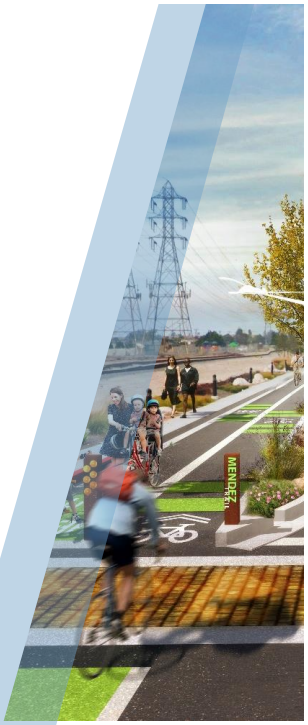
Fairway Oaks Traffic Impact Study

Administrative Draft Report

Raney Planning and Management

Final Report



GHD | 943 Reserve Drive, Roseville, CA 95678 | 11203491 | March 2 2020

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1. Introduction

This report has been prepared to present the results of the transportation impact analysis performed by GHD, Inc., sub-consultant to Raney Planning & Management, Inc. to evaluate potential change in transportation impacts created by the proposed Fairway Oaks development in Galt, California. The term “Project” as used in this study refers to the proposed residential development located in southern Galt, bounded by State Route 99 (SR 99) to the east, the Galt City limit to the south (also Sacramento County limit), and single family residential and commercial developments to the west and north within the City limits. The proposed project consists of the development of 169 single family dwelling units as well as annexation of the adjacent County island into the City of Galt.

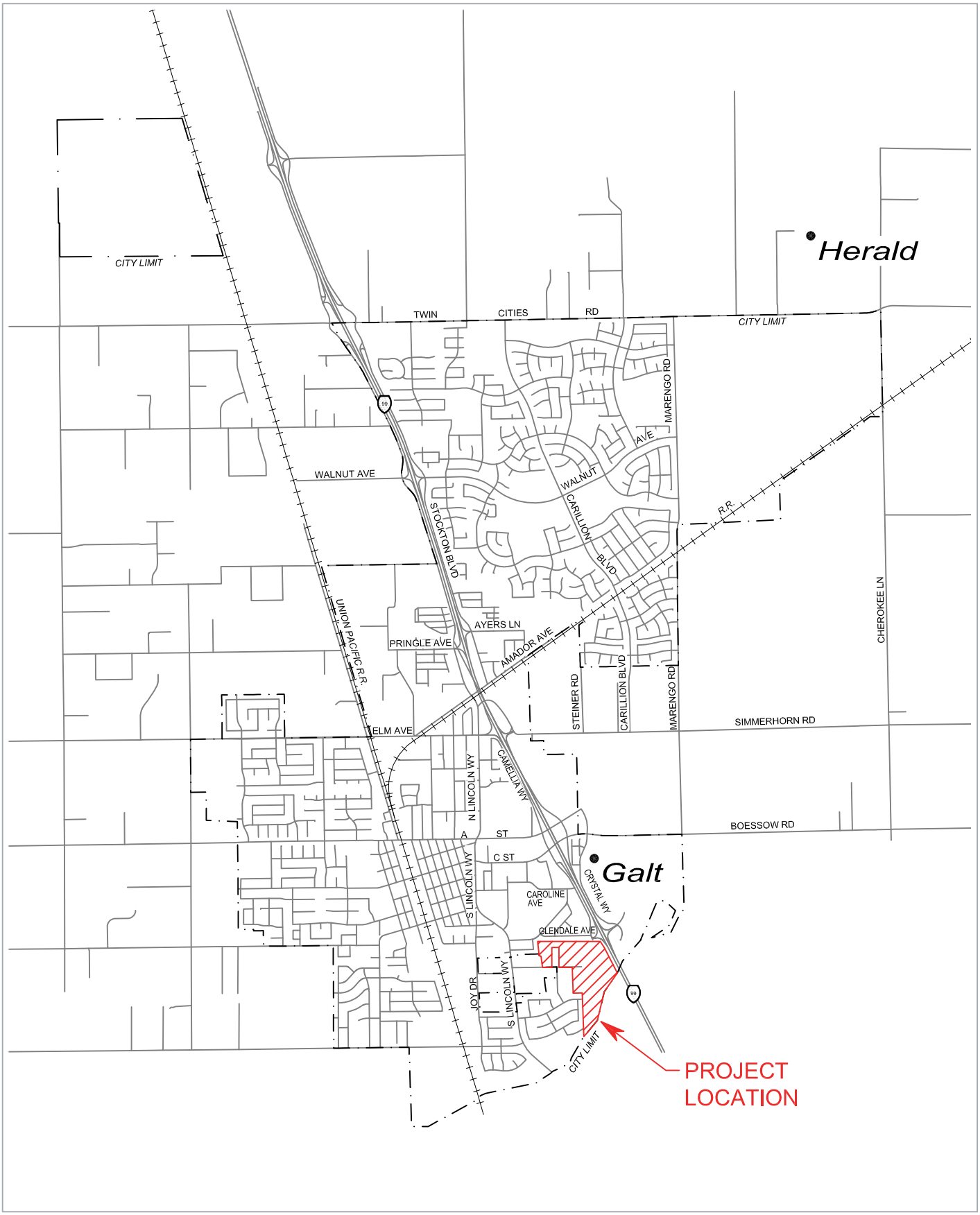
Figure 1.1 presents the project location and project vicinity map. Under the direction of City Staff the following traffic scenarios were analyzed as part of this Traffic Impact Analysis Report (TIAR):

- Existing conditions
- Existing Plus Project conditions
- Cumulative No Project conditions
- Cumulative Plus Project conditions

Existing conditions analyze the existing traffic operations at the study locations using recent peak hour traffic counts and current intersection configurations and controls. Existing Plus Project conditions analyze the current conditions with the trips generated by the proposed project superimposed on existing traffic counts, and traffic impacts associated with the project are investigated in comparison to the Existing conditions. Under these conditions, existing intersection configurations remain the same.

Cumulative No Project conditions analyze the scenario that considers the projected local and regional growth in approximately 20 years, but without the proposed project. Cumulative Plus Project conditions analyze the scenario with the trips generated by the proposed project superimposed on the Cumulative No Project traffic, and traffic impacts associated with the project are investigated in comparison to the Cumulative No Project conditions.

Adverse project impacts and improvements identified to mitigate project impacts will be detailed in the final section of this report.



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FAIRWAY OAKS TIAR

STUDY AREA MAP

Project No. 11203491
Report No. 01
Date September 2019

FIGURE 1.1

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Source:

1.1 Existing Roadway System

State Route 99 (SR 99)

State Route 99 (SR 99) is a major state freeway facility that traverses in the north-south direction through central and northern California. Regionally, SR 99 serves as the primary interregional auto and truck travel route that connects the Central Valley cities of Stockton, Modesto, Merced, and Fresno with the Sacramento urban area to the north and the Los Angeles/ Bakersfield urban basin to the south. Within the City of Galt, SR 99 bisects the City, and is a major north-south commuter route between the Cities of Sacramento and Stockton. Within the City of Galt planning area, SR 99 is a four-lane divided freeway with a posted speed limit of 65 mph.

Lincoln Way

Lincoln Way is a two-lane, north-south arterial facility that runs through southwest Galt. Lincoln Way continues as West Stockton Boulevard north of Live Oak Ave, and continues as Lower Sacramento Road south of the Sacramento County limit.

C Street

C Street is an east-west arterial facility. The western segment of C Street is two lanes, and through the Central Galt interchange, C Street is four lanes. C Street connects to two SR 99 ramps, making up the southern half of a spread diamond interchange in Central Galt. C Street continues as Boessow Road at the SR 99 Northbound Off-Ramp.

A Street

A Street is an east-west arterial facility. The western segment of A Street between the Galt city limit and Lincoln Way is a 2-lane arterial facility. A Street expands to four lanes through the Central Galt interchange, and continues across SR 99 to its eastern terminus at Crystal Way. A Street connects to two SR 99 Ramps, making up the northern half of a spread diamond interchange in Central Galt. Per the City's current General Plan Circulation Element, A Street will be extended east to connect with Marengo Road.

Meladee Lane

Meladee Lane is a residential street located in southwest Galt that connects Lincoln Way to Caroline Avenue. A portion of Meladee Lane is adjacent to the site of the Galt Outdoor Flea Market, as well as Chabolla Park. The entrance driveway for both of these sites is located at the intersection of Meladee Lane and Glendale Avenue.

Glendale Avenue

Glendale Avenue is a residential street located in southwest Galt that connects Meladee Lane to Fairway Drive. The intersection of Glendale Avenue and Fairway Drive also connects to two SR 99 Ramps. One of the project site access points is located on Glendale Avenue.

Fairway Drive

Fairway Drive is a two-lane, north-south frontage road that provides access to SR 99 southbound via ramps at A Street and Glendale Avenue, as well as a ramp located south of C Street.

Kost Road

Kost Road is a two-lane, east-west arterial facility located in southwest Galt. Kost Road connects to Lincoln Way at its eastern terminus, forming an all-way stop-controlled intersection.

1.2 Study Locations and Data Collection

For this study, nine (9) existing intersections have been identified for study under AM and PM peak hour traffic conditions. The AM peak hour is defined as the one continuous hour of peak traffic flow counted between 7:00 AM and 9:00 AM, and the PM peak hour is defined as the one continuous hour of peak traffic flow counted between 4:00 PM and 6:00 PM under typical weekday conditions.

1.2.1 Study Intersections

1. Lincoln Way / Kost Road (October 16, 2019)
2. Lincoln Way / Ranch Road (October 16, 2019)
3. Lincoln Way / Cornell Road (October 16, 2019)
4. Lincoln Way / C Street (May 9, 2019)
5. Glendale Avenue / SR 99 Southbound Ramps (October 16, 2019)
6. Fairway Drive / C Street (May 9, 2019)
7. A Street / SR 99 Southbound Off-ramp (February 14, 2018)
8. C Street / SR 99 Northbound Off-ramp (February 14, 2018)
9. A Street / SR 99 Northbound On-ramp (February 14, 2018)
10. Glendale Avenue / Lillian Lane (Project Driveway)

These counts were collected on a typical weekday while schools are in session, and include traffic associated with the Galt Outdoor Flea Market. As indicated among the above intersections, four intersections are at ramp termini with SR 99. These intersections were included to meet the requirement of the Caltrans Traffic Impact Study Guidelines. In addition, SR 99 ramp merge and weave operations were evaluated in terms of density and LOS for the analysis scenarios at the following locations:

1.2.2 Ramp and Weaving Segment Locations

1. SR 99 northbound Crystal Way to C Street Weaving Segment
2. SR 99 northbound A Street to Simmerhorn Weaving Segment
3. SR 99 southbound Elm Avenue to A Street Weaving Segment
4. SR 99 southbound C Street to Fairway Drive Weaving Segment
5. SR 99 southbound Fairway Drive/Glendale Avenue On Ramp Merging Segment

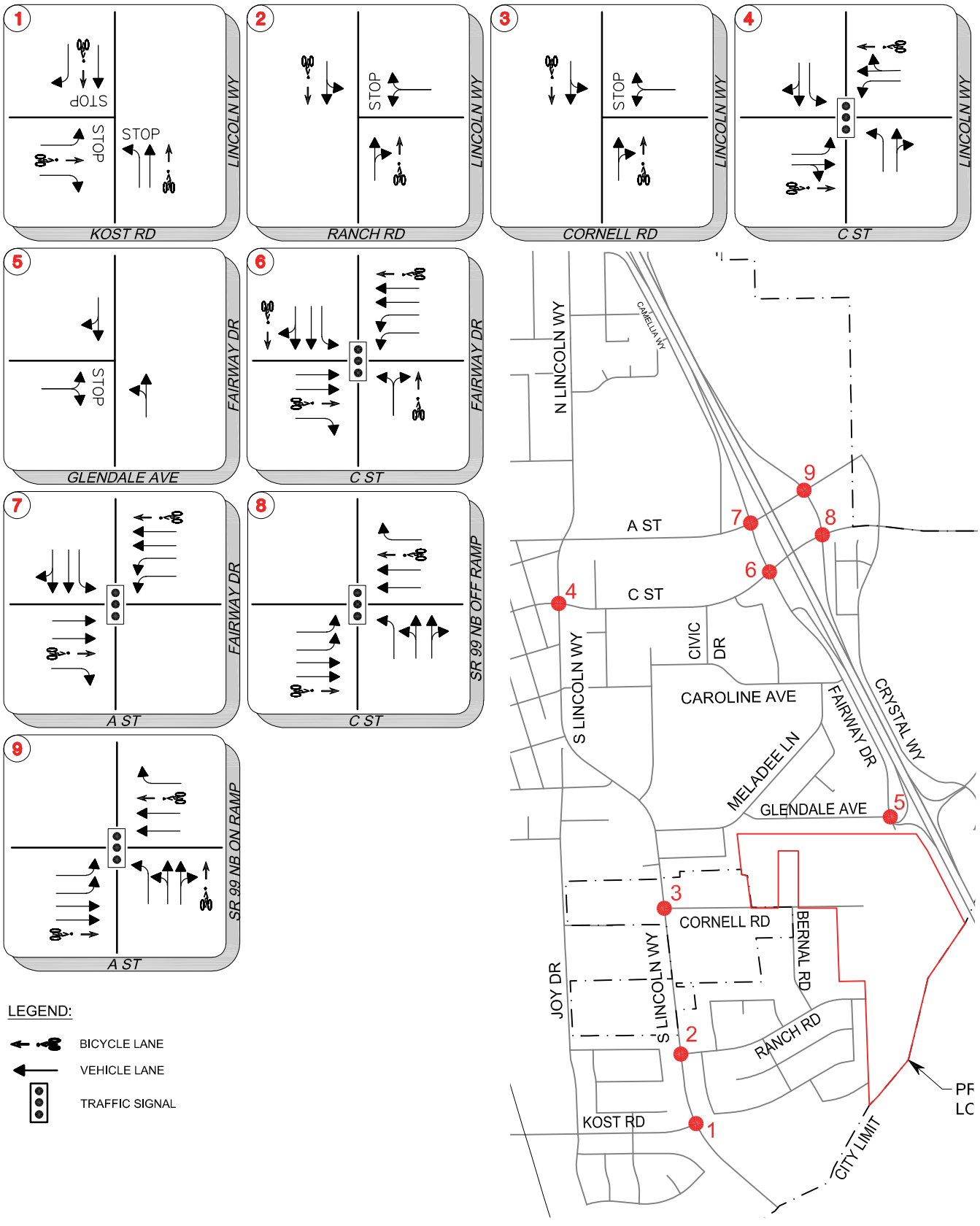
Mainline daily and peak hour volumes were obtained from the Caltrans Performance Measurement System (PeMS) data, based on the average annual peak hour volumes for 2018. This date range was utilized to be consistent with the majority of the intersection counts. The PeMS data for the ramps was obtained on SR 99 at A Street/C Street. Table 1.1 below presents the SR 99 mainline volumes utilized in this study under Existing Conditions, north of the C Street ramps, as well as the K and D factors. Caltrans Traffic Census Program data was also utilized to obtain Heavy Vehicle data, which is 14.37% for SR 99 at A Street/C Street (based on 2017 data, which is the most recent available). Ramp volumes were based on the intersection traffic counts. The intersection counts and

SR 99 data collected, as described above, form the basis for the Existing conditions for the ramp analyses.

Table 1.1 SR 99 Existing 2018 Peak Hour Volumes at A Street/C Street Interchange

Direction	Northbound	Southbound	Total
AADT	36,300	37,300	**73,600**
AM Peak Hour Volume	**1,784**	**2,009**	**3,793**
K Factor	5.2		
D Factor	53.0% Northbound		
PM Peak Hour Volume	**2,566**	**2,532**	**5,098**
K Factor	6.9		
D Factor	50.3% Northbound		

Figure 1.2 presents the existing lane geometrics and intersection control types that are currently in place at the study intersections. Figure 1.3 presents the existing weekday AM and PM peak hour volumes.



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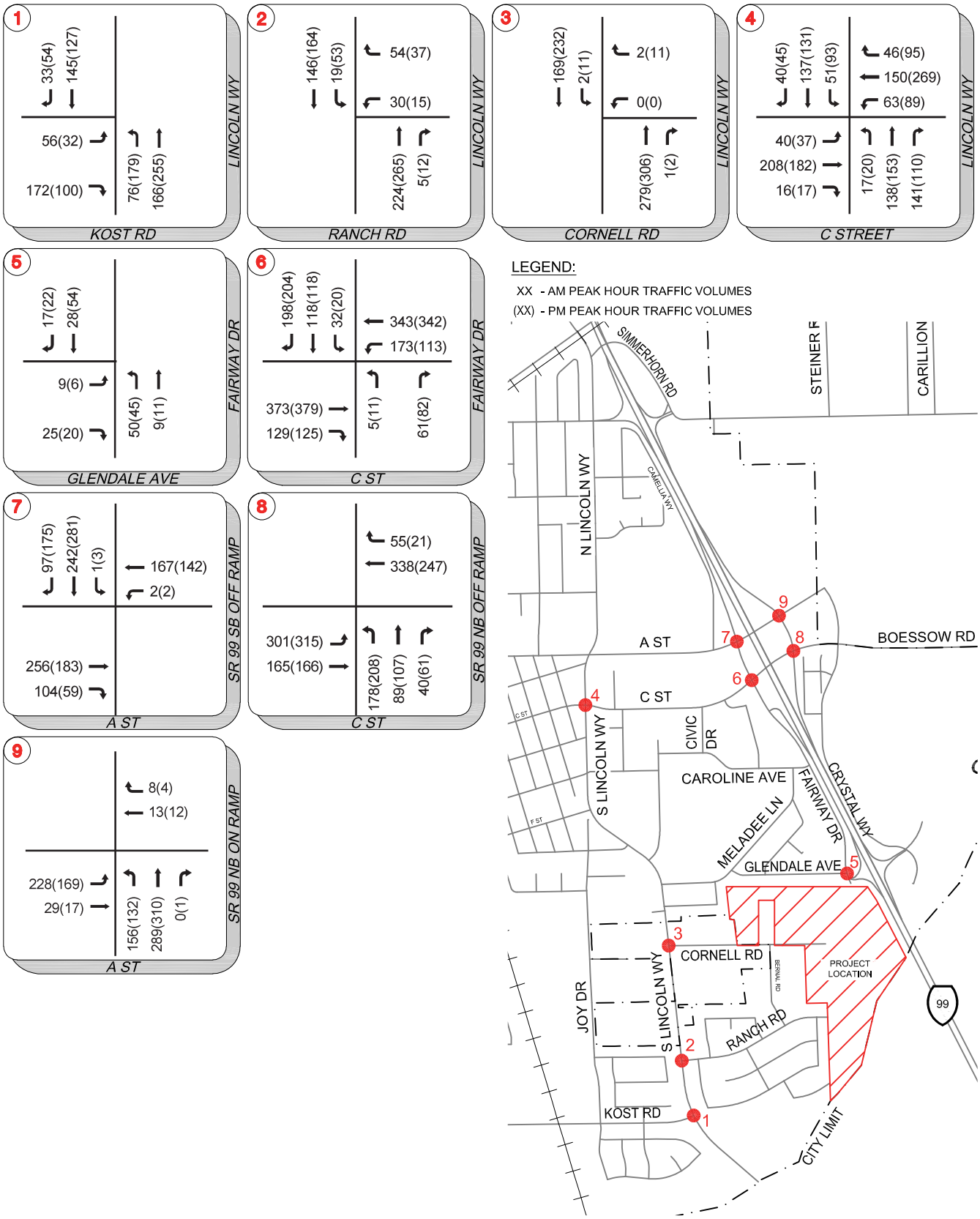
EXISTING LANE GEOMETRIES AND CONTROL

Project No. 11203491
Report No. 001
Date December 2019

FIGURE 1.2



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FAIRWAY OAKS TIAR

EXISTING PEAK HOUR TRAFFIC VOLUMES

Project No. 11203491
Report No. 001
Date December 2019

FIGURE 1.3

2. Technical Analysis Methodologies and Parameters

The following section outlines the analysis parameters and methodologies that will be used in the transportation impact study to quantify the measures of effectiveness for the analysis scenarios.

2.1 Vehicle Miles Traveled (VMT)

Trip-based VMT for the project is estimated using the California Emissions Estimator Model (CalEEMod). Sources of methodologies and default vehicle activity data in CalEEMod include California Air Resources Board (ARB) vehicle emission model EMFAC. In addition, some local air districts provide customized values for their default data and existing regulation methodologies for use for projects located in their jurisdictions. When no customized information is provided, and no regional differences are defined for local air districts, then statewide default values are utilized. For the Galt area, the CalEEMod uses customized values from the Sacramento Metropolitan Air Quality Management District. Published regional and state VMT figures will be compared to the resulting VMT estimates, per service population. Although a VMT analysis is performed to assess the relative performance of the project, VMT will not be used to determine CEQA impacts, lacking any operative baseline or impact thresholds under the lead agency, the City of Galt.

2.2 Level of Service Methodologies

Traffic operations will be quantified through the determination of "Level of Service" (LOS). LOS is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection, or roadway segment, representing progressively worsening traffic conditions. LOS "A" represents free-flow operating conditions and LOS "F" represents over-capacity conditions. Levels of Service will be calculated for all intersection control types, roadway segments, and freeway ramp merge, diverge, and weave sections using the methods documented in the Transportation Research Board Publication *Highway Capacity Manual, Sixth Edition, A Guide for Multimodal Mobility Analysis, 2016* (HCM 6).

2.2.1 Intersection Operations

The Synchro 10 (Trafficware) software program will be used to implement the HCM 6 analysis methodologies for signalized and stop-controlled intersections. Synchro 10 takes into account intersection signal timing and queuing constraints when calculating delay and the corresponding LOS. Intersection LOS will be calculated for all control types using the methods documented in HCM 6. For signalized or all-way stop-controlled (AWSC) intersections, an LOS determination is based on the calculated averaged delay for all approaches and movements. For two-way or side-street stop controlled (TWSC) intersections, an LOS determination is based upon the calculated average delay for all movements of the worst performing approach. The vehicular-based LOS criteria for different types of intersection controls are presented in Table 2.1.

Table 2.1 Intersection Level of Service (LOS) Criteria

LOS	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle	
				Signalized	Un-signalized
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤10.0	≤10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10.0 and ≤20.0	>10.0 and ≤15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20.0 and ≤35.0	>15.0 and ≤25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35.0 and ≤55.0	>25.0 and ≤35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55.0 and ≤80.0	>35.0 and ≤50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	>80.0	>50.0

Source: *Highway Capacity Manual Sixth Edition, A Guide for Multimodal Mobility Analysis*, 2016 (HCM 6)

To determine whether "significance" should be associated with unsignalized intersection operations, a supplemental traffic signal "warrant" analysis will also be completed. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an otherwise unsignalized intersection. This study will employ the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD),* as amended by the *MUTCD 2014 California Supplement,* for all study intersections. The signal warrant criteria are based upon several factors including volume of vehicular and pedestrian traffic, frequency of accidents, location of school areas etc. Both the FHWA's MUTCD and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. The ultimate decision to signalize an intersection should be determined after careful analysis of all intersection and area characteristics.

This traffic operations analysis will specifically utilize the Peak-Hour-Volume based Warrant 3 as one representative type of traffic signal warrant analysis. Warrant 3 criteria are basically identical for both the FHWA's MUTCD and the *MUTCD 2014 California Supplement*. Since Warrant 3 provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating at or above 40 mph), study intersections that use this specialized criteria will be clearly identified. This study will also analyze Warrant 7, Crash Experience to supplement the Peak-Hour Warrant.

2.2.2 Ramp Merge & Diverge Operations

In addition to the study intersections and roadway segments, this study will evaluate ramp merge, diverge, and weave operations for SR 99 ramps between Crystal Way and Simmerhorn Road in the northbound direction, and between Elm Avenue and Fairway Drive/Glendale Avenue in the southbound direction, for each analysis scenario. Peak hour vehicular LOS for the ramp merge, diverge, and weave operations will be determined using the HCM 6 methodologies. Table 2.2 presents the LOS thresholds for the freeway and ramp segments.

Table 2.2 Highway, Ramp, & Weave Level of Service Criteria

Segment Type	Density (pc/mi/ln)					
	A	B	C	D	E	F
Basic Freeway & Multilane Highway	≤11	≤18	≤26	≤35	>35	Demand Exceeds Capacity
Merge	≤10	≤20	≤28	≤35	≤43	>43
Diverge	≤10	≤20	≤28	≤35	≤43	>43
Weave	≤10	≤20	≤28	≤35	≤43	>43

Source: *Highway Capacity Manual Sixth Edition, A Guide for Multimodal Mobility Analysis*, 2016 (HCM 6)

2.2.3 Technical Analysis Parameters

This traffic study focuses on a “planning level” evaluation of traffic operating conditions, which is considered sufficient for CEQA purposes. The planning level evaluation incorporates appropriate heavy vehicle adjustment factors, peak hour factors, and signal lost time factors and reports the resulting operational analysis as estimated using the HCM 6 based analysis methodologies. Assessments of “design level” parameters (including queuing on intersection lane groups, stacking length requirements, etc.) are not included in this study.

Table 2.3 presents the technical parameters that will be utilized for the evaluation of the study intersections, roadway segments, and ramp segments for the analysis scenarios. All parameters not listed should be assumed as default values or calculated based on parameters listed.

Table 2.3 Technical Analysis Parameters

	Technical Parameter	Assumption
1	Intersection Peak Hour Factor	Existing: Based on counts, intersection overall, Cumulative: 0.92 or higher (based on counts)
2	Intersection Heavy Vehicle %	Based on counts, intersection overall, minimum 2%
3	Ramp Peak Hour Factor	Based on counts, approach average, default 0.92 or higher
4	Ramp Heavy Vehicle %	Based on counts, approach average for off ramps, intersection overall for on ramps, minimum 2%
5	Pedestrian & Bicycle Volumes	Based on counts
6	Grades	2% or less, level terrain
7	Signal Timings	Based on Caltrans and City timing plans
8	Right Turn on Red at Signals	Intersection counts (collected with new counts), or based on Synchro

2.2.4 Level of Service Policies

Caltrans

Caltrans' Guide for the Preparation of Traffic Impact Studies contains the following policy pertaining to the LOS standards within Caltrans jurisdiction:

> *Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.*

City of Galt

The City of Galt 2030 General Plan Circulation Element (April 2009) specifies the following minimum Level of Service standards for all streets and intersections within the City's jurisdiction:

Policy C-1.3: Level of Services

> *The City should develop and manage its roadway system to maintain LOS "E" on all streets and intersections within a quarter-mile of State Routes, along A Street and C Street between State Route 99 to the railroad tracks, and along Lincoln Way between Pringle Avenue to Meladee Lane. The City should develop a LOS "D" or better on all other streets and intersections."*

3. Existing Conditions

The Existing conditions describe the existing transportation facilities serving the project site, and establish the traffic conditions which currently exist for those facilities. The Existing conditions analysis scenario was utilized as the baseline scenario for the proposed project impact analysis.

3.1 Existing Conditions Intersection Operations

Existing weekday AM and PM peak hour intersection traffic operations were quantified using existing traffic volumes, lane geometrics, and intersection controls. Table 3.1 presents a summary of the LOS and delay (in sec/veh) at each study intersection during the Existing conditions.

Table 3.1 Existing Conditions Intersection Operations

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour		PM Peak Hour		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
1	Lincoln Way & Kost Rd	AWSC	D	9.9	A	10.1	B	-
2	Lincoln Way & Ranch Rd	TWSC	D	11.4	B	11.2	B	-
3	Lincoln Way & Cornell Rd	TWSC	D	10.0	A	10.2	B	-
4	Lincoln Way & C Street	Signal	E	16.5	B	17.8	B	-
5	Fairway Dr / SR 99 SB Ramps & Glendale Ave	TWSC	D	8.9	A	9.0	A	-
6	Fairway Dr & C Street	Signal	D	15.1	B	15.4	B	-
7	SR 99 SB Off Ramp & A Street	Signal	D	7.6	A	7.3	A	-
8	SR 99 NB Off Ramp & C Street	Signal	D	13.1	B	12.4	B	-
9	SR 99 NB On Ramp & A Street	Signal	D	10.7	B	9.4	A	-

Notes:
1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal, RNDBT
3. Warrant = Based on California MUTCD Warrant 3
4. **Bold** = Unacceptable Conditions
5. OVR = Delay over 300 seconds

As presented in, Table 3.1 all study intersections operate at acceptable LOS under Existing conditions in the AM and PM peak hours.

3.2 Traffic Signal Warrant 7: Crash Experience

The study intersections were evaluated for traffic signal Warrant 7, Crash Experience. Collision data were collected for the City of Galt from the Statewide Integrated Traffic Records System (SWITRS) for a 5-year period between January 1, 2014 and December 31, 2018. One of the criteria for Warrant 7 includes the minimum threshold of five collisions occurring within a 12-month period that are susceptible to correction by a traffic signal (broadside collision types). Table 3.2 presents the collision history for the study locations, showing the maximum number of collisions over a 12-month period, based on the 5-year collision data.

Table 3.2 Collisions Data for Unsignalized Study Intersections (2014-2018)

Intersection			Broadside Collisions per Year					
ID#	Road 1	Road 2	2014	2015	2016	2017	2018	Total
1	Lincoln Way	Kost Road						0
2	Lincoln Way	Ranch Road						0
3	Lincoln Way	Cornell Road						0
5	Fairway Drive	Glendale Avenue	1					1

As presented in Table 3.2, none of the unsignalized study intersections meet the collision history criteria for Warrant 7, Crash Experience.

3.3 Existing Conditions Ramp & Weaving Segment Operations

Existing weekday AM and PM peak hour ramp segment operations were quantified using existing traffic volumes from ramp-adjacent intersections as well as PeMS and Caltrans data. Table 3.3 presents a summary of the LOS and density (in pc/mi/ln) at each analysis location during the Existing conditions.

Table 3.3 Existing Conditions Ramp & Weaving Segment Operations

					AM Peak Hour			PM Peak Hour		
#	Location	Segment Type	No. of Lanes	Target LOS	Ramp Volume	Density (pc/mi/ln)	LOS	Ramp Volume	Density (pc/mi/ln)	LOS
1	SR 99 NB Crystal Way to C Street	Weave	1	D	1 / 307	15.6	B	10 / 376	21.5	C
2	SR 99 NB A Street to Simmerhorn Rd	Weave	1	D	525 / 197	18.2	B	483 / 293	23.0	C
3	SR 99 SB Elm Ave to A Street	Weave	1	D	280 / 340	17.3	B	185 / 459	22.5	C
4	SR 99 SB C Street to Fairway Dr	Weave	1	D	323 / 59	16.8	B	267 / 56	20.3	C
5	SR 99 SB Fairway Dr / Glendale Ave On Ramp	Merge	1	D	53	26.8	C	74	31.6	D

Notes:
1. Ramp volumes based on traffic counts collected August 29, 2019.
2. For weaving sections, volumes listed are for On-Ramp/Off-Ramp.
3. For merging and diverging ramps, volumes listed are ramp volumes.
4. **Bold** = Unacceptable Conditions

As presented in Table 3.3, all ramp and weaving segments operate at acceptable LOS under Existing conditions in the AM and PM peak hours.

4. Project Description

The term “Project” as used in this study will refer to the proposed residential development located in southeastern Galt, within the city limit, and is bounded by SR 99 to the east, the Galt City limit (also Sacramento County limit) to the south, and single family residence properties fronting Tradepost Trail, Dry Creek, Ranch Road, Bernal Road, Cornell Road, and Glendale Avenue. The proposed 50.5-acre development is comprised of 169 single family dwelling units, a 0.3-acre well site, and 11.0 acres of open space/wetland fronting Dry Creek. Provided below is a description of the small-lot vesting tentative subdivision for the Project.

- **Lot A:** Open Space (11.0 ± gross acres)
  - Located at the southeast of the development site, adjacent to Dry Creek
- **Lot B:** Well Site (0.3 ± gross acres)
  - Located near the southern tip of the development site
- **Residential Lots:** Low-Density Residential (39.2 ± gross acres)
  - 169 single family dwelling units, averaging 3.3 lots per acre

4.1 Project Trip Generation

Project site trip generation has been estimated for the total number of dwelling units, all assumed to be single family dwelling units. These estimations were achieved by utilizing the Institute of Transportation Engineers (ITE) Publication *Trip Generation Manual (10th Ed.).* Trip rates for the 169 dwelling units used the land use code 210 for single family detached housing. Table 4.1 presents the project trip generation for Existing Plus Project conditions. As shown, the net new (external) project trip generation is 1,685 daily trips, 125 trips for the AM peak hour, and 167 trips for the PM peak hour under Existing Plus Project conditions.

Table 4.1 Project Trip Generation

Land Use Category (ITE Code)	Unit[1]	Daily Trip Rate/Unit[2]	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Single Family Detached (210)	DU	9.97	0.74	25%	75%	0.99	63%	37%
Project Name	**Quantity (Units)**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
Fairway Oaks	169	1,685	125	31	94	167	105	62
Net New Project Trips		**1,685**	**125**	**31**	**94**	**167**	**105**	**62**

Notes:

1. 1 ksf = 1,000 square feet DU = dwelling unit

2. Trip rates based on ITE Trip Generation Manual 10th edition fitted-curve equations or average rates

4.2 Project Site Plan, Site Access & Circulation

The proposed site will provide access via the following four roadways along the exterior of the development:

- Glendale Avenue (via the proposed Lillian Lane)
- Cornell Road
- Ranch Road
- Chase Drive (this roadway circulates the site, and connects to Ranch Road via Bonanza Drive to the south)

4.2.1 Multimodal Facilities

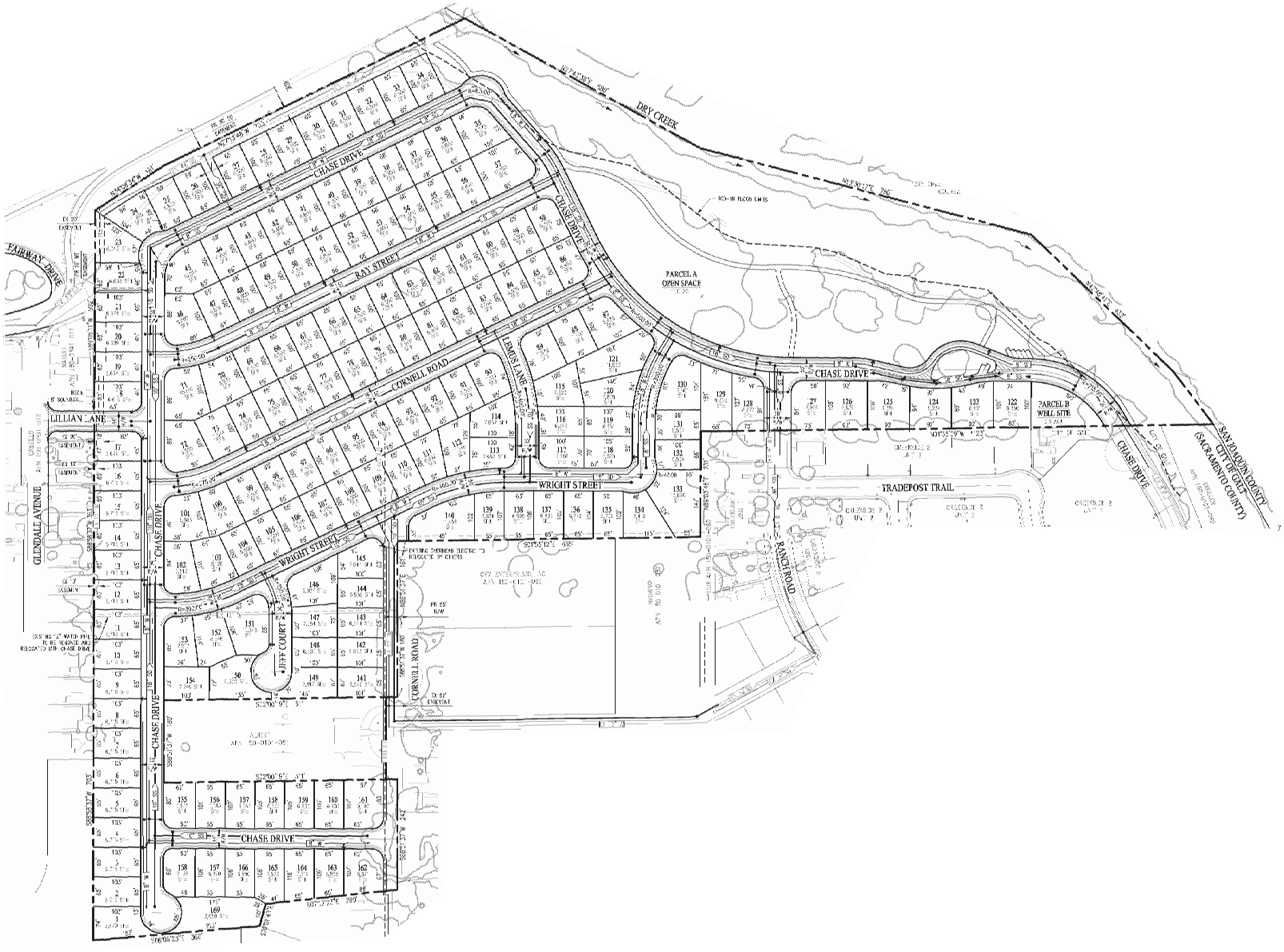
The Project must be consistent with the City of Galt's 2030 General Plan Circulation Element Policy for Complete Streets and the 2011 City of Galt Bicycle Transportation Plan. In addition, as specified in Sacramento County's Traffic Impact Analysis Guidelines (July 2004),

"Bicycle and Pedestrian Facilities: A project is considered to have a significant effect if it would:

- Eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use;
- Interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan; or
- Result in unsafe conditions for bicyclists or pedestrians, including unsafe bicycle/pedestrian, bicycle/motor vehicle, or pedestrian/motor vehicle conflict."

The Project site will feature sidewalk facilities throughout the new development and will connect to existing sidewalk facilities on Glendale Avenue, Ranch Road, and Chase Drive. The Project proposes to construct a paved 10' Class I Trail within the Open Space area along Dry Creek. This trail will connect to the existing paved multi-use path that ends at the current terminus of Chase Drive, extending north, and will connect to a future trail connection across SR 99, per the City of Galt Bicycle Transportation Plan. This extended path will provide increased bicycle access to the Project site and increase recreational activity.

Figure 4.1 presents the project site plan.



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FAIRWAY OAKS TIAR

PROJECT SITE PLAN

Project No. **11203491**
Report No. **Memo**
Date **October 2019**

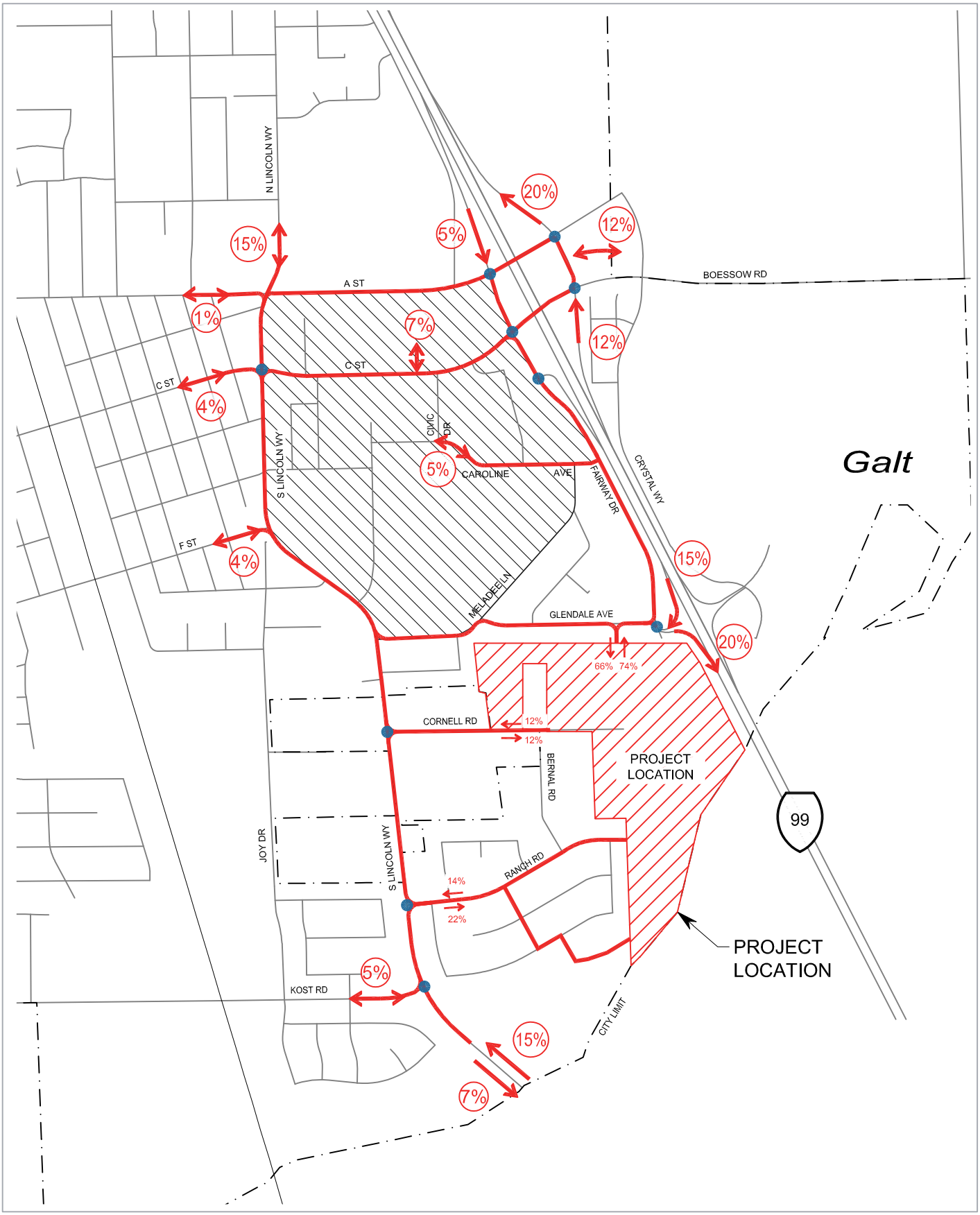
FIGURE 4.1

4.3 Project Trip Distribution & Assignment

Figure 4.2 presents the trip distribution for the Project-generated trips during the AM and PM peak hours for all analysis scenarios, including driveway assignments. The project-generated trips will be assigned to the study locations based on the trip distribution, once confirmed. In summary, the trip distribution is estimated as follows:

- 12% of Project-generated trips will go to/come from the downtown Galt area;
- 27% of Project-generated trips will go to/come from the south;
    - For inbound trips coming from the south, 15% will utilize the Liberty Road interchange south of Galt, and 12% will utilize the Central Galt Interchange;
    - For outbound trips going to the south, 20% will utilize the Glendale Avenue/Fairway Drive On Ramp, and 7% will utilize the Liberty Road interchange south of Galt
- 20% of Project-generated trips will go to/come from the north along SR 99;
    - For inbound trips, 15% will utilize Glendale Avenue Off Ramp, and 5% will utilize A Street Off Ramp
- 12% of Project-generated trips will go to/come from the northeast area of Galt via Boessow Road (and upon completion, the A Street extension east beyond Crystal Way);
- 15% of Project-generated trips will go to/come from Lincoln Way and areas northwest, including Galt High School; and
- The remaining percentages (14%) will travel to/from western Galt or nearby uses.

The project-generated trips were then assigned to the study locations based on the trip distribution. Figure 4.3 presents the Project only peak hour volumes at the study intersections. The Project distribution and assignment is the same under Existing and Cumulative conditions.



LEGEND:

- CITY LIMIT
- NEW ROADWAY
- TRIP DISTRIBUTION PATH
- DOWNTOWN GALT

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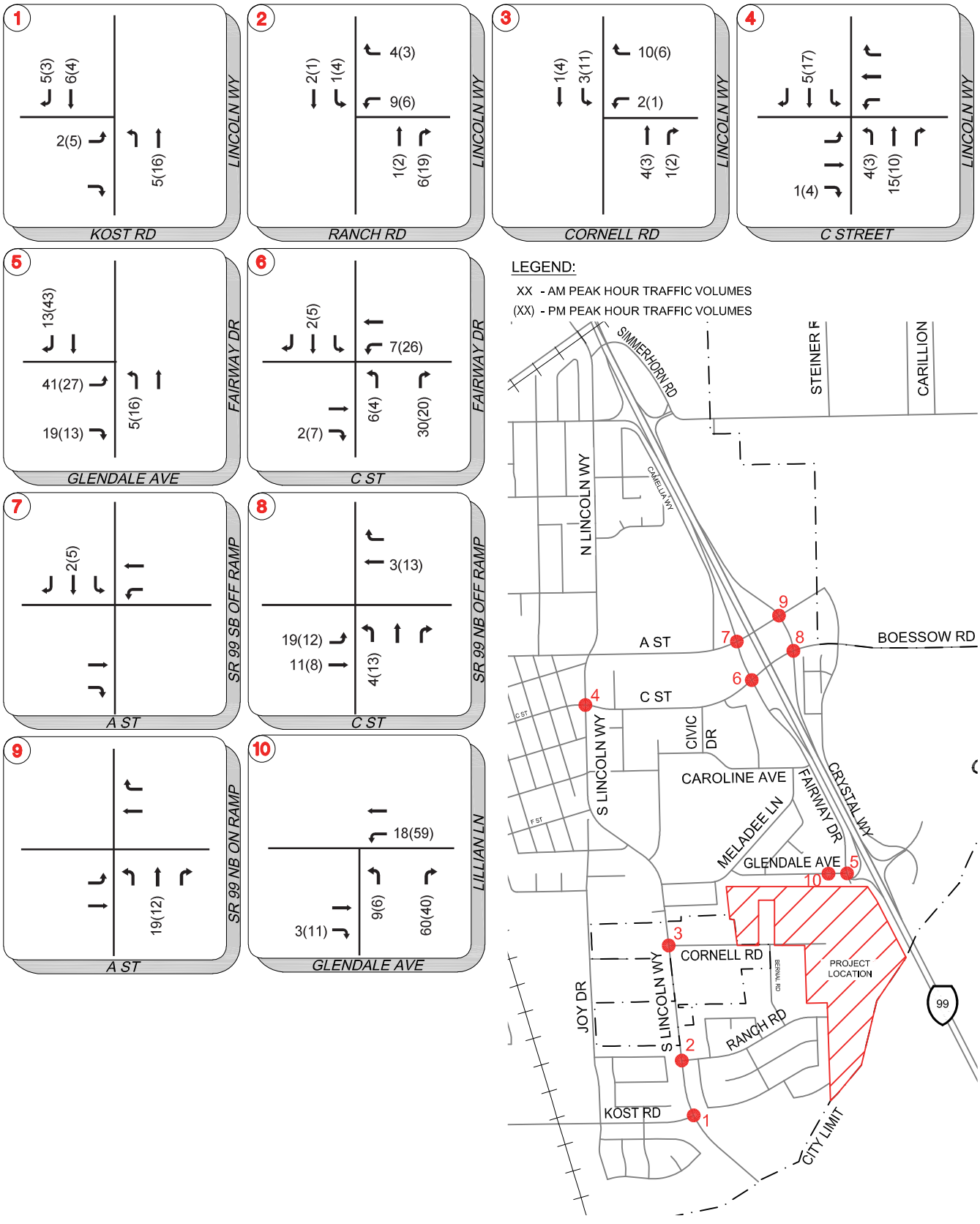
PROJECT TRIP DISTRIBUTION

Project No. **11203491**
Report No. **MOA**
Date **November 2019**

FIGURE 4.2



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PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

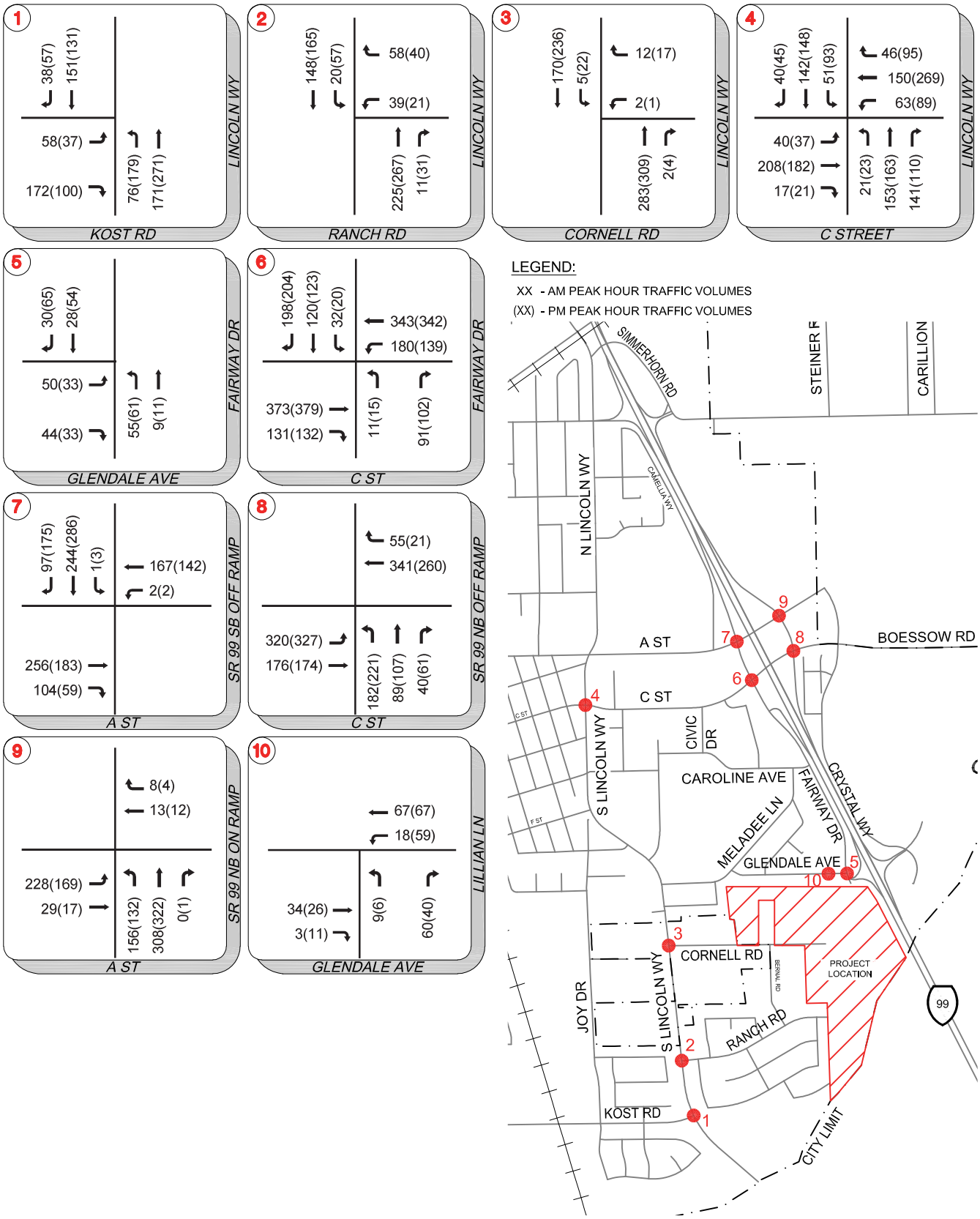
Project No. 11203491
Report No. 001
Date December 2019

FIGURE 4.3

5. Existing Plus Project Conditions

Existing Plus Project conditions refers to the analysis scenario in which projected trips generated by the proposed project are superimposed onto the existing “background” traffic volumes. Traffic impacts associated with the proposed Fairway Oaks development are investigated in comparison to the Existing Conditions.

Figure 5.1 presents the Existing Plus Project peak hour traffic volumes.



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FAIRWAY OAKS TIAR

EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

Project No. **11203491**
Report No. **001**
Date **December 2019**

FIGURE 5.1

5.1 Existing Plus Project Intersection Operations

Table 5.1 presents a summary of the LOS and delay (in sec/veh) at each study intersection during the Existing Plus Project conditions.

Table 5.1 Existing Plus Project Conditions Intersection Operations

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour		PM Peak Hour		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
1	Lincoln Way & Kost Rd	AWSC	D	10.1	B	10.3	B	-
2	Lincoln Way & Ranch Rd	TWSC	D	11.8	B	11.7	B	-
3	Lincoln Way & Cornell Rd	TWSC	D	10.5	B	10.5	B	-
4	Lincoln Way & C Street	Signal	E	16.8	B	17.9	B	-
5	Fairway Dr / SR 99 SB Ramps & Glendale Ave	TWSC	D	9.6	A	9.9	A	-
6	Fairway Dr & C Street	Signal	D	15.9	B	16.1	B	-
7	SR 99 SB Off Ramp & A Street	Signal	D	7.6	A	7.9	A	-
8	SR 99 NB Off Ramp & C Street	Signal	D	13.1	B	12.8	B	-
9	SR 99 NB On Ramp & A Street	Signal	D	10.8	B	9.4	A	-
10	Glendale Ave & Lillian Ln	TWSC	D	8.9	A	8.9	A	-

Notes:
1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal, RNDBT
3. Warrant = Based on California MUTCD Warrant 3
4. **Bold** = Unacceptable Conditions
5. OVR = Delay over 300 seconds

As presented in Table 5.1, all study intersections operate at acceptable LOS under Existing Plus Project conditions in the AM and PM peak hours.

5.2 Existing Plus Project Ramp & Weaving Segment Operations

Existing Plus Project weekday AM and PM peak hour ramp segment operations were quantified by superimposing the additional increments in traffic generated by the proposed project onto existing traffic volumes from ramp-adjacent intersections and PeMS and Caltrans data. Table 5.2 presents a summary of the LOS and density (in pc/mi/ln) at each analysis location during the Existing Plus Project conditions.

Table 5.2 Existing Plus Project Conditions Ramp & Weaving Segment Operations

#	Location	Segment Type	No. of Lanes	Target LOS	AM Peak Hour			PM Peak Hour		
					Ramp Volume	Density (pc/mi/ln)	LOS	Ramp Volume	Density (pc/mi/ln)	LOS
1	SR 99 NB Crystal Way to C Street	Weave	1	D	1 / 311	15.6	B	10 / 389	21.7	C
2	SR 99 NB A Street to Simmerhorn Rd	Weave	1	D	544 / 197	18.5	B	495 / 293	23.2	C
3	SR 99 SB Elm Ave to A Street	Weave	1	D	280 / 342	17.3	B	185 / 464	22.8	C
4	SR 99 SB C Street to Fairway Dr	Weave	1	D	323 / 64	16.9	B	267 / 72	20.4	C
5	SR 99 SB Fairway Dr / Glendale Ave On Ramp	Merge	1	D	72	27.0	C	87	31.7	D

Notes:
1. Ramp volumes based on traffic counts collected August 29, 2019.
2. For weaving sections, volumes listed are for On-Ramp/Off-Ramp.
3. For merging and diverging ramps, volumes listed are ramp volumes.
4. **Bold** = Unacceptable Conditions

As presented in Table 5.2, all ramp and weaving segments operate at acceptable LOS under Existing Plus Project conditions in the AM and PM peak hours.

6. Cumulative No Project Conditions

Cumulative conditions refer to the analysis scenario which reflects future conditions represented by local and regional growth in approximately 20 years. Based on City direction, Cumulative No Project conditions will analyze the scenario that considers the projected 20-Year development forecast, including the currently planned and approved developments, but without the proposed Fairway Oaks project.

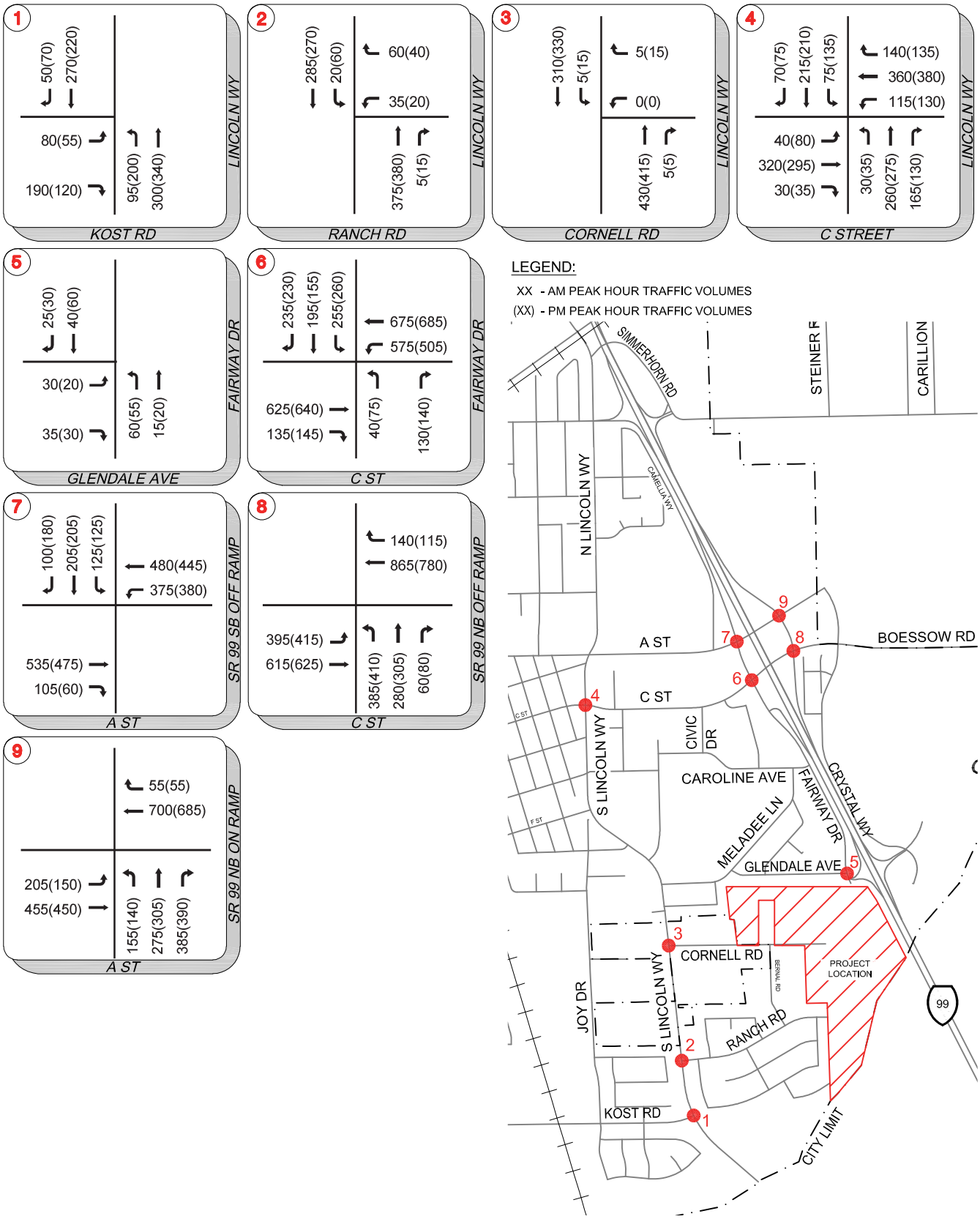
6.1 20-Year Development Forecast

In 2015, the City contracted GHD (formerly Omni-Means) to develop a 20-year land use development forecast and comprehensive update to the Citywide Traffic Capital Improvement Program (TCIP). GHD performed minor updates to the 20-year development forecast in the *Carillion Boulevard Complete Street Corridor Study* to account for changes to current development proposals. The use of the 20-year forecasts, which were based on the Citywide Travel Demand Model, was confirmed for this study from the Memorandum of Assumptions, dated November 27, 2019. GHD also conducted the *Simmerhorn Ranch Traffic Impact Study*, which detailed 20-year forecasts at the Central Galt Interchange. The forecasts from the *Simmerhorn Ranch Traffic Impact Study* were used to derive the baseline scenario for Cumulative conditions for the study intersections located at the Central Galt Interchange. For the remaining study intersections, including those on Lincoln Way and Glendale Avenue, the Cumulative conditions forecasts were derived based on the previous *Fairway Oaks Residential Subdivision Transportation Impact Analysis Report* (2012) and the Galt Citywide Model.

The 20-year development forecasts identified in the *Simmerhorn Ranch Traffic Impact Study* includes a portion of the Fairway Oaks development. However, the forecasts estimated only 100 single family dwelling units located at the Project site, compared to 169 units based on the latest Project site plan. Therefore, a portion of the 2040 Project Only peak hour traffic volumes were subtracted from the forecasts. The volumes were then rounded to the nearest 5 vehicles and checked for consistency (volume balance without the proposed project) between intersections near the project site to obtain 2040 No Project peak hour volume forecasts. Figure 6.1 presents the Cumulative (2040 No Project) peak hour traffic volumes.

6.1.1 SR 99 Forecasts

SR 99 mainline forecasts at the Central Galt interchange have recently been developed as part of the *Simmerhorn Ranch Traffic Impact Study*. SR 99 forecasts were derived for this study based on the forecasts from the *Simmerhorn Ranch Traffic Impact Study*, subtracting the portion of Project traffic that was already included to obtain 2040 No Project peak hour mainline volume forecasts, and utilized adjacent study intersection volumes to determine the forecasted ramp volumes.



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FAIRWAY OAKS TIAR

CUMULATIVE (2040) NO PROJECT
PEAK HOUR TRAFFIC VOLUMES

Project No. 11203491
Report No. 001
Date January 2020

FIGURE 6.1

6.2 Cumulative No Project Intersection Operations

Table 6.1 presents a summary of the LOS and delay (in sec/veh) at each study intersection during the Cumulative No Project conditions.

Table 6.1 Cumulative No Project Conditions Intersection Operations

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour		PM Peak Hour		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
1	Lincoln Way & Kost Rd	AWSC	D	13.4	B	12.3	B	-
2	Lincoln Way & Ranch Rd	TWSC	D	14.0	B	13.6	B	-
3	Lincoln Way & Cornell Rd	TWSC	D	11.1	B	11.1	B	-
4	Lincoln Way & C Street	Signal	E	24.4	C	29.8	C	-
5	Fairway Dr / SR 99 SB Ramps & Glendale Ave	TWSC	D	9.4	A	9.5	A	-
6	Fairway Dr & C Street	Signal	D	26.6	C	29.5	C	-
7	SR 99 SB Off Ramp & A Street	Signal	D	10.9	B	11.3	B	-
8	SR 99 NB Off Ramp & C Street	Signal	D	46.8	D	25.8	C	-
9	SR 99 NB On Ramp & A Street	Signal	D	14.2	B	12.4	B	-

Notes:
1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal, RNDBT
3. Warrant = Based on California MUTCD Warrant 3
4. **Bold** = Unacceptable Conditions
5. OVR = Delay over 300 seconds

As presented in Table 6.1, all study intersections operate at acceptable LOS under Cumulative No Project conditions in the AM and PM peak hours.

6.3 Cumulative No Project Ramp & Weaving Segment Operations

Cumulative No Project weekday AM and PM peak hour ramp segment operations were quantified using forecasted traffic volumes from ramp-adjacent intersections and PeMS and Caltrans data. Table 6.2 presents a summary of the LOS and density (in pc/mi/ln) at each analysis location during the Cumulative No Project conditions.

Table 6.2 Cumulative No Project Conditions Ramp & Weaving Segment Operations

#	Location	Segment Type	No. of Lanes	Target LOS	AM Peak Hour			PM Peak Hour		
					Ramp Volume	Density (pc/mi/ln)	LOS	Ramp Volume	Density (pc/mi/ln)	LOS
1	SR 99 NB Crystal Way to C Street	Weave	1	D	105 / 725	23.1	C	15 / 795	33.0	D
2	SR 99 NB A Street to Simmerhorn Rd	Weave	1	D	535 / 220	21.6	C	510 / 297	30.3	D
3	SR 99 SB Elm Ave to A Street	Weave	1	D	302 / 430	22.8	C	314 / 510	28.9	D
4	SR 99 SB C Street to Fairway Dr	Weave	1	D	720 / 75	25.6	C	640 / 75	30.3	D
5	**SR 99 SB Fairway Dr / Glendale Ave On Ramp**	**Merge**	**1**	**D**	**75**	**36.3**	**E**	**90**	**v/c = 1.02**	**F**

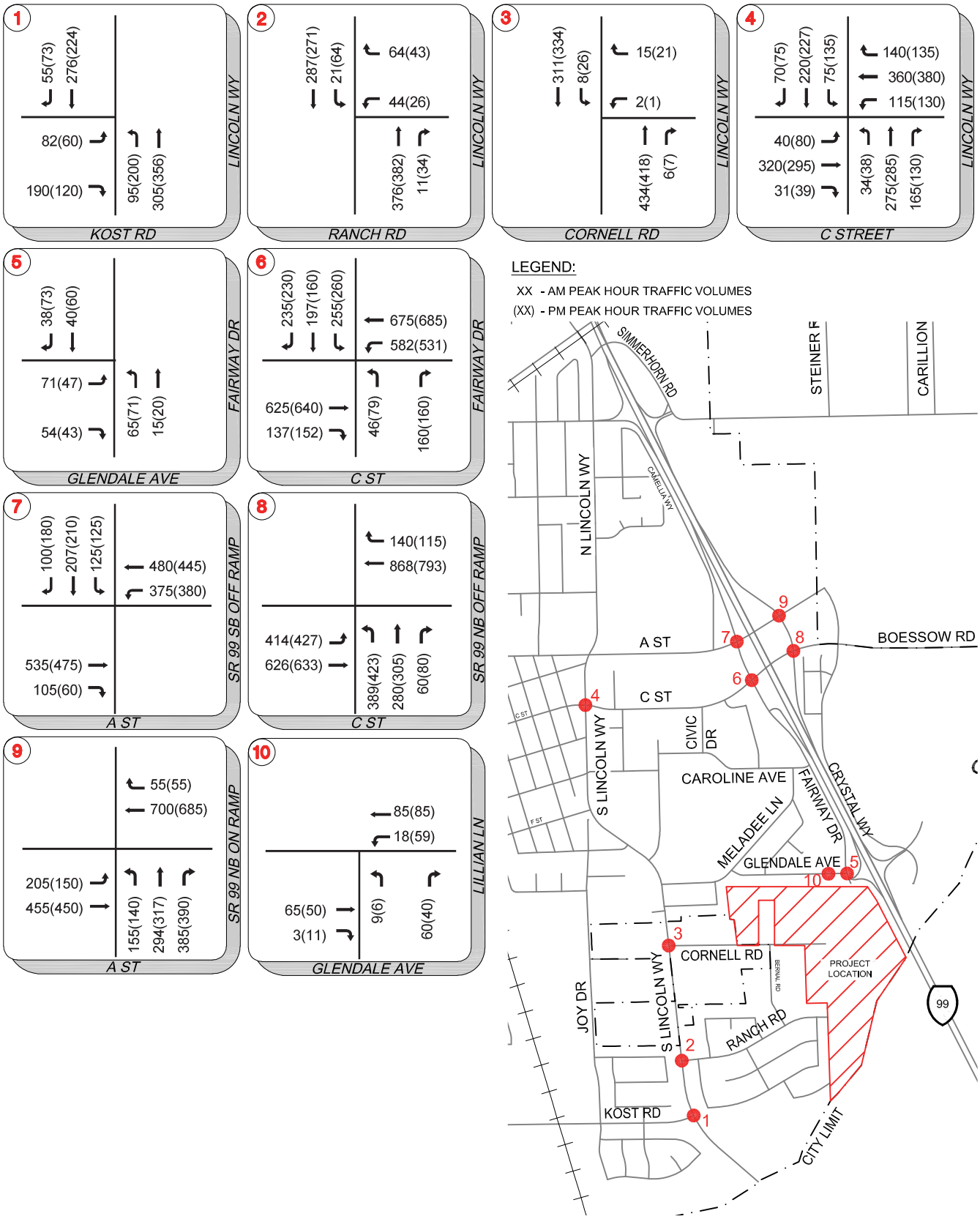
Notes:
1. Ramp volumes based on traffic counts collected August 29, 2019.
2. For weaving sections, volumes listed are for On-Ramp/Off-Ramp.
3. For merging and diverging ramps, volumes listed are ramp volumes.
4. **Bold** = Unacceptable Conditions

As presented in Table 6.2, the following ramp segment operates at an unacceptable LOS under Cumulative No Project conditions in the AM and PM peak hours:

- 5 – SR 99 Southbound Fairway Drive/Glendale Avenue On Ramp

7. Cumulative Plus Project Conditions

Cumulative Plus Project conditions refers to the analysis scenario in which projected trips generated by the proposed project are superimposed on 2040 No Project traffic volumes, and analyzed using the lane geometrics and intersection controls as listed under Cumulative No Project conditions. Figure 7.1 presents the Cumulative Plus Project traffic volumes.



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CUMULATIVE (2040) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

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Report No. 001
Date January 2020

FIGURE 7.1

7.1 Cumulative Plus Project Intersection Operations

Table 7.1 presents a summary of the LOS and delay (in sec/veh) at each study intersection during the Cumulative Plus Project conditions.

Table 7.1 Cumulative Plus Project Conditions Intersection Operations

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour		PM Peak Hour		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
1	Lincoln Way & Kost Rd	AWSC	D	13.7	B	12.6	B	-
2	Lincoln Way & Ranch Rd	TWSC	D	14.8	B	14.4	B	-
3	Lincoln Way & Cornell Rd	TWSC	D	11.9	B	11.5	B	-
4	Lincoln Way & C Street	Signal	E	25.2	C	30.7	C	-
5	Fairway Dr / SR 99 SB Ramps & Glendale Ave	TWSC	D	10.1	B	10.3	B	-
6	Fairway Dr & C Street	Signal	D	30.2	C	32.7	C	-
7	SR 99 SB Off Ramp & A Street	Signal	D	10.9	B	11.3	B	-
8	SR 99 NB Off Ramp & C Street	Signal	D	47.2	D	27.5	C	-
9	SR 99 NB On Ramp & A Street	Signal	D	14.3	B	12.5	B	-
10	Glendale Ave & Lillian Ln	TWSC	D	9.1	A	9.0	A	-

Notes:
1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal, RNDBT
3. Warrant = Based on California MUTCD Warrant 3
4. **Bold** = Unacceptable Conditions
5. OVR = Delay over 300 seconds

As presented in Table 7.1, all study intersections operate at acceptable LOS under Cumulative Plus Project conditions in the AM and PM peak hours.

7.2 Cumulative Plus Project Ramp & Weaving Segment Operations

Cumulative Plus Project weekday AM and PM peak hour ramp segment operations were quantified by superimposing the additional increments in traffic generated by the proposed project onto forecasted traffic volumes from ramp-adjacent intersections and PeMS and Caltrans data. Table 7.2 presents a summary of the LOS and density (in pc/mi/ln) at each analysis location during the Cumulative Plus Project conditions.

Table 7.2 Cumulative Plus Project Conditions Ramp & Weaving Segment Operations

#	Location	Segment Type	No. of Lanes	Target LOS	AM Peak Hour			PM Peak Hour		
					Ramp Volume	Density (pc/mi/ln)	LOS	Ramp Volume	Density (pc/mi/ln)	LOS
1	SR 99 NB Crystal Way to C Street	Weave	1	D	105 / 729	23.2	C	15 / 808	33.2	D
2	SR 99 NB A Street to Simmerhorn Rd	Weave	1	D	554 / 220	21.8	C	522 / 297	30.4	D
3	SR 99 SB Elm Ave to A Street	Weave	1	D	302 / 432	22.9	C	314 / 515	29.1	D
4	SR 99 SB C Street to Fairway Dr	Weave	1	D	720 / 80	25.7	C	640 / 91	30.5	D
5	**SR 99 SB Fairway Dr / Glendale Ave On Ramp**	**Merge**	**1**	**D**	**94**	**36.5**	**E**	**103**	**v/c = 1.03**	**F**

Notes:
1. Ramp volumes based on traffic counts collected August 29, 2019.
2. For weaving sections, volumes listed are for On-Ramp/Off-Ramp.
3. For merging and diverging ramps, volumes listed are ramp volumes.
4. **Bold** = Unacceptable Conditions

As presented in Table 7.2, the following ramp segment operates at an unacceptable LOS under Cumulative Plus Project conditions in the AM and PM peak hours:

- 5 – SR 99 Southbound Fairway Drive/Glendale Avenue On Ramp

8. Vehicle Miles Traveled (VMT) Analysis

This chapter describes the methodology and results of the vehicle miles travelled (VMT) analysis performed for the Project. Senate Bill (SB) 743 creates a process to change the way transportation impacts are analyzed under CEQA. Originally, SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative measure of effectiveness (MOE) to control delay and associated level of service (LOS) for evaluating transportation impacts. On December 28, 2018, the California Office of Administrative Law cleared the revised State CEQA Guidelines for use. Among the changes to the State CEQA Guidelines was removal of vehicle delay and LOS from consideration as environmental impacts under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles travelled (VMT). Lead agencies have the opportunity to opt in to the revised guidelines early, but the new guidelines become effective Statewide on July 1, 2020. Recommendations on thresholds of significance for VMT have been developed by the OPR. However, lacking any operative thresholds under the lead agency, the City of Galt, VMT was not used to determine CEQA impacts within this report. However, a VMT analysis was performed to assess the relative performance of the project.

8.1 Model Selection

The California Emissions Estimator Model (CalEEMod) was used for this VMT analysis. CalEEMod is referred to as a "sketch model" which uses statistical characterizations of land use projects and transportation networks to estimate project VMT. CalEEMod was developed in cooperation with the South Coast Air Quality Management District (SCAQMD) and other air districts throughout the state. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify VMT and potential criteria pollutant and greenhouse gas emissions associated with construction and operation from a variety of land uses. CalEEMod version 2016.3.2 was used to estimate VMT from this project's operation.

Sources of methodologies and default vehicle activity data in CalEEMod include California Air Resources Board (CARB) vehicle emission model EMFAC. In addition, some local air districts provided customized values for their default data and existing regulation methodologies for use for projects located in their jurisdictions. When no customized information was provided and no regional differences were defined for local air districts, then state-wide default values were utilized.

8.2 Project Characteristics

The project's operational activity assumptions and parameters are summarized below.

"Sacramento County" and "Urban" settings were selected in the CalEEMod model.

The land use types and quantities described in Chapter 4 (Project Description) of this study were used to identify the approximate corresponding CalEEMod land uses used in the VMT analysis. These land uses and weekday trip generation rates are summarized in Table 8.1. It is important to note that the CalEEMod Land Use Subtype names are not the proposed project land uses. They

are the closest CalEEMod Land Use Subtypes available that approximately correspond to the proposed project land uses.

Table 8.1 CalEEMod Model Project Land Uses and Trip Generation Rates

General Land Use	CalEEMod Land Use Subtype	Quantity	Unit Type	Trip Generation Rate (trips/unit/day)
Residential	Single Family Housing	169	Dwelling Unit	9.97

Source: GHD 2019, CalEEMod 2016.
The Trip Generation Rate is based off of the fitted curve equation for Land Use 210 of the ITE Trip Generation Manual, 10th Edition, and is consistent with the Trip Generation Table in Chapter 4 of this report.

8.3 Methodology

CalEEMod contains assumptions for trip length based on the type of trip, distribution of trip types, and trip purpose. Each of these components is used in the VMT calculations. The trip types, trip lengths, distribution and trip purpose distribution are detailed in the CalEEMod output, which is included in Appendix E.

8.4 Trip Types and Distribution

Land use trip types used in the analysis consist of the following categories, each with its own trip length: home-work (H-W) / commercial-work (C-W), home-school (H-S) / commercial-commercial (C-C), and home-other (H-O) / commercial-non-work (C-NW) such as delivery trips. The model includes a trip type distribution for each land use type. For residential uses, the CalEEMod assumes that 46.5% of land use trips are H-W / C-W trips, 12.5% are H-S / C-C trips, and 41% are H-O / C-NW trips.

8.5 Trip Length and Purpose

The model then modifies the trip lengths according to trip purpose. Trip purposes are:

- Primary: Primary trips are assumed to be dedicated to travel to the land use from the originating source or from the land use to the ultimate destination.
- Diverted: Diverted trips are trips that may occur as a result of travel to multiple land uses, such as would occur for running errands or other trip linking activity. Diverted trips are assumed to be 25 percent of the primary trip length.
- Pass-by trips: Pass-by trips are those that occur as along the path of another trip, such as pulling into a gas station while on the way to work. Pass-by trips are assumed to be 0.1 mile in length and are a result of no diversion from the primary route.

The trip length per trip type assumptions are for primary trip purposes, and serve as the ‘starting point’ for the VMT calculations. The model default trip lengths for primary trips for all land use types are 10 miles for H-W / C-W, 5 miles for H-S / C-C, and 6.5 miles for H-O / C-NW.

Due to the location and nature of the project, the model assumed for the residential land use type that 86% of trips would be primary, 11% of the trips would be diverted, and 3% of the trips would be pass-by for residential land use.

8.6 VMT Results

The VMT calculation results are provided in Table 8.2 for Project conditions. The detailed CalEEMod output is included in Appendix E. The projected VMT per capita for the proposed Project, based on the CalEEMod annual outputs, is calculated by taking the projected annual VMT divided by 365 days per year, the current persons per household for the City of Galt (3.07 based on 2017 ACS US Census data) and the number of dwelling units proposed (169 units).

Table 8.2 Operational Vehicle Miles Travelled – Existing Plus Project Trip Generation

Land Use	Quantity	Trip Generation		Vehicle Miles Traveled		
	Existing	Trips/Day /Unit	Daily	Annual	Daily	Per Capita
Single Family Housing	169 dwelling units	9.79	1,685	2,759,156	7,559	14.57

Source: GHD 2019, CalEEMod 2016.
Note: Assumes 3.07 persons per Household based on 2013-2017 American Community Survey 5-year estimates

8.6.1 SACOG Regional VMT

The current Household Generated VMT per capita is 17.95, for the Sacramento Area Council of Governments (SACOG) regional average, based on the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS; Table 5B.3).

The projected VMT per capita for the proposed Project is 14.57. This is 19% lower than the regional average.

9. Project Impacts and Mitigation Measures

9.1 Significance Thresholds

According to the current State CEQA Guidelines being utilized for this study, a Project results in a significant impact if the Project causes an increase in traffic that is substantial and adverse in relation to the traffic load and capacity of the existing street system. This standard of significance relates to automobile traffic only and does not address the potential effects on other travel modes including transit, bicycle, and pedestrian facilities. The following standards of significance will apply to the transportation impacts determined within this transportation impact study. For intersections at which the proposed project creates a significant impact, mitigations will be presented to reduce the project impact to less than significant.

Signalized Intersections

The project is considered to have a significant impact if it would:

- Result in a signalized intersection that will operate at an acceptable LOS[1] in the No Project condition to deteriorate to an unacceptable LOS1 in the Plus Project condition
- Increase the delay by more than 5.0 seconds at a signalized intersection that is already operating or will already operate at an unacceptable LOS in the No Project condition

Unsignalized Intersections:

The project is considered to have a significant impact if it would:

- Result in an unsignalized intersection that will operate at an acceptable LOS1 in the No Project condition to deteriorate to an unacceptable LOS1 in the Plus Project condition
- Increase the delay by more than 5.0 seconds at an unsignalized intersection that is already operating or will already operate at an unacceptable LOS in the No Project condition

Freeway Ramps:

A project is considered to have a significant effect if it would:

- Result in a facility operating at an acceptable LOS to deteriorate to an unacceptable LOS, according to the LOS threshold defined by Caltrans (LOS D).
- Increase the density by more than 5% at a ramp segment that is already operating or will already operate at LOS E in the No Project condition
- Increase the v/c (volume/capacity) ratio by more than 0.05 at a ramp segment that will operate at LOS F in the Plus Project condition

Transit, Bicycle, and Pedestrian Impacts

The proposed project is considered to result in a potentially significant transit, bicycle, and/or pedestrian impact if any of the following would occur:

[1] Per City of Galt General Plan Policy C-1.3 (see also Section 2.2 Level of Service Methodologies)

- The project conflicts with existing, planned, or possible future transit, bicycle, and/or pedestrian facilities and services;
- The path of travel between the project site and transit stops does not meet current ADA accessibility standards.

Vehicle Miles Traveled (VMT)

Although a VMT analysis was performed to assess the relative performance of the project, VMT was not used as a metric to determine CEQA impacts, lacking any operative baseline or impact thresholds under the lead agency, the City of Galt.

9.2 Existing Plus Project Impacts & Mitigation Measures

Intersection Impacts

All study intersections are projected to operate at an acceptable level of service for the weekday AM and PM peak hours under Existing Plus Project conditions. No mitigation measures are required.

Ramp & Weaving Segment Impacts

All study ramp and weaving segments are projected to operate at an acceptable level of service for the weekday AM and PM peak hours under Existing Plus Project conditions. No mitigation measures are required.

9.3 Cumulative Plus Project Impacts & Mitigation Measures

Intersection Impacts

All study intersections are projected to operate at an acceptable level of service for the weekday AM and PM peak hours under Cumulative Plus Project conditions. No mitigation measures are required.

Ramp & Weaving Segment Impacts

Under both Cumulative No Project and Cumulative Plus Project conditions, location #5 – SR 99 Southbound On Ramp at Fairway Drive/Glendale Avenue operates at an unacceptable LOS. All other ramp and weaving segments operate at an acceptable LOS under Cumulative Plus Project conditions during the AM and PM peak hours.

Table 9.1 presents the deficient ramp locations and determination of Project impacts by comparing LOS, density (in pc/mi/ln), or v/c ratio between Cumulative No Project conditions and Cumulative Plus Project conditions, based on the thresholds previously identified.

Table 9.1 Project Impact Determination on Deficient Ramp & Weaving Segments under Cumulative Conditions

#	5	
Location	SR 99 SB Fairway Dr / Glendale Ave On Ramp	
SCENARIO	Density (pc/mi/ln)	LOS
AM PEAK HOUR		
Cumulative No Project	36.3	**E**
Cumulative Plus Project	36.5	**E**
Difference	0.2	
Percent Change	0.6%	
Significant Impact?	No	
PM PEAK HOUR		
Cumulative No Project	v/c = 1.02	**F**
Cumulative Plus Project	v/c = 1.03	**F**
Difference	0.01	
Percent Change		
Significant Impact?	No	

Notes:

1. Target LOS at all ramp locations = LOS D
2. **Bold** = Unacceptable Conditions

As presented in Table 9.1, the Project impact is less than the significance threshold of 5%, and is therefore less than significant at the identified study location under Cumulative Plus Project conditions. No mitigation measures are necessary for ramp and weaving segments under Cumulative Plus Project conditions.

9.4 Conclusion

Based upon the analyses provided in this Traffic Impact Study, development of the Fairway Oaks Project does not result in any significant transportation impacts at the following locations, under these listed scenarios.

- **Existing Plus Project conditions**
  - Study Intersections
    - No project impacts
  - Ramp & Weaving Segments
    - No project impacts
- **Cumulative Plus Project conditions**
  - Study Intersections
    - No project impacts
  - Ramp & Weaving Segments
    - No project impacts

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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