shopping Center	*21,038 sq. ft.*					
20.	LADPW Maint. Yard Expansion	n/a	75	29	1	1	29

Table 6 (continued)
Related Projects Trip Generation Estimates

Map No.	Land Use/Description	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
City of Los Angeles Projects (continued)							
21.	Mixed-Use						
	Residential	5 unit	33	1	2	3	1
	Retail	5,700 sq. ft.	253	5	3	13	16
			286	**6**	**5**	**16**	**17**
22.	Elementary School (K-5)	567 students	n/a	286	224	153	187
Los Angeles County Projects							
23.	Marina del Rey Parcel 9 [8]						
	Hotel	288 room	1,588	63	54	46	56
	Public Park	1 acre	----	----	----	----	----
			1,588	**63**	**54**	**46**	**56**
24.	Marina del Rey Parcels FF and 10R [9]		1,499	24	111	87	39
	Apartment	526 unit					
	Boat dock	168 slip					
	Apartment	*136 unit*					
	Boat Dock	*184 slip*					
25.	Marina del Rey Parcel OT [10]		561	10	37	31	19
	Senior Care	114 unit					
	Speciality Retail	3,000 sq. ft.					
26.	Marina del Rey Parcels 52,GG						
	Storage	375 boat	1,081	16	31	18	33
	County Office	*2,000 sq.ft.*	*17*	*2*	*0*	*1*	*2*
	Public Parking Lot	*236 space*	----	----	----	----	----
			1,064	**14**	**31**	**17**	**31**
27.	Fisherman's Village (Parcels 55, 56, W) [11]		2,496	41	58	121	99
	Retail	29,150 sq.ft.					
	Resturants and Food Court	37,100 sq.ft.					
	Ferry Terminal and Office	6,500 sq.ft.					
	Hotel	132 room					
	Boat Slips	26 slip					
	Retail	*2,580 sq.ft.*					
	Office	*10,404 sq.ft.*					
	Resturants	*16,149 sq.ft.*					
	Boat Slips	*17 slip*					

Table 6 (continued)
Related Projects Trip Generation Estimates

Map No.	Land Use/Description	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
Los Angeles County Projects (continued)							
28.	Marina del Rey Parcels 49, 77						
	Retail	135,000 sq. ft.	5,797	82	53	294	305
	Office	26,000 sq. ft.	286	35	5	10	47
			6,083	**117**	**58**	**304**	**352**
29.	Esprit Phase 2 (Parcel 15)						
	Apartments	297 unit	1,975	30	121	63	34
	Retail	8,000 sq. ft.	355	7	4	16	20
	Boat Slips	*41 slip*	*118*	*2*	*3*	*2*	*4*
	Restaurant	*4,400 sq. ft.*	*559*	*27*	*24*	*28*	*18*
			1,653	**8**	**98**	**49**	**32**
30.	Marina del Rey Parcel 21						
	Health Club	10,000 sq. ft.	329	6	8	19	17
	Retail	2,916 sq. ft.	129	2	2	6	7
	Marine Commercial Offices	11,432 sq. ft.	126	16	2	4	21
	Yacht Club	92 slip	*265*	*4*	*8*	*5*	*8*
	Health Club	*16,000 sq. ft.*	*527*	*10*	*12*	*31*	*27*
	Retail	*2,916 sq. ft.*	*129*	*2*	*2*	*6*	*7*
	Marine Commercial Offices	*5,432 sq. ft.*	*60*	*7*	*1*	*2*	*10*
	Yacht Club	*64 slip*	*185*	*3*	*5*	*3*	*6*
			(52)	**6**	**0**	**(8)**	**3**
31.	Burton Chace Park Expansion	6.64 acres	15	2	1	1	3
32.	Marina del Rey Parcel 44 [12]		**3,753**	**53**	**26**	**206**	**181**
	Retail (Visitor-Serving)	13,795 sq. ft.					
	Retail (Marine-Related)	25,000 sq. ft.					
	Restaurant(s)	9,855 sq. ft.					
	Boat Repair Offices	700 sq. ft.					
	Boat Storage	*69 boat*					
	Supermarket	*13,625 sq. ft.*					
	Boat Broaker Offices	*5,133 sq. ft.*					
	General Offices	*9,170 sq. ft.*					
	Marine Administrative Offices	2,285 sq. ft.					
	Yacht Club	1,150 sq. ft.					
	Community Room/Boater Lounge	*840 sq. ft.*					
	Boat Slips	*148 slip*					
	Boater Bathrooms and Laundry	*1,700 sq. ft.*					

Table 6 (continued)
Related Projects Trip Generation Estimates

Map No.	Land Use/Description	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
Los Angeles County Projects (continued)							
33.	Marina del Rey Parcel 33/NR [13]		3,899	99	172	165	135
	Apartment	292 unit					
	Supermarket	14,700 sq. ft.					
	Pharmacy/Drugstore	11,000 sq. ft.					
	Retail	2,300 sq. ft.					
	Restaurants	16,670 sq. ft.					
	Restaurant/Entertainment	*17,000 sq. ft.*					
34.	Marina del Rey Parcel 95 [14]		**2,148**	**20**	**72**	**98**	**50**
	Apartments	153 units					
	Retail	21,400 sq. ft.					
	Restaurant (Islands)	5,500 sq. ft.					
	Restaurant	7,700 sq. ft.					
	Adjacent Café (LA County)	800 sq. ft.					
	Office	*9,180 sq. ft.*					
	Retail (Art Gallery)	*7,500 sq. ft.*					
	Restaurant (Islands)	*5,713 sq. ft.*					
Other Major Projects Outside 1.5-Mile Study Area Radius							
35.	Office	49,950 sq. ft.	550	68	9	17	83
36.	Loyola Marymount University [15] (student increase)	2,540 student	2,540	146	30	112	111
37.	Playa Vista-Phase 1						
	Office	1,922,050 sq.ft.	8,041	996	136	248	1,213
	Condominium	3,246 unit	566	7	36	46	22
	Retail	35,000 sq.ft.	646	9	6	97	100
	Production and Stage Support	1,129,900 sq.ft.	6,458	734	100	123	600
	Community Service Uses	120,000 sq.ft.	1,092	19	8	13	25
			16,803	**1,765**	**286**	**527**	**1,960**
38.	Playa Vista Plant Site (Spruce Goose)		n/a	1,456	198	259	1,267
	Production	1,129,900 sq. ft.					
	Office	572,050 sq. ft.					

Table 6 (continued)
Related Projects Trip Generation Estimates

Map No.	Land Use/Description	Size/Units	Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
Other Major Projects Outside 1.5-Mile Study Area Radius (continued)							
39.	The Village at Playa Vista [16]		24,220	577	1,049	1,275	1,027
	Office	175,000 sq.ft.					
	Apartment	2,600 unit					
	Retail	150,000 sq.ft.					
	Community Serving Uses	40,000 sq.ft.					
40.	Condominiums	215 units	1,260	16	79	75	37

Note:

Uses identified in *italics* are existing uses removed in order to develop proposed project.

Sources:

[1] Project Trip Generation Table from The Help Group Culver City Campus Traffic Impact Analysis, Trames Solutions, Inc., September 10, 2015.

[2] Culver City Costco Traffic Analysis, Kittelson & Associates, Inc., October 14, 2015.

[3] 11960 Washington Boulevard Mixed Use Project Traffic Impact Analysis, RBF Consulting, August 31, 2015.

[4] Preliminary Trip Generation Estimates per Current Project Description, Hirsch/Green Transportation Consulting, Inc., January 9, 2015.

[5] Technical Letter for Supplemental Traffic Impact Analysis for Revisions to Approved Residential Project at 4140 S. Glencoe Avenue in the Marina del Rey Community of the City of Los Angeles, Hirsch/Green Transportation Consulting, Inc., July 17, 2013.

[6] Traffic Impact Analysis Report for Proposed 51-Unit Residential Apjartment Development, Hirsch/Green Transportation Consulting, Inc., February 2013.

[7] Memorandum to Eddie Guerro, LADOT, from Pat Gibson and Audrey Naval, May 6, 2009.

[8] Traffic Study for Proposed 288-room Hotel and 1.1-Acre Park on Parcel 9U in Marina del Rey, Crain & Associates, March 2006.

[9] Traffic Study for Proposed 526-Unit Residential Development on Parcels FF and 10R in Marina del Rey, Crain & Associates, September 2005.

[10] Scoping for Traffic Study for Proposed Congregate Care Facility and Retail on Parcel OT in Marina del Rey, Crain & Associates, May 18, 2006.

[11] Traffic Impact Analysis Report, Proposed Fisherman's Village Enhancement/Expansion Project Near the Southern Terminus of Fiji Way, Marina del Rey, California, Hirsch/Green Transportation Consulting, Inc., September 2007.

[12] Traffic Impact Analysis Report, Proposed Commercial Redevelopment of Parcel 44 on Admiralty Way between Bali Way and Mindanao Way in Marina del Rey, Hirsch/Green Transportation Consulting, Inc., Revised October 2013.

[13] Preliminary Trip Generation Calculations, Parcel 33/NR Mixed-Use Project, Hirsch/Green Transportation Consulting, Inc. January 2012.

[14] Traffic Study Memorandum of Understanding Parcel 95 Redevelopment Project, Hirsch/Green Transportation Consulting, Inc., May 21, 2015.

[15] Traffic Impact Assessment Letter for Proposed Loyola Marymount University Master Plan Project, City of Los Angeles, November 13, 2009.

[16] Traffic Analysis for The Village at Playa Vista Project, Kaku Associates, and Raju Associates, July 2003.

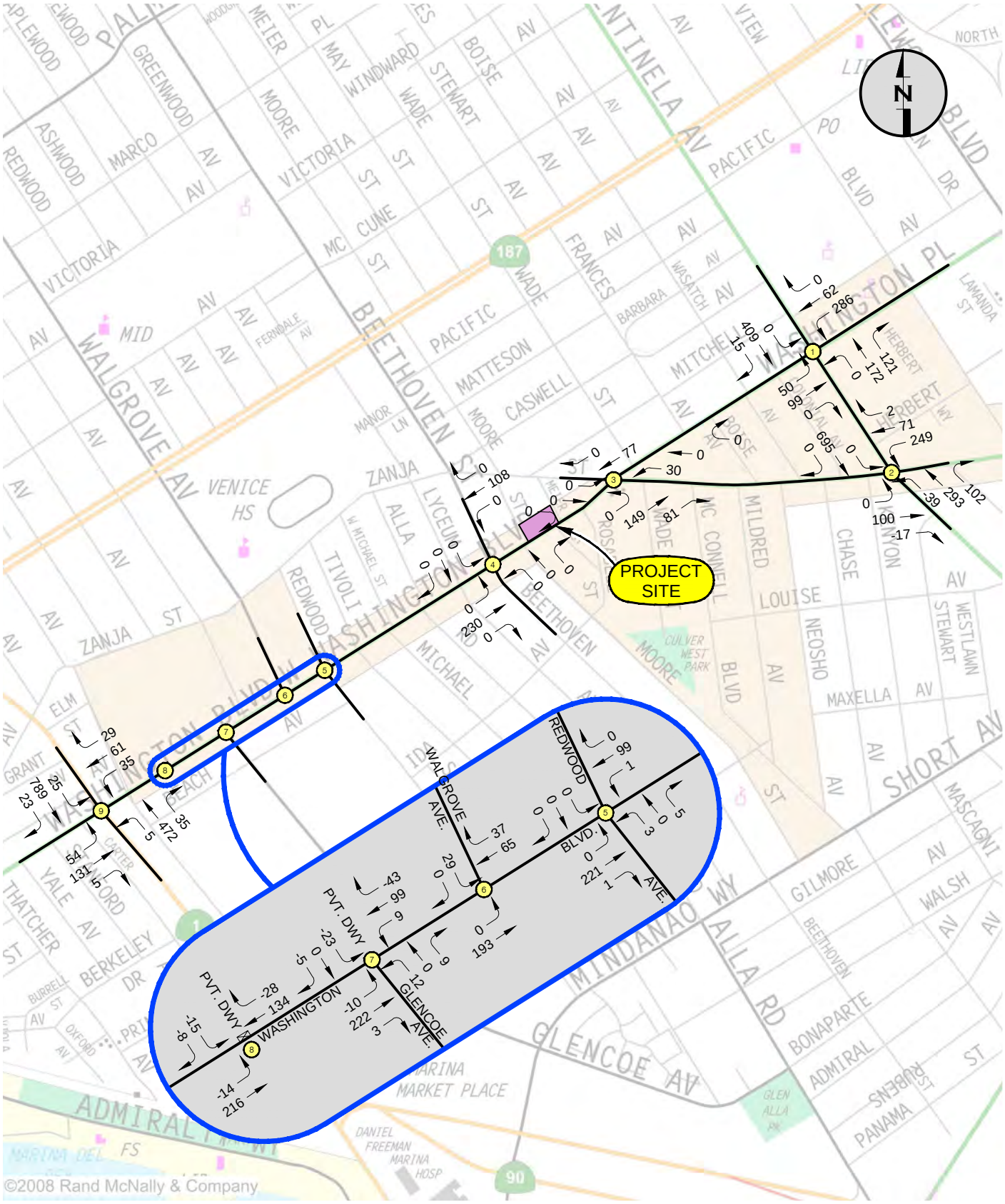


FIGURE 14(a)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

RELATED PROJECTS TRAFFIC VOLULMES
AM PEAK HOUR

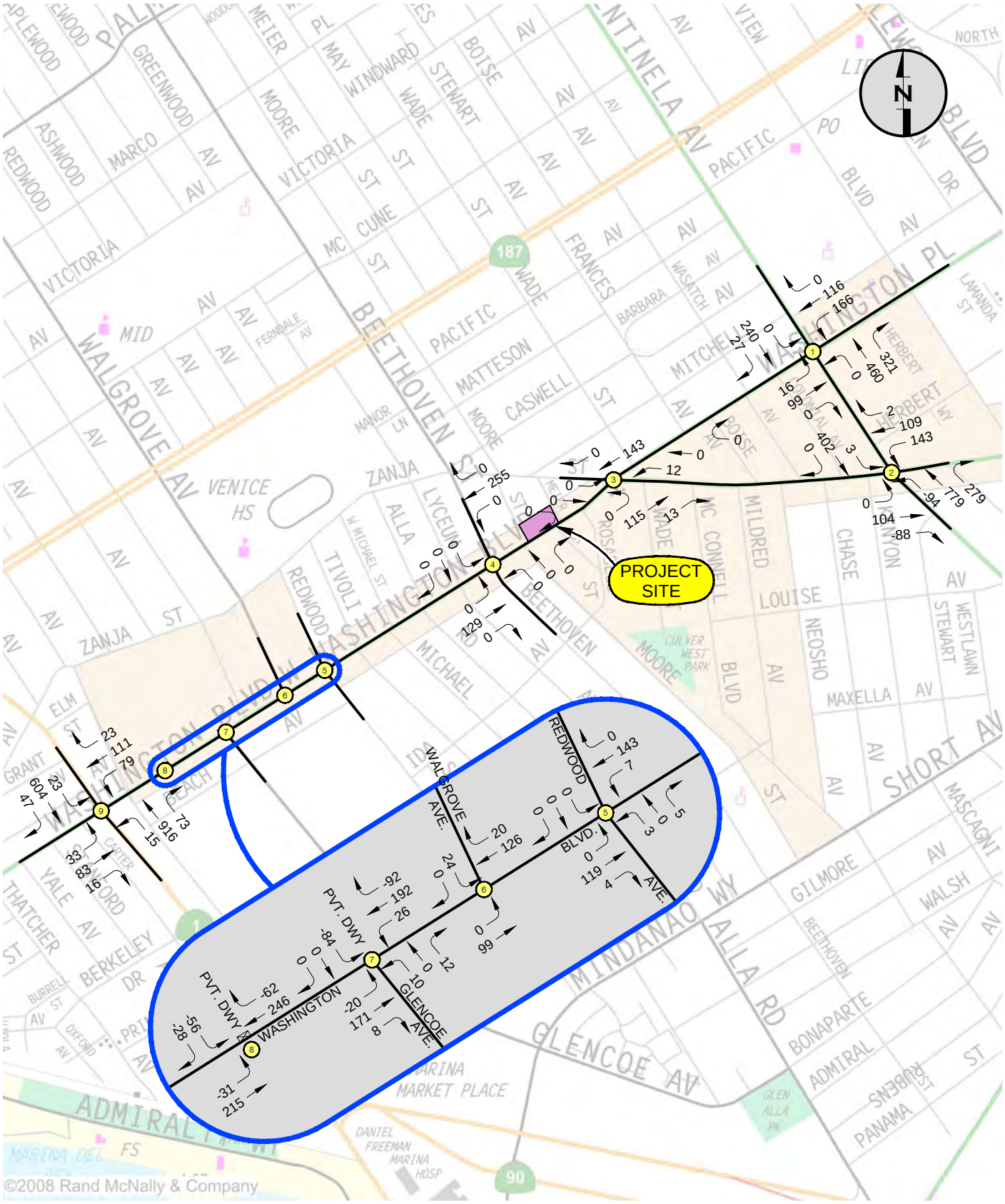


FIGURE 14(b)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

RELATED PROJECTS TRAFFIC VOLUMES
PM PEAK HOUR

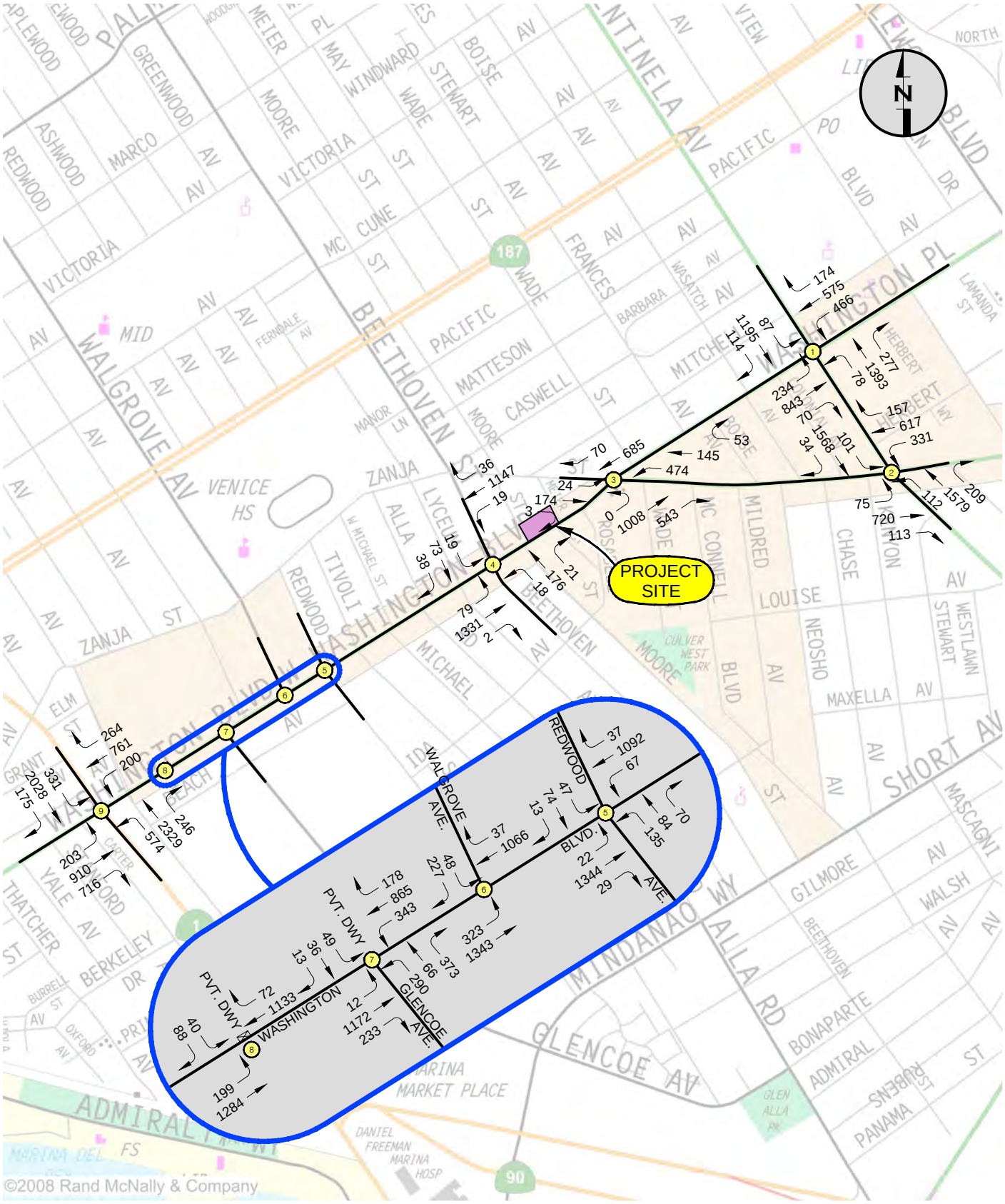


FIGURE 15(a)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

FUTURE (2017) TRAFFIC VOLUMES
WITHOUT PROJECT
AM PEAK HOUR

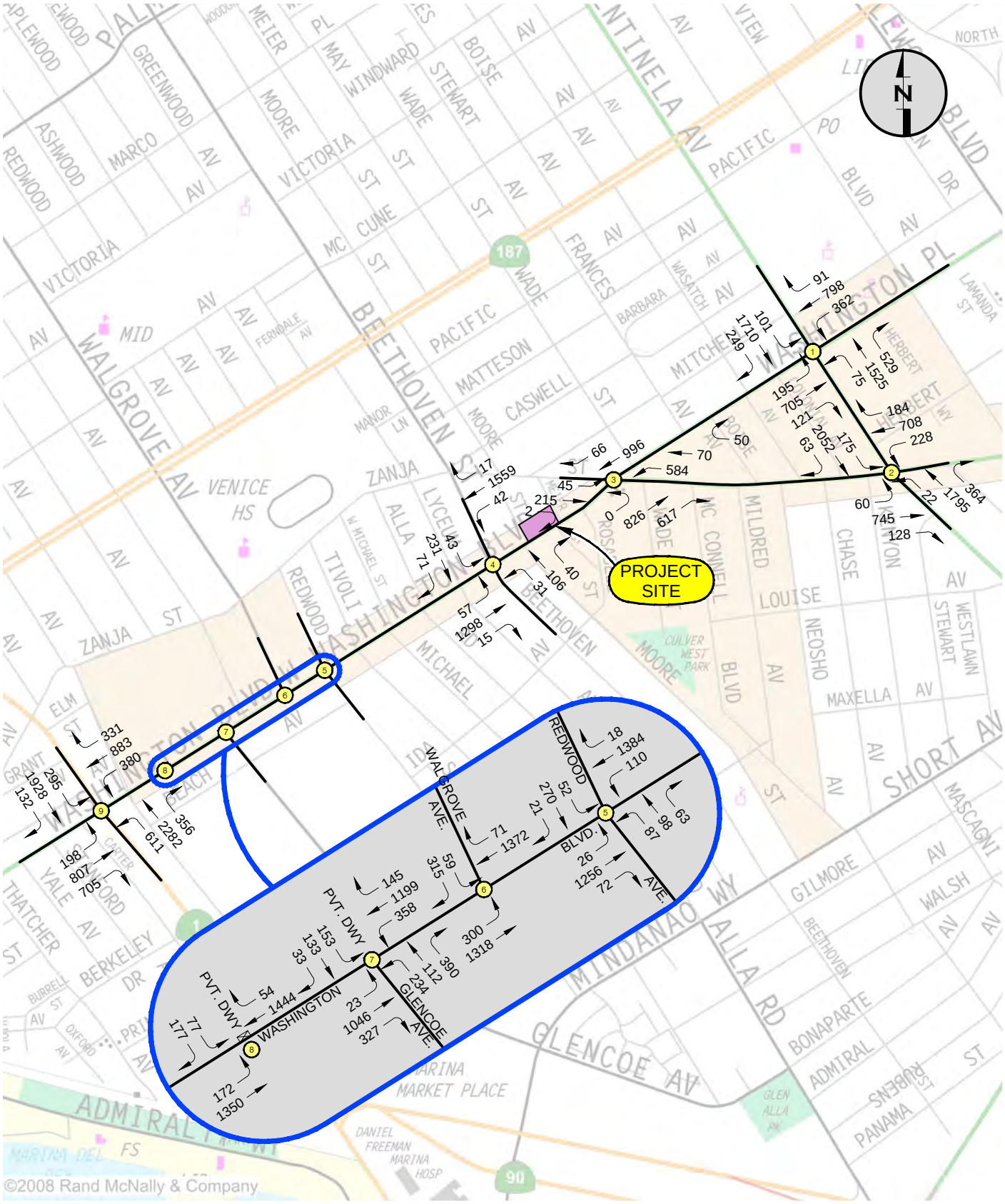


FIGURE 15(b)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

FUTURE (2017) TRAFFIC VOLUMES
WITHOUT PROJECT
PM PEAK HOUR

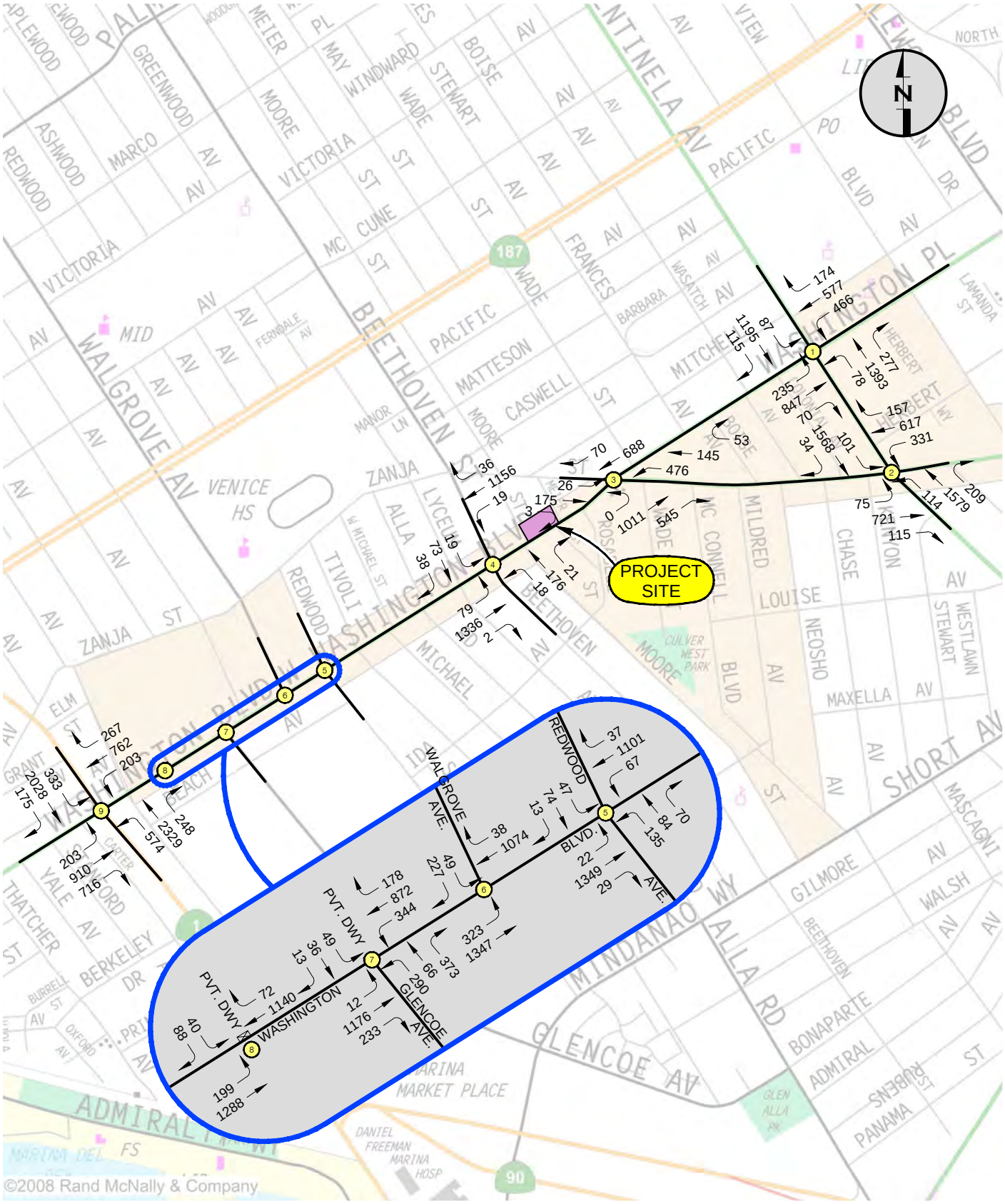


FIGURE 16(a)

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

FUTURE (2017) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

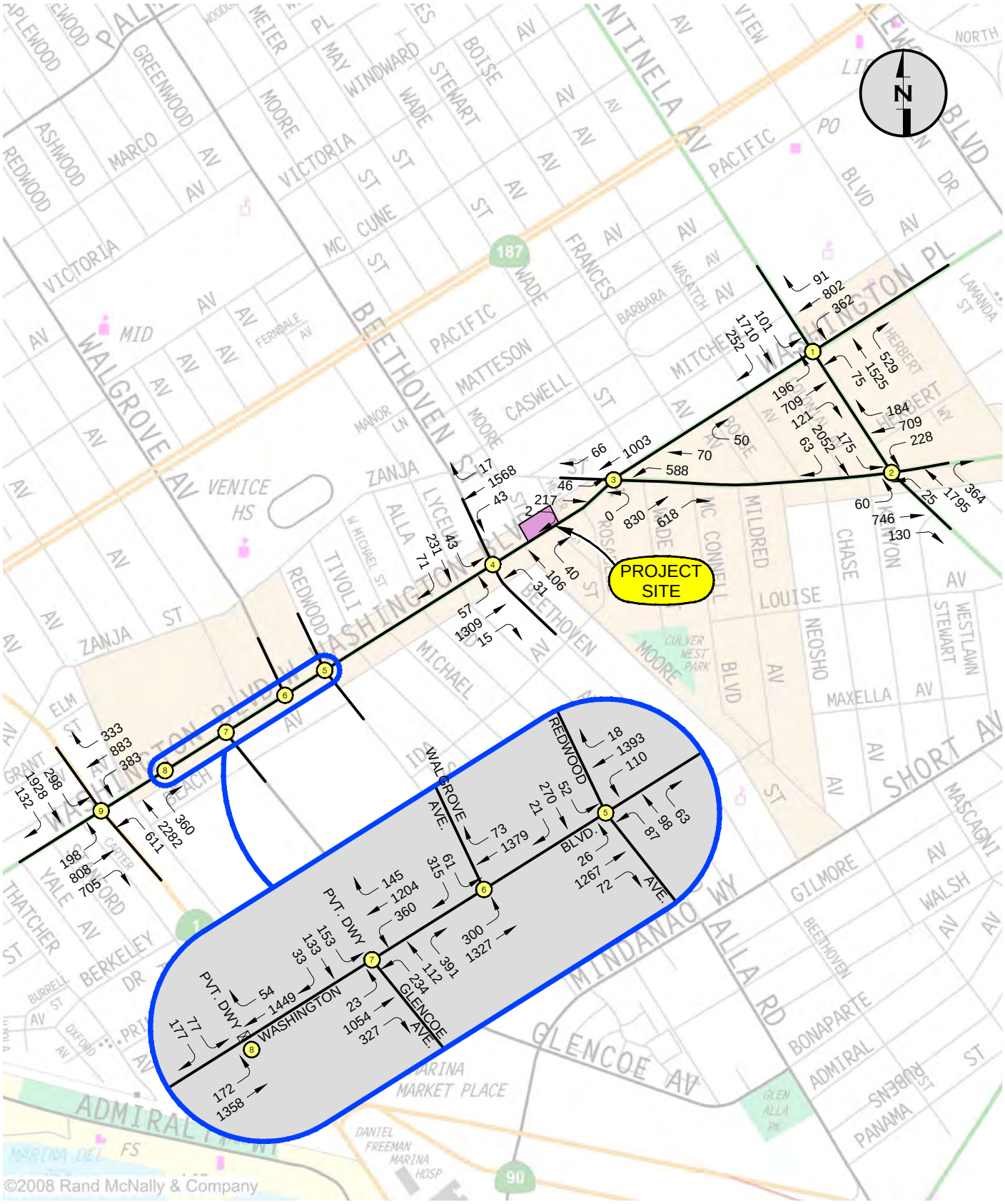


FIGURE 16(b)

Hirsch/Green Transportation Consulting, Inc.

FUTURE (2017) TRAFFIC VOLUMES
WITH PROJECT
PM PEAK HOUR

ANALYSIS OF AREA TRAFFIC CONDITIONS

Detailed analyses of the existing (year 2015) and forecast future (year 2017) traffic conditions in the study area were performed at a total of eight signalized and one unsignalized intersections in the vicinity of the proposed project; all but one of the intersections is located within the City of Culver City, with the remaining intersection located within the City of Los Angeles. These study intersections, listed below (along with their controlling jurisdiction, if not the City of Culver City), are considered to be the locations most likely to be affected by changes in area traffic volumes and/or travel patterns resulting from the proposed project.

1. Washington Boulevard and Costco Driveway
2. Washington Boulevard and Glencoe Avenue/Costco Driveway
3. Washington Boulevard and Walgrove Avenue *
4. Washington Boulevard and Redwood Avenue
5. Washington Boulevard and Beethoven Street
6. Washington Boulevard and Washington Place/Zanja Street
7. Washington Place and Centinela Avenue
8. Washington Boulevard and Centinela Avenue
9. Washington Boulevard and Lincoln Boulevard (City of Los Angeles)

"*" indicates STOP sign controlled intersection.

Existing Highway System Improvements

Most of the eight signalized study intersections exhibit multiple-phase operations, with separate left-turn phases, and/or right-turn indications or "overlap" phases in order to maximize capacity. Further, each of these intersections exhibits advanced traffic signal synchronization protocols, including LADOT's Automated Traffic Surveillance and Control ("ATSAC") system (for the intersection of Washington Boulevard and Lincoln Boulevard, within the City of Los Angeles), and a similar signal synchronization system for those intersections within the City of Culver City. LADOT's Adaptive Traffic Control System ("ATCS") signal coordination system upgrades have also been installed at the intersection of Washington Boulevard and Lincoln Boulevard; although the City of Culver City anticipates similar next-generation signal synchronization upgrades to its traffic signal network (including at each of the signalized study intersections), no timeline for the installation of these improvements has been identified. However, both the City of Culver City's

and LADOT's traffic signal synchronization systems enhance the overall capacity of a network of interconnected traffic signals by monitoring the traffic flow patterns and vehicular demands at adjacent or nearby intersections, and adjusting the signal timing and phasing schemes of the individual intersections in real time throughout the entire signal network to maximize vehicular throughput and minimize delay along key transportation corridors within the project vicinity and throughout the study area. The lone unsignalized study intersection of Washington Boulevard and Walgrove Avenue, is a three-way ("tee") intersection that is STOP sign controlled along its (southbound only) Walgrove Avenue approach to the intersection (eastbound and westbound "through" traffic on Washington Boulevard does not stop at this intersection).

Ongoing or Programmed Future Highway System Improvements

The existing roadway network serving the study area, including streets and intersections located within both the City of Culver City and the City of Los Angeles, is already improved with a variety of physical (geometric) and/or operational measures designed to enhance traffic flow and reduce travel delays, including the provision of left-turn and/or right-turn channelization at key intersections, prohibition of on-street parking during peak commute traffic periods to provide additional traffic lanes, and installation of traffic signal coordination and optimization protocols at all of the signalized intersections in the project vicinity. As a result, there are few meaningful roadway, intersection, or traffic signal system improvements remaining in the project vicinity.

Further, a review of City of Culver City and City of Los Angeles records indicated that there are no significant highway improvements within the study area anticipated for implementation by the proposed project's year 2017 completion date (as noted earlier, while the City of Culver City expects to install traffic signal synchronization upgrades sometime in the future, no specific completion date is currently identified, and as a result, these traffic signal improvements are not expected to be "in place" by the completion date of the proposed projects). Note also that some or all of the 40 related projects identified earlier in this report may be required to implement localized roadway or intersections improvements in order to mitigate specific traffic impacts associated with those projects. However, for purposes of this study, and in order to provide the most conservative assessment of the potential future roadway and intersection conditions in the study area, no such related projects "mitigation" improvements were assumed. Therefore, the analysis of the forecast future year 2017 traffic conditions in the project vicinity conservatively assumed that the traffic signal operations and intersection geometries and capacities would remain unchanged from those used to analyze the existing (year 2015) traffic conditions.

Analysis Methodology and Results

In conformance with the current traffic study policies for both the City of Culver City and City of Los Angeles (LADOT), this study uses the Critical Movement Analysis ("CMA") methodology to analyze and evaluate the traffic conditions at the eight signalized study intersections, per the Transportation Research Board's ("TRB") *Circular Number 212* publication[2]. This methodology describes the operating characteristics of an intersection in terms of the "Level of Service", based on intersection traffic volumes and other variables such as the number and type of signal phases, lane geometries, and other factors which determine both the quantity of traffic that can move through an intersection ("Capacity") and the quality of that traffic flow ("Level of Service").

The CMA analysis methodologies define the "capacity" of a signalized intersection as the maximum total number of vehicles in the critical lanes which has a reasonable expectation of passing through an intersection under the prevailing roadway and traffic conditions during a specific time period (such as the AM or PM peak hours). Critical lanes are defined generally as those intersection movements or groups of "conflicting" movements (such as a through lane in one direction and a left-turn lane in the opposing direction) which exhibit the highest "per lane" of combined traffic volumes, thus defining the maximum amount of vehicles attempting to travel through the intersection during a specific time period. The capacity of a signalized intersection also varies based on the number of signal phases for the location; more signal phases generally result in more "lost" or "startup" time due to slight (but cumulative) driver reaction time delays when signal indications change from "red" to "green". Additional signal phases create more signal indication changes, which consequently introduce more opportunities for lost time during the signal cycle, reducing the efficiency, and thus the capacity, of a signalized intersection.

The intersection capacities associated with various levels of service for the CMA methodology are based on the number of traffic signal phases, as shown in Table 7. For the intersection evaluation and planning purposes (such as this traffic study), both the City of Culver City and City of Los Angeles require that the maximum "baseline" capacity of a signalized intersection (without adjustment to account for any traffic signal synchronization or optimization upgrades, as described later in this section) equates to the value of Level of Service ("LOS") E shown in Table 7. This value is considered to represent the highest volume of traffic that can be adequately accommodated through urban area intersections without creating a breakdown in operations, and result in unstable traffic flows, high levels of congestion, and long delays.

[2] Interim Materials on Highway Capacity, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.

Table 7
Critical Movement Analysis
Volume Ranges per Level of Service *

Level of Service	Maximum Sum of Critical Volumes (VPH) vs. Number of Signal Phases: Two Phases	Three Phases	Four or More Phases
A	900	855	825
B	1,050	1,000	965
C	1,200	1,140	1,100
D	1,350	1,275	1,225
E	1,500	1,425	1,375
F	- - - - - - - - - - Not Applicable - - - - - - - - - -		

* For planning applications only. Not appropriate for operations/design applications.

The "Critical Movement" indices at a signalized intersection are determined by first calculating the sum of the traffic volumes travelling through the critical lanes at the subject intersection. This total traffic *volume* value, which represents the highest intersection traffic demand, is then divided by the appropriate intersection *capacity* value (based on the number of signal phases at the subject intersection, using the values shown in Table 7), to determine the "CMA value" for the intersection, which is roughly equivalent to its volume-to-capacity ("v/c") ratio.

"Level of Service" describes the quality of traffic flow through the intersection. LOS A through LOS C provide good traffic flow characteristics, with little or no congestion or vehicle delay. LOS D typically is the level of service for which a metropolitan area street system is designed, and represents the highest level of smooth traffic flow. LOS E represents operations at or near the capacity of the intersection, and can result in unstable traffic flows and/or intermittent but short-duration congestion at the upper reaches of this condition. LOS F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration.

For signalized intersections, both the City of Culver City and City of Los Angeles (LADOT) utilize the CMA methodology to determine the level of service at a subject location. However, for unsignalized intersections, the City of Culver City uses a somewhat different operational assessment methodology (the City of Los Angeles does not require traffic impact analyses for unsignalized intersections). First, the critical traffic flows and operational parameters of the intersection are identified through the CMA analysis procedures described above. These values

are used to provide a numerical baseline for the determination of the effects of potential traffic increases, including project-related traffic, at the intersection. However, the determination of the intersection level of service is based on the unsignalized intersection analysis methodologies described in the *Highway Capacity Manual* ("*HCM*")[3], also published by the TRB, which provides analysis techniques applicable to the unique traffic flows and vehicular interactions that occur at unsignalized intersections. The HCM unsignalized intersection analysis methodologies utilize much of the same intersection information regarding traffic volumes and lane geometries and configurations as the CMA signalized intersection methodology, although the HCM methodology expresses "capacity" in terms of a calculated "saturation flow rate" for the critical lanes, and therefore, the "critical volume" values shown previously in Table 7 for signalized intersections are not applicable. Additionally, the HCM unsignalized intersection analysis methodologies base the intersection level of service on vehicle delays exhibited on the intersection approaches rather than on intersection capacity. This approach is useful when evaluating locations where high volumes of unimpeded "through" traffic on a major street may hinder traffic moves to and from minor street approaches, potentially resulting in long delays for these side street vehicles.

The LOS definitions applicable to both the CMA and HCM intersection analysis methodologies are identified in Table 8. Note that the LOS definitions do not represent any single intersection operating condition, but rather correspond to a range of CMA ratios or HCM delay values.

Table 8
Level of Service as a Function of CMA Value or HCM Average Vehicle Delay

CMA Value	Ave. Vehicle Delay (sec.)	Level of Service	Intersection Operation/Traffic Flow Characteristics
$\leq$ 0.600	$\leq$ 10.0	A	No congestion; all vehicles clear in a single cycle.
> 0.600 $\leq$ 0.700	> 10.0 $\leq$ 20.0	B	Minimal congestion; all vehicles still clear in a single cycle.
> 0.700 $\leq$ 0.800	> 20.0 $\leq$ 35.0	C	No major congestion; most vehicles clear in a single cycle.
> 0.800 $\leq$ 0.900	> 35.0 $\leq$ 55.0	D	Generally uncongested, but vehicles may wait through more than one cycle; short duration queues may form on critical approaches.
> 0.900 $\leq$ 1.000	> 55.0 $\leq$ 80.0	E	Increased congestion on critical approaches; long duration queues form at higher end of range.
> 1.000	> 80.0	F	Over capacity; forced flow with long periods of congestion; substantial queues form.

[3] Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2000.

Using these analysis procedures and assumptions, the "baseline" CMA indices or HCM delays and corresponding LOS were calculated for each of the nine study intersections during both the AM and PM peak hour analysis periods for each of the various traffic condition scenarios described earlier, including the "Existing (2015)" (no project), "Existing (2015) With Project", "Future (2017) Without Project", and "Future (2017) With Project" scenarios. Additionally, for those study intersections located within the City of Culver City, the "baseline" CMA calculations were then adjusted to account for the operational improvements resulting from the City's existing (ATSAC-type) traffic signal synchronization system, while for the study intersection of Washington Boulevard and Lincoln Boulevard, which is located within the City of Los Angeles, the "baseline" CMA calculations were adjusted to reflect the effects of LADOT's ATSAC/ATCS traffic signal coordination upgrades, as the intersection capacity and operational enhancements resulting from these traffic signal coordination/synchronization systems are not considered in the basic CMA analysis methodology described earlier. LADOT has determined, and the City of Culver City concurs, that intersections equipped with ATSAC-type signal coordination systems experience an approximately seven percent increase in capacity compared to traffic signals without any synchronization capability, while signals connected to the ATSAC/ATCS system exhibit an approximately ten percent increase in capacity as compared to unimproved locations.

As such, per the current traffic study policies and procedures of both the City of Culver City and City of Los Angeles, the basic CMA values calculated using the standard methodology were reduced by 0.070 for the signalized intersections located within the City of Culver City, and by 0.100 for the City of Los Angeles intersection of Washington Boulevard and Lincoln Boulevard, to estimate the effectiveness of the ATSAC and ATSAC/ATCS-related increases, respectively, in the intersection capacity at those locations. No adjustments were made to the CMA analysis for the STOP sign controlled intersection of Washington Boulevard and Walgrove Avenue.

It is also of note that both the Washington Boulevard and Lincoln Boulevard corridors through the study area typically exhibit high levels of congestion, particularly during the PM peak period, which can substantially reduce the number of vehicles travelling through intersections along these corridors, as well as on many of the side-street approaches, resulting in artificially better CMA or vehicle delay and LOS values based on the lower number of vehicles actually counted traversing these intersections, as compared to actual operational conditions. These reduced "throughput" conditions are especially evident at the study intersections from Lincoln Boulevard to Walgrove Avenue, due to high traffic volumes in both directions along Lincoln Boulevard, and heavy congestion associated with the operations of the Costco Plaza driveways.

Therefore, for purposes of this study, based on observations of the actual traffic flows and intersection operations in the study area, the levels of service for the three study intersections located on Washington Boulevard to the west of the project site, including at Lincoln Boulevard, and at each of the two Costco Plaza driveways, were adjusted to reflect "LOS F" operations during the PM peak hour, and "LOS D" operations during the AM peak hour (except for Washington Boulevard and Lincoln Boulevard, which was also adjusted to LOS F conditions during the AM peak hour). Note that the levels of service at these intersections are not identified at LOS F (or LOS E) during the AM peak hour because they were observed to exhibit substantially less congestion and smoother traffic flows than during the PM peak hour, primarily due to reduced traffic volumes and congestion associated with two the Costco Plaza driveways; although the observed conditions at the two Costco Plaza driveways are typically better than LOS D during the AM peak hour, this condition was assumed in order to provide the most conservative analysis of potential project-related impacts at these locations. It should also be noted that no adjustments were considered to be necessary at any of the study intersections east of Walgrove Avenue, since the Lincoln Boulevard and/or Costco Plaza traffic congestion and its associated effects do not typically extend beyond Walgrove Avenue. These adjustments were applied to both the "existing" (year 2015) and "future" (year 2017) analysis scenarios.

Once the CMA and/or HCM values and LOS were calculated for each of the study intersections (including the manual LOS adjustments described above) for each of the analysis scenarios identified earlier, the incremental project-related impacts at each location were determined by comparing the results of the respective "without project" and "with project" conditions analyses for both the existing (year 2015) and forecast future (year 2017) traffic evaluation scenarios. The results of these analyses, including identification of the without project and with project CMA and LOS values and incremental project-related impacts at each study intersection are summarized in Table 9 for both the AM and PM peak hour time periods for the existing (2015) and forecast future (2017) conditions, and are discussed in the following sections of this report.

Existing (2015) Conditions

As shown in Table 9, with the intersection LOS adjustments described previously, most of the study intersections currently exhibit some level of congestion during one or both peak hours. Although most of the study intersections operate at LOS D or better during the AM peak hour, six of the eight signalized study locations experience poor operations (LOS E or LOS F) during the PM peak hour, including the intersections of Washington Place and Centinela Avenue, and

Table 9
Critical Movement Analysis ("CMA") Summary
Existing (2015) and Future (2017) Without and With Project Conditions

Int. No.	Intersection	Peak Hour	Year 2015 Conditions					Year 2017 Conditions				
			Without Project		With Project			Without Project		With Project		
			CMA	LOS	CMA	LOS	Impact	CMA	LOS	CMA	LOS	Impact
1	Washington Place	AM	0.843	D	0.845	D	0.002	**1.088**	**F**	**1.090**	**F**	0.002
	and Centinela Avenue	PM	**0.933**	**E**	**0.936**	**E**	0.003	**1.165**	**F**	**1.167**	**F**	0.002
2	Washington Boulevard	AM	0.750	C	0.751	C	0.001	**1.061**	**F**	**1.063**	**F**	0.002
	and Centinela Avenue	PM	**0.901**	**E**	**0.905**	**E**	0.004	**1.179**	**F**	**1.181**	**F**	0.002
3	Washington Boulevard/Washington Place	AM	0.598	A	0.602	B	0.004	0.648	B	0.651	B	0.003
	and Washington Boulevard/Zanja Street	PM	0.673	B	0.680	B	0.007	0.714	C	0.720	C	0.006
4	Washington Boulevard	AM	0.487	A	0.490	A	0.003	0.513	A	0.515	A	0.002
	and Beethoven Street	PM	0.645	B	0.647	B	0.002	0.714	C	0.717	C	0.003
5	Washington Boulevard	AM	0.563	A	0.565	A	0.002	0.626	B	0.628	B	0.002
	and Redwood Avenue	PM	0.671	B	0.674	B	0.003	0.703	C	0.707	C	0.004
6	Washington Boulevard	AM	**0.874**	**F**	**0.879**	**F**	0.005	**0.958**	**F**	**0.963**	**F**	0.005
	and Walgrove Avenue [1]	PM	**1.061**	**F**	**1.066**	**F**	0.005	**1.163**	**F**	**1.168**	**F**	0.005
7	Washington Boulevard	AM	0.668	D	0.670	D	0.002	0.766	D	0.768	D	0.002
	and Glencoe Avenue/Costco Driveway [2]	PM	**0.730**	**F**	**0.734**	**F**	0.004	**0.801**	**F**	**0.805**	**F**	0.004
8	Washington Boulevard	AM	0.366	D	0.368	D	0.002	0.409	D	0.410	D	0.001
	and Costco Driveway [2]	PM	**0.462**	**F**	**0.463**	**F**	0.001	**0.458**	**F**	**0.461**	**F**	0.003
9	Washington Boulevard	AM	**0.860**	**F**	**0.862**	**F**	0.002	**1.075**	**F**	**1.078**	**F**	0.003
	and Lincoln Boulevard [2]	PM	**0.844**	**F**	**0.846**	**F**	0.002	**1.103**	**F**	**1.107**	**F**	0.004

Notes:

[1] Intersection level of service determined using Highway Capacity Manual unsignalized intersection delay-based analyses, per City of Culver City traffic study procedures.

[2] Intersection levels of service manually adjusted to LOS D during the AM peak hour and LOS F during the PM peak hour, based on observations of existing conditions.

"*" Significant impact per City of Culver City Public Works Department *Traffic Study Criteria for the Review of Proposed Development Projects within the City of Culver City* , July 2012.

"*" Significant impact per City of Los Angeles Department of Transportation (LADOT) *Traffic Study Policies and Procedures* , June 2013 (if applicable).

Washington Boulevard and Centinela Avenue, both of which exhibit LOS E operations during the PM peak hour (and LOS D and LOS C conditions, respectively, during the AM peak hour), the intersections of Washington Boulevard and Glencoe Avenue/Costco Plaza Driveway, and Washington Boulevard and the Costco Plaza (western) driveway, which each operate at LOS F during the PM peak hour (and at LOS D during the AM peak hour), and the intersection of Washington Boulevard and Lincoln Boulevard, which operates at LOS F conditions during both the AM and PM peak hours. Similarly, the unsignalized (STOP sign controlled) intersection of Washington Boulevard and Walgrove Avenue also exhibits LOS F operations during both the AM and PM peak hours. However, these poor operating conditions are primarily the result of delays incurred along the southbound STOP sign controlled approach of Walgrove Avenue, particularly by vehicles attempting to make a left turn onto eastbound Washington Boulevard, rather than due to congestion on Washington Boulevard itself. Further, because this location is configured as a three-way ("tee") intersection (with Walgrove Avenue as the non-continuous, STOP sign controlled approach), traffic on Washington Boulevard does not stop, and therefore, no delays to the Washington Boulevard "through" traffic lows occur.

Most jurisdictions within Southern California, including both the City of Culver City and the City of Los Angeles, typically identify LOS D as the "target" maximum acceptable operation for signalized intersections located in urban areas. Therefore, based on this evaluation criterion, five of the eight signalized study intersections, plus the one unsignalized intersection, currently exhibit "unacceptable" operations during the most critical travel periods of the day, as confirmed through recent field observations; these locations are identified in Table 9 by bold text. However, it is of note that the existing (year 2015) intersection operations shown in Table 9 represent the highest one-hour traffic volumes and levels of congestion for each study location, which typically occurs within the weekday morning and evening commute traffic periods between about 7:00 AM and 10:00 AM, and between about 3:00 PM and 6:00 PM, respectively, as described earlier in this report. The operations at each of the study intersections, as well as at other locations throughout the study area, typically improve from the conditions summarized in Table 9 during the off-peak (non-commute) hours of the day, due to reductions in the overall traffic volumes and associated congestion on the area streets.

As also shown in Table 9, the development of the proposed project and the resulting addition of its associated traffic to the area roadway system is expected to result in incremental changes in the CMA values at each of the nine study intersections to varying degrees, depending upon the intersection's proximity to the project site, its location along the project traffic travel routes, or

the specific geometries and/or operating characteristics of the intersection. However, despite the anticipated changes in the CMA values, Table 9 also shows that the incremental traffic increases associated with the proposed project are not expected to result in changes to the existing (year 2015) operating conditions (LOS) at any of the nine study intersections during either the AM or PM peak hours, with the exception of Washington Boulevard and Zanja Street. As shown in Table 9, the addition of project-related traffic could result in a slight deterioration in the existing operations of this location from LOS A to LOS B during the AM peak hour, although the conditions at this intersection would remain unchanged at LOS B during the PM peak hour. Therefore, despite the anticipated changes in the CMA values or levels of service identified in Table 9, the proposed project will not result in new "undesirable" (LOS E or F) conditions at any of the nine study intersections, although the six locations currently exhibiting these operations will continue to do so following the completion of the proposed project.

Future (2017) Conditions

Anticipated increases in traffic volumes in the study area, due to both ambient traffic growth throughout the region combined with traffic generated by the 40 individual related projects identified earlier in Table 5, are expected to result in worsening traffic conditions throughout the study area by the year 2017, prior to development of the proposed project. As a result of these potential future traffic increases, it is expected that the intersections of Washington Place and Centinela Avenue, and Washington Boulevard and Centinela Avenue, both of which currently operate at undesirable LOS E conditions during the PM peak hour (but at acceptable LOS D and LOS C conditions, respectively, during the AM peak hour), will be reduced to undesirable LOS F operations during both the AM and PM peak hours. The four study intersections that are currently operating at undesirable LOS F conditions during one or both of the peak hours, Washington Boulevard and Glencoe Avenue/Costco Plaza Driveway, Washington Boulevard and the Costco Plaza (western) driveway (which each currently exhibit acceptable LOS D during the AM peak hour but undesirable LOS F during the PM peak hour), Washington Boulevard and Lincoln Boulevard, and Washington Boulevard and Walgrove Avenue (both of which currently exhibit undesirable LOS F conditions during both peak hours), are expected to maintain their current levels of service under the future year 2017 "without project" traffic condition forecasts. Finally, the three remaining study intersections, Washington Boulevard/Washington Place and Washington Boulevard/Zanja Street, Washington Boulevard and Beethoven Street, and Washington Boulevard and Redwood Avenue, each of which currently operate at acceptable LOS A conditions during the AM peak hour and LOS B conditions during the PM peak hour, are

also forecast to continue to exhibit acceptable operational levels during both peak hours under the future (year 2017) analysis scenario, prior to the development of the proposed project, although the conditions at both the intersections of Washington Boulevard/Washington Place and Washington Boulevard/Zanja Street, and Washington Boulevard and Redwood Avenue are anticipated to be reduced slightly to LOS B during the AM peak hour, and to LOS C during the PM peak hour, while the intersection of Washington Boulevard and Beethoven Street could experience a slight reduction in its operations, from LOS B to LOS C, during the PM peak hour (although remaining unchanged at LOS A during the AM peak hour).

However, when reviewing the forecast future (year 2017) "Without Project" conditions shown in Table 9, it is important to note that the potential traffic volume increases and associated changes in intersection operations reflect a "worst case" projection of future conditions for a number of reasons. First, not all of the 40 "related projects" identified previously in Table 5 are expected to be built, or may be built to a lesser level than currently proposed. Further, the estimates of traffic generated by these potential developments were not assumed to exhibit any trip linkages with other existing or new development, which could reduce overall traffic volumes in the project vicinity. Finally, some or all of the related projects may be required to implement trip-reduction programs that could reduce the forecast traffic volumes in the study area, or construct roadway and/or traffic signal improvements which could improve the operations of some of the study intersections compared to the conditions shown in Table 9, although for purposes of this study, no such related project improvements were assumed.

Similar to the conditions described previously for the "Existing (2015) With Project" conditions, the anticipated changes in site-related traffic resulting from development of the proposed project are expected to further affect the operations of each of the study intersections under the forecast "Future (2017) With Project" conditions beyond those changes noted above due to ambient traffic growth and new traffic generated by other ongoing development. As also shown in Table 9, the addition of the net project-related traffic to the forecast future "without project" conditions is generally expected to result in only nominal changes in the CMA values at each of the nine study intersections during either of the peak hours. However, unlike the results of the "existing" conditions analysis discussed earlier, which identified a potential project-related change in the level of service for the intersection of Washington Place/Washington Boulevard and Washington Boulevard/Zanja Street (during the AM peak hour only), no project-related changes in the forecast future (year 2017) "without project" operational levels (LOS) are expected to occur at any of the nine study intersections during either the AM or PM peak hours.

Intersection Impact Significance Criteria

However, the potential changes to the study intersection levels of service shown in Table 9 for both the "Existing (2015) With Project" and "Future (2017) With Project" scenarios are not the sole standard for evaluating the "significance" of a project's incremental traffic impacts. Both the City of Culver City and the City of Los Angeles define a significant traffic impacts attributable to a project based on a "stepped scale", although slightly different thresholds for such impacts are identified by each jurisdiction. Nonetheless, the "significance" thresholds for both cities are based on the level of service of the subject intersection, with intersections exhibiting higher CMA values (volume-to-capacity ratios) being more sensitive to the effects of additional traffic than those operating with lower CMA values, which exhibit available surplus capacity and are therefore able to better absorb such traffic increases. The intersection significant impact criteria for both the City of Culver City and City of Los Angeles (LADOT) are summarized in Table 10.

Table 10
Significant Traffic Impact Criteria for Intersections

LOS	Final (With Project) Intersection CMA Value	Project-Related Increase in CMA Value	
		City of Culver City	City of Los Angeles
A or B	$\leq$ 0.700	No Impacts	No Impacts
C	> 0.700 $\leq$ 0.800	$\geq$ 0.050	$\geq$ 0.040
D	> 0.800 $\leq$ 0.900	$\geq$ 0.040	$\geq$ 0.020
E or F	> 0.900	$\geq$ 0.020	$\geq$ 0.010

As shown in Table 10, within the City of Culver City a significant impact to an intersection is identified as a project-related increase in the intersection's CMA value of 0.020 or more when the final ("With Project") intersection Level of Service is at LOS E or LOS F, a CMA increase of 0.040 or more when the final Level of Service is LOS D, or a CMA increase of 0.050 or more when the final Level of Service is LOS C. No significant impacts are deemed to occur at intersections with a final Level of Service of LOS A or LOS B, as these operational conditions provide sufficient surplus capacities to accommodate relatively large increases in traffic with little effect on traffic flows or congestion levels. These criteria were used to assess the "significance" of the incremental project-related impacts shown previously in Table 9 for the eight study intersections located within the City of Culver City (study intersections 1 through 8). However, for the intersection of Washington Boulevard and Lincoln Boulevard, which is located within the City of Los Angeles, the LADOT intersection impact criteria was used, which defines a

significant project-related impact as a CMA increase of 0.010 or more at LOS E or LOS F, a CMA increase of 0.020 or more at LOS D, or a CMA increase of 0.040 or more at LOS C; as with the City of Culver City significance criteria described earlier, no significant impacts are considered to occur at intersections operating at LOS A or B.

Using the appropriate intersection impact evaluation criteria and significance thresholds shown in Table 10, the proposed project's incremental traffic impacts shown in Table 9 at each of the nine study intersections were reviewed. Based on these criteria, the proposed project is not expected to result in significant traffic impacts at any of the study intersections during either the AM or PM peak hours under either the "Existing (2015)" or "Future (2017)" analysis scenarios. It is of note that, even if the more "restrictive" LADOT intersection impact significance thresholds were to be applied to the proposed project's incremental impacts at the eight study intersections located within the City of Culver City, the results of the evaluations would remain unchanged, with no significant impacts identified at any of these locations. As a result, no traffic impact mitigation measures are warranted for the proposed project at any of the nine intersections analyzed in this study, regardless of their jurisdiction or the significance thresholds applied.

Local/Residential Street Traffic Impact Analysis

In addition to the intersection impact analyses described in the preceding sections of this report, a review of the proposed project's driveway locations along both Moore Street and Meier Street indicates that not only is project-related traffic expected to access these site driveways from the south (via Washington Boulevard), some of the project's residential component traffic is expected to utilize the local streets to the north of the project to travel to and from the site. Additionally, it is anticipated that at least some of the retail facilities proposed for the project will be local-serving in nature, and as a result, it is also likely that some of the traffic associated with this project component will actually be generated within the residential neighborhoods to the north of the project, and as such, will naturally use these local streets to access the project site. While such local-origin trips would not necessarily produce additional traffic on these roadways, for purposes of this study, they were considered to be new trips to and from the project site, thereby resulting in increased traffic volumes on some of the local streets adjacent to or surrounding the site. Note that these project-traffic site access assumptions are already included in the analyses of the proposed project's potential intersection impacts, as identified in the project component use trip assignment percentages identified previously in Figure 5(a) for the project's residential component and in Figure 5(b) for the project's retail component.

Therefore, the scope of this analysis was expanded to evaluate the potential project-related traffic impacts on several of the local/residential streets in the project vicinity that provide access to the project site. Based on the proposed project's anticipated trip generation estimates and component use site access travel patterns, as well as on the locations and proposed operations of the two site access driveways, a total of five local/residential street segments were identified for detailed analyses. These street segments, listed below, represent the locations that are expected to be the most likely to affected by project-related traffic. It is of note that, although these five street segments were identified for analysis by the City of Culver City Traffic Engineer due to their proximity to the project site and anticipated use by project-related traffic, all are actually located within the adjacent City of Los Angeles.

a. Beethoven Street, north of Zanja Street
b. Zanja Street, between Beethoven Street and Moore Street
c. Zanja Street, between Moore Street and Meier Street
d. Moore Street, between Zanja Street and Project Driveway
e. Meier Street, between Zanja Street and Project Driveway

It is also of note that Beethoven Street through the study area, including the segment selected for analysis, is designated as a Collector Street, and therefore, as this facility is not technically a "local" residential street, the following analysis does not strictly apply. However, this portion of Beethoven Street provides an important travel route for residential traffic into and out of the general project vicinity, and connects to other local/residential streets that provide access to the project site itself. As such, project-related traffic impacts to this street can affect access to and from the residential neighborhoods to the north of the project site, and therefore, for purposes of this analysis, Beethoven Street was assumed to operate essentially as a local/residential street.

Unlike the intersection impacts discussed in the preceding sections of this report, the analysis of project-related impacts to local/residential streets is based on changes to daily traffic volumes (rather than peak hour volumes), for both the City of Culver City and the City of Los Angeles. Although different thresholds for determining the significance of project-related traffic additions to such facilities are identified for each jurisdiction, both Cities employ a variable impact scale based on the total average daily traffic ("ADT") volumes of the subject street, which represent the amount of traffic traveling in both directions along the street during a typical 24-hour period. The project-related impacts to local/residential streets are then identified and evaluated based on the incremental changes in the subject street's daily traffic volumes due to the project.

As described earlier, each of the local/residential street segments identified for analysis are located within the City of Los Angeles, and specifically, within an area under the jurisdiction of that City's Coastal Transportation Corridor Specific Plan ("CTCSP", City of Los Angeles Ordinance Number 168,999), which among other things, contains traffic management and analysis strategies specifically tailored for the coastal portions of the City of Los Angeles, including procedures for the evaluation of traffic impacts to local/residential streets. The CTCSP identifies that, for local/residential street segments that currently carry or are forecast to carry 1,000 vehicles per day ("vpd") or more, a significant impact is considered to occur if addition of a project's anticipated traffic results in an incremental increase in the daily traffic volumes on the subject street of 12.5 percent or more; the CTCSP does not discuss the significance of potential project-related traffic impacts to local/residential streets with fewer than 1,000 vpd.

However, although each of the subject local/residential street segments is located in the City of Los Angeles, and is therefore subject to the impact significance criteria identified in the CTCSP, the analysis of potential project-related traffic impacts to these streets was requested by the City of Culver City Traffic Engineer, since they are facilities that are anticipated to be used by residents, employees, and patrons/visitors of the proposed project to access the site. Further, the local/residential street impact significance criteria used by the City of Culver City is much more stringent than that identified in the City of Los Angeles CTCSP Ordinance, and also includes criteria for evaluating project-related impacts to streets carrying fewer than 1,000 vpd. Additionally, since the project site itself is located within the City of Culver City, which therefore is the lead jurisdiction in the determination of the traffic impacts of the proposed project, it was considered appropriate to use the more conservative City of Culver City local/residential street impact significance thresholds to evaluate the proposed project's impacts on these facilities. The City of Culver City local/residential street significant impact criteria is shown in Table 11.

Table 11
City of Culver City
Local/Residential Street Significant Impact Criteria

Projected Future ADT (With Project)	Project-Related Increase in Future ADT
Less than 999	120 vpd or more
1,000 to 1,999	12 percent or more
2,000 to 2,999	10 percent or more
3,000 or more	8 percent or more

The current traffic volumes along each of the selected local/residential street segments were identified through the collection of new 24-hour automated traffic counts. These supplemental "daily" traffic counts were conducted on the same day(s) as the intersection counts described earlier in this report, in order to provide a comparable baseline between the intersection and local/residential street impact analyses. The results of the traffic counts are shown in Figure 17, which indicates that Beethoven Street, north of Zanja Street, currently carries a relatively high total (both directions) traffic volume of approximately 10,854 vpd, although this value is within generally acceptable levels for a Collector Street such as this facility. Zanja Street also exhibits a substantial amount of daily traffic, with between about 4,500 and 5,000 vpd on the segments of this street near the project site; these volumes are high, but not excessive, for a Local Street, and as described earlier in this study, on-street parking along the north side of Zanja Street has been prohibited in order to accommodate these traffic levels. The relatively high traffic volumes on these roadways are likely due to the direct connection provided by Beethoven Street between Washington Boulevard and Venice Boulevard, and that both Beethoven Street and Zanja Street serve as access routes between Washington Boulevard and Venice Boulevard and the Venice High School campus. Conversely, both Moore Street and Meier Street provide only limited "through" connections to the arterial roadways in the project vicinity, and therefore, serve primarily as local-access facilities for the residential neighborhoods located to the north of the project site. As such, both of these local streets exhibit relatively light traffic demands, including about 1,028 vehicles per day (total of both directions) travelling along Moore Street, and about 1,083 vehicles per day travelling on Meier Street along the segments of these roadways north of the project site (between the project's driveways and Zanja Street).

The future (year 2017) "Without Project" traffic volumes on each of the subject street segments were estimated using the same forecasting procedures and assumptions described previously and used in the development of future year intersection volumes, including both the application of the 1.0 percent annual ambient traffic growth factor, and the addition of new area traffic generated by the 40 related projects identified in and around the study area, and the results of this procedure are also shown in Figure 17. However, as indicated in this figure, the anticipated future traffic growth is expected to result in relatively nominal changes in the traffic levels on the selected local/residential streets, with daily traffic on Beethoven Street only increasing to about 11,072 vpd by the study year 2017, while Zanja Street traffic is expected to increase to between about 4,600 and 5,100 vpd. Similarly, daily traffic on both Moore Street and Meier Street is also expected to exhibit only small increases, to about 1,049 vpd and about 1,105 vpd, respectively.

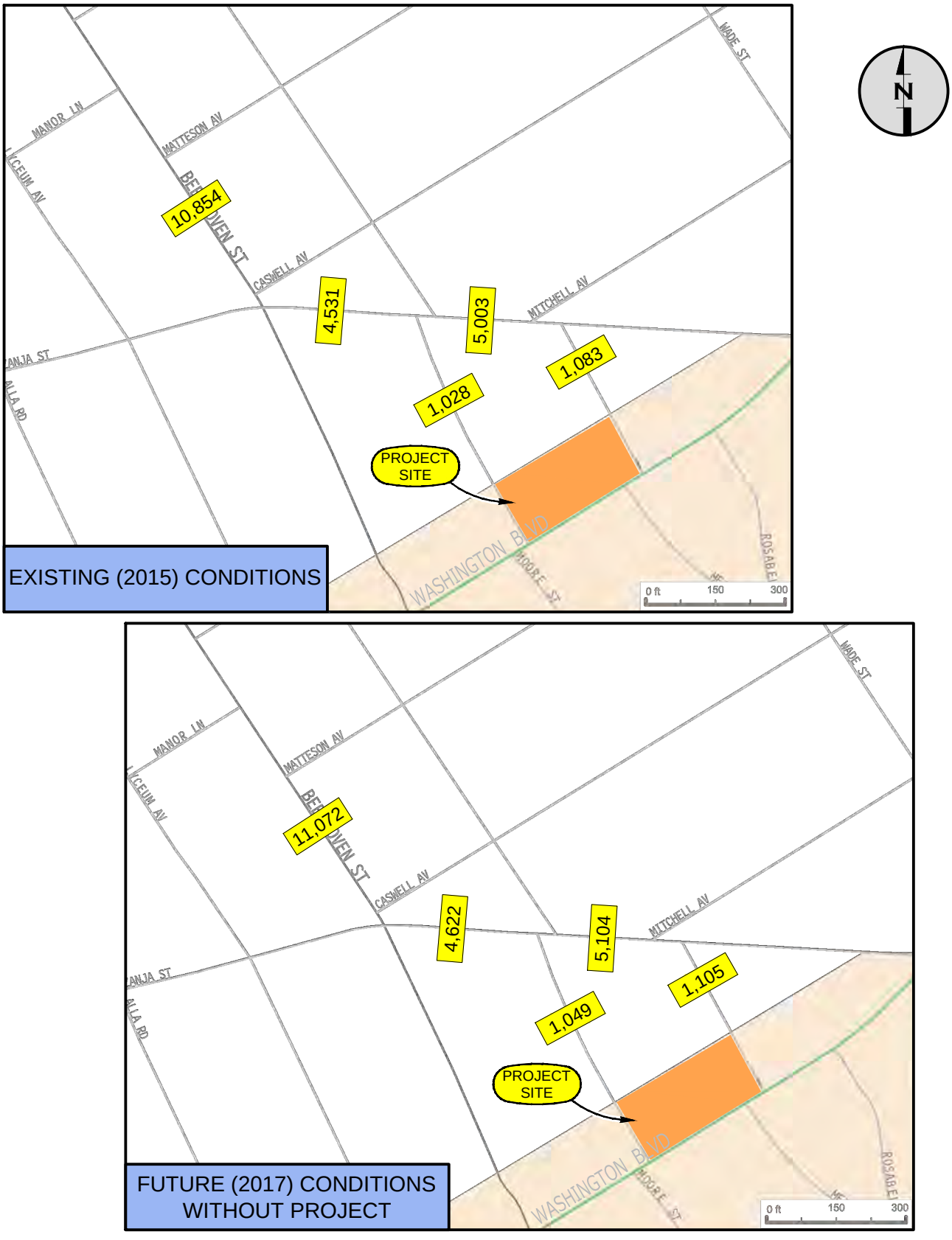


FIGURE 17

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

DAILY TRAFFIC VOLUMES
ON STUDY AREA LOCAL/RESIDENTIAL STREETS
EXISTING (2015) AND FUTURE (2017) WITHOUT PROJECT

These existing and forecast future “without project” daily traffic volume conditions were used as the baselines for evaluating the significance of the proposed project’s anticipated incremental traffic additions to each of the selected local/residential street segments, which are identified and described in the following discussion.

Next, the net daily project-related traffic expected along each of these streets was calculated, based on the daily trip generation estimates for the proposed project’s individual residential and retail components, as shown previously in Table 2, and the trip assignments for each of these component uses, as shown earlier in Figures 5(a) and 5(b). The daily trips on each of the selected local/residential streets for each of the project’s component uses, as well as the total project-related daily traffic added to each of the subject street segments, is shown in Figure 18. As identified in this figure, in total, the proposed project itself (not including trips associated with the proposed public parking spaces) is anticipated to result in approximately 40 new daily trips on Beethoven Street, and between approximately 35 and 40 new daily trips along Zanja Street. Moore Street, which provides access to the project’s subterranean parking level driveway, is expected to experience a project-related traffic increase of about 43 vpd, while Meier Street, which accommodates the project’s at-grade parking level driveway, is anticipated to exhibit a project-related increase in daily traffic of approximately 40 vpd.

These net project-related trips were then added to the “Existing (2015)” (no project) and forecast “Future (2017) Without Project” traffic conditions for each of the subject streets, to develop the existing and future “With Project” traffic volumes, which are shown in Figure 19. The results of the local/residential street impact analysis, including identification of the existing (year 2015) and future (year 2017) “without project” daily traffic volumes, the project-related daily trips, the resulting “with project” daily traffic, and the incremental project-related impacts to each of the selected local/residential street segments, are summarized in Table 12. As shown in this table, the proposed project’s potential impacts to Beethoven Street and to each of the two segments of Zanja Street evaluated in this study are expected to be quite low, at only about 0.4 percent for Beethoven Street, and between 0.7 percent and 0.9 percent for the two Zanja Street segments, under both the existing (2015) and forecast future (2017) conditions on both of these streets. The proposed project’s potential impacts to the two site-adjacent roadways of Moore Street and Meier Street (which accommodate the proposed project’s driveways) are expected to be somewhat higher, at about 4.2 percent for the current conditions and about 4.1 percent for the forecast future conditions on Moore Street, and at approximately 3.7 percent and 3.6 percent for the existing and forecast future conditions along Meier Street, respectively.

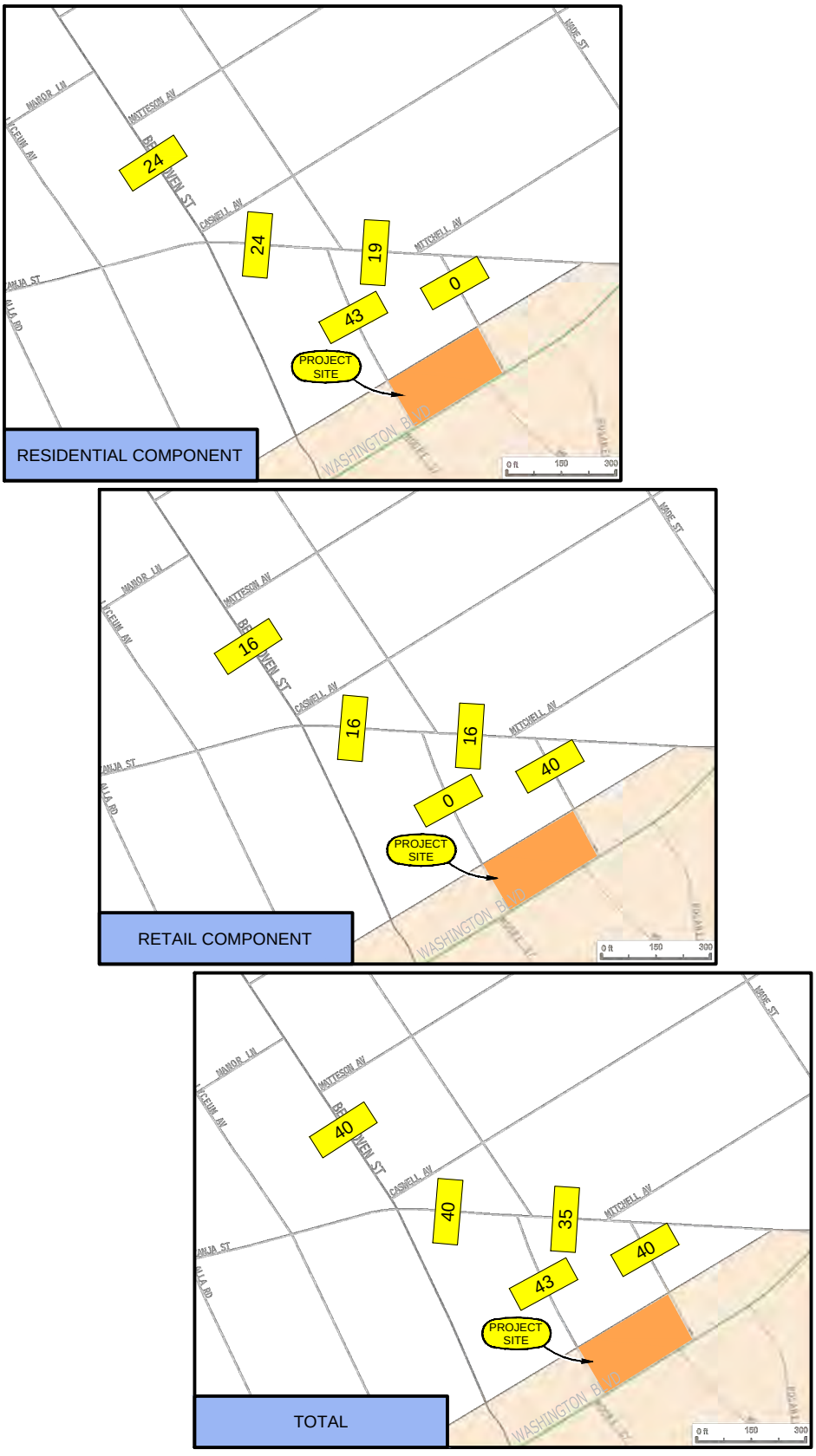
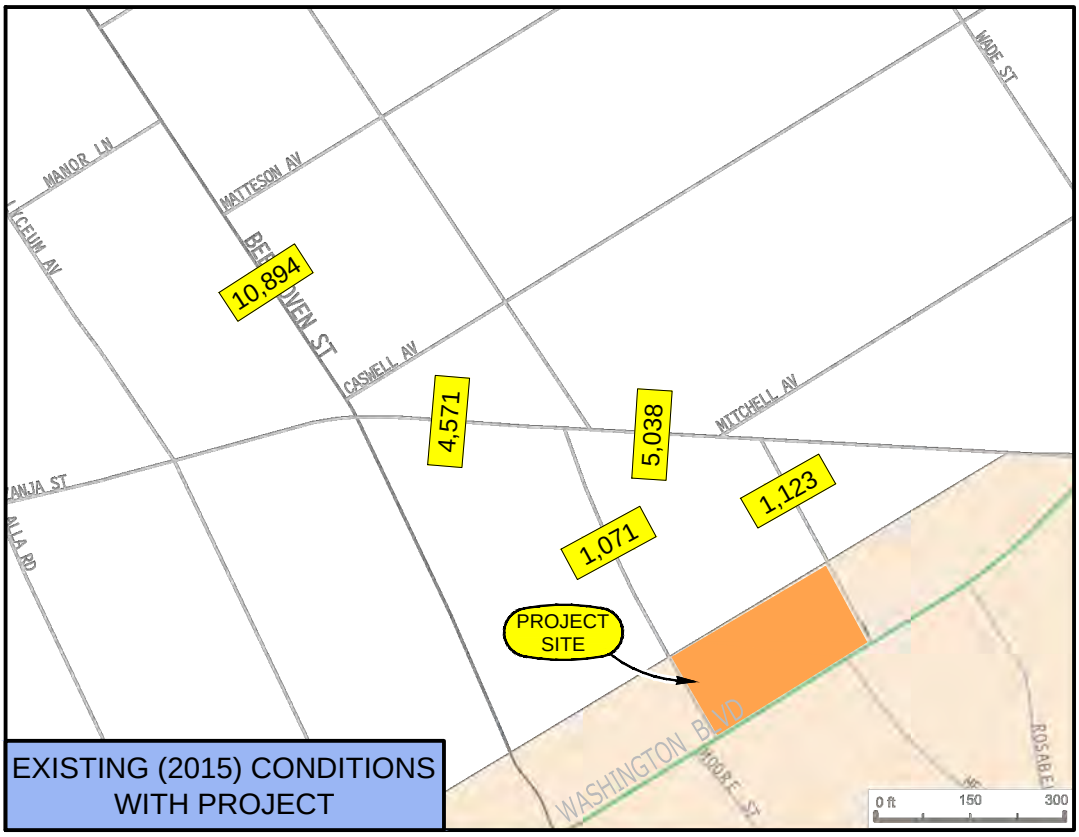


FIGURE 18

DAILY TRAFFIC VOLUMES
ON STUDY AREA LOCAL/RESIDENTIAL STREETS
RESIDENTIAL COMPONENT, RETAIL COMPONENT AND TOTAL

Hirsch/Green Transportation Consulting, Inc.



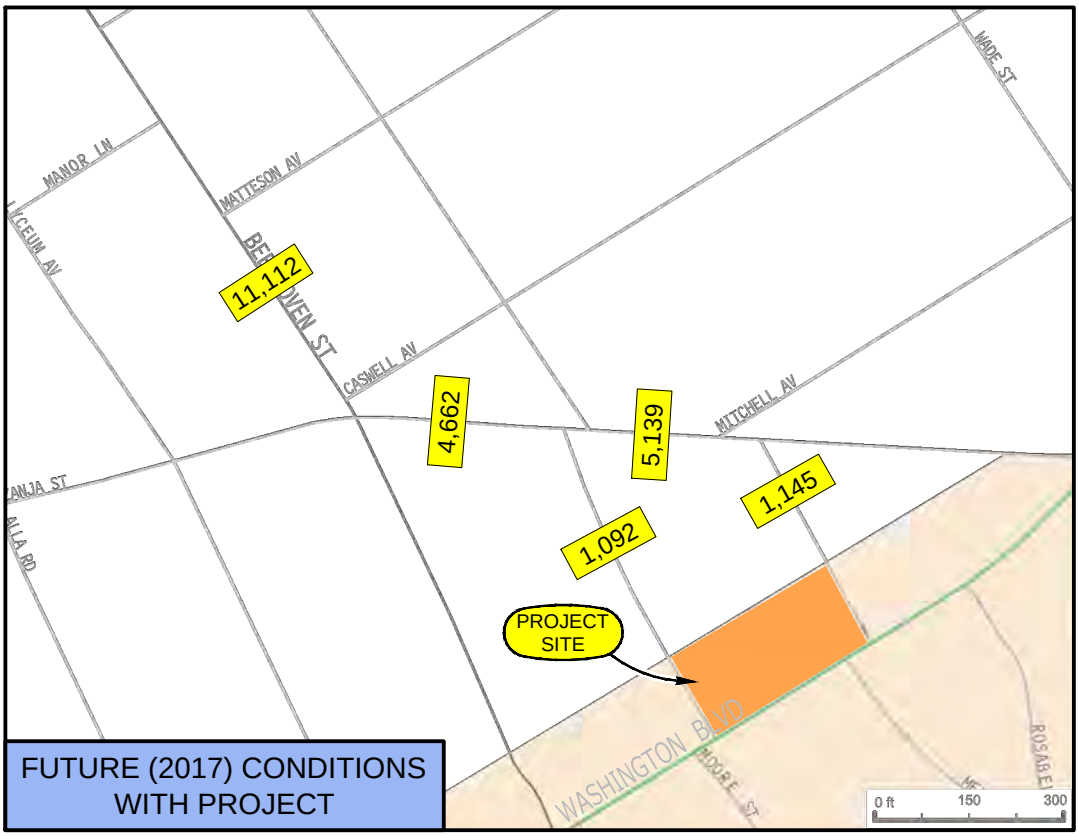


FIGURE 19

DAILY TRAFFIC VOLUMES
ON STUDY AREA LOCAL/RESIDENTIAL STREETS
EXISTING (2015) AND FUTURE (2017) WITH PROJECT

Hirsch/Green Transportation Consulting, Inc.

Table 12
Local/Residential Street Traffic Impact Analysis Summary
Existing (2015) and Future (2017) Average Daily Traffic Volumes

Street/Segment	Existing (2015)				Future (2017)		
	Without Project	Project Traffic [1]	With Project	Project Impact	Without Project	With Project	Project Impact
Beethoven Street							
North of Zanja Street	10,854	40	10,894	0.4%	11,072	11,112	0.4%
Zanja Street							
Between Beethoven Street and Moore Street	4,531	40	4,571	0.9%	4,622	4,662	0.9%
Between Moore Street and Meier Street	5,003	35	5,038	0.7%	5,104	5,139	0.7%
Moore Street							
Between Zanja Street and Project Driveway	1,028	43	1,071	4.2%	1,049	1,092	4.1%
Meier Street							
Between Zanja Street and Project Driveway	1,083	40	1,123	3.7%	1,105	1,145	3.6%

Notes:

[1] Total new project trips; includes both residential and retail component trips. Same for both "Existing" and "Future"conditions.

"*" Indicates significant impact per City of Culver City criteria (please refer to Table 12), if applicable.

Using the City of Culver City local/residential street impact significance criteria identified earlier in Table 11, the potential incremental project-related increases in daily traffic along the selected local/residential streets are not expected to result in significant impacts under either the "existing" (year 2015) or forecast future (year 2017) traffic scenarios In fact, the potential project-related impacts to these streets, which are the closest such facilities to the project site, and are therefore anticipated to be the locations most affected by the traffic generated by the proposed project, are substantially below the thresholds for a significant impact at all locations. Therefore, no local/residential street traffic impact mitigation measures are warranted.

Further, while not specifically evaluated in the preceding local/residential street impact analyses, potential project-related impacts to the east-west alley bordering the project site on the north were also assessed. This alley provides a two-way connection between Moore Street and Meier Street. A review of the project component trip assignment percentages shown previously

in Figures 5(a) and 5(b) indicates that some of the trips accessing both the Moore Street and Meier Street project driveways travel north to Zanja Street in order to continue either west to Beethoven Street or east to Washington Boulevard/Washington Place. While it is possible that some of these trips could use the alley to pass between Moore Street and Meier Street as part of these routes, general difficulties in accessing the alley from the project's driveways due to their close proximity, and potential delays in exiting from the alley into either the Moore Street or Meier Street traffic flows to travel north to Zanja Street are expected to preclude the use of the alley by project residents, employees, or patrons/visitors as a significant "cut-through" route. Therefore, project-related traffic additions to the east-west oriented alley along the north side of the project site are expected to be nominal, and no significant impacts are anticipated.

Project Impacts on Regional Transportation System

Due to concerns that traffic congestion has impacted the quality of life and economic vitality of the State of California, the Los Angeles County Congestion Management Program ("CMP")[4] was enacted, in order to provide an analytical basis for transportation decisions through the State Transportation Improvement Program ("STIP") process. A countywide approach has been established by the Metropolitan Transportation Authority ("Metro"), the local CMP agency, to implement the statutory requirements of the CMP. The countywide approach includes designating a highway network that includes all state highways and principal arterials within the County and monitoring the network's Level of Service standards.

The CMP project traffic impact analysis ("TIA") guidelines require that a detailed analysis of all CMP arterial monitoring intersections where the project could add a total of 50 or more trips during either the AM or PM peak hours. Additionally, all mainline freeway segments where a project could add 150 or more trips in either direction during the peak hours must be analyzed.

CMP Monitoring Intersection Impacts

As noted in the preceding discussion, the CMP requires that detailed analyses be conducted for any CMP arterial monitoring intersections where the proposed project is anticipated to add 50 or more total trips during either the AM or PM peak hours. The current CMP (2010) identifies a total of six arterial monitoring intersections within an approximately three-mile radius of the project site. Three of the six CMP arterial monitoring intersections, Venice Boulevard and Lincoln Boulevard; Venice Boulevard and Centinela Avenue; and Lincoln Boulevard and the

[4] *2010 Congestion Management Program for Los Angeles County*, Los Angeles County Metropolitan Transportation Authority, Los Angeles, 2010.

Marina Expressway (SR-90), are located within approximately one mile of the project site. However, the other three intersections are well outside the immediate study area (near the limits of the three-mile study radius, and as such, are expected to be beyond the range of identifiable project-related traffic impacts. The six CMP arterial monitoring intersections closest to the project site are located within the City of Culver City, the City of Los Angeles, and the City of Santa Monica, or are shared by the City of Culver City and City of Los Angeles, as listed below, and their locations in relation to the project site are shown in Figure 20.

- Lincoln Boulevard and Pico Boulevard (Santa Monica)
- Lincoln Boulevard and Venice Boulevard (Los Angeles)
- Venice Boulevard and Centinela Avenue (Los Angeles)
- Venice Boulevard and Overland Avenue (Los Angeles/Culver City)
- Lincoln Boulevard and Marina Expressway (SR-90) (Los Angeles)
- Lincoln Boulevard and Manchester Avenue (Los Angeles)

None of the intersections identified above are included in the nine study intersections already examined in the preceding project traffic impact analyses, and therefore, the net traffic additions to each of these CMP arterial monitoring locations due to the proposed project were evaluated. However, a review of the project's trip estimates shown earlier in Table 2 indicates that the proposed project is expected to result in a total of only 29 trips during the AM peak hour, and a total of only 43 trips during the PM peak hour. As such, the proposed project will not produce sufficient traffic to meet the CMP's minimum 50-trip threshold during either peak hour, even if all of the project's traffic was to travel through one or more of the CMP intersections listed above. Additionally, as shown earlier in Figures 4(a) and 4(b), once outside the immediate study area, the project's trips are expected to disperse throughout the surrounding roadway network, further reducing the potential for project-related traffic to travel through or otherwise affect any of the nearby CMP intersections. Therefore, the nominal amount of potential project-related traffic travelling through any of the CMP intersections in the project vicinity would not be sufficient to result in significant impacts at any of these locations, and no further analyses are warranted.

CMP Freeway Segment Impacts

An evaluation of potential project-related impacts to the freeways serving the study area was also conducted. As identified earlier in Table 2, the proposed project will generate substantially fewer than 150 directional vehicles per hour during both the AM and PM peak hours, with a

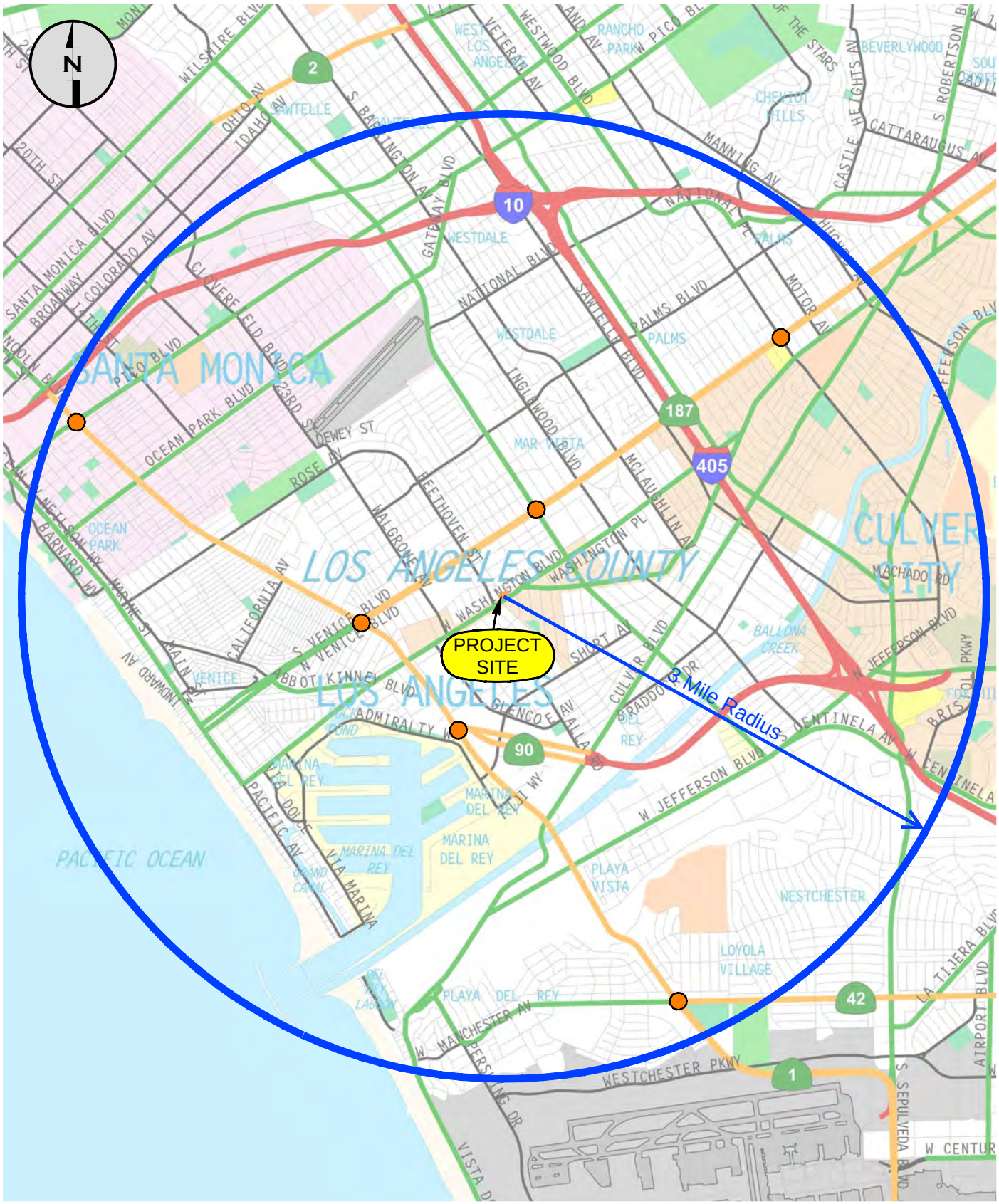


FIGURE 20

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

CMP ARTERIAL MONITORING INTERSECTION LOCATIONS

maximum of only 19 outbound trips (occurring during both the AM and PM peak hours), and only 24 inbound trips (during the PM peak hour). Further, as described earlier in this study, the project site is not located within an area immediately adjacent to or conveniently served by any of the area freeways, and as such, only a nominal amount of the project's traffic is expected to travel in any direction of any segment of the two freeways located closest to the project site, the Santa Monica (I-10) Freeway, located approximately one and one-half miles to the east, or the Marina Expressway/Freeway (SR-90), located about one and one-quarter miles to the south. As a result, the potential directional peak hour project-related traffic additions to either of these regional transportation facilities will be well below the CMP's minimum 150-trip (peak hour) threshold for requiring detailed impact analyses. Further, the nominal amount of project-related traffic added to the area freeways will not be sufficient to produce any measurable effects on either of these regional transportation facilities, and therefore, no further analysis is warranted.

Transit Impacts

As described earlier in this report, in order to present the most conservative analysis of the proposed project's potential traffic impacts to the intersections and local/residential streets in the project vicinity, no significant additional use of public transportation by project residents, employees, or patrons/visitors beyond the typical nominal amounts intrinsically included in the ITE *Trip Generation Manual* rates was assumed. However, for the purposes of this study in assessing the potential project-related impacts to the area public transit system, it was conservatively assumed that up to approximately 10 percent of the total project residential trips, and up to approximately five percent of the retail employee and patron trips shown previously in Table 2 would utilize the available existing public transportation facilities in the project vicinity as a regular mode of travel (note that the percentage of project residents, visitors, employees, and patrons potentially using public transit is expected to be rather limited, since as described earlier in this report, only two bus lines currently provides service to or near the project site).

Using these conservative assumptions, it is estimated that a total of up to approximately 25 of the project's residential component daily vehicular trips, including two trips (both outbound from the project site) during the AM peak hour, and three trips (two inbound and one outbound) during the PM peak hour, could actually occur via the area public transit facilities rather than in privately-owned vehicles. Similarly, it is estimated that up to approximately 16 of the project's retail component daily vehicular trips, including one (inbound) trip during the AM peak hour, and one (outbound) trip during the PM peak hour, could utilize the available bus service in the

project vicinity to travel to or from the site. Therefore, based on these assumptions, a total of up to approximately 41 daily project-related vehicular trips, including three trips (one inbound and two outbound) during the AM peak hour, and four trips (two inbound and two outbound) during the PM peak hour, could be anticipated to occur via public transit. Note that, while the use of public transit by project residents, employees, or patrons/visitors would further reduce the already non-significant vehicular traffic impacts of the proposed project, as described earlier in this study, no such trip-reducing transit utilization was assumed, and this transit impact analysis is provided as a separate, supplemental evaluation only for the purposes of assessing the potential for project-related impacts to the area transit facilities and service.

In order to assess the potential project-related impacts to the area public transit services, these "vehicle trips" were converted to "person trips" assuming an average vehicle occupancy ("AVO") of approximately 1.2 persons per vehicle (which is typical of the Southern California region). Therefore, based on this assumption, the proposed project could result in potential increases in public transit (bus) ridership in the project vicinity of a total of approximately 49 persons per day, including about four persons (one inbound and three outbound) during the AM peak hour, and about five persons (three inbound and two` outbound) during the PM peak hour, assuming that all project-related transit usage described above would occur as a result of new bus ridership.

While it is acknowledged that bus utilization in the project vicinity can be heavy during the peak weekday commute periods, this nominal level of new rider demand would likely be divided between the two bus lines (Culver CityBus Lines 1 and 2) currently providing direct service to the project site. These two lines alone provide a combined total of about 12 buses per hour serving the project site during both the weekday AM and PM peak commute periods, and a combined total of nearly 150 site-serving buses per day. As such, the potential project-related increases in ridership on any single bus are expected to be nominal, with an overall average of less than one new rider per bus throughout the day and during the peak commute periods. Therefore, based on the assumptions described earlier, the proposed project is not expected to result in any significant transit-related impacts to the existing bus service in the study area, and as such, no mitigation measures in this regard are warranted.

MITIGATION MEASURES

The results of the analyses summarized in this report indicate that the proposed development of a new mixed-use project on a currently vacant lot at 12803 Washington Boulevard in the City of Culver City is not expected to result in significant traffic or access-related impacts to any of the intersections or street segments in the project vicinity under either the existing (year 2015) or forecast future (year 2017) analysis scenarios examined in this study. Additionally, evaluations of the project's potential impacts to the freeways and regionally-significant arterial roadways in the project vicinity, as well as to the existing public transportation system serving the study area, also concluded that the impacts of the project to each of those facilities will not be significant.

The project will provide the Code-required number of both vehicular and bicycle parking spaces for both its residential and retail components (70 residential and 21 retail vehicular spaces, and seven residential and one retail bicycle space), plus eight "surplus" vehicular parking spaces (currently unassigned but potentially available for residential guest parking) and four "surplus" bicycle parking spaces. The project will also provide 21 on-site public parking spaces, to supplement the existing on-street public parking in the project vicinity. Access to the on-site parking spaces will be provided by a two-way driveway on Moore Street accessing the primarily residential parking spaces located on the subterranean level of the parking garage, and by an additional two-way driveway on Meier Street accessing the retail and public parking spaces located on the at-grade level of the garage. Two small vehicle loading areas are also proposed, one each along the project's Moore Street and Meier Street frontages, as is allowed via approval by the City Engineer or Traffic Committee. The proposed driveway and loading area locations are acceptable, and no mitigation measures related to their operations are warranted.

Therefore, based on the results of these analyses, no off-site traffic, parking, or site access mitigation measures are required for the proposed project. However, the City of Culver City Public Works Department has indicated that the project will be required to reconstruct the existing curb returns at both the northeast corner of Washington Boulevard and Moore Street, and at the northwest corner of Washington Boulevard and Meier Street, in order to increase the curb returns at each of these site-adjacent locations from the current substandard approximately 15-foot radius to a standard 25-foot radius, and to provide sufficient additional rights-of-way at each location (typically, via a 15-foot by 15-foot triangular corner dedication) as necessary to implement the improvements. These improvements will allow for easier turns between these two local streets and Washington Boulevard, and will improve traffic flows in the project vicinity.

APPENDICES

(Contained in Separate Document)

TRAFFIC IMPACT ANALYSIS REPORT - APPENDIX

Proposed Mixed-Use Development
(37 Apartments and 7,300 Square Feet of Retail)
12803 Washington Boulevard
Culver City, California

Prepared for:

Axis Mundi Re II, LLC
817 Chautauqua Boulevard
Pacific Palisades, California 90272

Prepared by:

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.
13333 Ventura Boulevard, #204
Sherman Oaks, California 91423
(818) 325-0530

REGISTERED PROFESSIONAL ENGINEER
RONALD R. HIRSCH
NO. 2318
6-30-2017
TRAFFIC
STATE OF CALIFORNIA

MARCH 2016

APPENDIX A
PROJECT COMPONENT DRIVEWAY VOLUMES

12803 WASHINGTON \ DWY-COMPONENT-DAILY

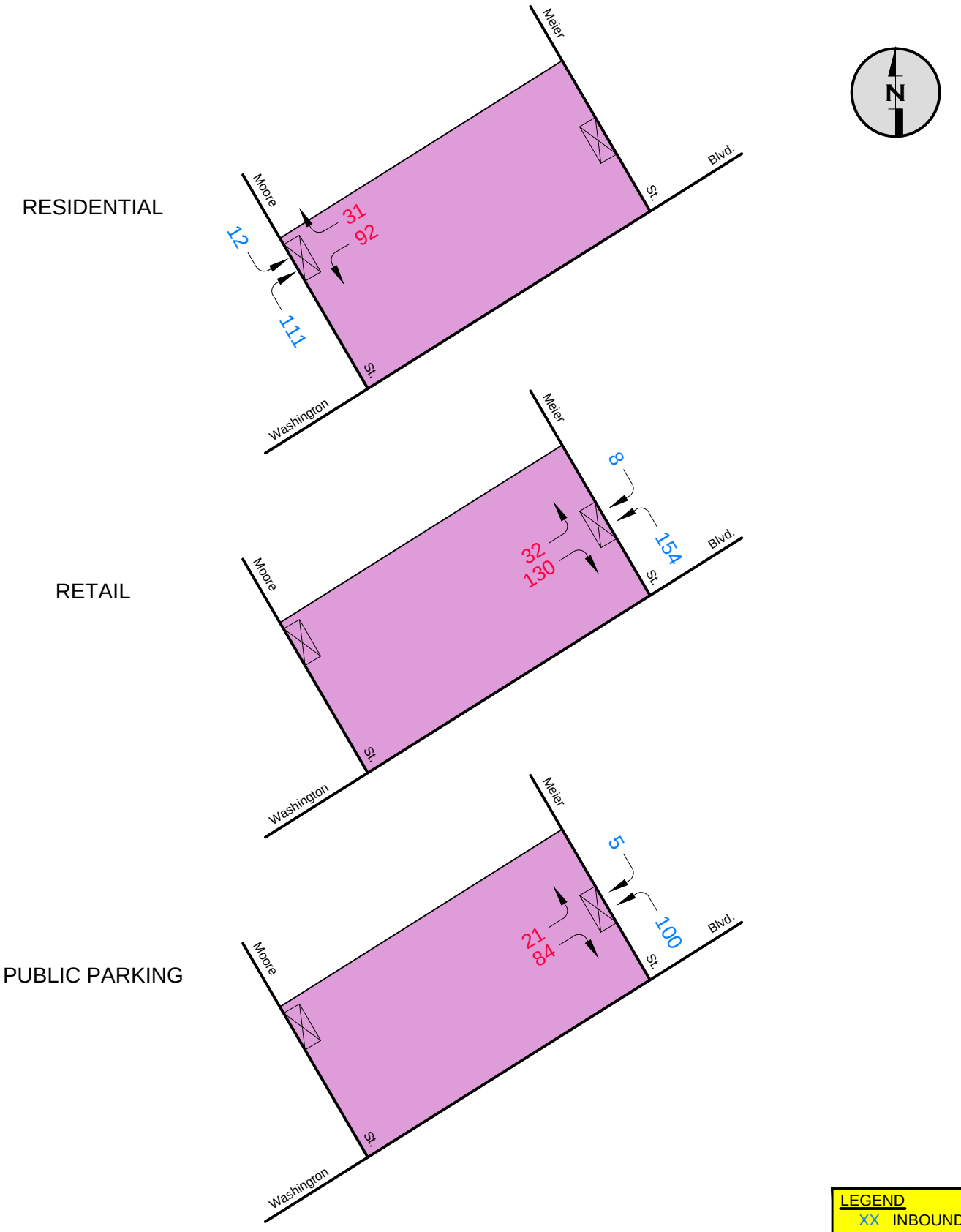


FIGURE A-1

3/18/2016

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PROJECT COMPONENT DRIVEWAY TRAFFIC VOLUMES
DAILY

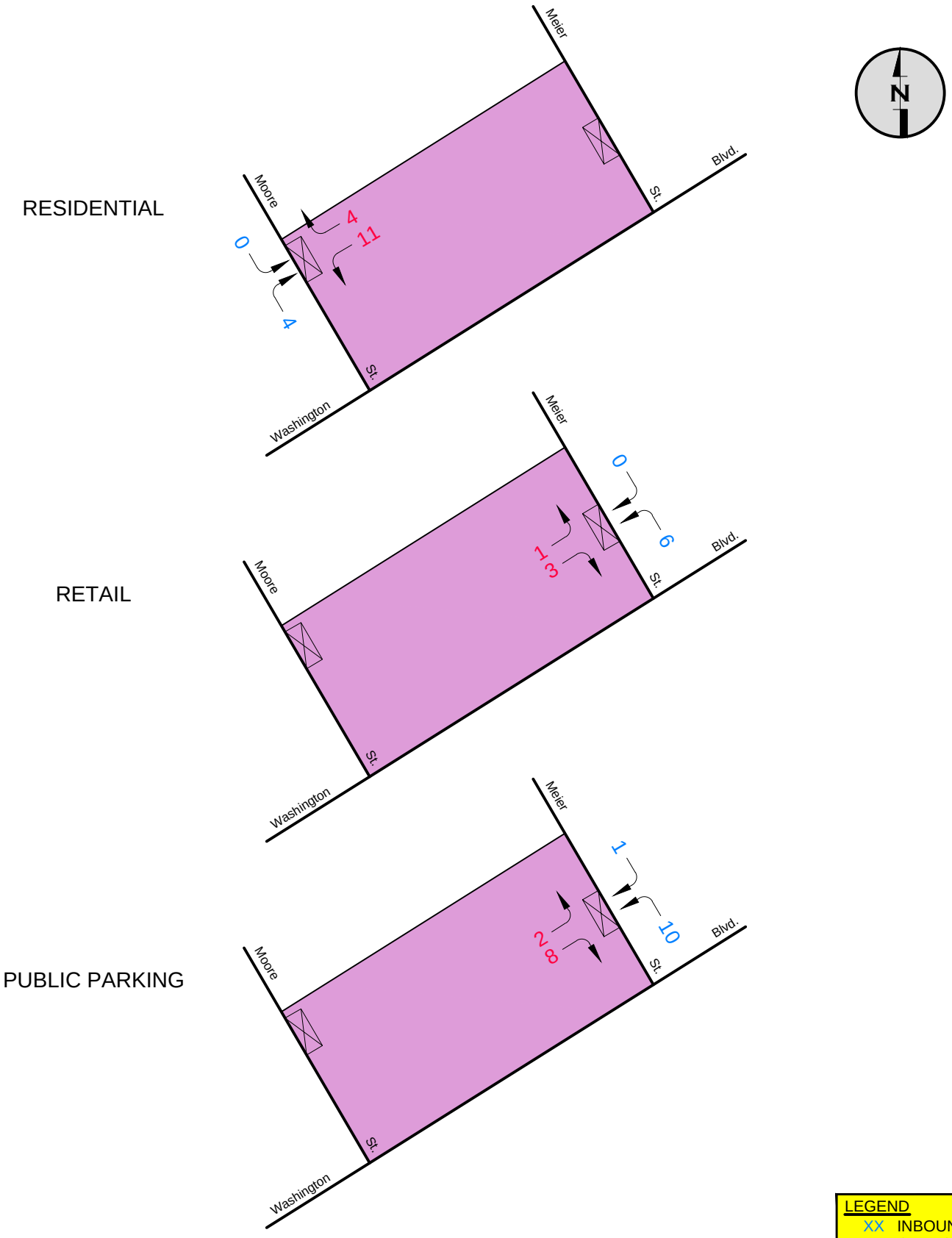

FIGURE A-2

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

PROJECT COMPONENT DRIVEWAY TRAFFIC VOLUMES
AM PEAK HOUR

12803 WASHINGTON \ DWY-COMPONENT-PM

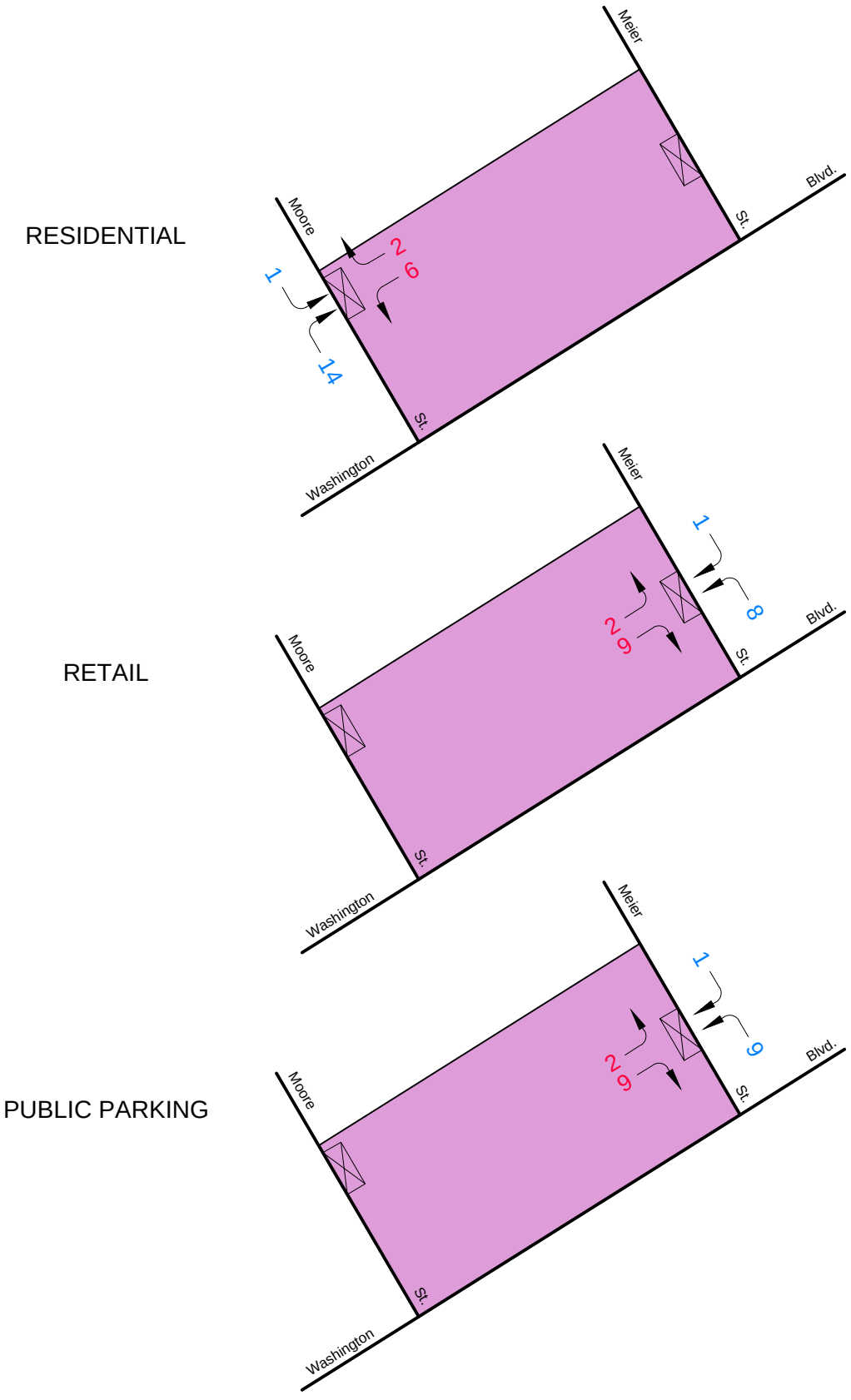

FIGURE A-3

3/18/2016

HIRSCH GREEN

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PROJECT COMPONENT DRIVEWAY TRAFFIC VOLUMES
PM PEAK HOUR

APPENDIX B
PROJECT-SERVING BUS ROUTE MAPS AND SCHEDULES

Culver CityBus Line 1

1 Washington Blvd.

Monday - Friday Lunes - Viernes

Westbound Oeste

WLATC Washington & Fairfax	Washington/ ELRS*	Washington & Overland	Westminster & Sepulveda	Washington & Inglewood	Washington & Lincoln	Venice Beach Windward & Main
5:40AM	5:43AM	5:49AM	5:52AM	5:56AM	6:04AM	6:12AM
6:00	6:03	6:09	6:12	6:16	6:24	6:32
6:17	6:20	6:26	6:29	6:33	6:41	6:49
6:31	6:34	6:40	6:44	6:50	6:58	7:06
6:44	6:47	6:53	6:57	7:03	7:11	7:19
6:56	6:59	7:05	7:09	7:15	7:23	7:31
7:08	7:12	7:19	7:23	7:29	7:37	7:47
7:20	7:26	7:35	7:42	7:48	7:56	8:06
7:35	7:41	7:50	7:58	8:04	8:12	8:22
7:50	7:56	8:05	8:13	8:19	8:27	8:37
8:05	8:11	8:20	8:28	8:34	8:42	8:52
8:20	8:26	8:35	8:43	8:49	8:57	9:07
8:35	8:41	8:50	8:58	9:04	9:12	9:22
8:50	8:56	9:05	9:13	9:19	9:27	9:37
9:05	9:11	9:20	9:28	9:34	9:42	9:52
9:20	9:25	9:34	9:41	9:47	9:55	10:05
9:40	9:44	9:52	9:57	10:03	10:11	10:21
10:00	10:04	10:12	10:17	10:23	10:31	10:41
10:20	10:24	10:32	10:36	10:42	10:50	11:00
10:40	10:44	10:52	10:56	11:02	11:10	11:20
11:00	11:04	11:12	11:16	11:22	11:30	11:40
11:20	11:24	11:32	11:36	11:42	11:50	12:00PM
11:40	11:44	11:52	11:56	12:02PM	12:10PM	12:20
12:00PM	12:04PM	12:12PM	12:16PM	12:22	12:30	12:40
12:20	12:24	12:32	12:36	12:43	12:51	1:01
12:40	12:44	12:52	12:56	1:03	1:11	1:21
1:00	1:04	1:12	1:16	1:23	1:31	1:41
1:15	1:19	1:27	1:31	1:38	1:46	1:56
1:30	1:34	1:42	1:46	1:53	2:01	2:11
1:45	1:49	1:57	2:01	2:08	2:16	2:26
2:00	2:04	2:12	2:16	2:23	2:31	2:41
2:15	2:19	2:27	2:32	2:39	2:47	2:57
2:30	2:34	2:42	2:47	2:54	3:02	3:12
2:46	2:50	2:58	3:04	3:11	3:19	3:29
3:01	3:05	3:13	3:19	3:26	3:34	3:44
3:16	3:20	3:28	3:34	3:41	3:49	3:59
3:31	3:35	3:43	3:48	3:55	4:03	4:13
3:46	3:50	3:58	4:03	4:10	4:18	4:28
4:01	4:05	4:13	4:18	4:25	4:33	4:43
4:16	4:20	4:28	4:33	4:40	4:48	4:58
4:31	4:35	4:43	4:48	4:55	5:03	5:13
4:46	4:50	4:58	5:03	5:10	5:18	5:28
5:01	5:05	5:13	5:18	5:25	5:33	5:43
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5:31	5:35	5:43	5:48	5:55	6:03	6:13
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6:01	6:05	6:13	6:18	6:25	6:33	6:43
6:16	6:20	6:28	6:33	6:40	6:48	6:58
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7:22	7:25	7:33	7:37	7:41	7:49	7:59
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8:20	8:23	8:30	8:34	8:38	8:46	8:55
8:50	8:53	9:00	9:04	9:08	9:16	9:25
9:20	9:23	9:30	9:34	9:38	9:46	9:55
9:50	9:53	10:00	10:04	10:08	10:16	10:24
10:20	10:23	10:30	10:34	10:38	10:46	10:54
10:50	10:53	10:59	11:02	11:06	11:14	11:22

Eastbound Este

Venice Beach Windward & Main	Washington & Lincoln	Washington & Inglewood	Westminster & Sepulveda	Washington & Overland	Washington/ ELRS*	WLATC Washington & Fairfax
6:00AM	6:06AM	6:13AM	6:17AM	6:22AM	6:27AM	6:33AM
6:20	6:27	6:34	6:38	6:43	6:48	6:54
6:38	6:45	6:52	6:56	7:01	7:06	7:12
6:56	7:03	7:10	7:14	7:19	7:25	7:32
7:11	7:18	7:25	7:29	7:34	7:40	7:47
7:26	7:34	7:41	7:45	7:51	7:57	8:04
7:41	7:49	7:56	8:00	8:06	8:12	8:19
7:56	8:04	8:11	8:15	8:21	8:27	8:34
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8:26	8:34	8:41	8:45	8:52	8:58	9:05
8:41	8:49	8:56	9:00	9:07	9:13	9:20
8:56	9:04	9:11	9:15	9:22	9:28	9:35
9:11	9:19	9:26	9:29	9:35	9:41	9:48
9:26	9:34	9:41	9:44	9:50	9:56	10:03
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10:26	10:34	10:41	10:44	10:50	10:56	11:03
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11:06	11:14	11:21	11:24	11:30	11:36	11:43
11:26	11:36	11:43	11:47	11:53	11:58	12:05PM
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12:06PM	12:16PM	12:23	12:27	12:33	12:38	12:45
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9:56	10:03	10:09	10:12	10:16	10:21	10:27
10:26	10:33	10:39	10:42	10:46	10:51	10:57
10:56	11:03	11:09	11:12	11:16	11:21	11:27

Times are approximate and may vary due to traffic and weather conditions. Times shown are subject to change without notice.
Los tiempos son aproximados y pueden variar debido a tráfico y condiciones de clima. Los tiempos demostrados son conforme a cambio sin aviso.

*Expo Light Rail Station

1 Washington Blvd.

Saturday Sábado

Westbound Oeste

WLATC Washington & Fairfax	Washington/ ELRS*	Washington & Overland	Washington & Sepulveda	Washington & Inglewood	Washington & Lincoln	Venice Beach Windward & Main
6:00AM	6:03AM	6:09AM	6:12AM	6:16AM	6:24AM	6:31AM
6:40	6:43	6:50	6:54	6:58	7:07	7:14
7:20	7:23	7:30	7:34	7:38	7:47	7:55
7:55	7:58	8:05	8:09	8:13	8:23	8:31
8:25	8:28	8:35	8:39	8:43	8:53	9:01
8:45	8:48	8:55	8:59	9:03	9:13	9:21
9:00	9:03	9:10	9:14	9:18	9:28	9:37
9:15	9:18	9:25	9:29	9:33	9:43	9:52
9:31	9:34	9:41	9:45	9:49	9:59	10:08
9:47	9:50	9:57	10:01	10:05	10:15	10:24
10:00	10:04	10:11	10:15	10:20	10:30	10:40
10:16	10:20	10:27	10:31	10:36	10:46	10:56
10:32	10:36	10:43	10:47	10:52	11:02	11:12
10:48	10:52	10:59	11:03	11:08	11:18	11:28
11:04	11:08	11:15	11:19	11:24	11:34	11:44
11:20	11:24	11:31	11:35	11:40	11:50	12:00PM
11:36	11:40	11:47	11:51	11:56	12:06PM	12:16
11:52	11:56	12:03PM	12:07PM	12:12PM	12:22	12:32
12:08PM	12:12PM	12:19	12:23	12:28	12:38	12:48
12:24	12:28	12:35	12:39	12:44	12:54	1:04
12:39	12:43	12:50	12:54	12:59	1:09	1:19
12:54	12:58	1:05	1:09	1:14	1:24	1:34
1:09	1:13	1:20	1:24	1:29	1:39	1:49
1:25	1:29	1:36	1:40	1:45	1:55	2:05
1:41	1:45	1:52	1:56	2:01	2:11	2:21
1:57	2:01	2:08	2:12	2:17	2:27	2:37
2:13	2:17	2:24	2:28	2:33	2:43	2:53
2:29	2:33	2:40	2:44	2:49	2:59	3:09
2:45	2:49	2:56	3:00	3:05	3:15	3:25
3:01	3:05	3:12	3:16	3:21	3:31	3:41
3:17	3:21	3:28	3:32	3:37	3:47	3:57
3:33	3:37	3:44	3:48	3:53	4:03	4:13
3:49	3:53	4:00	4:04	4:09	4:19	4:29
4:06	4:10	4:17	4:21	4:25	4:34	4:43
4:22	4:26	4:33	4:37	4:41	4:50	4:59
4:38	4:42	4:49	4:53	4:57	5:06	5:15
4:54	4:58	5:05	5:09	5:13	5:22	5:31
5:10	5:14	5:21	5:25	5:29	5:38	5:47
5:26	5:30	5:37	5:41	5:45	5:54	6:03
5:42	5:46	5:53	5:57	6:01	6:10	6:19
5:58	6:02	6:09	6:13	6:17	6:26	6:35
6:19	6:22	6:29	6:33	6:37	6:46	6:55
6:39	6:42	6:49	6:53	6:57	7:06	7:15
7:20	7:23	7:30	7:34	7:38	7:47	7:55
8:05	8:08	8:14	8:18	8:22	8:30	8:38
8:45	8:48	8:54	8:58	9:02	9:10	9:18
9:25	9:28	9:34	9:38	9:42	9:50	9:57
10:35	10:38	10:44	10:47	10:51	10:59	11:06

Eastbound Este

Venice Beach Windward & Main	Washington & Lincoln	Washington & Inglewood	Washington & Sepulveda	Washington & Overland	Washington/ ELRS*	WLATC Washington & Fairfax
6:35AM	6:42AM	6:48AM	6:51AM	6:55AM	7:00AM	7:07AM
7:15	7:22	7:29	7:32	7:36	7:41	7:48
7:55	8:02	8:09	8:12	8:16	8:21	8:28
8:35	8:42	8:50	8:54	8:58	9:03	9:10
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9:25	9:32	9:40	9:44	9:48	9:54	10:01
9:41	9:48	9:56	9:59	10:04	10:10	10:17
9:57	10:04	10:12	10:16	10:20	10:26	10:33
10:13	10:20	10:28	10:32	10:36	10:42	10:49
10:29	10:37	10:45	10:49	10:53	10:59	11:06
10:45	10:53	11:01	11:05	11:09	11:15	11:22
11:01	11:10	11:18	11:22	11:26	11:32	11:39
11:17	11:26	11:34	11:38	11:42	11:48	11:55
11:33	11:42	11:50	11:54	11:58	12:04PM	12:11PM
11:49	11:59	12:07PM	12:11PM	12:15PM	12:21	12:28
12:05PM	12:15PM	12:23	12:27	12:31	12:37	12:44
12:21	12:31	12:39	12:43	12:47	12:53	1:00
12:37	12:47	12:55	12:59	1:03	1:09	1:16
12:53	1:03	1:11	1:15	1:19	1:25	1:32
1:09	1:19	1:27	1:31	1:35	1:41	1:48
1:24	1:34	1:42	1:46	1:50	1:56	2:03
1:38	1:48	1:56	1:59	2:04	2:10	2:17
1:54	2:04	2:12	2:16	2:20	2:26	2:33
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2:42	2:52	3:00	3:04	3:08	3:14	3:21
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5:52	6:02	6:10	6:14	6:18	6:24	6:31
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8:40	8:47	8:53	8:56	9:00	9:05	9:12
9:20	9:27	9:33	9:36	9:40	9:45	9:52
10:00	10:07	10:13	10:15	10:19	10:24	10:31
11:10	11:17	11:23	11:25	11:29	11:34	11:41

Sunday, Holiday Domingo, Días Festivos

Westbound Oeste

WLATC Washington & Fairfax	Washington/ ELRS*	Washington & Overland	Washington & Sepulveda	Washington & Inglewood	Washington & Lincoln	Venice Beach Windward & Main
6:00AM	6:03AM	6:09AM	6:12AM	6:16AM	6:24AM	6:31AM
6:40	6:43	6:49	6:53	6:57	7:06	7:13
7:20	7:23	7:29	7:33	7:37	7:46	7:53
7:55	7:58	8:04	8:08	8:12	8:22	8:29
8:25	8:28	8:35	8:39	8:43	8:53	9:00
8:45	8:48	8:55	8:59	9:03	9:13	9:20
9:05	9:08	9:15	9:19	9:23	9:33	9:40
9:20	9:23	9:30	9:34	9:38	9:48	9:56
9:35	9:38	9:45	9:49	9:53	10:03	10:11
9:50	9:53	10:00	10:04	10:08	10:18	10:26
10:03	10:06	10:13	10:17	10:21	10:31	10:40
10:18	10:21	10:28	10:32	10:36	10:46	10:55
10:33	10:36	10:43	10:47	10:51	11:01	11:10
10:48	10:51	10:58	11:02	11:06	11:16	11:25
11:03	11:06	11:13	11:17	11:21	11:31	11:40
11:18	11:21	11:28	11:32	11:36	11:46	11:55
11:33	11:36	11:43	11:47	11:51	12:01PM	12:10PM
11:48	11:51	11:58	12:02PM	12:06PM	12:16	12:25
12:03PM	12:06PM	12:13PM	12:17	12:21	12:31	12:40
12:18	12:21	12:28	12:32	12:36	12:46	12:55
12:33	12:36	12:43	12:47	12:51	1:01	1:10
12:48	12:51	12:58	1:02	1:06	1:16	1:25
1:03	1:06	1:13	1:17	1:21	1:31	1:40
1:18	1:21	1:28	1:32	1:36	1:46	1:55
1:34	1:37	1:44	1:48	1:52	2:02	2:11
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2:06	2:09	2:16	2:20	2:24	2:34	2:43
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8:45	8:48	8:54	8:57	9:01	9:09	9:17
9:25	9:28	9:34	9:37	9:41	9:49	9:56
10:35	10:38	10:44	10:47	10:51	10:59	11:06

Eastbound Este

Venice Beach Windward & Main	Washington & Lincoln	Washington & Inglewood	Washington & Sepulveda	Washington & Overland	Washington/ ELRS*	WLATC Washington & Fairfax
6:35AM	6:42AM	6:47AM	6:50AM	6:54AM	6:59AM	7:06AM
7:15	7:22	7:28	7:31	7:35	7:40	7:47
7:55	8:02	8:08	8:11	8:15	8:20	8:27
8:35	8:42	8:49	8:53	8:57	9:02	9:09
9:05	9:12	9:19	9:23	9:27	9:33	9:40
9:25	9:32	9:39	9:43	9:47	9:53	10:00
9:45	9:52	9:59	10:03	10:07	10:13	10:20
10:00	10:07	10:14	10:18	10:22	10:28	10:35
10:15	10:22	10:29	10:33	10:37	10:43	10:50
10:30	10:37	10:44	10:48	10:52	10:58	11:05
10:45	10:52	10:59	11:03	11:07	11:13	11:20
11:00	11:08	11:15	11:19	11:23	11:29	11:36
11:15	11:23	11:30	11:34	11:38	11:44	11:51
11:30	11:38	11:45	11:49	11:53	11:59	12:06PM
11:45	11:53	12:00PM	12:04PM	12:08PM	12:14PM	12:21
12:00PM	12:08PM	12:15	12:19	12:23	12:29	12:36
12:15	12:23	12:30	12:34	12:38	12:44	12:51
12:30	12:38	12:45	12:49	12:53	12:59	1:06
12:45	12:53	1:00	1:04	1:08	1:14	1:21
1:00	1:09	1:16	1:20	1:24	1:30	1:37
1:15	1:24	1:31	1:35	1:39	1:45	1:52
1:30	1:39	1:46	1:50	1:54	2:00	2:07
1:45	1:54	2:01	2:05	2:09	2:15	2:22
2:00	2:09	2:16	2:20	2:24	2:30	2:37
2:16	2:25	2:32	2:36	2:40	2:46	2:53
2:32	2:41	2:48	2:52	2:56	3:02	3:09
2:48	2:57	3:04	3:08	3:12	3:18	3:25
3:04	3:14	3:21	3:25	3:29	3:35	3:42
3:20	3:30	3:37	3:41	3:45	3:51	3:58
3:36	3:46	3:53	3:57	4:01	4:07	4:14
3:52	4:02	4:09	4:13	4:17	4:23	4:30
4:08	4:18	4:25	4:29	4:33	4:39	4:46
4:24	4:34	4:41	4:45	4:49	4:55	5:02
4:40	4:50	4:57	5:01	5:05	5:11	5:18
4:56	5:06	5:13	5:17	5:21	5:27	5:34
5:12	5:21	5:28	5:32	5:36	5:42	5:49
5:28	5:37	5:44	5:48	5:52	5:58	6:05
5:44	5:53	6:00	6:04	6:08	6:14	6:21
6:00	6:09	6:16	6:20	6:24	6:30	6:37
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7:20	7:28	7:35	7:38	7:42	7:48	7:55
8:00	8:07	8:13	8:15	8:20	8:25	8:32
8:40	8:47	8:53	8:56	9:00	9:05	9:12
9:20	9:27	9:33	9:36	9:40	9:45	9:52
10:00	10:07	10:12	10:14	10:18	10:23	10:30
11:10	11:17	11:22	11:24	11:28	11:33	11:40

Times are approximate and may vary due to traffic and weather conditions. Times shown are subject to change without notice.
Los tiempos son aproximados y pueden variar debido a tráfico y condiciones de clima. Los tiempos demostrados son conforme a cambio sin aviso.
*Expo Light Rail Station

Culver City Bus takes pride in serving the Westside communities of Blair Hills, Century City, Culver City, Mar Vista, Marina Del Rey, Palms, Venice Beach, West Los Angeles, Westchester and Westwood with safe, convenient and reliable public transportation.

Maps & Schedules

Fares

Rider Alerts

Rider's Guide

Contact Us

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Plan Your Trip

Start:

End:

When:

Leave by Tue

12 05 AM

Plan My Trip

Line 1 - Eastbound Stop Locations

Stop#	Location	Address/Near	Direction	Distance
1	WINDWARD AVE / MAIN ST	(I/F of Post Office)	SW	
2	PACIFIC AVE / VENICE WAY	(1611 Block)	NW	0.2
3	PACIFIC AVE / N VENICE BLVD	(2025 Block)	NW	0.2
4	PACIFIC AVE / 25TH AVE	(2500 Block)	I/F	0.2
5	PACIFIC AVE / 28TH AVE	(2800 Block)	I/F	0.1
6	WASHINGTON BLVD / PACIFIC AVE	(Arbor 150 Block)		SE
7	WASHINGTON BLVD / VIA DOLCE	(200 Block A/F Islands)	SW	0.1
8	WASHINGTON BLVD / VIA MARINA	(400 Block)	SW	0.2
9	WASHINGTON BLVD / PALAWAN WAY	(590 Block)	SW	0.2
10	WASHINGTON BLVD / WILSON AVE	(Near Lagoon 600 Block)	A/F	0.1
11	WASHINGTON BLVD / OXFORD AVE	(701 Block)	SW	0.2
12	WASHINGTON BLVD / ABBOT KINNEY	(2900 Block)	SE	0.2
13	WASHINGTON BLVD / LINCOLN BLVD	(Shopping Center)	SE	0.3
14	WASHINGTON BLVD / GLENCOE AVE	(Marina Plaza 4000 Block)		SW
15	WASHINGTON BLVD / REDWOOD AVE	(Foster Freeze 13300 Block)		SW
16	WASHINGTON BLVD / BEETHOVEN ST	(El Pollo Loco 12800 Block)	SE	0.3
17	WASHINGTON BLVD / ROSABELL ST	(12700 Block)	SW	0.1
18	WASHINGTON BLVD / MILDRED AVE	(12578 Block)	SE	0.2
19	WASHINGTON BLVD / CENTINELA AVE	(ARCO 12300 Block)	SE	0.3
20	WASHINGTON BLVD / GRAND VIEW BLVD	(12200 Block Culver del Rey Dental)	SW	0.1
21	WASHINGTON BLVD / INGLEWOOD BLVD	(Wood Café 12012 Block)		SW
22	WASHINGTON BLVD / KENSINGTON RD	(Seventh Day Adventist Church)	SE	0.2
23	WASHINGTON BLVD / BERRYMAN AVE	(Cameron Supplies 11500 Block)		SW
24	WASHINGTON BLVD / CORINTH AVE	(DMV 11400 Block)	SW	0.2
25	WASHINGTON BLVD / SEPULVEDA BLVD	(I/F of Goodwill)	SW	0.3
26	WASHINGTON BLVD / HARTER AVE	(11056 Block)	SE	0.2
27	WASHINGTON BLVD / HURON AVE	(11004 Block)	SW	0.1
28	WASHINGTON BLVD / GIRARD AVE	(Dentists' Office 10870 Block)	SE	0.2
29	WASHINGTON BLVD / CULVER CENTER	(10744 Block)	A/F	0.2
30	WASHINGTON BLVD / OVERLAND AVE	(Sony Studios)	SE	0.1
31	WASHINGTON BLVD / MOTOR AVE	(10355 Block east of Motor)	SE	0.2
32	WASHINGTON BLVD / JASMINE AVE	(Sony Studios/Washington Gate)	SW	0.1
33	WASHINGTON BLVD / MADISON AVE	(Sony Studios/Executive Bldg. 10003 Block)	SE	0.2
34	WASHINGTON BLVD / DUQUESNE AVE	(A/F Theatre 9900 Block)	SW	0.1
35	CULVER BLVD / LAFAYETTE PL	(Culver City Hall)	SW	0.2
36	CULVER BLVD / MAIN ST	(Vacant Lot)	SW	0.2
37	WASHINGTON BLVD / HIGUERA ST	(9000 Block)	SW	0.3
38	WASHINGTON BLVD / LANDMARK ST	(Expo Culver City Light Rail Station)	SE	0.2
39	WASHINGTON BLVD / HELMS AVE	(8700 Block)	SW	0.2
40	WASHINGTON BLVD / CATTARAUGUS AVE	(8568 Block)	SE	0.2
41	WASHINGTON BLVD / ROBERTS AVE	(6120 Block)	SW	0.1
42	WASHINGTON BLVD / LA CIENEGA / ADAMS	(I/F of AM/PM)	SE	0.3
43	FAIRFAX AVE / ELECTRIC DR	(DISCHARGE ONLY)	SE	0.3

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Maps & Schedules

Fares

Rider Alerts

Rider's Guide

Contact Us

Metro Google Trip Planner

Plan Your Trip

Start:

End:

When:

Leave by Tue

12 05 AM

Plan My Trip

PUBLIC NOTIFICATION SYSTEM
Sign up to Receive E-Mail Updates

Line 1 - Westbound Stop Locations

Stop#	Location	Address/Near	Direction	Distance
1	WASHINGTON BLVD / FAIRFAX AVE	(A/F 5726 W. Washington)	NE	
2	WASHINGTON BLVD / COMEY AVE	(Mustangs Only)	NE	0.3
3	WASHINGTON BLVD / LA CIENEGA BLVD	(Davis Bros. Tires)	NW	0.1
4	WASHINGTON BLVD / LA CIENEGA AVE	(6125 Block)	NE	0.2
5	WASHINGTON BLVD / CATTARAUGUS AVE	(8592 Block)	NW	0.2
6	WASHINGTON BLVD / HELMS AVE	(Beacon Laundry/8695 Block)	NE	0.1
7	WASHINGTON BLVD / EXPO LIGHT RAIL STATION	(Expo Culver City Light Rail Station)	I/F	0.2
8	WASHINGTON BLVD / ROBERTSON BLVD	(Honda Dealership)	NW	0.3
9	CULVER BLVD / MAIN ST	(Gregg Fleishman Studio)	NE	0.3
10	WASHINGTON BLVD / HUGHES AVE	(Chase Parking Lot)	NE	0.2
11	WASHINGTON BLVD / CLARINGTON AVE	(Wells Fargo)	NE	0.1
12	WASHINGTON BLVD / JASMINE AVE	(St. Augustine's Church)	NE	0.1
13	WASHINGTON BLVD / MOTOR AVE	(Masters Auto Body)	NE	0.1
14	WASHINGTON BLVD / OVERLAND AVE	(Coast Federal Bank)	NE	0.2
15	WASHINGTON BLVD / CULVER CENTER	"(Best Buy	10791 Block)"	I/F
16	WASHINGTON BLVD / ELENDA ST	(La Ballona School 10915 Block)	I/F	0.2
17	WASHINGTON BLVD / PROSPECT AVE	(10955 Block)	NE	0.1
18	WASHINGTON BLVD / HARTER AVE	(11101 Block)	NW	0.2
19	WASHINGTON BLVD / SEPULVEDA BLVD	(AM/PM)	NE	0.2
20	WASHINGTON BLVD / SAWTELLE BLVD	(UCLA Med Group 11311 Block)	NW	0.3
21	WASHINGTON BLVD / BERRYMAN AVE	(11513 Block)	NW	0.2
22	WASHINGTON BLVD / EAST BLVD	(Dental Office 11725 Block)	NW	0.2
23	WASHINGTON BLVD / INGLEWOOD BLVD	(Kaiser Permanente)	NW	0.3
24	WASHINGTON BLVD / GRAND VIEW BLVD	(12211 Block)	NW	0.2
25	WASHINGTON BLVD / CENTINELA AVE	(A/F ARCO)	NE	0.1
26	WASHINGTON BLVD / WASHINGTON PL	(Car Wash)	NE	0.3
27	WASHINGTON BLVD / MEIER ST	(Donut Shop 12753 Block)	NE	0.2
28	WASHINGTON BLVD / BEETHOVEN ST	(Sun Bay Motel 12800 Block)	NE	0.1
29	WASHINGTON BLVD / REDWOOD AVE		NE	0.3
30	WASHINGTON BLVD / GLENCOE AVE	(Costco/EZ Lube 13376 Block)	NW	0.2
31	WASHINGTON BLVD / LINCOLN BLVD	(Mediterranean Café)	NW	0.2
32	WASHINGTON BLVD / ABBOT KINNEY	"(Gas Station	800 Block)"	NW
33	WASHINGTON BLVD / OXFORD AVE	"(Del Mar Cleaners	700 Block)"	NE
34	WASHINGTON BLVD / WILSON AVE	(600 Block)	NE	0.2
35	WASHINGTON BLVD / OCEAN AVE	(487 Block)	NW	0.3
36	WASHINGTON BLVD / DELL AVE	(Kifune Sushi 405 Block)	NE	0.2
37	WASHINGTON BLVD / STRONGS DR	(123 Block 1 block east of Pacific)		NE
38	PACIFIC AVE / 28TH AVE	(2800 Block)	I/F	0.2
39	PACIFIC AVE / 25TH AVE	(2500 Block)	I/F	0.1
40	PACIFIC AVE / S VENICE BLVD	(I/F of Venice Beach Parking)	NE	0.2
41	WINDWARD AVE / MAIN ST	(I/F of Post Office)	SW	0.3

Culver CityBus Line 2

2 Inglewood Blvd.

Monday - Friday Lunes - Viernes

Westbound Oeste

Culver City Transit Center	Washington/ Inglewood	Venice High School
6:05AM	6:14AM	6:24AM
7:05	7:17	7:30
8:05	8:17	8:30
9:05	9:15	9:28
10:05	10:15	10:28
11:05	11:15	11:28
12:05PM	**12:16PM**	**12:29PM**
1:05	**1:16**	**1:29**
2:05	**2:16**	**2:29**
3:05	**3:16**	**3:29**
4:05	**4:16**	**4:29**
5:05	**5:16**	**5:29**
6:05	**6:15**	**–**

Eastbound Este

Venice High School	Washington/ Inglewood	Culver City Transit Center
	5:37AM	5:46AM
6:30AM	6:38	6:47
7:30	7:38	7:48
8:30	8:38	8:48
9:30	9:38	9:48
10:30	10:38	10:48
11:30	11:38	11:48
12:30PM	**12:38PM**	**12:49PM**
1:30	**1:38**	**1:49**
2:30	**2:38**	**2:49**
3:30	**3:39**	**3:50**
4:30	**4:39**	**4:50**
5:30	**5:39**	**5:50**

Sorry, no weekend or holiday service.
No servicio fin de semana o días festivos.

Times are approximate and may vary due to traffic and weather conditions. Times shown are subject to change without notice. Los tiempos son aproximados y pueden variar debido a tráfico y condiciones de clima. Los tiempos demostrados son conforme a cambio sin aviso.

Route Map
2 Inglewood Blvd.

Culver City Bus takes pride in serving the Westside communities of Blair Hills, Century City, Culver City, Mar Vista, Marina Del Rey, Palms, Venice Beach, West Los Angeles, Westchester and Westwood with safe, convenient and reliable public transportation.

Maps & Schedules

Fares

Rider Alerts

Rider's Guide

Contact Us

Metro Google Trip Planner

Plan Your Trip

Start:

End:

When:

Leave by Tue

12 05 AM

Plan My Trip

Line 2 - Eastbound Stop Locations

Stop#	Location	Address/Near	Direction	Distance
1	VENICE HIGH SCHOOL / VENICE BLVD	(I/F of school & A/F Maplewood)	IF	
2	VENICE BLVD / WADE ST	(12600 Block)	SE	0.3
3	VENICE BLVD / CENTINELA AVE	(12400 Block; American Flowers)	SW	0.2
4	WASHINGTON BLVD / CENTINELA AVE	(12300 Block; ARCO)	SE	0.4
5	WASHINGTON BLVD / GRAND VIEW BLVD	(Culver Del Rey Dental)	SW	0.1
6	WASHINGTON BLVD / INGLEWOOD BLVD	(Wood Café; 12012 Block)	NW	0.2
7	INGLEWOOD BLVD / CULVER BLVD	(4461 Block)	NW	0.3
8	INGLEWOOD BLVD / BRADDOCK DR	(4711 Block - in front of school)	NW	0.2
9	INGLEWOOD BLVD / ALLIN ST	(4900 Block)	NW	0.1
10	INGLEWOOD BLVD / BRAY ST	(Near 90 Fwy)	SW	0.3
11	INGLEWOOD BLVD / LUCILLE AVE	(5423 Block)	SW	0.2
12	INGLEWOOD BLVD / JUNIETTE ST	(5550 Block)	SW	0.1
13	JEFFERSON BLVD / INGLEWOOD BLVD	(PCC Building)	SE	0.1
14	JEFFERSON BLVD / MESMER AVE	(Café Roberto - Wine Shop)	SW	0.2
15	CULVER CITY TRANSIT CENTER	(Westfield Culver City Mall)	SW	0.6

Culver City Bus takes pride in serving the Westside communities of Blair Hills, Century City, Culver City, Mar Vista, Marina Del Rey, Palms, Venice Beach, West Los Angeles, Westchester and Westwood with safe, convenient and reliable public transportation.

Maps & Schedules

Fares

Rider Alerts

Rider's Guide

Contact Us

Metro Google Trip Planner

Plan Your Trip

Start:

End:

When:

Leave by Tue

11 55 AM

Plan My Trip

Line 2 - Westbound Stop Locations

Stop#	Location	Address/Near	Direction	Distance
1	CULVER CITY TRANSIT CENTER	(Westfield Culver City Mall)		0.6
2	JEFFERSON BLVD / MESMER AVE	(A/F Café Roberto - Wine Shop)	NW	0.6
3	JEFFERSON BLVD / MARGARET AVE	(11800 Block)	NE	0.1
4	INGLEWOOD BLVD / JUNIETTE ST	(5500 Block)	SE	0.3
5	INGLEWOOD BLVD / ANETA ST	(5378 Block)	SE	0.1
6	INGLEWOOD BLVD / BRAY ST	(5200 Block)	SE	0.2
7	INGLEWOOD BLVD / ALLIN ST	(4800 Block)	SE	0.3
8	INGLEWOOD BLVD / BRADDOCK DR	(Shopping Center/Subway)	NE	0.1
9	INGLEWOOD BLVD / CULVER BLVD	(4500 Block)	SE	0.2
10	INGLEWOOD BLVD / COURTLEIGH DR	(4300 Block)	SE	0.1
11	WASHINGTON BLVD / INGLEWOOD BLVD	(Kaiser Permanente)	NW	0.2
12	WASHINGTON BLVD / GRAND VIEW BLVD	(12211 Block)	NW	0.2
13	WASHINGTON BLVD / CENTINELA AVE	(A/F from ARCO)	NE	0.1
14	WASHINGTON BLVD / WASHINGTON PL	(Car Wash)	NE	0.3
15	WASHINGTON BLVD / MEIER ST	(Orthodontist Office; 12753 Block)	NE	0.1
16	WASHINGTON BLVD / BEETHOVEN ST	(Motel; 12800 Block)	NE	0.1
17	WASHINGTON BLVD / REDWOOD AVE	(Taco Bell)	NE	0.3
18	WASHINGTON BLVD / GLENCOE AVE	(Costco; 13376 Block)	NW	0.2
19	LINCOLN BLVD / WASHINGTON BLVD	(Ortho Mattress Store)	NE	0.1
20	LINCOLN BLVD / ZANJA ST	(Marina Animal Hosp.)	NW	0.1
21	LINCOLN BLVD / VENICE BLVD	(Chevron)	NE	0.2
22	VENICE BLVD / GLYNDON AVE	(1320 Block)	SE	0.2
23	VENICE HIGH SCHOOL / VENICE BLVD	(I/F of school & A/F from Maplewood)	SE	0.3

APPENDIX C

INTERSECTION GEOMETRICS/CONTROLS AND TRAFFIC COUNT DATA SHEETS

12803 WASHINGTON (2015) \ CONFIGS

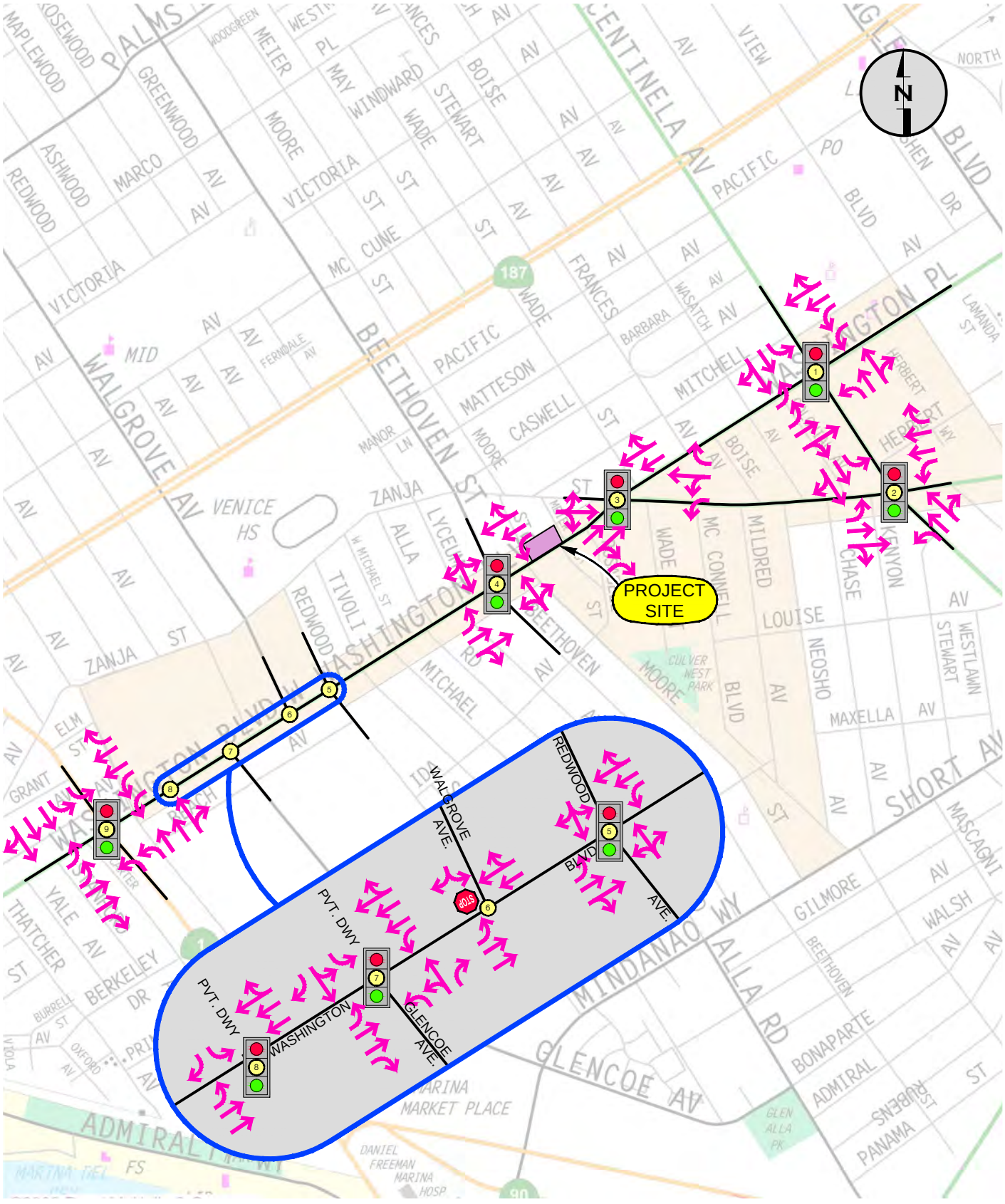


FIGURE C-1

11/11/2015

IRSCH REEN
Hirsch/Green Transportation Consulting, Inc.

STUDY INTERSECTION GEOMETRICS AND CONTROLS

Intersection Counts

AM Peak Hour

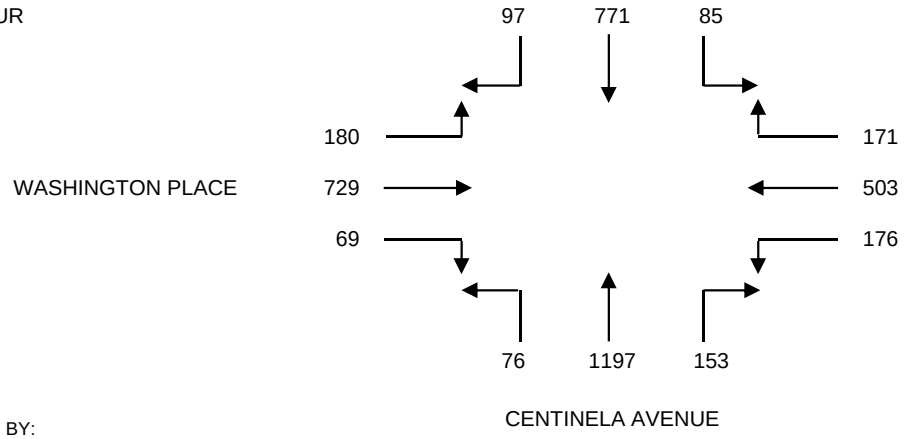
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S CENTINELA AVENUE
E/W WASHINGTON PLACE
FILE NUMBER: 1 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	11	103	12	14	80	13	23	333	11	17	106	33
0715-0730	12	126	12	18	89	20	24	352	11	16	126	43
0730-0745	17	144	9	20	108	22	28	326	12	12	151	37
0745-0800	18	170	12	30	119	32	37	342	17	19	187	40
0800-0815	22	199	19	39	123	47	36	300	20	22	179	52
0815-0830	25	187	24	56	131	51	34	297	21	15	190	41
0830-0845	32	215	30	46	130	46	46	258	18	13	173	47
0845-0900	31	209	31	44	133	46	50	233	19	17	166	38
0900-0915	29	201	33	47	132	39	53	252	21	20	150	30
0915-0930	24	193	31	40	151	46	46	222	22	16	161	27
0930-0945	22	187	27	36	130	40	45	270	19	15	138	23
0945-1000	26	174	21	30	148	34	41	244	16	13	130	27

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	58	543	45	82	396	87	112	1353	51	64	570	153	3514
0715-0815	69	639	52	107	439	121	125	1320	60	69	643	172	3816
0730-0830	82	700	64	145	481	152	135	1265	70	68	707	170	4039
0745-0845	97	771	85	171	503	176	153	1197	76	69	729	180	4207
0800-0900	110	810	104	185	517	190	166	1088	78	67	708	178	4201
0815-0915	117	812	118	193	526	182	183	1040	79	65	679	156	4150
0830-0930	116	818	125	177	546	177	195	965	80	66	650	142	4057
0845-0945	106	790	122	167	546	171	194	977	81	68	615	118	3955
0900-1000	101	755	112	153	561	159	185	988	78	64	579	107	3842

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

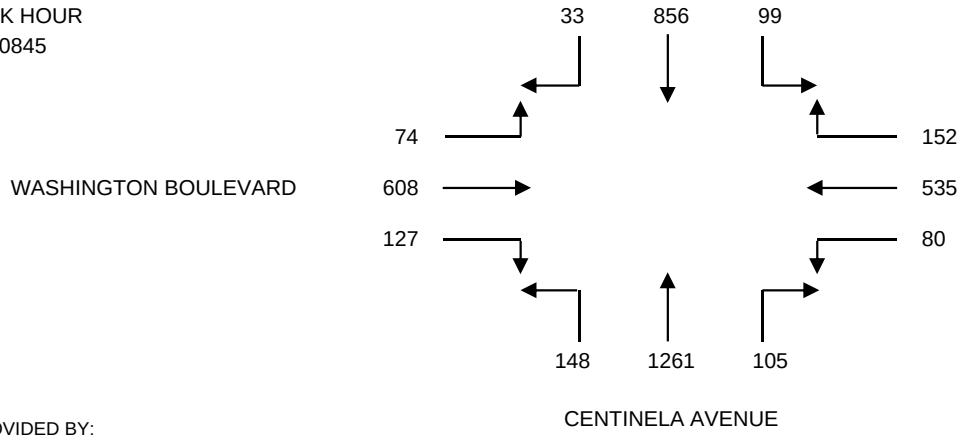
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S CENTINELA AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 2 AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	4	89	8	30	77	12	18	333	26	15	86	13
0715-0730	6	111	10	38	95	12	20	367	29	20	93	15
0730-0745	8	156	15	32	146	10	26	304	45	30	137	12
0745-0800	10	224	22	40	160	18	26	376	38	34	154	15
0800-0815	6	208	22	40	122	19	30	290	39	28	149	18
0815-0830	7	204	23	41	126	23	29	313	37	35	150	20
0830-0845	10	220	32	31	127	20	20	282	34	30	155	21
0845-0900	18	252	29	46	165	27	26	255	46	32	137	17
0900-0915	17	200	20	33	128	20	19	292	31	31	124	17
0915-0930	18	176	20	35	100	19	16	225	21	27	127	15
0930-0945	14	198	26	30	99	13	28	344	35	31	136	12
0945-1000	19	174	21	33	112	11	15	240	30	23	112	13

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	28	580	55	140	478	52	90	1380	138	99	470	55	3565
0715-0815	30	699	69	150	523	59	102	1337	151	112	533	60	3825
0730-0830	31	792	82	153	554	70	111	1283	159	127	590	65	4017
0745-0845	33	856	99	152	535	80	105	1261	148	127	608	74	4078
0800-0900	41	884	106	158	540	89	105	1140	156	125	591	76	4011
0815-0915	52	876	104	151	546	90	94	1142	148	128	566	75	3972
0830-0930	63	848	101	145	520	86	81	1054	132	120	543	70	3763
0845-0945	67	826	95	144	492	79	89	1116	133	121	524	61	3747
0900-1000	68	748	87	131	439	63	78	1101	117	112	499	57	3500

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

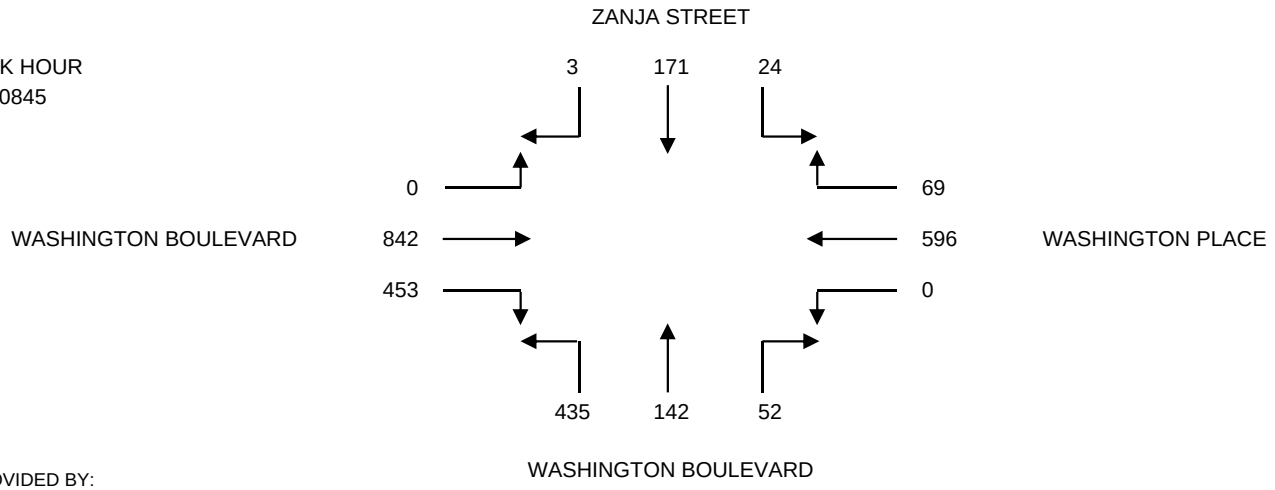
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S WASHINGTON BOULEVARD/ZANJA STREET
E/W WASHINGTON BOULEVARD/WASHINGTON PLACE
FILE NUMBER: 3 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	0	14	2	11	75	0	5	25	59	50	120	0
0715-0730	1	27	7	13	95	0	10	46	89	67	154	0
0730-0745	1	35	6	19	127	0	22	41	105	93	176	0
0745-0800	0	41	3	23	157	0	23	53	106	130	221	0
0800-0815	0	43	8	16	140	0	12	30	98	105	200	0
0815-0830	0	43	8	12	143	0	10	29	103	117	215	0
0830-0845	3	44	5	18	156	0	7	30	128	101	206	0
0845-0900	1	34	13	14	163	0	12	31	113	106	177	0
0900-0915	2	39	11	19	172	0	10	30	139	120	182	0
0915-0930	2	22	10	13	150	0	11	20	105	106	158	0
0930-0945	2	34	10	13	161	0	6	14	118	99	137	0
0945-1000	0	27	8	11	174	0	8	19	125	84	139	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	2	117	18	66	454	0	60	165	359	340	671	0	2252
0715-0815	2	146	24	71	519	0	67	170	398	395	751	0	2543
0730-0830	1	162	25	70	567	0	67	153	412	445	812	0	2714
0745-0845	3	171	24	69	596	0	52	142	435	453	842	0	2787
0800-0900	4	164	34	60	602	0	41	120	442	429	798	0	2694
0815-0915	6	160	37	63	634	0	39	120	483	444	780	0	2766
0830-0930	8	139	39	64	641	0	40	111	485	433	723	0	2683
0845-0945	7	129	44	59	646	0	39	95	475	431	654	0	2579
0900-1000	6	122	39	56	657	0	35	83	487	409	616	0	2510

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

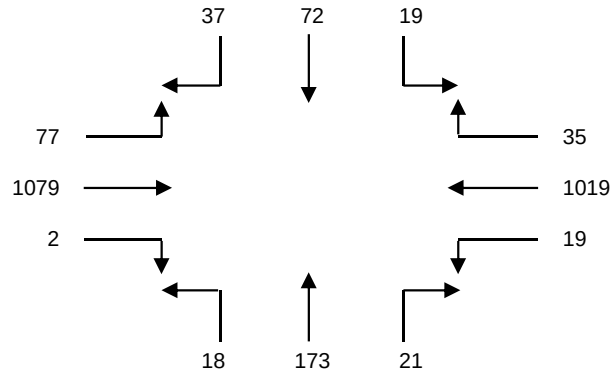
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S BEETHOVEN STREET
E/W WASHINGTON BOULEVARD
FILE NUMBER: 4 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	5	9	6	3	148	1	3	42	4	2	157	12
0715-0730	7	13	10	5	169	3	6	49	3	3	187	16
0730-0745	8	14	11	4	194	3	10	59	7	2	225	14
0745-0800	10	19	13	2	236	8	12	49	11	1	294	14
0800-0815	9	12	8	5	229	4	11	45	8	2	273	19
0815-0830	6	22	8	9	244	7	5	41	4	0	277	17
0830-0845	8	15	5	6	249	4	5	44	3	0	265	17
0845-0900	11	19	2	8	239	5	5	32	6	2	268	20
0900-0915	12	16	4	12	287	3	6	56	5	0	269	23
0915-0930	13	15	2	8	228	6	6	32	3	3	220	15
0930-0945	14	18	7	5	262	4	6	29	6	2	228	11
0945-1000	11	19	3	9	260	7	3	24	4	1	214	10

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	30	55	40	14	747	15	31	199	25	8	863	56	2083
0715-0815	34	58	42	16	828	18	39	202	29	8	979	63	2316
0730-0830	33	67	40	20	903	22	38	194	30	5	1069	64	2485
0745-0845	33	68	34	22	958	23	33	179	26	3	1109	67	2555
0800-0900	34	68	23	28	961	20	26	162	21	4	1083	73	2503
0815-0915	37	72	19	35	1019	19	21	173	18	2	1079	77	2571
0830-0930	44	65	13	34	1003	18	22	164	17	5	1022	75	2482
0845-0945	50	68	15	33	1016	18	23	149	20	7	985	69	2453
0900-1000	50	68	16	34	1037	20	21	141	18	6	931	59	2401

A.M. PEAK HOUR
0815-0915



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

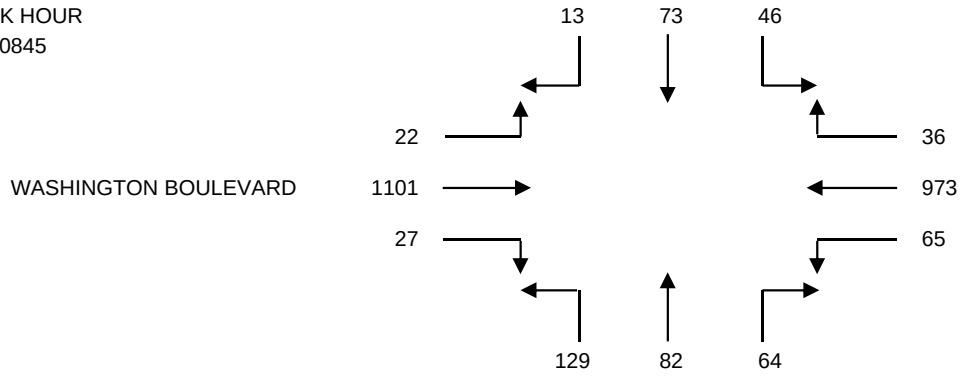
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S REDWOOD AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 5 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	2	2	3	2	156	9	14	11	30	6	152	1
0715-0730	1	7	3	13	182	9	15	23	38	3	186	5
0730-0745	3	15	13	16	241	13	11	29	36	4	236	11
0745-0800	6	29	25	21	259	17	10	20	27	8	292	9
0800-0815	4	10	10	8	219	19	17	25	26	8	278	7
0815-0830	2	15	5	3	237	15	22	18	33	5	243	3
0830-0845	1	19	6	4	258	14	15	19	43	6	288	3
0845-0900	2	13	7	3	252	17	10	20	32	10	223	6
0900-0915	3	9	4	3	269	19	12	26	27	9	258	5
0915-0930	1	10	2	4	230	19	13	14	26	10	231	2
0930-0945	3	14	6	5	253	21	12	19	29	16	195	6
0945-1000	0	19	6	7	295	19	7	18	26	19	183	4

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	12	53	44	52	838	48	50	83	131	21	866	26	2224
0715-0815	14	61	51	58	901	58	53	97	127	23	992	32	2467
0730-0830	15	69	53	48	956	64	60	92	122	25	1049	30	2583
0745-0845	13	73	46	36	973	65	64	82	129	27	1101	22	2631
0800-0900	9	57	28	18	966	65	64	82	134	29	1032	19	2503
0815-0915	8	56	22	13	1016	65	59	83	135	30	1012	17	2516
0830-0930	7	51	19	14	1009	69	50	79	128	35	1000	16	2477
0845-0945	9	46	19	15	1004	76	47	79	114	45	907	19	2380
0900-1000	7	52	18	19	1047	78	44	77	108	54	867	17	2388

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

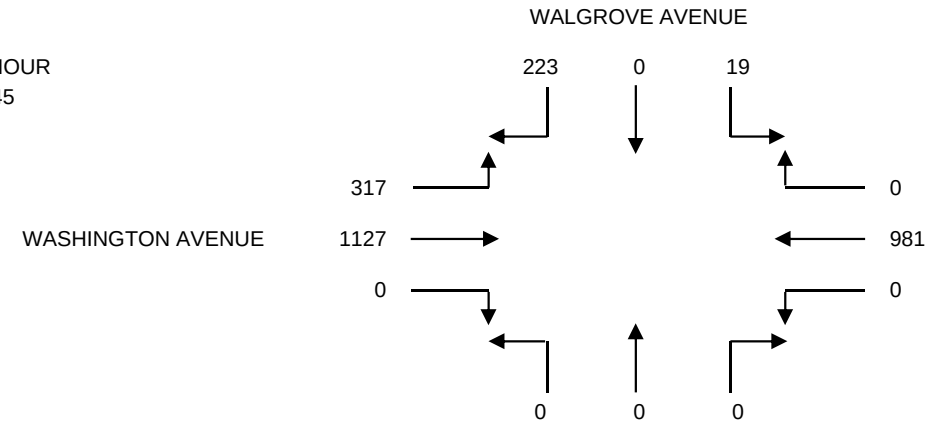
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S WALGROVE AVENUE
E/W WASHINGTON AVENUE
FILE NUMBER: 6 AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	20	0	2	0	144	0	0	0	0	0	168	75
0715-0730	27	0	3	0	180	0	0	0	0	0	197	93
0730-0745	34	0	2	0	228	0	0	0	0	0	239	109
0745-0800	42	0	5	0	253	0	0	0	0	0	278	75
0800-0815	65	0	3	0	235	0	0	0	0	0	294	98
0815-0830	57	0	4	0	231	0	0	0	0	0	258	76
0830-0845	59	0	7	0	262	0	0	0	0	0	297	68
0845-0900	58	0	8	0	247	0	0	0	0	0	252	80
0900-0915	54	0	4	0	260	0	0	0	0	0	273	76
0915-0930	48	0	8	0	234	0	0	0	0	0	257	59
0930-0945	44	0	5	0	248	0	0	0	0	0	230	83
0945-1000	46	0	5	0	285	0	0	0	0	0	217	85

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	123	0	12	0	805	0	0	0	0	0	882	352	2174
0715-0815	168	0	13	0	896	0	0	0	0	0	1008	375	2460
0730-0830	198	0	14	0	947	0	0	0	0	0	1069	358	2586
0745-0845	223	0	19	0	981	0	0	0	0	0	1127	317	2667
0800-0900	239	0	22	0	975	0	0	0	0	0	1101	322	2659
0815-0915	228	0	23	0	1000	0	0	0	0	0	1080	300	2631
0830-0930	219	0	27	0	1003	0	0	0	0	0	1079	283	2611
0845-0945	204	0	25	0	989	0	0	0	0	0	1012	298	2528
0900-1000	192	0	22	0	1027	0	0	0	0	0	977	303	2521

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

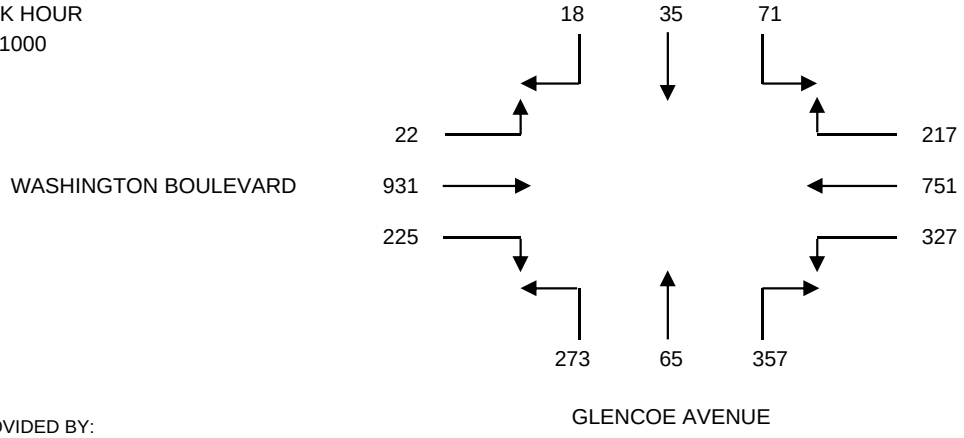
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S GLENCOE AVENUE/COSTCO DRIVEWAY
E/W WASHINGTON BOULEVARD
FILE NUMBER: 7 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	3	12	25	27	145	30	51	18	24	22	157	1
0715-0730	2	12	21	23	176	28	71	11	33	20	182	1
0730-0745	2	10	20	26	188	42	92	10	59	18	213	0
0745-0800	2	7	26	26	201	55	94	11	57	18	242	4
0800-0815	1	7	23	32	217	75	75	11	75	20	249	2
0815-0830	1	5	20	40	202	76	92	16	93	34	240	2
0830-0845	2	9	23	46	193	70	105	16	73	39	245	3
0845-0900	2	7	22	38	180	98	118	10	50	45	233	4
0900-0915	4	9	18	30	186	82	91	10	71	57	241	5
0915-0930	5	8	18	39	195	90	83	14	55	67	232	3
0930-0945	3	9	18	56	187	75	95	17	63	58	230	5
0945-1000	6	9	17	92	183	80	88	24	84	43	228	9

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	9	41	92	102	710	155	308	50	173	78	794	6	2518
0715-0815	7	36	90	107	782	200	332	43	224	76	886	7	2790
0730-0830	6	29	89	124	808	248	353	48	284	90	944	8	3031
0745-0845	6	28	92	144	813	276	366	54	298	111	976	11	3175
0800-0900	6	28	88	156	792	319	390	53	291	138	967	11	3239
0815-0915	9	30	83	154	761	326	406	52	287	175	959	14	3256
0830-0930	13	33	81	153	754	340	397	50	249	208	951	15	3244
0845-0945	14	33	76	163	748	345	387	51	239	227	936	17	3236
0900-1000	18	35	71	217	751	327	357	65	273	225	931	22	3292

A.M. PEAK HOUR
0900-1000



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
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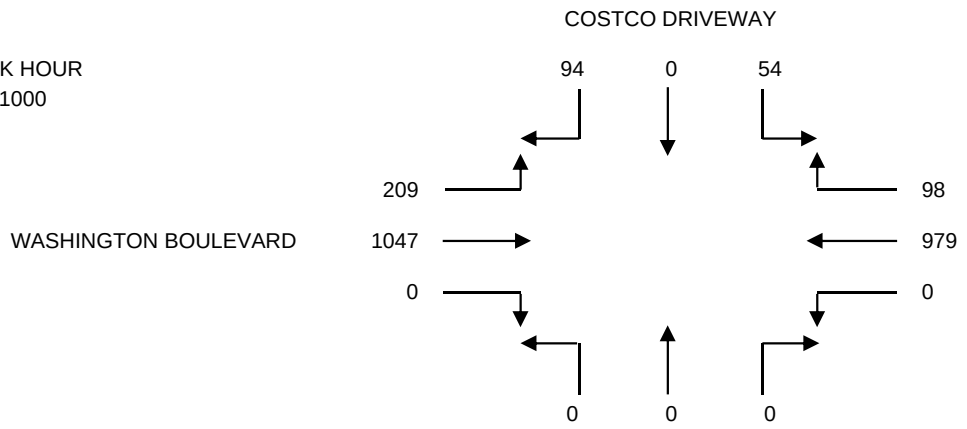
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S COSTCO DRIVEWAY
E/W WASHINGTON BOULEVARD
FILE NUMBER: 8 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	10	0	6	7	158	0	0	0	0	0	141	28
0715-0730	12	0	7	9	198	0	0	0	0	0	175	29
0730-0745	14	0	6	10	216	0	0	0	0	0	228	30
0745-0800	17	0	5	19	232	0	0	0	0	0	251	29
0800-0815	21	0	7	10	304	0	0	0	0	0	251	33
0815-0830	18	0	8	16	289	0	0	0	0	0	256	29
0830-0845	25	0	12	11	282	0	0	0	0	0	289	27
0845-0900	21	0	12	10	250	0	0	0	0	0	268	31
0900-0915	28	0	8	18	255	0	0	0	0	0	267	32
0915-0930	26	0	14	29	230	0	0	0	0	0	250	32
0930-0945	20	0	17	22	258	0	0	0	0	0	271	68
0945-1000	20	0	15	29	236	0	0	0	0	0	259	77

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	53	0	24	45	804	0	0	0	0	0	795	116	1837
0715-0815	64	0	25	48	950	0	0	0	0	0	905	121	2113
0730-0830	70	0	26	55	1041	0	0	0	0	0	986	121	2299
0745-0845	81	0	32	56	1107	0	0	0	0	0	1047	118	2441
0800-0900	85	0	39	47	1125	0	0	0	0	0	1064	120	2480
0815-0915	92	0	40	55	1076	0	0	0	0	0	1080	119	2462
0830-0930	100	0	46	68	1017	0	0	0	0	0	1074	122	2427
0845-0945	95	0	51	79	993	0	0	0	0	0	1056	163	2437
0900-1000	94	0	54	98	979	0	0	0	0	0	1047	209	2481

A.M. PEAK HOUR
0900-1000



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

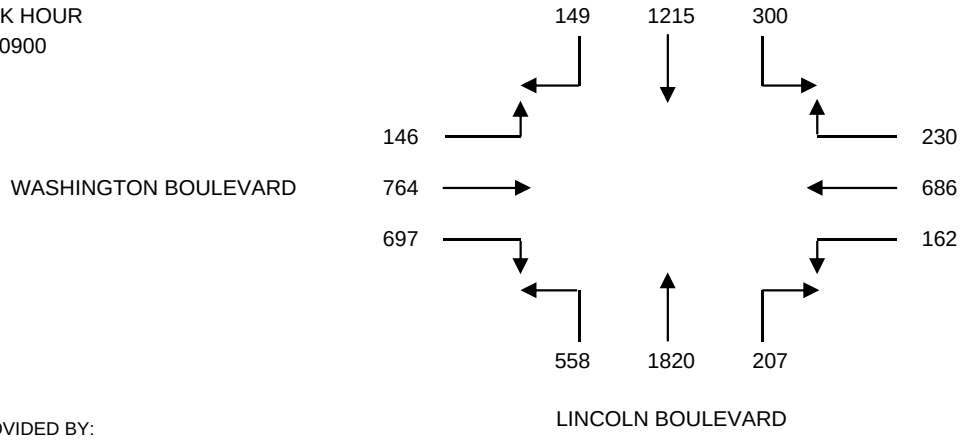
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S LINCOLN BOULEVARD
E/W WASHINGTON BOULEVARD
FILE NUMBER: 9 AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	21	134	29	34	92	21	23	314	64	80	130	19
0715-0730	25	170	33	37	130	30	40	406	89	108	145	27
0730-0745	30	211	39	42	150	27	38	452	121	137	192	25
0745-0800	27	247	50	64	167	33	41	495	133	162	194	30
0800-0815	32	270	71	52	173	40	50	487	139	191	192	37
0815-0830	40	300	77	67	165	45	46	470	143	170	187	40
0830-0845	35	324	72	60	171	37	54	445	139	174	211	38
0845-0900	42	321	80	51	177	40	57	418	137	162	174	31
0900-0915	47	343	85	49	155	50	59	405	141	167	180	38
0915-0930	37	310	75	45	170	47	49	378	151	145	186	41
0930-0945	32	334	83	48	167	34	51	400	140	132	191	35
0945-1000	30	297	78	50	153	34	55	394	133	149	181	41

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	103	762	151	177	539	111	142	1667	407	487	661	101	5308
0715-0815	114	898	193	195	620	130	169	1840	482	598	723	119	6081
0730-0830	129	1028	237	225	655	145	175	1904	536	660	765	132	6591
0745-0845	134	1141	270	243	676	155	191	1897	554	697	784	145	6887
0800-0900	149	1215	300	230	686	162	207	1820	558	697	764	146	6934
0815-0915	164	1288	314	227	668	172	216	1738	560	673	752	147	6919
0830-0930	161	1298	312	205	673	174	219	1646	568	648	751	148	6803
0845-0945	158	1308	323	193	669	171	216	1601	569	606	731	145	6690
0900-1000	146	1284	321	192	645	165	214	1577	565	593	738	155	6595

A.M. PEAK HOUR
0800-0900



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

PM Peak Hour

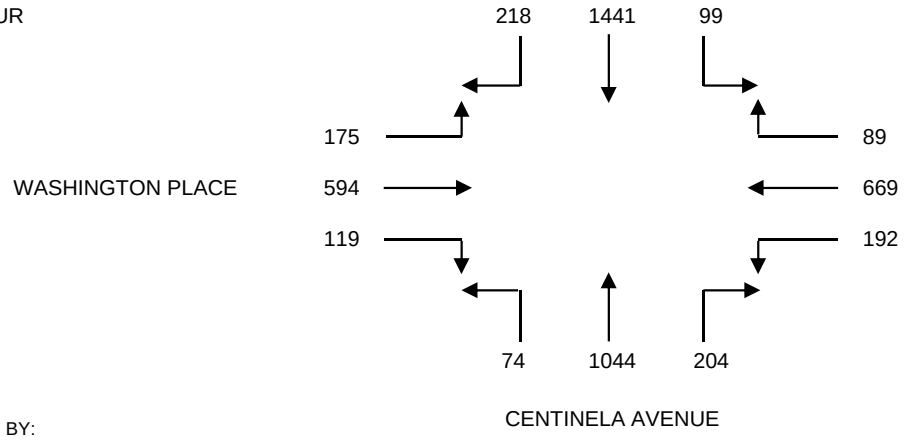
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S CENTINELA AVENUE
E/W WASHINGTON PLACE
FILE NUMBER: 1 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	26	254	23	39	125	39	47	221	17	21	130	38
0315-0330	30	270	24	44	131	49	39	246	20	22	137	45
0330-0345	32	275	22	38	141	54	41	243	21	26	149	42
0345-0400	32	304	23	30	148	56	40	260	23	28	124	48
0400-0415	37	286	24	27	150	41	47	256	21	25	142	50
0415-0430	46	323	24	26	163	43	49	289	23	26	157	44
0430-0445	48	342	17	23	156	40	44	270	15	26	144	53
0445-0500	51	415	26	20	155	42	48	256	17	28	148	40
0500-0515	55	364	29	24	164	51	51	260	15	32	145	48
0515-0530	55	342	24	26	174	56	49	277	19	29	151	46
0530-0545	57	320	20	19	176	43	56	251	23	30	150	41
0545-0600	53	321	27	19	171	42	59	257	19	28	156	39

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	120	1103	92	151	545	198	167	970	81	97	540	173	4237
0315-0415	131	1135	93	139	570	200	167	1005	85	101	552	185	4363
0330-0430	147	1188	93	121	602	194	177	1048	88	105	572	184	4519
0345-0445	163	1255	88	106	617	180	180	1075	82	105	567	195	4613
0400-0500	182	1366	91	96	624	166	188	1071	76	105	591	187	4743
0415-0515	200	1444	96	93	638	176	192	1075	70	112	594	185	4875
0430-0530	209	1463	96	93	649	189	192	1063	66	115	588	187	4910
0445-0545	218	1441	99	89	669	192	204	1044	74	119	594	175	4918
0500-0600	220	1347	100	88	685	192	215	1045	76	119	602	174	4863

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

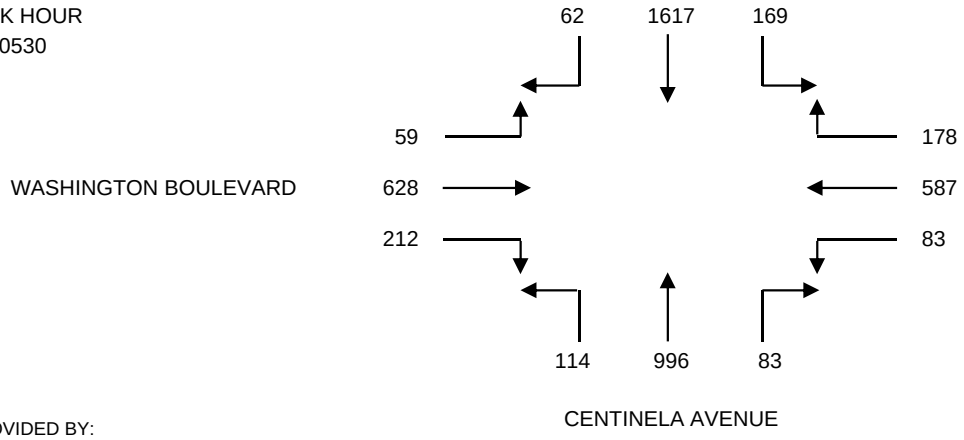
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S CENTINELA AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 2 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	20	309	31	43	127	26	31	168	29	32	141	20
0315-0330	15	291	27	31	129	20	21	202	26	33	149	18
0330-0345	21	350	39	43	145	21	22	235	30	41	157	15
0345-0400	17	300	34	41	132	16	14	274	31	45	147	16
0400-0415	15	366	29	33	125	25	16	231	31	52	151	16
0415-0430	10	367	28	37	120	16	18	284	20	50	148	19
0430-0445	15	406	44	34	128	18	25	267	23	55	160	15
0445-0500	15	411	52	50	152	21	22	265	31	54	155	13
0500-0515	12	415	36	53	160	25	21	239	34	52	155	18
0515-0530	20	385	37	41	147	19	15	225	26	51	158	13
0530-0545	21	357	36	33	131	20	16	240	20	43	140	18
0545-0600	24	344	46	56	135	33	22	253	21	49	173	25

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	73	1250	131	158	533	83	88	879	116	151	594	69	4125
0315-0415	68	1307	129	148	531	82	73	942	118	171	604	65	4238
0330-0430	63	1383	130	154	522	78	70	1024	112	188	603	66	4393
0345-0445	57	1439	135	145	505	75	73	1056	105	202	606	66	4464
0400-0500	55	1550	153	154	525	80	81	1047	105	211	614	63	4638
0415-0515	52	1599	160	174	560	80	86	1055	108	211	618	65	4768
0430-0530	62	1617	169	178	587	83	83	996	114	212	628	59	4788
0445-0545	68	1568	161	177	590	85	74	969	111	200	608	62	4673
0500-0600	77	1501	155	183	573	97	74	957	101	195	626	74	4613

P.M. PEAK HOUR
0430-0530



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

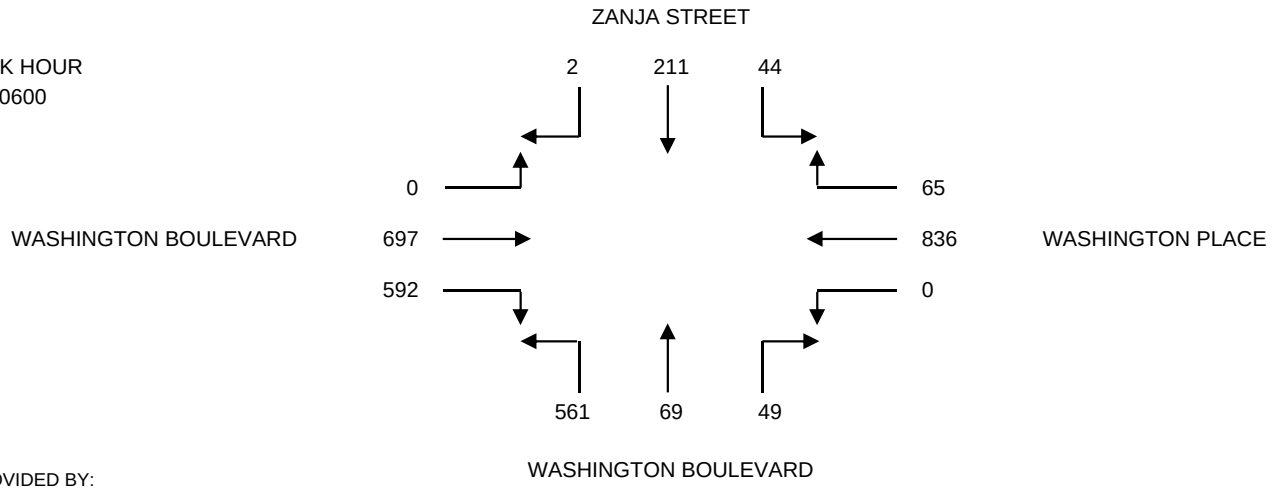
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S WASHINGTON BOULEVARD/ZANJA STREET
E/W WASHINGTON BOULEVARD/WASHINGTON PLACE
FILE NUMBER: 3 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	3	46	11	18	138	0	10	32	131	138	147	0
0315-0330	2	56	12	17	147	0	9	20	154	129	152	0
0330-0345	3	46	9	14	151	0	8	21	124	130	158	0
0345-0400	1	53	14	8	164	0	7	15	113	128	169	0
0400-0415	3	53	10	15	160	0	13	19	137	131	181	0
0415-0430	1	50	12	10	198	0	10	18	122	144	162	0
0430-0445	0	54	10	12	163	0	7	16	137	146	188	0
0445-0500	2	52	15	11	182	0	11	23	164	142	161	0
0500-0515	1	49	12	18	208	0	12	15	130	145	186	0
0515-0530	1	50	14	18	201	0	12	13	157	161	179	0
0530-0545	0	62	9	11	205	0	14	18	131	145	167	0
0545-0600	0	50	9	18	222	0	11	23	143	141	165	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	9	201	46	57	600	0	34	88	522	525	626	0	2708
0315-0415	9	208	45	54	622	0	37	75	528	518	660	0	2756
0330-0430	8	202	45	47	673	0	38	73	496	533	670	0	2785
0345-0445	5	210	46	45	685	0	37	68	509	549	700	0	2854
0400-0500	6	209	47	48	703	0	41	76	560	563	692	0	2945
0415-0515	4	205	49	51	751	0	40	72	553	577	697	0	2999
0430-0530	4	205	51	59	754	0	42	67	588	594	714	0	3078
0445-0545	4	213	50	58	796	0	49	69	582	593	693	0	3107
0500-0600	2	211	44	65	836	0	49	69	561	592	697	0	3126

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

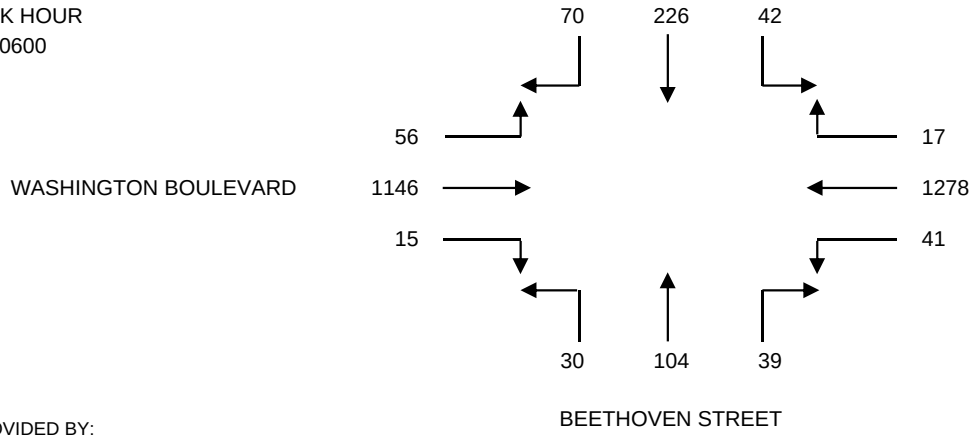
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: TUESDAY, OCTOBER 27, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S BEETHOVEN STREET
E/W WASHINGTON BOULEVARD
FILE NUMBER: 4 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	17	62	7	5	250	7	7	15	6	3	238	11
0315-0330	24	59	11	4	266	9	8	16	5	4	272	9
0330-0345	19	56	9	3	244	10	8	17	7	3	254	10
0345-0400	22	60	10	3	250	7	7	21	6	2	282	13
0400-0415	29	60	14	3	270	8	6	17	4	3	266	16
0415-0430	21	54	8	5	309	8	10	16	7	3	270	11
0430-0445	15	60	10	4	242	6	8	17	2	2	315	15
0445-0500	19	68	8	8	325	7	10	20	9	2	273	10
0500-0515	18	63	10	3	342	8	7	28	9	3	294	16
0515-0530	13	64	10	2	315	14	11	20	7	4	286	15
0530-0545	22	51	14	5	289	9	8	21	8	3	276	10
0545-0600	17	48	8	7	332	10	13	35	6	5	290	15

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	82	237	37	15	1010	33	30	69	24	12	1046	43	2638
0315-0415	94	235	44	13	1030	34	29	71	22	12	1074	48	2706
0330-0430	91	230	41	14	1073	33	31	71	24	11	1072	50	2741
0345-0445	87	234	42	15	1071	29	31	71	19	10	1133	55	2797
0400-0500	84	242	40	20	1146	29	34	70	22	10	1124	52	2873
0415-0515	73	245	36	20	1218	29	35	81	27	10	1152	52	2978
0430-0530	65	255	38	17	1224	35	36	85	27	11	1168	56	3017
0445-0545	72	246	42	18	1271	38	36	89	33	12	1129	51	3037
0500-0600	70	226	42	17	1278	41	39	104	30	15	1146	56	3064

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

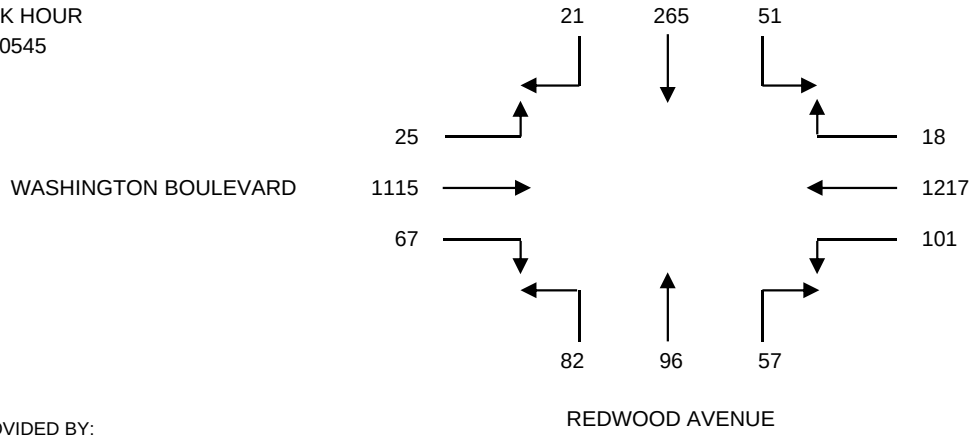
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S REDWOOD AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 5 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	5	45	10	5	260	10	12	15	14	13	238	3
0315-0330	4	50	9	5	257	11	16	17	11	16	244	4
0330-0345	6	43	11	5	261	9	13	19	9	15	252	6
0345-0400	3	37	6	6	250	10	11	14	12	16	248	3
0400-0415	7	43	5	7	249	17	18	15	13	19	264	7
0415-0430	9	42	9	4	284	12	15	17	10	12	224	2
0430-0445	4	54	10	4	268	20	11	21	19	10	284	3
0445-0500	6	78	12	4	298	23	16	23	20	15	295	7
0500-0515	7	72	15	6	333	31	14	20	26	17	259	5
0515-0530	3	51	10	2	254	20	14	23	20	17	268	5
0530-0545	5	64	14	6	332	27	13	30	16	18	293	8
0545-0600	6	46	14	6	278	39	10	20	20	11	250	5

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	18	175	36	21	1028	40	52	65	46	60	982	16	2539
0315-0415	20	173	31	23	1017	47	58	65	45	66	1008	20	2573
0330-0430	25	165	31	22	1044	48	57	65	44	62	988	18	2569
0345-0445	23	176	30	21	1051	59	55	67	54	57	1020	15	2628
0400-0500	26	217	36	19	1099	72	60	76	62	56	1067	19	2809
0415-0515	26	246	46	18	1183	86	56	81	75	54	1062	17	2950
0430-0530	20	255	47	16	1153	94	55	87	85	59	1106	20	2997
0445-0545	21	265	51	18	1217	101	57	96	82	67	1115	25	3115
0500-0600	21	233	53	20	1197	117	51	93	82	63	1070	23	3023

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

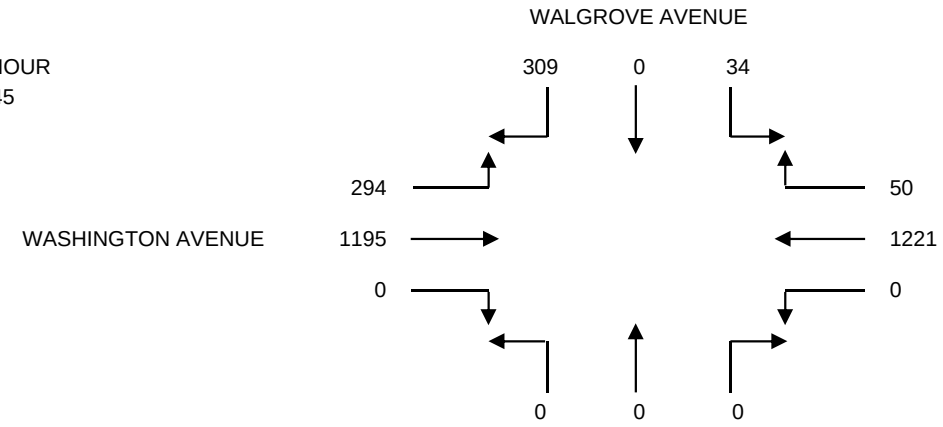
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S WALGROVE AVENUE
E/W WASHINGTON AVENUE
FILE NUMBER: 6 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	85	0	9	12	249	0	0	0	0	0	229	50
0315-0330	93	0	11	9	255	0	0	0	0	0	260	66
0330-0345	82	0	10	11	281	0	0	0	0	0	291	58
0345-0400	80	0	7	12	293	0	0	0	0	0	283	50
0400-0415	68	0	8	13	273	0	0	0	0	0	262	65
0415-0430	82	0	10	13	269	0	0	0	0	0	240	54
0430-0445	89	0	12	12	289	0	0	0	0	0	297	64
0445-0500	76	0	8	15	272	0	0	0	0	0	288	72
0500-0515	90	0	9	10	347	0	0	0	0	0	290	70
0515-0530	73	0	10	15	270	0	0	0	0	0	317	70
0530-0545	70	0	7	10	332	0	0	0	0	0	300	82
0545-0600	51	0	6	9	273	0	0	0	0	0	260	54

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	340	0	37	44	1078	0	0	0	0	0	1063	224	2786
0315-0415	323	0	36	45	1102	0	0	0	0	0	1096	239	2841
0330-0430	312	0	35	49	1116	0	0	0	0	0	1076	227	2815
0345-0445	319	0	37	50	1124	0	0	0	0	0	1082	233	2845
0400-0500	315	0	38	53	1103	0	0	0	0	0	1087	255	2851
0415-0515	337	0	39	50	1177	0	0	0	0	0	1115	260	2978
0430-0530	328	0	39	52	1178	0	0	0	0	0	1192	276	3065
0445-0545	309	0	34	50	1221	0	0	0	0	0	1195	294	3103
0500-0600	284	0	32	44	1222	0	0	0	0	0	1167	276	3025

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

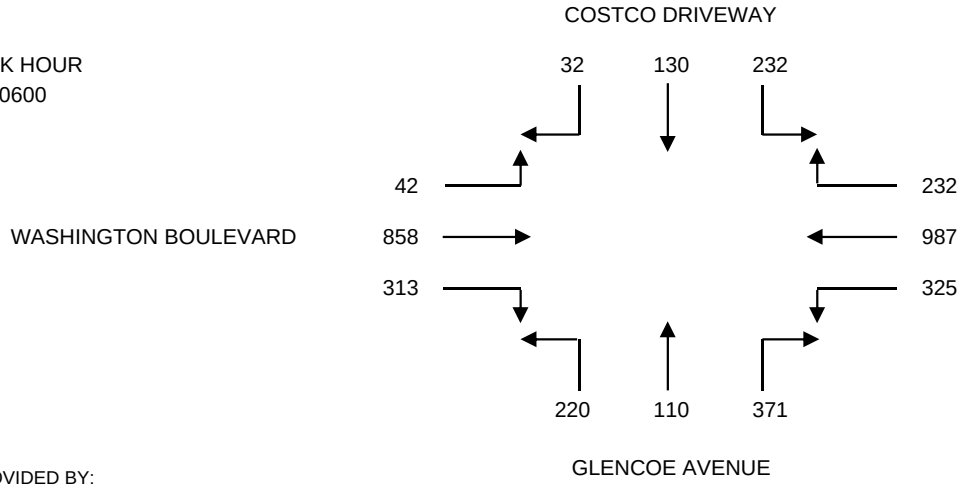
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S GLENCOE AVENUE/COSTCO DRIVEWAY
E/W WASHINGTON BOULEVARD
FILE NUMBER: 7 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	13	30	40	67	211	88	70	26	42	72	203	14
0315-0330	11	21	58	84	218	95	90	22	55	51	215	11
0330-0345	8	27	54	93	195	94	75	20	47	77	210	7
0345-0400	10	34	74	59	178	76	71	22	51	65	185	7
0400-0415	10	21	59	69	205	108	69	31	35	63	210	8
0415-0430	7	24	55	39	183	81	85	25	55	70	230	4
0430-0445	13	30	63	49	235	84	85	27	59	87	210	3
0445-0500	6	41	61	59	183	88	72	31	46	69	180	5
0500-0515	8	40	55	62	260	60	88	26	41	82	227	6
0515-0530	6	34	60	60	228	85	80	32	63	76	239	11
0530-0545	5	30	62	59	248	86	94	22	66	85	205	13
0545-0600	13	26	55	51	251	94	109	30	50	70	187	12

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	42	112	226	303	802	353	306	90	195	265	813	39	3546
0315-0415	39	103	245	305	796	373	305	95	188	256	820	33	3558
0330-0430	35	106	242	260	761	359	300	98	188	275	835	26	3485
0345-0445	40	109	251	216	801	349	310	105	200	285	835	22	3523
0400-0500	36	116	238	216	806	361	311	114	195	289	830	20	3532
0415-0515	34	135	234	209	861	313	330	109	201	308	847	18	3599
0430-0530	33	145	239	230	906	317	325	116	209	314	856	25	3715
0445-0545	25	145	238	240	919	319	334	111	216	312	851	35	3745
0500-0600	32	130	232	232	987	325	371	110	220	313	858	42	3852

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

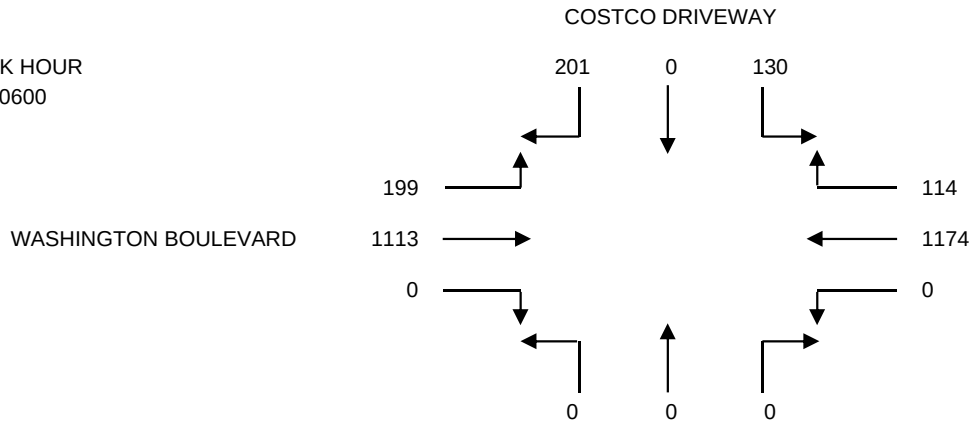
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S COSTCO DRIVEWAY
E/W WASHINGTON BOULEVARD
FILE NUMBER: 8 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	69	0	59	27	245	0	0	0	0	0	231	53
0315-0330	54	0	40	38	249	0	0	0	0	0	227	71
0330-0345	50	0	50	30	230	0	0	0	0	0	261	50
0345-0400	58	0	46	29	239	0	0	0	0	0	234	50
0400-0415	39	0	49	27	244	0	0	0	0	0	240	57
0415-0430	50	0	46	23	242	0	0	0	0	0	267	62
0430-0445	41	0	32	28	268	0	0	0	0	0	271	50
0445-0500	57	0	32	24	257	0	0	0	0	0	259	50
0500-0515	53	0	31	25	273	0	0	0	0	0	273	36
0515-0530	53	0	34	31	289	0	0	0	0	0	290	59
0530-0545	45	0	30	30	300	0	0	0	0	0	288	48
0545-0600	50	0	35	28	312	0	0	0	0	0	262	56

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	231	0	195	124	963	0	0	0	0	0	953	224	2690
0315-0415	201	0	185	124	962	0	0	0	0	0	962	228	2662
0330-0430	197	0	191	109	955	0	0	0	0	0	1002	219	2673
0345-0445	188	0	173	107	993	0	0	0	0	0	1012	219	2692
0400-0500	187	0	159	102	1011	0	0	0	0	0	1037	219	2715
0415-0515	201	0	141	100	1040	0	0	0	0	0	1070	198	2750
0430-0530	204	0	129	108	1087	0	0	0	0	0	1093	195	2816
0445-0545	208	0	127	110	1119	0	0	0	0	0	1110	193	2867
0500-0600	201	0	130	114	1174	0	0	0	0	0	1113	199	2931

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

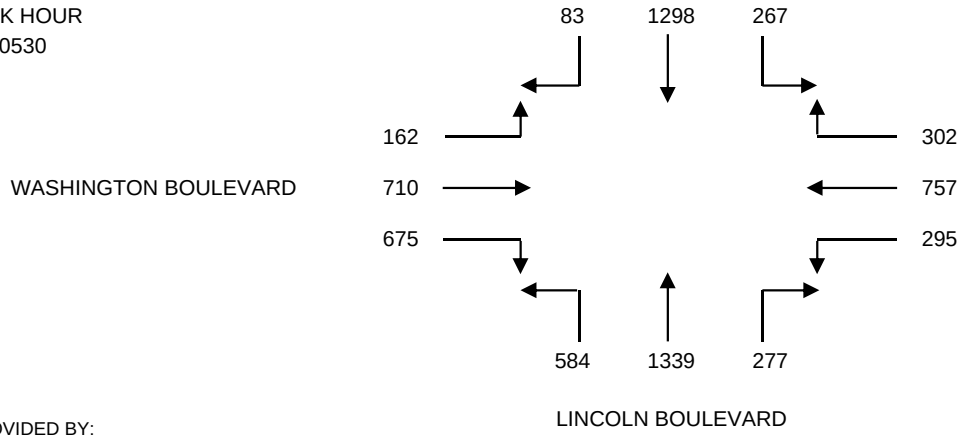
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE (CULVER CITY)
DATE: THURSDAY, OCTOBER 22, 2015
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S LINCOLN BOULEVARD
E/W WASHINGTON BOULEVARD
FILE NUMBER: 9 PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	13	268	48	59	143	48	50	254	130	120	158	39
0315-0330	17	298	53	63	155	52	59	271	164	149	172	52
0330-0345	21	305	66	70	168	67	66	267	151	153	180	37
0345-0400	15	284	50	55	177	71	61	305	148	153	173	31
0400-0415	20	334	55	50	154	51	55	271	145	137	162	39
0415-0430	18	352	63	74	162	74	71	310	151	142	178	52
0430-0445	19	341	70	82	183	82	78	354	139	167	181	37
0445-0500	20	337	73	84	199	68	67	321	150	171	169	41
0500-0515	23	315	66	63	170	65	59	328	142	163	167	46
0515-0530	21	305	58	73	205	80	73	336	153	174	193	38
0530-0545	17	285	48	68	225	71	61	314	133	166	216	40
0545-0600	25	277	53	70	234	78	70	290	160	177	205	41

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0315	66	1155	217	247	643	238	236	1097	593	575	683	159	5909
0315-0415	73	1221	224	238	654	241	241	1114	608	592	687	159	6052
0330-0430	74	1275	234	249	661	263	253	1153	595	585	693	159	6194
0345-0445	72	1311	238	261	676	278	265	1240	583	599	694	159	6376
0400-0500	77	1364	261	290	698	275	271	1256	585	617	690	169	6553
0415-0515	80	1345	272	303	714	289	275	1313	582	643	695	176	6687
0430-0530	83	1298	267	302	757	295	277	1339	584	675	710	162	6749
0445-0545	81	1242	245	288	799	284	260	1299	578	674	745	165	6660
0500-0600	86	1182	225	274	834	294	263	1268	588	680	781	165	6640

P.M. PEAK HOUR
0430-0530



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

24-Hour Local/Residential Street Counts

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE PROJECT (CULVER CITY)
LOCATION: BEETHOVEN STREET NORTH OF ZANJA STREET (BETWEEN MATTESON AVENUE AND CASWELL AVENUE)
DATE: TUESDAY, OCTOBER 27, 2015
FILE NO: A-1

DIRECTION:		NORTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	4	2	1	9
01:00	4	3	1	1	9
02:00	1	3	0	0	4
03:00	1	0	3	1	5
04:00	1	3	2	4	10
05:00	5	8	5	8	26
06:00	8	13	23	38	82
07:00	64	87	136	158	445
08:00	120	136	140	158	554
09:00	130	137	120	119	506
10:00	80	82	70	58	290
11:00	52	60	58	62	232
12:00	62	70	73	69	274
13:00	74	82	76	100	332
14:00	58	86	88	90	322
15:00	105	127	90	84	406
16:00	122	86	123	172	503
17:00	144	140	148	166	598
18:00	184	164	133	124	605
19:00	88	114	76	90	368
20:00	49	44	30	39	162
21:00	49	34	33	31	147
22:00	24	16	12	13	65
23:00	12	14	10	5	41
				TOTAL	5,995
AM PEAK HOUR			07:45-08:45		
VOLUME			554		
PM PEAK HOUR			17:30-18:30		
VOLUME			662		

DIRECTION:		SOUTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	7	4	4	0	15
01:00	0	3	2	1	6
02:00	0	1	1	0	2
03:00	2	0	1	2	5
04:00	1	3	3	4	11
05:00	1	6	3	5	15
06:00	3	7	12	20	42
07:00	16	30	41	80	167
08:00	82	75	68	67	292
09:00	62	57	48	54	221
10:00	58	42	54	41	195
11:00	50	45	37	66	198
12:00	53	60	62	52	227
13:00	66	67	60	81	274
14:00	68	70	90	89	317
15:00	90	112	102	106	410
16:00	126	92	140	152	510
17:00	148	143	154	156	601
18:00	154	150	141	132	577
19:00	119	108	98	92	417
20:00	50	36	31	34	151
21:00	36	28	26	27	117
22:00	28	8	10	12	58
23:00	10	15	4	2	31
				TOTAL	4,859
AM PEAK HOUR			07:45-08:45		
VOLUME			305		
PM PEAK HOUR			17:30-18:30		
VOLUME			614		

TOTAL BI-DIRECTIONAL VOLUME	10,854

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE PROJECT (CULVER CITY)
LOCATION: ZANJA STREET BETWEEN BEETHOVEN STREET AND MOORE STREET
DATE: TUESDAY, OCTOBER 27, 2015
FILE NO: A-2

DIRECTION:		WESTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	4	1	0	7
01:00	0	0	1	1	2
02:00	0	3	2	0	5
03:00	0	0	1	0	1
04:00	0	1	0	2	3
05:00	2	3	0	4	9
06:00	3	8	15	26	52
07:00	35	45	79	82	241
08:00	46	43	52	61	202
09:00	44	30	24	35	133
10:00	18	38	37	29	122
11:00	22	21	22	30	95
12:00	27	20	30	23	100
13:00	30	29	35	38	132
14:00	28	22	25	43	118
15:00	54	38	30	27	149
16:00	34	25	29	30	118
17:00	31	28	45	34	138
18:00	39	42	26	25	132
19:00	24	27	19	24	94
20:00	12	17	14	20	63
21:00	11	17	7	6	41
22:00	14	10	9	6	39
23:00	5	2	1	5	13
				TOTAL	2,009
AM PEAK HOUR		07:15-08:15			
VOLUME		252			
PM PEAK HOUR		14:45-15:45			
VOLUME		165			

DIRECTION:		EASTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	6	4	4	3	17
01:00	0	3	2	1	6
02:00	0	1	1	0	2
03:00	2	0	1	1	4
04:00	1	0	2	2	5
05:00	2	1	2	2	7
06:00	4	5	5	12	26
07:00	18	31	52	85	186
08:00	54	60	37	41	192
09:00	40	32	36	27	135
10:00	20	32	23	24	99
11:00	32	26	22	30	110
12:00	29	34	34	32	129
13:00	35	42	34	38	149
14:00	46	34	37	42	159
15:00	54	71	58	53	236
16:00	66	53	50	57	226
17:00	60	56	55	55	226
18:00	63	64	53	52	232
19:00	44	46	36	40	166
20:00	18	20	16	17	71
21:00	18	34	12	14	78
22:00	16	9	5	9	39
23:00	4	7	2	9	22
				TOTAL	2,522
AM PEAK HOUR		07:30-08:30			
VOLUME		251			
PM PEAK HOUR		15:15-16:15			
VOLUME		248			

TOTAL BI-DIRECTIONAL VOLUME	4,531

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
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FAX: 626-446-2877

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE PROJECT (CULVER CITY)
LOCATION: ZANJA STREET BETWEEN MOORE STREET AND MEIER STREET (WEST OF MITCHELL AVENUE)
DATE: TUESDAY, OCTOBER 27, 2015
FILE NO: A-3

DIRECTION:		WESTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	5	6	2	1	14
01:00	6	4	0	2	12
02:00	0	3	1	2	6
03:00	0	1	1	0	2
04:00	2	1	0	4	7
05:00	2	4	2	8	16
06:00	7	11	22	26	66
07:00	36	56	84	78	254
08:00	51	48	56	65	220
09:00	50	54	32	38	174
10:00	27	44	37	32	140
11:00	29	25	37	35	126
12:00	36	29	34	26	125
13:00	31	32	41	42	146
14:00	37	34	34	52	157
15:00	64	56	42	47	209
16:00	52	43	38	37	170
17:00	45	41	52	40	178
18:00	40	53	30	32	155
19:00	31	35	38	34	138
20:00	16	30	24	26	96
21:00	18	18	14	14	64
22:00	19	11	13	6	49
23:00	8	8	5	11	32
				TOTAL	2,556

AM PEAK HOUR	07:15-08:15
VOLUME	269
PM PEAK HOUR	14:45-15:45
VOLUME	214

DIRECTION:		EASTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	6	3	3	0	12
01:00	2	4	1	0	7
02:00	1	1	0	0	2
03:00	2	1	0	1	4
04:00	1	0	4	2	7
05:00	1	3	2	1	7
06:00	7	3	7	9	26
07:00	19	26	40	55	140
08:00	51	56	38	56	201
09:00	40	30	43	32	145
10:00	24	26	27	27	104
11:00	32	25	21	26	104
12:00	29	30	36	24	119
13:00	40	40	22	41	143
14:00	44	40	35	48	167
15:00	46	71	55	64	236
16:00	75	45	55	61	236
17:00	59	62	55	46	222
18:00	62	57	52	54	225
19:00	38	44	34	33	149
20:00	18	13	12	16	59
21:00	24	21	16	16	77
22:00	11	6	5	8	30
23:00	8	2	3	12	25
				TOTAL	2,447

AM PEAK HOUR	08:00-09:00
VOLUME	201
PM PEAK HOUR	15:15-16:15
VOLUME	265

TOTAL BI-DIRECTIONAL VOLUME	5,003

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
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THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE PROJECT (CULVER CITY)
LOCATION: MOORE STREET BETWEEN ZANJA STREET AND WASHINGTON BOULEVARD
DATE: TUESDAY, OCTOBER 27, 2015
FILE NO: A-4

DIRECTION:		NORTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	1	0	2
01:00	0	0	1	0	1
02:00	0	0	0	1	1
03:00	0	1	0	0	1
04:00	0	2	1	1	4
05:00	0	0	2	0	2
06:00	4	3	1	2	10
07:00	7	6	11	10	34
08:00	7	7	6	8	28
09:00	8	4	7	6	25
10:00	8	2	5	7	22
11:00	9	3	4	3	19
12:00	9	12	10	10	41
13:00	9	9	6	8	32
14:00	8	4	7	10	29
15:00	10	8	5	6	29
16:00	10	9	9	8	36
17:00	6	5	10	11	32
18:00	10	13	8	10	41
19:00	11	11	5	8	35
20:00	8	6	7	5	26
21:00	5	4	4	3	16
22:00	3	2	4	2	11
23:00	3	0	2	0	5
				TOTAL	482

AM PEAK HOUR	07:00-08:00
VOLUME	34
PM PEAK HOUR	17:30-18:30
VOLUME	44

DIRECTION:		SOUTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	0	0	1
01:00	1	0	1	0	2
02:00	0	0	0	0	0
03:00	1	0	0	1	2
04:00	0	2	0	2	4
05:00	0	0	3	0	3
06:00	1	5	4	8	18
07:00	9	11	11	10	41
08:00	8	14	9	12	43
09:00	7	10	10	11	38
10:00	8	4	6	7	25
11:00	8	6	5	11	30
12:00	9	7	6	7	29
13:00	13	8	5	10	36
14:00	6	10	9	4	29
15:00	6	9	8	15	38
16:00	12	15	13	11	51
17:00	10	14	9	15	48
18:00	11	16	9	11	47
19:00	7	6	8	5	26
20:00	4	5	4	3	16
21:00	3	4	3	2	12
22:00	2	2	1	0	5
23:00	1	1	0	0	2
				TOTAL	546

AM PEAK HOUR	07:30-08:30
VOLUME	43
PM PEAK HOUR	15:45-16:45
VOLUME	55

TOTAL BI-DIRECTIONAL VOLUME	1,028

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
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THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: 12803 WASHINGTON BOULEVARD MIXED-USE PROJECT (CULVER CITY)
LOCATION: MEIER STREET BETWEEN ZANJA STREET AND WASHINGTON BOULEVARD
DATE: TUESDAY, OCTOBER 27, 2015
FILE NO: A-5

DIRECTION:		NORTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	1	0	0	1
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	1	0	0	0	1
04:00	1	0	0	1	2
05:00	0	1	0	0	1
06:00	1	0	3	2	6
07:00	2	1	3	6	12
08:00	7	5	1	11	24
09:00	5	6	13	7	31
10:00	11	10	10	8	39
11:00	6	5	10	9	30
12:00	13	12	17	7	49
13:00	8	9	9	12	38
14:00	10	8	10	5	33
15:00	7	7	11	6	31
16:00	14	4	9	11	38
17:00	7	7	4	7	25
18:00	3	5	2	4	14
19:00	2	1	1	4	8
20:00	5	4	3	1	13
21:00	1	4	1	1	7
22:00	2	3	1	2	8
23:00	0	0	0	1	1
				TOTAL	412

AM PEAK HOUR	09:30-10:30
VOLUME	41
PM PEAK HOUR	12:00-13:00
VOLUME	49

DIRECTION:		SOUTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	1	0	2
01:00	0	0	0	0	0
02:00	0	0	1	0	1
03:00	0	0	0	0	0
04:00	0	0	0	1	1
05:00	0	1	0	0	1
06:00	1	1	5	3	10
07:00	4	8	4	11	27
08:00	12	15	10	15	52
09:00	9	12	14	16	51
10:00	9	8	15	9	41
11:00	11	9	13	12	45
12:00	15	13	15	16	59
13:00	17	16	14	15	62
14:00	19	13	14	12	58
15:00	7	11	14	11	43
16:00	15	14	16	11	56
17:00	13	14	12	10	49
18:00	13	9	11	8	41
19:00	6	10	6	9	31
20:00	7	9	3	3	22
21:00	2	3	4	2	11
22:00	1	2	2	1	6
23:00	1	0	1	0	2
				TOTAL	671

AM PEAK HOUR	08:00-09:00
VOLUME	52
PM PEAK HOUR	13:15-14:15
VOLUME	64

TOTAL BI-DIRECTIONAL VOLUME	1,083

DATA PROVIDED BY:

THE TRAFFIC SOLUTION
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APPENDIX D

CRITICAL MOVEMENT ANALYSIS CALCULATION WORKSHEETS

Existing (2015)

AM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	76		76	
	Left/Through	0				
	Through	1	1,197		675	675
	Through/Right	1			675	
	Right	0	153	0		
	Total Lanes	3				
Southbound	Left	1	85		85	85
	Left/Through	0				
	Through	1	771		434	
	Through/Right	1			434	
	Right	0	97	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**760**
Eastbound	Left	2	180		99	
	Left/Through	0				
	Through	1	729		399	399
	Through/Right	1			399	
	Right	0	69	0		
	Total Lanes	4				
Westbound	Left	2	176		97	97
	Left/Through	0				
	Through	1	503		337	
	Through/Right	1			337	
	Right	0	171	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**496**
			Total Intersection Critical Volumes			**1,256**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.913**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.843**
			Level of Service (LOS)			**D**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	148		148	
	Left/Through	0				
	Through	1	1,261		683	683
	Through/Right	1			683	
	Right	0	105	0		
	Total Lanes	3				
Southbound	Left	1	99		99	99
	Left/Through	0				
	Through	1	856		444	
	Through/Right	1			444	
	Right	0	33	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**782**
Eastbound	Left	1	74		74	
	Left/Through	0				
	Through	1	608		368	368
	Through/Right	1			368	
	Right	0	127	0		
	Total Lanes	3				
Westbound	Left	1	80		80	80
	Left/Through	0				
	Through	2	535		268	
	Through/Right	0				
	Right	1	152	50	102	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**448**
			Total Intersection Critical Volumes			**1,230**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.820**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.750**
			Level of Service (LOS)			**C**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	AM Peak Hour
Analysis Scenario	Existing (2015)

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	435		288	
	Left/Through	1			288	288
	Through	0	142			
	Through/Right	0				
	Right	1	52	0	52	
	Total Lanes	3				
Southbound	Left	0	24			
	Left/Through	0				
	Left/Through/Right	1	171		198	198
	Through/Right	0				
	Right	0	3	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**486**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	842		432	432
	Through/Right	1			432	
	Right	1	453	0	432	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	596		332	
	Through/Right	1			332	
	Right	0	69	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**432**
			Total Intersection Critical Volumes			**918**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.668**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.598**
			Level of Service (LOS)			**A**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	18			
	Left/Through	0				
Northbound	Left/Through/Right	1	173		212	212
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
	Left	0	19			19
	Left/Through	0				
Southbound	Left/Through/Right	1	72		128	
	Through/Right	0				
	Right	0	37	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**231**
	Left	1	77		77	77
	Left/Through	0				
Eastbound	Through	1	1,079		540	
	Through/Right	1			540	
	Right	0	2	0		
	Total Lanes	3				
	Left	1	19		19	
	Left/Through	0				
Westbound	Through	1	1,019		527	527
	Through/Right	1			527	
	Right	0	35	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**604**
			Total Intersection Critical Volumes			**835**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.557**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.487**
			Level of Service (LOS)			**A**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	129			
	Left/Through	0				
Northbound	Left/Through/Right	1	82		275	275
	Through/Right	0				
	Right	0	64	0		
	Total Lanes	1				
	Left	0	46			46
	Left/Through	0				
Southbound	Left/Through/Right	1	73		132	
	Through/Right	0				
	Right	0	13	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**321**
	Left	1	22		22	
	Left/Through	0				
Eastbound	Through	1	1,101		564	564
	Through/Right	1			564	
	Right	0	27	0		
	Total Lanes	3				
	Left	1	65		65	65
	Left/Through	0				
Westbound	Through	1	973		504	
	Through/Right	1			504	
	Right	0	36	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**629**
			Total Intersection Critical Volumes			**950**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.633**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.563**
			Level of Service (LOS)			**A**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	6 **Date** December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard
Intersection Control	Two-Way STOP
Analysis Period	AM Peak Hour
Analysis Scenario	Existing (2015)

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	0	19			
	Left/Through	0				
	Left/Through/Right	1	0		242	242
	Through/Right	0				
	Right	0	223	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**242**
Eastbound	Left	1	317		317	317
	Left/Through	0				
	Through	1	1,127		564	
	Through/Right	1			564	
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	981		490	490
	Through/Right	1			490	
	Right	0	0	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**807**
			Total Intersection Critical Volumes			**1,049**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**0.874**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**0.874**
			Level of Service (LOS)			**D**

12803 Washington Blvd. (2015) Project
Existing (2015)
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 15.6 Worst Case Level Of Service: F[153.1]

Street Name:	Walgrove Avenue									Washington Boulevard								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			19	0	223			317	1127	0			0	981	0		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			19	0	223			317	1127	0			0	981	0		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	0	0	0			19	0	223			317	1127	0			0	981	0		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	0	0	0			19	0	223			317	1127	0			0	981	0		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	xxxx	6.9			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			2179	xxxx	491			981	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx			40	xxxx	529			712	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx			26	xxxx	529			712	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx			0.72	xxxx	0.42			0.45	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					14.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*					B	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx		212	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx		11.6	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx		153	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*		F	*				*	*	*	*	*	*				
ApproachDel:	xxxxxx					153.1					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	273		169	
	Left/Through	1			169	169
	Through	0	65			
	Through/Right	0				
	Right	1	357	327	30	
	Total Lanes	3				
Southbound	Left	1	71		53	53
	Left/Through	1			53	
	Through	0	35			
	Through/Right	0				
	Right	1	18	18	0	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**222**
Eastbound	Left	1	22		22	
	Left/Through	0				
	Through	2	931		466	466
	Through/Right	0				
	Right	1	225	169	56	
	Total Lanes	4				
Westbound	Left	1	327		327	327
	Left/Through	0				
	Through	2	751		323	
	Through/Right	1			323	
	Right	0	217	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**793**
			Total Intersection Critical Volumes			**1,015**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.738**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.668**
			Level of Service (LOS)			**B**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	0			
	Left/Through	0				
Northbound	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
	Left	1	54		54	54
	Left/Through	0				
Southbound	Through	0	0			
	Through/Right	0				
	Right	1	94	94	0	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**54**
	Left	1	209		209	209
	Left/Through	0				
Eastbound	Through	2	1,047		524	
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
	Left	0	0			
	Left/Through	0				
Westbound	Through	2	979		359	359
	Through/Right	1			359	
	Right	0	98	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**568**
			Total Intersection Critical Volumes			**622**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.436**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.366**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	558		307	
	Left/Through	0				
	Through	2	1,820		676	676
	Through/Right	1			676	
	Right	0	207	0		
	Total Lanes	5				
Southbound	Left	2	300		165	165
	Left/Through	0				
	Through	2	1,215		455	
	Through/Right	1			455	
	Right	0	149	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**841**
Eastbound	Left	2	146		80	
	Left/Through	0				
	Through	2	764		382	
	Through/Right	0				
	Right	1	697	307	390	390
	Total Lanes	5				
Westbound	Left	2	162		89	89
	Left/Through	0				
	Through	2	686		343	
	Through/Right	0				
	Right	1	230	165	65	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**479**
			Total Intersection Critical Volumes			**1,320**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.960**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.860**
			Level of Service (LOS)			**D**

EB/WB Rt. Turn Overlap With NB/SB Lefts

PM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	74		74	74
	Left/Through	0				
	Through	1	1,044		624	
	Through/Right	1			624	
	Right	0	204	0		
	Total Lanes	3				
Southbound	Left	1	99		99	
	Left/Through	0				
	Through	1	1,441		830	830
	Through/Right	1			830	
	Right	0	218	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**904**
Eastbound	Left	2	175		96	96
	Left/Through	0				
	Through	1	594		356	
	Through/Right	1			356	
	Right	0	119	0		
	Total Lanes	4				
Westbound	Left	2	192		106	
	Left/Through	0				
	Through	1	669		379	379
	Through/Right	1			379	
	Right	0	89	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**475**
			Total Intersection Critical Volumes			**1,379**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.003**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.933**
			Level of Service (LOS)			**E**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	114		114	114
	Left/Through	0				
	Through	1	996		540	
	Through/Right	1			540	
	Right	0	83	0		
	Total Lanes	3				
Southbound	Left	1	169		169	
	Left/Through	0				
	Through	1	1,617		840	840
	Through/Right	1			840	
	Right	0	62	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**954**
Eastbound	Left	1	59		59	
	Left/Through	0				
	Through	1	628		420	420
	Through/Right	1			420	
	Right	0	212	0		
	Total Lanes	3				
Westbound	Left	1	83		83	83
	Left/Through	0				
	Through	2	587		294	
	Through/Right	0				
	Right	1	178	178	0	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**503**
			Total Intersection Critical Volumes			**1,457**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.971**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.901**
			Level of Service (LOS)			**E**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	PM Peak Hour
Analysis Scenario	Existing (2015)

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	561		315	
	Left/Through	1			315	315
	Through	0	69			
	Through/Right	0				
	Right	1	49	10	39	
	Total Lanes	3				
Southbound	Left	0	44			
	Left/Through	0				
	Left/Through/Right	1	211		257	257
	Through/Right	0				
	Right	0	2	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**572**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	697		430	
	Through/Right	1			430	
	Right	1	592	0	430	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	836		450	450
	Through/Right	1			450	
	Right	0	65	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**450**
			Total Intersection Critical Volumes			**1,022**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.743**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.673**
			Level of Service (LOS)			**B**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	30			30
	Left/Through	0				
Northbound	Left/Through/Right	1	104		173	
	Through/Right	0				
	Right	0	39	0		
	Total Lanes	1				
	Left	0	42			
	Left/Through	0				
Southbound	Left/Through/Right	1	226		338	338
	Through/Right	0				
	Right	0	70	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**368**
	Left	1	56		56	56
	Left/Through	0				
Eastbound	Through	1	1,146		580	
	Through/Right	1			580	
	Right	0	15	0		
	Total Lanes	3				
	Left	1	41		41	
	Left/Through	0				
Westbound	Through	1	1,278		648	648
	Through/Right	1			648	
	Right	0	17	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**704**
			Total Intersection Critical Volumes			**1,072**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.715**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.645**
			Level of Service (LOS)			**B**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	82			82
	Left/Through	0				
	Left/Through/Right	1	96		235	
	Through/Right	0				
	Right	0	57	0		
	Total Lanes	1				
Southbound	Left	0	51			
	Left/Through	0				
	Left/Through/Right	1	265		337	337
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**419**
Eastbound	Left	1	25		25	
	Left/Through	0				
	Through	1	1,115		591	591
	Through/Right	1			591	
	Right	0	67	0		
	Total Lanes	3				
Westbound	Left	1	101		101	101
	Left/Through	0				
	Through	1	1,217		618	
	Through/Right	1			618	
	Right	0	18	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**692**
			Total Intersection Critical Volumes			**1,111**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.741**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.671**
			Level of Service (LOS)			**B**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	0	34			
	Left/Through	0				
	Left/Through/Right	1	0		343	343
	Through/Right	0				
	Right	0	309	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**343**
Eastbound	Left	1	294		294	294
	Left/Through	0				
	Through	1	1,195		598	
	Through/Right	1			598	
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	1,221		636	636
	Through/Right	1			636	
	Right	0	50	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**930**
			Total Intersection Critical Volumes			**1,273**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**1.061**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**1.061**
			Level of Service (LOS)			**F**

12803 Washington Blvd. (2015) Project
Existing (2015)
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 104.1 Worst Case Level Of Service: F[926.1]

Street Name:	Walgrove Avenue									Washington Boulevard								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			34	0	309			294	1195	0			0	0	1221		50
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		1.00
Initial Bse:	0	0	0			34	0	309			294	1195	0			0	0	1221		50
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		1.00
PHF Volume:	0	0	0			34	0	309			294	1195	0			0	0	1221		50
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		0
Final Vol.:	0	0	0			34	0	309			294	1195	0			0	0	1221		50
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	xxxx	6.9			4.1	xxxx	xxxxx			xxxxx	xxxx	xxxx		xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx			xxxxx	xxxx	xxxx		xxxxx
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			2432	xxxx	636			1271	xxxx	xxxxx			xxxx	xxxx	xxxx		xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx			27	xxxx	426			553	xxxx	xxxxx			xxxx	xxxx	xxxx		xxxxx
Move Cap.:	xxxx	xxxx	xxxxx			16	xxxx	426			553	xxxx	xxxxx			xxxx	xxxx	xxxx		xxxxx
Volume/Cap:	xxxx	xxxx	xxxx			2.16	xxxx	0.73			0.53	xxxx	xxxx			xxxx	xxxx	xxxx		xxxx
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					3.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					18.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*					C	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx		119	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx		32.0	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx		926	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*		F	*				*	*	*	*	*	*				
ApproachDel:	xxxxxx					926.1					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	220		165	
	Left/Through	1			165	165
	Through	0	110			
	Through/Right	0				
	Right	1	371	325	46	
	Total Lanes	3				
Southbound	Left	1	232		181	181
	Left/Through	1			181	
	Through	0	130			
	Through/Right	0				
	Right	1	32	32	0	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**346**
Eastbound	Left	1	42		42	
	Left/Through	0				
	Through	2	858		429	429
	Through/Right	0				
	Right	1	313	165	148	
	Total Lanes	4				
Westbound	Left	1	325		325	325
	Left/Through	0				
	Through	2	987		406	
	Through/Right	1			406	
	Right	0	232	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**754**
			Total Intersection Critical Volumes			**1,100**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.800**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.730**
			Level of Service (LOS)			**C**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	130		130	130
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	201	199	2	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**130**
Eastbound	Left	1	199		199	199
	Left/Through	0				
	Through	2	1,113		556	
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	1,174		429	429
	Through/Right	1			429	
	Right	0	114	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**628**
			Total Intersection Critical Volumes			**758**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.532**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.462**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015)		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	584		321	321
	Left/Through	0				
	Through	2	1,339		539	
	Through/Right	1			539	
	Right	0	277	0		
	Total Lanes	5				
Southbound	Left	2	267		147	
	Left/Through	0				
	Through	2	1,298		460	460
	Through/Right	1			460	
	Right	0	83	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**781**
Eastbound	Left	2	162		89	
	Left/Through	0				
	Through	2	710		355	355
	Through/Right	0				
	Right	1	675	321	354	
	Total Lanes	5				
Westbound	Left	2	295		162	162
	Left/Through	0				
	Through	2	757		378	
	Through/Right	0				
	Right	1	302	147	155	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**517**
			Total Intersection Critical Volumes			**1,298**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.944**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.844**
			Level of Service (LOS)			**D**

EB/WB Rt. Turn Overlap With NB/SB Lefts

Existing (2015) With Project

AM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	76		76	
	Left/Through	0				
	Through	1	1,197		675	675
	Through/Right	1			675	
	Right	0	153	0		
	Total Lanes	3				
Southbound	Left	1	85		85	85
	Left/Through	0				
	Through	1	771		434	
	Through/Right	1			434	
	Right	0	98	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**760**
Eastbound	Left	2	181		100	
	Left/Through	0				
	Through	1	733		401	401
	Through/Right	1			401	
	Right	0	69	0		
	Total Lanes	4				
Westbound	Left	2	176		97	97
	Left/Through	0				
	Through	1	505		338	
	Through/Right	1			338	
	Right	0	171	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**498**
			Total Intersection Critical Volumes			**1,258**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.915**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.845**
			Level of Service (LOS)			**D**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	150		150	
	Left/Through	0				
	Through	1	1,261		683	683
	Through/Right	1			683	
	Right	0	105	0		
	Total Lanes	3				
Southbound	Left	1	99		99	99
	Left/Through	0				
	Through	1	856		444	
	Through/Right	1			444	
	Right	0	33	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**782**
Eastbound	Left	1	74		74	
	Left/Through	0				
	Through	1	609		369	369
	Through/Right	1			369	
	Right	0	129	0		
	Total Lanes	3				
Westbound	Left	1	80		80	80
	Left/Through	0				
	Through	2	535		268	
	Through/Right	0				
	Right	1	152	50	102	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**449**
			Total Intersection Critical Volumes			**1,231**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.821**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.751**
			Level of Service (LOS)			**C**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	AM Peak Hour
Analysis Scenario	Existing (2015) With Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	437		290	
	Left/Through	1			290	290
	Through	0	142			
	Through/Right	0				
	Right	1	52	0	52	
	Total Lanes	3				
Southbound	Left	0	26			
	Left/Through	0				
	Left/Through/Right	1	172		201	201
	Through/Right	0				
	Right	0	3	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**491**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	845		433	433
	Through/Right	1			433	
	Right	1	455	0	433	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	599		334	
	Through/Right	1			334	
	Right	0	69	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**433**
			Total Intersection Critical Volumes			**924**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.672**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.602**
			Level of Service (LOS)			**B**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	18			
	Left/Through	0				
Northbound	Left/Through/Right	1	173		212	212
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
	Left	0	19			19
	Left/Through	0				
Southbound	Left/Through/Right	1	72		128	
	Through/Right	0				
	Right	0	37	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**231**
	Left	1	77		77	77
	Left/Through	0				
Eastbound	Through	1	1,084		543	
	Through/Right	1			543	
	Right	0	2	0		
	Total Lanes	3				
	Left	1	19		19	
	Left/Through	0				
Westbound	Through	1	1,028		532	532
	Through/Right	1			532	
	Right	0	35	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**609**
			Total Intersection Critical Volumes			**840**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.560**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.490**
			Level of Service (LOS)			**A**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	129			
	Left/Through	0				
	Left/Through/Right	1	82		275	275
	Through/Right	0				
	Right	0	64	0		
	Total Lanes	1				
Southbound	Left	0	46			46
	Left/Through	0				
	Left/Through/Right	1	73		132	
	Through/Right	0				
	Right	0	13	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**321**
Eastbound	Left	1	22		22	
	Left/Through	0				
	Through	1	1,106		566	566
	Through/Right	1			566	
	Right	0	27	0		
	Total Lanes	3				
Westbound	Left	1	65		65	65
	Left/Through	0				
	Through	1	982		509	
	Through/Right	1			509	
	Right	0	36	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**631**
			Total Intersection Critical Volumes			**952**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.635**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.565**
			Level of Service (LOS)			**A**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	0	20			
	Left/Through	0				
	Left/Through/Right	1	0		243	243
	Through/Right	0				
	Right	0	223	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**243**
Eastbound	Left	1	317		317	317
	Left/Through	0				
	Through	1	1,131		566	
	Through/Right	1			566	
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	989		495	495
	Through/Right	1			495	
	Right	0	1	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**812**
			Total Intersection Critical Volumes			**1,055**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**0.879**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**0.879**
			Level of Service (LOS)			**D**

12803 Washington Blvd. (2015) Project
Existing (2015)
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 17.6 Worst Case Level Of Service: F[175.5]

Street Name:	Walgrove Avenue									Washington Boulevard								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			19	0	223			317	1127	0			0	981	0		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			19	0	223			317	1127	0			0	981	0		
Added Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Proj Vols:	0	0	0			1	0	0			0	4	0			0	8	1		
Initial Fut:	0	0	0			20	0	223			317	1131	0			0	989	1		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	0	0	0			20	0	223			317	1131	0			0	989	1		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	0	0	0			20	0	223			317	1131	0			0	989	1		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	xxxx	6.9			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			2189	xxxx	495			990	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			40	xxxx	525			706	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			26	xxxx	525			706	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.78	xxxx	0.42			0.45	xxxx	xxxx		xxxx	xxxx	xxxx			
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					14.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*					B	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	203	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	12.4	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	176	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	F	*	*	*	*		*	*	*							
ApproachDel:	xxxxxx			175.5			xxxxxx				xxxxxx									
ApproachLOS:	*			F			*				*									

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	273		169	
	Left/Through	1			169	169
	Through	0	65			
	Through/Right	0				
	Right	1	357	328	29	
	Total Lanes	3				
Southbound	Left	1	71		53	53
	Left/Through	1			53	
	Through	0	35			
	Through/Right	0				
	Right	1	18	18	0	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**222**
Eastbound	Left	1	22		22	
	Left/Through	0				
	Through	2	935		468	468
	Through/Right	0				
	Right	1	225	169	56	
	Total Lanes	4				
Westbound	Left	1	328		328	328
	Left/Through	0				
	Through	2	758		325	
	Through/Right	1			325	
	Right	0	217	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**796**
			Total Intersection Critical Volumes			**1,018**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.740**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.670**
			Level of Service (LOS)			**B**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	54		54	54
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	94	94	0	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**54**
Eastbound	Left	1	209		209	209
	Left/Through	0				
	Through	2	1,051		526	
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	986		361	361
	Through/Right	1			361	
	Right	0	98	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**570**
			Total Intersection Critical Volumes			**624**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.438**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.368**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	558		307	
	Left/Through	0				
	Through	2	1,820		676	676
	Through/Right	1			676	
	Right	0	209	0		
	Total Lanes	5				
Southbound	Left	2	302		166	166
	Left/Through	0				
	Through	2	1,215		455	
	Through/Right	1			455	
	Right	0	149	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**842**
Eastbound	Left	2	146		80	
	Left/Through	0				
	Through	2	764		382	
	Through/Right	0				
	Right	1	697	307	390	390
	Total Lanes	5				
Westbound	Left	2	165		91	91
	Left/Through	0				
	Through	2	687		344	
	Through/Right	0				
	Right	1	233	166	67	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**481**
			Total Intersection Critical Volumes			**1,323**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.962**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.862**
			Level of Service (LOS)			**D**

EB/WB Rt. Turn Overlap With NB/SB Lefts

PM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	74		74	74
	Left/Through	0				
	Through	1	1,044		624	
	Through/Right	1			624	
	Right	0	204	0		
	Total Lanes	3				
Southbound	Left	1	99		99	
	Left/Through	0				
	Through	1	1,441		831	831
	Through/Right	1			831	
	Right	0	221	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**905**
Eastbound	Left	2	176		97	97
	Left/Through	0				
	Through	1	598		358	
	Through/Right	1			358	
	Right	0	119	0		
	Total Lanes	4				
Westbound	Left	2	192		106	
	Left/Through	0				
	Through	1	673		381	381
	Through/Right	1			381	
	Right	0	89	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**478**
			Total Intersection Critical Volumes			**1,383**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.006**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.936**
			Level of Service (LOS)			**E**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	117		117	117
	Left/Through	0				
	Through	1	996		540	
	Through/Right	1			540	
	Right	0	83	0		
	Total Lanes	3				
Southbound	Left	1	169		169	
	Left/Through	0				
	Through	1	1,617		840	840
	Through/Right	1			840	
	Right	0	62	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**957**
Eastbound	Left	1	59		59	
	Left/Through	0				
	Through	1	629		422	422
	Through/Right	1			422	
	Right	0	214	0		
	Total Lanes	3				
Westbound	Left	1	83		83	83
	Left/Through	0				
	Through	2	588		294	
	Through/Right	0				
	Right	1	178	178	0	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**505**
			Total Intersection Critical Volumes			**1,462**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.975**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.905**
			Level of Service (LOS)			**E**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	PM Peak Hour
Analysis Scenario	Existing (2015) With Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	565		317	
	Left/Through	1			317	317
	Through	0	69			
	Through/Right	0				
	Right	1	49	12	37	
	Total Lanes	3				
Southbound	Left	0	45			
	Left/Through	0				
	Left/Through/Right	1	213		260	260
	Through/Right	0				
	Right	0	2	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**577**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	701		431	
	Through/Right	1			431	
	Right	1	593	0	431	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	843		454	454
	Through/Right	1			454	
	Right	0	65	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**454**
			Total Intersection Critical Volumes			**1,031**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.750**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.680**
			Level of Service (LOS)			**B**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	30			30
	Left/Through	0				
	Left/Through/Right	1	104		173	
	Through/Right	0				
	Right	0	39	0		
	Total Lanes	1				
Southbound	Left	0	42			
	Left/Through	0				
	Left/Through/Right	1	226		338	338
	Through/Right	0				
	Right	0	70	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**368**
Eastbound	Left	1	56		56	56
	Left/Through	0				
	Through	1	1,157		586	
	Through/Right	1			586	
	Right	0	15	0		
	Total Lanes	3				
Westbound	Left	1	42		42	
	Left/Through	0				
	Through	1	1,287		652	652
	Through/Right	1			652	
	Right	0	17	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**708**
			Total Intersection Critical Volumes			**1,076**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.717**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.647**
			Level of Service (LOS)			**B**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	82			82
	Left/Through	0				
	Left/Through/Right	1	96		235	
	Through/Right	0				
	Right	0	57	0		
	Total Lanes	1				
Southbound	Left	0	51			
	Left/Through	0				
	Left/Through/Right	1	265		337	337
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**419**
Eastbound	Left	1	25		25	
	Left/Through	0				
	Through	1	1,126		596	596
	Through/Right	1			596	
	Right	0	67	0		
	Total Lanes	3				
Westbound	Left	1	101		101	101
	Left/Through	0				
	Through	1	1,226		622	
	Through/Right	1			622	
	Right	0	18	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**697**
			Total Intersection Critical Volumes			**1,116**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.744**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.674**
			Level of Service (LOS)			**B**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	0			
	Left/Through	0				
Northbound	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
	Left	0	36			
	Left/Through	0				
Southbound	Left/Through/Right	1	0		345	345
	Through/Right	0				
	Right	0	309	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**345**
	Left	1	294		294	294
	Left/Through	0				
Eastbound	Through	1	1,204		602	
	Through/Right	1			602	
	Right	0	0	0		
	Total Lanes	3				
	Left	0	0			
	Left/Through	0				
Westbound	Through	1	1,228		640	640
	Through/Right	1			640	
	Right	0	52	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**934**
			Total Intersection Critical Volumes			**1,279**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**1.066**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**1.066**
			Level of Service (LOS)			**F**

12803 Washington Blvd. (2015) Project
Existing (2015)
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #6 Washington Blvd. & Walgrove Ave.

****

Average Delay (sec/veh): 114.0 Worst Case Level Of Service: F[1015.4]

****

Street Name:	Walgrove Avenue						Washington Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	34	0	309	294	1195	0	0	1221	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	34	0	309	294	1195	0	0	1221	50
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Vols:	0	0	0	2	0	0	0	9	0	0	7	2
Initial Fut:	0	0	0	36	0	309	294	1204	0	0	1228	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	36	0	309	294	1204	0	0	1228	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	36	0	309	294	1204	0	0	1228	52
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2444	xxxx	640	1280	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	27	xxxx	423	549	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	15	xxxx	423	549	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	2.34	xxxx	0.73	0.54	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	112	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	33.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	1015	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			1015.4			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	220		165	
	Left/Through	1			165	165
	Through	0	110			
	Through/Right	0				
	Right	1	372	327	45	
	Total Lanes	3				
Southbound	Left	1	232		181	181
	Left/Through	1			181	
	Through	0	130			
	Through/Right	0				
	Right	1	32	32	0	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**346**
Eastbound	Left	1	42		42	
	Left/Through	0				
	Through	2	866		433	433
	Through/Right	0				
	Right	1	313	165	148	
	Total Lanes	4				
Westbound	Left	1	327		327	327
	Left/Through	0				
	Through	2	992		408	
	Through/Right	1			408	
	Right	0	232	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**760**
			Total Intersection Critical Volumes			**1,106**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.804**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.734**
			Level of Service (LOS)			**C**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	130		130	130
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	201	199	2	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**130**
Eastbound	Left	1	199		199	199
	Left/Through	0				
	Through	2	1,121		560	
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	1,179		431	431
	Through/Right	1			431	
	Right	0	114	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**630**
			Total Intersection Critical Volumes			**760**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.533**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.463**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Existing (2015) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	584		321	321
	Left/Through	0				
	Through	2	1,339		540	
	Through/Right	1			540	
	Right	0	281	0		
	Total Lanes	5				
Southbound	Left	2	270		148	
	Left/Through	0				
	Through	2	1,298		460	460
	Through/Right	1			460	
	Right	0	83	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**781**
Eastbound	Left	2	162		89	
	Left/Through	0				
	Through	2	711		356	356
	Through/Right	0				
	Right	1	675	321	354	
	Total Lanes	5				
Westbound	Left	2	298		164	164
	Left/Through	0				
	Through	2	757		378	
	Through/Right	0				
	Right	1	304	148	156	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**520**
			Total Intersection Critical Volumes			**1,301**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.946**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.846**
			Level of Service (LOS)			**D**

EB/WB Rt. Turn Overlap With NB/SB Lefts

Future (2017) Without Project

AM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	1	78		78	
	Left/Through	0				
Northbound	Through	1	1,393		835	835
	Through/Right	1			835	
	Right	0	277	0		
	Total Lanes	3				
	Left	1	87		87	87
	Left/Through	0				
Southbound	Through	1	1,195		654	
	Through/Right	1			654	
	Right	0	114	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**922**
	Left	2	234		129	
	Left/Through	0				
Eastbound	Through	1	843		456	456
	Through/Right	1			456	
	Right	0	70	0		
	Total Lanes	4				
	Left	2	466		256	256
	Left/Through	0				
Westbound	Through	1	575		374	
	Through/Right	1			374	
	Right	0	174	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**712**
			Total Intersection Critical Volumes			**1,634**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.188**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.088**
			Level of Service (LOS)			**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	112		112	
	Left/Through	0				
	Through	1	1,579		894	894
	Through/Right	1			894	
	Right	0	209	0		
	Total Lanes	3				
Southbound	Left	1	101		101	101
	Left/Through	0				
	Through	1	1,568		801	
	Through/Right	1			801	
	Right	0	34	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**995**
Eastbound	Left	1	75		75	
	Left/Through	0				
	Through	1	720		416	416
	Through/Right	1			416	
	Right	0	113	0		
	Total Lanes	3				
Westbound	Left	1	331		331	331
	Left/Through	0				
	Through	2	617		308	
	Through/Right	0				
	Right	1	157	50	107	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**747**
			Total Intersection Critical Volumes			**1,742**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**1.161**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.061**
			Level of Service (LOS)			**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	AM Peak Hour
Analysis Scenario	Future (2017) Without Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	474		310	
	Left/Through	1			310	310
	Through	0	145			
	Through/Right	0				
	Right	1	53	0	53	
	Total Lanes	3				
Southbound	Left	0	24			
	Left/Through	0				
	Left/Through/Right	1	174		201	201
	Through/Right	0				
	Right	0	3	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**511**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	1,008		517	517
	Through/Right	1			517	
	Right	1	543	0	517	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	685		378	
	Through/Right	1			378	
	Right	0	70	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**517**
			Total Intersection Critical Volumes			**1,028**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.748**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.648**
			Level of Service (LOS)			**B**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	18			
	Left/Through	0				
Northbound	Left/Through/Right	1	176		215	215
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
	Left	0	19			19
	Left/Through	0				
Southbound	Left/Through/Right	1	73		130	
	Through/Right	0				
	Right	0	38	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**234**
	Left	1	79		79	
	Left/Through	0				
Eastbound	Through	1	1,331		666	666
	Through/Right	1			666	
	Right	0	2	0		
	Total Lanes	3				
	Left	1	19		19	19
	Left/Through	0				
Westbound	Through	1	1,147		592	
	Through/Right	1			592	
	Right	0	36	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**685**
			Total Intersection Critical Volumes			**919**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.613**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.513**
			Level of Service (LOS)			**A**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	135			
	Left/Through	0				
	Left/Through/Right	1	84		289	289
	Through/Right	0				
	Right	0	70	0		
	Total Lanes	1				
Southbound	Left	0	47			47
	Left/Through	0				
	Left/Through/Right	1	74		134	
	Through/Right	0				
	Right	0	13	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**336**
Eastbound	Left	1	22		22	
	Left/Through	0				
	Through	1	1,344		686	686
	Through/Right	1			686	
	Right	0	29	0		
	Total Lanes	3				
Westbound	Left	1	67		67	67
	Left/Through	0				
	Through	1	1,092		564	
	Through/Right	1			564	
	Right	0	37	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**753**
			Total Intersection Critical Volumes			**1,089**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.726**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.626**
			Level of Service (LOS)			**B**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	0			
	Left/Through	0				
Northbound	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
	Left	0	48			
	Left/Through	0				
Southbound	Left/Through/Right	1	0		275	275
	Through/Right	0				
	Right	0	227	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**275**
	Left	1	323		323	323
	Left/Through	0				
Eastbound	Through	1	1,343		672	
	Through/Right	1			672	
	Right	0	0	0		
	Total Lanes	3				
	Left	0	0			
	Left/Through	0				
Westbound	Through	1	1,066		552	552
	Through/Right	1			552	
	Right	0	37	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**875**
			Total Intersection Critical Volumes			**1,150**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**0.958**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**0.958**
			Level of Service (LOS)			**E**

12803 Washington Blvd. (2015) Project
Future (2017)
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 103.5 Worst Case Level Of Service: F[1126.3]

Street Name:	Walgrove Avenue									Washington Boulevard								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			48	0	227			323	1343	0			0	1066	37		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			48	0	227			323	1343	0			0	1066	37		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	0	0	0			48	0	227			323	1343	0			0	1066	37		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	0	0	0			48	0	227			323	1343	0			0	1066	37		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	xxxx	6.9			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			2402	xxxx	552			1103	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			28	xxxx	483			640	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			17	xxxx	483			640	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			2.80	xxxx	0.47			0.50	xxxx	xxxx		xxxx	xxxx	xxxx			
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					2.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					16.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*					C	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx		84	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	27.6	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	1126	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*	*							
ApproachDel:	xxxxxx			1126.3			xxxxxx				xxxxxx									
ApproachLOS:	*			F			*				*									

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	7 **Date** December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard
Intersection Control	Signalized
Analysis Period	AM Peak Hour
Analysis Scenario	Future (2017) Without Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	290		178	
	Left/Through	1			178	178
	Through	0	66			
	Through/Right	0				
	Right	1	373	343	30	
	Total Lanes	3				
Southbound	Left	1	49		42	42
	Left/Through	1			42	
	Through	0	36			
	Through/Right	0				
	Right	1	13	12	1	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**220**
Eastbound	Left	1	12		12	
	Left/Through	0				
	Through	2	1,172		586	586
	Through/Right	0				
	Right	1	233	178	55	
	Total Lanes	4				
Westbound	Left	1	343		343	343
	Left/Through	0				
	Through	2	865		348	
	Through/Right	1			348	
	Right	0	178	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**929**
			Total Intersection Critical Volumes			**1,149**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.836**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.766**
			Level of Service (LOS)			**C**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	40		40	40
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	88	88	0	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**40**
Eastbound	Left	1	199		199	
	Left/Through	0				
	Through	2	1,284		642	642
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	1,133		402	
	Through/Right	1			402	
	Right	0	72	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**642**
			Total Intersection Critical Volumes			**682**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.479**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.409**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	574		316	316
	Left/Through	0				
	Through	2	2,329		858	
	Through/Right	1			858	
	Right	0	246	0		
	Total Lanes	5				
Southbound	Left	2	331		182	
	Left/Through	0				
	Through	2	2,028		734	734
	Through/Right	1			734	
	Right	0	175	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**1,050**
Eastbound	Left	2	203		112	
	Left/Through	0				
	Through	2	910		455	455
	Through/Right	0				
	Right	1	716	316	400	
	Total Lanes	5				
Westbound	Left	2	200		110	110
	Left/Through	0				
	Through	2	761		380	
	Through/Right	0				
	Right	1	264	182	82	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**565**
			Total Intersection Critical Volumes			**1,615**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.175**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.075**
			Level of Service (LOS)			**F**

EB/WB Rt. Turn Overlap With NB/SB Lefts

PM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	75		75	
	Left/Through	0				
	Through	1	1,525		1,027	1,027
	Through/Right	1			1,027	
	Right	0	529	0		
	Total Lanes	3				
Southbound	Left	1	101		101	101
	Left/Through	0				
	Through	1	1,710		980	
	Through/Right	1			980	
	Right	0	249	0		
	Total Lanes	3				
				Sum of North/South Critical Volumes		**1,128**
Eastbound	Left	2	195		107	
	Left/Through	0				
	Through	1	705		413	413
	Through/Right	1			413	
	Right	0	121	0		
	Total Lanes	4				
Westbound	Left	2	362		199	199
	Left/Through	0				
	Through	1	798		444	
	Through/Right	1			444	
	Right	0	91	0		
	Total Lanes	4				
				Sum of East/West Critical Volumes		**612**
				Total Intersection Critical Volumes		**1,740**
Number of Clearance Intervals	**4**			**Intersection Capacity**		**1,375**
				Base CMA		**1.265**
Signal Coordination	**ATSAC + ATCS**			**Signal Coordination Adjustment**		**-0.100**
				Final CMA		**1.165**
				Level of Service (LOS)		**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	22		22	
	Left/Through	0				
	Through	1	1,795		1,080	1,080
	Through/Right	1			1,080	
	Right	0	364	0		
	Total Lanes	3				
Southbound	Left	1	175		175	175
	Left/Through	0				
	Through	1	2,052		1,058	
	Through/Right	1			1,058	
	Right	0	63	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**1,255**
Eastbound	Left	1	60		60	
	Left/Through	0				
	Through	1	745		436	436
	Through/Right	1			436	
	Right	0	128	0		
	Total Lanes	3				
Westbound	Left	1	228		228	228
	Left/Through	0				
	Through	2	708		354	
	Through/Right	0				
	Right	1	184	88	96	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**664**
			Total Intersection Critical Volumes			**1,919**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**1.279**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.179**
			Level of Service (LOS)			**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	PM Peak Hour
Analysis Scenario	Future (2017) Without Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	584		327	
	Left/Through	1			327	327
	Through	0	70			
	Through/Right	0				
	Right	1	50	24	26	
	Total Lanes	3				
Southbound	Left	0	45			
	Left/Through	0				
	Left/Through/Right	1	215		262	262
	Through/Right	0				
	Right	0	2	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**589**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	826		481	
	Through/Right	1			481	
	Right	1	617	0	481	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	996		531	531
	Through/Right	1			531	
	Right	0	66	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**530**
			Total Intersection Critical Volumes			**1,119**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.814**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.714**
			Level of Service (LOS)			**C**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	31			31
	Left/Through	0				
	Left/Through/Right	1	106		177	
	Through/Right	0				
	Right	0	40	0		
	Total Lanes	1				
Southbound	Left	0	43			
	Left/Through	0				
	Left/Through/Right	1	231		345	345
	Through/Right	0				
	Right	0	71	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**376**
Eastbound	Left	1	57		57	57
	Left/Through	0				
	Through	1	1,298		656	
	Through/Right	1			656	
	Right	0	15	0		
	Total Lanes	3				
Westbound	Left	1	42		42	
	Left/Through	0				
	Through	1	1,559		788	788
	Through/Right	1			788	
	Right	0	17	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**845**
			Total Intersection Critical Volumes			**1,221**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.814**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.714**
			Level of Service (LOS)			**C**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	87			87
	Left/Through	0				
	Left/Through/Right	1	98		248	
	Through/Right	0				
	Right	0	63	0		
	Total Lanes	1				
Southbound	Left	0	52			
	Left/Through	0				
	Left/Through/Right	1	270		343	343
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**430**
Eastbound	Left	1	26		26	
	Left/Through	0				
	Through	1	1,256		664	664
	Through/Right	1			664	
	Right	0	72	0		
	Total Lanes	3				
Westbound	Left	1	110		110	110
	Left/Through	0				
	Through	1	1,384		701	
	Through/Right	1			701	
	Right	0	18	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**774**
			Total Intersection Critical Volumes			**1,204**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.803**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.703**
			Level of Service (LOS)			**C**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	0			
	Left/Through	0				
Northbound	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
	Left	0	59			
	Left/Through	0				
Southbound	Left/Through/Right	1	0		374	374
	Through/Right	0				
	Right	0	315	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**374**
	Left	1	300		300	300
	Left/Through	0				
Eastbound	Through	1	1,318		659	
	Through/Right	1			659	
	Right	0	0	0		
	Total Lanes	3				
	Left	0	0			
	Left/Through	0				
Westbound	Through	1	1,372		722	722
	Through/Right	1			722	
	Right	0	71	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**1,022**
			Total Intersection Critical Volumes			**1,396**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**1.163**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**1.163**
			Level of Service (LOS)			**F**

12803 Washington Blvd. (2015) Project
Future (2017)
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 322.7 Worst Case Level Of Service: F[2943.8]

Street Name:	Walgrove Avenue									Washington Boulevard								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			59	0	315			300	1318		0		0	1372		71	
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	0	0	0			59	0	315			300	1318		0		0	1372		71	
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	0	0	0			59	0	315			300	1318		0		0	1372		71	
Reduct Vol:	0	0	0			0	0	0			0	0		0		0	0		0	
Final Vol.:	0	0	0			59	0	315			300	1318		0		0	1372		71	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	xxxx	6.9			4.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			2667	xxxx	722			1443	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			19	xxxx	374			476	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			9	xxxx	374			476	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			6.36	xxxx	0.84			0.63	xxxx	xxxx			xxxx	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					4.3	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					24.6	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*					C	*	*	*		*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx		52	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx		43.5	xxxxx	xxxxx	xxxx		xxxxx	xxxxx	xxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx		2944	xxxxx	xxxxx	xxxx		xxxxx	xxxxx	xxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*	*		F	*	*	*		*	*	*			*	*	*		
ApproachDel:	xxxxxx					2943.8					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	234		173	
	Left/Through	1			173	173
	Through	0	112			
	Through/Right	0				
	Right	1	390	358	32	
	Total Lanes	3				
Southbound	Left	1	153		143	143
	Left/Through	1			143	
	Through	0	133			
	Through/Right	0				
	Right	1	33	23	10	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**316**
Eastbound	Left	1	23		23	
	Left/Through	0				
	Through	2	1,046		523	523
	Through/Right	0				
	Right	1	327	173	154	
	Total Lanes	4				
Westbound	Left	1	358		358	358
	Left/Through	0				
	Through	2	1,199		448	
	Through/Right	1			448	
	Right	0	145	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**881**
			Total Intersection Critical Volumes			**1,197**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.871**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.801**
			Level of Service (LOS)			**D**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	77		77	77
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	177	172	5	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**77**
Eastbound	Left	1	172		172	
	Left/Through	0				
	Through	2	1,350		675	675
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	1,444		499	
	Through/Right	1			499	
	Right	0	54	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**675**
			Total Intersection Critical Volumes			**752**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.528**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.458**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) Without Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	611		336	
	Left/Through	0				
	Through	2	2,282		879	879
	Through/Right	1			879	
	Right	0	356	0		
	Total Lanes	5				
Southbound	Left	2	295		162	162
	Left/Through	0				
	Through	2	1,928		687	
	Through/Right	1			687	
	Right	0	132	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**1,041**
Eastbound	Left	2	198		109	
	Left/Through	0				
	Through	2	807		404	404
	Through/Right	0				
	Right	1	705	336	369	
	Total Lanes	5				
Westbound	Left	2	380		209	209
	Left/Through	0				
	Through	2	883		442	
	Through/Right	0				
	Right	1	331	162	169	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**613**
			Total Intersection Critical Volumes			**1,654**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.203**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.103**
			Level of Service (LOS)			**F**

EB/WB Rt. Turn Overlap With NB/SB Lefts

Future (2017) With Project

AM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	78		78	
	Left/Through	0				
	Through	1	1,393		835	835
	Through/Right	1			835	
	Right	0	277	0		
	Total Lanes	3				
Southbound	Left	1	87		87	87
	Left/Through	0				
	Through	1	1,195		655	
	Through/Right	1			655	
	Right	0	115	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**922**
Eastbound	Left	2	235		129	
	Left/Through	0				
	Through	1	847		458	458
	Through/Right	1			458	
	Right	0	70	0		
	Total Lanes	4				
Westbound	Left	2	466		256	256
	Left/Through	0				
	Through	1	577		376	
	Through/Right	1			376	
	Right	0	174	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**714**
			Total Intersection Critical Volumes			**1,636**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.190**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.090**
			Level of Service (LOS)			**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	114		114	
	Left/Through	0				
	Through	1	1,579		894	894
	Through/Right	1			894	
	Right	0	209	0		
	Total Lanes	3				
Southbound	Left	1	101		101	101
	Left/Through	0				
	Through	1	1,568		801	
	Through/Right	1			801	
	Right	0	34	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**995**
Eastbound	Left	1	75		75	
	Left/Through	0				
	Through	1	721		418	418
	Through/Right	1			418	
	Right	0	115	0		
	Total Lanes	3				
Westbound	Left	1	331		331	331
	Left/Through	0				
	Through	2	617		308	
	Through/Right	0				
	Right	1	157	50	107	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**749**
			Total Intersection Critical Volumes			**1,744**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**1.163**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.063**
			Level of Service (LOS)			**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	AM Peak Hour
Analysis Scenario	Future (2017) With Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	476		310	
	Left/Through	1			310	310
	Through	0	145			
	Through/Right	0				
	Right	1	53	0	53	
	Total Lanes	3				
Southbound	Left	0	26			
	Left/Through	0				
	Left/Through/Right	1	175		204	204
	Through/Right	0				
	Right	0	3	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**514**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	1,011		519	519
	Through/Right	1			519	
	Right	1	545	0	519	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	688		379	
	Through/Right	1			379	
	Right	0	70	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**519**
			Total Intersection Critical Volumes			**1,033**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.751**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.651**
			Level of Service (LOS)			**B**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	18			
	Left/Through	0				
Northbound	Left/Through/Right	1	176		215	215
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
	Left	0	19			19
	Left/Through	0				
Southbound	Left/Through/Right	1	73		130	
	Through/Right	0				
	Right	0	38	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**234**
	Left	1	79		79	
	Left/Through	0				
Eastbound	Through	1	1,336		669	669
	Through/Right	1			669	
	Right	0	2	0		
	Total Lanes	3				
	Left	1	19		19	19
	Left/Through	0				
Westbound	Through	1	1,156		596	
	Through/Right	1			596	
	Right	0	36	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**688**
			Total Intersection Critical Volumes			**922**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.615**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.515**
			Level of Service (LOS)			**A**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	135			
	Left/Through	0				
Northbound	Left/Through/Right	1	84		289	289
	Through/Right	0				
	Right	0	70	0		
	Total Lanes	1				
	Left	0	47			47
	Left/Through	0				
Southbound	Left/Through/Right	1	74		134	
	Through/Right	0				
	Right	0	13	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**336**
	Left	1	22		22	
	Left/Through	0				
Eastbound	Through	1	1,349		689	689
	Through/Right	1			689	
	Right	0	29	0		
	Total Lanes	3				
	Left	1	67		67	67
	Left/Through	0				
Westbound	Through	1	1,101		569	
	Through/Right	1			569	
	Right	0	37	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**756**
			Total Intersection Critical Volumes			**1,092**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.728**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.628**
			Level of Service (LOS)			**B**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	0	49			
	Left/Through	0				
	Left/Through/Right	1	0		276	276
	Through/Right	0				
	Right	0	227	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**276**
Eastbound	Left	1	323		323	323
	Left/Through	0				
	Through	1	1,347		674	
	Through/Right	1			674	
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	1,074		556	556
	Through/Right	1			556	
	Right	0	38	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**879**
			Total Intersection Critical Volumes			**1,155**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**0.963**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**0.963**
			Level of Service (LOS)			**E**

12803 Washington Blvd. (2015) Project
Future (2017)
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 108.7 Worst Case Level Of Service: F[1185.2]

Street Name:	Walgrove Avenue						Washington Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	48	0	227	323	1343	0	0	1066	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	48	0	227	323	1343	0	0	1066	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Proj Vols:	0	0	0	1	0	0	0	4	0	0	8	1
Initial Fut:	0	0	0	49	0	227	323	1347	0	0	1074	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	49	0	227	323	1347	0	0	1074	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	49	0	227	323	1347	0	0	1074	38
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2413	xxxx	556	1112	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	28	xxxx	480	635	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	17	xxxx	480	635	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	2.92	xxxx	0.47	0.51	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	16.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	81	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	28.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	1185	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			1185.2			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	290		178	
	Left/Through	1			178	178
	Through	0	66			
	Through/Right	0				
	Right	1	373	344	29	
	Total Lanes	3				
Southbound	Left	1	49		42	42
	Left/Through	1			42	
	Through	0	36			
	Through/Right	0				
	Right	1	13	12	1	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**220**
Eastbound	Left	1	12		12	
	Left/Through	0				
	Through	2	1,176		588	588
	Through/Right	0				
	Right	1	233	178	55	
	Total Lanes	4				
Westbound	Left	1	344		344	344
	Left/Through	0				
	Through	2	872		350	
	Through/Right	1			350	
	Right	0	178	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**932**
			Total Intersection Critical Volumes			**1,152**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.838**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.768**
			Level of Service (LOS)			**C**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	40		40	40
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	88	88	0	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**40**
Eastbound	Left	1	199		199	
	Left/Through	0				
	Through	2	1,288		644	644
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	1,140		404	
	Through/Right	1			404	
	Right	0	72	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**644**
			Total Intersection Critical Volumes			**684**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.480**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.410**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	AM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	574		316	316
	Left/Through	0				
	Through	2	2,329		859	
	Through/Right	1			859	
	Right	0	248	0		
	Total Lanes	5				
Southbound	Left	2	333		183	
	Left/Through	0				
	Through	2	2,028		734	734
	Through/Right	1			734	
	Right	0	175	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**1,050**
Eastbound	Left	2	203		112	
	Left/Through	0				
	Through	2	910		455	455
	Through/Right	0				
	Right	1	716	316	400	
	Total Lanes	5				
Westbound	Left	2	203		112	112
	Left/Through	0				
	Through	2	762		381	
	Through/Right	0				
	Right	1	267	183	84	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**567**
			Total Intersection Critical Volumes			**1,617**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.176**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.076**
			Level of Service (LOS)			**F**

EB/WB Rt. Turn Overlap With NB/SB Lefts

PM Peak Hour

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	1	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Place		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	1	75		75	
	Left/Through	0				
Northbound	Through	1	1,525		1,027	1,027
	Through/Right	1			1,027	
	Right	0	529	0		
	Total Lanes	3				
	Left	1	101		101	101
	Left/Through	0				
Southbound	Through	1	1,710		981	
	Through/Right	1			981	
	Right	0	252	0		
	Total Lanes	3				
				Sum of North/South Critical Volumes		**1,128**
	Left	2	196		108	
	Left/Through	0				
Eastbound	Through	1	709		415	415
	Through/Right	1			415	
	Right	0	121	0		
	Total Lanes	4				
	Left	2	362		199	199
	Left/Through	0				
Westbound	Through	1	802		446	
	Through/Right	1			446	
	Right	0	91	0		
	Total Lanes	4				
				Sum of East/West Critical Volumes		**614**
				Total Intersection Critical Volumes		**1,742**
Number of Clearance Intervals	**4**			**Intersection Capacity**		**1,375**
				Base CMA		**1.267**
Signal Coordination	**ATSAC + ATCS**			**Signal Coordination Adjustment**		**-0.100**
				Final CMA		**1.167**
				Level of Service (LOS)		**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	2	**Date**	December 8, 2015
Intersection Name	North/South: Centinela Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	25		25	
	Left/Through	0				
	Through	1	1,795		1,080	1,080
	Through/Right	1			1,080	
	Right	0	364	0		
	Total Lanes	3				
Southbound	Left	1	175		175	175
	Left/Through	0				
	Through	1	2,052		1,058	
	Through/Right	1			1,058	
	Right	0	63	0		
	Total Lanes	3				
			Sum of North/South Critical Volumes			**1,255**
Eastbound	Left	1	60		60	
	Left/Through	0				
	Through	1	746		438	438
	Through/Right	1			438	
	Right	0	130	0		
	Total Lanes	3				
Westbound	Left	1	228		228	228
	Left/Through	0				
	Through	2	709		354	
	Through/Right	0				
	Right	1	184	88	96	
	Total Lanes	4				
			Sum of East/West Critical Volumes			**666**
			Total Intersection Critical Volumes			**1,921**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**1.281**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.181**
			Level of Service (LOS)			**F**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)
Intersection Number	3 **Date** December 8, 2015
Intersection Name	North/South: Washington Boulevard/Zanja Street East/West: Washington Boulevard/Washington Place
Intersection Control	Signalized
Analysis Period	PM Peak Hour
Analysis Scenario	Future (2017) With Project

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	588		329	
	Left/Through	1			329	329
	Through	0	70			
	Through/Right	0				
	Right	1	50	26	24	
	Total Lanes	3				
Southbound	Left	0	46			
	Left/Through	0				
	Left/Through/Right	1	217		265	265
	Through/Right	0				
	Right	0	2	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**594**
Eastbound	Left	0	0			
	Left/Through	0				
	Through	1	830		483	
	Through/Right	1			483	
	Right	1	618	0	483	
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	1	1,003		534	534
	Through/Right	1			534	
	Right	0	66	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**534**
			Total Intersection Critical Volumes			**1,128**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.820**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.720**
			Level of Service (LOS)			**C**

North/South Opposed Phasing

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	4	**Date**	December 8, 2015
Intersection Name	North/South: Beethoven Street East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	31			31
	Left/Through	0				
	Left/Through/Right	1	106		177	
	Through/Right	0				
	Right	0	40	0		
	Total Lanes	1				
Southbound	Left	0	43			
	Left/Through	0				
	Left/Through/Right	1	231		345	345
	Through/Right	0				
	Right	0	71	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**376**
Eastbound	Left	1	57		57	57
	Left/Through	0				
	Through	1	1,309		662	
	Through/Right	1			662	
	Right	0	15	0		
	Total Lanes	3				
Westbound	Left	1	43		43	
	Left/Through	0				
	Through	1	1,568		792	792
	Through/Right	1			792	
	Right	0	17	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**849**
			Total Intersection Critical Volumes			**1,225**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.817**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.717**
			Level of Service (LOS)			**C**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	5	**Date**	December 8, 2015
Intersection Name	North/South: Redwood Avenue East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	87			87
	Left/Through	0				
	Left/Through/Right	1	98		248	
	Through/Right	0				
	Right	0	63	0		
	Total Lanes	1				
Southbound	Left	0	52			
	Left/Through	0				
	Left/Through/Right	1	270		343	343
	Through/Right	0				
	Right	0	21	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**430**
Eastbound	Left	1	26		26	
	Left/Through	0				
	Through	1	1,267		670	670
	Through/Right	1			670	
	Right	0	72	0		
	Total Lanes	3				
Westbound	Left	1	110		110	110
	Left/Through	0				
	Through	1	1,393		706	
	Through/Right	1			706	
	Right	0	18	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**780**
			Total Intersection Critical Volumes			**1,210**
Number of Clearance Intervals	**2**		**Intersection Capacity**			**1,500**
			Base CMA			**0.807**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**0.707**
			Level of Service (LOS)			**C**

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	6	**Date**	December 8, 2015
Intersection Name	North/South: Walgrove Avenue East/West: Washington Boulevard		
Intersection Control	Two-Way STOP		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left	0	0			
	Left/Through	0				
Northbound	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
	Left	0	61			
	Left/Through	0				
Southbound	Left/Through/Right	1	0		376	376
	Through/Right	0				
	Right	0	315	0		
	Total Lanes	1				
			Sum of North/South Critical Volumes			**376**
	Left	1	300		300	300
	Left/Through	0				
Eastbound	Through	1	1,327		664	
	Through/Right	1			664	
	Right	0	0	0		
	Total Lanes	3				
	Left	0	0			
	Left/Through	0				
Westbound	Through	1	1,379		726	726
	Through/Right	1			726	
	Right	0	73	0		
	Total Lanes	2				
			Sum of East/West Critical Volumes			**1,026**
			Total Intersection Critical Volumes			**1,402**
Number of Clearance Intervals	**0**		**Intersection Capacity**			**1,200**
			Base CMA			**1.168**
Signal Coordination	**None**		**Signal Coordination Adjustment**			**0.000**
			Final CMA			**1.168**
			Level of Service (LOS)			**F**

12803 Washington Blvd. (2015) Project
Future (2017)
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Washington Blvd. & Walgrove Ave.

Average Delay (sec/veh): 343.6 Worst Case Level Of Service: F[3136.9]

Street Name:	Walgrove Avenue									Washington Boulevard								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			59	0	315			300	1318	0			0	1372	71		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			59	0	315			300	1318	0			0	1372	71		
Added Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Proj Vols:	0	0	0			2	0	0			0	9	0			0	7	2		
Initial Fut:	0	0	0			61	0	315			300	1327	0			0	1379	73		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	0	0	0			61	0	315			300	1327	0			0	1379	73		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	0	0	0			61	0	315			300	1327	0			0	1379	73		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	xxxx	6.9			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			2679	xxxx	726			1452	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			18	xxxx	372			472	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			9	xxxx	372			472	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			6.77	xxxx	0.85			0.64	xxxx	xxxx		xxxx	xxxx	xxxx			
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					25.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*					C	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx		49	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	44.0	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3137	xxxxx				xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*	*	F	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx					3136.9					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	7	**Date**	December 8, 2015
Intersection Name	North/South: Glencoe Avenue/Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	1	234		173	
	Left/Through	1			173	173
	Through	0	112			
	Through/Right	0				
	Right	1	391	360	31	
	Total Lanes	3				
Southbound	Left	1	153		143	143
	Left/Through	1			143	
	Through	0	133			
	Through/Right	0				
	Right	1	33	23	10	
	Total Lanes	3				
			Sum of North/South Critical Volumes			**316**
Eastbound	Left	1	23		23	
	Left/Through	0				
	Through	2	1,054		527	527
	Through/Right	0				
	Right	1	327	173	154	
	Total Lanes	4				
Westbound	Left	1	360		360	360
	Left/Through	0				
	Through	2	1,204		450	
	Through/Right	1			450	
	Right	0	145	0		
	Total Lanes	4				
			Sum of East/West Critical Volumes			**887**
			Total Intersection Critical Volumes			**1,203**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**0.875**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.805**
			Level of Service (LOS)			**D**

North/South Opposed Phasing
NB/SB Rt. Turn Overlap With WB/EB Lefts

EB Rt. Turn Overlap with NB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	8	**Date**	December 8, 2015
Intersection Name	North/South: Costco Driveway East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	0	0			
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	0				
Southbound	Left	1	77		77	77
	Left/Through	0				
	Through	0	0			
	Through/Right	0				
	Right	1	177	172	5	
	Total Lanes	2				
			Sum of North/South Critical Volumes			**77**
Eastbound	Left	1	172		172	
	Left/Through	0				
	Through	2	1,358		679	679
	Through/Right	0				
	Right	0	0	0		
	Total Lanes	3				
Westbound	Left	0	0			
	Left/Through	0				
	Through	2	1,449		501	
	Through/Right	1			501	
	Right	0	54	0		
	Total Lanes	3				
			Sum of East/West Critical Volumes			**679**
			Total Intersection Critical Volumes			**756**
Number of Clearance Intervals	**3**		**Intersection Capacity**			**1,425**
			Base CMA			**0.531**
Signal Coordination	**ATSAC**		**Signal Coordination Adjustment**			**-0.070**
			Final CMA			**0.461**
			Level of Service (LOS)			**A**

SB Rt. Turn Overlap with EB Left

Hirsch/Green Transportation Consulting, Inc.
Critical Movement Analysis (CMA) Worksheet

Project Name	12803 Washington Mixed-Use (Culver City)		
Intersection Number	9	**Date**	December 8, 2015
Intersection Name	North/South: Lincoln Boulevard East/West: Washington Boulevard		
Intersection Control	Signalized		
Analysis Period	PM Peak Hour		
Analysis Scenario	Future (2017) With Project		

Approach Direction	Lane Type	No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
Northbound	Left	2	611		336	
	Left/Through	0				
	Through	2	2,282		881	881
	Through/Right	1			881	
	Right	0	360	0		
	Total Lanes	5				
Southbound	Left	2	298		164	164
	Left/Through	0				
	Through	2	1,928		687	
	Through/Right	1			687	
	Right	0	132	0		
	Total Lanes	5				
			Sum of North/South Critical Volumes			**1,045**
Eastbound	Left	2	198		109	
	Left/Through	0				
	Through	2	808		404	404
	Through/Right	0				
	Right	1	705	336	369	
	Total Lanes	5				
Westbound	Left	2	383		211	211
	Left/Through	0				
	Through	2	883		442	
	Through/Right	0				
	Right	1	333	164	169	
	Total Lanes	5				
			Sum of East/West Critical Volumes			**615**
			Total Intersection Critical Volumes			**1,660**
Number of Clearance Intervals	**4**		**Intersection Capacity**			**1,375**
			Base CMA			**1.207**
Signal Coordination	**ATSAC + ATCS**		**Signal Coordination Adjustment**			**-0.100**
			Final CMA			**1.107**
			Level of Service (LOS)			**F**

EB/WB Rt. Turn Overlap With NB/SB Lefts