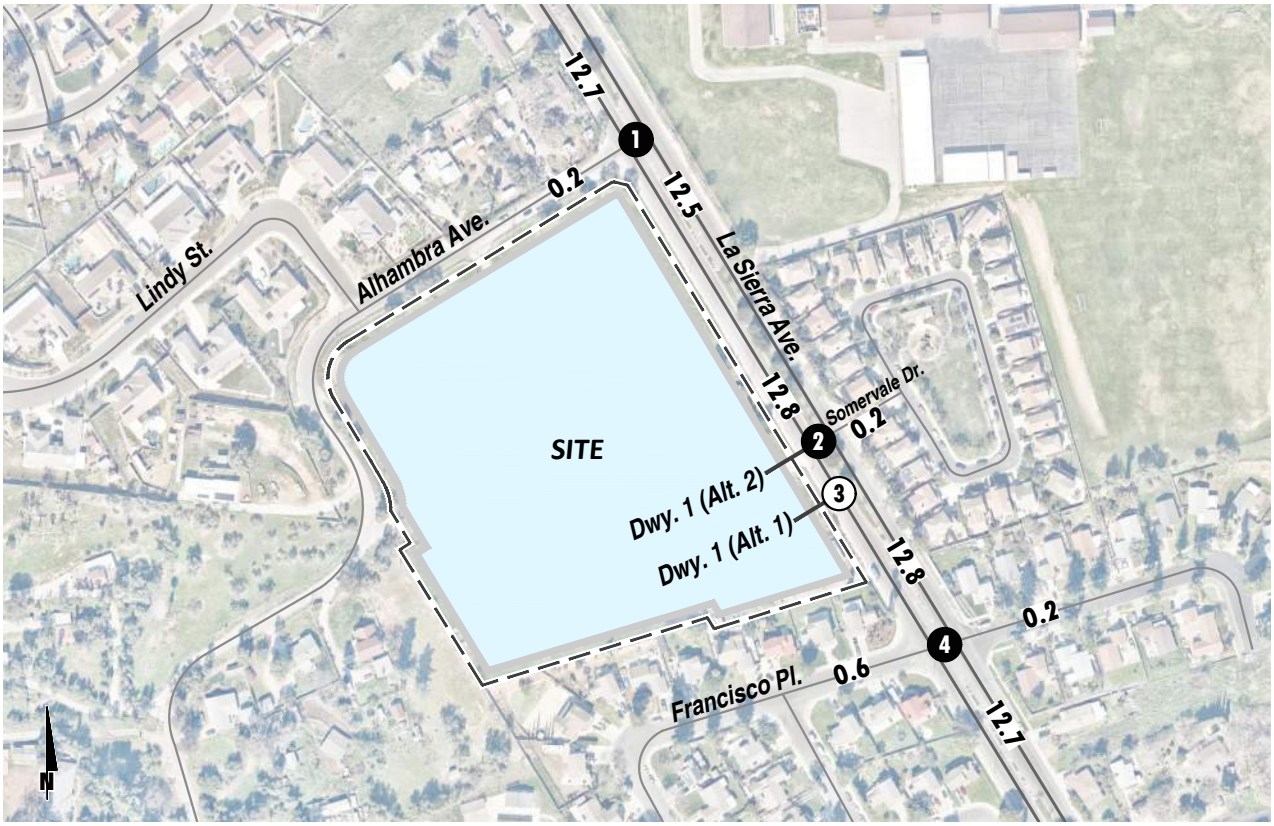
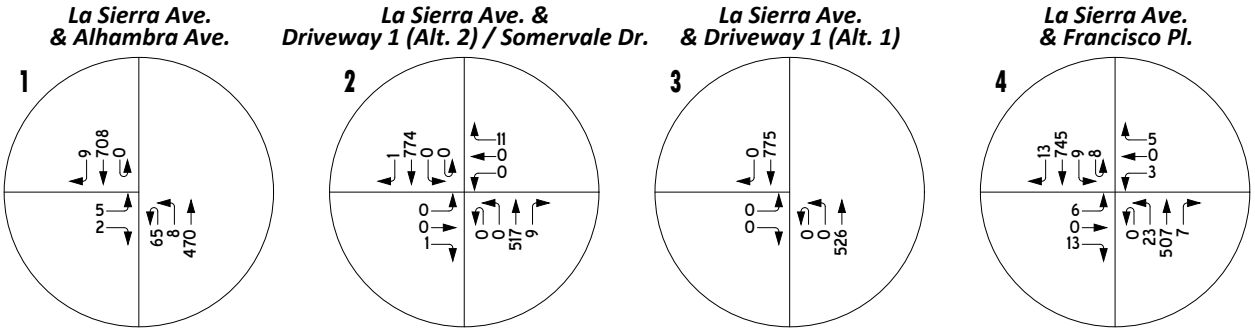
EXHIBIT 3-8 : EXISTING (2024) MID-DAY PEAK HOUR TRAFFIC VOLUMES



LEGEND:

❶ = *Existing Intersection Analysis Location*	00 = *Peak Hour Volume MD*
① = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT) in Thousands*



3.6 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1, which indicates that all the study area intersections are currently operating at an acceptable LOS during the peak hours under Existing (2024) traffic conditions. The intersection operations analysis worksheets are included in Appendix 3.3 of this TA.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2024) CONDITIONS

			Delay[1] (secs.)			Level of Service		
#	Intersection	Traffic Control[2]	AM	MD	PM	AM	MD	PM
1	La Sierra Av. & Alhambra Av.	CSS	13.9	19.3	14.3	B	C	B
2	La Sierra Av. & Driveway 1 (Alt. 2)/Somervale Dr.	CSS	11.9	10.7	9.7	B	B	A
3	La Sierra Av. & Driveway 1 (Alt. 1)		Future Intersection					
4	La Sierra Av. & Francisco Pl.	CSS	18.4	16.8	12.7	C	C	B

[1] Per the Highway Capacity Manual (7th Edition), overall average intersection Delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

[2] CSS = Cross-Street Stop

3.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing (2024) traffic conditions are based on all applicable California MUTCD traffic signal warrants (9 warrants). There are no unsignalized study area intersections that currently meet a traffic signal warrant for Existing (2024) traffic conditions (see Appendix 3.4).

This Page Intentionally Left Blank

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project includes the development of 4 single-family (estate) residential dwelling units located on Alhambra Avenue and 52 single-family detached residential dwelling units. Three of the single-family detached residential dwelling units consist of affordable housing. Primary access to the Project site will be accommodated via a new connection to La Sierra Avenue (Driveway 1). Driveway 1, as currently shown on the site plan, will be evaluated assuming right-in/right-out access only; however, an alternative will also be evaluated that assumes the driveway would be redesigned to align with the existing Somervale Drive to the east. The four single-family estate homes will take access off the existing Alhambra Avenue. A preliminary site plan for the proposed Project is shown on Exhibit 1-2 and reflects the proposed right-in/right-out access on La Sierra Avenue while Exhibit 1-3 reflects the proposed alignment of the driveway with Somervale Drive for full access (no left turn restrictions).

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) was used to estimate the trip generation. (2)

In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the ITE Trip Generation Manual (11th Edition, 2021) for Single Family Detached Housing (ITE Land Use Code 210) and Affordable Housing (ITE Land Use Code 223) land uses were utilized. (2) The trip generation rates are shown in Table 4-1. As shown in Table 4-1, the proposed Project is anticipated to generate 514 two-way trip-ends per day with 38 AM peak hour trips, 38 mid-day PM peak hours trips, and 51 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

		ITE LU	AM Peak Hour			Mid-day PM Peak Hour			PM Peak Hour			
Land Use[1]	Units[2]	Code	In	Out	Total	In	Out	Total	In	Out	Total	Daily
Single Family Detached Residential	DU	210	0.18	0.52	0.70	0.41	0.29	0.70	0.59	0.35	0.94	9.43
Affordable Housing	DU	223	0.15	0.36	0.50	0.20	0.14	0.34	0.27	0.19	0.46	4.81

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] DU = Dwelling Units

[3] Mid-day PM Peak Hour trip rates determined by using the ITE Trip Generation Manual, Eleventh Edition (2021) Time-of-day Distribution Percentages.

			AM Peak Hour			Mid-day PM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	In	Out	Total	Daily
135'x145' Minimum Estate Homes	4	DU	1	2	3	2	1	3	2	1	3	38
45'x80' Minimum Lots (Single Family Detached Residential)	49	DU	9	25	34	20	14	34	29	17	46	462
45'x80' Minimum Lots (Affordable Housing)	3	DU	0	1	1	1	0	1	1	1	2	14
Total			**10**	**28**	**38**	**23**	**15**	**38**	**32**	**19**	**51**	**514**

[1] DU = Dwelling Units

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site. The proposed Project trip distribution patterns are illustrated on Exhibit 4-1. These distribution patterns were reviewed and approved by the City of Riverside as part of the traffic study scoping process (see Appendix 1.1).

4.3 MODAL SPLIT

The potential for Project trips (non-truck) to be reduced by the use of public transit, walking, or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

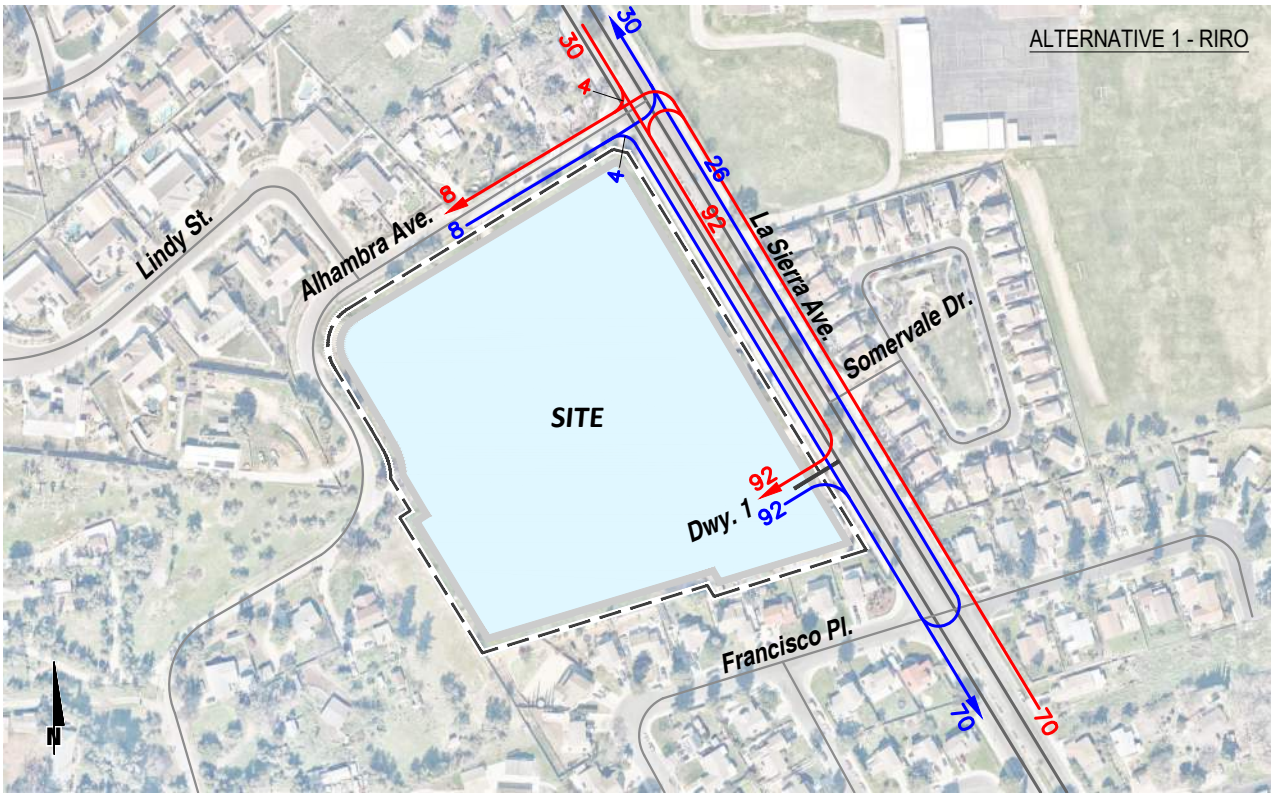
4.4 PROJECT TRIP ASSIGNMENT

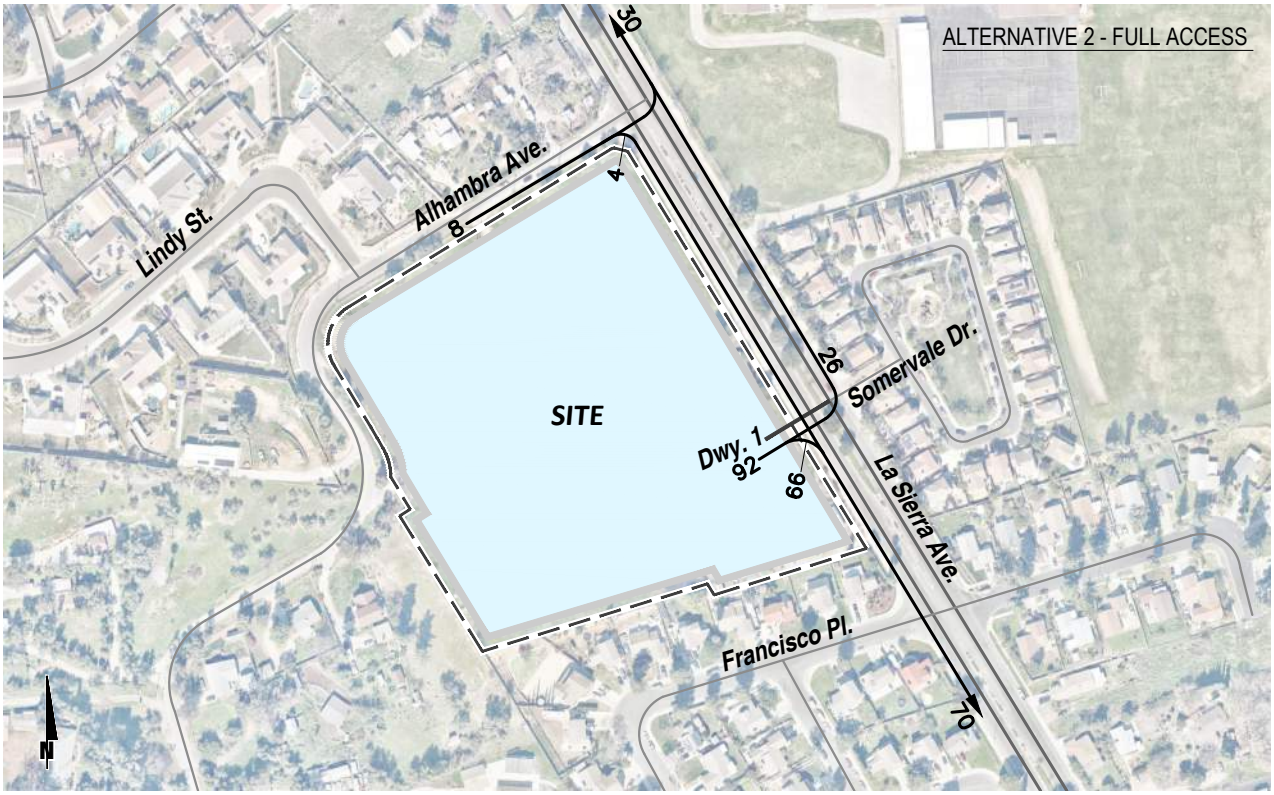
The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, the Project only ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-2. The Project only mid-day peak hour intersection turning movement volumes are shown on Exhibit 4-3.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 2.0% per year. The total ambient growth is 8.24% for 2028 conditions (2.0% per year compounded over 4 years). The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. Background (Near-Term) (2028) traffic volumes are provided in Section 5 of this report. The traffic generated by the proposed Project was then manually added to the base volume to determine Background "With Project" forecast conditions. Conservatively, this TA estimates the area ambient traffic growth and then adds traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed ambient growth rates; and some of these related projects may not be implemented and operational within the 2028 Opening Year time frame assumed for the Project (see also Section 4.6 *Cumulative Development Traffic*).

EXHIBIT 4-1 : PROJECT TRIP DISTRIBUTION

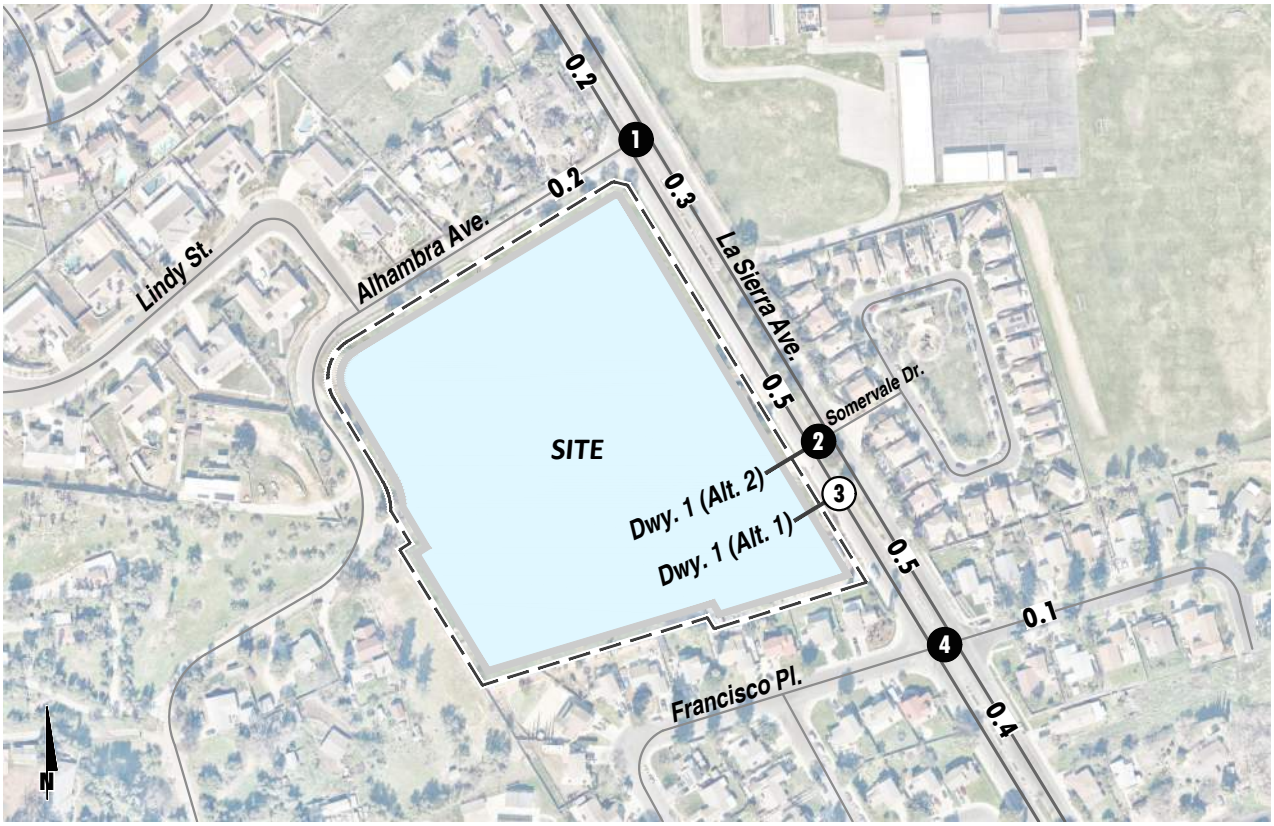




LEGEND:

10 = *Car Percent To/From Project*
= *Inbound*
= *Outbound*

EXHIBIT 4-2 : PROJECT ONLY AM/PM PEAK HOUR TRAFFIC VOLUMES



LEGEND:

- **0** = *Existing Intersection Analysis Location*
- (0) = *Future Intersection Analysis Location*
- 00(00) = *Peak Hour Volume AM (PM)*
- **00** = *Average Daily Traffic (ADT) in Thousands*

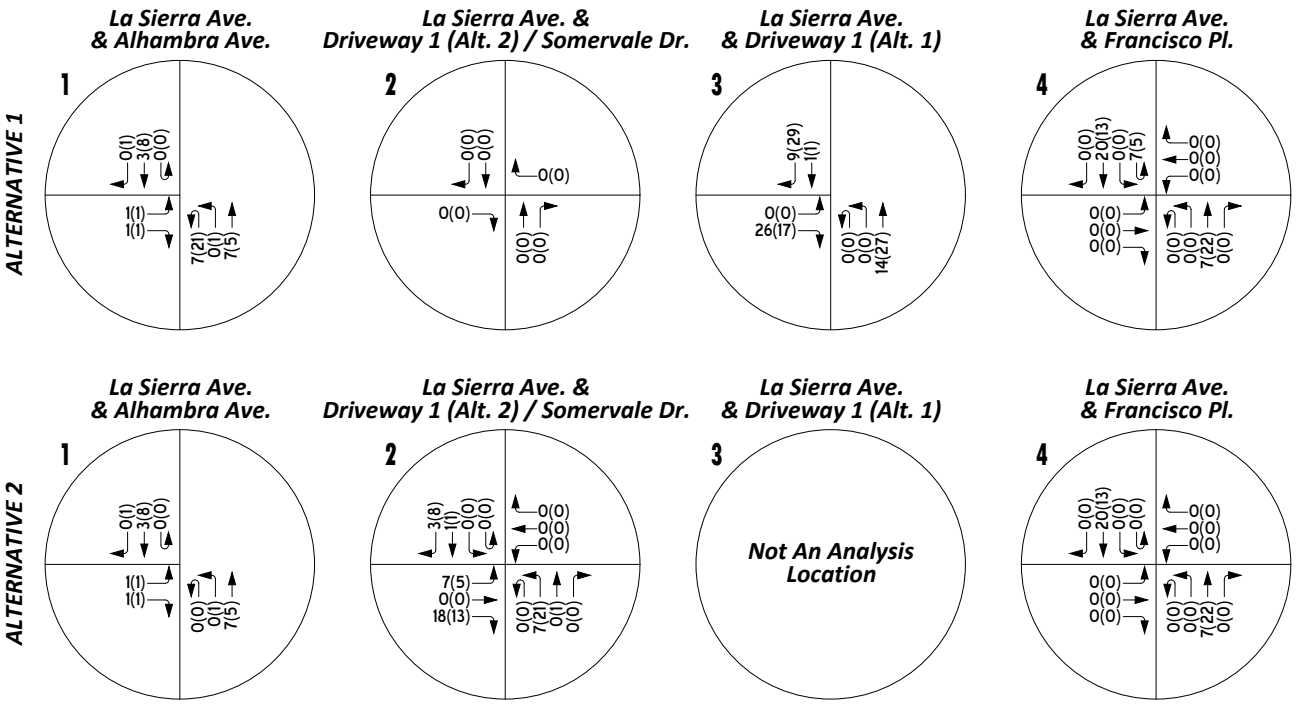
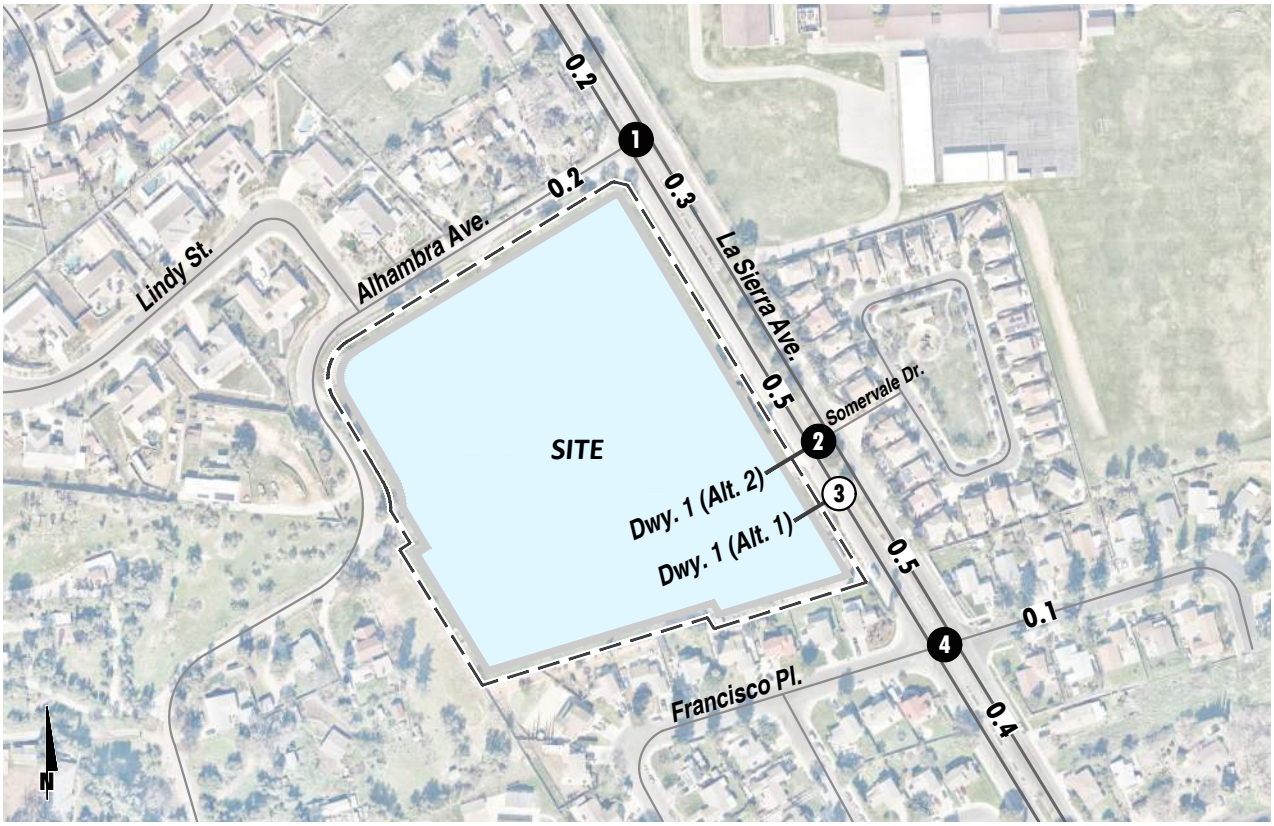
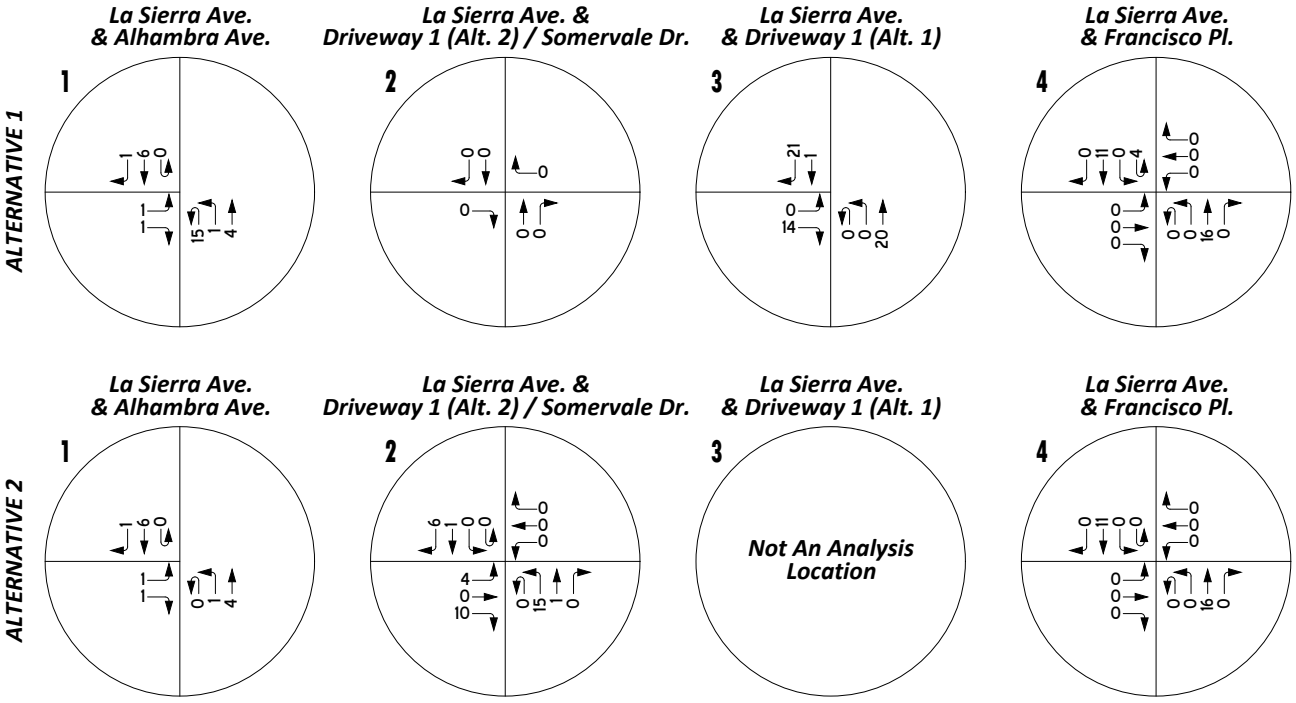


EXHIBIT 4-3 : PROJECT ONLY MID-DAY PEAK HOUR TRAFFIC VOLUMES



LEGEND:

0 = *Existing Intersection Analysis Location*	00 = *Peak Hour Volume MD*
(0) = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT) in Thousands*



4.6 CUMULATIVE DEVELOPMENT TRAFFIC

Other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area have also been included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Riverside. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e., 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Background (Near-Term) (2028) forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-4, listed in Table 4-2, and have been considered for inclusion.

These cumulative projects have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic deficiencies. Any other cumulative projects that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative Only ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-5. Cumulative Only mid-day peak hour intersection turning movement volumes are shown on Exhibit 4-6.

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

No.	Project Name	Land Use[1]	Quantity	Units[2]
R1	PR-2021-001137	Single Family Residential	6	DU
R2	PR-2021-001129	Single Family Residential	18	DU
R3	P20-0448 / P20-0449 / P20-0450	Restaurant	2.825	TSF
		Retail	2.750	TSF

[1] TSF = Thousand Square Feet; DU = Dwelling Units

EXHIBIT 4-4 : CUMULATIVE DEVELOPMENT LOCATION MAP

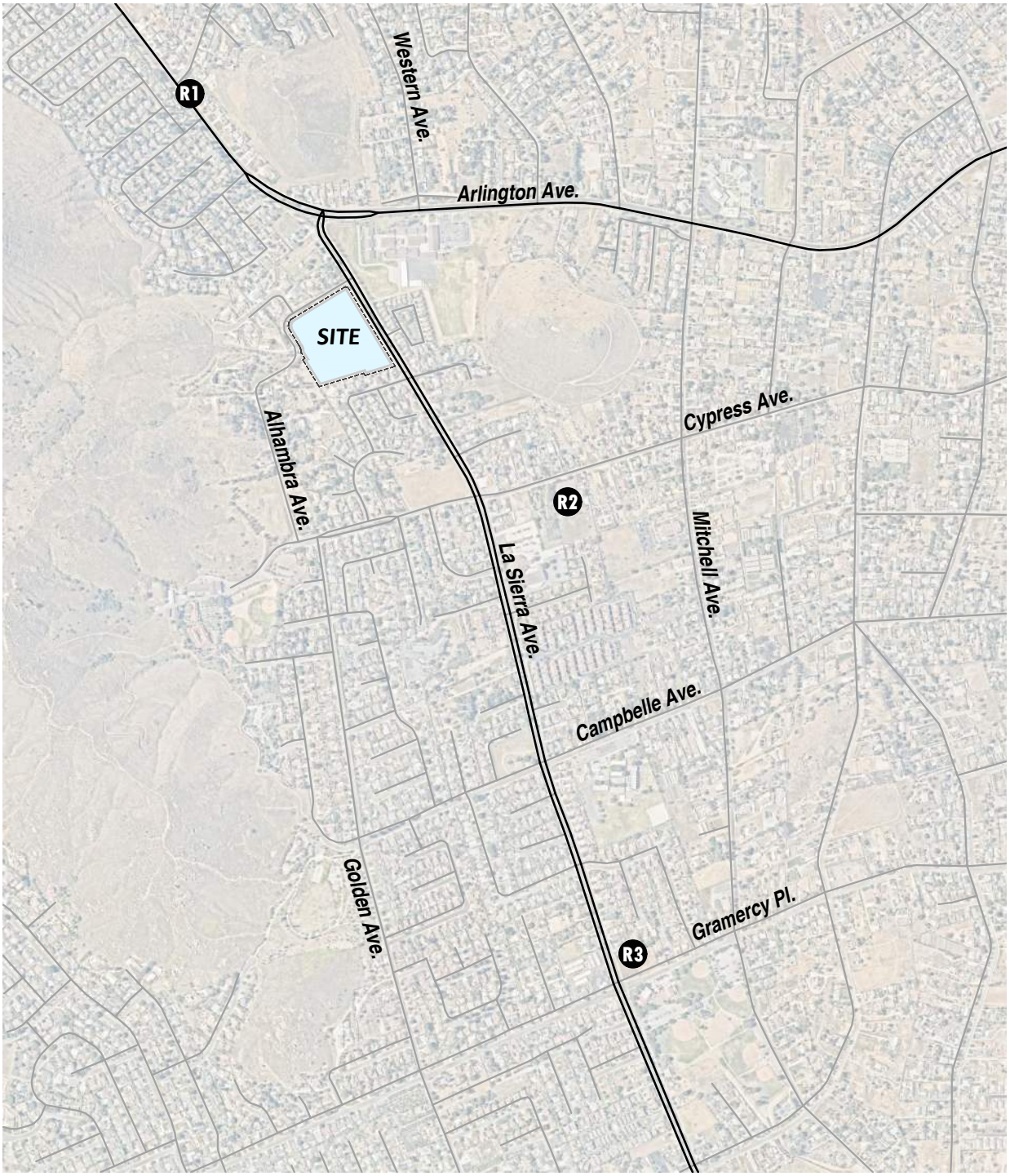
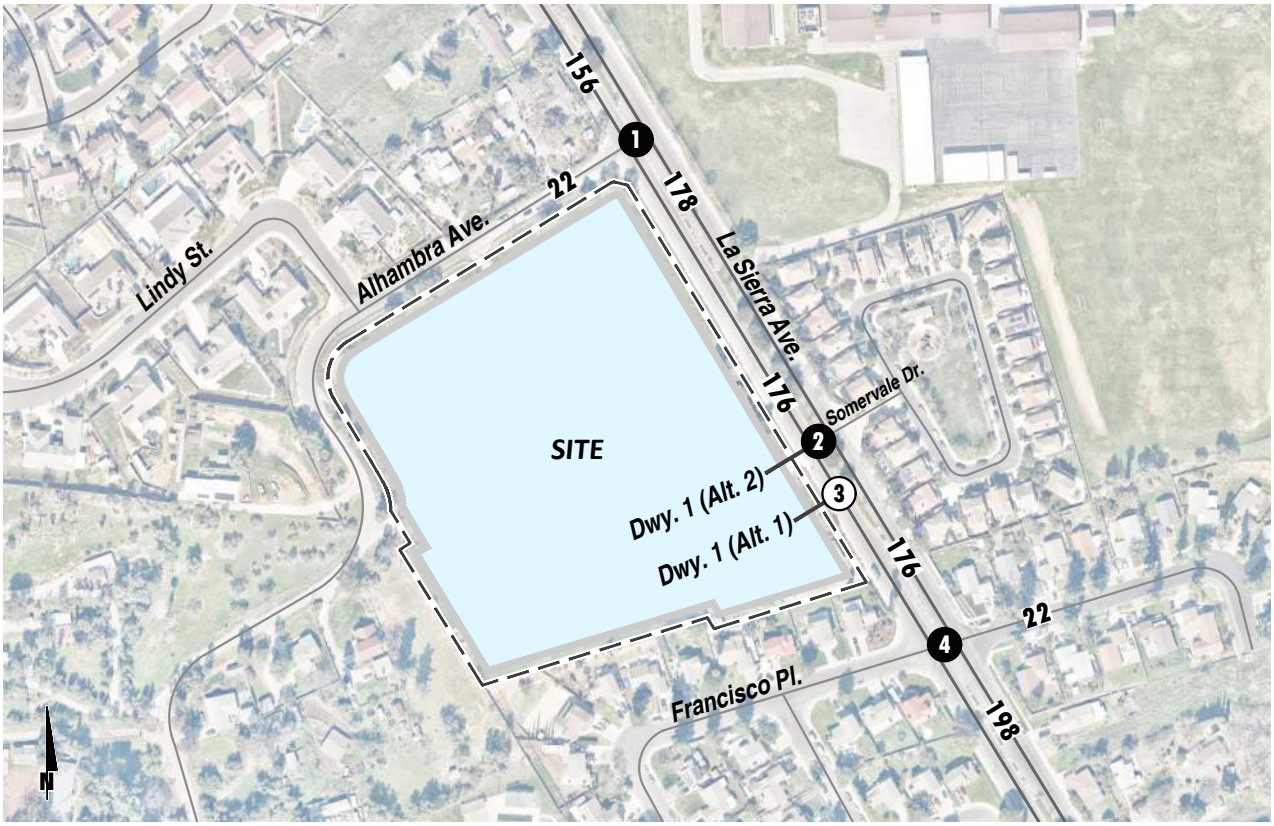


EXHIBIT 4-5 : CUMULATIVE ONLY AM/PM PEAK HOUR TRAFFIC VOLUMES



LEGEND:

❶ = *Existing Intersection Analysis Location*	00(00) = *Peak Hour Volume AM (PM)*
⓪ = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT)*

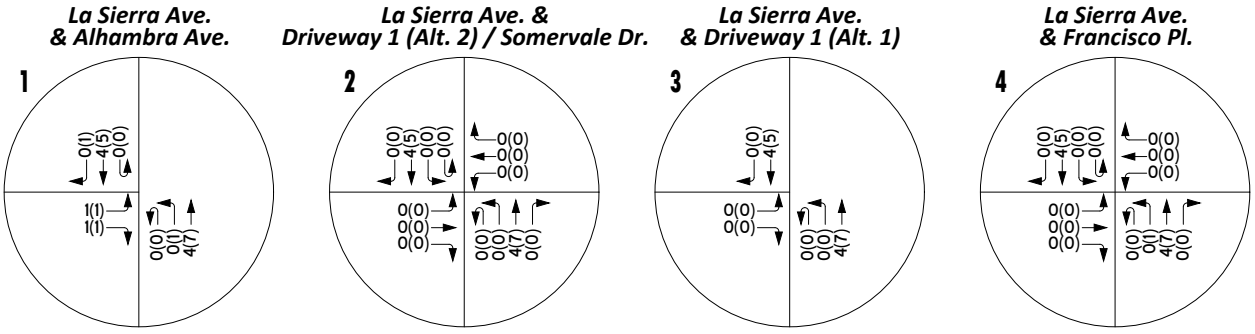
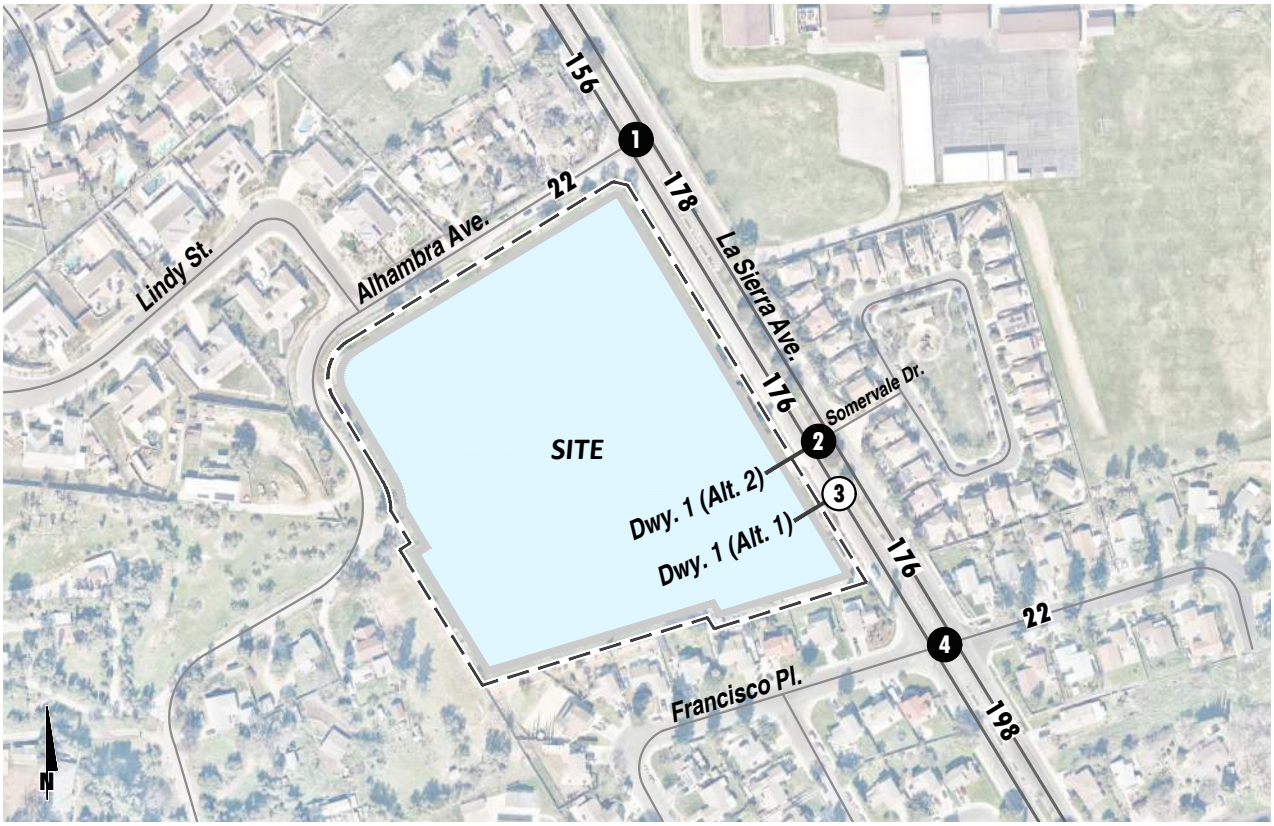


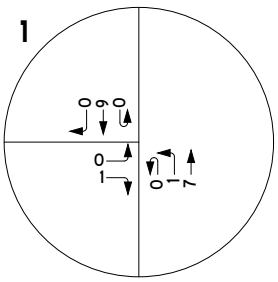
EXHIBIT 4-6 : CUMULATIVE ONLY MID-DAY PEAK HOUR TRAFFIC VOLUMES



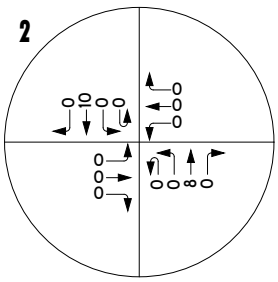
LEGEND:

0 = *Existing Intersection Analysis Location*	00 = *Peak Hour Volume MD*
(0) = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT)*

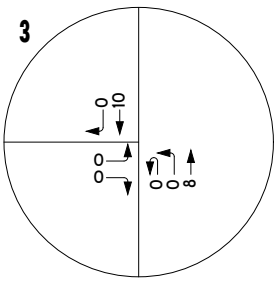
La Sierra Ave. & Alhambra Ave.



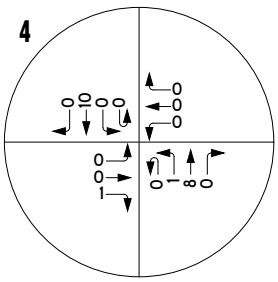
La Sierra Ave. & Driveway 1 (Alt. 2) / Somervale Dr.



La Sierra Ave. & Driveway 1 (Alt. 1)



La Sierra Ave. & Francisco Pl.



5 BACKGROUND (NEAR-TERM) (2028) TRAFFIC CONDITIONS

This section discusses the methods used to develop Background (Near-Term) (2028) Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Background (Near-Term) (2028) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Background conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Background conditions only.

5.2 BACKGROUND (NEAR-TERM) (2028) WITHOUT CUMULATIVE PROJECTS AND WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 8.24%. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Background (Near-Term) (2028) Without Cumulative Projects and Without Project traffic conditions are shown on Exhibit 5-1. The weekday mid-day PM peak hour volumes which can be expected for Background (Near-Term) (2028) Without Cumulative Projects and Without Project traffic conditions are shown on Exhibit 5-2.

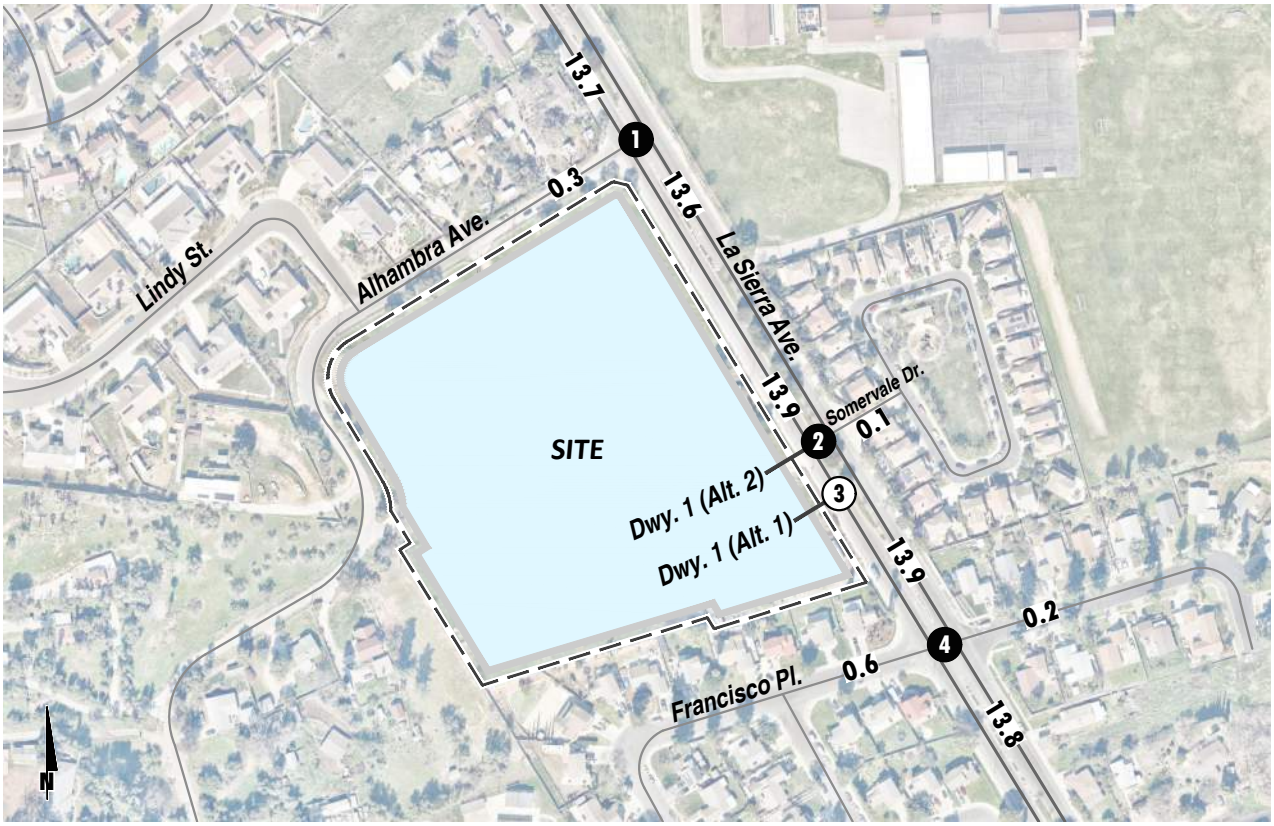
5.3 BACKGROUND (NEAR-TERM) (2028) WITH CUMULATIVE PROJECTS AND WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 8.24% plus traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Background (Near-Term) (2028) With Cumulative Projects and Without Project traffic conditions are shown on Exhibit 5-3. The weekday mid-day PM peak hour volumes which can be expected for Background (Near-Term) (2028) With Cumulative Projects and Without Project traffic conditions are shown on Exhibit 5-4.

5.4 BACKGROUND (NEAR-TERM) (2028) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Background (Near-Term) (2028) With Cumulative Projects traffic in conjunction with the addition of Project traffic. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Background (Near-Term) (2028) With Cumulative Projects and With Project traffic conditions are shown on Exhibit 5-5. The weekday mid-day PM peak hour volumes which can be expected for Background (Near-Term) (2028) With Cumulative Projects and With Project traffic conditions are shown on Exhibit 5-6.

EXHIBIT 5-1 : BACKGROUND (2028) WITHOUT CUMULATIVE PROJECTS AND WITHOUT PROJECT TRAFFIC VOLUMES



LEGEND:

- **0** = *Existing Intersection Analysis Location*
- (0) = *Future Intersection Analysis Location*
- 00(00) = *Peak Hour Volume AM (PM)*
- **00** = *Average Daily Traffic (ADT) in Thousands*

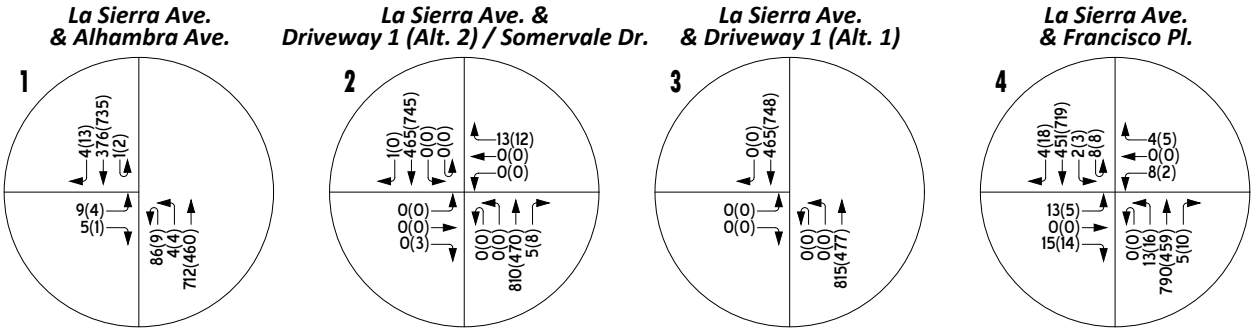
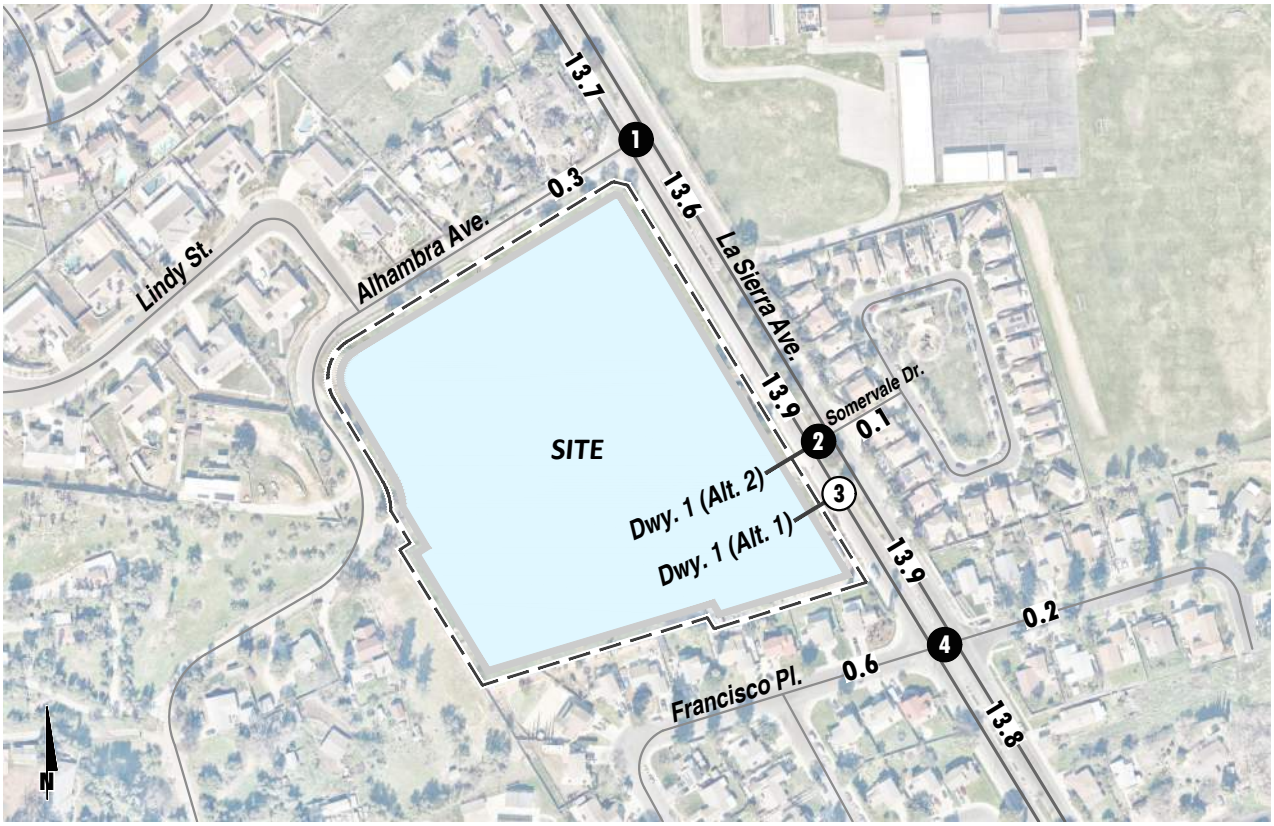


EXHIBIT 5-2 : BACKGROUND (2028) WITHOUT CUMULATIVE PROJECTS AND WITHOUT PROJECT MID-DAY TRAFFIC VOLUMES



LEGEND:

❶ = *Existing Intersection Analysis Location*	00 = *Peak Hour Volume MD*
① = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT) in Thousands*

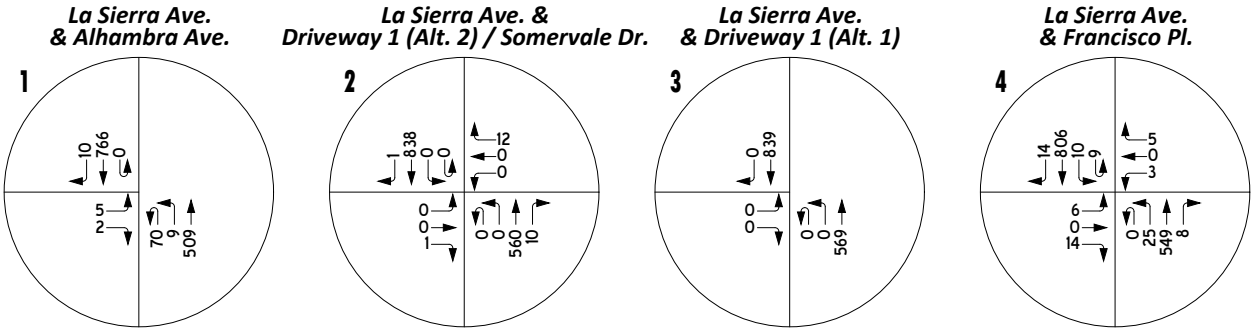
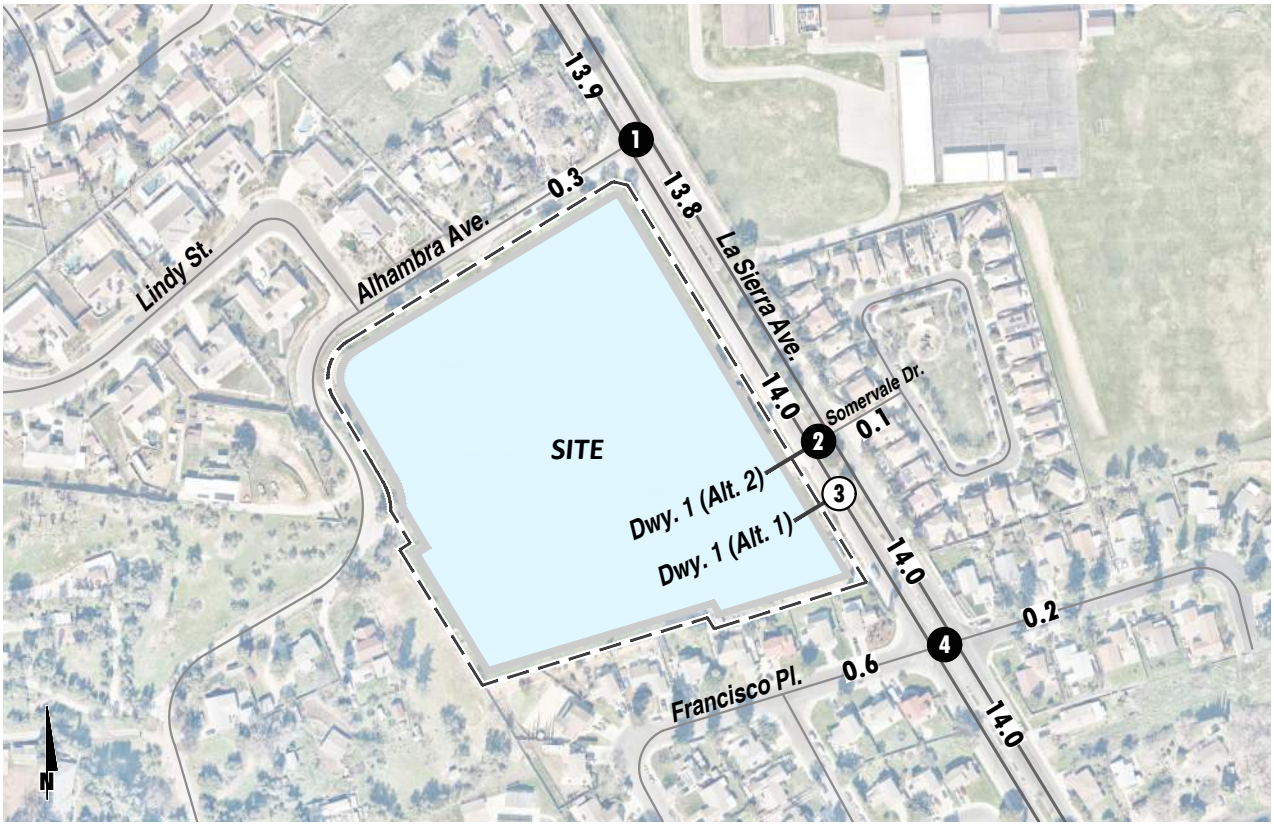


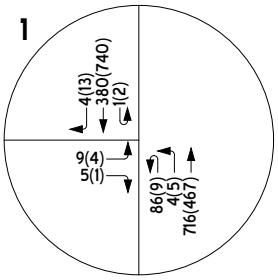
EXHIBIT 5-3 : BACKGROUND (2028) WITH CUMULATIVE PROJECTS AND WITHOUT PROJECT TRAFFIC VOLUMES



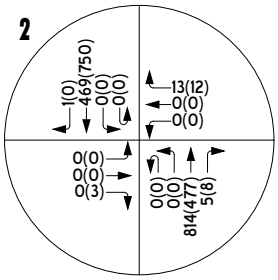
LEGEND:

❶ = *Existing Intersection Analysis Location*	00(00) = *Peak Hour Volume AM (PM)*
⓪ = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT) in Thousands*

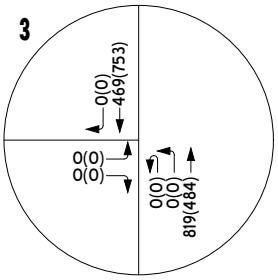
La Sierra Ave. & Alhambra Ave.



La Sierra Ave. & Driveway 1 (Alt. 2) / Somervale Dr.



La Sierra Ave. & Driveway 1 (Alt. 1)



La Sierra Ave. & Francisco Pl.

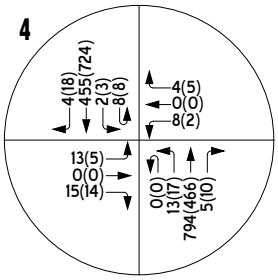
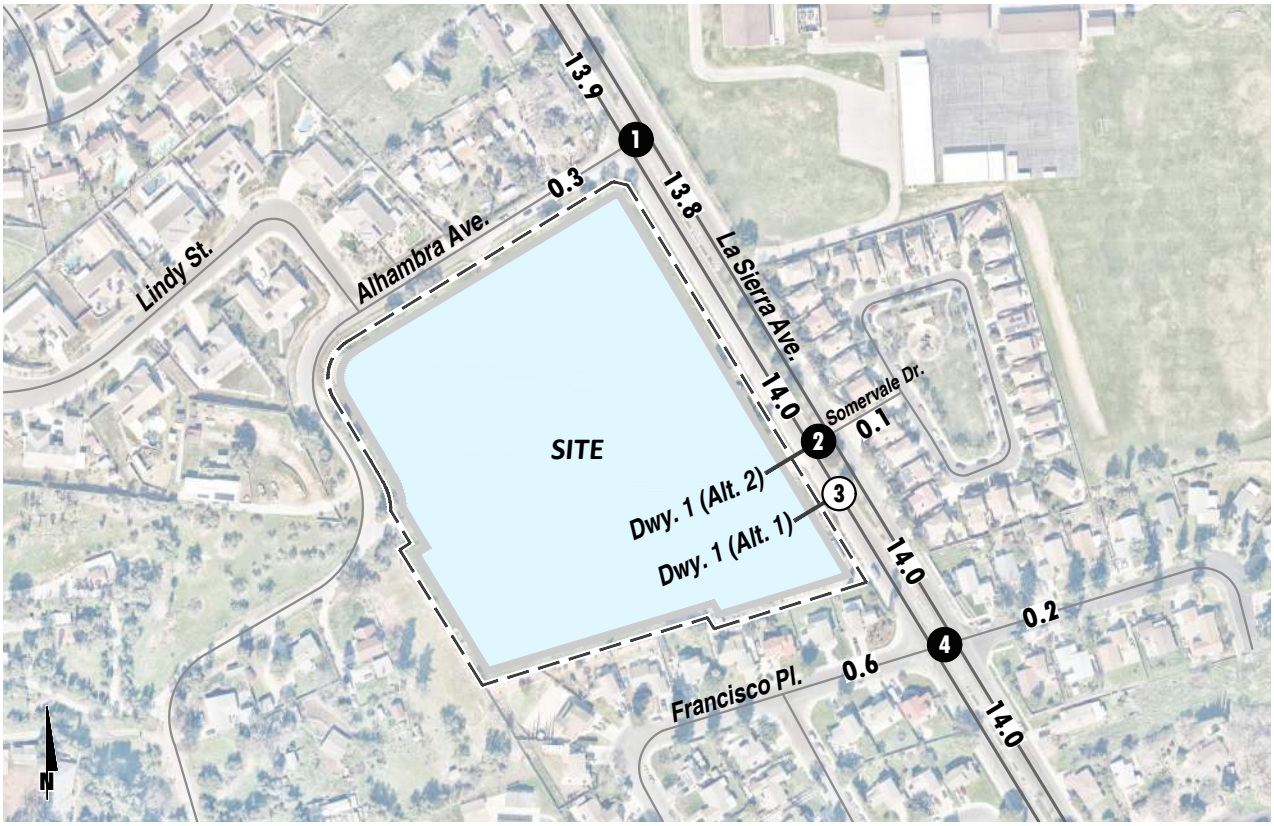


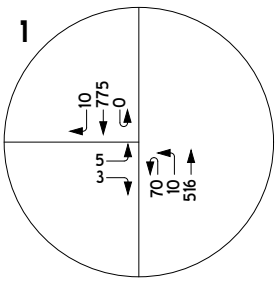
EXHIBIT 5-4 : BACKGROUND (2028) WITH CUMULATIVE PROJECTS AND WITHOUT PROJECT MID-DAY TRAFFIC VOLUMES



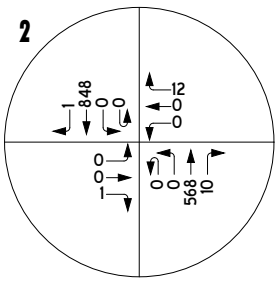
LEGEND:

❶ = *Existing Intersection Analysis Location*	00 = *Peak Hour Volume MD*
① = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT) in Thousands*

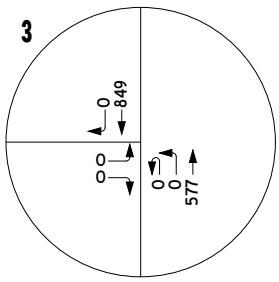
La Sierra Ave. & Alhambra Ave.



La Sierra Ave. & Driveway 1 (Alt. 2) / Somervale Dr.



La Sierra Ave. & Driveway 1 (Alt. 1)



La Sierra Ave. & Francisco Pl.

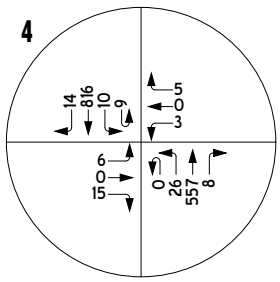
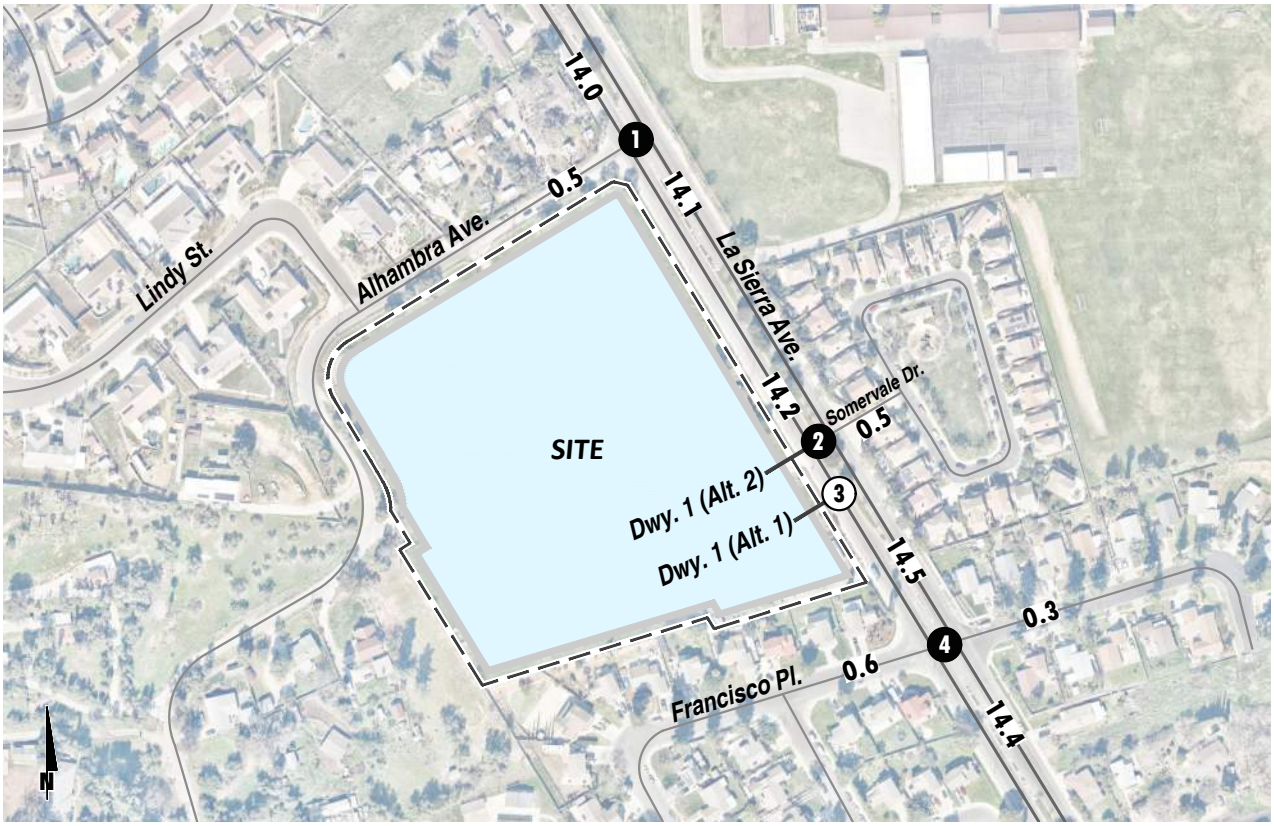


EXHIBIT 5-5 : BACKGROUND (2028) WITH PROJECT TRAFFIC VOLUMES



LEGEND:

❶ = *Existing Intersection Analysis Location*	00(00) = *Peak Hour Volume AM (PM)*
⓪ = *Future Intersection Analysis Location*	**00** = *Average Daily Traffic (ADT) in Thousands*

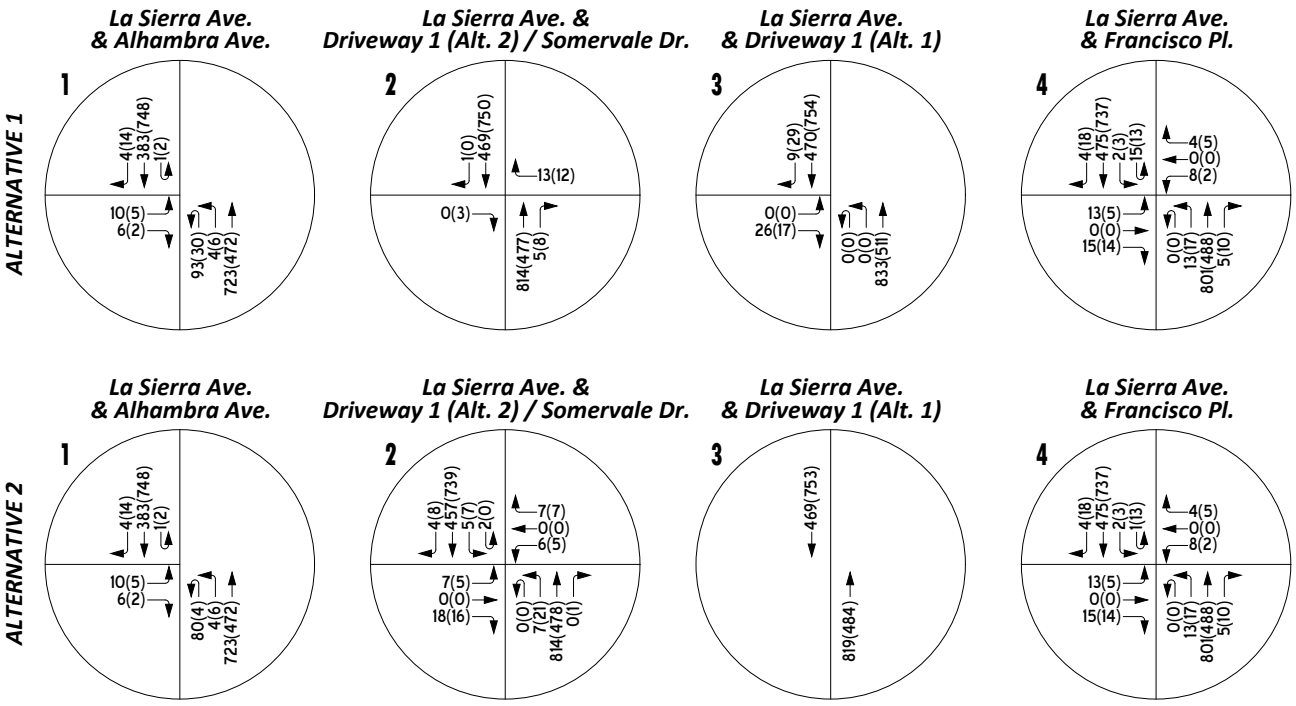
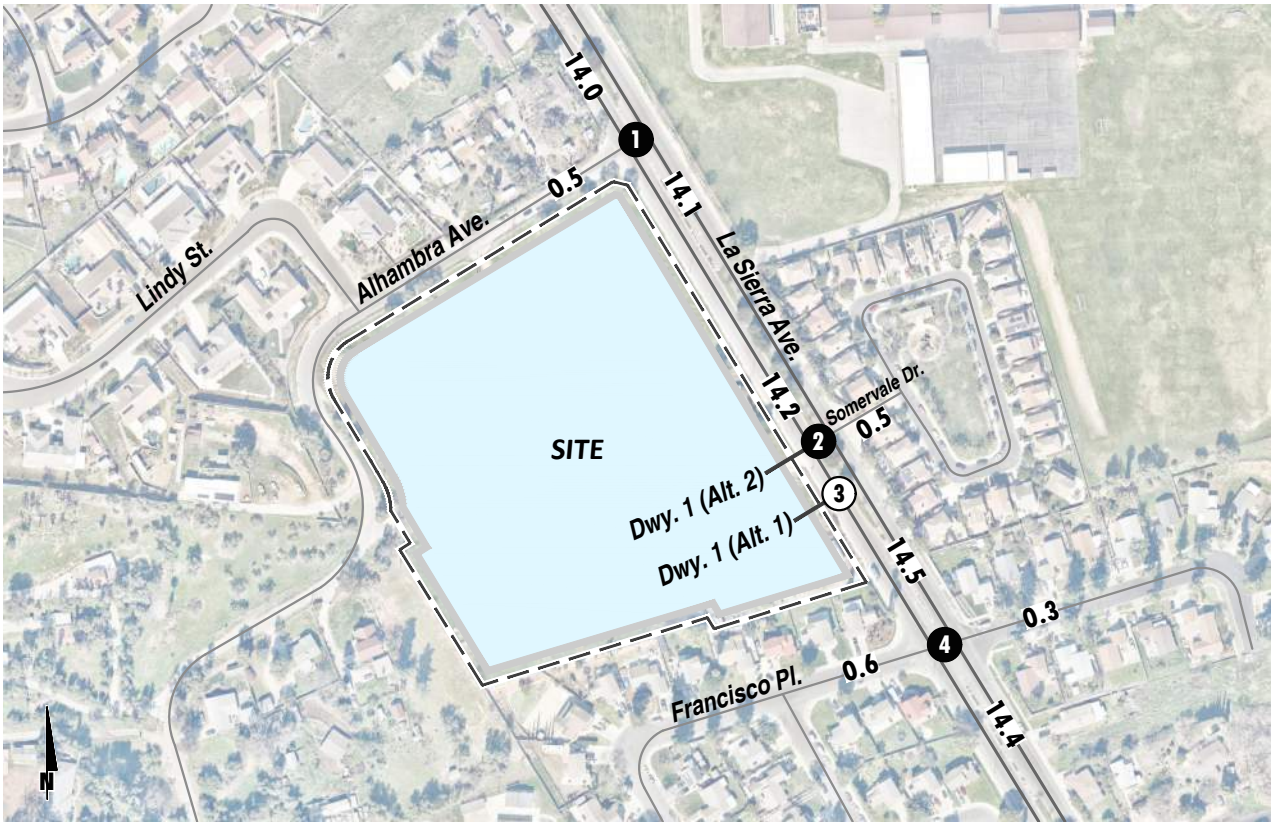
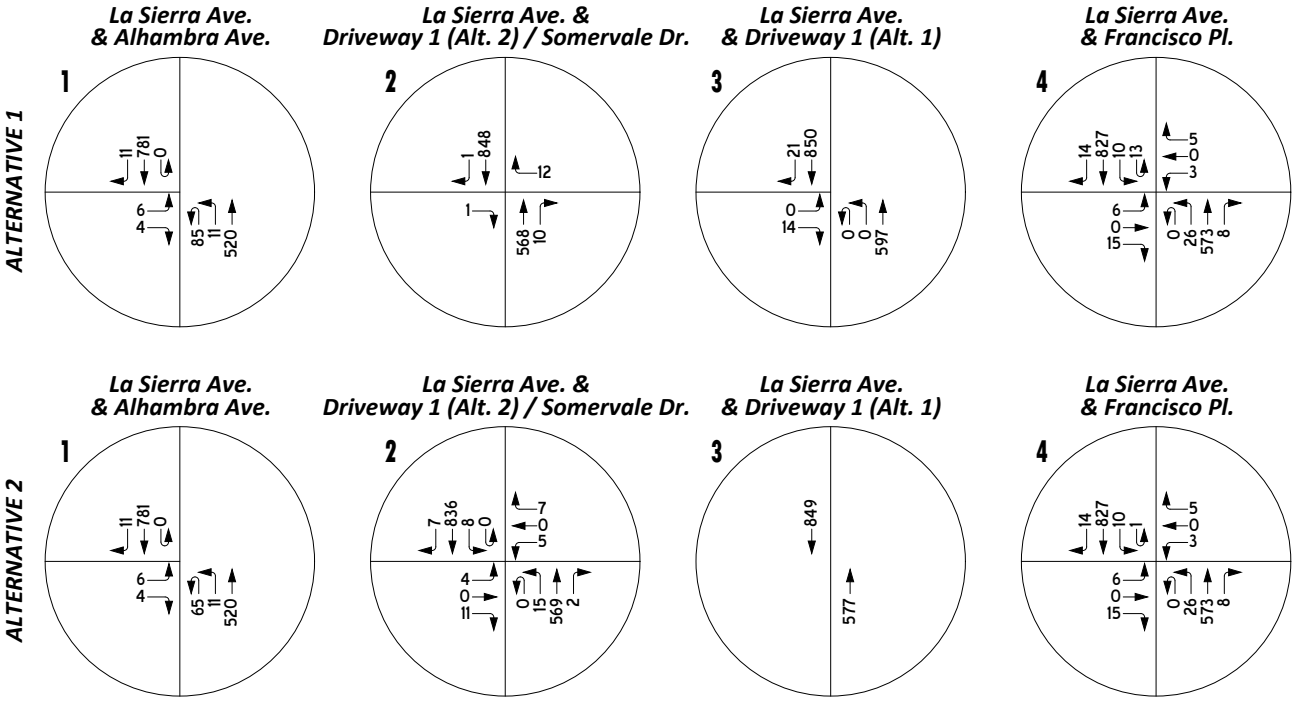


EXHIBIT 5-6 : BACKGROUND (2028) WITH PROJECT MID-DAY TRAFFIC VOLUMES



LEGEND:

- **0** = *Existing Intersection Analysis Location*
- (0) = *Future Intersection Analysis Location*
- 00 = *Peak Hour Volume MD*
- **00** = *Average Daily Traffic (ADT) in Thousands*



5.5 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Background (Near-Term) (2028) traffic conditions with the roadway and intersection geometrics consistent with Section 5.1 *Roadway Improvements*. As shown in Table 5-1, the study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours under Background (Near-Term) (2028) Without Project and With Project traffic conditions, consistent with Existing (2024) traffic conditions. **The addition of Project traffic would not trigger the City of Riverside's significance criteria.** The intersection operations analysis worksheets are included in the following appendices:

- Background (Near-Term) (2028) Without Cumulative Projects and Without Project (see Appendix 5.1)
- Background (Near-Term) (2028) With Cumulative Projects and Without Project (see Appendix 5.2)
- Background (Near-Term) (2028) With Cumulative Projects and With Project (Alternative 1) (see Appendix 5.3)
- Background (Near-Term) (2028) With Cumulative Projects and With Project (Alternative 2) (see Appendix 5.4)

5.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for Background (Near-Term) (2028) traffic conditions based on peak hour and daily planning level volumes. There are no unsignalized study area intersections anticipated to meet a traffic signal warrant under all Background (Near-Term) (2028) traffic conditions. The signal warrant worksheets are included in the following appendices:

- Background (Near-Term) (2028) Without Cumulative Projects and Without Project (see Appendix 5.5)
- Background (Near-Term) (2028) With Cumulative Projects and Without Project (see Appendix 5.6)
- Background (Near-Term) (2028) With Cumulative Projects and With Project (Alternative 1) (see Appendix 5.7)
- Background (Near-Term) (2028) With Cumulative Projects and With Project (Alternative 2) (see Appendix 5.8)

TABLE 5-1: INTERSECTION ANALYSIS FOR BACKGROUND (NEAR-TERM) (2028) CONDITIONS

			Background (2028)						Background (2028) + Cumulatives						Background (2028) + Cumulatives + Project (Alternative 1)						Background (2028) + Cumulatives + Project (Alternative 2)[3]					
			Delay[1] (secs.)			Level of Service			Delay[1] (secs.)			Level of Service			Delay[1] (secs.)			Level of Service			Delay[1] (secs.)			Level of Service		
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
1	La Sierra Av. & Alhambra Av.	CSS	14.9	21.5	15.0	B	C	B	14.9	20.6	15.1	B	C	C	15.1	21.9	15.4	C	C	C	14.8	20.4	14.7	B	C	B
2	La Sierra Av. & Driveway 1 (Alt. 2)/Somervale Dr.	CSS	12.3	11.0	9.9	B	B	A	12.3	11.0	9.9	B	B	A	12.3	11.0	9.9	B	B	A	26.3	25.5	15.7	D	D	C
3	La Sierra Av. & Driveway 1 (Alt. 1)	CSS	Future Intersection						Future Intersection						10.1	11.9	11.4	B	B	B	Not an Analysis Location					
4	La Sierra Av. & Francisco Pl.	CSS	20.4	18.0	13.1	C	C	B	20.5	18.0	13.2	C	C	B	21.0	18.5	13.4	C	C	B	20.5	17.9	13.2	C	C	B

[1] Per the Highway Capacity Manual (7th Edition), overall average intersection Delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

[2] CSS = Cross-street Stop; CSS = Improvement

[3] This alternative consists of opening the La Sierra median to allow full access movements at Somervale Drive, which will reduce u-turn volumes at adjacent intersections. As such, a reduced delay is anticipated where u-turn volumes have been decreased.

This page intentionally left blank

6 REFERENCES

1. **City of Riverside.** *Traffic Impact Analysis Guidelines for Vehicles Traveled and Level of Service Assessment.* Riverside : s.n., July 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **VRPA Technologies, Inc. for Riverside County Transportation Commission.** *Riverside County Long Range Transportation Study.* County of Riverside : VRPA Technologies, Inc., December 2019.
4. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 7th Edition. s.l. : National Academy of Sciences, 2022.
5. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).

This page intentionally left blank

APPENDIX 1.1: APPROVED TRAFFIC STUDY SCOPING AGREEMENT

This Page Intentionally Left Blank

MEMORANDUM

APPROVED
Vital Patel
08/29/2024

URBAN | CROSSROADS

DATE: August 28, 2024
TO: Vital Patel, City of Riverside
FROM: Charlene So, Urban Crossroads, Inc.
JOB NO: 15842-04 TA Scope REV

LA SIERRA RESIDENTIAL SCOPING AGREEMENT (REVISED)

Urban Crossroads, Inc. is pleased to provide the following Scoping Agreement for the preparation of a Focused Level of Service (LOS) Assessment for General Plan Consistency for the La Sierra Residential development (**Project**), which is located west of La Sierra Avenue between Alhambra Avenue and Francisco Place in the City of Riverside. This letter describes the proposed Project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed Project study area and analysis locations. The proposed analysis methodology and assumptions are in accordance with the City's Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (dated July 2020) (**City Guidelines**). The City scoping form is included in Attachment A.

PROJECT DESCRIPTION

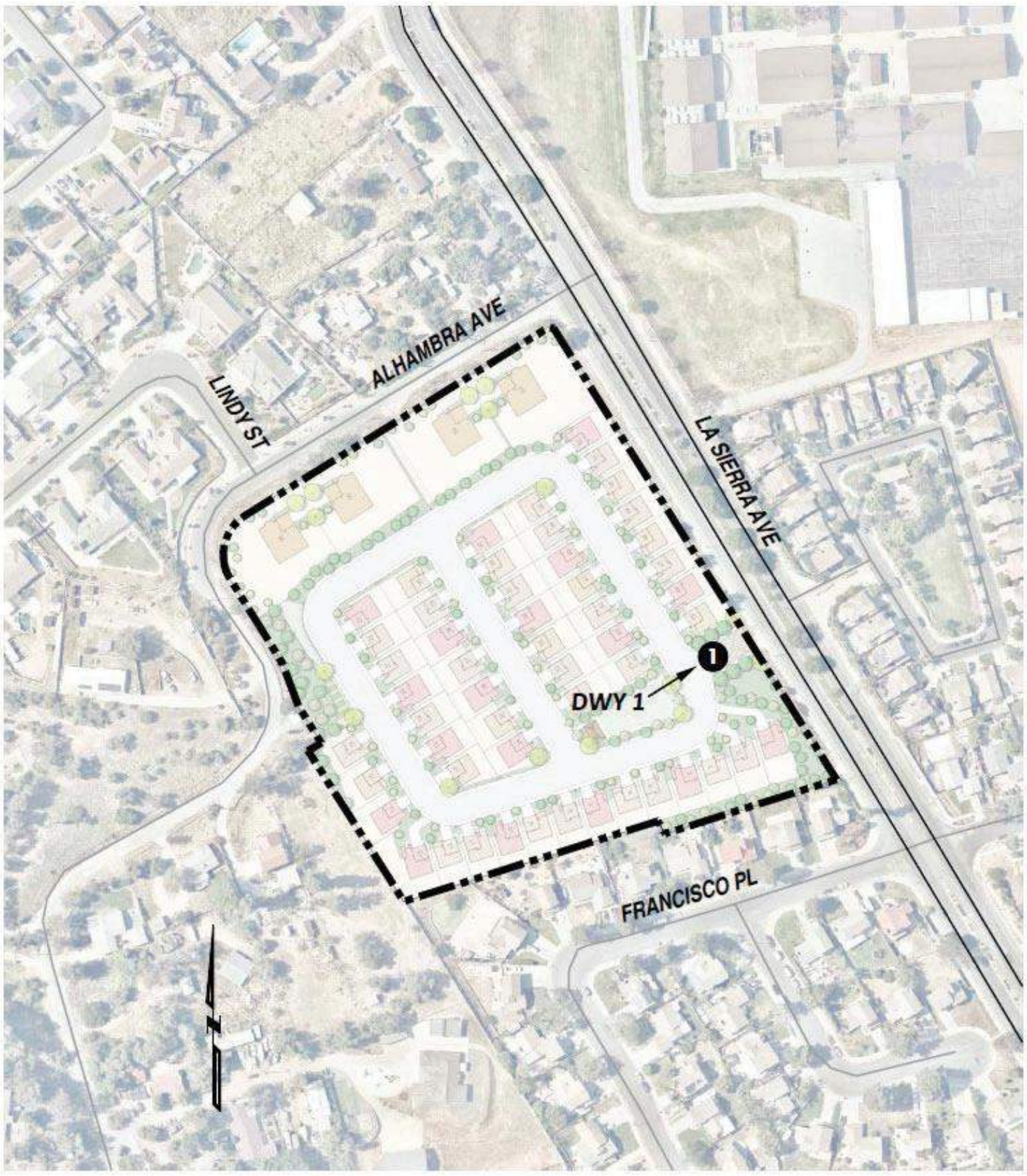
The Project is anticipated to have an Opening Year of 2028. The Project includes the development of 4 single-family (estate) residential dwelling units located on Alhambra Avenue and 52 single-family detached residential dwelling units. Primary access to the Project site will be accommodated via a new connection to La Sierra Avenue (Driveway 1). Driveway 1, as currently shown on the site plan, will be evaluated assuming right-in/right-out access only; however, an alternative will also be evaluated that assumes the driveway would be redesigned to align with the existing Somervale Drive to the east. The four single-family estate homes will take access off the existing Alhambra Avenue. A preliminary site plan for the proposed Project is shown on Exhibit 1 reflects the proposed right-in/right-out access on La Sierra Avenue while Exhibit 2 reflects the proposed alignment of the driveway with Somervale Drive for full access.

EXHIBIT 1: PRELIMINARY SITE PLAN

NOTE(S):

1 = *There are no proposed gates for Driveway 1*

EXHIBIT 2: ALTERNATIVE SITE PLAN



NOTE(S):

1 = *There are no proposed gates for Driveway 1*

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted to, and produced by, a development and is based upon the specific land uses planned for a given project. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) were used to estimate the Project's trip generation based on the Single Family Detached Housing (ITE Land Use Code 210) and the Affordable Housing (ITE Land Use Code 223) land use categories. Trip generation rates are summarized in Table 1.

The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project are also shown in Table 1. The proposed Project is anticipated to generate 514 two-way trip-ends per day with 38 AM peak hour trips, 38 mid-day PM peak hours trips, and 51 PM peak hour trips (see Table 1).

TABLE 1: PROJECT TRIP GENERATION SUMMARY

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	Mid-day PM Peak Hour[3] In	Mid-day PM Peak Hour[3] Out	Mid-day PM Peak Hour[3] Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached Residential	DU	210	0.18	0.52	0.70	0.41	0.29	0.70	0.59	0.35	0.94	9.43
Affordable Housing	DU	223	0.15	0.36	0.50	0.20	0.14	0.34	0.27	0.19	0.46	4.81

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

[2] DU = Dwelling Units

[3] Mid-day PM Peak Hour trip rates determined by using the ITE Trip Generation Manual, Eleventh Edition (2021) Time-of-day Distribution Percentages.

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	Mid-day PM Peak Hour In	Mid-day PM Peak Hour Out	Mid-day PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
135'x145' Minimum Estate Homes	4	DU	1	2	3	2	1	3	2	1	3	38
45'x80' Minimum Lots (Single Family Detached Residential)	49	DU	9	25	34	20	14	34	29	17	46	462
45'x80' Minimum Lots (Affordable Housing)	3	DU	0	1	1	1	0	1	1	1	2	14
Total			**10**	**28**	**38**	**23**	**15**	**38**	**32**	**19**	**51**	**514**

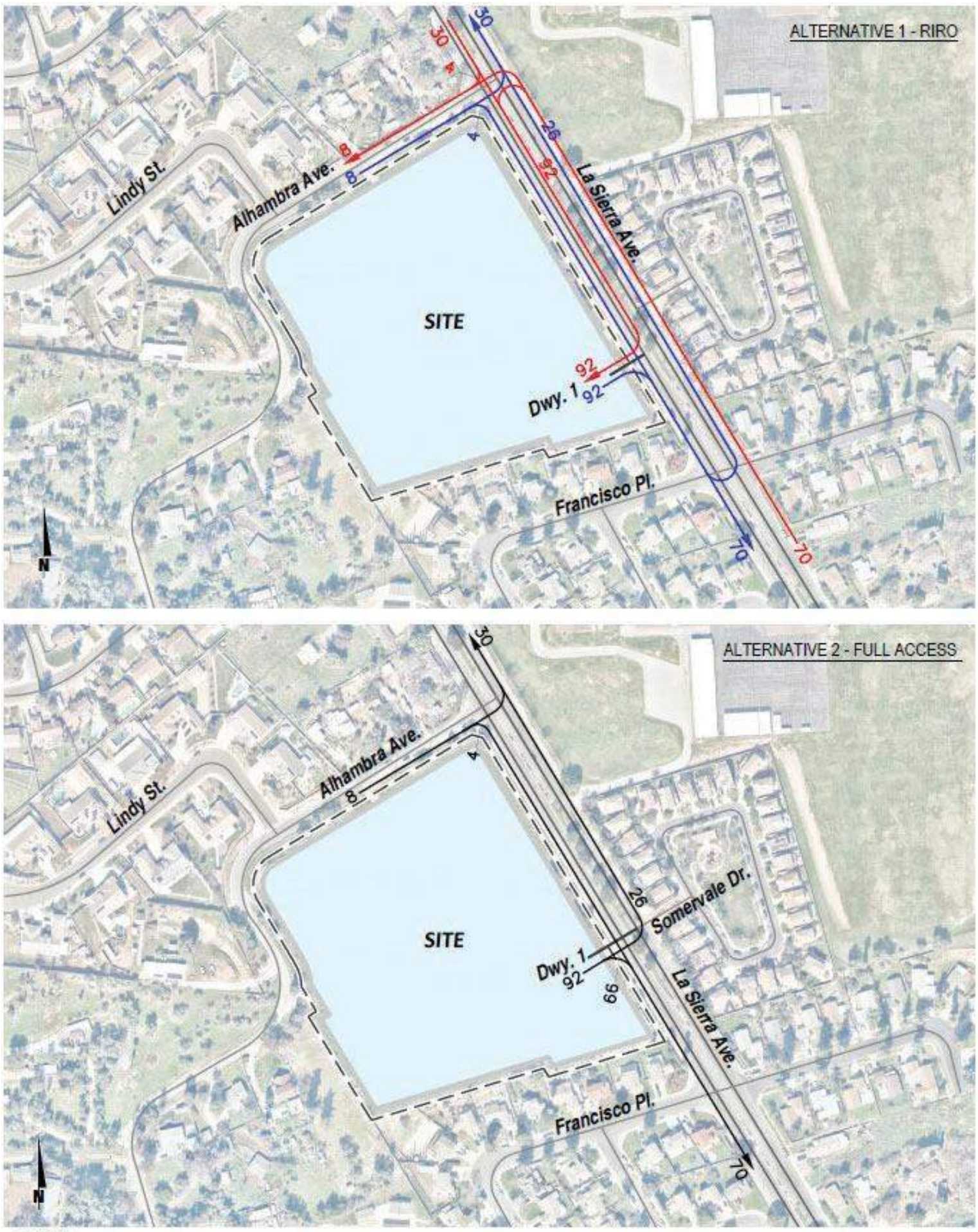
[1] DU = Dwelling Units

TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. Exhibit 3 shows the Project trip distribution patterns.

The Project only trip assignment based on the Project trip generation and trip distribution patterns is provided in Attachment B. Project Only volumes are provided for both Alternative 1 and Alternative 2.

EXHIBIT 3: PROJECT TRIP DISTRIBUTION



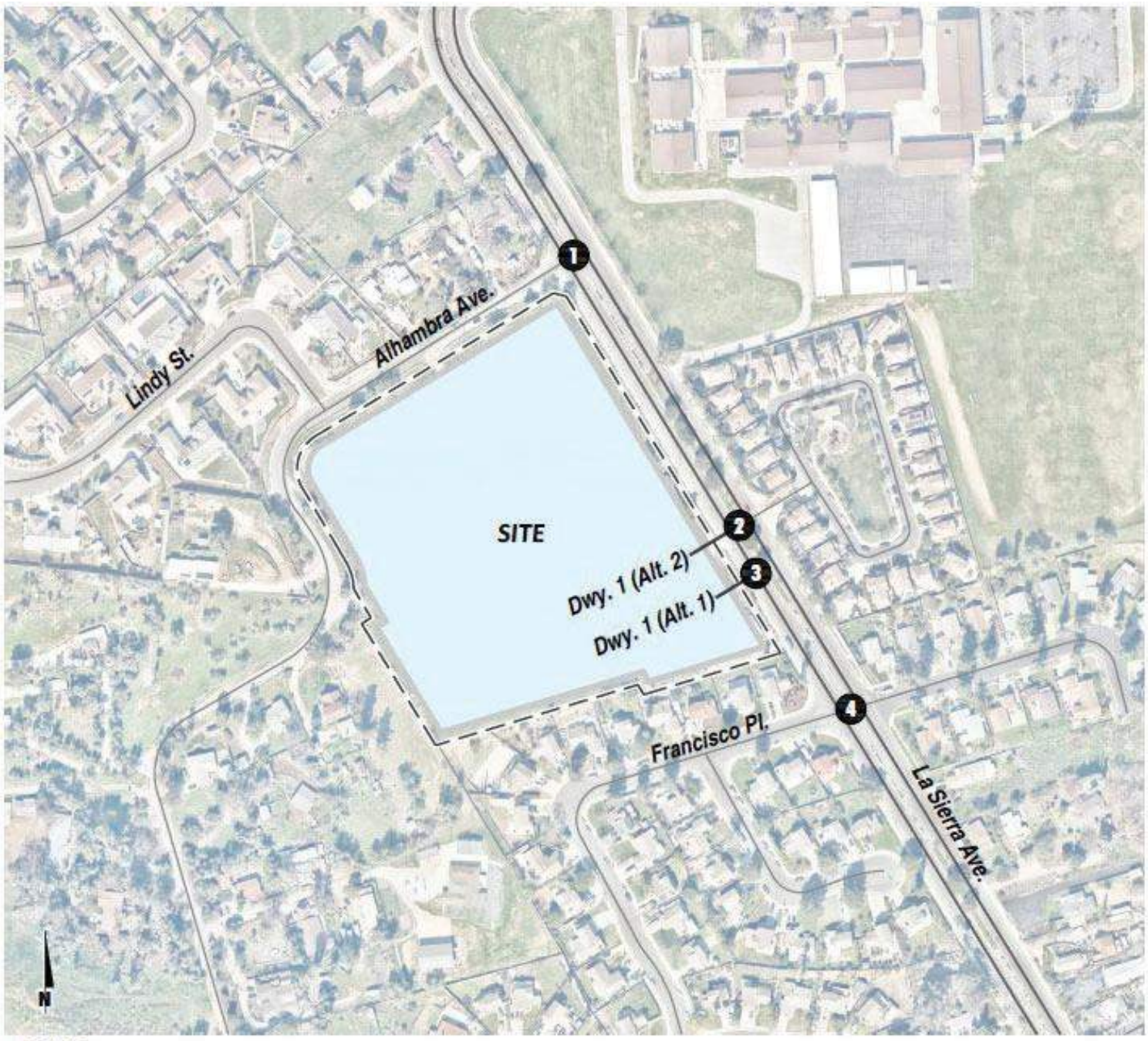
ANALYSIS SCENARIOS

Consistent with the City's Guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2024) Conditions
- Background (Near-Term) Without Cumulative Projects and Without Project
- Background (Near-Term) With Cumulative Projects and Without Project
- Background (Near-Term) With Cumulative Projects and With Project – Right-in/Right-out Driveway
- Background (Near-Term) With Cumulative Projects and With Project – Full Access Driveway

All study area intersections will be evaluated using the Highway Capacity Manual (HCM) 7th Edition analysis methodology. The study area that is proposed to be evaluated is shown on Exhibit 4.

EXHIBIT 4: STUDY AREA



TRAFFIC COUNTS

New traffic counts were conducted at the end of April during a typical weekday when local schools were in session and operating on a typical bell schedule. No adjustments are proposed to the traffic counts for the baseline traffic condition with the exception of volume balancing between closely spaced intersections. Due to the proximity of the Loma Vista Middle School, traffic counts were collected during the weekday morning (7 am - 9 am), weekday mid-day (2 pm - 4 pm), and weekday evening (4 pm - 6 pm) peak periods. Traffic counts also include U-turn activity at both Alhambra Avenue and Francisco Place in conjunction with license plate surveys to determine directionality of vehicles accessing the existing residential homes located off of Somervale Drive. Traffic count data includes collecting speed surveys for La Sierra Avenue (the current posted speed limit is 45 miles per hour). Due to the proximity of the middle school, field observations were noted during the morning drop-off and mid-day pick-up timeframes to note on-street parking activity, pedestrian/bicycle activity, and any existing queuing issues.

Additional approach counts were also collected at both Alhambra Avenue and Francisco Place on La Sierra Avenue in order to conduct all applicable California MUTCD traffic signal warrants under existing conditions for both locations. Either peak hour or planning-level ADT-based volume warrants will be evaluated for all future traffic conditions.

AMBIENT GROWTH

An ambient growth rate of 2% per year is proposed for the study area intersection to approximate background growth not identified by nearby cumulative development projects. As such, a total of 8.24% will be applied to the baseline (2% per year, compounded over 4 years).

CUMULATIVE PROJECTS

The City of Riverside provided current cumulative projects within the study area for inclusion in the Focused LOS Assessment. The cumulative projects are listed in Table 2 and shown in Exhibit 5.

TABLE 2: CUMULATIVE DEVELOPMENT PROJECTS

No.	Project Name	Land Use[1]	Quantity	Units[2]
R1	PR-2021-001137	Single Family Residential	6	DU
R2	PR-2021-001129	Single Family Residential	18	DU
R3	P20-0448 / P20-0449 / P20-0450	Restaurant	2.825	TSF
		Retail	2.750	TSF

[1] TSF = Thousand Square Feet; DU = Dwelling Units

EXHIBIT 5: CUMULATIVE DEVELOPMENT PROJECTS

SPECIAL ISSUES

The following special issues will also be addressed:

- VMT analysis will be evaluated in a separate document.
- All applicable California MUTCD traffic signal warrants (9 warrants) will be assessed for both Alhambra Avenue and Francisco Place along La Sierra Avenue for Existing traffic conditions. All future traffic conditions will evaluate either peak hour or ADT-based traffic signal warrants only.
- Provide a queuing analysis for all study area intersections. This will be used to determine the appropriate turn pocket lengths needed to accommodate peak hour queues. The analysis will be conducted for both access alternatives.
- Provide a conceptual plan to show the effect on on-street parking as a result of the median opening alternative.
- Provide a conceptual plan to show a high visibility crosswalk at the west leg of Alhambra and La Sierra.
- The speed survey worksheets and summary will be included in the traffic analysis report.
- Recommendation to be added to the Traffic Study indicating that the Project is to work with City of Riverside Traffic Division to implement red curb parking restrictions along the inside of the horizontal curve of Alhambra approaching the first proposed residential home along with advance curve ahead warning signage and centerline striping.

If you have any questions or comments, I can be reached at cso@urbanxroads.com.

ATTACHMENT A: CITY SCOPING FORM

Public Works Department

City of Arts & Innovation

Traffic Analysis Scoping Form

This scoping form shall be submitted to the City of Riverside Traffic Engineering Division

Project Identification:

Case Number:	DP-2024-00943 (Development Review), DP-2024-00966 (PRD), SD-2024-00009 (TTM), PR-2024-001711 (TM, PRD, DR)
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	La Sierra & Alhambra Residential
Project Address:	Southwest corner of La Sierra Avenue and Alhambra Avenue
Project Opening Year:	2026
Project Description:	56 single family residential dwelling units

	Consultant:	Developer:
Name:	Charlene So - Urban Crossroads	MLC Holdings, Inc.
Address:	1133 Camelback St, #8329	5 Peters Canyon Rd., Suite 310
	Newport Beach, CA 92658	Irvine, CA 92606
Telephone:	949-861-0177	
Fax/Email:	cso@urbanxroads.com	

Scoping & Study Fees:

Fees to be made payable to "City of Riverside" and delivered to Land Development.
City Hall 3rd Floor, 3900 Main Street, Riverside, CA 92522

1) Scoping Agreement Fee (For all projects not screened from analysis): **$271.00**

2) TIA Review (For projects with both LOS & VMT analysis of any scale, or standalone LOS analyses with over 100 vehicle trips per hour): **$2671.02**

3) TIA Review (For standalone VMT analysis, or standalone LOS analyses with under 100 vehicle trips per hour): **$1288.20**

Trip Generation Information:

Trip Generation Data Source: ITE Trip Generation Manual (11th Edition, 2021)

Current General Plan Land Use:

SRR - Semi Rural Residential
MDR - 6.2 DU per acre

Proposed General Plan Land Use:

SRR & MDR

Current Zoning:

RR - Rural Residential
R-1-8500

Proposed Zoning:

RR & R-1-8500

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				10	29	39
PM Trips				33	19	52

Trip Internalization: ☐ Yes ☒ No (_____% Trip Discount)

Pass-By Allowance: ☐ Yes ☒ No (_____% Trip Discount)

Potential Screening Checks

Is your project screened from specific analyses in accordance with City Guidelines?

Is the project screened from LOS assessment? ☒ Yes ☐ No

LOS screening justification (see Page 6 of the guidelines): Project consists of fewer than 100 single family detached residential dwelling units Project therefore generates fewer than 100 net new peak hour during any peak hour However,an analysis of the driveway and site adjacent intersecitons will be evaluated to address other circulation issues

Is the project screened from VMT assessment? ☐ Yes ☒ No

VMT screening justification (see Pages 23-25 of the guidelines): N/A Project does not meet any of the City's screening criteria.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):

North	South	East	West
30 %	70 %	0 %	0 %

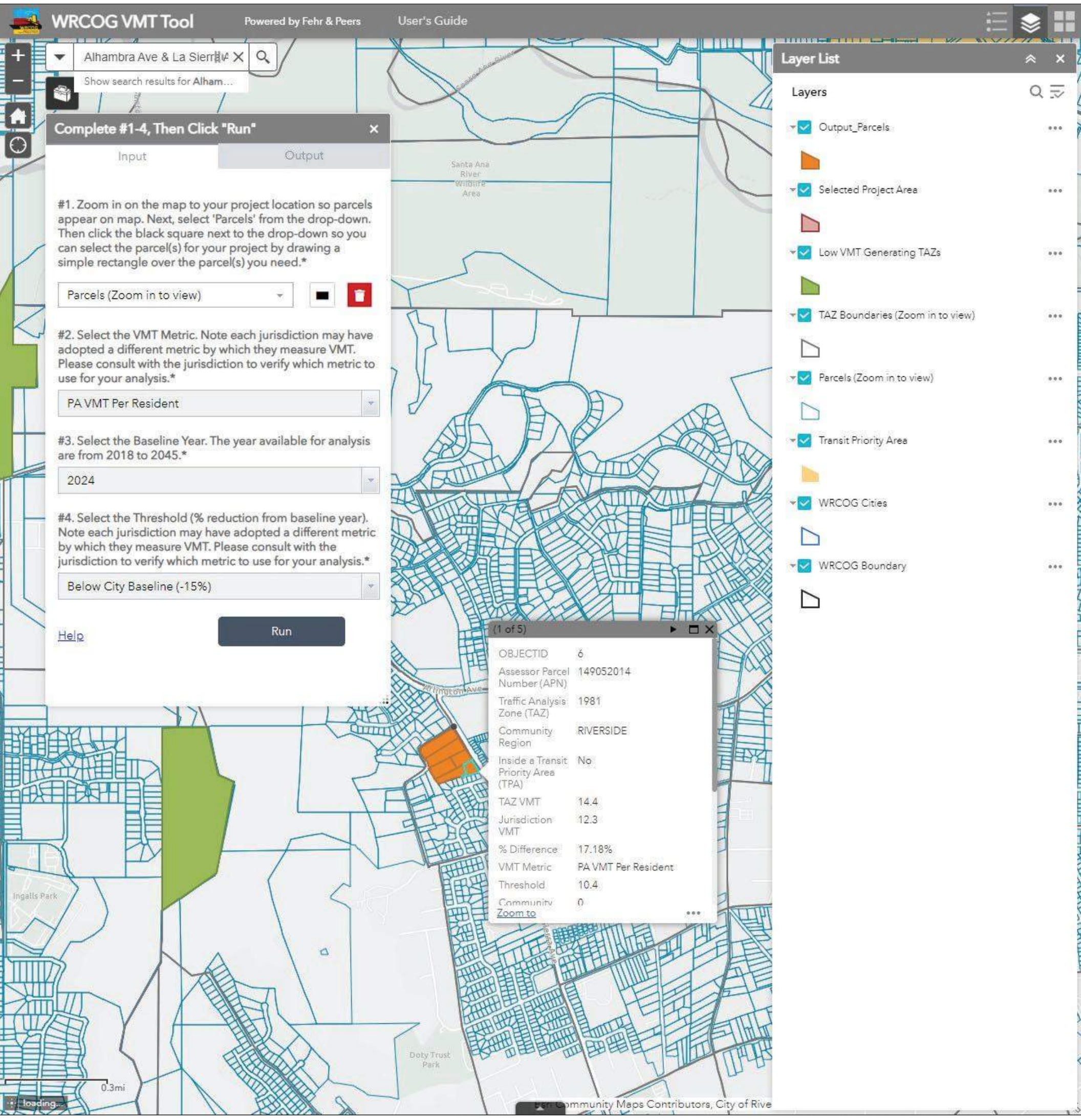
- Attach list of Approved and Pending Projects that need to be considered (provided by the lead agency and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach legible site plan See scoping memo
- Note other specific items to be addressed:
  - Site access
  - On-site circulation
  - Parking
  - Consistency with Plans supporting Bikes/Peds/Transit
  - Other _____
- Date of Traffic Counts May 2024 - while schools were in session
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model __RIVCOM_____
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use (Attached)
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach) 2.93 person per household, consistent with the City's General Plan assumptions.

Specific Issues to be addressed in the Study (in addition to the standard analysis described in the Guidelines) (To be filled out by the Public Works Traffic Engineering Division)


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
Alhambra Ave & La Sierra Ave
Show search results for Alham...
Complete #1-4, Then Click "Run"
Input
Output
#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.*
Parcels (Zoom in to view)
#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Resident
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2024
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (-15%)
Help
Run
Layer List
Layers
Output_Parcels
Selected Project Area
Low VMT Generating TAZs
TAZ Boundaries (Zoom in to view)
Parcels (Zoom in to view)
Transit Priority Area
WRCOG Cities
WRCOG Boundary
(1 of 5)
OBJECTID 6
Assessor Parcel Number (APN) 149052014
Traffic Analysis Zone (TAZ) 1981
Community Region RIVERSIDE
Inside a Transit Priority Area (TPA) No
TAZ VMT 14.4
Jurisdiction VMT 12.3
% Difference 17.18%
VMT Metric PA VMT Per Resident
Threshold 10.4
Community 0
Zoom to
Santa Ana River Wildlife Area
Ingalls Park
Doty Trust Park
0.3mi
loading...
Esri Community Maps Contributors, City of Rive

ATTACHMENT B: PROJECT ONLY TURNING VOLUMES

Volume Development - Right-in/Right-out Access Alternative 1

1: La Sierra Av. & Alhambra Av.

	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Project AM:	7	0	7	0	0	0	3	0	1	0	1	0	0	0	19
Project MD:	15	1	4	0	0	0	6	1	1	0	1	0	0	0	29
Project PM:	21	1	5	0	0	0	8	1	1	0	1	0	0	0	38

3: La Sierra Av. & Driveway 1 (Alt. 1)

	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Project AM:	0	0	14	0	0	0	1	9	0	0	26	0	0	0	50
Project MD:	0	0	20	0	0	0	1	21	0	0	14	0	0	0	56
Project PM:	0	0	27	0	0	0	1	29	0	0	17	0	0	0	74

4: La Sierra Avenue & Francisco Pl.

	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Project AM:	0	0	7	0	7	0	20	0	0	0	0	0	0	0	34
Project MD:	0	0	16	0	4	0	11	0	0	0	0	0	0	0	31
Project PM:	0	0	22	0	5	0	13	0	0	0	0	0	0	0	40

Volume Development - Full Access Alternative 2

1: La Sierra Av. & Alhambra Av.

	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Project AM:	0	0	7	0	0	0	3	0	1	0	1	0	0	0	12
Project MD:	0	1	4	0	0	0	6	1	1	0	1	0	0	0	14
Project PM:	0	1	5	0	0	0	8	1	1	0	1	0	0	0	17

2: La Sierra Av. & Driveway 1 (Alt. 2)/Somervale

	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Project AM:	0	7	0	0	0	0	1	3	7	0	18	0	0	0	36
Project MD:	0	15	1	0	0	0	1	6	4	0	10	0	0	0	37
Project PM:	0	21	1	0	0	0	1	8	5	0	13	0	0	0	49

4: La Sierra Avenue & Francisco Pl.

	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Project AM:	0	0	7	0	0	0	20	0	0	0	0	0	0	0	27
Project MD:	0	0	16	0	0	0	11	0	0	0	0	0	0	0	27
Project PM:	0	0	22	0	0	0	13	0	0	0	0	0	0	0	35

This Page Intentionally Left Blank

APPENDIX 1.2: QUEUING ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

Intersection: 1: La Sierra Av. & Alhambra Av.

Movement	EB	NB	SB
Directions Served	LR	UL	UT
Maximum Queue (ft)	40	49	15
Average Queue (ft)	13	21	0
95th Queue (ft)	39	46	10
Link Distance (ft)	519		561
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: La Sierra Av. & Somervale Dr.

Movement	WB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	9
95th Queue (ft)	32
Link Distance (ft)	115
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: La Sierra Av. & Driveway 1

Movement	EB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	50	9	5
Average Queue (ft)	19	0	0
95th Queue (ft)	45	7	3
Link Distance (ft)	116	236	24
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: La Sierra Av. & Francisco Pl.

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	UL	T	TR
Maximum Queue (ft)	28	32	19	9	12	26	29	11
Average Queue (ft)	13	8	2	0	0	4	1	0
95th Queue (ft)	33	28	12	5	6	18	13	6
Link Distance (ft)	443	436		1080	1080		236	236
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			140			120		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: La Sierra Av. & Alhambra Av.

Movement	EB	NB
Directions Served	LR	UL
Maximum Queue (ft)	40	81
Average Queue (ft)	11	30
95th Queue (ft)	36	61
Link Distance (ft)	519	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: La Sierra Av. & Somervale Dr.

Movement	WB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	10
95th Queue (ft)	33
Link Distance (ft)	115
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: La Sierra Av. & Driveway 1

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	45	20
Average Queue (ft)	13	1
95th Queue (ft)	38	9
Link Distance (ft)	116	24
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: La Sierra Av. & Francisco Pl.

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	UL	T	TR
Maximum Queue (ft)	29	28	35	19	5	26	15	13
Average Queue (ft)	12	6	8	1	0	4	1	1
95th Queue (ft)	33	23	25	9	4	18	7	8
Link Distance (ft)	443	436		1080	1080		236	236
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			140			120		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: La Sierra Av. & Alhambra Av.

Movement	EB	NB	SB
Directions Served	LR	UL	UT
Maximum Queue (ft)	31	53	10
Average Queue (ft)	6	13	0
95th Queue (ft)	25	39	5
Link Distance (ft)	519		561
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: La Sierra Av. & Somervale Dr.

Movement	WB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	9
95th Queue (ft)	32
Link Distance (ft)	116
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: La Sierra Av. & Driveway 1

Movement	EB	SB	SB
Directions Served	R	T	TR
Maximum Queue (ft)	39	27	4
Average Queue (ft)	12	2	0
95th Queue (ft)	37	13	2
Link Distance (ft)	111	25	25
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: La Sierra Av. & Francisco Pl.

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	UL	T	TR
Maximum Queue (ft)	24	28	20	17	6	25	9	16
Average Queue (ft)	11	4	4	1	0	4	1	1
95th Queue (ft)	31	20	17	10	4	17	7	10
Link Distance (ft)	444	436		1080	1080		240	240
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			140			120		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: La Sierra Av. & Alhambra Av.

Movement	EB	NB	SB
Directions Served	LR	UL	UT
Maximum Queue (ft)	36	55	16
Average Queue (ft)	13	19	1
95th Queue (ft)	38	46	8
Link Distance (ft)	519		561
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: La Sierra Av. & Driveway 1/Somervale Dr.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	UL
Maximum Queue (ft)	36	38	29	22
Average Queue (ft)	18	12	2	2
95th Queue (ft)	43	36	14	13
Link Distance (ft)	269	116		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: La Sierra Av. & Francisco Pl.

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	UL	T	TR
Maximum Queue (ft)	48	32	19	9	12	5	6
Average Queue (ft)	16	7	2	0	1	0	0
95th Queue (ft)	40	26	11	5	7	3	4
Link Distance (ft)	443	436		1080		319	319
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			140		120		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: La Sierra Av. & Alhambra Av.

Movement	EB	NB
Directions Served	LR	UL
Maximum Queue (ft)	35	57
Average Queue (ft)	9	24
95th Queue (ft)	32	50
Link Distance (ft)	519	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: La Sierra Av. & Driveway 1/Somervale Dr.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	31	30	29	28
Average Queue (ft)	12	9	7	3
95th Queue (ft)	36	31	26	16
Link Distance (ft)	271	116		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: La Sierra Av. & Francisco Pl.

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	UL	T	TR
Maximum Queue (ft)	28	24	35	14	11	20	14	31
Average Queue (ft)	11	5	8	1	0	2	1	2
95th Queue (ft)	30	21	25	7	6	13	6	16
Link Distance (ft)	443	436		1080	1080		319	319
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			140			120		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: La Sierra Av. & Alhambra Av.

Movement	EB	NB	SB
Directions Served	LR	UL	UT
Maximum Queue (ft)	31	22	26
Average Queue (ft)	8	3	1
95th Queue (ft)	29	17	13
Link Distance (ft)	519		561
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: La Sierra Av. & Driveway 1/Somervale Dr.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	31	30	29	16
Average Queue (ft)	17	12	8	1
95th Queue (ft)	42	36	28	9
Link Distance (ft)	269	116		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: La Sierra Av. & Francisco Pl.

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	UL	T	TR
Maximum Queue (ft)	33	24	25	4	16	20	11
Average Queue (ft)	12	5	5	0	1	1	1
95th Queue (ft)	33	21	18	3	9	9	7
Link Distance (ft)	443	436		1080		319	319
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			140		120		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

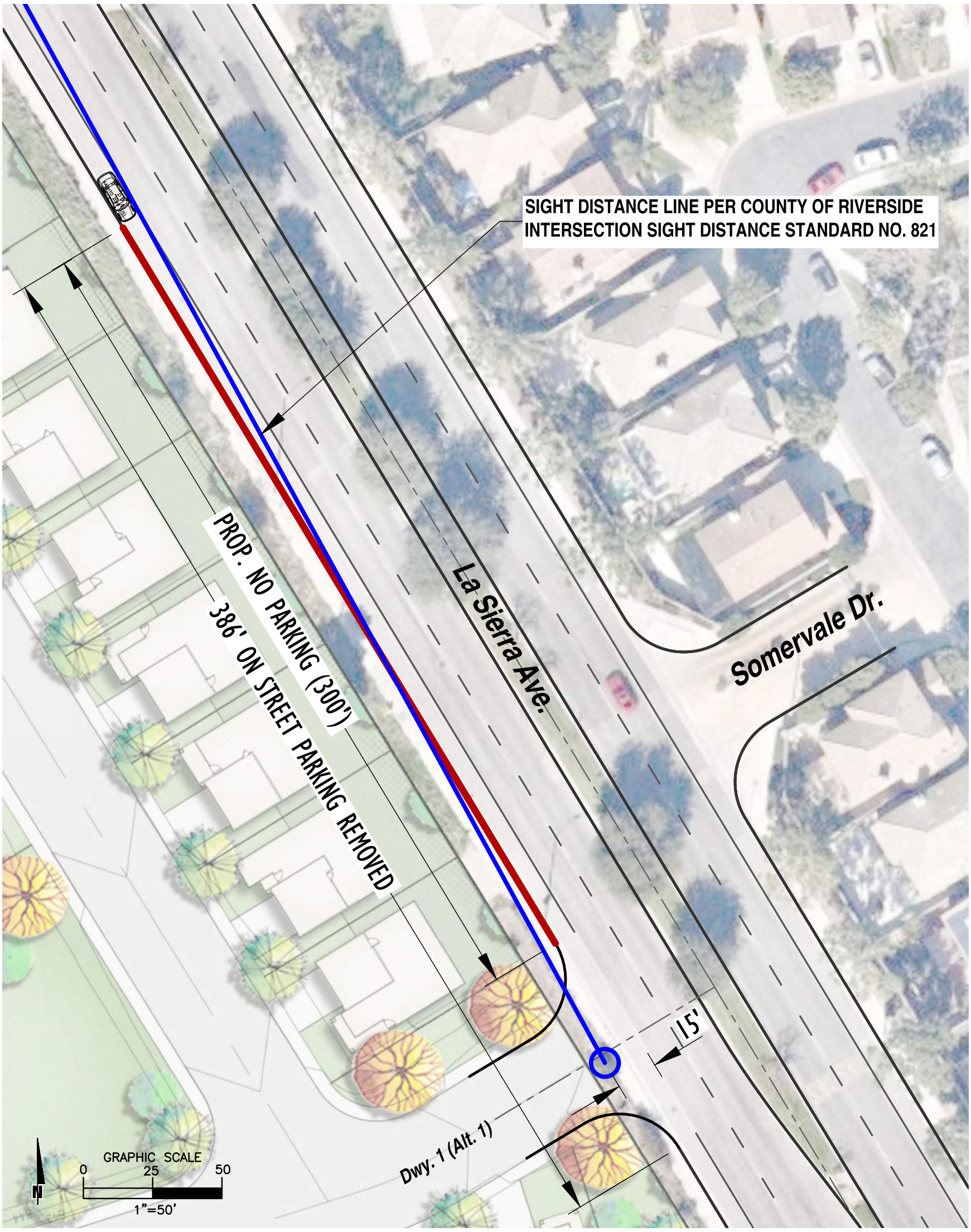
Network wide Queuing Penalty: 0

This Page Intentionally Left Blank

APPENDIX 1.3: CONCEPTUAL PLAN (ALTERNATIVE 1)

This Page Intentionally Left Blank

EXHIBIT 1-7 : CONCEPTUAL PLAN (ALTERNATIVE 1)



15842_c.dwg

This Page Intentionally Left Blank

APPENDIX 1.4: CONCEPTUAL PLAN (ALTERNATIVE 2)

This Page Intentionally Left Blank