Appendix E
Transportation Memorandum

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MEMORANDUM

Date:	October 5, 2020	Project #25244
To:	City of Gardena	
From:	Michael Sahimi and Tim Erney, Kittelson & Associates, Inc.	
Project:	1108 West 141st Street General Plan Amendment and Zone Change Project	
Subject:	Transportation Memorandum	

This transportation memorandum summarizes the California Environmental Quality Act (CEQA) vehicle miles traveled (VMT) analysis and the local transportation assessment for the proposed 1108 West 141st Street General Plan Amendment (GPA) and Zone Change (ZC) Project ("proposed project"). The project is located in the eastern portion of the City at 1108 West 141st Street, at the northeast corner of Rosecrans and Budlong Avenues, and is comprised of one parcel (APN 6115-015-023).

The VMT portion of the memo summarizes the VMT screening process, VMT impact analysis, and VMT mitigation measures. The local transportation assessment summarizes the trip generation, trip distribution, and trip assignment for the proposed project and for a residential alternative for comparison purposes. It also includes information for cumulative development projects in the study area. The following sections are included in this memo:

- Project Description
- VMT Analysis
    - VMT Screening
    - VMT Impact Analysis
    - VMT Mitigation
- Local Transportation Assessment
    - Trip Generation Estimate
    - Trip Distribution and Assignment
    - Cumulative Projects Review
- Summary and Conclusions

The contents of this assessment are based on the City's *SB 743 Implementation Transportation Analysis Updates* (June 2020).

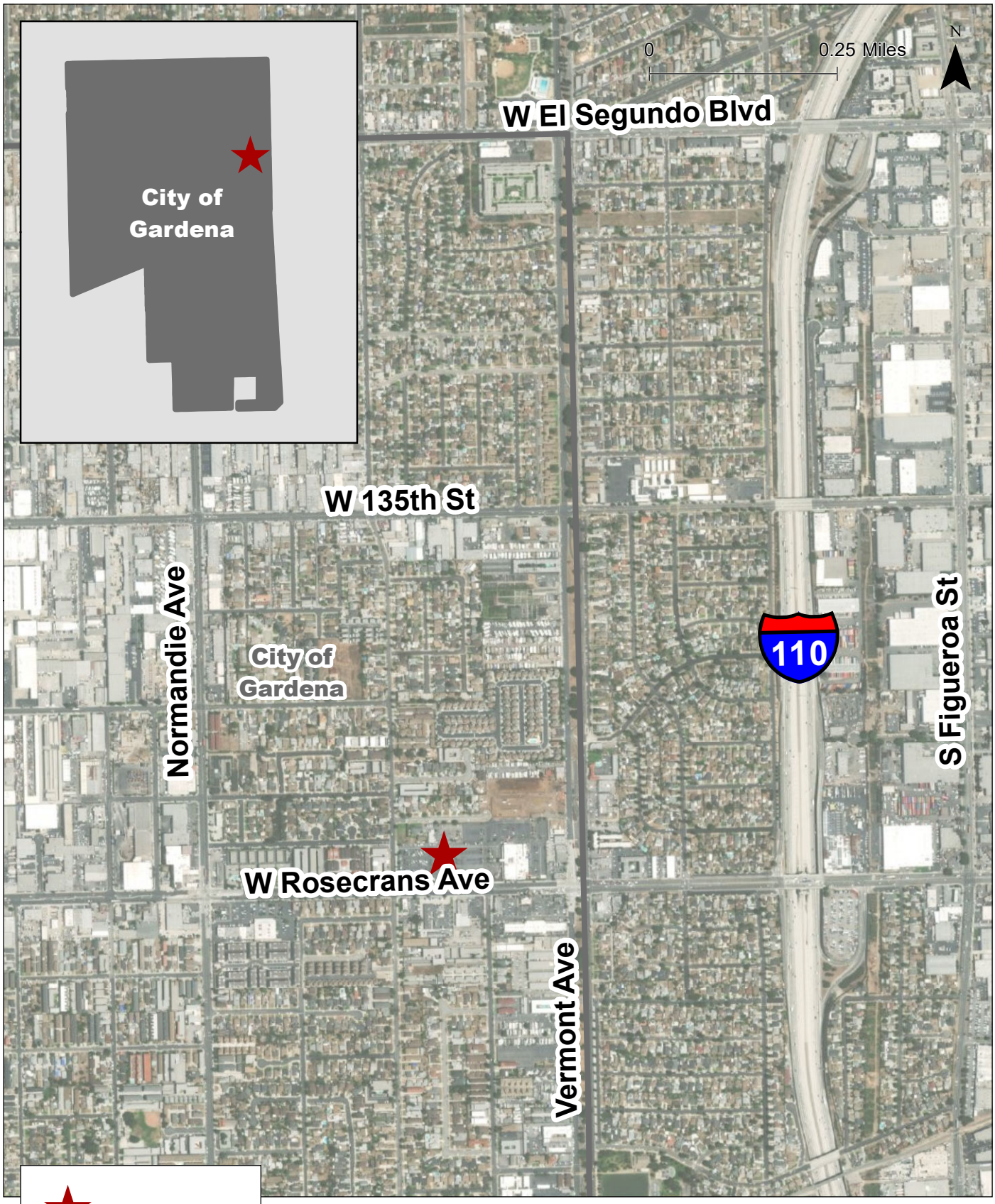
PROJECT DESCRIPTION

The project site is located at 1108 West 141st Street in the City of Gardena, at the northeast corner of Rosecrans and Budlong Avenues. The project site is comprised of one parcel (APN 6115-015-023) totaling approximately 4.59 acres.

The site is currently designated Medium Residential and High Residential and currently provides surface parking for the Lucky Lady Casino located directly to the east. The proposed project includes a General Plan Amendment (GPA) #1-20 and Zone Change (ZC) #1-20 to redesignate the property as General Commercial with a Mixed-Use Overlay in the Land Use Plan and rezone the property as General Commercial (C-3) with a Mixed-Use (MU) Overlay designation. Although a use for the project site is not being proposed at this time, based on the site's economic incentive agreement, it was determined that the most reasonable development to analyze under CEQA is a hotel and restaurant to be developed on 2.0 acres; the remaining acreage would remain as required parking for the casino. Based on the existing agreements and development standards that would be applicable to the site associated with the proposed GPA and ZC, this analysis considers the potential for future development of a four-story hotel with up to 126 rooms within a single structure of approximately 68,000 square feet and a separate 5,000 square foot restaurant.

Access to the project site would be from a right-in-right-out driveway along Rosecrans Avenue, as well as from a full-access driveway on Budlong Avenue. It is anticipated that there would be reciprocal parking and access agreements with the Lucky Lady Casino, including use of the full-access intersection of Rosecrans Avenue and Berendo Avenue.

The project location is shown in Figure 1 and Figure 2.



Project Location
Gardena, California

Figure
1

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

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Figure 2: Site Vicinity

VMT ANALYSIS

This section details the VMT analysis conducted for CEQA purposes in accordance with the City's adopted VMT standards and thresholds.

VMT Screening

The City's transportation analysis guidelines include criteria for individual project screening, which can be used to screen projects or components of mixed-use projects that are expected to generate low VMT out of a detailed VMT analysis. The City's three VMT screening criteria and determinations are listed below.

- **Project Type Screening**: Projects that generate less than 110 daily trips may be screened from conducting a VMT analysis. In addition, local-serving retail projects less than 50,000 square feet and affordable housing in infill areas do not require a VMT analysis. The 110 daily trip screening criterion does not apply since the project as a whole is expected to generate more than 110 daily trips. The project is expected to generate 3,408 daily trips; additional trip generation information is provided in the Local Transportation Assessment section of this memo. However, the local-serving retail screening criterion does apply to the restaurant component of the project, since it is a retail component that is less than 50,000 square feet.
- **Low VMT Area Screening**: Residential and office projects (or other projects assessed using home-based work VMT per employee) in a low-VMT generating area may be screened from a VMT analysis. According to Figure 1 in the City's guidelines, the project site is located in an area with a daily home-based work VMT per employee that is between 85% and 100% of the regional average. Based on this criterion, the hotel component of the project (which is analyzed using a work VMT efficiency metric) would not be screened out of requiring a detailed VMT analysis since it exceeds 85% of the regional average (based on the screening map).
- **Transit Proximity Screening**: Projects located within a High-Quality Transit Area (HQTA) would be screened from a detailed VMT analysis if the project does not have certain characteristics. According to Figure 3 in the City's guidelines, the project site is located in a frequent transit area. However, this screening criterion does not apply to this project because it is inconsistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

To be screened out of a detailed VMT analysis, a project or project component would need to satisfy at least one of the VMT screening criteria. The restaurant component meets the requirements for project type screening and is thus screened out of a detailed VMT analysis. Given the project's hotel component does not meet the requirements for any of the screening criteria, it is not screened out of a detailed VMT analysis.

VMT Impact Analysis

According to the City's guidelines, the following VMT impact thresholds are applicable to hotel projects:

- **Project Threshold**: A significant impact will occur if the project generates daily home-based work VMT per employee higher than 15% below the regional average.
- **Cumulative Threshold**: A significant impact will occur if the project threshold is exceeded or if the project is determined to be inconsistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

To determine project-related VMT impacts resulting from the project's hotel component, existing home-based work VMT per employee for the region and for the project site were extracted from the City's spreadsheet-based VMT estimating tool. This tool provides existing (2020) residential and employment VMT estimates for the region, the City, and the City's transportation analysis zones (TAZs) interpolated from the base year and cumulative year SCAG regional travel demand models. A screenshot of the tool with the relevant VMT data circled is included as an attachment to this memo.

According to the City's tool, the regional average home-based work VMT per employee is 17.23 VMT per employee; the proposed project's hotel component is expected to generate 14.86 VMT per employee. The project's expected home-based work VMT per employee is approximately 13.8% lower than the regional average. Since the project's hotel component is estimated to generate daily home-based work VMT per employee higher than 15% below the regional average (14.65), it will result in a **significant** VMT impact.

Since the project threshold is exceeded, the project's hotel component will also result in a **significant** cumulative VMT impact.

VMT Mitigation

Given that the project's home-based work VMT per employee (14.86) is higher than 15% below the regional average of 17.23 VMT per employee (14.65), the hotel component will result in a significant project impact and significant cumulative impact. Project VMT must be reduced to 14.65 VMT per employee with mitigation, representing a 1.4% decrease in the project's VMT per employee.

The City of Gardena's guidelines recommend mitigating VMT impacts by reducing the number of single-occupant vehicles generated by a site. This can be accomplished by changing the proposed land use or by implementing Transportation Demand Management (TDM) strategies. The guidelines include recommended mitigation measures for residential, office, retail, and mixed-use developments based on research documented in the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (2010).

Given that this is an employment project with home-based work VMT as the metric and it is located in a high-quality transit area, a subsidized or discounted transit program (CAPCOA ID 3.4.4) was assessed for

effectiveness. According to CAPCOA, this measure's VMT reduction ranges from 0.3% to 20%. The reduction can be calculated as follows:

% VMT Reduction = A * B * C
Where:
A = % reduction in commute vehicle trips (VT) (from Table 1)
B = % employees eligible
C = Adjustment from commute VT to commute VMT (assumed to be 1.0 based on CAPCOA guidance)

Table 1: Daily Transit Subsidy and Reduction in Commute VT (CAPCOA)

	Daily Transit Subsidy			
	$0.75	**$1.49**	**$2.98**	**$5.96**
Worksite Setting	**% Reduction in Commute VT**			
Low density suburb	1.5%	3.3%	7.9%	20.0%[1]
Suburban Center	3.4%	7.3%	16.4%	20.0%[1]
Urban Location	6.2%	12.9%	20.0%[1]	20.0%[1]

Note: 1.CAPCOA caps discounts greater than 20%, as they exceed levels recommended by TCRP 95 Draft Chapter 19 and other literature.
Source: CAPCOA, 2010

An EZ Pass, which can be used on buses operated by LA Metro, GTrans (a municipal bus service serving Gardena and surrounding areas), and 22 other transit agencies throughout the greater Los Angeles Area, costs $110 per month. Assuming the full amount of subsidy is provided and an average of 30 days in a month, this translates to a transit subsidy of approximately $3.67 per day. Assuming that 100% of hotel employees would be eligible to receive the subsidy, and that the project area could be characterized as suburban center,[1] the resulting VMT reduction from this measure would be 17.2%, as calculated below. Note, the percent reduction was interpolated between the values for $2.98 and $5.96 subsidies.

% VMT Reduction = A * B * C
% VMT Reduction = 17.2% (interpolated between 16.4% and 20.0%) * 100% * 1.0
% VMT Reduction = **17.2%**

More recent research published by the San Diego Association of Governments (SANDAG) in June 2019 in the *Mobility Management VMT Reduction Calculator Tool – Design Document*[2] provides updates to the maximum VMT reductions for an employer transit pass subsidy based on information that has been made available since the publication of the 2010 CAPCOA documentation as well as inflation. SANDAG's recommended formula and reductions are provided below:

[1] Definitions for each setting type are provided as Attachment B to this memo.
[2] This document can be found online at: https://www.icommutesd.com/docs/default-source/planning/tool-design-document_final_7-17-19.pdf?sfvrsn=ec39eb3b_2

% change in VMT = % of employees eligible × % change in commute VMT
Where:

% of employees eligible will usually be 100%.

% change in commute VMT differs by place type (low-density suburb, suburban center, or urban) and level of daily transit subsidy ($1 to $4) (see Table 2).

Table 2: Daily Transit Subsidy and Reduction in Commute VMT (SANDAG)

	Subsidy Level per Day			
Worksite Setting	**$1.00**	**$2.00**	**$3.00**	**$4.00**
Low density suburb	-0.1%	-0.2%	-0.4%	-0.6%
Suburban Center	-1.1%	-2.4%	-4.1%	-5.8%
Urban Location	-2.2%	-4.7%	-7.8%	-10.9%

Notes: Estimated based on sources originally cited by CAPCOA such as Nelson Nygaard (2010) and TCRP (2010). Subsidy levels in Nelson Nygaard were updated in the SANDAG document to reflect inflation. The maximum VMT reductions were also updated to consider more recent maximum VMT reductions suggested in Boarnet et al. (2014).
Source: SANDAG, 2019

Assuming that 100% of hotel employees would be eligible to receive the subsidy, and that the project area could be characterized as suburban center, the resulting VMT reduction from this measure using the more recent research would be 5.2%, as calculated below. Note, the percent reduction was interpolated between the values for $3.00 and $4.00 subsidies.

% change in VMT = % of employees eligible × % change in commute VMT
% change in VMT = 100% × -5.2% (interpolated between -4.1% and -5.8%)
% change in VMT = **-5.2%**

The minimum percentage of hotel employees eligible that is required to achieve the required 1.4% VMT decrease is calculated below.

% change in VMT = % of employees eligible × % change in commute VMT
-1.4% = % of employees eligible × -5.2%
% of employees eligible = 27%

Therefore, a minimum of 27% of hotel employees must be eligible for transit subsidies to reduce project VMT by 1.4% using this methodology.

Based on the more recent research, employee transit subsidies with 100% hotel employee eligibility would reduce commuter VMT by 5.2%, which exceeds the 1.4% decrease necessary for mitigation to a less-than-significant impact. A minimum of 27% hotel employee eligibility would be required to decrease VMT by 1.4% to reduce impacts to less-than-significant with mitigation. Therefore, transit subsidies must be made available to a minimum of 27% of the project's hotel employees to reduce the significant project impact and significant cumulative impact to **less-than-significant with mitigation**.

LOCAL TRANSPORTATION ASSESSMENT

To fulfill the City's local transportation assessment requirements, this section summarizes the trip generation, trip distribution, and trip assignment for the proposed project; information for a residential alternative is also provided for comparison purposes. Consistent with City guidelines, this section includes information for cumulative development projects in the study area.

Trip Generation Estimate

Project trip generation was estimated for the following three time periods:

- Weekday daily
- Weekday AM peak hour
- Weekday PM peak hour

Trips were estimated using trip generation data provided by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition and shown in Table 3. Trip generation was estimated using the hotel land use code and the fast-food restaurant with drive-through window land use code. It should be noted that a high turnover sit-down restaurant would be more likely to be proposed for the Project site and would result in fewer vehicle trips; however, since a specific development project is not currently proposed, a conservative trip generation estimate for restaurant uses (e.g., fast-food restaurant with drive-through window) was used for purposes of this analysis. In addition, the following adjustments were made to the AM peak hour and PM peak hour trip generation estimates:

- An internal capture was applied between proposed site uses to reflect hotel users and employees which would use the on-site restaurant. These internal capture rates are based on guidance provided in the ITE Trip Generation Handbook, 3rd Edition. Calculation sheets are Attachment B.
- A pass-by reduction was also applied to the restaurant use to capture trips that would normally be passing by the site on an adjacent roadway and would now make an intermediate stop at the Project. Weekday AM and PM peak hour pass-by reductions are based on data provided by ITE and included in the Trip Generation Handbook.

Table 3: Project Trip Generation Estimate

Trip Generation Rates								
Land Use	**Rate**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Hotel (ITE Code 310)	Per room	8.36	59%	41%	0.47	51%	49%	0.60
Fast-Food Restaurant with Drive-Through Window (ITE Land Use Code 934)	Per KSF	470.95	51%	49%	40.19	52%	48%	32.67
Trip Generation Estimates								
Land Use	**Size**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Hotel (ITE Code 310)	126 rooms	1,053	35	24	59	39	37	76
Internalization Reduction (AM-2%; PM-8%)		--	*-1*	*0*	*-1*	*-3*	*-3*	*-6*
Fast-Food Restaurant with Drive-Through Window (ITE Land Use Code 934)	5 KSF	2,355	103	98	201	85	78	163
Internalization Reduction (AM-2%; PM-8%)		--	*-2*	*-2*	*-4*	*-7*	*-6*	*-13*
Pass-by Reduction (AM-49%; PM-50%)		--	*-49*	*-47*	*-96*	*-39*	*-36*	*-75*
NET NEW TRIPS		3,408	86	73	159	75	70	145

Source: Kittelson & Associates, Inc., 2020; Institute of Transportation Engineers, 2017.
Note: KSF denotes thousand square feet

As shown in Table 3, the proposed project is expected to generate 3,408 weekday daily vehicle trips. When accounting for internalization and pass-by reductions, the proposed project is expected to generate 159 net new weekday AM peak hour vehicle trips and 145 net new weekday PM peak hour vehicle trips.

For comparison purposes, trip generation was also estimated for a residential alternative of 44 dwelling units (assuming a density of 22 dwelling units per acre on the 2.0 acres being developed). The purpose of this comparison is to examine trip generation for the residential development that the site is currently zoned for. Trips were estimated using trip generation data provided by ITE and shown in Table 4. Trip generation was estimated using the multi-family housing (mid-rise) land use code, which is appropriate for the type of development expected under current zoning. As shown in Table 4, the residential alternative is expected to generate 239 weekday daily vehicle trips, 16 weekday AM peak hour vehicle trips, and 19 weekday PM peak hour vehicle trips.

Table 4: Residential Alternative Trip Generation Estimate

Trip Generation Rates								
Land Use	**Rate**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Multifamily Housing – Mid-Rise (ITE Code 221)	DU	5.44	26%	74%	0.36	61%	39%	0.44
Trip Generation Estimates								
Land Use	**Size**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Multifamily Housing – Mid-Rise (ITE Code 221)	44 DU	239	4	12	16	12	7	19

Source: Kittelson & Associates, Inc., 2020; Institute of Transportation Engineers, 2017.
Note: DU signifies dwelling units.

Trip Distribution and Assignment

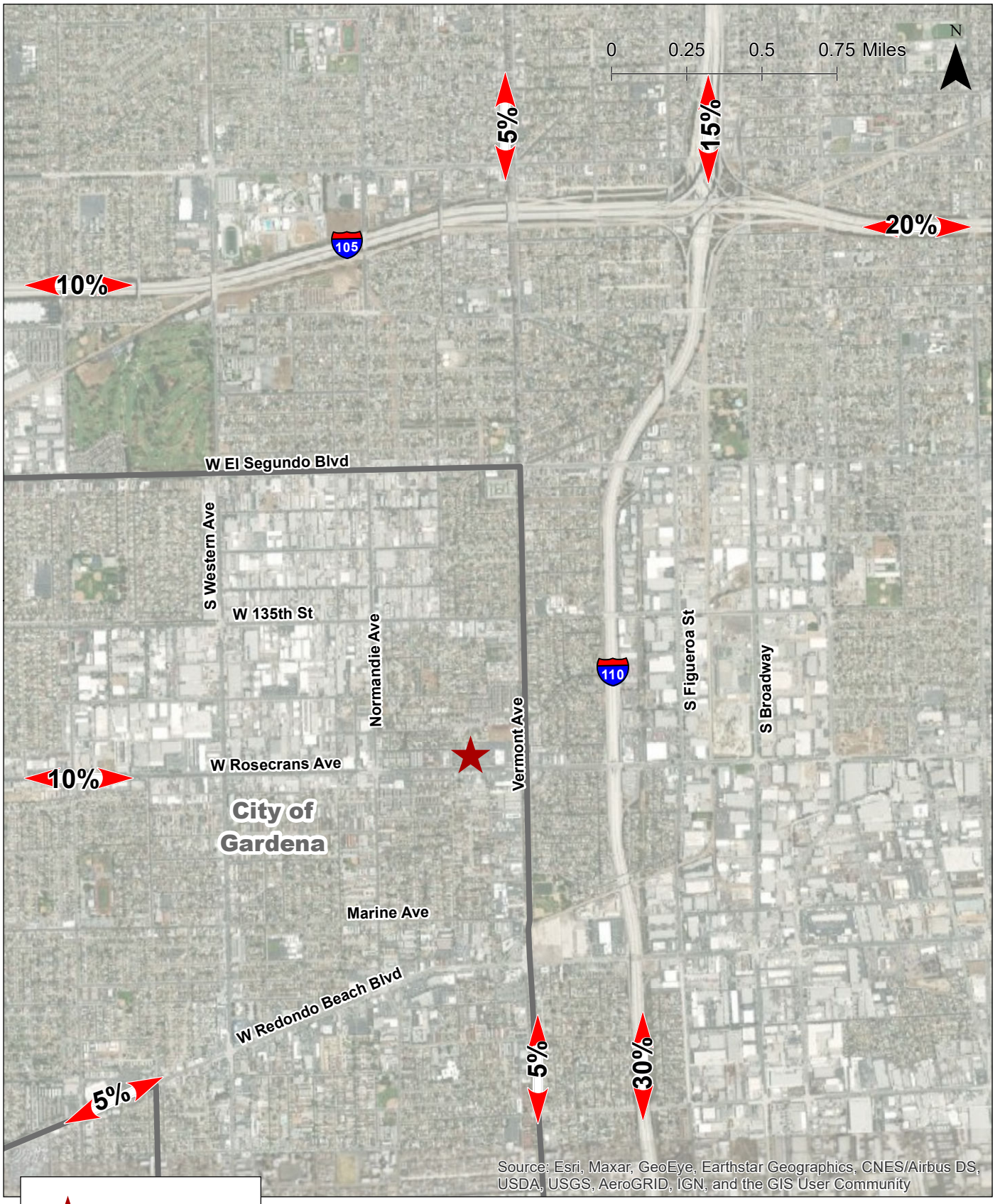
For the purposes of this analysis, project trip distribution estimates for the net new vehicle trips were developed using the US Census OnTheMap tool, which is a web-based mapping and reporting application that shows where workers are employed and where they live, based on the Longitudinal Employer-Household Dynamics (LEHD) database. Given that the hotel is expected to generate journey-to-work trips during the weekday AM peak hour and journey-to-home trips during the weekday PM peak hour, the tool's work trip trends for workers working in the block group were utilized for trip distribution. Given that the restaurant's trip generation (analyzed as a drive-thru restaurant) during the weekday AM and PM peak hours is likely to include users trip chaining (i.e., stopping at the restaurant during their morning and evening commutes), this data source was also deemed appropriate for the restaurant's net new trips. According to the LEHD data, major home locations for workers in the area include the unincorporated community of Westmont, the cities of Hawthorne, Carson, and Long Beach, and locations in Gardena south of Rosecrans Avenue. Employee and restaurant trip distribution estimates are shown in Figure 3.

Based on these trip distribution estimates, the net new project trips were assigned to the study area roadways based on local travel patterns and the locations of the nearby freeway on- and off-ramps. Weekday AM/PM inbound and outbound net new project trip assignment are shown in Figure 4 and Figure 5.

Trip distribution for the pass-by trip assignment was developed using 24-hour traffic counts along Rosecrans Avenue between Normandie Avenue and Vermont Avenue, collected in June 2018. According the counts, volume directionality along Normandie Avenue was 40% eastbound/60% westbound during the weekday AM peak hour and 56% eastbound/44% westbound during the weekday PM peak hour. Pass-by trip adjustments are shown in Figure 6. Note, pass-by trips are trips that are already on the adjacent roadway to a project, but would divert into and out of the project driveway. Therefore, these are not net new project trips and adjustments would only be made at the primary project driveway.

For comparison purposes, residential alternative trip distribution estimates were also developed using the US Census OnTheMap tool. For the residential alternative, the tool's work trip trends for resident workers living in the block group were utilized. According to the LEHD data, major commute destinations for resident workers in the area include downtown Los Angeles, LAX Airport, Lynwood (around St. Francis Medical Center), Torrance, downtown Long Beach, destinations in Gardena along Rosecrans Avenue and along Redondo Beach Boulevard, and destinations in the Cities of Gardena and Los Angeles along Vermont Avenue (which forms a boundary between the two cities). Resident trip distribution estimates are shown in Figure 7.

Based on these trip distribution estimates, trips for the residential alternative were assigned to the study area roadways based on local travel patterns and the locations of the nearby freeway on- and off-ramps. Weekday AM/PM inbound and outbound residential alternative trip assignment are shown in Figure 8 and Figure 9.



Project Location

City of Gardena

Employee and Restaurant Trip Distribution
Gardena, California

Figure
3

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Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

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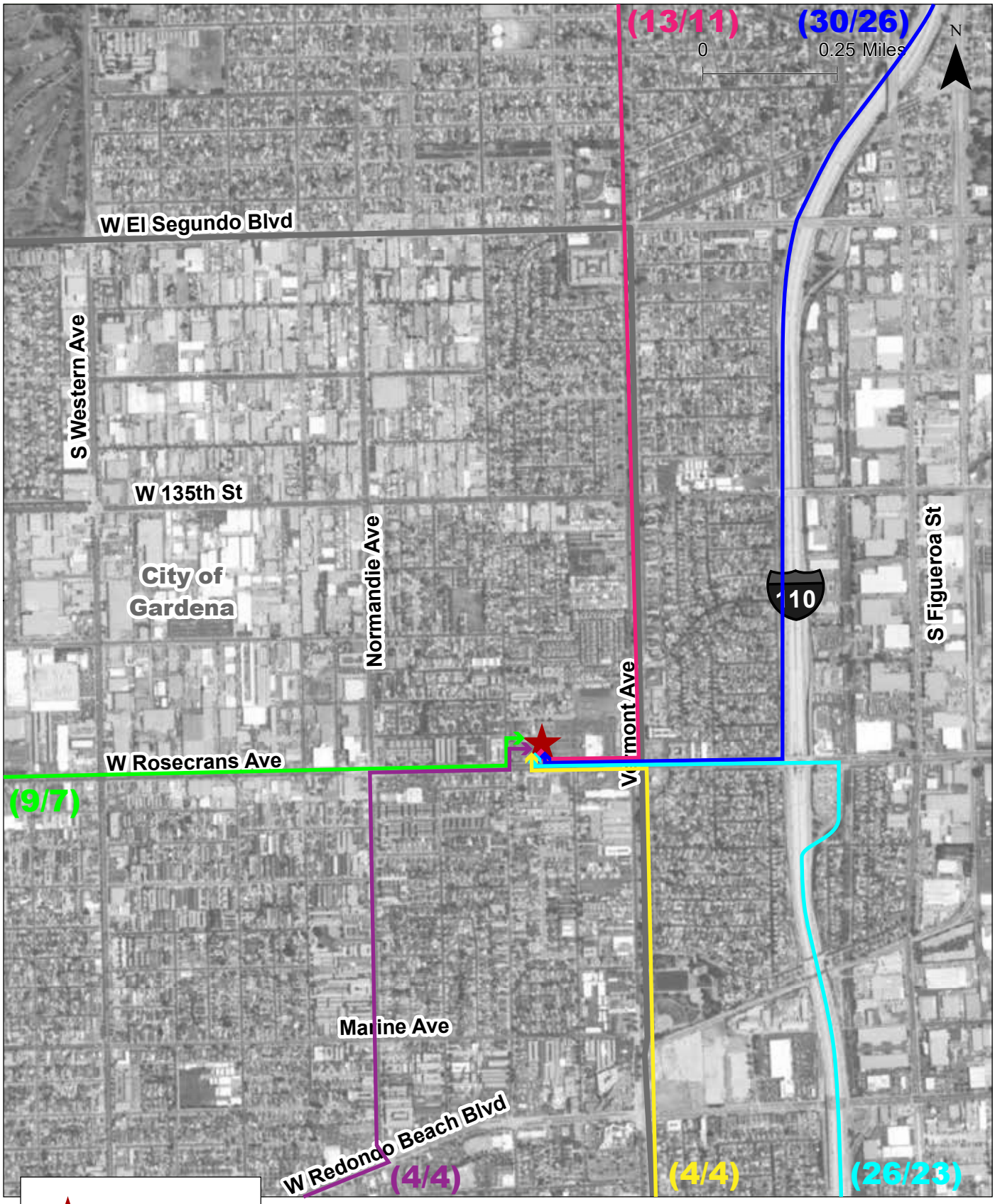

Net New Project Trip Assignment
(AM/PM) (Inbound)
Gardena, California

Figure
4

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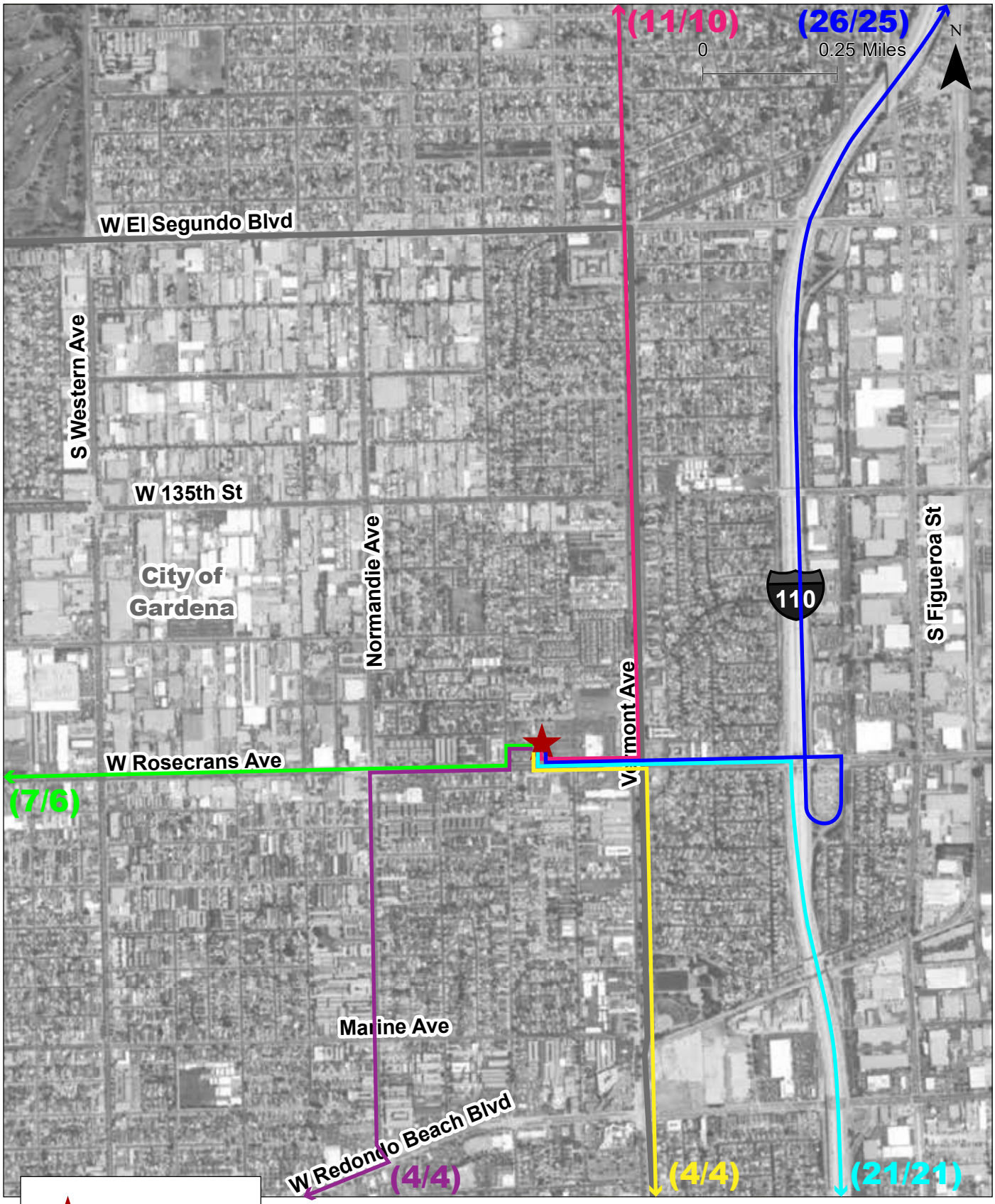

Net New Project Trip Assignment (AM/PM) (Outbound)
Gardena, California

Figure **5**

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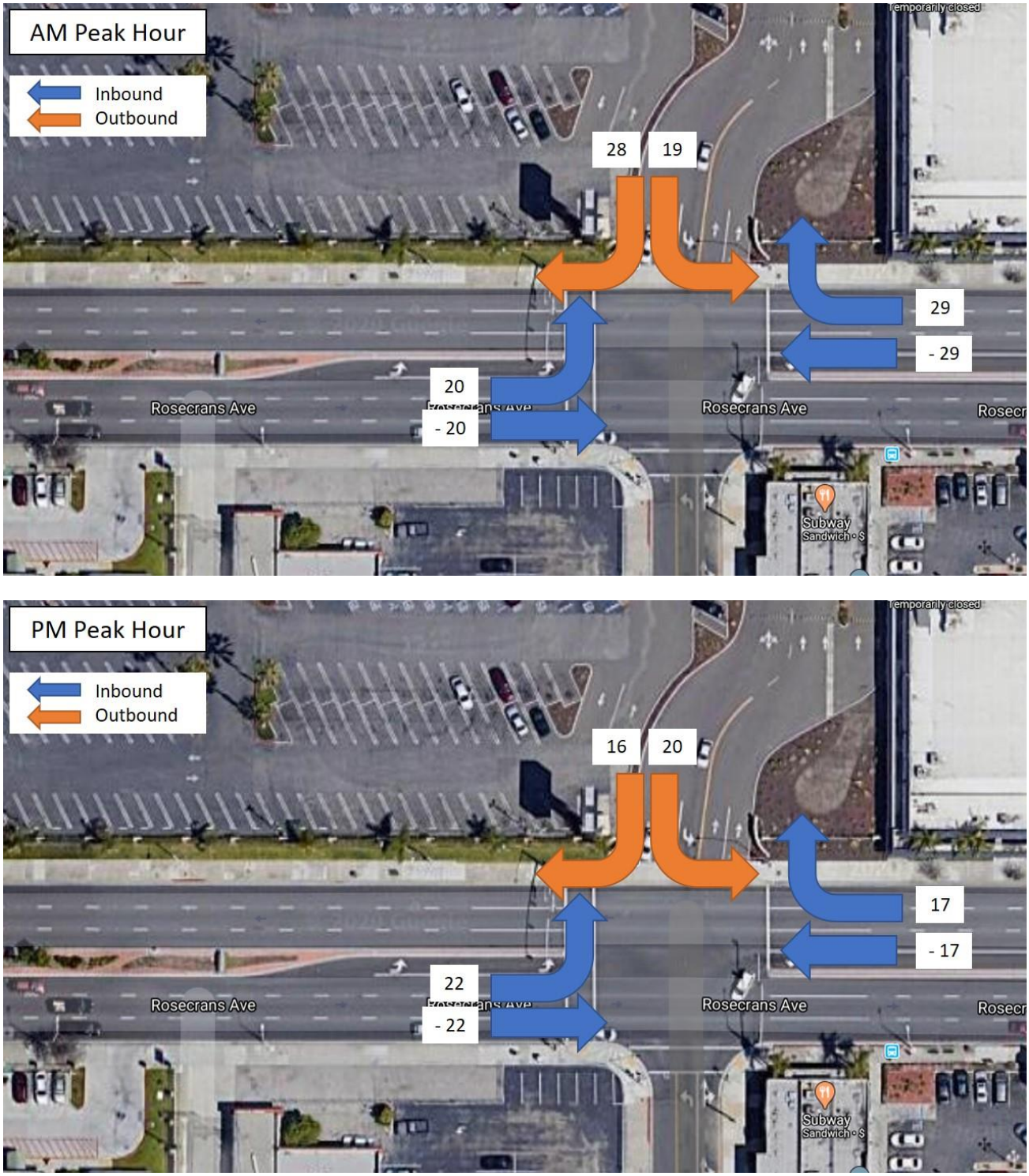
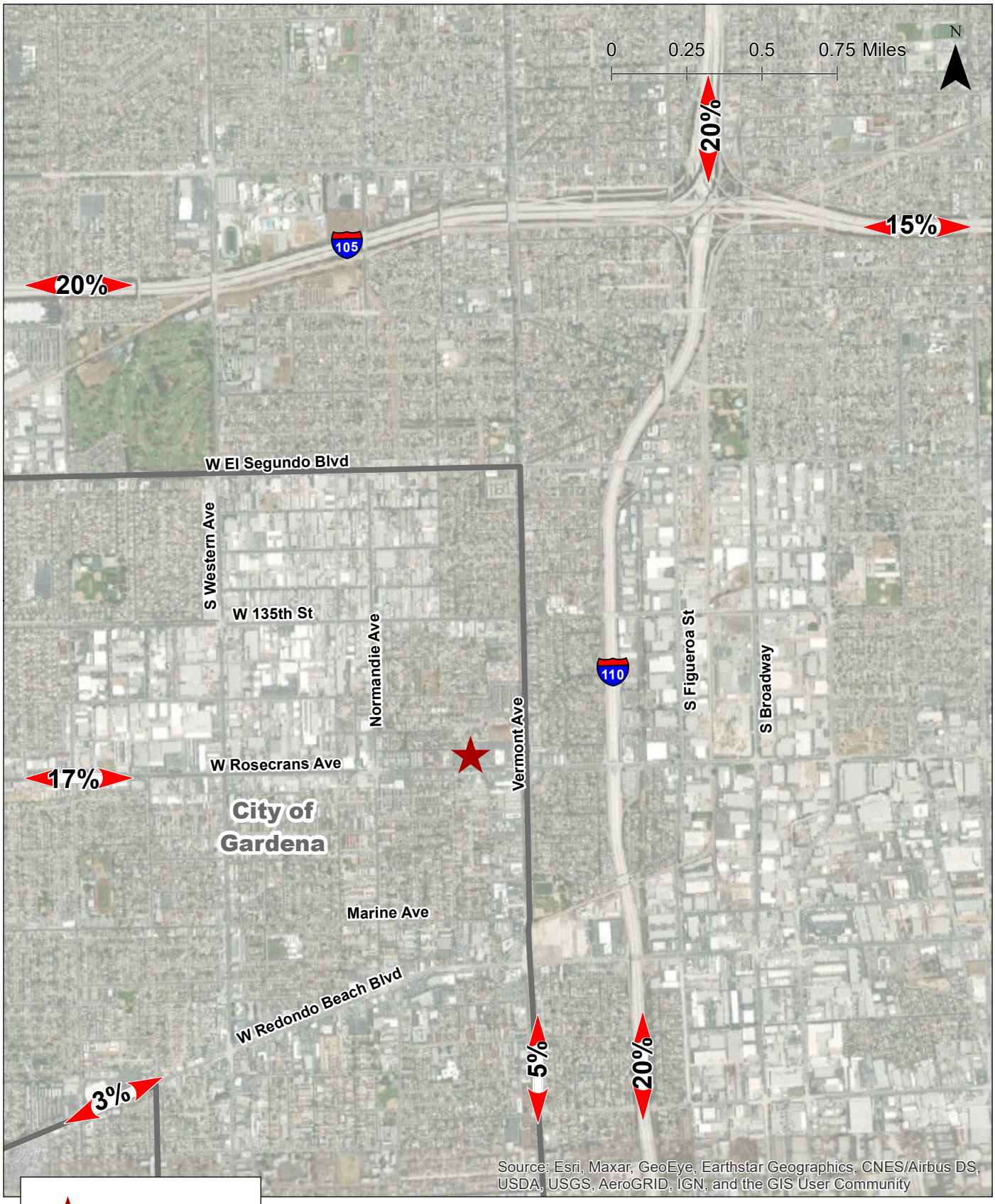
Figure 6: Pass-By Trip Adjustment





Resident Trip Distribution
Gardena, California

Figure
7

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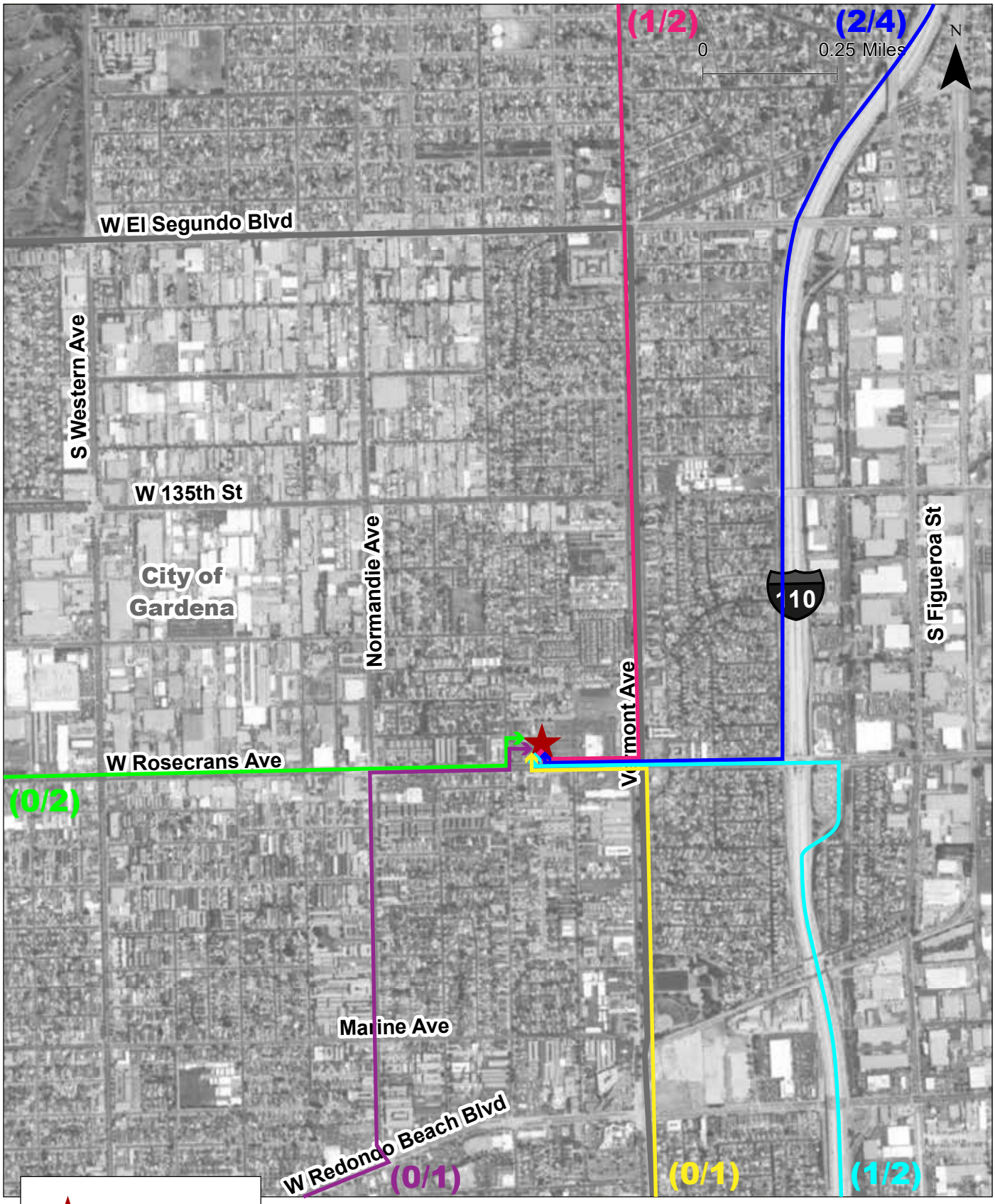
Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet



Residential Alternative Trip Assignment (AM/PM) (Inbound) Gardena, California

Figure **8**

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

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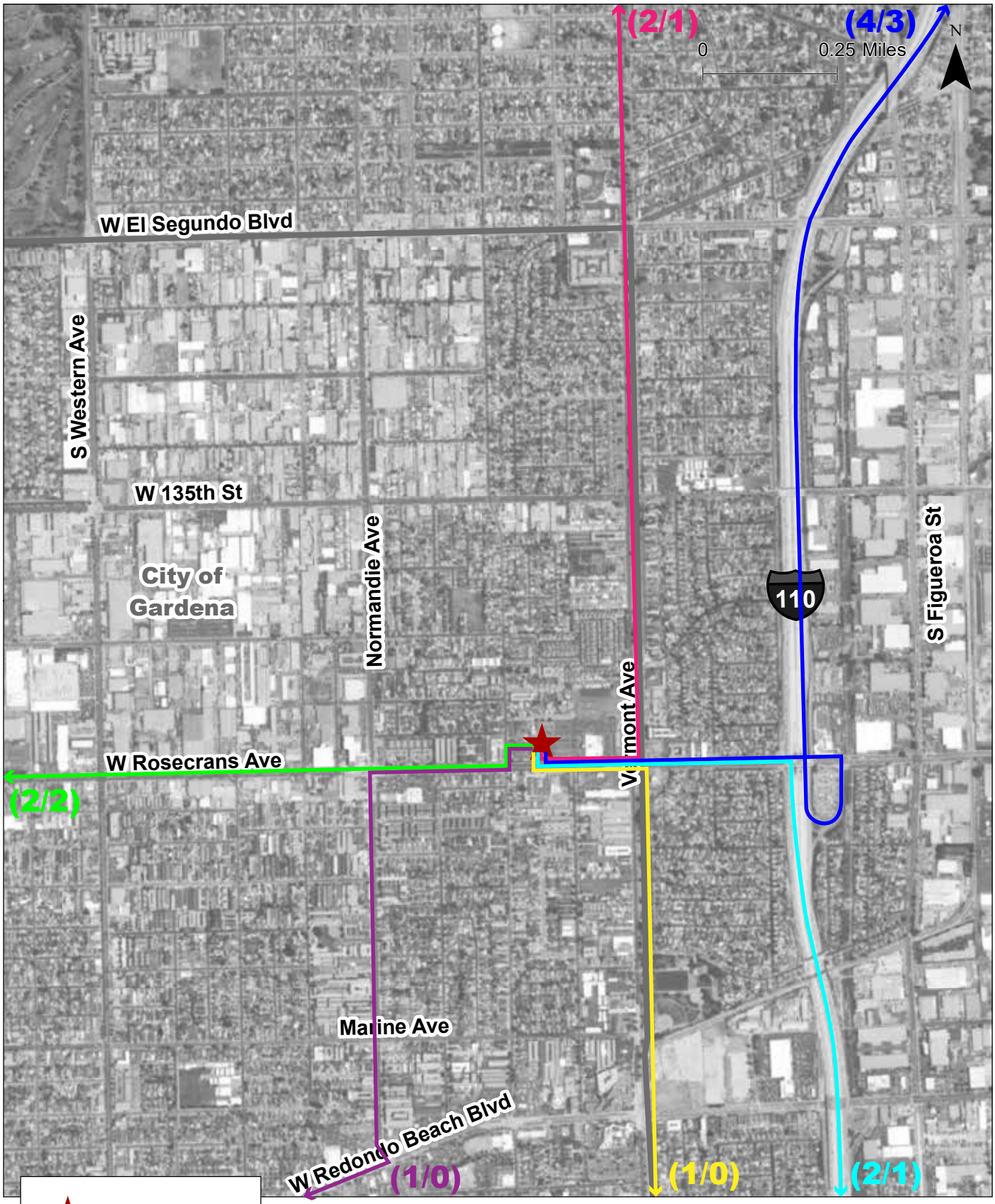

Residential Alternative Trip Assignment (AM/PM) (Outbound) Gardena, California

Figure **9**

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Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

Cumulative Projects Review

As part of this study, trip generation was estimated for cumulative projects[3] within a half mile of the proposed project site and project-generated vehicle trips were assigned to the local roadway network. Based on cumulative project information provided by the City for projects within the Cities of Gardena and Los Angeles, four projects were identified within a half mile of the project site, listed below and shown in Figure 10. All four projects are located within Gardena.

- 13615 S. Vermont Avenue
- 13919 Normandie Avenue
- 1335 W. 141st Street
- KB Home Stonefield

The trip generation and assignment for each cumulative project is detailed below. Note, the resident trip distribution percentages in Figure 7 were used for each of the four cumulative projects given that they all consist of residential uses.

13615 S. Vermont Avenue Project

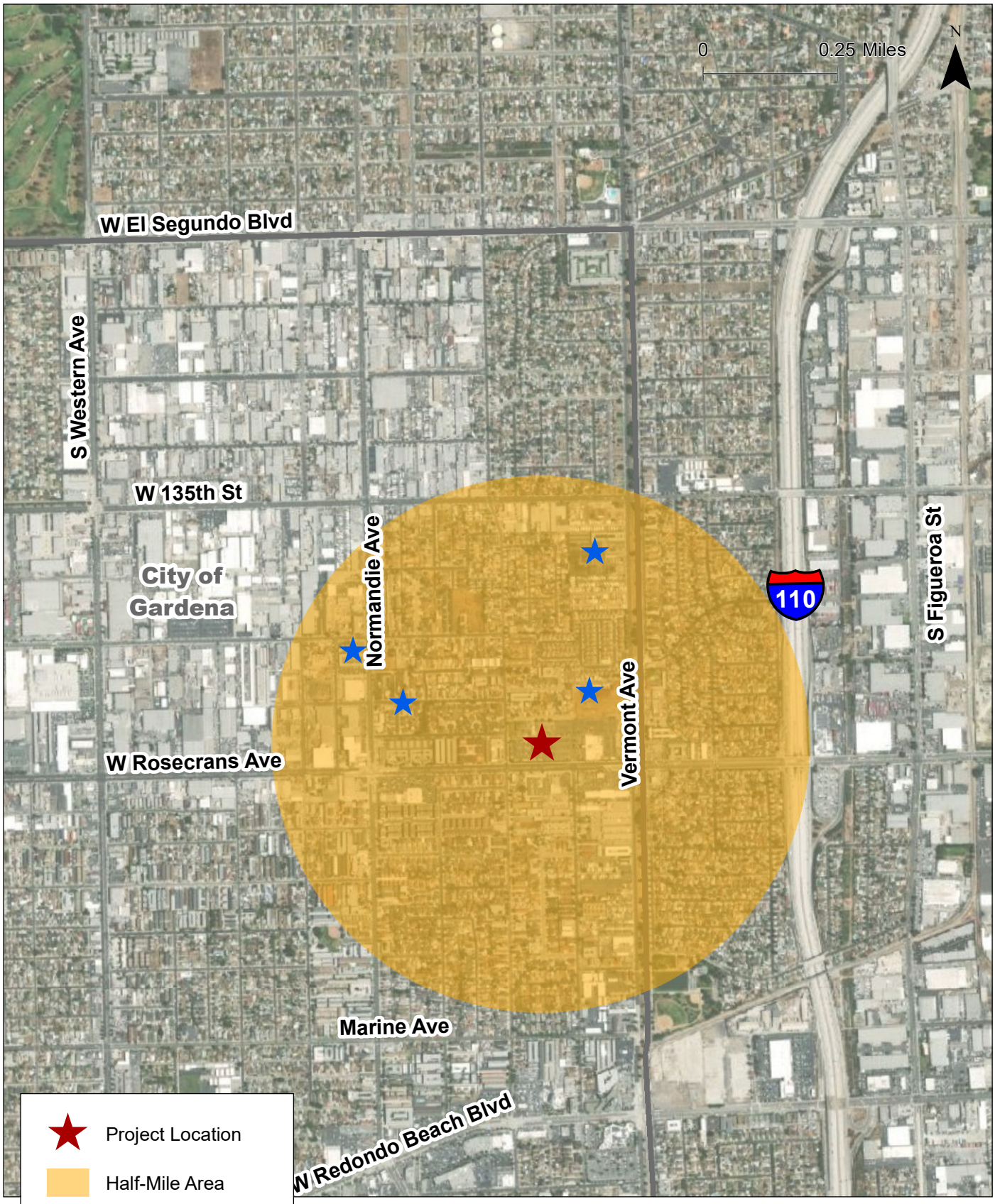
This residential project, which consists of 84 three-story townhomes (including two affordable units), is undergoing planning review. It is located on the west side of Vermont Avenue, approximately 400 feet south of the intersection with 135th Street. As shown in Table 5, this project is expected to generate 457 weekday daily vehicle trips, 30 weekday AM peak hour vehicle trips, and 37 weekday PM peak hour vehicle trips. AM/PM inbound and outbound project trip assignment are shown in Figure 11 and Figure 12.

Table 5: 13615 S. Vermont Avenue Trip Generation Estimate

Trip Generation Rates								
Land Use	Rate	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing – Mid-Rise (ITE Code 221)	DU	5.44	26%	74%	0.36	61%	39%	0.44
Trip Generation Estimates								
Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing – Mid-Rise (ITE Code 221)	50 DU	457	8	22	30	23	14	37

Source: Kittelson & Associates, Inc., 2020; Institute of Transportation Engineers, 2017.
Note: DU signifies dwelling units.

[3] These are projects for which entitlements have been received or are undergoing planning review, building and safety check, or construction.



Cumulative Projects
Gardena, California

Figure
10

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

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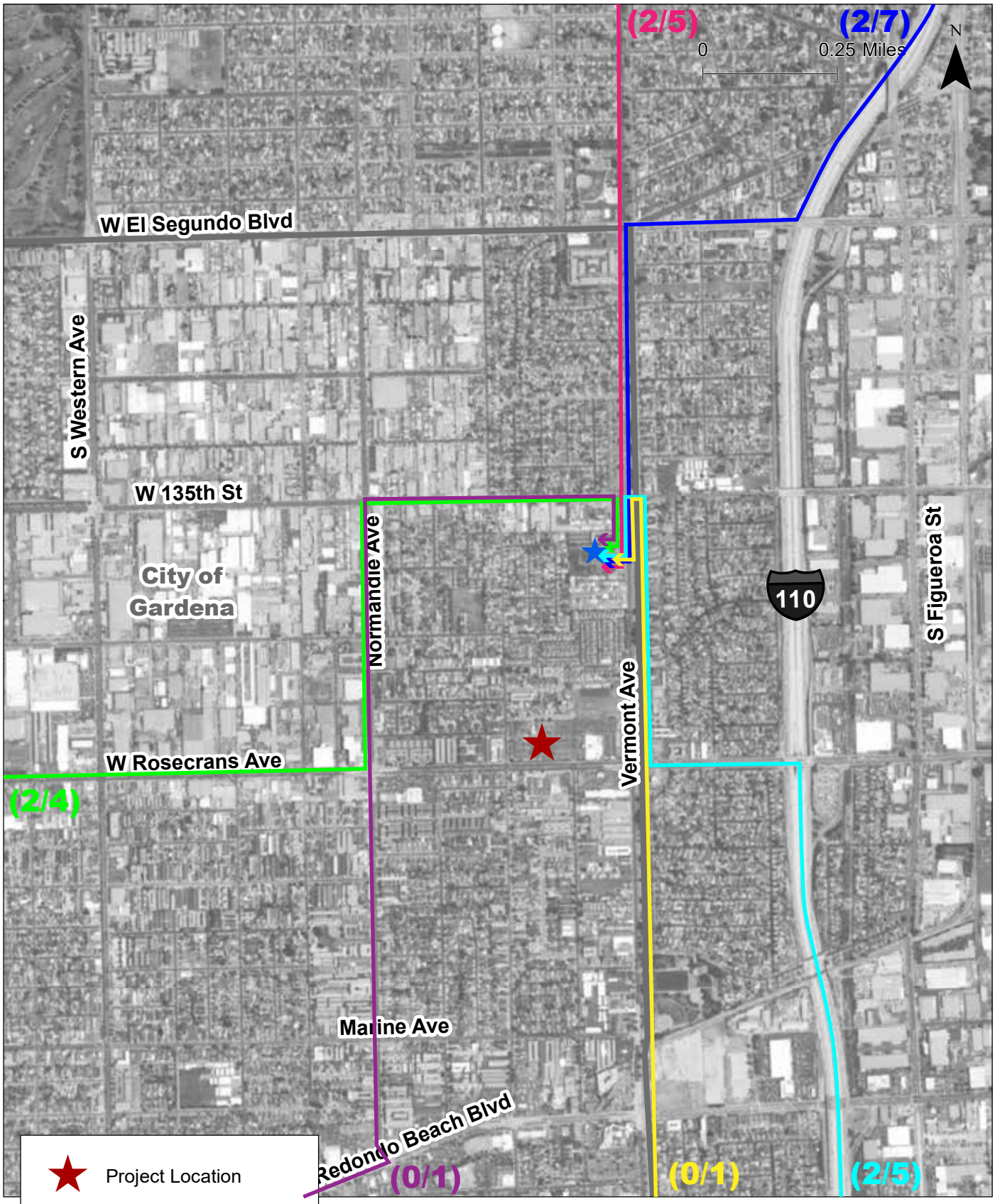


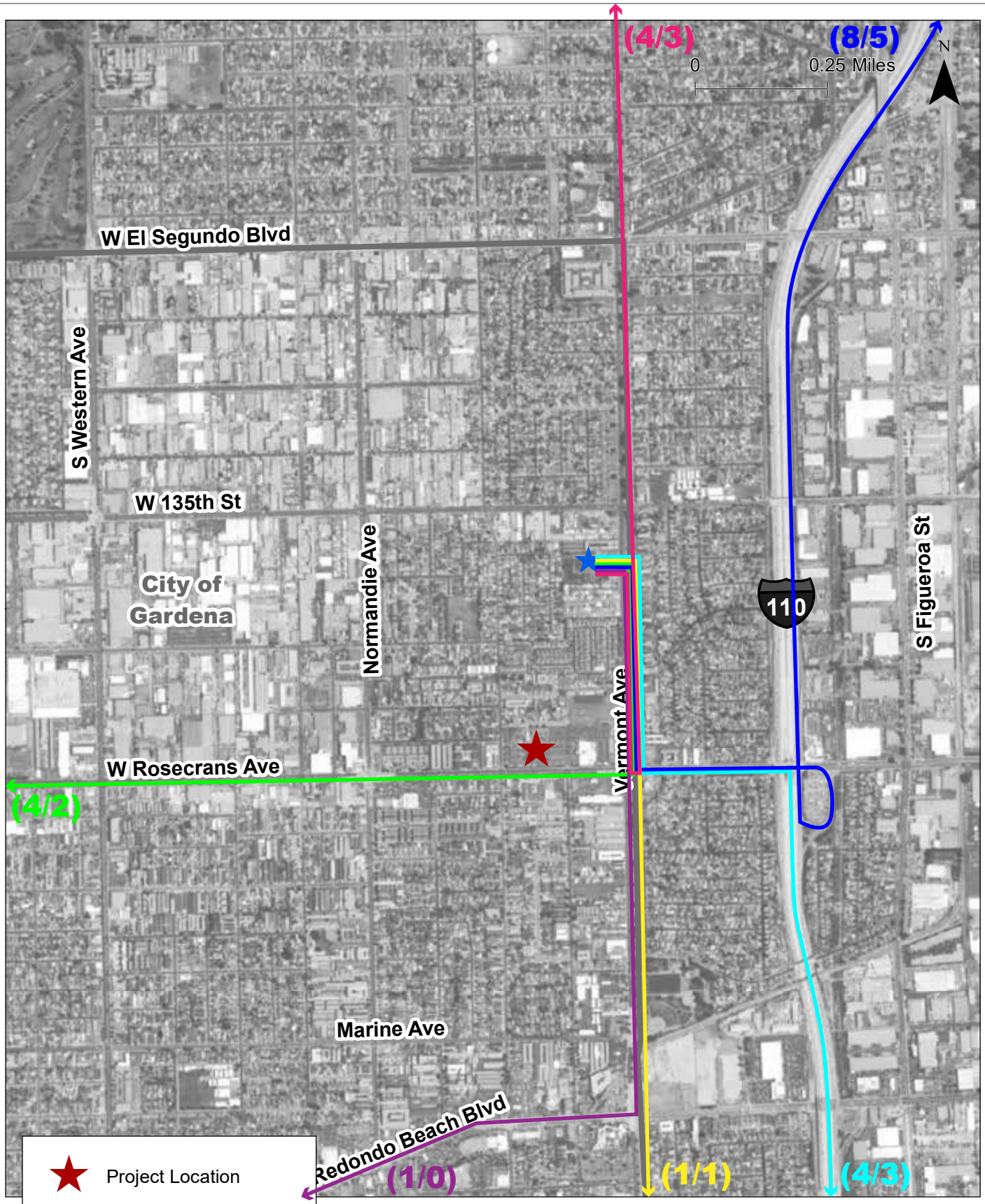
13615 S. Vermont Ave. Trip Assignment (AM/PM) (Inbound) Gardena, California

Figure **11**

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

H:\25\25244 - 141st Street GPA_ZC Project\GIS\Figure 10 - 13615 S. Vermont Ave. Trip Assignment (Inbound).mxd - msahimi - 4:09 PM 7/2/2020



13615 S. Vermont Ave. Trip Assignment (AM/PM) (Outbound) Gardena, California

Figure **12**

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

H:\25\25244 - 141st Street GPA_ZC Project\GIS\Figure 11 - 13615 S. Vermont Ave. Trip Assignment (Outbound).mxd - msahimi - 4:09 PM 7/2/2020

13919 Normandie Avenue Project

This residential project, which consists of 20 single room occupancy (SRO) units, is undergoing building and safety plan check. It is located at the southwestern corner of Normandie Avenue and 139th Street. As shown in Table 6, this project is expected to generate 109 weekday daily vehicle trips, seven weekday AM peak hour vehicle trips, and nine weekday PM peak hour vehicle trips. Weekday AM/PM inbound and outbound project trip assignment are shown in Figure 13 and Figure 14.

Table 6: 13919 Normandie Avenue Trip Generation Estimate

Trip Generation Rates								
Land Use	Rate	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing – Mid-Rise (ITE Code 221)	DU	5.44	26%	74%	0.36	61%	39%	0.44
Trip Generation Estimates								
Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing – Mid-Rise (ITE Code 221)	20 DU	109	2	5	7	5	4	9

Source: Kittelson & Associates, Inc., 2020; Institute of Transportation Engineers, 2017.
Note: DU signifies dwelling units.

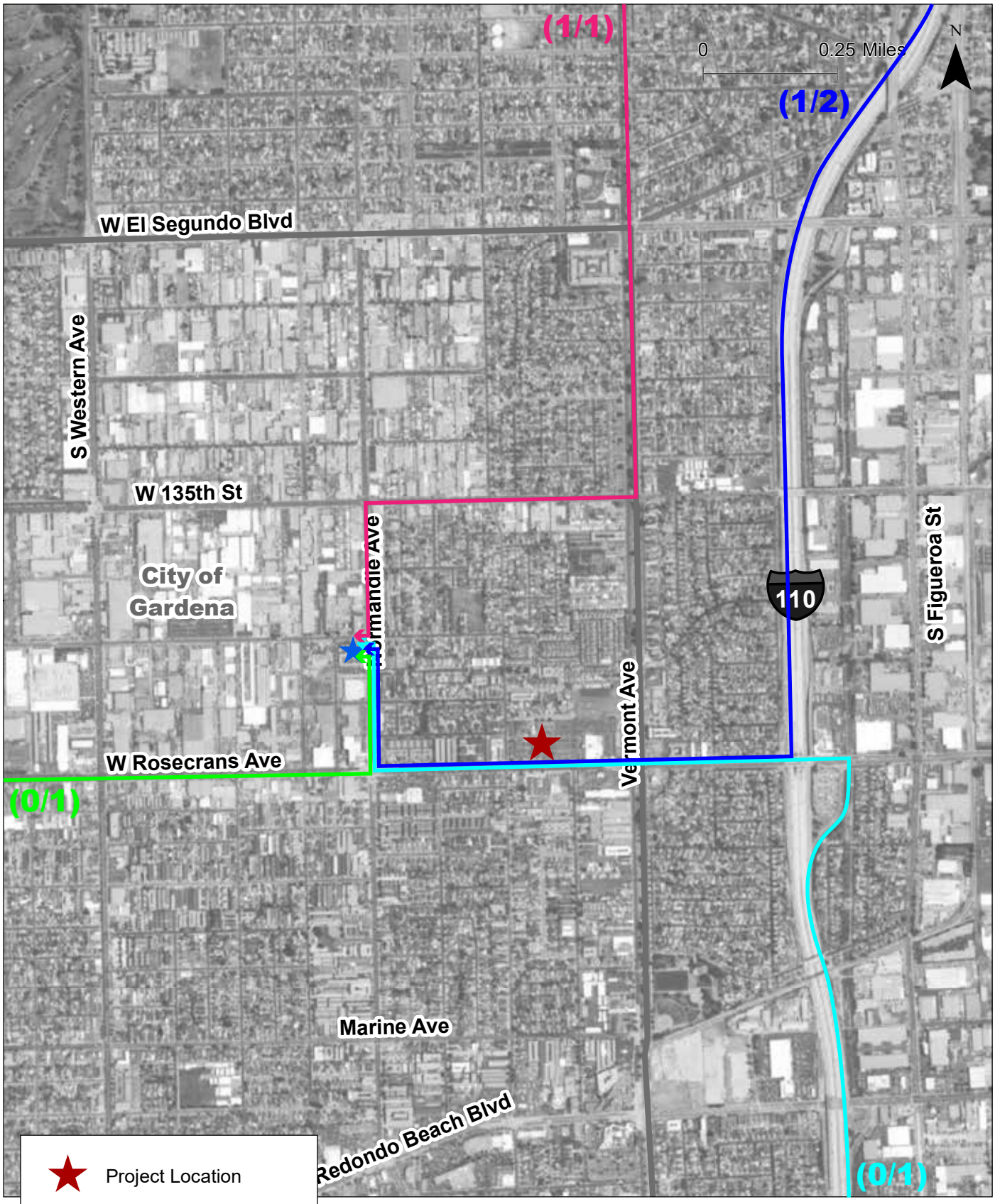
1335 W. 141st Street Project

This residential project, which consists of 50 three-story townhomes, is undergoing planning review. It is located at the northeastern corner of Mariposa Avenue and W. 141st Street. As shown in Table 7, this project is expected to generate 272 weekday daily vehicle trips, 18 weekday AM peak hour vehicle trips, and 22 weekday PM peak hour vehicle trips. AM/PM inbound and outbound project trip assignment are shown in Figure 15 and Figure 16.

Table 7: 1335 W. 141st Street Trip Generation Estimate

Trip Generation Rates								
Land Use	Rate	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing – Mid-Rise (ITE Code 221)	DU	5.44	26%	74%	0.36	61%	39%	0.44
Trip Generation Estimates								
Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing – Mid-Rise (ITE Code 221)	50 DU	272	5	13	18	13	9	22

Source: Kittelson & Associates, Inc., 2020; Institute of Transportation Engineers, 2017.
Note: DU signifies dwelling units.



13919 Normandie Ave. Trip Assignment (AM/PM) (Inbound) Gardena, California

Figure **13**

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

KITTELSON & ASSOCIATES

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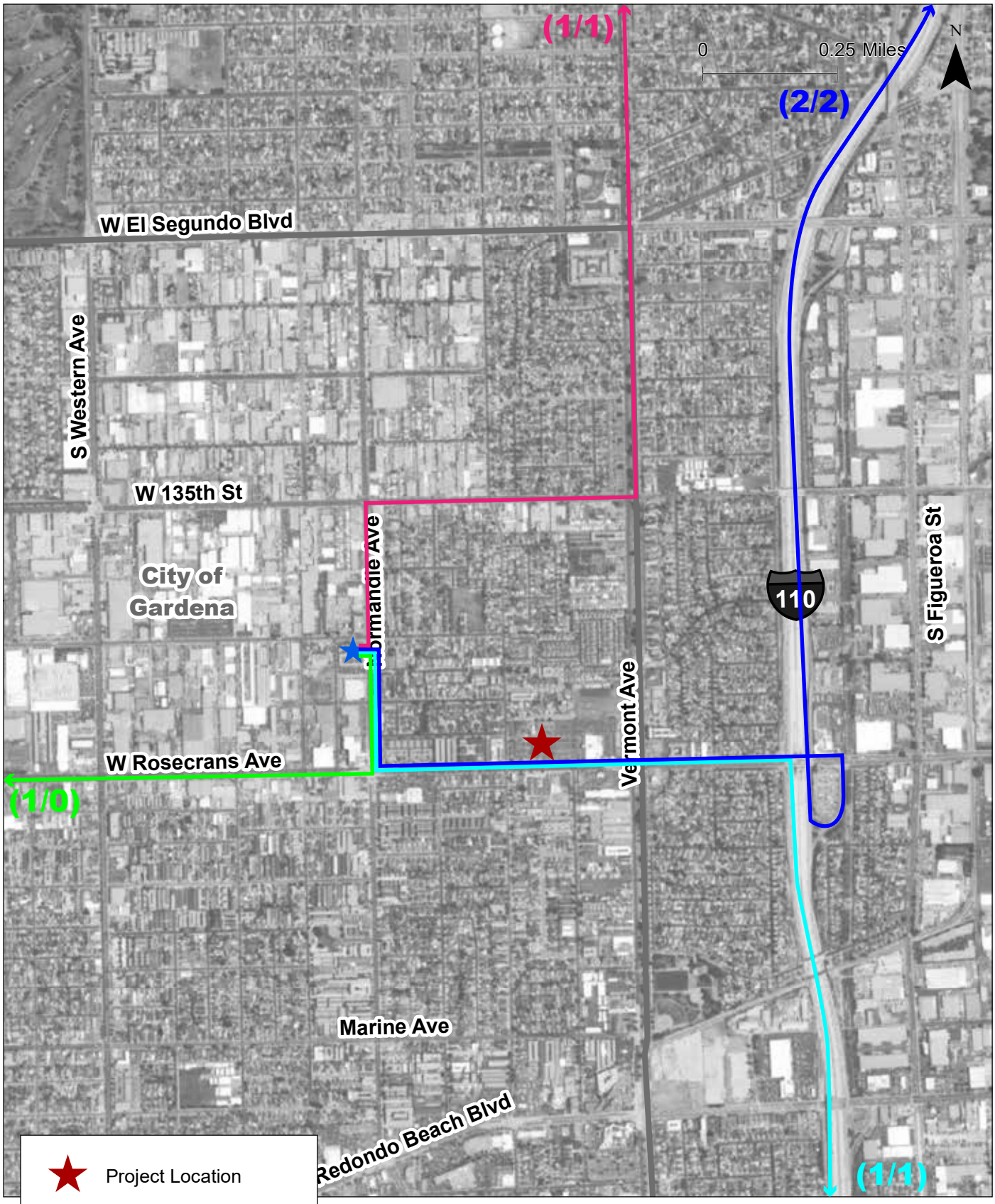

13919 Normandie Ave. Trip Assignment (AM/PM) (Outbound) Gardena, California

Figure **14**

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

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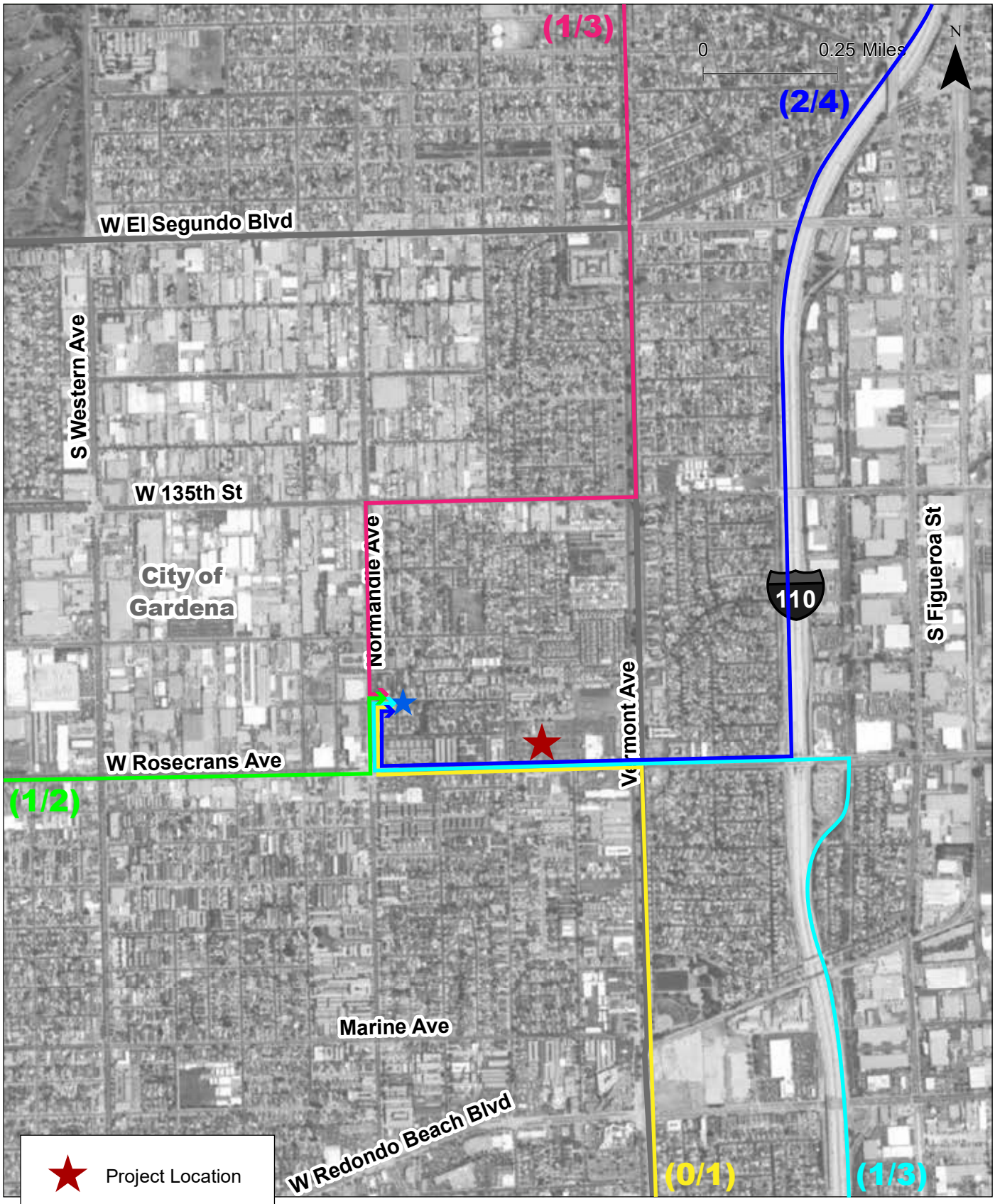


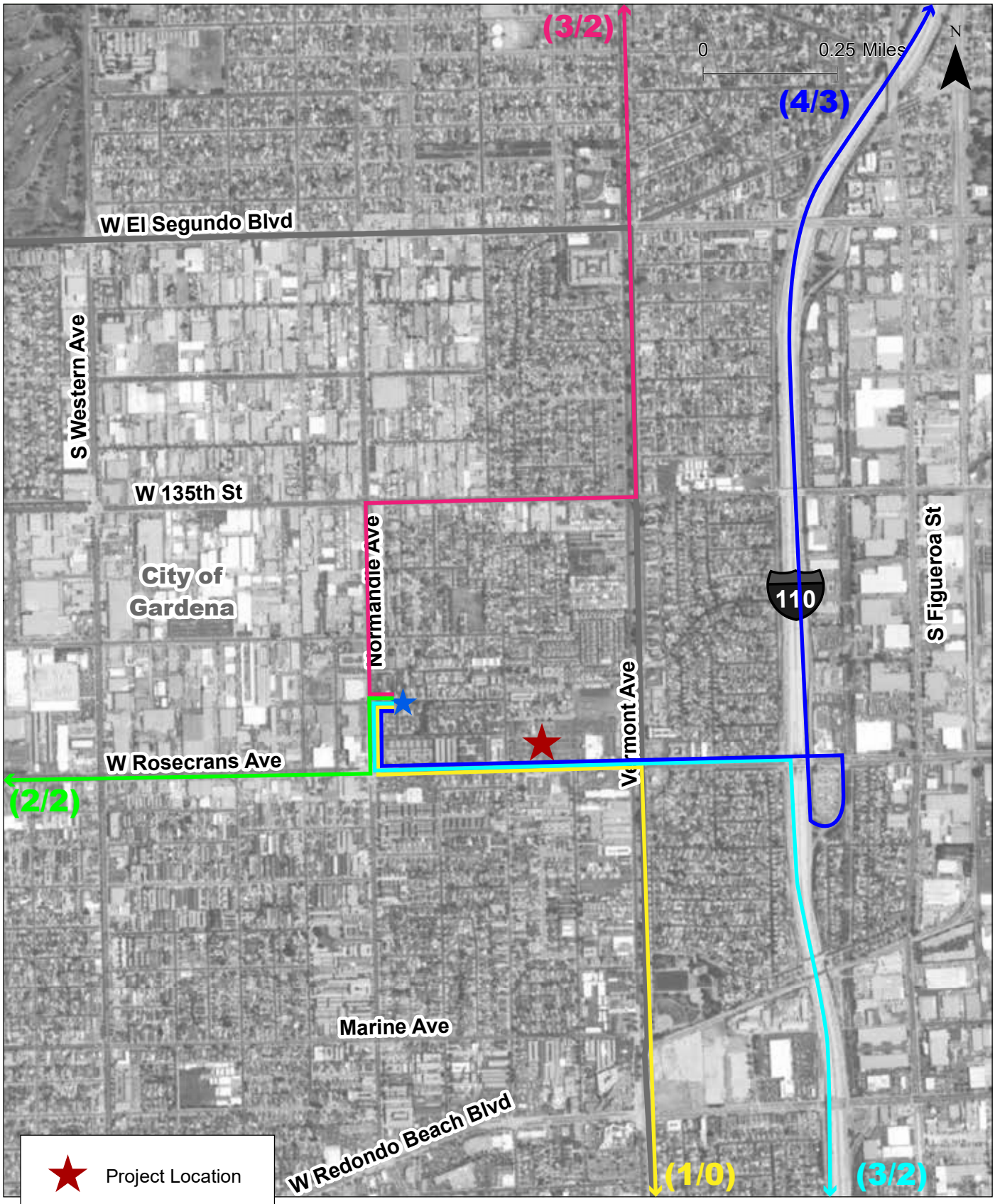
1335 W. 141st St. Trip Assignment (AM/PM) (Inbound) Gardena, California

Figure **15**

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

KITTELSON & ASSOCIATES

H:\25\25244 - 141st Street GPA_ZC Project\GIS\Figure 14 - 1335 W. 141st St. Trip Assignment (Inbound).mxd - msahimi - 11:26 AM 7/2/2020



1335 W. 141st St. Trip Assignment (AM/PM) (Outbound) Gardena, California

Figure **16**

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

KITTELSON & ASSOCIATES

H:\25\25244 - 141st Street GPA_ZC Project\GIS\Figure 15 - 1335 W. 141st St. Trip Assignment (Outbound).mxd - msahimi - 11:26 AM 7/2/2020

KB Home Stonefield Project

This residential project is located at 1017 West 141st Street and 14031 South Vermont Avenue, on the west side of Normandie Avenue and north of Rosecrans Avenue. It consists of 63 three-story townhomes and is currently under construction. As shown in Table 8, this project is expected to generate 343 weekday daily vehicle trips, 23 weekday AM peak hour vehicle trips, and 28 weekday PM peak hour vehicle trips.

Table 8: KB Home Stonefield Trip Generation Estimate

Trip Generation Rates								
Land Use	**Rate**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Multifamily Housing – Mid-Rise (ITE Code 221)	DU	5.44	26%	74%	0.36	61%	39%	0.44
Trip Generation Estimates								
Land Use	**Size**	**Daily**	**AM Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Multifamily Housing – Mid-Rise (ITE Code 221)	63 DU	343	6	17	23	17	11	28

Source: Kittelson & Associates, Inc., 2020; Institute of Transportation Engineers, 2017.
Note: DU signifies dwelling units.

Weekday AM/PM inbound and outbound project trip assignment are shown in Figure 17 and Figure 18. Note, the project trip assignment includes U-turns since the project access point is a single right-in/right-out only driveway. These consist of outbound U-turns at the intersection of Vermont Avenue and Rosecrans Avenue and inbound U-turns at the intersection of Vermont Avenue and the median parking lot.

KB Home Stonefield Trip Assignment (AM/PM) (Inbound) Gardena, California

Figure **17**

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

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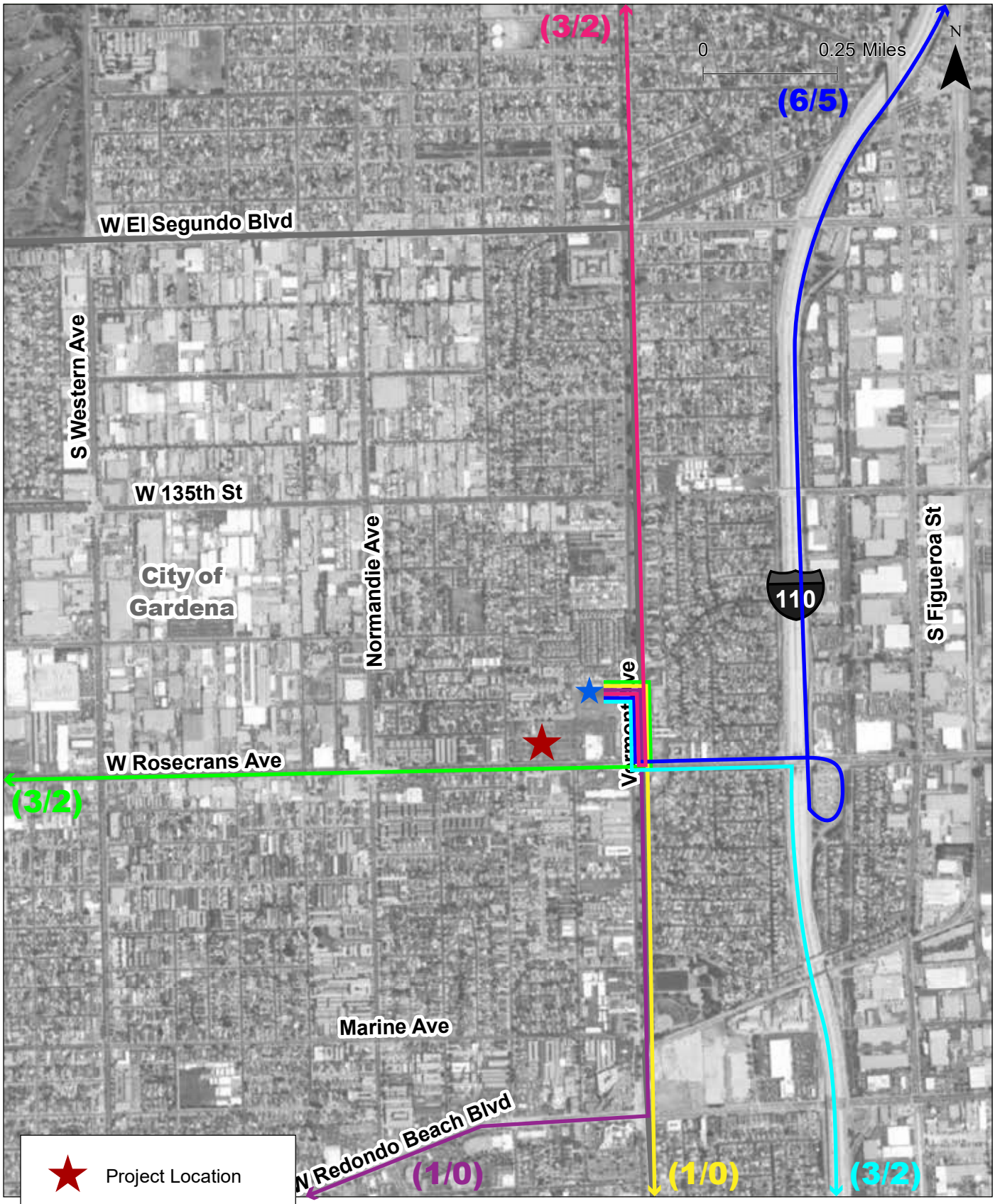


KB Home Stonefield Trip Assignment (AM/PM) (Outbound) Gardena, California

Figure **18**

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

KITTELSON & ASSOCIATES

H:\25\25244 - 141st Street GPA_ZC Project\GIS\Figure 17 - KB Home Stonefield Trip Assignment (Outbound).mxd - msahimi - 11:18 AM 7/2/2020

SUMMARY AND CONCLUSIONS

The following summarizes the findings of the VMT analysis:

- For CEQA purposes, this analysis considers the potential for future development of a 126-room hotel and a 5,000 square foot restaurant.
- Per the City's guidelines, the project's restaurant component can be screened out of a VMT analysis; the project's hotel component cannot be screened out of a VMT analysis.
- Since the project's hotel component is estimated to generate daily home-based work VMT per employee higher than 15% below the regional average, it will result in a **significant** VMT impact.
- Since the project threshold is exceeded, the project's hotel component will also result in a **significant** cumulative VMT impact.
- Employee transit subsidies with 100% hotel employee eligibility would reduce commuter VMT by 5.2%, which exceeds the 1.4% decrease necessary for mitigation. A minimum of 27% hotel employee eligibility would be required to decrease VMT by 1.4% to reduce impacts to less-than-significant with mitigation. Therefore, transit subsidies must be made available to a minimum of 27% of hotel employees to reduce the hotel component's significant project impact and significant cumulative impact to **less-than-significant with mitigation**.

The following summarizes the findings of the local transportation assessment, based on the trip generation, distribution, and assignment analysis of the proposed project, residential alternative, and cumulative projects:

- The proposed project is expected to generate 3,408 weekday daily vehicle trips. When accounting for internalization and pass-by reductions, the proposed project is expected to generate 159 net new weekday AM peak hour vehicle trips and 145 net new weekday PM peak hour vehicle trips. Project trips are expected to be distributed to nearby residential areas.
- The residential alternative (under current zoning) is expected to generate 239 weekday daily vehicle trips, 16 weekday AM peak hour vehicle trips, and 19 weekday PM peak hour vehicle trips. This assumes development of 44 dwelling units, with a density of 22 dwelling units per acre on the 2.0 acres considered for potential future development. Trips are expected to be distributed to major commute destinations and destinations in Gardena along Vermont Avenue and Redondo Beach Boulevard.
- Four cumulative projects within a half mile of the proposed project site were identified:
    - The 13615 S. Vermont Avenue project consists of 84 three-story townhomes (including two affordable units) and is expected to generate 457 weekday daily vehicle trips, 30 weekday AM peak hour vehicle trips, and 37 weekday PM peak hour vehicle trips.
    - The 13919 Normandie Avenue project consists of 20 single room occupancy units and is expected to generate 109 weekday daily vehicle trips, seven weekday AM peak hour vehicle trips, and nine weekday PM peak hour vehicle trips.

- The 1335 W. 141st Street project consists of 50 three-story townhomes and is expected to generate 272 weekday daily vehicle trips, 18 weekday AM peak hour vehicle trips, and 22 weekday PM peak hour vehicle trips.
- The KB Home Stonefield project, which is located at 1017 West 141st Street and 14031 South Vermont Avenue, consists of 63 three-story townhomes. It is expected to generate 343 weekday daily vehicle trips, 23 weekday AM peak hour vehicle trips, and 28 weekday PM peak hour vehicle trips.

Attachment A: City of Gardena VMT Spreadsheet Tool Screenshot

Attachment B: CAPCOA and SANDAG Place Type Definitions

Attachment C: Internalization Calculations

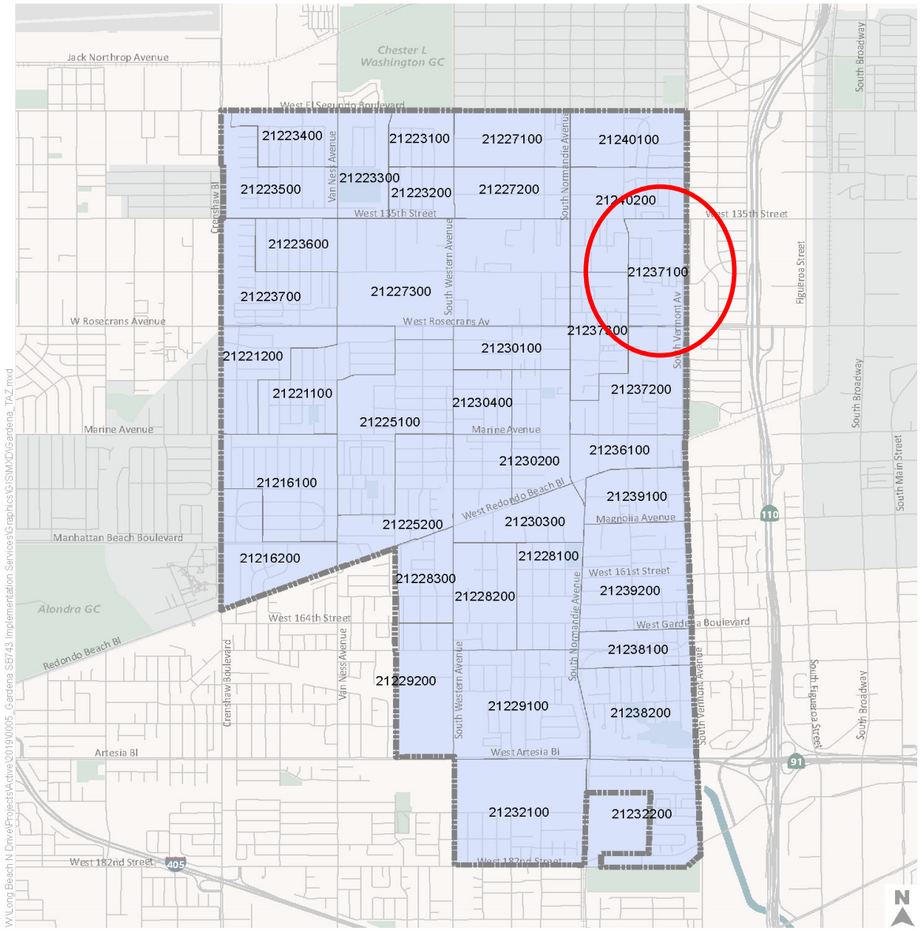
Attachment A: City of Gardena VMT Spreadsheet Tool Screenshot

2020 VMT Summary

SCAG Tier 2 TAZ ID	Population	Employment	Home-Based VMT Summary				Home-Based Work VMT Summary			
			Home Based VMT	Home Based VMT per Capita	Regional Home Based VMT per Capita	Regional Home Based VMT per Capita % Difference	Home Based Work VMT	Home Based Work VMT per Employee	Regional Home Based Work VMT per Employee	Regional Home Based Work VMT per Employee % Difference
21216100	2,415	266	29,637	12.27	14.35	-14.5%	3,741	14.06	17.23	-18.4%
21216200	1,821	646	22,440	12.32	14.35	-14.1%	9,529	14.76	17.23	-14.4%
21221100	1,986	248	24,563	12.37	14.35	-13.8%	3,743	15.12	17.23	-12.3%
21221200	1,225	747	14,551	11.88	14.35	-17.2%	10,204	13.66	17.23	-20.8%
21223100	918	187	10,453	11.39	14.35	-20.6%	3,188	17.02	17.23	-1.2%
21223200	567	238	6,814	12.01	14.35	-16.3%	4,097	17.25	17.23	0.1%
21223300	997	86	10,646	10.67	14.35	-25.6%	982	11.37	17.23	-34.1%
21223400	1,262	65	14,543	11.52	14.35	-19.7%	807	12.38	17.23	-28.2%
21223500	1,182	313	13,662	11.56	14.35	-19.5%	4,737	15.11	17.23	-12.3%
21223600	1,506	39	17,312	11.50	14.35	-19.9%	427	10.95	17.23	-36.5%
21223700	1,887	746	20,071	10.64	14.35	-25.9%	11,742	15.74	17.23	-8.7%
21225100	3,166	717	35,359	11.17	14.35	-22.2%	10,099	14.08	17.23	-18.3%
21225200	1,438	1,143	15,305	10.64	14.35	-25.8%	17,890	15.66	17.23	-9.2%
21227100	317	782	3,335	10.53	14.35	-26.7%	13,652	17.46	17.23	1.3%
21227200	333	1,279	3,298	9.89	14.35	-31.1%	23,159	18.11	17.23	5.1%
21227300	404	5,622	4,031	9.97	14.35	-30.6%	96,726	17.20	17.23	-0.2%
21228100	1,538	413	16,279	10.58	14.35	-26.3%	6,994	16.92	17.23	-1.8%
21228200	1,465	1,037	13,987	9.55	14.35	-33.5%	15,264	14.72	17.23	-14.6%
21228300	1,065	534	10,159	9.54	14.35	-33.5%	9,125	17.08	17.23	-0.9%
21229100	3,115	1,156	34,286	11.01	14.35	-23.3%	18,163	15.72	17.23	-8.8%
21229200	897	722	9,044	10.09	14.35	-29.7%	12,005	16.62	17.23	-3.6%
21230100	2,319	299	22,510	9.71	14.35	-32.4%	4,242	14.17	17.23	-17.8%
21230200	2,701	663	26,168	9.69	14.35	-32.5%	8,451	12.75	17.23	-26.0%
21230300	1,511	1,706	14,163	9.37	14.35	-34.7%	25,936	15.20	17.23	-11.8%
21230400	1,506	127	15,872	10.54	14.35	-26.6%	1,929	15.22	17.23	-11.7%
21232100	1,677	1,791	19,999	11.93	14.35	-16.9%	32,911	18.37	17.23	6.6%
21232200	1,260	803	15,284	12.13	14.35	-15.5%	14,835	18.48	17.23	7.3%
21236100	1,605	1,844	15,308	9.54	14.35	-33.6%	29,149	15.81	17.23	-8.3%
21237100	1,615	938	18,269	11.31	14.35	-21.2%	13,938	14.86	17.23	-13.8%
21237200	3,616	655	37,062	10.25	14.35	-28.6%	10,652	16.26	17.23	-5.6%
21237300	2,305	159	24,354	10.57	14.35	-26.4%	2,273	14.32	17.23	-16.9%
21238100	1,925	395	18,709	9.72	14.35	-32.3%	6,318	16.00	17.23	-7.2%
21238200	2,370	488	30,407	12.83	14.35	-10.6%	7,745	15.88	17.23	-7.9%
21239100	1,394	1,948	13,760	9.87	14.35	-31.2%	31,732	16.29	17.23	-5.5%
21239200	3,098	599	32,656	10.54	14.35	-26.5%	7,871	13.14	17.23	-23.8%
21240100	1,412	732	20,307	14.39	14.35	0.2%	12,946	17.68	17.23	2.6%
21240200	2,155	558	27,239	12.64	14.35	-11.9%	10,519	18.86	17.23	9.4%

Source: SCAG 2016 RTP/SCS Travel Demand Model; 2020 results interpolated based on 2012 Baseline and 2040 Future Year model results.

At least 15% below SCAG Regional Average
0-15% below SCAG Regional Average
Higher than SCAG Regional Average



SCAG Tier 2 TAZ ID

Attachment B: CAPCOA and SANDAG Place Type Definitions

The definitions used by CAPCOA and SANDAG to define each setting category are as follows:

Low-density suburb: Dispersed, low-density, single-use, automobile-dependent land use patterns, usually outside of the central city. Other characteristics may include: 20+ miles from regional central business district; more housing than jobs; buildings are one to two stories; curvilinear (cul-de-sac) street patterns; parking between street and office or retail and large-lot residential parking is common; ample parking and largely surface lot–based; no parking prices; limited bus service with peak headways 30+ minutes.

Suburban center: Cluster of multi-use development within dispersed, low-density, automobile-dependent land use patterns. Serves the population of a suburb with office, retail, and housing that is denser than the surrounding suburb. Other characteristics may include: 20+ miles from regional central business district; balanced jobs/housing ratio; buildings are two stories; grid street pattern; 0–20-foot setbacks; somewhat constrained parking supply on street and ample off-street; low to no parking prices; bus service at 20–30-minute headways; and/or a commuter rail station.

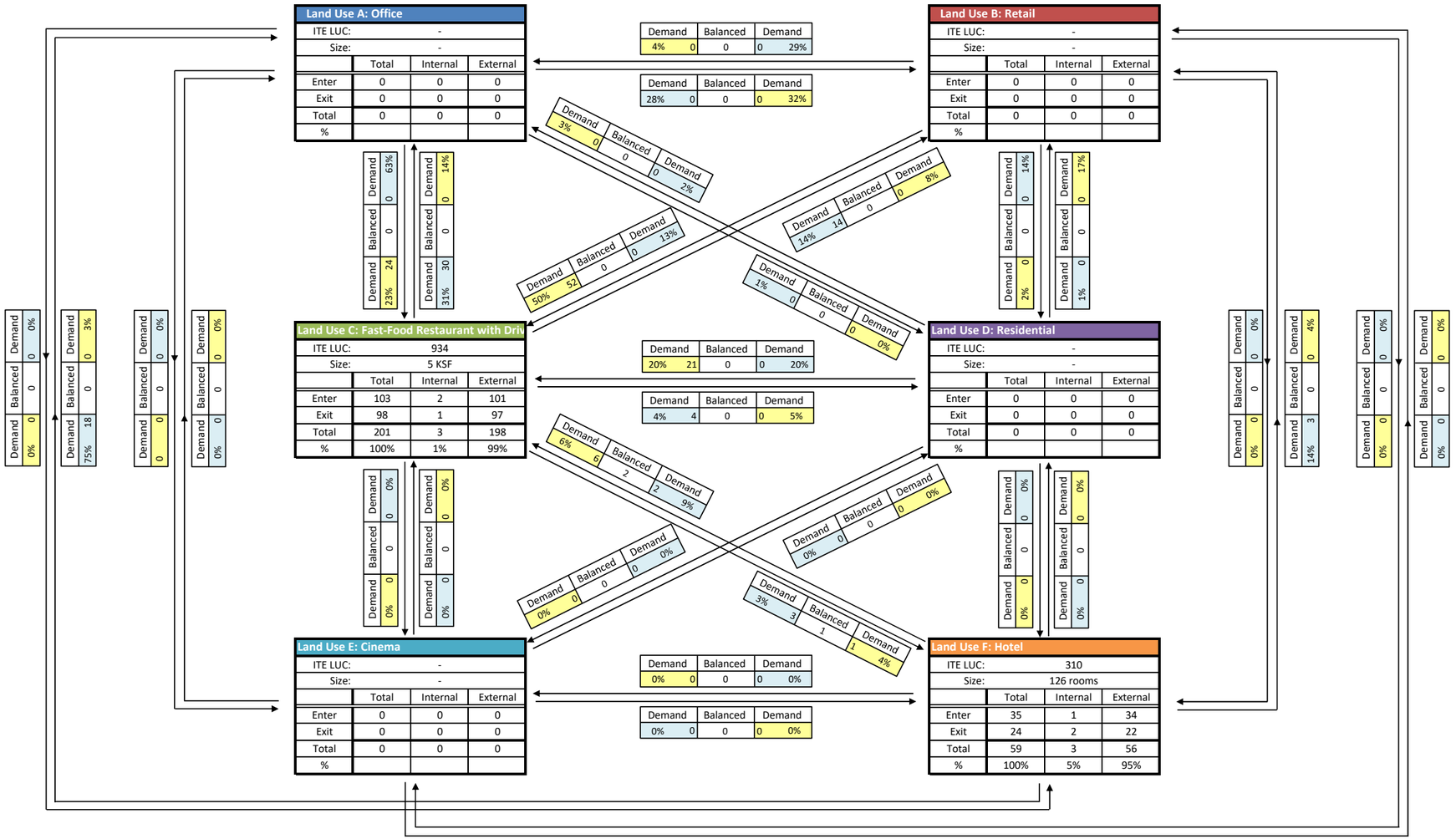
Urban: Located within a central city with multi-family housing and nearby office and retail. Other characteristics may include: within or less than five miles from the central business district; jobs/housing ratio > 1.5; buildings are at least six stories; grid street pattern; minimal setbacks; constrained parking supply; high parking prices; and high-quality rail service and/or comprehensive bus service.

Source: San Diego Association of Governments (SANDAG) *Mobility Management VMT Reduction Calculator Tool – Design Document* (June 2019)

Attachment C: Internalization Calculations

Multi-Use Internal Capture

Project Number:	25244
Project Name	141st Street GP/ZC
Scenario:	AM Peak Hour



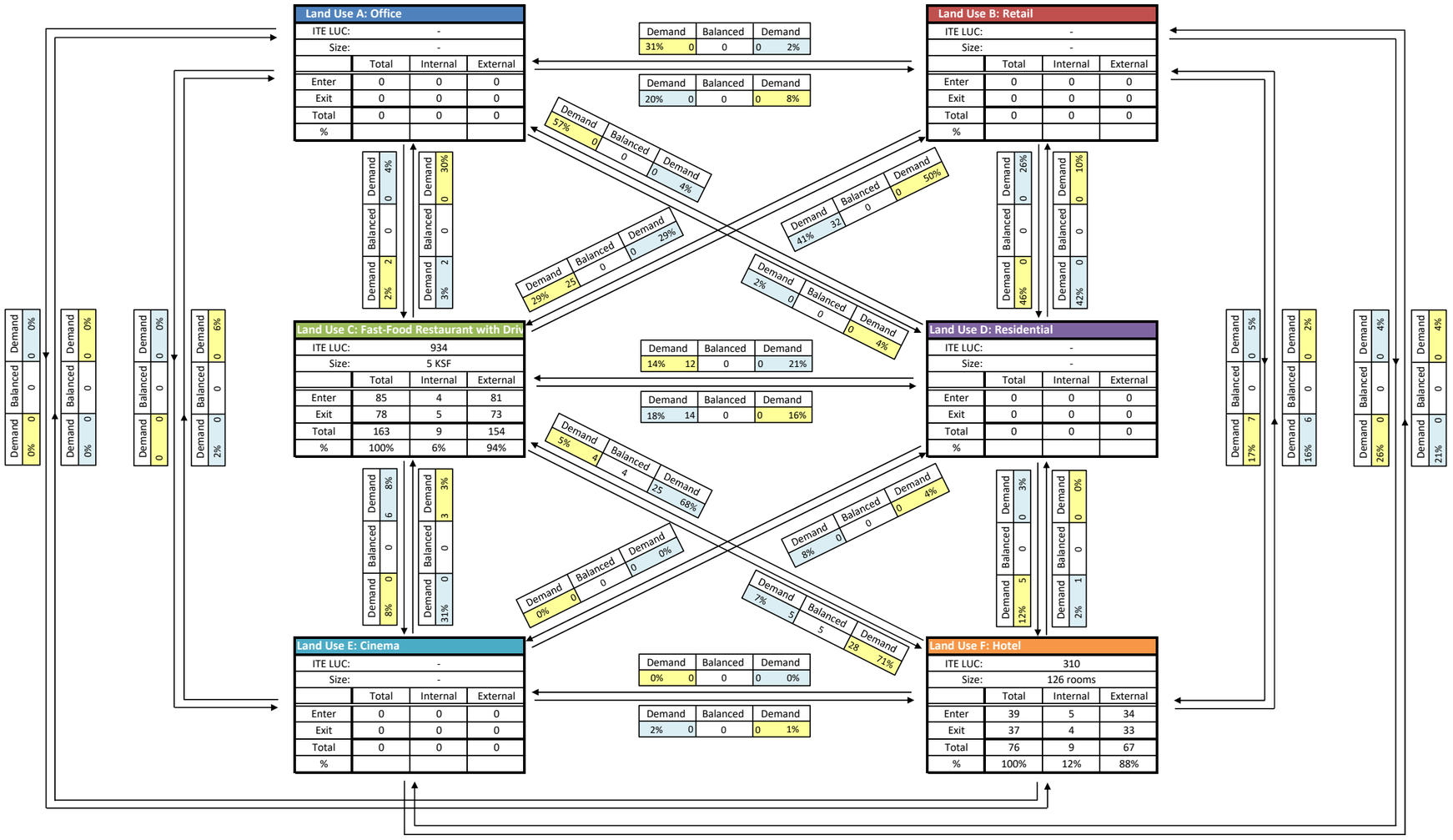
Internal and External Trip Summary

Origin Land Use		Total		Internal		External	
		Enter	Exit	Enter	Exit	Enter	Exit
A	Office	0	0	0	0	0	0
B	Retail	0	0	0	0	0	0
C	Fast-Food Restaurant with Drive-Throug	103	98	2	1	101	97
D	Residential	0	0	0	0	0	0
E	Cinema	0	0	0	0	0	0
F	Hotel	35	24	1	2	34	22

Internal Capture	2.31%

Multi-Use Internal Capture

Project Number:	25244
Project Name	141st Street GP/ZC
Scenario:	PM Peak Hour



Internal and External Trip Summary

Origin Land Use		Total		Internal		External	
		Enter	Exit	Enter	Exit	Enter	Exit
A	Office	0	0	0	0	0	0
B	Retail	0	0	0	0	0	0
C	Fast-Food Restaurant with Drive-Throu	85	78	4	5	81	73
D	Residential	0	0	0	0	0	0
E	Cinema	0	0	0	0	0	0
F	Hotel	39	37	5	4	34	33

Internal Capture	7.53%