

4.8 TRAFFIC AND TRANSPORTATION

This section describes and evaluates the potential transportation and traffic impacts of the Project. A Trip Generation/Distribution Memo, dated September 22, 2014, was prepared by JB & Associates; information from this memo is incorporated into this section (see **Appendix 4.8**).

ENVIRONMENTAL SETTING

Existing Conditions

Regional Highway System

The Golden State Freeway (Interstate [I]-5), Ventura Freeway (State Route [SR]-134), and Glendale Freeway (SR-2) provide regional access in the Project vicinity. A brief description of each freeway is provided as follows.

Interstate 5

The I-5 is a north-south freeway that extends between Northern and Southern California. Five mainline travel lanes are generally provided in each direction on the I-5 freeway in the Glendale area. The I-5 freeway is located west of the Project site and is accessible by the Colorado Street Freeway Extension.

State Route 134

SR-134 is an east-west freeway that extends from the Foothill Freeway (I-210) in Pasadena to the Ventura Freeway (US 101) in North Hollywood. Four mixed-flow travel lanes and one high-occupancy vehicle (HOV) lane are provided in each direction on SR-134 in the Glendale area. Full interchanges are provided at San Fernando Road and Central Avenue/Brand Boulevard. A westbound on/off ramp at Fairmont Avenue and an eastbound on/off ramp at Doran Street are provided in connection with San Fernando Road. The SR-134 freeway ramps at Central Avenue and Brand Boulevard are connected by one-way connector roadways (Goode Avenue and Sanchez Drive). At Central Avenue, a westbound on-ramp and an eastbound off-ramp are provided in connection with the Goode Avenue and Sanchez Drive freeway frontage roadways. At Brand Boulevard, a westbound off-ramp and an eastbound on-ramp are provided in connection with these two freeway frontage roadways.

State Route 2

The Glendale Freeway, SR-2, is a north-south freeway that extends from just south of I-5 near Echo Park to just north of I-210 near La Canada-Flintridge. The northern terminus of the freeway occurs at Foothill Boulevard. A full set of on/off-ramps are provided in both directions east and southeast of the Project

site. The SR-2 freeway generally provides four mixed-flow travel lanes in each direction in the vicinity of the Project site.

Local Street System

The project is located at the northwest corner of the W Broadway/Pacific Avenue intersection in the City of Glendale. The project site is bound by Wilson Avenue on the north, Pacific Avenue on the east, W. Broadway on the south, and Kenilworth Avenue on the west.

Wilson Avenue

Wilson Avenue is an east-west roadway to the north of the Project Site. This roadway provides one travel lane in each direction. On-street parking is allowed on both sides of the roadway. Wilson Avenue is designated as a Minor Arterial in the Circulation Element of the City of Glendale General Plan.

Pacific Avenue

Pacific Avenue is a north-south minor roadway that is located east of the Project site. This roadway provides two travel lanes and a center left turn lane in each direction north. On-street parking is provided on both sides of the roadway. Pacific Avenue is designated as a Minor Arterial in the Circulation Element of the City of Glendale General Plan.

W. Broadway

W. Broadway is an east-west roadway located south of the Project site. This roadway provides two travel lanes in each direction. On-street parking is provided on both sides of the roadway. W. Broadway is designated as a Minor Arterial in the Circulation Element of the City of Glendale General Plan.

Kenilworth Avenue

Kenilworth Avenue is a north-south oriented roadway that is located west of the Project site. This roadway consists of two lanes undivided. On-street parking is provided on both sides of the roadway. Kenilworth is designated as a Local Street in the Circulation Element of the City of Glendale General Plan.

Colorado Boulevard

Colorado Boulevard is an east-west roadway located south of the Project site. This roadway consists of two travel lanes in each direction with a two-way left turn pocket between Kenilworth Avenue and Pacific Avenue. Colorado Boulevard is designated as a Major Arterial in the Circulation Element of the City of Glendale General Plan.

San Fernando Road

San Fernando Road is a north-south roadway located west of the Project site. This roadway provides two travel lanes in each direction with on-street parking provided on the east side. San Fernando Road is designated as a Major Arterial in the Circulation Element of the City of Glendale General Plan.

Central Avenue

Central Avenue is a north-south roadway located east of the Project site. This roadway provides three travel lanes in each direction with a two-way left turn pocket. Central Avenue is designated as a Major Arterial in the Circulation Element of the City of Glendale General Plan.

Existing Traffic

There are two peak hours in a weekday. The morning peak hours are typically between 7:00 AM and 9:00 AM, and the evening peak hours are typically between 4:00 PM and 6:00 PM. The actual peak hour within the 2-hour interval is the four consecutive 15-minute periods with the highest total volume when all movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest combined volume.

Intersections

Level of Service (LOS) varies from LOS A (free flow) to LOS F (jammed condition). LOS definitions for signalized intersections are provided in **Table 4.8-1, Level of Service Definitions for Signalized Intersections.**

**Table 4.8-1
Level of Service Definitions for Signalized Intersections**

LOS	Description	Volume/Capacity Ratio
A	LOS A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.600 and below
B	LOS B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	0.601 - 0.700
C	LOS C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	0.701 - 0.800
D	LOS D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	0.801 - 0.900

LOS	Description	Volume/Capacity Ratio
E	LOS E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent.	0.901 - 1.000
F	LOS F is considered to be unacceptable to most drivers. This condition often occurs when oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	1.001 and up

Source: Transportation Research Board, National Research Council, Highway Capacity Manual Special Report 209 (Washington, D.C., 2000).

Note: LOS = level of service

As indicated in **Table 4.8-2, Existing Levels of Service**, Pacific Avenue/Colorado Boulevard operate at LOS D or better during the AM and PM peak hours under the existing conditions. The remaining five intersections operated at LOS C or better.

**Table 4.8-2
Existing Levels of Service**

Intersections	Peak Hour	V/C (ICU)	LOS
1. Pacific Avenue/W Broadway	AM	0.407	A
	PM	0.596	A
2. W. Broadway/Kenilworth Avenue ¹	AM	10.7 sec	B
	PM	12.4 sec	B
3. W. Broadway/San Fernando Road	AM	0.589	A
	PM	0.776	C
4. W. Broadway/Central Avenue	AM	0.384	A
	PM	0.538	A
5. Pacific Avenue/Wilson Avenue	AM	0.429	A
	PM	0.556	A
6. Pacific Avenue/Colorado Boulevard	AM	0.761	C
	PM	0.813	D

Source: JB & Associates. Traffic Impact Analysis – 515 W. Broadway Project (September 22, 2014).

Note: V/C = volume-to-capacity ratio; ICU = Intersection Capacity Utilization; LOS = level of service.

1. Values indicate the delay to southbound Kenilworth Avenue (stop controlled).

Public Transit Service

The Los Angeles County Metropolitan Transportation Authority (Metro) and the City of Glendale Beeline Bus currently provide public bus transit service in the Project area. Bus routes currently operate along Broadway and Pacific Avenue. All routes serving the Project connect to additional routes and stop at the Glendale Transportation Center (GTC), which provides access to the Greater Los Angeles metropolitan region via bus and commuter trains. The GTC also provides statewide access via Amtrak long-distance trains.

Parking Spaces

A total of 331 parking spaces would be located within a single-level subterranean parking garage and at grade. Specifically, 212 parking spaces would be located within the subterranean parking area reserved for residents; the remaining 119 parking spaces would be at grade. The subterranean parking garage would be accessible from Kenilworth Avenue, and at-grade parking would be accessible from W. Broadway and Pacific Avenue. In addition, on-street parking is allowed on both sides of W. Broadway and Kenilworth Avenue.

Bicycle/Pedestrian Transportation System

The Project site presently contains sidewalks along the northern and southern side of W. Broadway and the western and eastern side along Kenilworth Avenue. There is a designated bicycle path along W. Broadway.

Regulatory Setting

State

California Department of Transportation (Caltrans) regulates and maintains State and Interstate roadways (state routes, highways, freeways) in the State of California. In areas with State roadways, Caltrans has the responsibility to maintain these roadways while the local jurisdictions (e.g., City and County transportation departments) are responsible for maintaining local roads. Local jurisdictions work with Caltrans to achieve transportation service requirements and improvements.

The Project site is located in Caltrans District 7, which includes Los Angeles County. This district is responsible for planning, designing, and maintaining State highways in the general area of the Project site, including I-5, SR-134, and SR-2.

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) is a long-term vision document that outlines transportation goals, objectives, and policies for the SCAG region, including Los Angeles County. The latest SCAG RTP, adopted in April 2012, includes an assessment of overall growth and economic trends in the region and provides strategic direction for transportation capital investments to support more efficient and “sustainable” modes of transportation from 2012 through 2035. Future planning will promote the use of bus and light rail transit, passenger high speed rail, and other Transportation Demand Management strategies.

Congestion Management Program

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system. Metro is the responsible agency for implementing the CMP. The most recent CMP was adopted by the Metro Board on October 28, 2010. The 2010 CMP summarizes the results of 18 years of CMP highway and transit monitoring and 15 years of monitoring local growth. CMP implementation guidelines for local jurisdictions are also contained in the 2010 CMP.

There are no CMP intersection monitoring locations in the Project study area. However, the following CMP freeway monitoring locations have been identified in the project vicinity:

- No. 1005 I-5 Freeway south of Colorado Boulevard Extension
- No. 1055 SR-134 Freeway east of Central Avenue

Local

There are a number of goals and policies set forth by the City of Glendale in the General Plan Circulation Element that relate to traffic and circulation. An analysis of the consistency of these applicable goals and policies with the Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City’s General Plan.

City of Glendale Bicycle Transportation Plan

The Glendale Bicycle Transportation Plan serves as a guide to the City in planning, development, design, and maintenance for new and upgraded bicycle facilities for the next 20 years. The Bicycle Transportation Plan will be updated every 5 years to inventory and evaluate changes to infrastructure,

and to adjust planned facilities based on changing future conditions. The Glendale Bicycle Transportation Plan is compliant with Caltrans Bicycle Transportation Account requirements.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on traffic and transportation, if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit
- Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks (issue is addressed in **Section 6.0, Effects Not Found to be Significant**)
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

City of Glendale

In the City of Glendale, impacts are considered significant for signalized intersections if the project-related increase in the volume-to-capacity (V/C) ratio equals or exceeds 0.02 that have LOS D or worse. The impact is considered significant for unsignalized intersections if the project-related increase in the delay equals or exceeds 3 seconds that have LOS D, E, or F.

The City of Glendale Circulation Element identifies two conditions that typically apply when evaluating local collector street impacts:

If the addition of Project average daily trips (ADTs) to a residential street does not cause the street's capacity to be exceeded (regardless of how great an increase), the Project would result in no impacts.

If the streets capacity is exceeded with or without the Project, no impacts occur if the Project increases the existing conditions ADT by less than 10 percent.

Methodology

Construction Traffic Analysis

The number of construction worker vehicles is estimated using the average vehicle ridership (AVR) of 1.135 persons per vehicle.¹ The typical construction activity is anticipated to begin at 7:00 AM and end at 4:00 PM. In general, the majority of the construction workers are expected to arrive at the Project site during off-peak hours (i.e., arrive prior to 7:00 AM). It is anticipated that the majority of the construction workers would remain on-site throughout the day and would not leave the site for lunch via their vehicles. The truck delivery period has been assumed for 8 hours per day beginning at 7:00 AM, with the last delivery at 3:00 PM. A Passenger Car Equivalent factor of 2.0 has been assumed.

Trip Generation

Traffic generated by the Project was determined by multiplying an appropriate trip generation rate by the quantities of land uses. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our lifestyles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the Project. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined. The traffic generation rates are from the Institute of Transportation Engineers, *Trip Generation Manual*, 9th Edition.² The traffic analysis was prepared in accordance with the traffic impact analysis requirements, which also examined the CMP system of roads and intersections, as well as other roads and systems.

A 10 percent internal trip capture reduction was applied to the Retail component of the Project because the tenants of this component of the development are expected to attract a significant portion of its customers from within the Project site itself or the surrounding commercial or residential areas, thereby reducing some of the trips that the Project would otherwise generate.³

1 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993).

2 Institute of Transportation Engineers, *Trip Generation Manual*, 9th Edition, (September 2012).

3 Trip reductions were implemented based on the recommended practice in the ITE Trip Generation Handbook, Second Edition (June 2004).

Furthermore, a 10 percent reduction was applied to the residential units of the project based specifically on the fact that the location of the project in Glendale provides convenient local/regional transit service. In particular, the Project site is located in close proximity to transit routes on Broadway and Pacific. Further, the project is located close to local shopping centers such as the Americana and Glendale Galleria which will further reduce vehicle trips to and from the project site.

A 20 percent pass-by reduction was applied to the Retail component to account for drivers already using the street network who use this facility as an intermediate stop on their way from their origin to their primary destination. This pass-by reduction is based on the existing traffic volumes on the adjacent roadway networks, characteristics of the surrounding area, and the guidance of the *ITE Trip Generation Handbook*, June 2004. This reduction was taken after the 10 percent walk-in/internal capture reduction was applied.

Table 4.8-3, Trip Generation, identifies the traffic generation rates, Project peak-hour volumes, and Project daily traffic volumes. As presented in **Table 4.8-3**, the Project is projected to generate 902 daily vehicle trips, 75 of which would occur during the morning peak hour (AM Peak Hour) and 93 of which would occur during the evening peak hour (PM Peak Hour).

**Table 4.8-3
Trip Generation**

Land Use	Size	Units	AM Peak Hour				PM Peak Hour				Daily Trips	
			Trip Rate	In-bound	Out-bound	Total	Trip Rate	In-bound	Out-bound	Total	Rate	Total
Trip Generation Rate												
Residential Apartments	180	du	0.51	20% 18	80% 74	92	0.62	65% 73	35% 39	112	6.65	1,197
<i>10% TDM Measures Reduction¹</i>				-2	-7	-9		-7	-4	-11		-120
Retail	14.2	tsf	0.96	62% 9	38% 5	14	3.71	48% 25	52% 28	53	42.7	606
<i>10% less Walk-in/Internal Capture Reduction²</i>				-1	0	-1		-2	-3	-5		-61
Restaurant	4	tsf	0.81	48% 1	52% 2	3	7.49	67% 20	33% 10	30	89.9 5	360
Subtotal				25	74	99		109	70	179		1,982
Existing Land Use Removed												
Office Supply Superstore ³	25.3	tsf	0.96	48% -12	52% -12	-24	3.4	53% -46	47% -40	-86	42.7	-1,080
Subtotal				-12	-12	-24		-46	-40	-86		-1,080
Net Trip Generation				13	62	75		63	30	93		902

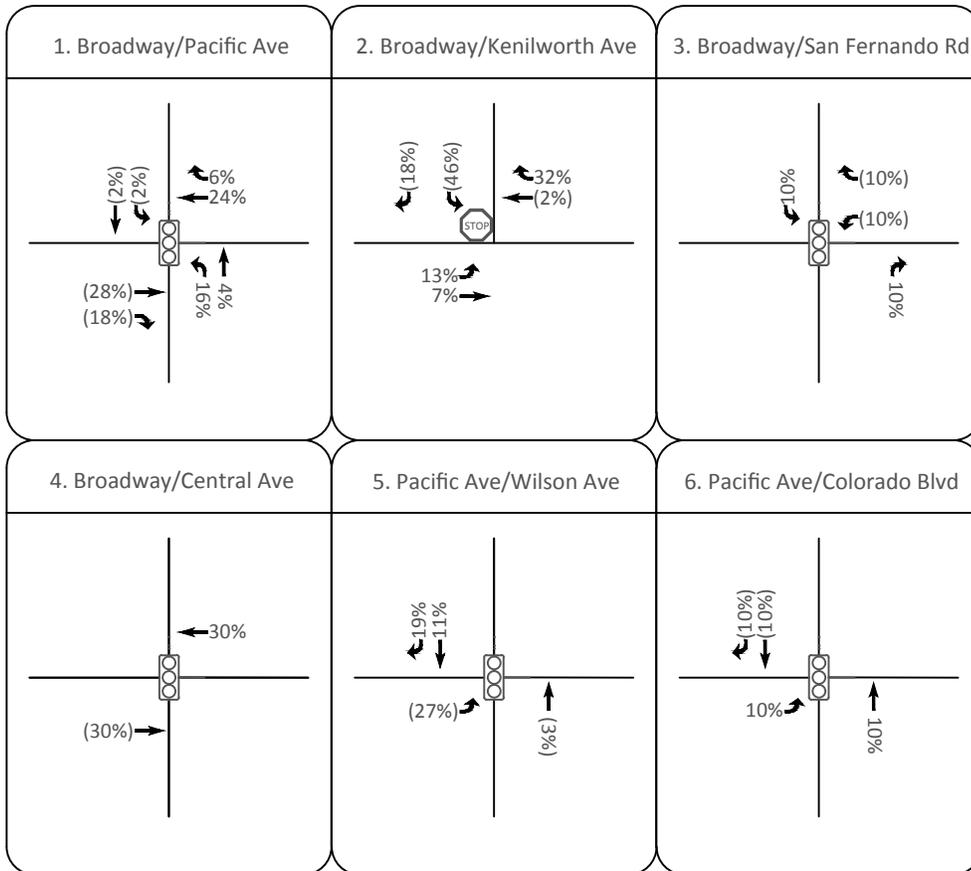
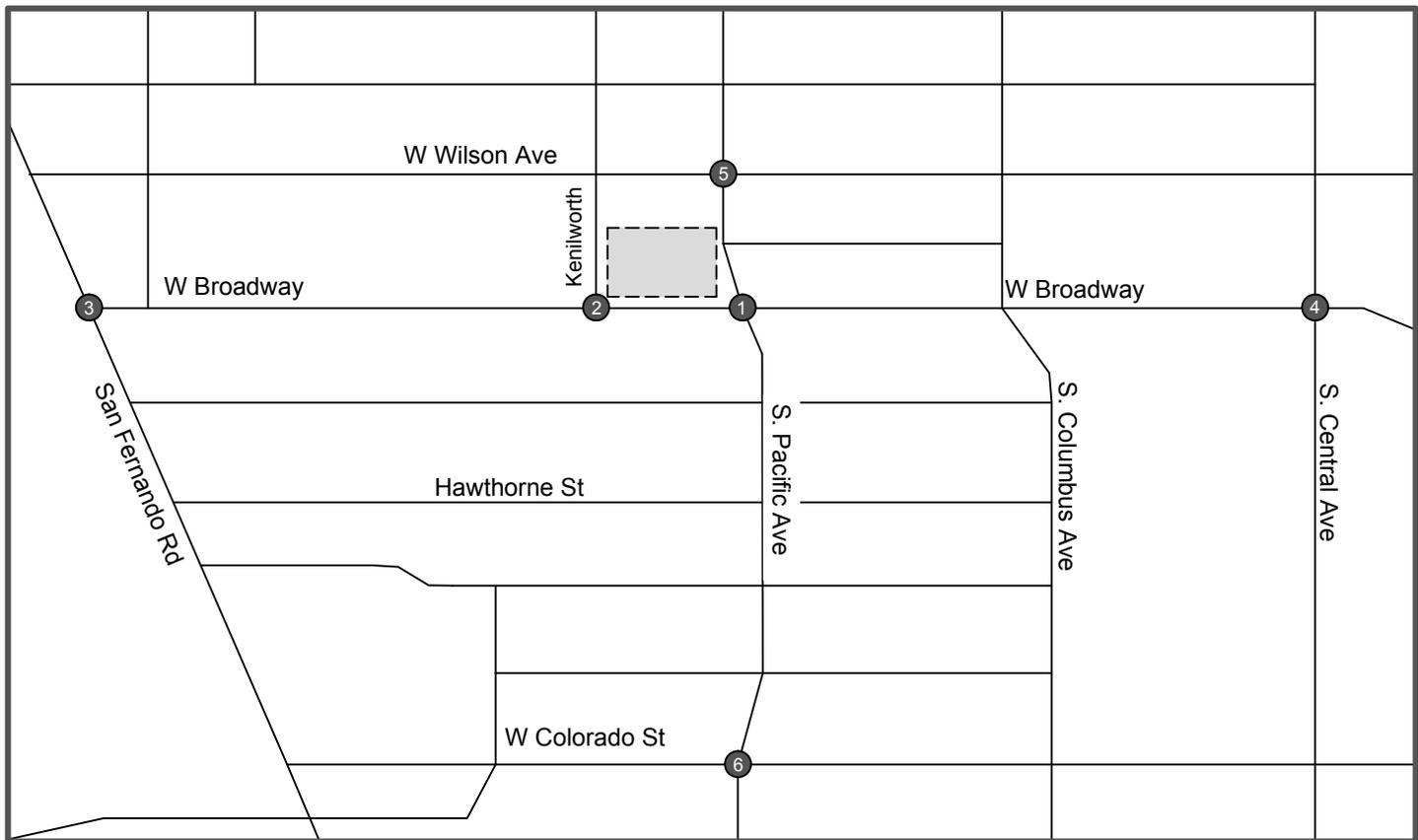
Source: JB & Associates. Traffic Impact Analysis – 515 W. Broadway Project (September 22, 2014). Trip reductions were implemented based on the recommended practice in the ITE Trip Generation Handbook, Second Edition (June 2004).

Note: DU = dwelling units; tsf = thousand square feet.

1. Transit reduction applied to account for the proximity of the project to conveniently located transit routes and walkability to nearby land uses.
2. A Walk-in/Internal Capture Rate was applied to account for walk-in patrons and the mixed-use characteristics of the development.
3. ITE Land Use Code 820 (Retail) used for AM Peak Hour Trip Rate due to lack of data in "Trip Generation Manual"

Trip Distribution

Trip distribution assumptions are used to determine the origin and destination of new vehicle trips associated with the Project. To determine the traffic distributions for the Project, peak-hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, the City of Glendale computerized traffic model, and other additional information on future development and traffic impacts in the area were reviewed. **Figure 4.8-1, Project Traffic Inbound and Outbound Distribution (AM Peak)** and **Figure 4.8-2, Project Traffic Inbound and Outbound Distribution (PM Peak)**, provide the directional distributions of traffic for the Project. Based on the project trip generation shown in **Table 4.8-3** and the proposed trip distribution patterns shown in **Figure 4.8-1**, a proposed study area for the future traffic analysis was derived. The proposed study area includes 6 intersections in the vicinity of the Project site and is shown in **Figure 4.8-3, Project Study Intersections**.

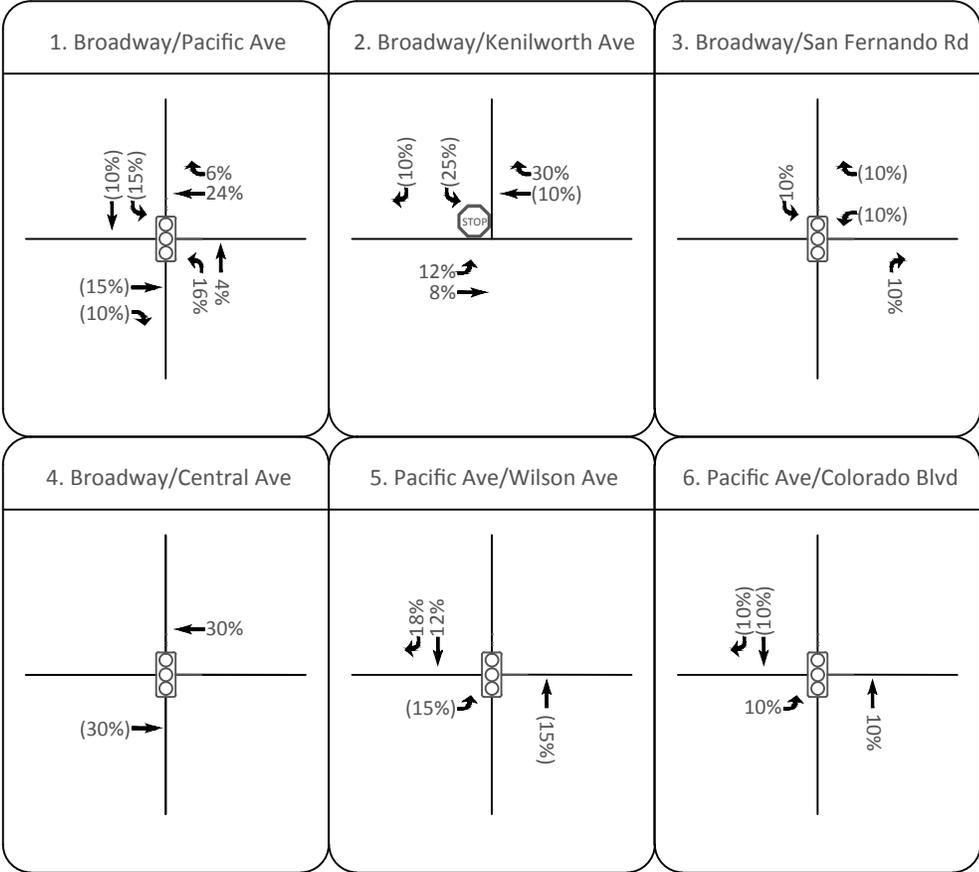
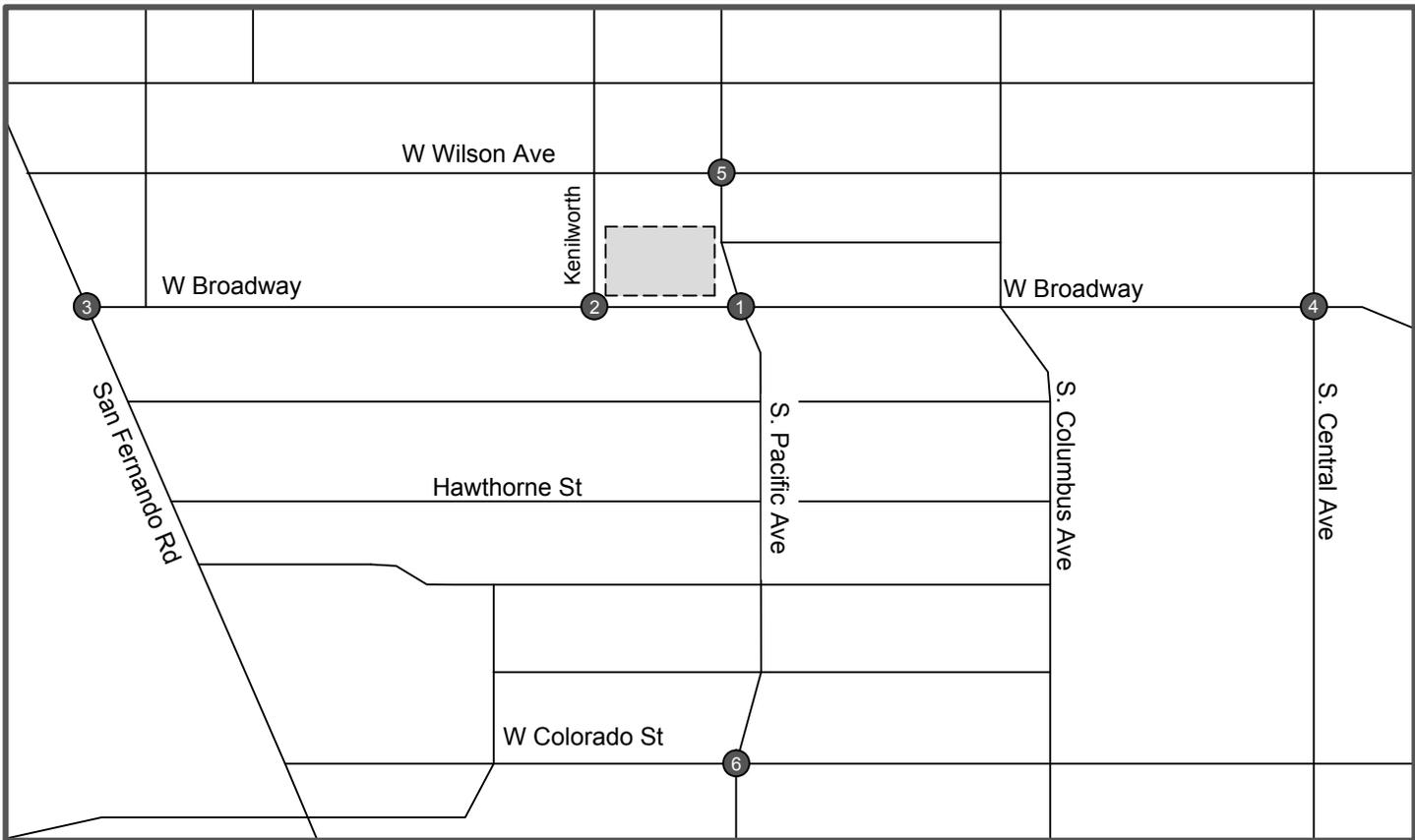


XX (XX) = Inbound (Outbound) Distribution
 [Dashed Box] = Project Site



SOURCE: JB & ASSOCIATES - September 2014

FIGURE 4.8-1

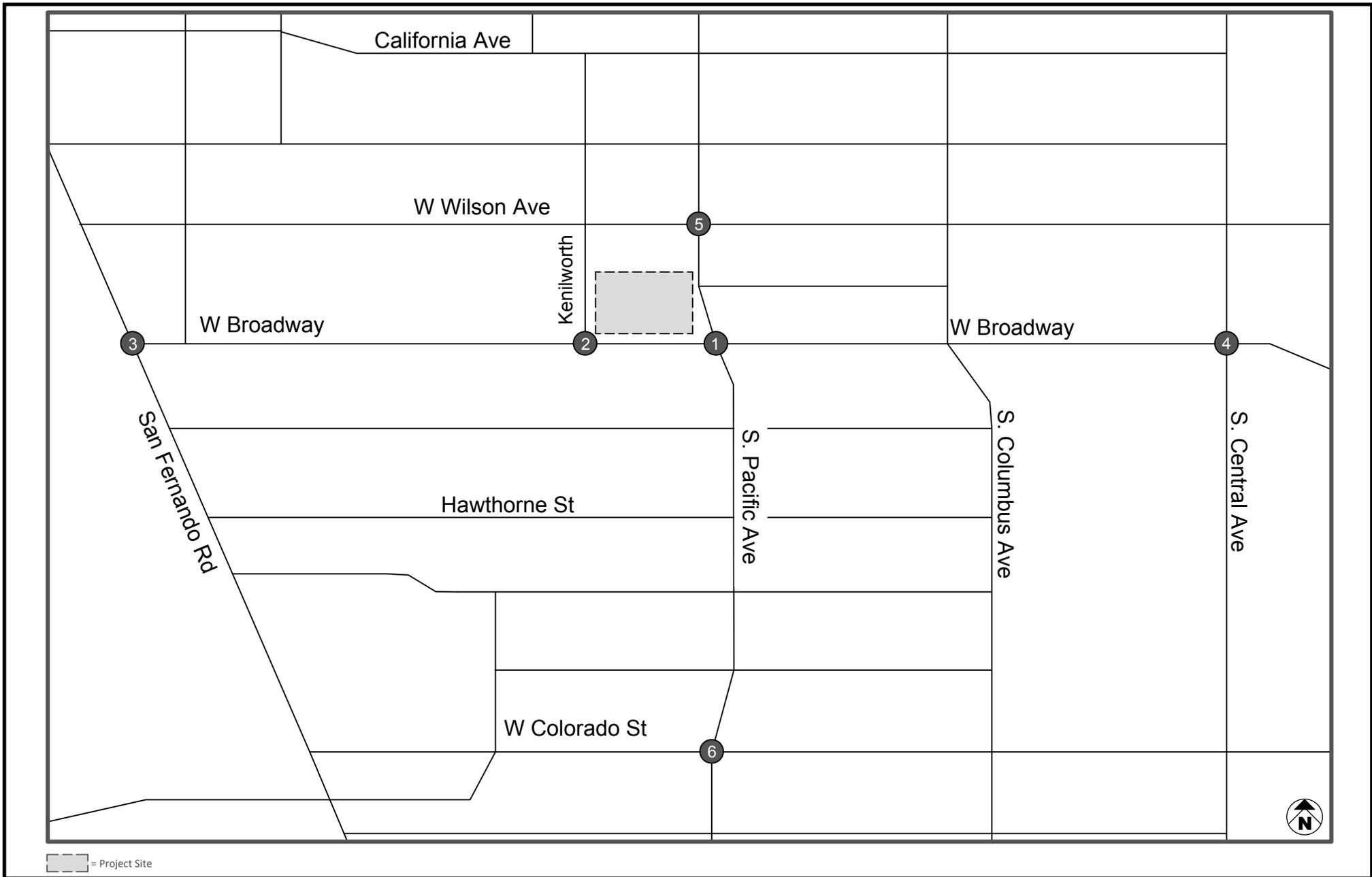


XX (XX) = Inbound (Outbound) Distribution
 [Dashed Box] = Project Site



SOURCE: JB & ASSOCIATES - September 2014

FIGURE 4.8-2



SOURCE: JB & ASSOCIATES - September 2014

FIGURE 4.8-3

With the trips generated from the project site calculated, the distribution of Project trips at the project driveways and surrounding roadway system (for the AM & PM Peak) was derived.

The City of Glendale's Circulation Element contains the following "residential" street classifications: Local Collector Streets, Neighborhood Collector Streets, Community Collector Streets, and Urban Collector Streets. With very few exceptions, these streets are typically two-lane roadways. Furthermore, the Circulation Element assigns a capacity of 2,500 ADT for Local Collector Streets, 5,000 ADT to Neighborhood Collector Streets, and 10,000 ADT for both Community and Urban Collector Streets. Kenilworth Avenue, Harvard Street, and Oak Street are designated as Local Collector Streets and were analyzed to determine if Project-related trips resulted in an exceedance of the roadway capacity (2,500 ADT).

Transit Analysis

The Traffic Impact Analysis also includes a review of the CMP transit service system. Transit service is provided in the Project area. The Project transit calculations are based on values stated in the CMP to estimate the transit trip generation. The person trips are equal to 1.4 times vehicle trips and the transit trips are equal to 3.5 percent of the total person trips.

Cumulative Analysis

To understand the relative traffic impacts for the projected year of completion (2016), existing traffic is combined with related projects and area-wide growth. An annual growth rate has been utilized to account for area-wide growth on study area roadways. Per the City of Glendale Traffic and Transportation Division, the traffic counts have been applied with an annual growth rate of 1 percent per year.

In order to assess Cumulative with Project traffic conditions, existing traffic is combined with the traffic of the Project, related projects, and area-wide growth. For the Cumulative with Project traffic conditions, an annual growth rate of 1 percent per year is also applied.

Traffic volumes expected to be generated by the related projects during the weekday were estimated using rates published in the Institute of Transportation Engineer's (ITE) Trip Generation manual or other approved documents. The related projects were organized by traffic analysis zone.

Project Impacts

Threshold: **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized**

travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Construction

Project construction would generate traffic from construction worker travel, as well from the arrival and departure of trucks delivering construction materials, and the removal of debris generated by on-site activities. Both the number of construction workers and trucks would vary throughout the construction process in order to maintain a reasonable schedule of completion.

Project construction is anticipated to last approximately 18 months and is expected to commence on or after April, 2015. The Project would be constructed in three phases (1) demolition; (2) site preparation/excavation; and (3) building construction/architectural coating and asphalt paving.

Based on a rate of 1.135 worker trips per piece of construction equipment and a maximum of two pieces of construction equipment on any given day during project construction, a total of three worker trips per day would be generated. This generation rate is designed to account for all construction workers, even those that may not directly operate equipment. In general, the majority of the construction workers are expected to arrive at the Project site during off-peak hours (i.e., arrive prior to 7:00 AM), thereby avoiding the AM commuter peak hour period and would remain on site throughout the day. Given the location of the site, most construction-related traffic would use the I-5 freeway and arrive and depart via nearby on/off ramps serving the I-5 freeway and SR-134 freeway.

As required by the City of Glendale, a Construction Traffic Control plan would be implemented to minimize potential conflicts between construction activity and through traffic. The Construction Traffic Control Plan would identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of excavation and construction activity. In addition, a truck haul route program would also need to be reviewed and approved by the Glendale Public Works Department and implemented to minimize conflicts between haul trucks traveling to and from the Project site and through traffic on roadways surrounding the project. The program would specify access points to the Project site and delineate approved haul routes.

Traffic impacts associated with construction activities are determine to be less than significant and impacts would be further reduced with the implementation of the following required Construction Traffic Control Plan components:

- Maintain existing access for land uses in proximity of the Project site.

- Limit any potential lane closures to off-peak travel periods.
- Schedule receipt of construction materials during non-peak travel periods, to the extent possible.
- Limit the majority of construction-related traffic to off-peak periods.
- Coordinate deliveries to reduce the potential of trucks waiting to unload for extended periods of time.
- Prohibit parking by construction workers on adjacent streets and direct construction workers to available parking as determined in conjunction with City staff.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Operation Impacts

Intersection Analysis

To determine the potential impact of the Project on each study area intersection, Project traffic volumes were added to existing traffic conditions. As discussed previously, analysis included an internal trip capture reduction as a result of the mixed uses proposed on the Project site. The Existing plus Project average daily traffic volumes on area roadways are shown in **Figure 4.8-4, Existing plus Project (AM/PM Peak) Traffic Volumes. Table 4.8-4, Existing plus Project Traffic Contribution**, depicts the Existing plus Project traffic contribution at the study area intersections.

Table 4.8-4
Existing plus Project Traffic Contribution

Intersection	Peak Hour	Existing Conditions		Existing Plus Project			Significant Impact? ¹
		V/C (ICU)	LOS	V/C (ICU)	LOS	Change	
Pacific Avenue & W. Broadway	AM	0.407	A	0.418	A	0.011	No
	PM	0.596	A	0.603	B	0.007	No
W. Broadway & Kenilworth Avenue ²	AM	10.7 sec	B	11.1 sec	B	-	No
	PM	12.4 sec	B	12.9 sec	B	-	No
W. Broadway & San Fernando Road	AM	0.589	A	0.593	A	0.004	No
	PM	0.776	C	0.783	C	0.007	No
W. Broadway & Central Avenue	AM	0.384	A	0.385	A	0.001	No
	PM	0.538	A	0.544	A	0.006	No
Pacific Avenue & Wilson Avenue	AM	0.429	A	0.441	A	0.012	No
	PM	0.556	A	0.561	A	0.005	No
Pacific Avenue & Colorado Boulevard	AM	0.761	C	0.766	C	0.005	No
	PM	0.813	D	0.820	D	0.007	No

Source: JB & Associates. Traffic Impact Analysis – 515 W. Broadway Project (September 22, 2014).

Note: ICU = Intersection Capacity Utilization; LOS = level of service; V/C = volume-to-capacity ratio.

¹ In the City of Glendale, the impact is considered significant for signalized intersections if the project related increase in the V/C ratio equals or exceeds 0.02 that have LOS D or worse.

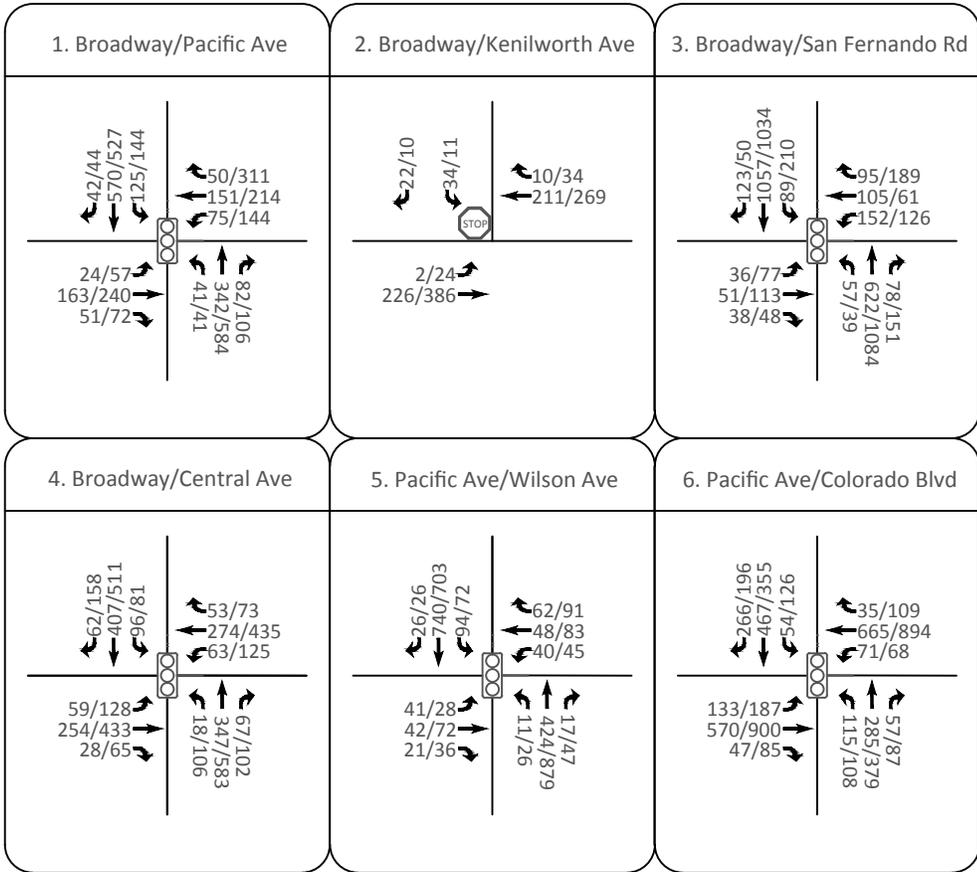
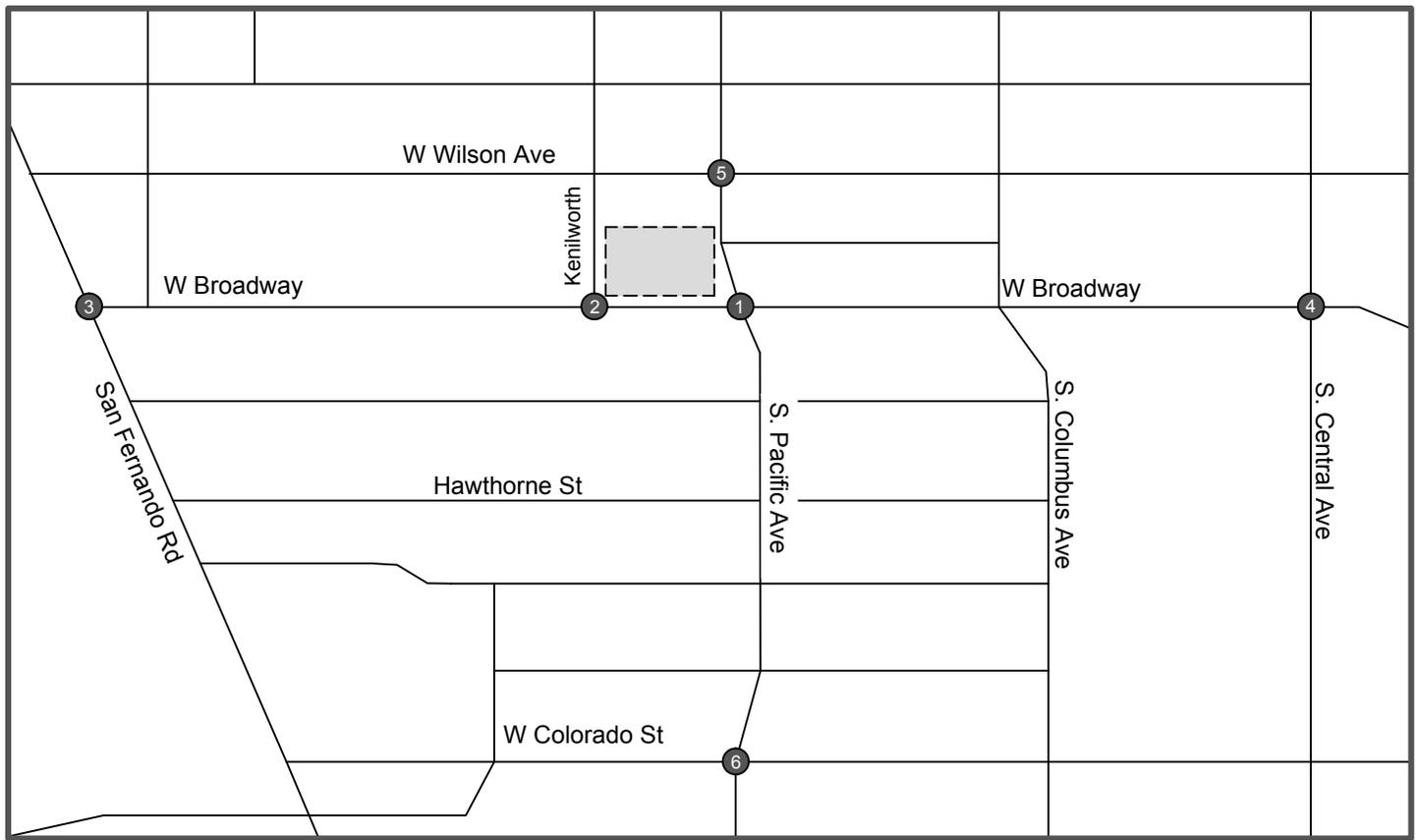
² Values indicate the delay to southbound Kenilworth Avenue (stop controlled).

When compared to existing conditions, implementation of the Project would not result in a significant increase to traffic. The existing office supply superstore generates 24 AM Peak Hour trips and 86 PM Peak Hour trips and a total of 1,080 daily trips. The Project would generate 99 AM Peak Hour trips and 179 PM Peak Hour trips, for a total of 1,982 daily trips. When compared to existing conditions, implementation of the Project would result in an increase of 75 AM Peak Hour trips, 93 PM Peak Hour trips, and an increase of 902 Daily Trips, as indicated in **Table 4.8-2**. As discussed previously, the traffic analysis included an internal trip capture reduction as a result of the mixed uses proposed on the Project site. LOS would remain unchanged as a result of the operation of the Project and the generation of 902 daily trips.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



SOURCE: JB & ASSOCIATES - September 2014

FIGURE 4.8-4

Roadway Analysis

Vehicular access to the subterranean parking garage would be accessible from Kenilworth Avenue, and at-grade parking would be accessible from W. Broadway and Pacific Avenue. Both driveways would provide full access to the Project site for entry and exit movements.

Additional street segment analysis was conducted to determine if the project would have impacts on nearby neighborhood street segments. The street segment analysis was performed for the following two roadways:

1. Kenilworth Avenue (Broadway to Wilson Avenue)
2. Wilson Avenue (Kenilworth Avenue and Pacific Avenue)

As shown in **Table 4.8-5, Street Segment Analysis**, the environmental capacities of both Kenilworth Avenue and Wilson Avenue would not be exceeded with the addition of the Project.

**Table 4.8-5
Street Segment Analysis**

Street	Environmental Capacity	Direction	Existing (Directional)	Existing (Total)	Project Traffic	Existing plus Project	Future Without Project	Future With Project	Significant Impact
Kenilworth Avenue (Between Broadway and Wilson)	10,000 vehicles/day	NB	346	465	323	1,542	473	1,550	No
		SB	119		754				
Wilson Avenue (Between Kenilworth and Pacific Avenue)	30,000 vehicles/day	EB	1,343	2,693	323	3,016	2,747	3,070	No
		WB	1,350						

While LOS impacts would remain unchanged, the majority of the 902 trips due to the Project would be generated along Kenilworth Avenue. Although the environmental capacity of Kenilworth Avenue (10,000 ADTs) would not exceed the criteria set forth by the City of Glendale, the Project would double the existing ADT (465 trips) causing slight increase in traffic. Nevertheless, impacts would be less than significant.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

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

CMP Intersection Analysis

The two CMP freeway monitoring locations near the Project vicinity are No. 1005, I-5 Freeway south of Colorado Boulevard Extension, and No. 1055, SR-134 Freeway east of Central Avenue. The CMP Transportation Impact Analysis guidelines require that freeway-monitoring locations must be examined if the Project will add 150 or more trips during either the AM or PM weekday peak periods. The Project generates a total of 75 AM and 93 PM peak hour trips, respectively, which is less than the 150 trips threshold required by the CMP. No further analysis of potential impacts to CMP intersections or freeway segments is required. Therefore, the Project would have a less than significant impact to intersection monitoring locations that are part of the CMP highway system.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Thresholds: **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Result in inadequate emergency access.

The Project would use the existing network of regional and local roadways located in the vicinity of the Project site. Vehicle access to the subterranean garage would be from Kenilworth Avenue, and the at-grade parking would be accessible from W. Broadway and Pacific Avenue. The driveways would provide full access to the site for ingress and egress movements. Alternative egress movements would result in less than significant impacts to traffic.

Sidewalks along the frontages of the Project site would be replaced to improve pedestrian access to the site. Pedestrian access to the proposed structure would be provided along W. Broadway and Pacific Avenue. All pedestrian improvements would be designed to adhere to standard engineering practices

and requirements by the City of Glendale Public Works and Fire departments. Given these precautions, the Project would not substantially increase traffic hazards associated with the Project site.

The Project has a high level of accessibility for emergency vehicles, both from a regional and a site perspective. W. Broadway would provide a direct route to the Project site for emergency vehicles. Smaller emergency vehicles, such as police cars and ambulances, would be able to access the drive-through and drop-off area as necessary. As a result, Project impacts on emergency vehicle access would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

Public Transit Analysis

As required by the Congestion Management Program for Los Angeles County, a review has been made of the CMP transit service. As previously discussed, existing transit service is provided in the vicinity of the Project.

Pursuant to the CMP guidelines, over a 24-hour period, the Project is forecast to generate demand for 44 daily transit trips, 4 of which would occur during the AM peak hour and 5 of which would occur during the PM peak hour. The calculations for the morning, evening, and daily traffic conditions are as follows:

- Morning (AM) Peak Hour = $75 \times 1.4 \times 0.035 = 4$ Transit Trips
- Evening (PM) Peak Hour = $93 \times 1.4 \times 0.035 = 5$ Transit Trips
- Daily = $902 \times 1.4 \times 0.035 = 44$ Transit Trips

As discussed previously in the subsection Existing Public Transit Service, transit service is provided by Metro and the Beeline Service along W. Broadway and Pacific Avenue.

Based on the projected increased demand for transit services generated by the Project, it is anticipated that the existing transit service in the Project area would adequately accommodate the Project-

generated transit trips. Thus, based on the calculated number of generated transit trips, no Project impacts on existing or future transit services in the Project area are expected to occur.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Bicycle/Pedestrian Analysis

A bicycle path currently exists along W. Broadway adjacent to the Project site. The proximity of the Project site to the bicycle route provides an opportunity for residents and customers to use an alternative form of transportation. The Project would provide the number of code-required secure, long-term bicycle spaces within the subterranean parking structure, accessible to both residents and customers. The Project construction or design would not interfere with the bicycle route nor encroach into the area. The Project would result in less than significant impacts on bicycle access.

Sidewalks along the frontages of the Project site would be replaced to improve pedestrian access to the site. Pedestrian access to the structure building would be provided along the front façades of the building. Each level of the parking structure would provide pedestrian access to each corresponding floor of the building. The Project would provide a 25-foot radius curb return and American with Disabilities Act (ADA) -compliant handicap ramps.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Construction

It is anticipated that construction of related projects would result in periods of heavy truck traffic due to the delivery of construction materials and the hauling of demolition materials. Although the time frame for construction of these projects is uncertain, as well as the degree to which construction of these projects would overlap and the location at which impacts could occur, it is possible that the construction of these related projects could affect roadway segments and intersections, which could result in a significant cumulative impact. Specifically, as described in **Section 4.0, Environmental Impact Analysis**, the nearest related project is the Colorado Street Project at 525 W. Colorado Street, approximately 0.25

miles south from the Project site. The Colorado Street Project consists of 18,000 square feet of commercial space and 90 residential dwelling units. If construction of the Colorado Street project would overlap with construction of the Project, a significant cumulative impact could result. However, as discussed under Project Impacts, the Project and related projects would implement numerous measures to reduce construction-related traffic impacts, including preparation and implementation of a truck haul route program as a condition of approval and the commute of workers to the Project site during non-peak hours. Consequently, the Project's contribution to construction-related traffic is not cumulatively considerable and, thus, the Project's cumulative impacts are less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Operation

Cumulative Without Project Conditions

As indicated in **Table 4.8-6, Cumulative without Project Levels of Service**, the intersection of W. Broadway & San Fernando Road and Pacific Avenue & Colorado Boulevard would operate at a level of service of D or worse in either the AM or PM peak hour times.

Table 4.8-6
Cumulative without Project Level of Service

Intersections	Peak Hour	V/C (ICU)	LOS
1. Pacific Avenue/W Broadway	AM	0.427	A
	PM	0.617	B
2. W. Broadway/Kenilworth Avenue ¹	AM	10.9 sec	B
	PM	12.6 sec	B
3. W. Broadway/San Fernando Road	AM	0.601	B
	PM	0.801	D
4. W. Broadway/Central Avenue	AM	0.435	A
	PM	0.613	B
5. Pacific Avenue/Wilson Avenue	AM	0.444	A
	PM	0.582	A
6. Pacific Avenue/Colorado Boulevard	AM	0.836	D
	PM	0.901	E

Source: JB & Associates. *Traffic Impact Analysis – 515 W. Broadway Project (September 22, 2014)*.

Note: V/C = volume-to-capacity ratio; ICU = Intersection Capacity Utilization; LOS = level of service.

1. Value indicates the delay to southbound Kenilworth Avenue (stop controlled).

Cumulative With Project Conditions

To determine the potential cumulative impact of the Project on each study area intersection, Project traffic volumes were added to cumulative traffic conditions. **Table 4.8-7, Cumulative with Project Levels of Service**, identifies the Cumulative with Project traffic contribution at the study area intersections. As indicated in **Table 4.8-7**, Project traffic would not significantly impact any of the study area intersections during the AM or PM peak hour.

**Table 4.8-7
Cumulative with Project Levels of Service**

Intersection	Peak Hour	Cumulative Without Project		Cumulative With Project		Change	Significant Impact? ¹
		V/C (ICU)	LOS	V/C (ICU)	LOS		
Pacific Avenue	AM	0.427	A	0.437	A	0.010	No
& W. Broadway	PM	0.617	B	0.623	B	0.006	No
W. Broadway	AM	10.9 sec	B	11.3 sec	B	-	No
& Kenilworth Avenue ²	PM	12.6 sec	B	13.1 sec	B	-	No
W. Broadway	AM	0.601	B	0.608	B	0.007	No
& San Fernando Road	PM	0.801	D	0.809	D	0.008	No
W. Broadway	AM	0.435	A	0.436	A	0.001	No
& Central Avenue	PM	0.613	B	0.619	B	0.006	No
Pacific Avenue	AM	0.444	A	0.456	A	0.012	No
& Wilson Avenue	PM	0.582	A	0.587	A	0.005	No
Pacific Avenue	AM	0.836	D	0.841	D	0.005	No
& Colorado Boulevard	PM	0.901	E	0.904	E	0.003	No

Source: JB & Associates. Traffic Impact Analysis – 515 W. Broadway Project (September 22, 2014).

Note: ICU = Intersection Capacity Utilization; LOS = level of service; V/C = volume-to-capacity ratio.

¹ In the City of Glendale, the impact is considered significant for signalized intersections if the project related increase in the V/C ratio equals or exceeds 0.02 that have LOS D or worse.

² Value indicates the delay to southbound Kenilworth Avenue (stop controlled).

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

CMP Analysis

By its nature, the Los Angeles County CMP is a cumulative scenario that considers the impact of single projects in the context of cumulative traffic demand on CMP roadways. The CMP defines regional project impacts as significant (in terms of contribution to cumulative impact) if a project results in an increase in the V/C ratio by more than 0.02 (2 percent) and if the final LOS is F. It is possible that traffic impacts created by related projects and cumulative growth could combine to exceed CMP standards of significance and to the extent that occurs, a significant impact would result. However, even if that occurs, the CMP guidelines require that freeway monitoring locations must be examined if the Project would add 150 or more trips (in either direction) during either the AM or PM weekday peak hours or 50

or more trips at CMP intersections during either the AM or PM weekday peak hours. The Project would not add 50 or more trips during either the AM or PM weekday peak hours at CMP intersections, which is the threshold for preparing a traffic impact assessment. Consequently, the Project does not meet the criteria to be analyzed, and thus the Project's contribution is not cumulatively considerable.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Design Feature/Emergency Access

Related projects would be required to adhere to standard engineering practices and requirements, and would be subject to planning and design review by the City of Glendale to avoid traffic hazards created by design features and land-use incompatibilities, or inadequate emergency access. For this reason, and because such impacts are relatively site-specific, cumulative impacts associated with such hazards are less than significant. In addition, none of the related projects are located directly adjacent to the Project site to result in cumulative traffic hazards due to design features or inadequate emergency access. All design development associated with the Project would include the use of standard engineering practices to avoid design elements that would increase roadway hazards or inadequate emergency access. Moreover, the Project would not result in land-use incompatibilities that would lead to the creation of traffic hazards or emergency access. Consequently, the Project's contribution would not be cumulatively considerable and the Project's cumulative impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.