

Initial Study/Addendum Crow Canyon Specific Plan Update City of San Ramon, Contra Costa County, California

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ACRONYMS AND ABBREVIATIONS

µg/m ³	micrograms per cubic meter
°F	degrees Fahrenheit
°C	degrees Celsius (Centigrade)
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ARB	California Air Resources Board
BAAQMD	Bay Area Air Quality Management District
BAASMA	Bay Area Stormwater Management Agencies Association
BMP	Best Management Practice
BMU	Business Mixed Use
CalEEMod	California Emissions Estimator Model
CASQA	California Stormwater Quality Association
Central San	Central Contra Costa Sanitary District
CCSP	Crow Canyon Specific Plan
CCTA	Contra Costa Transportation Authority
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CRZ	Creek Riparian Zone
CRHR	California Register of Historical Resources
C/SC	Commercial/Service Commercial
EBMUD	East Bay Municipal Utilities District
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
FAR	Floor Area Ratio
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
GHG	greenhouse gas
L _{eq}	equivalent sound level or equivalent continuous sound level

Acronyms and Abbreviations

L _{max}	maximum noise/sound level
LOS	Level of Service
MFR	Multiple Family Residential
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MPO	Metropolitan Planning Organization
mph	miles per hour
MU	Mixed-Use
NAHC	Native American Heritage Commission
ND	Negative Declaration
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NWIC	North Western Information Center
OS	Open Space/Park
PDR	Production, Distribution, and Repair
PM ₁₀	particulate matter with a diameter of 10 microns or less
RO	Residential Overlay
ROB	reactive organic gases
RWQCB	Regional Water Quality Control Board
SRPD	San Ramon Police Department
SRVFPD	San Ramon Valley Fire Protection District
SRVUSD	San Ramon Valley Unified School District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCM	Transportation Control Measure
TCR	Tribal Cultural Resource
TIA	Traffic Impact Analysis
USFWS	United States Fish and Wildlife Service
VCMU	Village Center Mixed-Use
VMT	vehicle miles traveled
VOC	volatile organic compounds
WUI	Wildfire Urban Interface

SECTION 1: INTRODUCTION

This Initial Study/Addendum, checklist, and the attached supporting documents have been prepared to determine whether and to what extent the 2006 Crow Canyon Specific Plan Environmental Impact Report (EIR) (State Clearinghouse [SCH] No. 2003122087) prepared for the City of San Ramon remains sufficient to address the potential impacts of the proposed Crow Canyon Specific Plan Update (proposed project or Specific Plan Update). The sufficiency of these materials will determine whether additional documentation is required under the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] § 21000, *et seq.*).

1.1 - Initial Study/Environmental Checklist

Pursuant to Public Resources Code Section 21166, and CEQA Guidelines Sections 15162 and 15164, subd. (a), the attached Initial Study/Addendum has been prepared to evaluate the proposed project. The attached Initial Study/Addendum uses the standard environmental checklist categories provided in Appendix G of the CEQA Guidelines, and it provides answer columns for evaluation consistent with the considerations listed under CEQA Guidelines Section 15162, subd. (a).

1.2 - Environmental Analysis and Conclusions

CEQA Guidelines Section 15164, subd. (a) provides that the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR or Negative Declaration (ND) if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR or ND have occurred (CEQA Guidelines, Section 15164, subd. (a)).

An addendum need not be circulated for public review but can be included in or attached to the Final EIR or ND (CEQA Guidelines § 15164, subd. (c)). The decision-making body shall consider the addendum the Final EIR prior to making a decision on the project (CEQA Guidelines § 15164, subd. (d)). An agency must also include a brief explanation of the decision not to prepare a subsequent EIR or ND pursuant to Section 15162 (CEQA Guidelines § 15164, subd. (e)).

Consequently, once an EIR or ND has been certified for a project, no subsequent EIR or ND is required under CEQA unless, based on substantial evidence, the following conditions are met:

- (1) Substantial changes are proposed in the project that will require major revisions of the previous EIR or ND . . . due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; 1
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or ND . . . due to the

¹ CEQA Guidelines Section 15382 defines “significant effect on the environment” as “. . . a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance” (see also PRC § 21068).

- involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the ND was adopted . . . shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or ND;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR or ND;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR or ND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (CEQA Guidelines § 15162, subd. (a); see also PRC § 21166).

This Initial Study/Addendum, checklist, and the attached documents constitute substantial evidence supporting the conclusion that preparation of a supplemental or subsequent EIR or ND is not required prior to approval of the above-referenced permits by responsible and trustee agencies, and provides the required documentation under CEQA.

1.2.1 - Findings

The project does not propose substantial changes to the EIR. There are no substantial changes in the circumstances in which the proposed project will be undertaken. There are no new significant environmental effects, nor is there a substantial increase in the severity of previously identified significant effects. Therefore, major revisions of the EIR or preparation of a new subsequent or supplemental EIR is not required. As described herein, the proposed project is consistent with the previous EIR and would involve only minor changes; therefore, an addendum is the appropriate CEQA compliance for the proposed project.

1.2.2 - Conclusions

The City of San Ramon may approve the Specific Plan Update based on this Addendum. The impacts of the proposed project are consistent with the impacts previously analyzed in the 2006 Crow Canyon Specific Plan EIR (CEQA Guidelines § 15164).

SECTION 2: PROJECT DESCRIPTION

2.1 - Location and Setting

2.1.1 - Location

The Crow Canyon Specific Plan area (plan area) is located in the City of San Ramon, in Contra Costa County, California (Exhibit 1). The plan area is bounded by the Northwest Specific Plan (west), the Town of Danville (north and east), Interstate 680 (I-680) (east), and Crow Canyon Road (south) (Exhibit 2). The plan area is located on the *Diablo*, California 7.5-minute United States Geographical Survey Quadrangle Range 1 West, Township 2 South, Unsectioned (Latitude 37° 46' 46" North; Longitude 121° 58' 40" West).

2.1.2 - Environmental Setting

The plan area contains approximately 1.3 million square feet of office and auto-oriented service commercial uses, most of which predate incorporation of the City of San Ramon in 1983. Land uses in the plan area include automobile sales and repair, construction contractors, building materials, warehousing and storage, home repair services and maintenance supplies, restaurants, a hotel, and a roller rink. Additionally, there are several vacant lots within the plan area.

San Ramon Valley Boulevard, a 4-lane arterial that parallels the west side of I-680, is the principal north-south roadway within the plan area. Deerwood Road/Fostoria Way,² a 4-lane arterial is the principal east-west roadway. Old Crow Canyon Road, a collector, connects the plan area to Crow Canyon Road. Faria Preserve Parkway³ provides access to the Faria Preserve. The intersection of San Ramon Valley Boulevard/Faria Preserve Parkway is planned to be improved with a signal and turn lanes.

San Ramon Creek enters the plan area from the southwest and meanders in an open channel in a northeasterly direction before entering a culvert that carries the drainage under San Ramon Valley Boulevard and I-680 where it continues north through the Town of Danville towards its confluence with Walnut Creek.

2.2 - Project Background

2.2.1 - Crow Canyon Specific Plan

The San Ramon City Council certified the 2006 Crow Canyon Specific Plan EIR and adopted the 2006 Crow Canyon Specific Plan (CCSP) in 2006. As shown in Exhibit 3, the 2006 CCSP encompasses 128 acres of the northern portion of San Ramon. This area is primarily developed with approximately 1.3 million square feet of office and auto-oriented service commercial uses. The 2006 CCSP sought to guide the development of pedestrian-oriented, mixed uses. As shown in the summary provided in

² This roadway is named Deerwood Road west of San Ramon Valley Boulevard and Fostoria Way east of the boulevard.

³ This roadway was known as Purdue Road up until 2019 when the name was changed to Faria Preserve Parkway. The 2006 Crow Canyon Specific Plan and 2006 Crow Canyon Specific Plan EIR recognized the roadway as Purdue Road.

Table 1 below, the 2006 CCSP contemplated replacing 413,000 square feet of existing office and commercial uses with 735 dwelling units and 357,000 square feet of new commercial uses.

Table 1: 2006 Crow Canyon Specific Plan Summary

Sub Area	Existing Floor Area	Displaced	Replacement		Net Change		Total	
	Gross Square Feet		Gross Square Feet	Residential	Commercial	Residential	Commercial	Residential
				Dwelling Units	Gross Square Feet	Dwelling Units	Gross Square Feet	Dwelling Units
North of Purdue	422,000	142,000	155	223,000	155	81,000	155	503,000
East of the Boulevard	89,000	19,000	0	39,000	0	20,000	0	109,000
South of the Creek	278,000 / 142 Hotel Rooms	10,000	0	8,000	0	(2,000)	0	276,000 / 142 Hotel Rooms
The Core	526,000	241,000	580	87,000	580	(154,000)	580	372,000
Total	1,316,000 / 142 Hotel Rooms	413,000	735	357,000	735	(56,000)	735	1,260,000 / 142 Hotel Rooms

Notes:
All square footage values are approximate.
Source: City of San Ramon 2019.

Since adoption of the 2006 CCSP, only a handful of parcels have been redeveloped to higher and better use. The most notable example is a proposal by ROEM Development Corporation to construct the San Ramon Valley Apartments, a 169-unit apartment and commercial complex, on the former Outpost property at 2251 San Ramon Valley Boulevard.⁴ The mixed-use development project was approved on November 15, 2016.⁵ The Outpost building was demolished in 2017; however, no actual construction has occurred to date. Meanwhile, Sakura Japanese Cuisine was developed at 2277 San Ramon Valley Boulevard in 2017, a Wendy’s restaurant was developed on a vacant parcel at 2222 San Ramon Valley Boulevard in 2017, and the former Wicked Eye/Budget Car Rental property at 2017 San Ramon Valley Boulevard was redeveloped as a Sherwin Paints store in 2018.

2.3 - Project Characteristics

2.3.1 - Project Summary

The City of San Ramon seeks to update the 2006 CCSP to achieve a better fit within the larger community in terms of mix of uses, intensity, and urban design. The proposed project would also

⁴ Degan, Ryan J. 2019. San Ramon: Developers seek city support in re-characterizing apartment project as fully affordable housing. Danville San Ramon News: April 23. Website: <https://www.danvillesanramon.com/news/2019/04/23/san-ramon-developers-look-for-city-support-in-re-characterizing-apartment-project-as-fully-affordable-housing>. Accessed May 5, 2020.

⁵ City of San Ramon. 2016. Minutes of the City of San Ramon – Planning Commission, November 15, 2016. Website: <http://sanramonca.iq2.com/Citizens/FileOpen.aspx?Type=12&ID=1391&Inline=True>. Accessed May 5, 2020.

reflect (1) changes to the retail landscape in terms of retailer consolidation and the emergence of online shopping, the net effect of which is to reduce the amount of new retail space contemplated within the planning area; (2) recent updates to State law concerning production of housing; (3) the loss of Redevelopment funds to catalyze implementation of the plan; and (4) the recent openings of City Center Bishop Ranch and The Preserve.

As shown in Exhibit 4, the proposed project would expand the 2006 CCSP boundaries by 3.5 acres to encompass Ryan Industrial Court and would create a new zoning district (Production-Distribution-Repair) for the Beta Court and Omega Drive service commercial businesses. Table 2 summarizes the proposed project. Residential units would be concentrated along Deerwood Road and Ryan Industrial Court; no residential units would be proposed along Beta Court or north of Faria Preserve Parkway. As shown in Table 3, the proposed project would reduce the residential buildout potential within the planning area by 101 dwelling units to approximately 634 total residential units. The average household size in the City of San Ramon is three persons per unit.⁶ Therefore, the projected population within the planning area at project buildout would be approximately 1,900. Table 3 provides a comparison of the 2006 CCSP to the proposed project.

Table 2: Crow Canyon Specific Plan Update Summary

Site	Square Feet				Multiple Family Residential	Village Mixed Use		
	Net Site Area	Developable Area	Creek Open Space	Dwelling Units	Parking Spaces	Dwelling Units	Retail Square Feet	Parking Spaces
R-1	145,390	145,390	–	–	–	117	9,638	214
R-2	46,440	46,440	–	–	–	37	3,078	68
R-3	27,000	48,200	21,200	–	–	22	1,790	40
R-4/R-5	173,340	220,200	46,860	–	–	139	11,490	255
R-6	94,310	111,510	17,200	52	78	–	–	–
R-7	28,314	56,628	93,600	16	23	–	–	–
R-8	149,495	160,942	28,600	82	–	–	–	–
ROEM	111,250	111,250	–	–	–	169	6,150	279
Total	775,539	900,560	207,460	150	101	484	32,146	856

Source: City of San Ramon 2019.

⁶ United State Census Bureau. 2018. QuickFacts: San Ramon city, California. Website: <https://www.census.gov/quickfacts/fact/table/sanramoncitycalifornia/INC110218>. Accessed May 5, 2020.

Table 3: Comparison of the 2006 Specific Plan to the Proposed Project

Specific Plan	Acres	Dwelling Units	Net New Retail Square Feet	Net New Commercial Square Feet	Open Space
2006 CCSP	128	735	87,000	270,000	207,460
CCSP Update	131.5	634	32,146	270,000	207,460
Net Change	3.5	(101)	(54,854)	0	0
Notes: Source: City of San Ramon 2019.					

As shown in Table 4 below, the proposed project would alter the previously proposed land uses and the Floor Area Requirement (FAR) for each proposed, updated land use. The proposed project would allow the same maximum residential density (35 dwelling units/acre) as the 2006 CCSP. The proposed project includes an increase of the maximum building height from 4 stories to 5 stories within the Village Center Mixed Use (VCMU) land use designation, as shown in Table 4. The proposed project also identifies creek open space by development site and contemplates a network of trails and pedestrian-bicycle bridges within this area. Trails would be incorporated into the plan area within the City-required 100-foot setback from the San Ramon Creek. Small, park-related structures that are publicly accessible would be allowed along the setback.

Table 4: Land Use Matrix Comparison

Sub Area	2006 Crow Canyon Specific Plan			Crow Canyon Specific Plan Update		
	Designation	Principal Allowable Uses	Intensity	Designation	Principal Allowable Uses	Intensity
North of Purdue	Residential Overlay (RO)	<ul style="list-style-type: none"> Multi-family Residential (min. 1.5-acre lot) Single-family Residential (attached only) 	Requires minimum site of 1.5 acre Min.: 22 units/acre Max.: 35 units/acre	Production, Distribution, and Repair (PDR)	<ul style="list-style-type: none"> Automobile services and repair Building materials sales Artisan enterprises Creators in the fields of food, crafts and technology 	Maximum 0.5 FAR Maximum Building Height: 50 feet
	Business Mixed-Use (BMU)	<ul style="list-style-type: none"> Day Care Building Materials and Services (limited) Eating and Drinking Establishments (limited) Food and Beverage Sales (limited) 	Maximum (less than 1.5 acres): 0.40 FAR Maximum (1.5 acres or larger): 1.00 FAR	Commercial/Service Commercial (C/SC)	<ul style="list-style-type: none"> Retail Restaurant Service Office Lodging Automobile sales and services Building materials 	Maximum 0.7 FAR Maximum Building Height: 3 stories

Sub Area	2006 Crow Canyon Specific Plan			Crow Canyon Specific Plan Update		
	Designation	Principal Allowable Uses	Intensity	Designation	Principal Allowable Uses	Intensity
		<ul style="list-style-type: none"> • Laboratories • Offices • Retail • Research and Development Services • Vehicle Sales and Services • Industry, Limited Small-Scale 			<ul style="list-style-type: none"> • Cultural amenities 	
East of the Boulevard	Business Mixed Use (BMU)	<ul style="list-style-type: none"> • Day Care • Building Materials and Services (limited) • Eating and Drinking Establishments (limited) • Food and Beverage Sales (limited) • Laboratories • Offices • Retail • Research and Development Services • Vehicle Sales and Services • Industry, Limited Small-Scale 	Maximum (less than 1.5 acres): 0.40 FAR Maximum (1.5 acres or larger): 1.00 FAR	Commercial/Service Commercial (C/SC)	<ul style="list-style-type: none"> • Retail • Restaurant • Service • Office • Lodging • Automobile sales and services • Building materials • Cultural amenities 	Maximum 0.7 FAR Maximum Building Height: 3 stories
	Commercial/Service Commercial (C/SC)	<ul style="list-style-type: none"> • Day Care • Building Materials and Services (limited) • Eating and Drinking Establishments (limited) • Laboratories • Offices • Research and Development Services • Retail • Vehicle Sales and Services 	Maximum: 0.40 FAR.	Business Mixed Use (BMU)	<ul style="list-style-type: none"> • Retail • Service • Hotel • Office 	Maximum 1.0 FAR Maximum Building Height: 40 feet

Project Description

Sub Area	2006 Crow Canyon Specific Plan			Crow Canyon Specific Plan Update		
	Designation	Principal Allowable Uses	Intensity	Designation	Principal Allowable Uses	Intensity
		<ul style="list-style-type: none"> • Industry, Limited Small-Scale 				
	Open Space/Park (OS)	<ul style="list-style-type: none"> • Park and Recreation Facilities • Eating and Drinking Establishments (limited) • Horticulture (limited) 	Per use permit	–	–	–
South of the Creek	Commercial/Service Commercial (C/SC)	<ul style="list-style-type: none"> • Day Care • Building Materials and Services (limited) • Eating and Drinking Establishments (limited) • Laboratories • Offices • Research and Development Services • Retail • Vehicle Sales and Services • Industry, Limited Small-Scale 	Maximum: 0.40 FAR.	–	–	–
	Open Space/Park (OS)	<ul style="list-style-type: none"> • Park and Recreation Facilities • Eating and Drinking Establishments (limited) • Horticulture (limited) 	Per use permit	–	–	–
	--	--	--	Multiple Family Residential (MFR)	<ul style="list-style-type: none"> • Apartments or condominiums two to three stories tall 	Maximum Density: 18-28 dwelling units/acre Maximum Building Height: 3 stories

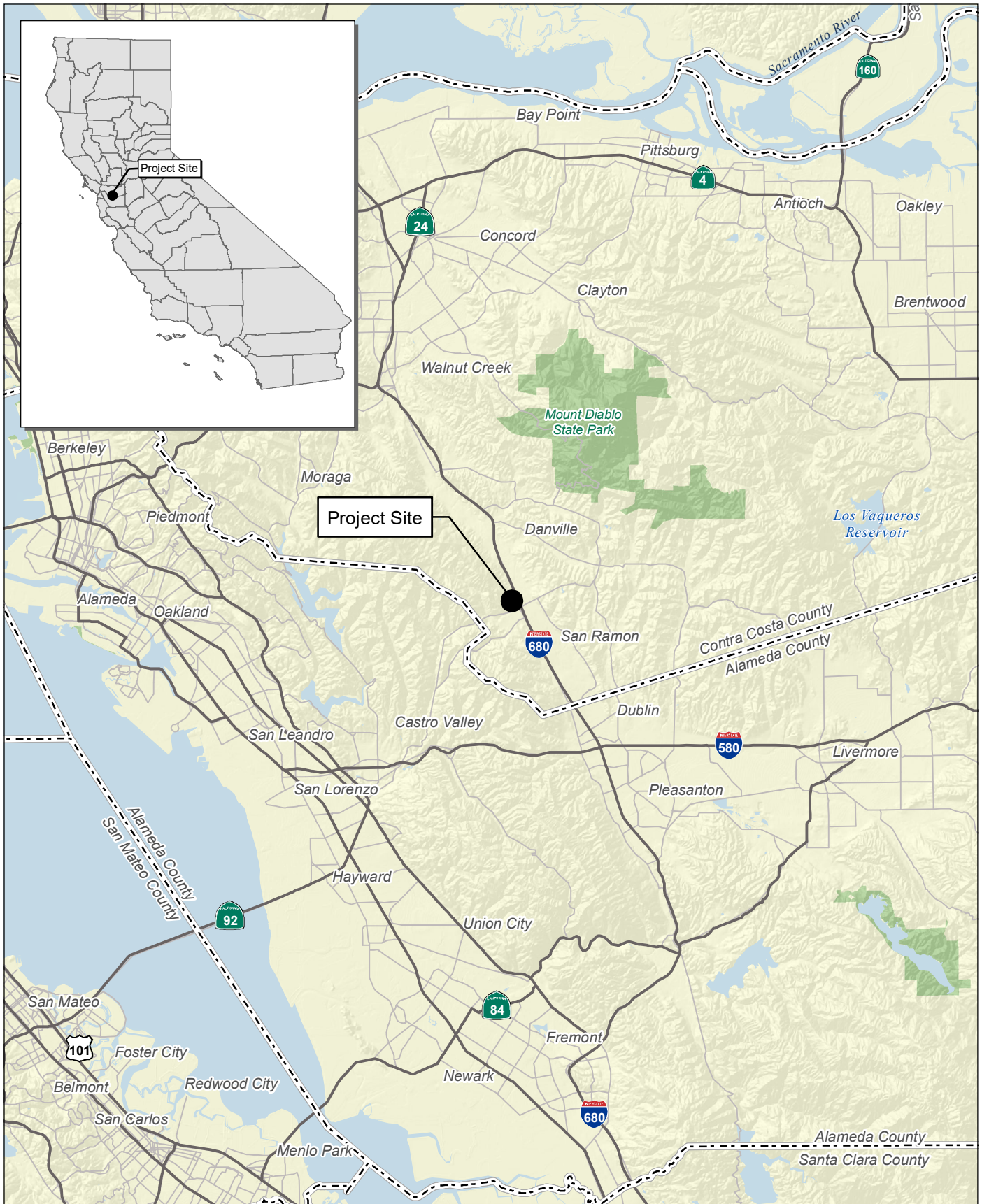
Sub Area	2006 Crow Canyon Specific Plan			Crow Canyon Specific Plan Update		
	Designation	Principal Allowable Uses	Intensity	Designation	Principal Allowable Uses	Intensity
The Core	Village Center Mixed-Use (VCMU)	<ul style="list-style-type: none"> Multi-family Residential* Single-family Residential (attached only)* Day Care Park and Recreation Facilities Eating and Drinking Establishments Food and Beverage Sales Offices Retail Support Retail Ground-Level Use Visitor Accommodations (Hotels and Motels) 	Minimum: 22 units per acre or 0.40 FAR (whichever is greater). Maximum: 35 units per acre or 1.25 FAR (whichever is less).	Business Mixed Use (BMU)	<ul style="list-style-type: none"> Retail Service Hotel Office 	Maximum 1.0 FAR Maximum Building Height: 4 stories
	Commercial/Service Commercial (C/SC)	<ul style="list-style-type: none"> Day Care Building Materials and Services (limited) Eating and Drinking Establishments (limited) Laboratories Offices Research and Development Services Retail Vehicle Sales and Services Industry, Limited Small-Scale 	Maximum: 0.40 FAR.	Production, Distribution, and Repair (PDR)	<ul style="list-style-type: none"> Automobile services and repair Building materials sales Artisan enterprises Creators in the fields of food, crafts and technology 	Maximum 0.5 FAR Maximum Building Height: 40 feet
	Residential Overlay (RO)	<ul style="list-style-type: none"> Multi-family Residential (min. 1.5-acre lot) Single-family Residential (attached only) 	Requires minimum site of 1.5 acre Min.: 22 units/acre Max.: 35 units/acre	Village Center Mixed-Use (VCMU)	<ul style="list-style-type: none"> Multi-family Residential* Single-family Residential (attached only)* Day Care 	Maximum Density: 35 dwelling units/acre Maximum Building Height: 5 stories

Sub Area	2006 Crow Canyon Specific Plan			Crow Canyon Specific Plan Update		
	Designation	Principal Allowable Uses	Intensity	Designation	Principal Allowable Uses	Intensity
					<ul style="list-style-type: none"> • Park and Recreation Facilities • Eating and Drinking Establishments • Food and Beverage Sales • Offices • Retail • Support Retail Ground-Level Use • Visitor Accommodations (Hotels and Motels) 	
	--	--	--	Multiple Family Residential (MFR)	<ul style="list-style-type: none"> • Apartments or condominiums two to three stories tall 	Maximum Density: 18-28 dwelling units/acre Maximum Building Height: 3 stories

2.4 - Discretionary Approvals

The proposed project requires the following discretionary approvals from the City of San Ramon:

- Adoption of CCSP Update



Source: Census 2000 Data, The CaSIL.

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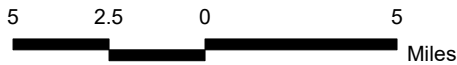


Exhibit 1 Regional Location Map

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Legend

Project Site

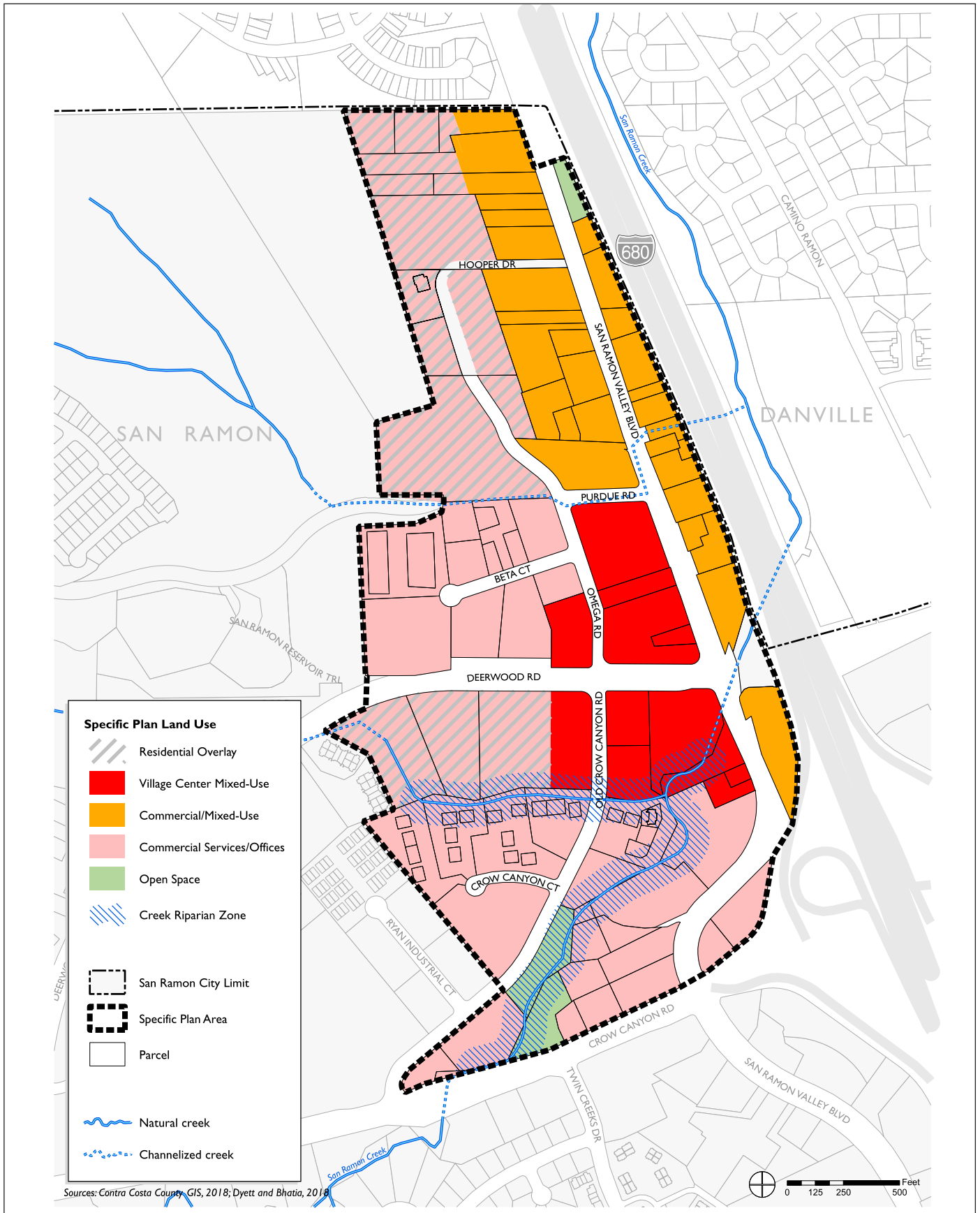
Source: Google Earth Pro Aerial Imagery.

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Exhibit 2
Local Vicinity Map
Aerial Base

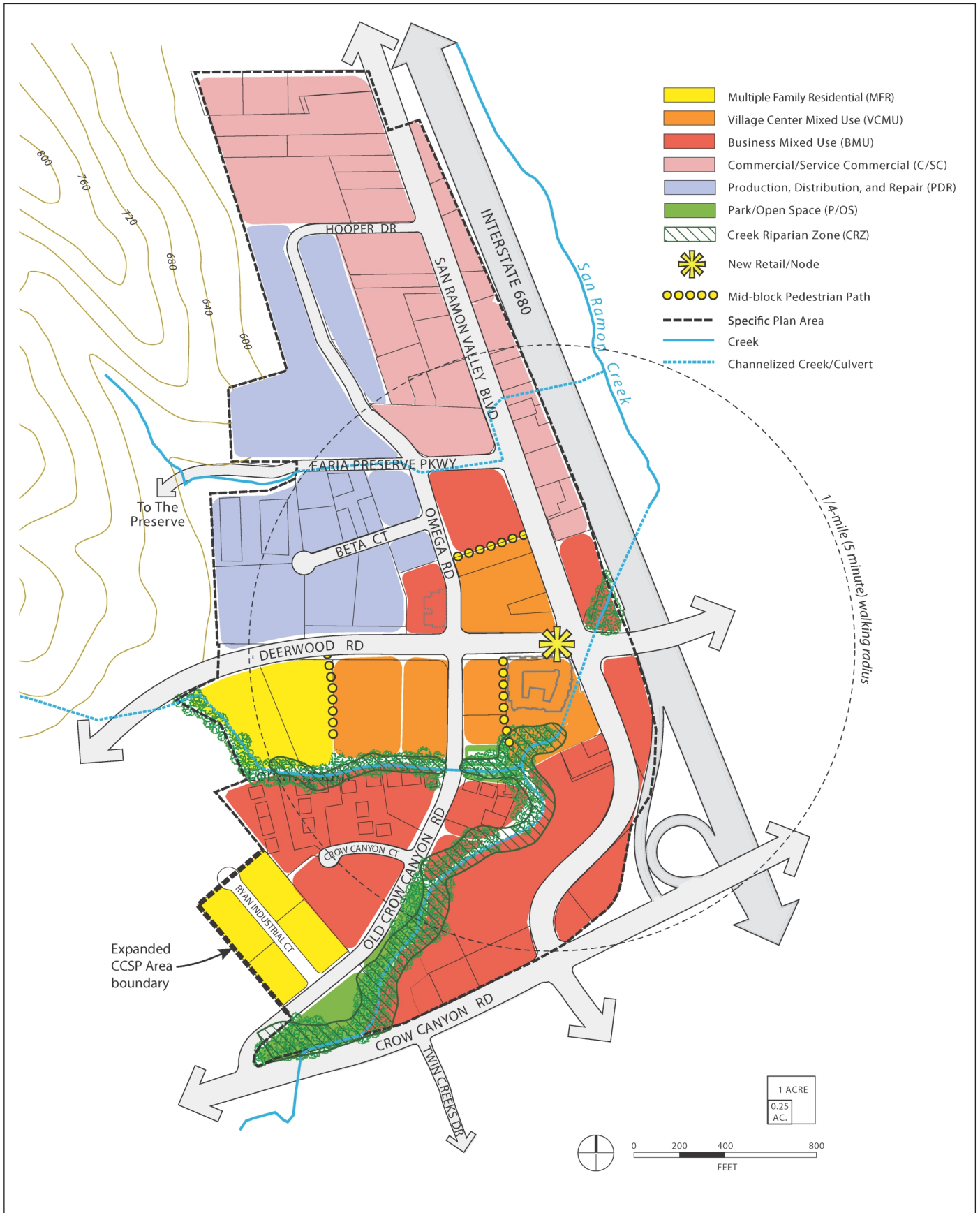
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Sources: Contra Costa County GIS, 2018; Dyett and Bhatia, 2018



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Source: City of San Ramon, June 2020.

Exhibit 4

Crow Canyon Specific Plan Update
Proposed Land Use Plan



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SECTION 3: CEQA CHECKLIST

The purpose of the checklist is to evaluate the categories in terms of any changed condition (e.g., changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result (e.g., a new significant impact or substantial increase in the severity of a previously identified significant effect) (CEQA Guidelines § 15162).

The questions posed in the checklist come from Appendix G of the CEQA Guidelines. A “no” answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed with mitigation measures in the 2006 Crow Canyon Specific Plan EIR. These environmental categories might be answered with a “no” in the checklist, since the proposed project does not introduce changes that would result in a modification to the conclusion of the previously approved CEQA document.

This addendum addresses the conclusions of the 2006 Crow Canyon Specific Plan EIR.

3.1 - Explanation of Checklist Evaluation Categories

(1) Conclusion in 2006 Crow Canyon Specific Plan EIR and Related Documents

This column summarizes the conclusion of the 2006 Crow Canyon Specific Plan EIR relative to the environmental issue listed under each topic.

(2) Do the Proposed Changes Involve New Impacts?

Pursuant to CEQA Guidelines Section 15162, subd. (a)(1), this column indicates whether the changes represented by the proposed project will result in new significant environmental impacts not previously identified or mitigated by the 2006 Crow Canyon Specific Plan EIR or whether the changes will result in a substantial increase in the severity of a previously identified significant impact.

(3) New Circumstances Involving New Impacts?

Pursuant to CEQA Guidelines Section 15162, subd. (a)(2), this column indicates whether there have been substantial changes with respect to the circumstances under which the proposed project is undertaken that will require major revisions to the 2006 Crow Canyon Specific Plan EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(4) New Information Requiring New Analysis or Verification?

Pursuant to CEQA Guidelines Section 15162, subd. (a)(3)(A-D), this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the 2006 Crow Canyon Specific Plan EIR was certified, shows any of the following:

- (A) The project will have one or more significant effects not discussed in the previous EIR or ND;
- (B) Significant effects previously examined will be substantially more severe than shown in the previous Crow Canyon Specific Plan EIR;
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the 2006 Crow Canyon Specific Plan EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If the additional analysis completed as part of this environmental review were to find that the conclusions of the 2006 Crow Canyon Specific Plan EIR remain the same and no new significant impacts are identified, or identified impacts are not found to be substantially more severe, or additional mitigation is not necessary, then the question would be answered “no,” and no additional environmental document would be required.

(5) Mitigation Measures Implemented or Address Impacts

Pursuant to CEQA Guidelines Section 15162, subd. (a)(3), this column indicates whether the 2006 Crow Canyon Specific Plan EIR provides mitigation measures to address effects in the related impact category. Any previously adopted mitigation measures will be identified. The response will also address proposed revisions to previously adopted mitigation measures. These mitigation measures will be implemented with the construction of the proposed project, as applicable. If “NA” is indicated, the 2006 Crow Canyon Specific Plan EIR has concluded that the impact either does not occur with the proposed project or is not significant, and therefore no additional mitigation measures are needed.

3.2 - Discussion and Mitigation Sections

(1) Discussion

A discussion of the elements of the checklist is provided under each environmental category in order to clarify the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

(2) Mitigation Measures

Applicable mitigation measures from the Initial Study that apply to the proposed project are listed under each environmental category.

(3) Conclusions

A discussion of the conclusion relating to the analysis is contained in each section.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
I. Aesthetics, Light, and Glare					
<i>Would the project:</i>					
a) Have a substantial adverse effect on a scenic vista?	Less than significant impact.	No.	No.	No.	None.
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than significant impact.	No.	No.	No.	None.
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Beneficial (Less than significant impact).	No.	No.	No.	None.
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure H.3

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that impacts on scenic vistas would be less than significant because implementation of the 2006 CCSP would not substantially obstruct existing significant view corridors identified within the General Plan or result in demonstrably negative visual effects on views of the project area from Interstate 680 (I-680). Land use changes, building height changes, and the creation of new visual corridors would cause visual changes within and around the project area, but these changes were concluded to be similar in character with surrounding land uses and visual qualities.

Crow Canyon Specific Plan Update Analysis and Conclusions

As demonstrated previously in Table 3, the project proposes an overall reduction in buildout square footage and residential units as compared to the 2006 CCSP. The largest change would be a reduction of 54,854 square feet to net new retail area and a reduction of potential

residential buildout by 101 dwelling units. Although the maximum building height would increase from 50 feet to 60 feet in the VCMU, projects within the plan area would still undergo discretionary review that would ensure that massing and building height would not interfere with scenic vistas. Furthermore, the project does not propose altering existing view corridors, adding view corridors, or changing design controls; and proposes building massing that is consistent with the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed project would not introduce new environmental impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR addresses views of scenic resources from State Scenic Highways in analysis for question H.2. The California Scenic Highway Program designates the portion of I-680 that is by the plan area a State Scenic Highway from the Alameda County boundary with Contra Costa County and then northwest to the interchange with State Route 24. The plan area is visible from northbound and southbound travel lanes in mid- to short-range view sequences that are fleeting and indistinct due to the high-speed travel along I-680. Implementation of the 2006 CCSP would alter the views of the plan area from I-680 because the plan would allow building heights taller than existing buildings in the surrounding area; however, the overall commercial development set forth by the 2006 CCSP would be consistent with the existing uses and conditions of the surrounding area. Additionally, there are no defined scenic resources in the 2006 Crow Canyon Specific Plan EIR that would be viewable for I-680. Therefore, impacts related to considerably altering existing views of scenic resources within the viewshed of a State Scenic Highway would be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would be within the plan area analyzed in the 2006 Crow Canyon Specific Plan EIR. The proposed project would create the Production, Distribution, and Repair (PDR) land use designation, which would be similar to existing commercial service land uses in the plan area; furthermore, it would decrease buildout by 53,854 square feet, and increase building heights from a maximum height of 4 stories to 5 stories within the plan area.

No scenic resources are identified in the 2006 Crow Canyon Specific Plan EIR, but building heights in the proposed project land use designations within the plan area, such as the Multiple Family Residential (MFR), are selected to preserve views of the surrounding hills. Consistent with the 2006 Crow Canyon Specific Plan EIR, the plan area would still be visible from I-680. With a taller maximum height than surrounding land uses, the plan area could be more visible in views from I-680, but overall commercial and mixed-use development would be consistent with existing conditions and land uses in the surrounding area. Therefore, the proposed project would not introduce environmental impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP would beneficially alter existing visual character and quality within the plan area and surrounding area. The 2006 CCSP envisions and guides the redevelopment of underutilized commercial-service and light industrial uses and the infill of vacant sites. The 2006 CCSP sets urban design controls to guide development within the plan area. Additionally, building heights, intensities, and design controls proposed by the 2006 CCSP for development of residential, commercial, and mixed-use development would be visually harmonious with the surrounding area and would not conflict with the existing land uses of the surrounding areas. As such, impacts to visual character and quality were identified to be beneficial and, therefore, less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would maintain land use patterns and designations analyzed in the 2006 Crow Canyon Specific Plan EIR, except for the creation of the PDR designation for existing commercial service businesses located along Beta Court and Omega Road. Although the designation would change from Commercial/Service Commercial (C/SC) to PDR, the area would still be used for commercial services and be subject to the same urban design controls as the 2006 CCSP. The proposed project would reduce new retail square footage from 87,000 square feet to 32,146 square feet, and would also reduce potential residential buildout from 735 to 634 dwelling units, and would allow for maximum building heights of 5 stories instead of 4 stories. As with existing conditions, any projects within the plan area would be required to undergo discretionary review processes, be guided by the General Plan, and would be subject to the design controls in the 2006 CCSP. Therefore, the proposed project would not introduce new environmental impacts or create more severe environmental impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR indicated that implementation of the 2006 CCSP would introduce new sources of light and glare in the plan area and increase ambient light in the vicinity. The 2006 Crow Canyon Specific Plan EIR set forth the Mitigation Measure (MM) H.3, which requires proposed land uses in the plan area to include lighting designed and oriented to confine illumination to its specific site to minimize light spillage to surrounding areas, thereby reducing impacts to less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed reduction in net new retail square footage, reduction of potential residential buildout, and new PDR designation as contemplated by the proposed project would not introduce any additional light and glare. The proposed project would allow an increase in maximum building height from 4 stories to 5 stories, which could potentially increase the reach of light spillage to surrounding areas. The 2006 Crow Canyon Specific Plan EIR MM AES-H.3 requires proposed land uses within the Plan Area to include lighting designed and oriented to confine illumination spillage from outside the specific site boundaries. Implementation of MM

AES-H.3 would reduce impacts to a less than significant level, consistent with the conclusions of the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed project would not introduce environmental impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

MM H.3 Future land uses proposed in the Crow Canyon Specific Plan area shall include lighting designed and oriented to confine illumination to its specific site in order to minimize light spillage to adjacent commercial and residential uses, and public open space and recreational areas.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to aesthetics, light, and glare. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
II. Agricultural and Forest Resources					
<i>Would the project:</i>					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No impact.	No.	No.	No.	None.
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No impact.	No.	No.	No.	None.
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	None.
d) Result in the loss of forest land or conversion of forest land to non-forest use?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	None.
e) Involve other changes in the existing environment which, due	No impact.	No.	No.	No.	None.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?					

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the plan area is located in an urbanized area and there are no agricultural resources within the boundaries of the 128-acre plan area. Implementation of the 2006 CCSP would not convert farmland to nonagricultural use. Therefore, there would be no impact related to the conversion of existing farmland uses to nonagricultural uses.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would increase the plan area by 3.5 acres, none of which would encompass agriculture land uses. The 131.5-acre proposed project plan area would be located in an urbanized area that the California Department of Conservation identifies as urban and built up land, and there are no agriculture land uses identified.⁷ The proposed project would not convert farmland to nonagricultural land uses and would have no impact. Therefore, the proposed project would not introduce environmental impacts related to the conversion of farmland land uses to nonagricultural land uses or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the plan area is located in an urbanized area and that there are no agricultural resources within the boundaries of the 128-acre plan area. Implementation of 2006 CCSP would not conflict with zoning for agricultural uses. Therefore, the project would not conflict with any existing zoning for agriculture use or a Williamson Act contract.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would increase the plan area by 3.5 acres, none of which would encompass agriculture land uses. The 131.5-acre proposed project plan area currently contains and would maintain the following land use designations: VCMU, BMU, Residential, C/SC, and

⁷ California Department of Conservation. 2016. Contra Costa County Important Farmland Map. Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/con16.pdf>. Accessed: December 27, 2019.

OS. The proposed project would add MFR and PDR designations, which further define residential and commercial/industrial land uses. The proposed 3.5-acre plan area expansion is currently zoned Mixed Use, and land uses include a church and commercial land uses. The proposed project would not conflict with existing agricultural zoning or a Williamson Act contract, thus there would be no impact.⁸ Therefore, the proposed project would not introduce environmental impacts that would conflict with existing agriculture zoning or a Williamson Act contract or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. Additionally, forest resources were not evaluated in other sections in the 2006 Crow Canyon Specific Plan EIR. No conclusion was made about the significance level of environmental impacts regarding conflicts with existing forestland zoning.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project plan area is located in an urbanized area. The proposed 3.5-acre increase to the plan area is currently zoned by the City of San Ramon as Mixed Use,^{9,10} which allows for a mix of nonresidential uses, including retail, services, and offices, with residential uses at intensities of up to FAR 0.7¹¹ with an open space/park designation in the southwest portion of the plan area around San Ramon Creek. The plan area does not contain land zoned forestland or timberland. Although the proposed project would result in an increase to the plan area by 3.5 acres, the acreage increase would not conflict with existing forestland or timberland, nor are there existing forest resources in or near the plan area.¹² No impact would occur. Therefore, the proposed project would not introduce any new environmental impacts. No additional analysis is required.

d) Summary of 2006 Crow Canyon Specific Plan EIR

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. Additionally, forest resources were not evaluated in any other sections in the 2006

⁸ California Department of Conservation. Contra Costa County Williamson Act FY 2015-2016. Website: https://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx. Accessed: December 27, 2019.

⁹ City of San Ramon. 2015. 2035 General Plan, Land Element. Website: [http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20\(updated%20Map%20as%20of%2011-27-18\).pdf](http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20(updated%20Map%20as%20of%2011-27-18).pdf). Accessed December 27, 2019.

¹⁰ City of San Ramon. 2019. Community Development Department: Zoning Map. Website: http://www.sanramon.ca.gov/our_city/departments_and_divisions/community_development/planning_services/zoning_map. Accessed December 27, 2019.

¹¹ City of San Ramon. 2018. Zoning Ordinance: D-2, pg.2-19. Website: https://library.municode.com/ca/san_ramon/codes/code_of_ordinances?nodeId=TITDZO. Accessed December 27, 2019.

¹² City of San Ramon. 2015. 2035 General Plan, Land Element. Website: [http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20\(updated%20Map%20as%20of%2011-27-18\).pdf](http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20(updated%20Map%20as%20of%2011-27-18).pdf). Accessed December 27, 2019.

Crow Canyon Specific Plan EIR. No conclusion was made about the significance level of environmental impacts on the loss of forestland or conversion of forestland to non-forest uses.

Crow Canyon Specific Plan Update Analysis and Conclusions

The 2006 CCSP area does not contain forestlands. The proposed project would not result in land use designations or boundary alterations that would cause the inclusion of forestlands. The proposed 3.5-acre expansion is currently designated and zoned by the City of San Ramon as Mixed Use,^{13,14} which allows for a mix of nonresidential uses, including retail, services, and offices, with residential uses at intensities of up to FAR 0.7. Currently, the 3.5-acre area of Ryan Industrial Court contains a church and three commercial properties. These conditions preclude the possibility of loss or conversion of forestlands to non-forest uses. No impacts would occur. Therefore, the proposed project would not introduce any new environmental impacts. No additional analysis is required.

e) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded that the plan area is located in an urbanized area and that there are no agricultural resources within the boundaries of the plan area. Implementation of the 2006 CCSP would not cause other changes in the existing environment that could result in the conversion of farmland to nonagricultural use. The 2006 Crow Canyon Specific Plan EIR did not include evaluation of forest resources because the CEQA Checklist questions in 2006 did not include explicit questions pertaining to forest resources. Therefore, the 2006 Crow Canyon Specific Plan EIR determined there would be no impact related to the conversion of existing farmland land uses to nonagricultural uses.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any significant land use changes or plan area boundary changes that could potentially result in development of farmlands or forestlands to non-farmland or non-forestland uses. The proposed project would extend the boundary of the project site to include 3.5 acres of Ryan Industrial Court and designate it MFR zoning and land use. The proposed 3.5 acres is currently designated and zoned by the City of San Ramon as Mixed Use,^{15,16} which allows for a mix of nonresidential uses, including retail, services, and offices, with residential uses at intensities of up to FAR 0.7; if projects provide more than the required

¹³ City of San Ramon. 2015. 2035 General Plan, Land Element. Website: [http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20\(updated%20Map%20as%20of%2011-27-18\).pdf](http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20(updated%20Map%20as%20of%2011-27-18).pdf). Accessed December 27, 2019.

¹⁴ City of San Ramon. 2019. Community Development Department: Zoning Map. Website: http://www.sanramon.ca.gov/our_city/departments_and_divisions/community_development/planning_services/zoning_map. Accessed December 27, 2019.

¹⁵ City of San Ramon. 2015. 2035 General Plan, Land Element. Website: [http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20\(updated%20Map%20as%20of%2011-27-18\).pdf](http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20(updated%20Map%20as%20of%2011-27-18).pdf). Accessed December 27, 2019.

¹⁶ City of San Ramon. 2019. Community Development Department: Zoning Map. Website: http://www.sanramon.ca.gov/our_city/departments_and_divisions/community_development/planning_services/zoning_map. Accessed December 27, 2019.

25 percent of total housing units for workforce housing and significant public benefit, then a maximum FAR of 1.0 may be allowed.¹⁷ Currently, the 3.5-acre area of Ryan Industrial Court contains a church and three commercial properties. Therefore, the expansion to include the 3.5 acres and changing the area's designation to MFR would maintain the urban development nature of the plan area.

The proposed project would maintain the following land use designations: VCMU, BMU, residential, C/SC, and OS, and would also create a new land use designation of PDR to replace the C/SC designations north of Deerwood Road, encompassing Beta Court, and bordering Omega Road. The existing and proposed land uses in the plan area do not contain or border agriculture or farmland uses, nor do they contain or border forestlands or forest uses. Therefore, the proposed project would not introduce any new environmental impacts related to the alteration of existing farmland or forestland to non-agriculture use or non-forest use. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to agricultural and forest resources. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

¹⁷ City of San Ramon. 2018. Zoning Ordinance: Ch. III, D-2, pg.2-19. Website: https://library.municode.com/ca/san_ramon/codes/code_of_ordinances?nodeId=TITDZO. Accessed December 27, 2019.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
III. Air Quality					
<i>Would the project:</i>					
a) Conflict with or obstruct implementation of the applicable air quality plan?	Significant and unavoidable impact.	No.	No.	No.	Mitigation Measure C.4.
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Significant and unavoidable impact.	No.	No.	No.	Mitigation Measure C.4.
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure C.1.
d) Expose sensitive receptors to substantial pollutant concentrations?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	None required.
e) Create objectionable odors affecting a substantial number of people?	Less than significant impact.	No.	No.	No.	None required.

Discussion

a) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR found that the 2006 CCSP would be consistent with the Smart Growth mandate in the 2020 San Ramon General Plan 2020 but that it would exceed the population and vehicle miles traveled (VMT) assumptions of the applicable air quality plan, the Bay Area Air Quality Management District's (BAAQMD) Bay Area 2000 Clean Air Plan. Local air quality plans, such as the Bay Area 2000 Clean Air Plan, rely on regional population and VMT growth forecasts developed by the applicable Metropolitan Planning Organization (MPO) as the basis for their emissions inventory and strategy for achieving and maintaining attainment status for federal and State ambient air quality standards. For the Bay Area 2000 Clean Air Plan, the applicable regional population and VMT growth forecasts are those developed by the Association of Bay Area Governments (ABAG) in 1998. Because VMT growth projections were not considered reliable for accuracy at the time of the preparation of the 2006 Crow Canyon Specific Plan EIR, the BAAQMD CEQA Guidelines consider plans that would facilitate population greater than that contained in the ABAG growth forecasts to be inconsistent with air quality planning. For the purposes of that analysis, VMT growth was assumed to be proportional with population growth. The 2006 Crow Canyon Specific Plan EIR determined that population growth facilitated by the 2006 CCSP would exceed growth forecasted by ABAG's 1998 population projections and would, therefore, result in a significant and unavoidable impact.

The 2006 Crow Canyon Specific Plan EIR outlined that development under the 2006 CCSP would implement some Transportation Control Measures (TCM) proposed by the Bay Area 2000 Clean Air Plan. The BAAQMD recommends that local plans that do not demonstrate reasonable efforts to implement TCMs, which are intended to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion, be considered inconsistent with the regional air quality plan and would result in a significant impact. Therefore, the 2006 Crow Canyon Specific Plan EIR included Mitigation Measure C.4, which requires implementation of additional TCMs in individual development projects, to the extent feasible. Nonetheless, the 2006 Crow Canyon Specific Plan EIR concluded that implementation of MM C.4 would not be sufficient to reduce this impact to a less-than-significant level because population growth facilitated by the 2006 CCSP would, nevertheless, exceed population growth projected by ABAG's 1998 forecasts.

Crow Canyon Specific Plan Update Analysis and Conclusions

As illustrated previously in Table 3 under Section 2.3, Project Characteristics, the proposed project would result in an overall decrease in land use development when compared to the existing 2006 CCSP. As shown therein, an estimated 634 dwelling units and approximately 32,000 square feet of new retail space would be realized upon full implementation of the plan area compared to an estimated 735 dwelling units and approximately 87,000 square feet of new retail space upon full implementation of the existing 2006 CCSP. This would result in a net decrease of an estimated 101 dwelling units under implementation of the proposed project compared to the existing 2006 CCSP. The net decrease in retail space and dwelling units would

result in a lower growth in population and subsequent emissions associated with property maintenance, use of consumer products, and natural gas consumption during project operation than would otherwise be experienced under the existing 2006 CCSP.

In addition to a decrease in operational emissions resulting from an overall decrease in land use development under implementation of the proposed project, the Specific Plan Update would result in a reduction in mobile emissions associated with vehicle use when compared to the existing 2006 CCSP. As noted in Section XVII, Transportation, the proposed project would result in approximately 4,000 fewer average daily vehicle trips upon full implementation as compared to the existing 2006 CCSP. Therefore, due to the reductions in proposed residential development, proposed retail development, and associated vehicle trip generation, implementation of the Specific Plan Update would result in lower overall emissions than what would occur with buildout under the existing 2006 CCSP. However, despite this comparative reduction, the Specific Plan Update would still contribute to a population growth that (similar to the 2006 CCSP) would still exceed the rate forecasted by ABAG's 1998 projections. Therefore, the Specific Plan Update would result in a significant cumulative impact on air quality emissions. Therefore, the Specific Plan Update would not result in any new or more severe impacts related to air quality beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR states that the BAAQMD thresholds for pollutant emissions of reactive organic gases (ROG), nitrogen oxides (NO_x), particulate matter with a diameter of 10 microns or less (PM₁₀), and carbon monoxide (CO) are for project-level analysis and would apply during subsequent CEQA review of individual projects proposed and be implemented under the existing 2006 CCSP.

Additional vehicle traffic would increase CO concentrations at intersections in the project vicinity, but development under the existing 2006 CCSP would not cause any violations of CO standards. The BAAQMD Guidelines require modeling CO emissions at intersections where project traffic would reduce roadway LOS of intersections that operate at LOS E or F. The traffic study used to support the 2006 Crow Canyon Specific Plan EIR identified four intersections that would operate at LOS E or F; however, the EIR determined that implementation of MM B.1 and MM B.4a through MM B.4c, which require installation of intersection signals, would improve the conditions at these intersections to LOS C or better. Additionally, CO emission rates were projected to decrease in the future due to cleaner burning fuels and improved combustion technologies than were currently available. The 2006 Crow Canyon Specific Plan EIR concluded that development under the 2006 CCSP would not cause any violations of CO standards and project-generated traffic would not have a significant effect on local CO concentrations.

Nonetheless, as discussed under impact a, the 2006 Crow Canyon Specific Plan EIR result in population growth that exceeds the projections used in the Bay Area 2000 Clean Air Plan. The Bay Area 2000 Clean Air Plan relies on regional population and VMT growth forecasts as the basis for the BAAQMD's emissions inventory and strategy for achieving and maintaining

attainment status for federal and State ambient air quality standards. Moreover, the BAAQMD is currently designated under a non-attainment status for ozone, PM₁₀, and PM_{2.5} criteria pollutants. While the 2006 Crow Canyon Specific Plan EIR determined that CO concentrations would not exceed air quality standards under the existing 2006 CCSP, the exceedance in population growth used in the BAAQMD's strategies to address its ozone, PM₁₀, and PM_{2.5} non-attainment status would constitute a substantial contribution to an existing air quality violation. Implementation of MM C.4 would assist in reducing mobile source emissions; however, this impact would remain significant and unavoidable after mitigation.

Crow Canyon Specific Plan Update Analysis and Conclusions

As previous discussed, and as mentioned in Section XVII, Transportation, the proposed project would result in approximately 4,000 fewer daily trips upon full implementation as compared to the existing 2006 CCSP. The reduction in vehicle trips would result in a reduction in CO concentrations as compared to the existing 2006 CCSP. While the proposed project would result in an estimated 101 fewer dwelling units and approximately 55,000 fewer square feet of new retail space, the Specific Plan Update could continue to contribute to an exceedance in population growth forecasts used in the BAAQMD's air quality planning efforts to achieve and maintain attainment status of ozone, PM₁₀, and PM_{2.5} air quality standards. Although the proposed project would result in lower overall emissions, it would continue to contribute to the existing air quality standard violations for ozone, PM₁₀, and PM_{2.5} in the Bay Area, and would result in a similar significant and unavoidable impact. Therefore, the Specific Plan Update would not result in any new or more severe impacts related to air quality beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

c) Summary of 2006 Crow Canyon Specific Plan EIR

Construction activities would generate substantial amounts of fugitive dust (including PM₁₀ and PM_{2.5}) and criteria air pollutants from operation of heavy equipment, construction machinery, and construction worker automobile trips. The BAAQMD Guidance for analyzing construction impacts emphasizes implementation of effective and comprehensive control measures rather than detailed quantification of emissions. MM C.1 requires basic, enhanced, and optional dust control procedures, as warranted by the size and proximity to sensitive receptors of individual projects proposed under the existing 2006 CCSP, to reduce fugitive dust and other criteria air pollutants.

The 2006 Crow Canyon Specific Plan EIR concluded that construction impacts related to short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions, would be less than significant with incorporation of MM C.1, and that operational impacts related to an increase in criteria air pollutant emissions due to project-related traffic and on-site area sources would be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

Under both the existing 2006 CCSP and the proposed project, construction activity would cause temporary emissions of various air pollutants. NO_x and CO would be emitted by the

operation of construction equipment,^{18,19} while fugitive dust (including PM₁₀ and PM_{2.5}) would be emitted by activities that disturb soil, such as grading and excavation, road construction, and building construction.²⁰ ROG emissions would be emitted during paving activities and from the application of architectural coatings. As discussed in the 2006 Crow Canyon Specific Plan EIR, MM C.1 requires basic, enhanced, and optional dust control procedures, as warranted by the size and proximity to sensitive receptors of individual projects proposed under the existing 2006 CCSP, to reduce fugitive dust and other criteria air pollutants. Moreover, the 2006 Crow Canyon Specific Plan EIR concluded that construction impacts related to short-term emissions of criteria pollutants would be less than significant with incorporation of MM C.1, and that operational impacts related to an increase in criteria air pollutant emissions due to project-related traffic and on-site area sources would be less than significant. As the proposed project would not introduce new construction conditions or new or greater impacts than would otherwise be experienced under the existing 2006 CCSP, this impact would remain less than significant with the incorporation of MM C.1. Therefore, the Specific Plan Update would not result in any new or more severe impacts related to air quality beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR did not address impacts related to exposure of sensitive receptors to substantial pollutant concentrations.

Crow Canyon Specific Plan Update Analysis and Conclusions

The BAAQMD has identified local community risks from air pollutants to include exposure to toxic air contaminants (TAC) concentrations. TACs are a defined set of airborne pollutants, including PM_{2.5}, that may pose a present or potential hazard to human health, and PM_{2.5} can cause a wide range of health effects (e.g., aggravating asthma and bronchitis, causing visits to the hospital for respiratory and cardiovascular systems, contributing to heart attacks and deaths).²¹ Common stationary source emitters of TACs include gasoline stations, dry cleaners, and back-up diesel generators, which are subject to BAAQMD permit requirements. Other, often more significant, common sources of TACs include freeways and major roads that experience high traffic volumes and off-road sources such as construction equipment, marine vessels, and locomotives.²²

The existing 2006 CCSP envisions and guides the redevelopment of underutilized commercial-service and commercial uses and the infill of vacant sites. The proposed project would add land

¹⁸ United States Environmental Protection Agency (EPA). 2016. Basic Information about Carbon Monoxide (CO) Outdoor Air Pollution. Last updated September 8, 2016. Website: <https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution#What%20is%20CO>. Accessed May 28, 2020.

¹⁹ United States Environmental Protection Agency (EPA). 2016. Basic Information about NO₂: What is NO₂ and how does it get in the air? Last Updated September 8, 2016. Website: <https://www.epa.gov/no2-pollution/basic-information-about-no2#What%20is%20NO2>. Accessed May 28, 2020.

²⁰ United States Environmental Protection Agency (EPA). 2018. Particulate Matter (PM) Basics: What is PM, and how does it get into the air? Last updated November 14, 2018. Website: <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#PM>. Accessed May 28, 2020.

²¹ Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

²² Ibid.

use designations which further define residential, commercial, and light industrial land uses in close proximity to one another to reduce the plan area's dependence on vehicle use. As a result, the proposed project would result in fewer average daily vehicle trips, thus reducing the volume of traffic on roadways near sensitive receptors when compared to the existing 2006 CCSP. In addition, the proposed 3.5-acre plan area expansion is currently zoned Mixed Use, and land uses include community, residential, and commercial land uses. Therefore, the proposed project would result in a land use pattern that largely resembles that of the existing 2006 CCSP. Additionally, the proposed project does not specify the introduction of any new shipyard, railyard, distribution center, chemical processing plant, or other major source of TAC, and all new development under the proposed project would be subject to subsequent CEQA review. While implementation of the proposed project would have the potential of introducing new TAC sources near sensitive receptors, such as residences, places of worship, and schools, or new sensitive receptors near TAC sources, the proposed project's potential to expose sensitive receptors to substantial pollutant concentrations would not be greater than what would be experienced under the existing 2006 CCSP. This impact would be less than significant. Therefore, the Specific Plan Update would not result in any new or more severe impacts related to air quality beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

e) Summary of 2006 Crow Canyon Specific Plan EIR

The existing 2006 CCSP could result in odor and nuisance problems at sensitive receptors. For odor impacts, the analysis considered any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. The existing 2006 CCSP could place residential and other sensitive receptors in proximity to existing auto-service establishments; however, all new development under the existing 2006 CCSP would be subject to BAAQMD regulations that limit the generation of odors and air quality nuisances and would be subsequent CEQA review, and any significant impacts would be mitigated to less than significant to the maximum extent practicable. The 2006 Crow Canyon Specific Plan EIR concluded that potential odor and nuisance impacts to sensitive receptors would be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

As stated in the BAAQMD CEQA Guidelines, land uses that typically produce objectionable odors include agricultural uses, wastewater treatment plants, food manufacturing plants, chemical plants, composting, refineries, landfills, and confined animal facilities.²³ Projected development in the Specific Plan Update would include residential, commercial, and retail development, and would include uses that are not anticipated to produce objectionable odors. Same as the existing 2006 CCSP, all new development under the Specific Plan Update would be subject to BAAQMD regulations that limit the generation of odors and air quality nuisances and would be subsequent CEQA review, and any significant impacts would be mitigated to less than significant to the maximum extent practicable. Therefore, the proposed project's potential to

²³ California Air Resources Board (ARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April. Website: <https://ww3.arb.ca.gov/ch/handbook.pdf>.

result in development that generates objectionable odors which may affect a substantial number of people would be no greater than what would be experienced under the existing 2006 CCSP. Therefore, this impact would remain less than significant, and the Specific Plan Update would not result in any new or more severe impacts related to air quality beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

Mitigation Measures

MM C-1 The BAAQMD’s approach to dust abatement calls for “basic” control measures that should be implemented at all construction sites, “enhanced” control measures that should be implemented at construction sites greater than four acres in area, and “optional” control measures that should be implemented on a case-by-case basis at construction sites that are large in area, located near sensitive receptors or which, for any other reason, may warrant additional emissions reductions.²⁴

MM C-4 The City shall ensure the implementation, to the extent feasible, of the following Transportation Control Measures (TCM) from the 2000 Bay Area Clean Air Plan into individual projects implemented under the Specific Plan.

#1. Support Voluntary Employer-Based Trip Reduction Programs.

#9. Improve Bicycle Access and Facilities.

#12. Improve Arterial Traffic Management.

#15. Local Clean Air Plans, Policies, and Programs.

#17. Conduct Demonstration Projects.

#19. Pedestrian Travel.

#20. Promote Traffic Calming Measures.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to air quality. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

²⁴ Bay Area Air Quality Management District (BAAQMD). 1999. BAAQMD CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans. December. Website: https://www.baaqmd.gov/~/_media/files/planning-and-research/ceqa/ceqaguid.pdf.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
IV. Biological Resources					
<i>Would the project:</i>					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measures G.1a, G.1b, G.2a, G.2b, G.2c, and G.2d.
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure G.3.
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure G.3.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less than significant impact.	No.	No.	No.	None.
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure G5.
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No impact.	No	No	No	None.

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the project may have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special status species within the Creek Riparian Zone (CRZ). The EIR concluded that human activity within the CRZ is an existing condition, but that implementation of the 2006 CCSP would increase human activity within the approximately 15-acre CRZ (i.e., along San Ramon Creek and its western tributary) by implementing a continuous trail system and intensifying development surrounding the creek. Increased human activity within the CRZ could result in:

- Increased noise, rapid movements by joggers, feral or unrestrained animals, and increased building and trail lighting, which could result in harassment to potentially occurring special-status wildlife species;
- Increased garbage, road-kills and trash that attract corvids, which could result in nest predation and decreased species diversity; and,
- Off-trail activity resulting in habitat destruction and/or fragmentation.

Special-status animal species with potential to occur within the CRZ include California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*), as well as several special-status birds and bat species. Impacts on any of these species would be considered significant under CEQA. To ensure that all new development and redevelopment within the plan area minimizes the possibility of impacts to special-status species, implementation of MM G.1a, MM G.1b, and MM G.2a through MM G.2d were suggested.

MM G.1a requires a buffer zone around the CRZ and around the outer edge of riparian habitat to prevent general access and recreation, except on pedestrian paths. MM G.1b would require installation of permanent signage to inform the public about the danger and harm of intentional or unintentional feeding or harassment of wildlife. MMs G.2a through G.2d require specific procedures to prevent impacts to California red-legged frog, western pond turtle, special-status avian species, and special-status bat species, as well as monitoring by a qualified biologist during any construction, vegetation removal, and ground-disturbing activities. Implementation of MM G.1b and MM G.2a through MM G.2d would minimize impacts to special-status species and ensure projects within the plan area are compliant with all applicable requirements. Impacts were determined to be less than significant with mitigation incorporated.

Additionally, the 2006 CCSP includes the following policies to reduce potential hazards to special-status plants and wildlife:

- **Policy 6.2:** Maintain a minimum horizontal buffer zone of at least 25 feet from the outer edge of riparian habitat to prevent general access and active recreation, except for pedestrian paths. The 25-foot buffer zone shall be delineated on its outer edge by a permanent fencing material (as deemed appropriate by the regulating city division) to prevent general access. To the extent feasible, lighting fixtures should be oriented away and downward from the riparian corridor.
- **Policy 6.6:** The following standards shall guide improvements within the Creek Riparian Zone. Fencing and Signage: As a natural system and potential wildlife habitat, access should be discouraged into the creek channel and on the steep banks. Low, transparent fencing should be provided to deter hikers and bicyclists. Signs should also be posted as appropriate.
- Stormwater runoff policies listed under **OBJECTIVE 3** in the updated plan would reduce impacts to aquatic organisms found in San Ramon Creek and its tributary. Stormwater

runoff can contain pollutants such as oil, grease, or antifreeze from leaking cars or trucks; paint or paint products; leaves or yard waste; pesticides, herbicides or fertilizers for yards and gardens; solvents and household chemicals; animal waste, litter or sewer leakage; and construction debris such as fresh concrete, mortar or cement which could adversely affect plants and wildlife.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any substantial changes compared to the 2006 CCSP. The proposed project would not include changes to construction or operation activities that could increase impacts to special-status plant and wildlife species beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. The proposed project does propose expanding the plan area by 3.5 acres to include Ryan Industrial Court. Although the plan area would be expanded, the project does not propose land use types not previously considered in the 2006 Crow Canyon Specific Plan EIR.

To ensure that no new impacts to special-status species would occur with the proposed project, FCS Biologists compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity (Appendix A). The list was based on a search of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Plants of California.

No new species were identified that were not already evaluated and disclosed in the 2006 Crow Canyon Specific Plan EIR. Consistent with the 2006 Crow Canyon Specific Plan EIR, continued implementation of MM G.1a, MM G.1b, and MM G.2a through MM G.2d would reduce potentially significant impacts to special-status wildlife species to a less than significant level. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR found that development within the CRZ under implementation of the 2006 CCSP could result in substantial adverse impacts on San Ramon Creek and the western tributary and the loss of riparian habitat along both creeks. The CRZ is defined by a 100-foot buffer from the centerline of San Ramon Creek and its tributary. The loss of riparian vegetation could create dry conditions from direct exposure to sunlight and wind, and as a result, decrease shade for aquatic species. Adverse effects on riparian vegetation are considered significant under CEQA.

Construction activities within the CRZ could dislodge and discharge sediments into San Ramon Creek and its tributaries. This temporary increase in inputs of sediments could reduce water quality and wetland value, including plant diversity and health. Compliance with the modified policies of the Conservation and Open Space Element (Preservation of Natural Resources) and

National Pollutant Discharge Elimination System (NPDES) regulations would minimize potential construction-related water quality impacts to a less than significant level.

General Plan Implementing Policy 8.3-I-2 requires preserving or replacing riparian vegetation as appropriate. The modified Implementing Policies of the Conservation and Open Space Element (Preservation of Natural Resources) of the 2020 San Ramon General Plan would preserve and maintain open space and its natural resources and protect biotic ecosystems. General Plan Implementing Policy 8.3-I-3 would preserve areas of riparian habitat as open space. To ensure that all new development and redevelopment within the plan area minimizes the possibility of impacts to riparian habitat or other sensitive natural communities, implementation of MM G.3 was included.

MM G.3 requires new development or redevelopment activities within the plan area to complete work between April 1 and October 15; to store equipment, materials, and debris away from the waterways; to provide proper and timely maintenance of vehicles and equipment to prevent mechanical breakdowns and spillage; to implement recontouring, revegetation, tree replanting, erosion prevention, and other measures in accordance with the City of San Ramon General Plan Open Space and Conservation Element; to limit new development to previously disturbed areas; to minimize the removal of riparian vegetation; and to establish and maintain a native vegetated buffer. Implementation of MM G.3 was determined to reduce impacts on San Ramon Creek, the western tributary, and riparian vegetation to a less than significant level at the program level.

The applicable General Plan Implementing Policies are as follows:²⁵

- **Policy 8.3-I-2:** Enhance San Ramon’s creeks and riparian corridors by requiring preservation or replacement of riparian vegetation, as appropriate and in conformity with regulatory requirements.
- **Policy 8.3-I-3:** Explore opportunities to preserve significant creek, riparian areas, sensitive natural communities, and prominent topographic features as open space.

The 2006 CCSP also includes several policies related to the preservation of this riparian habitat within the CRZ. As listed below, these policies include the creation of easements and buffer zones to preserve the CRZ as open space as well as plans to restore riparian vegetation impacted during construction.

- **Policy 6.1:** Structures shall be prohibited within 100 feet of the centerline of San Ramon Creek and its tributary. Under no circumstances shall a structure be located midslope or within the 100-year flood plain. Improvement within the setback areas shall be limited to open space and recreation amenities and access roads incidental to achieving effective circulation patterns.

²⁵ City of San Ramon. 2019. San Ramon General Plan 2035, Chapter 8 - Open Space and Conservation. Website: http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202019-10-21/08%20Open%20Space%20Conservation.pdf. Accessed May 27, 2020.

- **Policy 6.2:** Maintain a minimum horizontal buffer zone of at least 25 feet from the outer edge of riparian habitat to prevent general access and active recreation, except for pedestrian paths. The 25-foot buffer zone shall be delineated on its outer edge by a permanent fencing material (as deemed appropriate by the regulating city division) to prevent general access. To the extent feasible, lighting fixtures should be oriented away and downward from the riparian corridor.
- **Policy 6.3:** To preserve and restore riparian vegetation, limit new development to previously disturbed areas. Minimize the removal of protected trees as defined by the City of San Ramon's tree preservation regulations. Revegetate areas disturbed by new development. Revegetation shall include a palette of species native to the watershed area. Following removal, trees should be replanted at a minimum 1:1 ratio, or as determined in consultation with applicable permitting agencies.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would not include changes to construction or operation activities that could have the potential to impact riparian habitat or other sensitive natural communities beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. Consistent with the 2006 Plan, the proposed project would include the construction of a network of trails through the CRZ as well as the construction of a proposed bridge across San Ramon Creek, which could impact riparian habitat. The construction of the trail would likely result in direct impacts from the clearing of vegetation as well as indirect impacts from use by residents. The construction of the proposed bridge over riparian habitat may also result in direct impacts as a result of shading by the structure, which suppresses the growth of riparian vegetation.

Consistent with the 2006 Crow Canyon Specific Plan EIR, continued compliance with General Plan Policy 8.3-I-2 and 8.3-I-3 and continued implementation of MM G.3 would ensure that all new development and redevelopment activities within the plan area would minimize the possibility of impacts to riparian habitat or other sensitive natural communities. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. Construction activities within the Creek Riparian Zone could dislodge and discharge sediments into San Ramon Creek and its tributaries. This temporary increase in inputs of sediments could reduce water quality and wetland value (e.g., plant diversity and health) within as well as downstream of the Project Area. Compliance with the modified policies of the Conservation and Open Space Element (Preservation of Natural Resources) and NPDES regulations were determined to minimize potential construction-related water quality impacts to a less-than-significant level.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would not include changes to construction or operation activities that could have a substantial adverse effect on federally protected wetlands beyond those analyzed in the 2006 CCSP. The 2006 CCSP acknowledges that construction activities within the CRZ could dislodge and discharge sediments into San Ramon Creek and its tributaries. Continued compliance with the modified policies of the Conservation and Open Space Element (Preservation of Natural Resources) and NPDES regulations would minimize potential construction-related water quality impacts to a less-than-significant level. Consequently, impacts on San Ramon Creek would be reduced to less than significant levels. No further analysis is required.

d) *Summary of 2006 Crow Canyon Specific Plan EIR*

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. Riparian vegetation buffers San Ramon Creek and provides wildlife habitat. A pedestrian foot trail is proposed within the San Ramon CRZ. The off-trail activity could result in habitat destruction and/or fragmentation. However, this trail is not expected to remove a significant amount of riparian vegetation that would significantly affect the movement of wildlife.

The Twin Creeks Drive extension would result in a new roadway over San Ramon Creek. Based on the conceptual design of the bridge extension, a preliminary field investigation found that a supporting pier system would not have to be located within the banks or riparian corridor of the creek. A standard sized, two-lane bridge is not anticipated to restrict wildlife movement in a significant way.

The 2006 CCSP lists several policies related to the preservation of this riparian habitat within the CRZ. These policies include the creation of easements and buffer zones to preserve the CRZ as open space, as well as plans to restore riparian vegetation impacted during construction. Policies 6.1, 6.2, 6.3, and 6.6 describe the activities required to preserve riparian habitat within the CRZ, including the creation of easements and buffer zones to preserve the CRZ as open space as well as plans to restore riparian vegetation impacted during construction. With implementation of these policies, impacts on wildlife movement were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any substantial changes to construction or operation activities that could have the potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. The 2006 CCSP acknowledges the preservation of this riparian habitat within the CRZ is important, as this habitat serves as a movement corridor for wildlife species. Consistent with the 2006 Crow Canyon Specific Plan EIR, continued implementation of the 2006 CCSP Policies 6.1, 6.2, 6.3, and 6.6, which require the creation of

easements and buffer zones to preserve the CRZ as open space, as well as plans to restore riparian vegetation impacted during construction, would ensure projects within the plan area do not interfere with wildlife movement or wildlife corridors and would therefore reduce potential impacts to less than significant.

e) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR determined that new development or redevelopment uses under implementation of the 2006 CCSP could result in the removal of or damage to protected trees as defined by the City of San Ramon's Municipal Code Tree Preservation Regulations within the riparian zone or elsewhere within the plan area.²⁶ Trees could be damaged by construction activities such as excavating, grading and soil compaction, and could potentially result in mortality depending on the extent of the damage. Adverse effects on protected trees would conflict with the City of San Ramon's Tree Preservation Regulations.

The 2006 CCSP lists Policy 6.3 regarding the protection of riparian vegetation:

Policy 6.3: To preserve and restore riparian vegetation, limit new development to previously disturbed areas. Minimize the removal of protected trees as defined by the City of San Ramon's tree preservation regulations. Revegetate areas disturbed by new development. Revegetation shall include a palette of species native to the watershed area. Following removal, woody trees should be replanted at a minimum 1:1 ratio, or as determined in consultation with applicable permitting agencies.

To ensure that all new development and redevelopment within the plan is consistent with the City of San Ramon's Municipal Code Tree Preservation Regulations and to minimize impacts on protected trees, implementation of MM G.5 was included. MM G.5 applies to development activities in the CRZ and Open Space/Park land use designation and requires the project proponent to limit new development to previously disturbed areas, minimize the removal of protected trees as defined by the City of San Ramon's Tree Preservation Regulations, revegetate disturbed areas with a palette of species native to the watershed areas, and replace woody trees at a minimum 1:1 ratio.

Implementation of MM G.5 and compliance with the City of San Ramon's Tree Preservation Regulations were determined to minimize impacts to trees and ensure compliance with the City of San Ramon's Municipal Code Tree Preservation Regulations. Impacts to protected trees were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any substantial changes to construction or operation of activities that could have the potential to conflict with any local policies or ordinances protecting

²⁶ City of San Ramon. 2019. Municipal Code. June 25. Website: https://library.municode.com/ca/san_ramon/codes/code_of_ordinances?nodeId=TITCCODELAUS_DIVC6PUWOFLCO_CHIEN_ART4R_E_C6-46TRRIRE. Accessed May 20, 2020.

biological resources, such as a tree preservation policy or ordinance, beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. Consistent with the 2006 Crow Canyon Specific Plan EIR, continued implementation of Policy 6.3 and MM G.5 listed in the 2006 Crow Canyon Specific Plan EIR would minimize impacts on protected trees. Continued implementation of the City of San Ramon's Tree Preservation Regulations would preserve saved trees and require the replacement of protected trees and ensure continued compliance with the City of San Ramon's Municipal Code Tree Preservation Regulations. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

f) Summary of 2006 Crow Canyon Specific Plan EIR

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. The project site does not lie within the boundaries of any of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan. No impacts were identified.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project site does not lie within the boundaries of any of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan. The proposed project would not introduce new impacts or create more severe impacts than previously analyzed in the 2006 Crow Canyon Specific Plan EIR. Therefore, the project would have no impact.

Mitigation Measures

- MM G.1a** Subject to standards and permitting requirements of the regulatory agency, maintain a minimum horizontal buffer zone distance of at least 100 feet from the centerline of the creek for development areas, and maintain a minimum horizontal buffer zone of at least 25 feet from the outer edge of riparian habitat to prevent general access and active recreation, except for pedestrian paths. As deemed appropriate by regulating City Division, the 25-foot buffer zone shall be delineated on its outer edge by a permanent fencing material or by planted non-invasive vegetation, which would serve as a screen, to prevent general access. To the extent feasible, lighting fixtures should be oriented away and downward from the riparian corridor.
- MM G.1b** Install permanent signage to inform the public about the danger and harm of intentional and/or unintentional feeding of wildlife, and on the inadvertent harassment of wildlife by human observation or pursuit.
- MM G.2a** (California red-legged Frog) If working outside the Corps' jurisdictional area (above ordinary high water) within the Creek Riparian Zone, then at least one week prior to construction or landscaping activities, the project proponent shall install and maintain fencing around the active work areas. Staked fabric silt fences (3 to 4 feet tall) shall be used to fully enclose the work areas. The fences shall be buried to

inhibit wildlife movement into the work area. A qualified biologist shall be designated to monitor construction/restoration during vegetation removal and ground-disturbing activities. If California red-legged frog is identified in a project work area, all work in the area shall immediately cease and the USFWS Sacramento Field Office contacted immediately.

MM G.2b (Western Pond Turtle) Implement MM G.2a for California red-legged frog to avoid or minimize impacts on western pond turtle. If WPT is observed, situation-specific measures defined by a qualified biologist to reduce impacts to WPT to a less than significant level will be implemented.

MM G.2c (Special-status Avian Species) Construction activities, including tree removal activities, shall commence outside the avian nesting season (outside of March 1-August 15). If construction starts during the nesting season, surveys for raptors and other nesting birds protected under the Migratory Bird Treaty Act and Section 3503, 3503.5, 3511, and 3800 of the California Fish and Game Code shall be conducted by a qualified biologist immediately prior to construction within 500 feet of construction site, (or at a distance as determined by the surveying biologist). If no adults or nests are observed within the construction area or within 500 feet of the project lots, then no further mitigation is required. If nests or paired adults are observed, one of the two options shall be completed to reduce impacts on these species: (1) Avoid the nesting area and related habitat by keeping at least 500 feet from raptor nests (other nesting birds require 250 feet buffer zone) or as determined by the surveying biologist. This distance may be modified in consultation with CDFG depending upon the site circumstances; or (2) Avoid tree removal activities or construction until after the nesting season.

MM G.2d (Special-status Bat Species) Construction activities, including tree removal activities, shall commence outside the special-status bat roosting season (outside of March 1-August 31). If construction activities (e.g., ground clearing and grading, including removal of tree or shrubs) area scheduled to occur during the nonbreeding season (September 1 through February 28), no mitigation is required.

MM G.3 For new development or redevelopment activities in San Ramon Creek and the western tributary as well as associated riparian vegetation the proponent shall:

- Ensure that work activities at creeks shall be completed between April 1 and October 15, unless otherwise approved by appropriate regulatory agencies (e.g., RWQCB, USACE, CDFW, County of Contra Costa).
- Store equipment and materials away from the waterways to the extent feasible. No debris will be deposited within 60 feet of creeks.
- Provide proper and timely maintenance for vehicles and equipment used during construction to reduce the potential for mechanical breakdowns leading to a spill of material into or around the creeks. Maintenance and fueling shall be conducted

in an area that meets the criteria set forth in the spill prevention plan (i.e., away from the creeks).

- As warranted following construction, recontour and revegetate disturbed portions of the creek. Creek banks shall be recontoured to a more stable condition. Revegetation shall include a palette of species native to the watershed area. Following removal, woody trees should be replanted at a 1:1 ratio at minimum, or as determined in consultation with applicable permitting agencies. Intermediate measures to protect the unvegetated channel from erosion may be required. This may include replanting using seeds or seedlings from adjacent channel vegetation immediately following construction within the channel, removal of non-native vegetation and biotechnical bank stabilization, where appropriate, in accordance with the City of San Ramon General Plan Open Space and Conservation Plan and applicable permit requirements.
- Limit new development to previously disturbed areas.
- Minimize the removal of riparian vegetation.
- Establish and maintain a native vegetated buffer (upland or riparian) by maintaining an existing vegetated area or planting native trees, shrubs, and herbaceous plants on land next to open water. Use permanent fencing to delimit edge of vegetated buffers within the Creek Riparian Zone.

MM G.4

Implement a non-native invasive species control program for disturbed areas as a result of construction and landscaping activities. Standard measures could include the following elements: ensure construction-related equipment arrives on-site free of mud or seed-bearing material; use native seeds and straw material to the extent feasible; identify and treat areas of non-native invasive species prior to construction (e.g., topsoil segregation, storage, herbicide treatment); and revegetate with appropriate native species.

MM G.5

For development activities in the Creek Riparian Zone and Open Space/Park land use designations, the project proponent shall:

- Limit new development to previously disturbed areas. Minimize the removal of protected trees as defined by the City of San Ramon's Tree Preservation Regulations.
- Revegetate disturbed areas as a result of implementing actions under the Crow Canyon Specific Plan. Revegetation shall include a palette of species native to the watershed area. Following removal, trees should be replanted at a minimum 1:1 ration, or as determined in consultation with applicable permitting agencies. Implementation of this measure should be done in conjunction with the implementation of MM G.4.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to biological resources. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
V. Cultural and Tribal Cultural Resources					
<i>Would the project:</i>					
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure V.1 and V.2.
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure V.1 and V.2.
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure V.1 and V.2.
d) Disturb any human remains, including those interred outside of formal cemeteries?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure V.1 and V.2.
<i>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</i>					
e) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	Not Applicable (N/A)
f) A resource determined by the lead agency, in its discretion and supported by	This checklist question did not exist at the time the	No.	No.	No.	N/A

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	2006 Crow Canyon Specific Plan EIR was certified (2006).				

Discussion

Cultural Resources

a) *Historic Resources: Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded that the northern portion of the plan area is located on a historical Native American archaeological site. Historic literature and maps indicate historical activity in the project area. There is a high possibility that historic structures, historic-period artifacts, and historically significant human remains could be uncovered. In the event a historical resource of significance is uncovered, implementation of MM V.1 would ensure that a qualified cultural resource consultant oversees grading and activities on-site through the duration of such activities to assess the significance of findings and provide the correct modification to preserve these resources. In the event of human remains being unearthed, MM V.2 would ensure the project sponsor would immediately notify the County Coroner, and if the remains are determined by the County Coroner to be Native American, then the California Native Heritage Commission would be contacted, and construction activities would cease within 10 feet of these resources. With implementation of MM V.1 and MM V.2, impacts were determined to be less than significant with mitigation incorporated in the 2006 Crow Canyon Specific Plan EIR.

Crow Canyon Specific Plan Update Analysis and Conclusions

The Specific Plan Update seeks to expand the plan area by 3.5 acres in the southwest corner to incorporate Ryan Industrial Court. As previously acknowledged in the 2006 Crow Canyon Specific Plan EIR, the existing plan area contains a number of prehistoric and historic-period

resources that may adversely impacted by development within the specific plan area, as well as the proposed 3.5-acre plan area extension proposed in the Specific Plan Update.

According to an updated records search conducted at the North Western Information Center (NWIC) on December 4, 2019, one prehistoric resource and seven historic-era buildings have been recorded within the planning area. One of the resources is the office building complex located at 2400 Old Crow Canyon Road, which contains 23 eucalyptus trees that may be considered historically significant heritage trees. The property located at 2233 San Ramon Valley Boulevard was formerly the San Ramon Grammar School. This site is listed as site No. 34 on the Contra Costa County Historic Resources Inventory as a site of a historical event. Additionally, the planning area contains several unevaluated buildings and structures over 45 years in age. Properties over 45 years in age are considered potential historic resources under CEQA, and may require determination as to (1) whether the property is a historic resource, and (2) whether the proposed project may cause a substantial adverse change in the significance of a historic resource. Several historic-era buildings and structures in the planning area will require evaluation or reevaluation due to their status changing since the evaluation performed for the 2006 Crow Canyon Specific Plan EIR.

Accordingly, MM V.1 has been clarified to include project-level phase-1 cultural resource assessments that will identify and evaluate any potential historic resources that may be impacted by project-level development. Consistent with the 2006 Crow Canyon Specific Plan EIR, the implementation of MM V.1 would reduce potential impacts to historic resources to less than significant. Therefore, the Specific Plan Update would not introduce historical resource impacts beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) *Archaeological Resources: Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concludes that cultural record search results provided by the Northwest Information Center identifies the northern portion of the plan area is located on a historical Native American archaeological site and there is high possibility for more Native American historic-period archeological resources or human remains to be identified throughout the plan area. Implementation of MM V.1 would ensure that a qualified cultural resource consultant oversees all grading and excavation activities on-site throughout the duration of such activities. If archaeological or paleontological resources are accidentally discovered during project grading or excavation, the project sponsor is required to halt grading and excavation work until the significance of the find is assessed and mitigation recommendations are provided, if warranted.

In the event human remains are unearthed, MM V.2 ensures the project sponsor would immediately notify the County Coroner. If the remains are determined by the County Coroner to be Native American, then the California Native Heritage Commission would be contacted, and construction activities would cease within 10 feet of these resources. With implementation of MM V.1 and MM V.2, impacts were determined to be less than significant in the 2006 Crow Canyon Specific Plan EIR.

Crow Canyon Specific Plan Update Analysis and Conclusions

As previously noted, the Specific Plan Update seeks to expand the plan area by 3.5 acres in the southwest corner to incorporate Ryan Industrial Court. As previously acknowledged in the 2006 Crow Canyon Specific Plan EIR, the existing plan area contains a number of prehistoric and historic-period resources that may be adversely impacted by development within the specific plan area, as well as the proposed 3.5-acre plan area extension proposed in the Specific Plan Update.

According to an updated records search conducted at the NWIC on December 4, 2019, one prehistoric resource and seven historic-era buildings have been recorded within the planning area. The prehistoric resource (CA-CCO-000619) appears to be a significant habitation site located within the boundary of the planning area (location withheld pursuant to PRC § 21082.3(c)(2)). This is consistent with the 2006 Crow Canyon Specific Plan EIR, which indicated the northern portion of the existing plan area is located on a known Native American archeological site. In addition, there is high potential for more Native American archaeological sites to be uncovered during grading and excavation activities within other parts of plan area, as well as the proposed 3.5-acre plan area extension proposed in the Specific Plan Update.

Implementation of MM V.1 has been clarified to include project-level Phase I Cultural Resource Assessments that will identify and evaluate any potential archaeological resources that may be impacted by project-level development, along with the proper procedures to protect said resources. Consistent with the 2006 Crow Canyon Specific Plan EIR, implementation of MM V.1 would reduce potential impacts to less than significant. Therefore, the Specific Plan Update would not introduce new archaeological resource impacts beyond those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Paleontological Resources: Summary of 2006 Crow Canyon Specific Plan EIR

As previously discussed, the 2006 Crow Canyon Specific Plan EIR concluded that the potential to find archaeological and paleontological resources is high. If any paleontological resources are encountered during grading or excavation activities, implementation of MM V.1 and MM V.2 would ensure a qualified Archaeologist would be on-site to assess the significance of the resources and ensure proper protocol would be followed. Therefore, impacts would be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The Specific Plan Update proposes to expand the plan area by 3.5-acres in the southwest corner of the plan area. An updated records search conducted at the University of California Museum of Paleontology on December 3, 2019, indicates that the planning area consists almost entirely of Holocene alluvium (Qa) with only a very small extension of the west-adjacent late Miocene Briones Formation (Tbr). Also within the 0.5-mile search perimeter (dashed black outline) are Pleistocene alluvium (Qoa) and the Pliocene Orinda Formation (Tor). Holocene deposits are too young to be fossiliferous. The other three units are older and

sedimentary, and therefore are potentially fossiliferous. There are 64 Pleistocene localities in the County; the nearest to the planning area is approximately 3 miles to the northeast.

Consistent with the 2006 Crow Canyon Specific Plan EIR, implementation MM V.1 which has been clarified to include additional information on steps to protect paleontological resources, would ensure impacts would be less than significant. With the incorporation of aforementioned mitigation measures, including paleontological site monitoring and the implementation of protocols related to the accidental discovery of remains, impacts associated with the potential discovery of cultural resources would be minimized. Therefore, the Specific Plan Update would not introduce any new paleontological resource impacts or create more severe paleontological resource impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR identified the potential for finding human remains during grading and excavation activities in the plan area. The northern portion of the site is part of a known Native American archaeological site and the general location of the plan area is known to be historically significant to Native Americans. Both MM V.1 and MM V.2 would be implemented to establish procedures and minimize disturbance if human remains are encountered. Therefore, impacts would be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The Specific Plan Update proposes to expand the plan area by 3.5 acres near the southwest corner of the plan area. The San Ramon area, including the existing plan area and the proposed expansion, are identified as historically significant areas for Native Americans. The northern portion of the existing plan area contains a known Native American archaeological site, and although not yet encountered, there is potential to find human remains during grading and excavation activities in the existing plan area and in the proposed expansion area.

Consistent with the 2006 Crow Canyon Specific Plan EIR, implementation of both MM V.1 and MM V.2, which has been updated to include additional information regarding procedures to be followed in the event human remains are encountered, would ensure that potential impacts are reduced to a less-than-significant level. Therefore, the Specific Plan Update would not introduce new impacts beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Tribal Cultural Resources

e) Listed or Eligible Resources: Summary of 2006 Crow Canyon Specific Plan EIR

Tribal Cultural Resources (TCRs) were identified as separate category of cultural resources requiring analysis under CEQA pursuant to the passage of AB-52 in July of 2015. As such, TCRs were not addressed separately by the 2006 Crow Canyon Specific Plan EIR, but as part of the general Cultural Resources Assessment.

Crow Canyon Specific Plan Update Analysis and Conclusions

According to an updated records search conducted at the NWIC on December 4, 2019, one recorded prehistoric Native American resource has recorded within the planning area. The prehistoric resource (CA-CCO-000619) appears to be a significant habitation site located within the boundary of the planning area (location withheld pursuant to PRC § 21082.3(c)(2)). This resource has not been formally evaluated for inclusion eligibility on the California Register of Historical Resources (CRHR), and should be considered a potentially significant TCR under CEQA.

This is consistent with the 2006 Crow Canyon Specific Plan EIR, which indicated the northern portion of the existing plan area is located on a known Native American archeological site. In addition, there is high potential for more Native American archaeological sites to be uncovered during grading and excavation activities within other parts of plan area, as well as the proposed 3.5-acre plan area extension proposed in the Specific Plan Update.

Consistent with the 2006 Crow Canyon Specific Plan EIR, implementation of both MM V.1 and MM V.2, which has been updated to include additional information regarding steps to be taken to protect listed TCR's, would ensure that potential impacts are reduced to a less-than-significant level. Therefore, the Specific Plan Update would not introduce new impacts beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

f) Lead-Agency Identified Resources: Summary of 2006 Crow Canyon Specific Plan EIR

TCRs were identified as separate category of cultural resources requiring analysis under CEQA pursuant to the passage of Assembly Bill (AB) 52 in July of 2015. As such, TCRs were not addressed separately by the 2006 Crow Canyon Specific Plan EIR, but as part of the general cultural resources assessment.

Crow Canyon Specific Plan Update Analysis and Conclusions

On November 20, 2019, FirstCarbon Solutions (FCS) sent a request to the Native American Heritage Commission (NAHC) in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the project area. A response was received on November 26, 2019, indicating that the Sacred Lands File search failed to locate the presence of Native American cultural resources in the immediate project area. The NAHC included a list of eight tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by the project are addressed, a letter containing project information and requesting any additional information was sent to each tribal representative on January 3, 2020. Additionally, the City of San Ramon provided formal notification to each tribal representative on February 28, 2020, along with the opportunity to consult on the project.

Two responses were received. On January 16, 2020, Wilton Rancheria replied by e-mail that they had an interest in the project and provided recommendations for the protection and treatment of TCRs that may be discovered in the planning area. On February 7, 2020, a representative from the Confederated Villages of Lisjan replied, noting the possibility for

undiscovered archaeological sites in the area, and requesting to be notified in the event TCRs are discovered during construction. No additional comments or requests for consultation have been received to date.

The City of San Ramon, in its capacity as lead agency, has also not identified or determined any tribal cultural resources to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. However, due to the sensitive nature of the area, there is an increased possibility that previously undiscovered tribal cultural resources may be encountered during project-related ground disturbance. In keeping with the recommendations of Wilton Rancheria, and consistent with the 2006 Canyon Specific Plan EIR, implementation of both MM V.1 and MM V.2, which have been updated to include additional information on the protection of TCRs would ensure that potential impacts are reduced to a less-than-significant level. Therefore, the Specific Plan Update would not introduce new impacts beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

MM V.1 Prior to the approval of a project-level development within the planning area, a Phase I Archaeological Resources Assessment shall be conducted for the project footprint and immediate vicinity. The assessment will be conducted by an archaeologist who meets the Secretary of the Interior’s qualification standards for archaeology, and will identify any historic or archaeological resources within the footprint or immediate vicinity to support the CEQA environmental document (Initial Study and/or Environmental Impact Report). The Phase I assessment shall include updated records searches from the Northwest Information Center, a Sacred Lands File search through the California Native American Heritage Commission (NAHC) and follow up Native American consultation, and a pedestrian survey of the project footprint and immediate vicinity. The archaeologist will determine the potential for the project to have an adverse impact on potentially eligible historic or prehistoric resources, and will make recommendations concerning appropriate measures that will be implemented to protect the resource. These may include but not limited to: additional research and consultation, subsurface testing, architectural evaluation, development of a resource protection plan, or excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.

In the event the assessment determines there is a high probability of undiscovered archaeological, paleontological, and/or Tribal Cultural resources at the site, an appropriately qualified cultural resource monitor and/or tribal monitor shall be engaged to oversee all grading and excavation activities on-site throughout the duration of the project. If archaeological, paleontological or tribal cultural resources are accidentally discovered during project grading or excavation, all construction activities within a 100-foot radius of the find shall cease and workers should avoid altering the materials until the find has been evaluated by the appropriate monitor. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Potentially

significant resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, shell artifacts, midden soils, or features including hearths, structural remains, or historic dumpsites. The monitor(s) shall make recommendations concerning appropriate measures that will be implemented to protect the resource, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Any previously undiscovered resources found during construction within the Project Site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and will be submitted to the City of San Ramon, the Northwest Information Center, and the State Historic Preservation Office (SHPO), as required.

MM V.2

In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during the course of project construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.
2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
 - The descendant identified fails to make a recommendation.
 - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

- When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop a plan for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American Burials with the appropriate Native Americans as identified by the Native American Heritage Commission.

Conclusion

There is no additional information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to cultural and tribal resources. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update. Clarifications and updates have been made to existing mitigation measures.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
VI. Energy					
<i>Would the project:</i>					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than significant impact.	No.	No.	No.	None.
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	None.

Discussion

a-b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR determined that implementation of the Specific Plan would result in an increase in the demand for gas and electric power. The analysis states that new buildings associated with the Specific Plan would be required to conform to energy conservation standards specified by Title 24 of the California Code of Regulations, which is enforced by the San Ramon Building and Safety Division, and that documentation showing compliance with these standards would be submitted with the application for the building permit. The analysis also states that future projects under the Specific Plan would be required to meet current state and local codes concerning energy consumption. The 2006 Crow Canyon Specific Plan EIR concluded that future development foreseeable under the Specific Plan would not cause a wasteful use of energy and thus, effects related to energy consumption would not be significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

Implementation of the Specific Plan Update would result in consumption of energy in the forms of electricity, natural gas, and vehicle fuel. Electricity and natural gas would be consumed for heating, cooling, lighting, and powering appliances in buildings of future developments within the plan area. Energy would also be consumed in the conveyance of water to and wastewater from the plan area, and in the hauling and disposal of solid waste from the plan area. Fuel would be consumed by vehicles traveling to and from the plan area. While the plan area has increased by 3.5 acres, the Specific Plan Update includes the same area of proposed commercial development, a reduction in the number of proposed residential development (101 fewer dwelling units), and a reduction in the area of proposed retail development (a decrease of 54,854 square feet) as compared to what was analyzed in the 2006 Crow Canyon Specific Plan EIR. As described in Section XVII, Transportation, of this Addendum, the Specific Plan Update would result in 4,003 fewer daily vehicle trips as compared to those associated with the 2006 CCSP. Therefore, due to the reductions in proposed residential development, proposed retail development, and associated daily vehicle trips, implementation of the Specific Plan Update would result in lower energy consumption than what would occur with implementation of the 2006 CCSP.

New developments under the Specific Plan Update would conform to Title 24 building code standards, which are currently more restrictive than when the Specific Plan was analyzed in the 2006 Crow Canyon Specific Plan EIR. New developments under the Specific Plan Update would also comply with policies related to energy conservation in the City of San Ramon General Plan 2035.²⁷

Therefore, the Specific Plan Update would not introduce new energy impacts or create more severe energy impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to energy conservation. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

²⁷ City of San Ramon. 2015. City of San Ramon General Plan 2035. April 28. Website: http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/FINAL%20ADOPTED%20GP2035_2017-07-01.pdf. Accessed April 10, 2020.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
VII. Geology, Seismicity, and Soils					
<i>Would the project:</i>					
a) Expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure E.1.
ii) Strong seismic ground shaking?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure E.1.
iii) Seismic-related ground failure, including liquefaction?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure E.1.
iv) Landslides?	Less than significant impact.	No.	No.	No.	None.
b) Result in substantial soil erosion or the loss of topsoil?	Less than significant impact.	No.	No.	No.	None.
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide,	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure E.1.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
lateral spreading, subsidence, liquefaction or collapse?					
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Less than significant impact with mitigation incorporated.				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	No impact.	No.	No.	No.	None.

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the potential for damage or loss in the plan area during a major earthquake event is potentially significant. The plan area is located in a seismically active region of the San Francisco Bay Area, and the plan area has identified traces of the active Calaveras Fault running through it. In the event of a major earthquake event on a fault such as the Calaveras Fault, the ground surface could displace laterally and vertically. This could result in damage to buildings, roadways, and utility systems, which could make structures uninhabitable, close roadways, and disrupt utility services. As required by Alquist-Priolo Earthquake Fault Zoning Act, an investigation to evaluate the hazards of surface fault rupture of future development within earthquake fault zone boundaries would be required.

Ground shaking in the plan area could occur during a major earthquake event in the San Francisco Bay Area and could result in significant amounts of damage in areas of higher density of development and areas with large numbers of older structures, such as buildings with unreinforced masonry or constructed on improperly engineered fills. Additionally, cut slopes are susceptible to failure, and areas with construction fill present could experience differential settlement, which can cause structural damage to building foundations. The potential for

liquefaction was determined highest in the areas in and directly adjacent to San Ramon Creek. Other areas of the plan area were determined to have a low to moderate potential for liquefaction. Liquefaction could damage building foundations, disrupt utility services, and damage roadways. The plan area is located on relatively flat topography at the base of an alluvial plain. In addition, the area is not located on a Seismic Hazard Zone for landslides delineated by the California Geological Survey (CGS). The 2006 Crow Canyon Specific Plan EIR incorporated MM E.1 to ensure that individual development within the plan area complies with General Plan Implementing Policies and applicable State and county regulations, and includes the necessary studies and recommendations related to foundation design, earthwork, and site preparation that would minimize risk of property damage or personal injury caused by geologic or seismic impacts. With implementation of MM E.1, the 2006 Crow Canyon Plan EIR determined impacts were less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project includes an expansion of the plan area by 3.5 acres in the southwest to include Ryan Industrial Court. Otherwise, the proposed project would encompass the same area as the 2006 CCSP. The same risks addressed in the 2006 Crow Canyon Specific Plan EIR are present in proposed project plan area and the same conditions are present for the proposed plan area expansion. Consistent with the 2006 Crow Canyon Specific Plan EIR, implementation of MM E.1 would ensure compliance with General Plan Implementing Policies, State, and county regulations that minimize risk of property damage or personal injury caused by geologic or seismic impacts. With the implementation of MM E.1, impacts related to surface fault rupture, ground shaking and/or liquefaction would be less than significant. Therefore, the proposed project would not introduce geological or seismic impacts or create geological or seismic impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that soil erosion was likely to occur in sloped areas, on exposed hillsides, during construction activities, and in poorly engineered slope cuts and fills. The topography of the plan area is generally flat. A majority of soils within the plan area have been graded and covered with concrete, structures, or asphalt. In addition, individual development within the plan area would be required to adhere to all applicable City. Since most of the plan area is developed, not undergoing active erosion, and construction would occur overtime on discreet sites, which limits the amount of soil exposed, soil erosion was determined a less than significant impact.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose changes that would introduce new soil types or more soil erosive processes than were evaluated in the 2006 Crow Canyon Specific Plan EIR. The plan area, including the proposed 3.5-acre expansion, remains generally flat, and most of the plan area has previously been graded and covered by asphalt, concrete, and structures. No new impacts would occur. Therefore, the proposed project would not introduce soil erosion impacts or

create more severe soil erosion impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the soils underlying the plan area are moderately to highly expansive with poor drainage. The plan area is susceptible to liquefaction, most notably in the areas in and directly along the San Ramon Creek. Implementation of MM E.1 would ensure that construction activities and development are implemented in compliance with regulation that minimizes liquefaction hazards. The plan area is generally flat, and the landslide potential was considered low, so landslides were not further evaluated. Impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose changes that would alter the soil types present or the risk of liquefaction these soils possess. Consistent with the 2006 Crow Canyon Specific Plan EIR, implementation of MM E.1 would ensure that any future development that occurs in the proposed project plan area would comply with regulation that minimizes impacts of liquefaction. In addition, individual projects within the plan area are required to adhere to all applicable City, County, and State regulations, including the California Building Code, and applicable City construction and grading ordinances. Geotechnical investigations and reports for individual development are required prior to the issuances of permits from the City, these studies would include recommendations to improve soil stability. Therefore, the proposed project would not introduce unstable soil impacts or create more severe unstable soil impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the soils underlying the plan area are moderately to highly expansive. Differential settlement is possible and could cause damage to building foundations, affect underground utilities, and cause settlement in roads, but it is of minimal concern. The planning area is developed and soils within the planning area have low susceptibility to differential settlement as the soils have been reworked through past development and engineered to reduce the potential for further differential settlement. Therefore, risks of damage are unlikely and minimal. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would expand the plan area by 3.5 acres, and would include the same soil types as the existing plan area. Soil types and expansion conditions would not change with the expanded plan boundary. The existing plan area and the expanded plan area have all been developed upon, so a majority of the soils have been reworked and engineered to reduce differential settlement. Geotechnical investigations and reports for individual development are required prior to the issuances of permits from the City, these studies would include

recommendations to stabilize expansive soils. No new or worsened impacts would occur. Therefore, the proposed project would not introduce expansive soil impacts or create more severe expansive soil impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR.

e) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that individual sites within the planning area would not use septic tank systems. Therefore, no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project plan area, including the 3.5-acre expansion area would not use septic tank systems. No new impacts would occur. Therefore, the proposed project would not introduce septic tank or alternative wastewater system impacts or create more severe septic tank or alternative wastewater system impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

MM E.1

Sponsors of individual projects located in the Crow Canyon Specific Plan area shall comply with the General Plan Implementing Policies specifically aimed at reducing geological and seismic impacts. Specifically, to minimize risks of property damage and personal injury, the project sponsor shall adhere to, but not be limited by, the following:

- Locate structures intended for human occupancy farther than 50 feet away from an active fault trace;
- Limit cut-and-fill slopes to 3:1 (33 percent slope), except where an engineering geologist can establish to the City's satisfaction that a steeper slope would not pose undue risk to people and property;
- Comply with all applicable city, county, and state regulations, including the California Building Standards Code, the Uniform Building Code, and special studies required by the CGS for development within the special studies zone areas for surface fault rupture;
- Site investigations shall be reviewed by a registered geotechnical engineer, and his/her recommendations regarding foundation design, earthwork, and sit preparation that were prepared prior to or during the project design phase, shall be incorporated in the project, as appropriate.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to geology, seismicity, and soils. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
VIII. Greenhouse Gas Emissions					
<i>Would the project:</i>					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	None.
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	No.	None.

Discussion

a) **Summary of 2006 Crow Canyon Specific Plan EIR**

Impacts related to greenhouse gas (GHG) emissions were not analyzed in the 2006 Crow Canyon Specific Plan EIR.

Crow Canyon Specific Plan Update Analysis and Conclusions

The impact of GHG emissions on the environment does not constitute new information that was not known or that could not have been known at the time the 2006 Crow Canyon Specific Plan EIR was certified; thus, analysis of this impact is not required for the Crow Canyon Specific Plan Update. Nevertheless, a comparison of the proposed developments and associated trip generation shows that implementation of the Specific Plan Update would result in a lower level of GHG emissions than what would have resulted from implementation of the 2006 Crow Canyon Specific Plan EIR. Implementation of the Specific Plan Update would result in GHG emissions from vehicular traffic, operation of landscaping equipment, off-site generation of electrical power, energy required to convey water to and wastewater from the plan area, emissions associated with the hauling and disposal of solid waste from the plan area, and any

fugitive refrigerants from air conditioning or refrigerators. The Specific Plan Update includes the same area of proposed commercial development, a reduction in the number of proposed residential development (101 fewer dwelling units), and a reduction in the area of proposed retail development (a decrease of 54,854 square feet) as compared to what was analyzed in the 2006 Crow Canyon Specific Plan EIR. As noted in Section XVII, Transportation, of this Addendum, the Specific Plan Update would result in 4,003 fewer daily trips as compared to the number of daily trips associated with the 2006 CCSP. Therefore, due to the reductions in proposed residential development, proposed retail development, and associated daily vehicle trips, implementation of the Specific Plan Update would result in lower GHG emissions than what would occur with implementation of the 2006 CCSP. Therefore, the Specific Plan Update would not result in any new or more severe impacts related to GHG emissions beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

b) Summary of 2006 Crow Canyon Specific Plan EIR

Impacts related to GHG emissions were not analyzed in the 2006 Crow Canyon Specific Plan EIR.

Crow Canyon Specific Plan Update Analysis and Conclusions

The AB 32 Scoping Plan, which describes California’s approach to achieving the goal of reducing GHG emissions to 1990 levels by 2020, was developed by the California Air Resource Board (ARB) and was first approved in 2008.²⁸ Thus, GHG reduction plans did not exist at the time the 2006 CCSP was being analyzed; therefore, impacts related to this plan’s compliance with GHG reduction plans could not have been known. The AB 32 Scoping Plan took into account all projects and plans at the time that it was approved. As discussed in the analysis of impacts above, implementation of the Specific Plan Update would result in lower GHG emissions as compared to the 2006 CCSP. Furthermore, all future developments under the Specific Plan Update would be subject to CEQA review. Therefore, the Specific Plan Update would not conflict with any applicable GHG reduction plan, policy, or regulation. Therefore, the Specific Plan Update would not result in any new or more severe impacts related to GHG emissions beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan EIR.

Mitigation Measures

None.

Conclusion

Impacts related to GHG emissions were not analyzed in the 2006 Crow Canyon Specific Plan EIR. There is no new information identifying new significant effects, nor is there an increase in the severity of impacts related to GHG emissions, that would need to be analyzed when considering the adoption of the Specific Plan Update.

²⁸ California Air Resources Board (ARB). 2019. Initial AB 32 Climate Change Scoping Plan Document. Website: <https://ww3.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>. Accessed May 21, 2020.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
IX. Hazards and Hazardous Materials					
<i>Would the project:</i>					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than significant impact.	No.	No.	No.	None.
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than significant impact.	No.	No.	No.	None.
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than significant impact.	No.	No.	No.	None.
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Less than significant impact.	No.	No.	No.	None.
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport,	No impact.	No.	No.	No.	None.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
would the project result in a safety hazard for people residing or working in the project area?					
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	No impact.	No.	No.	No.	None.
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than significant.	No.	No.	No.	None.
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Less than significant impact.	No.	No.	No.	None.

Discussion

a), b), c), d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that development of the plan area could create hazards, emit hazards materials, and develop on hazardous sites. Development under the 2006 CCSP was to span over 15 years and since the plan would involve various types of redevelopment, construction, and uses, evaluation of hazards and hazardous materials would be considered at the time of planning and development for individual sites. No further evaluation of Hazards and Hazardous Materials checklist questions a-d was done in the 2006 Crow Canyon Specific Plan EIR. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

Consistent with the 2006 Crow Canyon Specific Plan EIR, the project proposes land use changes and subsequent redevelopment that could potentially create hazards, emit hazardous materials, or develop on hazardous sites. The proposed project includes the expansion of the planning area by approximately 3.5 acres at the southwestern side of the project area surrounding Ryan Industrial Court. Evaluation of hazards and hazardous materials would be considered at the time of planning and development for individual sites. Because the implementation of the proposed project is anticipated to span 20 years, evaluation of hazards and hazardous materials would be considered at the time of planning and development for individual sites within the plan area. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

e) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the plan area is located 17 miles south of Buchanan Field Airport and 19 miles east of Oakland International Airport. Therefore, the 2006 CCSP would not result in a safety hazard for people within the plan area. It was determined no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes the expansion and alteration of the land use designation of the planning area by approximately 3.5 acres surrounding Ryan Industrial Court in the southwestern corner of the project site. This area was not previously considered in the 2006 Crow Canyon Specific Plan EIR. However, because there are no new public airfields or airports, other than those previously considered, no new impacts would occur. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

f) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the plan area is not located near a private airstrip, nor does the plan area contain a private airstrip. Therefore, the 2006 CCSP would not result in a safety hazard for people within the plan area. It was determined no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would expand the plan area by 3.5 acres and would refine certain land use designations in an area not previously considered in the 2006 Crow Canyon Specific Plan EIR. However, the nearest airstrips are located more than 10 miles from the project site, and the project site is not within a main flight path for any nearby airport. These conditions preclude the potential for new impacts. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

g) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that development within the plan area would be required to comply with all fire codes and regulations related to emergency service access. Therefore, the 2006 CCSP would not impair implementation or physically interfere with any adopted emergency response plans or emergency evacuation plans. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose changes that could potentially interfere with emergency response, access, or evacuation. Consistent with the 2006 Crow Canyon Specific Plan EIR, any development within the plan area of the proposed project would have to comply with all fire codes and regulations related to emergency access. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

h) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the plan area is located adjacent to open space areas of the Las Trampas Ridge. There is a potential risk that portions of the plan area could be affected by wildfire and, therefore, impacts relating to wildfires would be discussed during environmental review processes for individual site development within the plan area. Impacts were determined to be potentially significant. No further evaluation of Hazards and Hazardous Materials checklist question h was done in the 2006 Crow Canyon Specific Plan EIR.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would include expansion of the plan area by approximately 3.5 acres of MU land in areas not previously considered in the 2006 Crow Canyon Specific Plan EIR. Because the proposed additions to the 2006 CCSP include areas within the Wildland Urban Interface (WUI), the potential for wildland fires remains a potentially significant impact, as discussed above. Therefore, impacts relating to wildfires would be discussed and evaluated during the environmental review process for individual site development within the plan area. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to hazards and hazardous materials. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
X. Hydrology and Water Quality					
<i>Would the project:</i>					
a) Violate any water quality standards or waste discharge requirements?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure F.1, F.2.
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure F.1.
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure F.1, F.2.
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure F.1.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
runoff in a manner which would result in flooding on- or off-site?					
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure F.1, F.2, F.3.
f) Otherwise substantially degrade water quality?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measure F.1, F.2, F.3.
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Less than significant impact.	No.	No.	No.	None.
h) Place within a 100-year flood hazard structures which would impede or redirect flood flows?	Less than significant impact.	No.	No.	No.	None.
i) Expose people or structures to significant risk or loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	No impact.	No.	No.	No.	None.
j) Inundation of by seiche, tsunami, or mudflow?	No impact.	No.	No.	No.	None.

Discussion

a) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded the development proposed in the 2006 CCSP may result in polluted runoff into the San Ramon Creek and San Francisco Bay, soil erosion during construction activities, and increased impervious surfaces within the plan area that could affect water quality. Construction activities within the plan area would involve excavation, grading, and paving, as well as the use of chemicals and hazardous substances, like paints and petroleum products, that could leak or spill into stormwater drainage systems. Increased impervious surfaces would increase runoff flow to stormwater drainage systems and surrounding waterways. To ensure that all new development and redevelopment within the plan area minimizes the possibility of impacts and complies with water quality standards and waste discharge requirements, implementation of MM F.1 and MM F.2 were suggested.

MM F.1 requires new development or redevelopment projects within the plan area implement source control measures, site design measures, and stormwater treatment measures compliant with the Contra Costa County Wide NPDES Municipal Stormwater Permit to minimize the discharge of stormwater pollutants to the maximum extent possible. MM F.2 requires that construction activities within the plan area would comply with State Water Resource Control Board General Construction NPDES Permit and the Contra Costa Clean Water Program guidelines that minimize erosion and transport of sediment and contaminants to waterways. Implementation of MM F.1 and F.2 would minimize impacts to water quality and ensure projects within the plan area are compliant with water quality and waste discharge requirements. Impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project does not anticipate changes to construction or operation activities that could have the potential to create or increase polluted runoff within the plan area beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. The proposed project does propose expanding the plan area by 3.5 acres to include Ryan Industrial Court, which is currently designated Mixed Use with existing commercial uses, and would be re-designated for MFR use. Although the plan area would be expanded, the project does not propose land use types not previously considered in the 2006 Crow Canyon Specific Plan EIR. Consistent with the 2006 Crow Canyon Specific Plan EIR, continued implementation of MM F.1 and MM F.2 would ensure projects within the plan area are compliant with water quality and waste discharge standards. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP would increase the area of impervious surfaces within the plan area, which could decrease groundwater recharge by

directing runoff to stormwater drainage systems and preventing runoff infiltration. To reduce potential impacts to groundwater recharge, implementation of MM F.1 would ensure development within the plan area includes source control and site design measures that comply with the Contra Costa Countywide NPDES Municipal Stormwater Permit standards that prevent polluted runoff and water quality impacts to groundwater caused by impervious surfaces. Impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project does propose an expansion of the plan area to include 3.5 acres of Ryan Industrial Court for MFR uses, which is currently designated Mixed Use and has commercial properties. Although the update includes a proposal for a plan area expansion, the proposed expansion is currently developed and has similar conditions as the plan area as previously evaluated in the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that excavation, paving, and grading construction activities and increased area of impervious surface could alter drainage patterns and result in erosion or siltation. Construction activities within the plan area, such as excavation, paving, and grading, would change surface drainage patterns and could cause erosive processes. Additionally, impervious surfaces could increase and redirect runoff flow to cause erosion or siltation. Implementation of MM F.1 and MM F.2 would ensure that future projects within the plan area comply with County and State NPDES Permit regulations directing construction activities and employ controls to minimize erosion or siltation impacts as a result of impervious surfaces. Therefore, impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any changes to existing drainage patterns that could result in erosion or siltation beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. Implementation of MM F.1 and MM F.2 would ensure that future development within the plan area comply with County and State NPDES Permit regulations directing construction activities and employing controls to minimize erosion or siltation impacts as a result of impervious surfaces. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that development within the plan area would increase impervious surfaces in the plan area, which could increase the amount of surface runoff and surface water pooling within the plan area. Implementation of MM F.1 would ensure that project designs include measures and features compliant with Contra Costa

Countywide NPDES Municipal Stormwater Permit regulations that lessen flood risks from impervious surfaces. Therefore, impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any changes to existing drainage patterns that could result flooding beyond those analyzed in the 2006 Crow Canyon Specific Plan EIR. Implementation of MM F.1 would ensure that project designs include measures and features compliant with Contra Costa Countywide NPDES Municipal Stormwater Permit regulations that lessen flood risks from impervious surfaces. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

e) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded that development within the plan area could increase impervious surfaces and increase stormwater runoff volumes, which could then exceed the capacity of existing drainage facilities and increase sources of polluted runoff. Construction activities could cause pollutants to contaminate stormwater runoff, and impervious surfaces could increase pollutants making it into the stormwater drainage systems. Implementation of MM F.1 would ensure that development and redevelopment within the plan area incorporate stormwater treatment and source control designs and measures that are compliant with the Contra Costa Countywide NPDES Municipal Stormwater Permit to reduce discharge of pollutants into stormwater systems to the maximum extent possible. Implementation of MM F.2 would ensure Best Management Practices (BMPs) and a Storm Water Pollution Prevention Plan (SWPPP) are in place to prevent construction activities from releasing pollutants into stormwater runoff and into nearby waterways. To prevent point and non-point source pollution from entering the stormwater drainage system and overwhelming existing drainage facilities, implementation of MM F.3 would ensure future projects within the plan area meet the provisions of the federal Clean Water Act by eliminating and collecting pollutants in stormwater discharge. Therefore, with the implementation of the aforementioned mitigation measures, impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any development or land use change that could result in polluted runoff or exceedance of stormwater facility capacity not previously considered in the 2006 Crow Canyon Specific Plan EIR. These conditions preclude the possibility of the proposed project creating new impacts related to polluted runoff or exceeding stormwater facility capacity. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

f) Summary of 2006 Crow Canyon Specific Plan EIR

As previously stated, the 2006 Crow Canyon Specific Plan EIR concluded that the proposed development could degrade water quality by contaminating stormwater runoff and introducing pollutants into waterways. Implementation of MM F.1, MM F.2, and MM F.3 would ensure BMPs, plans, and control measures complying with federal, State, and county regulation are used to reduce degradation of water quality. Impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any development or land use that would further degrade water quality other than those considered in the 2006 Crow Canyon Specific Plan EIR. This precludes the potential for new impacts associated with other substantial degradation of water quality. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

g), h) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the 2006 CCSP would not place housing within a 100-year flood hazard area as mapped on the federal Flood Hazard Boundary or Flood Insurance Rate Map (FIRM) or other flood hazard delineation map. The plan area is located within the Federal Emergency Management Agency's (FEMA) Flood Zone A (100-year flood zone), which consists of areas immediately lining San Ramon Creek. As shown previously in Exhibit 3, development under the 2006 CCSP did not propose residential uses in areas immediately lining San Ramon Creek. Additionally, the plan area is already urban and mostly developed. New structures would not alter or impede flood flows any more than existing conditions. Therefore, impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes MFR use along the southbound side of Deerwood Road and around Ryan Industrial Court, and Business Mixed Use and VCMU along the San Ramon Creek. The San Ramon Zoning Ordinance states no habitable structure shall be located within 100 feet of the centerline of a creek or stream channel,²⁹ which is designated the CRZ. Although the CRZ traverses some of the proposed VCMU and MFR land uses that would include residential development, only open space, recreation amenities, and access roads are allowed within the CRZ. Therefore, the proposed project would not place housing within a flood hazard area. Additionally, the General Plan Implementing Policies 9.4-I-1 through 9.4-I-18 ensure development within the City of San Ramon is prepared for flood risks and facilities are maintained to minimize flooding.³⁰ Flood risks are planned for and are anticipated, so impacts

²⁹ City of San Ramon. 2018. Zoning Ordinance: D-5-4, pg.-6. Website: https://library.municode.com/ca/san_ramon/codes/code_of_ordinances?nodeId=TITDZO. Accessed December 27, 2019.

³⁰ City of San Ramon. 2015. 2035 General Plan, Safety Element. Website: [http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20\(updated%20Map%20as%20of%2011-27-18\).pdf](http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GP2035%20(updated%20Map%20as%20of%2011-27-18).pdf). Accessed

would be less than significant. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

i) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the plan area is not located near areas identified as dam failure inundation zones. This precludes the potential for the 2006 CCSP to expose people or structures to significant risk or loss, injury or death involving flooding because of dam failure. It was determined no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes to expand the plan area by 3.5-acres in the southwest to incorporate Ryan Industrial Court. As is depicted within the Dam Breach Inundation Web Publisher the project site is not located within an area subject to potential flooding from the failure of a dam.³¹ Therefore, consistent with the 2006 Crow Canyon Specific Plan EIR, the plan area would not be located in areas identified as dam failure inundation zones. No impact would occur. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

j) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the plan area would not be at risk or would be subject to inundation by seiche or tsunami as it was determined they were not within seiche or tsunami inundation areas.³² The potential for mudflows to occur was considered low because of the developed urbanized nature of the surrounding area and lack of exposed slopes. It was determined no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes to expand the plan area by 3.5-acres in the southwest to incorporate Ryan Industrial Court. The plan area is not nearby or adjacent to lakes, reservoirs, or other significantly sized closed bodies of water. This precludes inundation by seiche. The City of San Ramon is approximately 29 miles from the nearest shoreline with the Pacific Ocean. This precludes inundation by tsunami. Consistent with the 2006 Crow Canyon Specific Plan EIR, the plan area is developed urban land uses lacking in exposed slopes, so risk of mudflow is considered low. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

December 27, 2019.

³¹ California Department of Water Resources Flood Emergency Response Information Exchange. 2020. Dam Breach Inundation Map Web Publisher. Website: https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2. Accessed February 12, 2020.

³² California Department of Conservation. 2009. Tsunami Inundation Map for Emergency Planning. July 31. Website: https://www.conservation.ca.gov/cgs/Documents/Tsunami/Maps/Tsunami_Inundation_RichmondSanQuentin_Quads_ContraCosta.pdf. Accessed June 3, 2020.

Mitigation Measures

- MM F.1** The project applicant shall comply with provisions of the Contra Costa Countywide NPDES Municipal Stormwater Permit during the design phase. Compliance with the NPDES Permit shall require appropriate source control and site design measures and to design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants to the maximum extent practicable.
- MM F.2** The project sponsor shall comply with the SWRCB General Construction NPDES Permit and the Contra Costa Clean Water Program guidelines to minimize erosion and subsequent transport of sediments and contaminants to nearby surface water bodies.
- MM F.3** Existing pervious surfaces shall be preserved to minimize the amount of stormwater runoff to the greatest extent possible, in accordance with the recommendations provided in the Bay Area Stormwater Management Agencies Association's (BAASMA) (*Start of the Source Design Guidance Manual for Stormwater Quality Protection* (BAASMA, 1999)). Additionally, the project sponsor shall incorporate appropriate source control measures as recommended in the California Storm Water Best Management Practice Handbook for New Development and Redevelopment (CASQA, 20003b) to minimize the amount of pollutants entering the storm drain system. Facilities such as oil and sediment separator or absorbent filter systems shall be designed and installed within the storm drainage system to provide filtration of stormwater prior to discharge and reduce water quality impacts from the proposed project. For example, runoff from future parking lots shall be filtered through mechanical or natural filtration systems such as pre-manufactured oil water separators or through natural processes such as bioswales and settlement ponds to remove oil and grease prior to discharge.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to hydrology and water quality. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XI. Land Use and Planning					
<i>Would the project:</i>					
a) Physically divide an established community?	Less than significant impact.	No.	No.	No.	None.
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Less than significant with mitigation incorporated.	No.	No.	No.	Mitigation Measure A.1.
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	No impact.	No.	No.	No.	None.

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the plan area was already a developed urban area with residential, commercial, light industrial, and services uses. The 2006 CCSP proposed policies, which would guide land use and development of underutilized or vacant parcels by redeveloping areas with Mixed Use. Since the plan area borders adjacent areas comprising similar uses, implementation of the 2006 CCSP was determined not to disrupt the physical arrangement of the surrounding area or any established community. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

As described in Section 2.3.1- Project Summary, the project proposes minor land use changes with new designations MFR and PDR. These designations would not alter development patterns or activities previously considered in the 2006 Crow Canyon Specific Plan EIR, as the proposed MFR designation is aligned with residential uses in the 2006 CCSP and PDR further defines commercial service designations in the 2006 CCSP. Additionally, the proposed project does not include the addition of new roadways, which could divide an established community. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR evaluated consistency of the 2006 CCSP with applicable policies and land use designations with the 2020 San Ramon General Plan. The EIR concluded the 2006 CCSP would result in changes to the area's existing land use and development standard that exceed the maximum development identified in the 2020 San Ramon General Plan. The 2006 CCSP proposed the alteration of existing land uses from primarily Commercial to Mixed Use residential and commercial uses with specific guidelines for development within the plan area. Overall, commercial uses within the plan area would be reduced by 55,950 gross square feet and would be replaced with 735 dwelling units as part of the 2006 Crow Canyon Specific Plan. The proposed land uses of the 2006 CCSP were determined to comply with the 2020 General Plan and be compatible with existing commercial centers, residential developments, and open spaces in adjacent neighborhoods. Since the 2006 CCSP proposed higher densities than the General Plan allows, the City would have to adopt the 2006 CCSP as an amendment to enact the land designations as compliant regulation. Implementation of MM A.1, City approval of an amendment to the General Plan to incorporate the 2006 CCSP, would enact the 2006 CCSP as land use designations for the plan area and resolve the 2006 CCSP compliance with City policy. Therefore, impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

As described in Section 2.3.1- Project Summary, the project proposes minor land use changes with new designations MFR and PDR. These designations would not alter development patterns or land use types previously considered in the 2006 Crow Canyon Specific Plan EIR, as the proposed MFR designation is aligned with residential uses in the 2006 CCSP and PDR further defines commercial service designations in the 2006 CCSP. Additionally, the project proposes maximum densities compliant with the 2006 CCSP and overall less development than the 2006 CCSP, with a reduction of 101 dwelling units to 634 dwelling units total and a reduction of 54,854 square feet to total retail space. The project does not propose land uses or shifts in square footage or density not previously adopted by the City of San Ramon or analyzed in the 2006 Crow Canyon Specific Plan EIR. Furthermore, MM A.1, approval of an amendment to San Ramon 2020 General Plan to incorporate the Crow Canyon Specific Plan, has already been implemented. Therefore, the proposed project would not introduce new

impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the plan area is in an already developed urban area that did not have any applicable adopted habitat conservation plan or natural community conservation plan. Thus, the project would not conflict with any such plan. It was determined no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would include expansion of the plan area by 3.5 acres in the southwest corner to include Ryan Industrial Court, which is an already developed urban area and is consistent with the existing plan area. There are no applicable adopted habitat conservation plans or natural community conservation plans. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to land use and planning. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XII. Mineral Resources					
<i>Would the project:</i>					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Less than significant impact.	No.	No.	No.	None.
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Less than significant impact.	No.	No.	No.	None.

Discussion

a),b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the plan area consisted predominantly of sands, silts, and clays. A 1982 mineral survey of the plan area designated the plan area as areas with no significant mineral deposits or little likelihood of existence, areas where the significance of mineral deposits cannot be evaluated, and areas where inadequate information is available for assessment. Overall, the plan area was not designated an area of significant mineral deposits. The purpose of evaluating mineral resources is to identify areas where mineral extraction could occur before development, but the plan area is already developed. Therefore, future evaluation or designation of this area would not affect development within the plan area. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

As stated in the 2006 Crow Canyon Specific Plan EIR, the plan area is not designated an area of significant mineral deposits and it is already developed, so future mineral deposit designations would not affect development within the plan area. Although the project proposes to increase the 2006 CCSP boundary by 3.5-acres in the southwest corner of the plan area, this expansion area is already developed with industrial uses. Thus, the proposed project would not result in the loss of known mineral resources or deposit sites, nor is there high potential for mineral resources to be identified in an already undeveloped area. Therefore, proposed project would

not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to mineral resources. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XIII. Noise					
<i>Would the project result in:</i>					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant impact with mitigation incorporated.	No.	No.	No.	Mitigation Measures D.1a, D.1b, and D.3a – D.3d.
b) Generation of excessive ground borne vibration or ground borne noise levels?	Less than significant impact.	No.	No.	No.	Mitigation Measures D.3c – D.3d.
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No impact.	No.	No.	No.	None.

Discussion

a) Summary of 2006 Crow Canyon Specific Plan Final EIR

The 2006 Crow Canyon Specific Plan Final EIR concluded that temporary noise impacts related to construction activities would be less than significant with MM D.1a and MM D.1b. The analysis also concluded that implementation of the Specific Plan would result in less than significant increases in traffic noise levels. The analysis also showed that potential impacts to noise sensitive receptors from mobile and/or stationary sources would be reduced to less than significant with MM D.3a – D.3d.

Crow Canyon Specific Plan Update Analysis and Conclusions

Short Term Construction Impacts

Implementation of the 2006 CCSP update would result in a similar, although slightly less, level of development as was analyzed in the 2006 Crow Canyon Specific Plan EIR. Such development would include construction equipment operations that would result in potential short-term noise impact for individual development sites within the Specific Plan area. Reasonable worst-case combined noise level during the loudest phase of construction would be maximum noise levels of 90 dBA maximum noise/sound level (L_{max}), and an hourly average of 86 dBA equivalent sound level or equivalent continuous sound level (L_{eq}), as measured at a distance of 50 feet from the acoustic center of a construction area. Although there would be single event noise exposure potential causing intermittent noise nuisance from project construction activity, the effect on longer-term (hourly or daily) ambient noise levels would be small. However, any development project within the plan area would be required to comply with the best management noise reduction practices outlined in MM D.1a and MM D.1b, of the 2006 Crow Canyon Specific Plan EIR. These measures restrict construction activities to the hours between 7:30 a.m. and 7:00 p.m., Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturday and Sundays. No construction activities shall be permitted on federal holidays. Therefore, similar to the findings of the 2006 Crow Canyon Specific Plan EIR, implementation of MM D.1a and MM D.2b would ensure that temporary construction noise impacts would be reduced to less than significant.

Operational/Mobile Source Noise Impacts

Implementation of the Crow Canyon Specific Plan Update would generate similar, although overall fewer, trips compared to the 2006 CCSP. To confirm potential traffic noise impacts of the Specific Plan, the Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to quantify traffic noise contours along primary roadways in the plan area. The daily traffic volumes were obtained from the traffic analysis prepared for the project by Kimley Horn.³³ The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The traffic noise modeling input and output files are included in Appendix C of this document. Table 5 shows a summary of the traffic noise levels for existing and existing plus project traffic conditions as measured at 50 feet from the centerline of the outermost travel lane.

Table 5: Traffic Noise Increase Summary

Roadway Segment	Existing ADT	Existing with Project (dBA) CNEL	Existing with Project ADT	Existing with Project (dBA) CNEL	Increase over Existing (dBA)
San Ramon Valley Boulevard - Hooper Drive to Purdue Road	14,500	64.3	14,900	64.4	0.1
San Ramon Valley Boulevard - Purdue Road to Deerwood Road	16,200	64.8	16,500	64.9	0.1

³³ Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

Roadway Segment	Existing ADT	Existing with Project (dBA) CNEL	Existing with Project ADT	Existing with Project (dBA) CNEL	Increase over Existing (dBA)
San Ramon Valley Boulevard - Deerwood Road to Crow Canyon Road	17,300	65.1	18,400	65.3	0.2
Crow Canyon Road - Old Crow Canyon Road to Twin Creeks Drive	26,000	67.5	26,100	67.6	0.1
Crow Canyon Road - Twin Creeks Drive to San Ramon Boulevard	26,900	67.7	27,000	67.7	0.0
Old Crow Canyon Road - Deerwood Road to Crow Canyon Road	4,500	59.1	5,000	59.6	0.5
Deerwood Road - Old Crow Canyon Road to San Ramon Valley Boulevard	12,500	63.7	13,500	64.0	0.3

Source: FCS 2020.

As shown in Table 5, the highest traffic noise level increase with implementation of the project would occur along Old Canyon Road between Deerwood Road and Crow Canyon Road. Along this roadway segment, the project would result in traffic noise levels would increase by 0.5 dBA over existing conditions without implementation of the Specific Plan. This increase is lower overall than the potential increases identified in the 2006 Crow Canyon Specific Plan EIR, and is well below the greater-than-5-dBA increase that would be considered a substantial permanent increase in noise levels compared with noise levels that would exist without the project. Therefore, similar to the findings of the 2006 Crow Canyon Specific Plan EIR, implementation of the Specific Plan would not result in a substantial permanent increase in traffic noise levels and the impact would be less than significant. Therefore, the Specific Plan Update would not result in any peculiar effects and would not result in new or more severe impacts related to traffic noise beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan Final EIR.

Operational/Stationary Source Noise Impacts

Similar to the 2006 Crow Canyon Specific Plan EIR, the Specific Plan Update would involve development that could introduce sensitive receptors to potential impacts from new stationary noise sources, including mechanical ventilation equipment, parking lot activities, and truck loading and unloading activities. However, all development projects within the specific plan area would have to comply with MM D.3.c, which would require all new developments under the Specific Plan Update to prepare and submit to the City a noise study that would detail project specific noise impacts. All new development projects would also have to comply with MM D.3.d, which would require all new developments under the Specific Plan Update to implement noise attenuation measures, including, but not limited to actions included in General Plan Policy 10.1-1-1 and Policy 10.1-1-6. Therefore, similar to the findings of the 2006 Crow Canyon Specific Plan EIR, implementation of the Specific Plan Update would not result in a substantial permanent increase in noise levels from new stationary noise sources and the impact would be less than significant. Therefore, the Specific Plan Update would not result in any peculiar effects and would not result in new or more severe impacts related to stationary

noise sources beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan Final EIR.

Land Use Compatibility Noise Impacts

Similar to the 2006 Crow Canyon Specific Plan EIR, the Specific Plan Update would involve development that could locate new noise sensitive receptors in areas with ambient noise levels that exceed the “normally acceptable” compatibility criteria. However, all development projects within the specific plan area would have to comply with MM D.3a through MM D.3d, which would require sponsors of individual projects proposed under the Specific Plan to prepare site-specific noise studies that demonstrate project-level compliance with the General Plan land use compatibility standards and with relevant noise insulation standards contained in Title 24 of the California Code of Regulations (Part 2, Appendix Chapter 12A). Therefore, similar to the findings of the 2006 Crow Canyon Specific Plan EIR, implementation of the Specific Plan Update, with incorporation of MM D.3a–MM D.3d, would ensure development within the Specific Plan area would not result in a conflict with the City’s land use compatibility noise standards and the impact would be less than significant. Therefore, the Specific Plan Update would not result in any peculiar effects and would not result in new or more severe impacts related to land use compatibility beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan Final EIR.

b) Summary of 2006 Crow Canyon Specific Plan Final EIR

The 2006 Crow Canyon Specific Plan Final EIR did not identify any significant vibration impacts associated with implementation of the 2006 CCSP.

Crow Canyon Specific Plan Update Analysis and Conclusions

Short-term Construction Vibration Impacts

Similar to the 2006 Crow Canyon Specific Plan EIR, the Specific Plan Update would involve development that could result in ground borne vibration impacts to existing structures located in the vicinity of the plan area. However all development projects within the specific plan area would have to comply with MM D.3.c, which would require all new developments under the Specific Plan Update to prepare and submit to the City a noise study that would detail project specific noise and vibration impacts. All new development projects would also have to comply with MM D.3.d, which would require all new developments under the Specific Plan Update to implement noise attenuation measures, including, but not limited to actions included in General Plan Policy 10.1-1-1 and Policy 10.1-1-6. These measures which would reduce construction noise impacts would also help reduce construction vibration impacts. All new developments under the Specific Plan Update would also be required to comply with General Plan Policy 10.1-1-3, which requires the preparation of acoustical and vibration studies by qualified professionals that demonstrates compliance with all applicable and feasible vibration reduction measures to be incorporated into project plans. Additionally, all new developments under the Specific Plan Update would be required to comply with the Public Nuisances Ordinance of the City of San Ramon Municipal Code, which prohibits any act that would result in vibration causing a noticeable tremor measurable without instruments at the lot line.

Therefore, implementation of the Specific Plan Update, with incorporation of MM D.3.c–MM D.3.d, would not result in the generation of ground borne vibration or ground borne noise levels in excess of established standards and the impact would be less than significant. Therefore, the Specific Plan Update would not result in any peculiar effects and would not result in new or more severe construction-related vibration impacts beyond those that would have resulted from implementation of the 2006 CCSP.

Operational Vibration Impacts

Anticipated development that would occur under the Specific Plan Update would not include any permanent sources of vibration that would expose persons in the plan area to ground borne vibration levels that could be perceptible without instruments at any existing sensitive land use in the vicinity of the project site. Therefore, the Specific Plan Update would not result in any peculiar effects and would not result in new operational ground borne vibration impacts beyond those that would have resulted from implementation of the 2006 CCSP.

c) Summary of 2006 Crow Canyon Specific Plan Final EIR

The 2006 Crow Canyon Specific Plan Final EIR concluded the plan would not be located within an airport land use plan, or within two miles of a public airport or private airstrip. Therefore, there would be no impact related to the potential of excessive airport noise levels from airport activity.

Crow Canyon Specific Plan Update Analysis and Conclusions

Similar to the 2006 Crow Canyon Specific Plan EIR, the plan area would still not be located within the vicinity of a private airstrip. The nearest public airport to the plan area is the Livermore Municipal Airport, located approximately 9 miles northeast of the plan area. The plan area is located outside of the 55 dBA CNEL airport noise contours of this closest airport. Therefore, implementation of the project would not expose persons residing or working in the project vicinity to noise levels from airport activity that would be in excess of normally acceptable standards for the proposed land use development, and no impact would occur. Therefore, the project would not result in any peculiar effects and would not result in new or more severe impacts related to airport noise beyond what was previously analyzed in the 2006 Crow Canyon Specific Plan Final EIR.

Mitigation Measures

- MM D.1.a** In compliance with Chapter V, Article 2, B6-100 of the San Ramon Municipal Code, noise-generating construction activities shall be limited to daytime hours between 7:30 a.m. and 7 :00 p.m. on weekdays, and between 9:00 a.m. and 6:00 p.m. on Saturdays and Sundays. No construction shall take place on federal holidays. Information concerning construction-related activities and construction hours shall be distributed throughout the affected area prior to the commencement of construction activities. This mitigation measure shall apply to construction of all development under the Crow Canyon Specific Plan (Phase II).

MM D.1.b Sponsors of individual projects proposed under the Crow Canyon Specific Plan shall demonstrate compliance with the provisions of CEQA, prior to project approval. Project sponsors shall agree to comply with mitigation measures determined necessary during the CEQA process both at the time of certification of each environmental document and at the time of project approval. This requirement obligates project sponsors to implement measures that avoid or minimize significant noise impacts from construction activities.

Typical measures that may be included for individual projects may include, but are not limited to, the following:

- Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible);
- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible;
- Stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures, to the extent feasible.
- To reduce the potential for noise impacts from pile driving, alternate methods of driving shall be used, if feasible. Alternate measures may include pre-drilling of piles, the use of more than one pile driver to lessen the total time required for driving piles, and other measures.
- Erecting temporary plywood noise barriers around the entire construction site;
- Utilizing noise control blankets on the building structure as the building is erected to reduce noise emission from the site;
- Evaluating the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings;
- Monitoring the effectiveness of noise attenuation measures with noise measurements.
- Establish a process for responding to and tracking complaints pertaining to construction noise with the following components:
 - A procedure for notifying staff of the Planning Services Division of the Community Development Department and San Ramon Police Department;

- plan for posting signs on-site pertaining to permitted construction days and hours and complaint procedures and who to notify in the event of a problem;
- A listing of telephone numbers (during regular construction hours and off-hours);
- The designation of a construction complaint manager for the project; and
- Notify neighbors within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity.

MM D.3.a Sponsors of individual projects proposed under the Specific Plan shall implement and demonstrate compliance with the mitigation measures identified in this EIR.

MM D.3.b All development that would occur under Crow Canyon Specific Plan shall be constructed to comply with the General Plan Standards in Tables IV.D-1 as well as the relevant noise insulation standards contained in Title 24 of the California Code of Regulations (Part 2, Appendix Chapter 12A). For projects subject to Title 24, noise insulation features shall be incorporated into the design of individual projects to ensure that interior noise levels do not exceed 45 DNL.

MM D.3.c Sponsors of individual projects proposed under the Specific Plan shall prepare and submit to the City a noise study for all projects that are currently or in the future could be exposed to noise levels greater than "normally acceptable," as prescribed in the General Plan. The City shall ensure that the most recent noise contours available for 1-680 are used during subsequent project-specific environmental review for individual projects proposed under the Crow Canyon Specific Plan.

MM D.3.d Sponsors of individual projects that expose noise-sensitive uses to greater than "normally acceptable" noise levels shall implement noise attenuation measures, including, but not limited to actions included in General Plan Policy 10.1-1-1 and Policy 10.1-1-6, as follows:

- Screen and control noise sources, such as parking and loading facilities, outdoor activities and mechanical;
- Increase setbacks for noise sources from adjacent dwellings;
- Retain fences, walls, and landscaping that serve as noise buffers;
- Use soundproofing materials and double glazed windows;
- Control hours of operation, including deliveries and trash pickup, to minimize noise impacts;
- Install air conditioning in all residential units to ensure that windows can be kept closed, if desired;
- Design new or redeveloped commercial uses such that HV AC equipment and garbage and truck loading/unloading areas are shielded or located away from noise-sensitive uses; and

- Install air conditioning in all residential units to ensure that windows can be kept closed, if desired.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to noise. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XIV. Population and Housing					
<i>Would the project:</i>					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Less than significant impact.	No.	No.	No.	None.
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	No impact.	No.	No.	No.	None.
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	No impact.	No.	No.	No.	None.

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP would induce growth within the plan area, which was consistent with the anticipated growth and buildout projects for the City of San Ramon included in the 2020 General Plan. The population growth was determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would reduce the number of dwelling units to 634 from 735 dwelling units, which is a 101-unit reduction from the 2006 CCSP. This would result in a lower population growth value than what was anticipated in the 2006 Crow Canyon Specific Plan EIR and San Ramon’s 2035 General Plan. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b),c) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded there were no existing residences within the plan area. Therefore, the 2006 CCSP would not displace substantial numbers of existing housing or people within the plan area. It was determined no impact would occur.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes 634 dwelling units throughout the plan area between VCMU and MFR land uses. The project proposes the VCMU designation would result in 484 dwelling units and the MFR land use would result in 150 dwelling units, which totals to 634 dwelling units and is a 101 unit decrease from the 735 dwelling units proposed in the 2006 CCSP. Additionally, the project proposes to expand the plan area by 3.5 acres in the southwest to include Ryan Industrial Court, which is proposed for MFR designation, and existing land uses in this area are commercial offices and a church. Consistent with the 2006 Crow Canyon Specific Plan EIR, the plan area and the proposed expansion do not have existing residences. The proposed project would not displace or necessitate the relocation of existing housing or people within the plan area. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to population and housing. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XV. Public Services					
<i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</i>					
a) Fire protection?	Less than significant impact.	No.	No.	No.	None.
b) Police protection?	Less than significant impact.	No.	No.	No.	None.
c) Schools?	Less than significant impact.	No.	No.	No.	None.
d) Parks?	Less than significant impact.	No.	No.	No.	None.
e) Other public facilities?	Less than significant impact.	No.	No.	No.	None.

Discussion

a) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR included the following implementing policies related to fire protection and emergency medical services:

- Require site design features and fire retardant building materials to reduce risk of fire within the City (Implementing Policy 9.4.I-1).
- Require the completion of fire modeling for new development adjacent to high-risk areas in order to determine which mitigation measures are appropriate to minimize fire hazards (Implementing Policy 9.4.I-2).
- Maintain and update the City’s Emergency Response Plan, as required by State law to minimize the risk to life and property of seismic and geological hazards, hazardous materials and waste and fire (Implementing Policy 9.5.I-1).

The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP could cause development that would increase population and increase calls to San Ramon Valley Fire

Protection District (SRVFPD). The response times were under five minutes, and the SRVFPD indicated that they were prepared to accommodate the potential growth. Future development within the plan area, as part of the City's applicant review process, would undergo review by the SRVFPD to ensure adequate access is available for fire and emergency response services. The SRVFPD was prepared and planned to accommodate potential impacts that could result from the 2006 CCSP. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any land use or policy changes within the planning area or proposed planning area expansion that could potentially result in direct or indirect population growth not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. This precludes the potential for new impacts associated with new or expanded fire protection facilities or impacts associated with response times or service delivery, beyond what were evaluated in the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed project would not introduce new fire protection impacts or create more severe fire protection impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP could cause development that would increase population and increase calls to San Ramon Police Department (SRPD). Prior to project approval, the SRPD would be required to review projects to ensure that response times could be met. The SRPD indicated that they were prepared to accommodate the potential growth and would consider hiring of new staff by eight additional officers citywide to accommodate demands for police service. Since future development would generate new property tax base a General Fund tax revenue would be available to offset the cost of expanding the police services. Impacts were determined to be less than significant

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any land use or policy changes within the planning area or proposed planning area expansion that could potentially result in direct or indirect population growth not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. This precludes the potential for new impacts associated with new or expanded police protection facilities or impacts associated with response times or service delivery, beyond what were evaluated in the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed project would not introduce new police protection impacts or create more severe police protection impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded the 2006 CCSP would result in an increase in student enrollment at all school locations servicing the plan area (Twin Creeks Elementary, Iron Horse Middle School, and California High School). The 2006 CCSP proposed 735 residential dwelling units, which could generate population growth and increase new student enrollment.

The San Ramon Valley Unified School District (SRVUSD) determined that current facilities could adequately service the projected growth in student enrollment of 515 new students. The SRVUSD had developed school performance standards to ensure that if new school facilities were needed, they would be located accessibly to school-aged children and that adequate capacity would be available to meet projected enrollment. The SRVUSD did not have long-range plans to construct public schools in the plan area, nor in the City of San Ramon. As existing schools reached maximum capacity, students would be enrolled in alternate schools or existing schools would be expanded to accommodate additional enrollment. Therefore, impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes to reduce the number of residential dwelling units from 735 to 634. This could reduce the projected population growth assessed in the 2006 Crow Canyon Specific Plan EIR and, therefore, reduce the estimated new student enrollment of 515 students to the SRVUSD. The SRVUSD would ensure school services are accessible to all school-aged students through the district's school performance standards. The City of San Ramon and the SRVUSD do not plan any construction or expansion of facilities within the plan area. The proposed project would not introduce new school service impacts or create more severe school service impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

d) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR concluded the 2006 CCSP would result in an increase in demand of local parks, regional parks, and other recreational facilities. The 2006 CCSP proposed 735 residential dwelling units, which could generate population growth and, therefore, increase demand on parks and recreation facilities. To accommodate the plan generated and local area demand for local park facilities, the 2006 CCSP proposed a 1.9-acre creek-side park and designed for passive recreation. Additionally, portions of a new, continuous trail system were proposed that would improve pedestrian and bicycle access to the creek and through the plan area. The increased demand on parks and recreational facilities from the 2006 CCSP-generated population growth would not affect the City's desired service ratio of 6.5 acres of parkland per 1,000 residents if the City secured proposed parklands. The addition of the 1.9-acre creek-side park would provide recreational and park resources to the plan area that would be underserved without the potential park and alleviate overuse of existing parks within the vicinity. Implementation of the 2006 CCSP was determined to not result in substantial physical deterioration of existing facilities or affect the City's acceptable service ratios. Therefore, impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes a reduction of residential dwelling units from 735 to 634, which would lessen the plan-generated population growth and estimated demand for nearby parks and recreational facilities assessed in the 2006 Crow Canyon Specific Plan EIR. The 2006 CCSP proposed a 1.9-acre creek-side park and portions of a trail of a future trail-network, which the

2006 Crow Canyon Specific Plan EIR concluded would increase the park and recreation services to the plan area and alleviate demand on existing parks and recreation facilities. The project proposes to maintain the same 207,460 square feet of Park/Open Space land use designation stated in the 2006 CCSP. As shown previously in Exhibit 4, the proposed project would reallocate the gross area of the Park/Open Space land use designation and the originally proposed park to a location in the southwest of the plan area, between Old Crow Canyon Road and Crow Canyon Road. Additionally, as shown previously in Exhibit 4 and consistent with the 2006 Crow Canyon Specific Plan EIR, the proposed project would create an established trail network throughout the plan area. Consistent with the 2006 Crow Canyon Specific Plan EIR, the relocated creek-side park, reallocated Park/Open Space land use designations, and the established trail network would bring park and passive recreation facilities to the underserved plan area. Therefore, the proposed project would not introduce new park and recreation service impacts or create more severe park and recreation service impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

e) Summary of 2006 Crow Canyon Specific Plan EIR

At the time of the 2006 Crow Canyon Specific Plan EIR drafting the San Ramon Recycling Center operating within the plan area. The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP could displace the San Ramon Recycling Center and could minimally disrupt solid waste services for the City. The City of San Ramon had a mandated solid waste diversion rate of 50 percent, which the City was not meeting at the time the 2006 Crow Canyon Specific Plan EIR was drafted. Information on how the San Ramon Recycling Center's relocation or closure, as a result of implementation of the 2006 CCSP, on solid waste diversion rates was not available. The 2006 Crow Canyon Specific Plan EIR cited data from Valley Waste Management, that the almost 1.7 tons of materials received by the San Ramon Recycling Center 2003-2004 only constituted 8 percent of the total tonnage recycled by the City's recycling program. This was determined as not substantial. Therefore, the effect of the 2006 CCSP on the temporary or permanent loss of the San Ramon Recycling Center was determined to be a less than significant impact on the City's solid waste services.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose land use or policy changes that could potentially result in direct or indirect population growth not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. The project proposes to expand the plan area by 3.5 acres to include MFR land use and proposes a reduction of residential to 634 residential dwelling units, which overall would reduce the assumed population growth in the 2006 Crow Canyon Specific Plan EIR.

Additionally, there is no longer a recycling or solid waste facility within the plan area, so the proposed project would not cause the closure or relocation of solid waste facilities within the plan area. No new impacts would occur. Therefore, the proposed project would not introduce new solid waste service impacts or create more severe solid waste service impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to public services. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XVI. Recreation					
<i>Would the project:</i>					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less than significant impact.	No.	No.	No.	None.
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Less than significant impact.	No.	No.	No.	None.

Discussion

a), b) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the plan area contained commercial and residential land use areas that were already served by existing neighborhood parks located within a 1-mile radius of the plan area and regional parks and facilities within 2 miles of the plan area. The 2006 CCSP would result in a small increase in residents but would not substantially affect existing parks and recreational facilities. The 2006 Crow Canyon Specific Plan EIR concluded that the 1.9-acre creek-side park the 2006 CCSP proposed to construct and the included trails would be part of a larger trail network that would alleviate the plan-generated demand on parks and recreation facilities. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project proposes an overall reduction in residential units to 634 residential dwelling units. This would decrease the estimated resident growth analyzed in the 2006 Crow Canyon Specific Plan EIR. Consistent with the 2006 Crow Canyon Specific Plan EIR, existing recreational facilities would adequately serve the residential increase in the plan area without substantial deterioration of existing facilities. As shown previously in Exhibit 4, the proposed project would

include relocation of the creek-side park to a location between Crow Canyon Road and Old Crow Canyon Road and would establish where trails would be located within the plan area. Consistent with the 2006 Crow Canyon Specific Plan EIR, the new park and trail network would alleviate the minimal increase of demand on parks and recreation facilities. The construction of the park and trail system would not result in impacts not previously addressed in the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed project would not introduce new park and recreation impacts or create more severe park and recreation impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to recreation. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XVII. Transportation					
<i>Would the project:</i>					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Less than significant with mitigation incorporated.	No.	No.	None.	None.
b) Conflict with an applicable congestion management program, including but not limited to, level of service (LOS) standards and travel demand measures, or other standards established by the county congestion management agency for the designated roads or highways?	Less than significant with mitigation incorporated.	No.	No.	None.	None.
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was	No.	No.	None.	None.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
	certified (2006).				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	None.	None.
e) Result in inadequate emergency access?	Less than significant impact.	No.	No.	None.	None.
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Less than significant impact.	No.	No.	None.	None.

Discussion

The following analysis is based in part on the Traffic Impact Analysis (TIA) prepared on May 15, 2020, by Kimley-Horn and Associates, Inc. (Appendix D).³⁴ The TIA analyzed the potential transportation impacts related to the proposed project.

According to the TIA, for the entire 2006 CCSP, including existing uses to remain, the area is estimated to generate 41,050 daily trips: 1,203 AM peak-hour trips, and 4,035 PM peak-hour trips. For the proposed project plan area, including existing uses to remain, the area is estimated to generate 37,047 daily trips: 1,123 AM peak-hour trips, and 3,615 PM peak-hour trips. The proposed project would therefore result in 4,003 fewer daily trips, including 80 fewer AM peak-hour trips, and 420 fewer PM peak-hour trips.

The TIA was prepared to determine potential impacts based on standards and methodologies set forth by the City of San Ramon and Contra Costa Transportation Authority (CCTA). Project impacts were determined by comparing conditions with the proposed project to those without the proposed

³⁴ Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

project. Significant impacts for unsignalized and signalized intersections are created when traffic from the proposed project causes the level of service (LOS) to fall below a specific threshold. The TIA includes evaluations during the AM and PM peak-hour traffic conditions for seven intersections, which include the following study intersections:

1. Crow Canyon Road/Old Crow Canyon Road,
2. Crow Canyon Road/Twin Creeks Drive,
3. Crow Canyon Road/San Ramon Valley Boulevard,
4. Deerwood Road-Fostoria Way/San Ramon Valley Boulevard,
5. Hooper Drive/San Ramon Valley Boulevard,
6. Faria Preserve Parkway/San Ramon Valley Boulevard,
7. Deerwood Road/Old Crow Canyon Road/Omega Road.

The TIA provides an evaluation of the following traffic scenarios:

- Existing Conditions - Based on existing counts collected on January 14, 2020.
- Existing Plus Project - Based on existing counts plus traffic generated by the project. Project traffic was manually added to the count generated volumes.
- Cumulative (General Plan Buildout) - Based on Cumulative traffic volumes derived from the CCTA travel demand forecast model for the General Plan buildout year.
- Cumulative plus Project - Based on Cumulative conditions plus traffic generated by the project. Project traffic will be manually added to the count generated volumes.

According to the General Plan, LOS describes the traffic conditions that confront drivers when they are using the roadway system. The City has adopted policies to ensure that acceptable LOS are maintained on City streets. Traffic conditions are characterized on a scale of LOS A to LOS F, with LOS A representing a free-flowing traffic with very little delay, and LOS F representing excessive delays, with backups from other locations restricting or preventing movement.³⁵ According to implementing Policy 3.3-I-2, the minimum acceptable traffic condition during AM and PM peak periods is LOS D.³⁶

Thresholds of Significance

Project impacts were determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts are created when traffic from the proposed project causes the LOS to fall below a specific threshold.

Impacts to City of San Ramon intersections would be considered significant if the project would result in any of the following:

- For signalized intersections:

³⁵ City of San Ramon. 2015. San Ramon General Plan 2035. Chapter 5 – Traffic and Circulation. Website: http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202019-10-21/05_Traffic%20and%20Circulation%202018.pdf. Accessed May 20, 2020.

³⁶ City of San Ramon. 2015. San Ramon General Plan 2035. Chapter 3 – Growth Management. Website: http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202019-10-21/03%20Growth_Management.pdf. Accessed May 20, 2020.

- A signalized intersection degrades from an acceptable LOS (i.e. LOS D or better) without the project to an unacceptable LOS (i.e. LOS E or LOS F).
- The project increases the average delay by more than 5.0 seconds per vehicle at an intersection having an unacceptable LOS without project traffic added.
- For all-way stop control (AWSC) intersections:
 - The project causes the level of service for the intersection to worsen from an acceptable LOS to an unacceptable LOS.
 - The project increases the average delay by more than 5.0 seconds per vehicle at an intersection having an unacceptable LOS without project traffic added and the intersection meets the peak-hour volume signal warrant.
- For side-street stop control (SSSC) intersections:
 - The project causes a turning movement to worsen from an acceptable LOS to an unacceptable LOS and the intersection meets the peak-hour volume signal warrant.

Existing Conditions

Based on the findings of the TIA, all the study intersections function within acceptable LOS standards, defined as LOS D or better, under existing traffic conditions, as shown in Table 6.

Table 6: Existing Intersection Level of Service

Intersection	AM Peak-hour	PM Peak-hour
Crow Canyon Road/Old Crow Canyon Road	A	B
Crow Canyon Road/Twin Creeks Drive	C	C
Crow Canyon Road/San Ramon Valley Boulevard	C	D
Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	D
Hooper Drive/San Ramon Valley Boulevard <i>Worst Approach</i>	A C	A D
Faria Preserve Parkway/San Ramon Valley Boulevard <i>Worst Approach</i>	A B	A C
Deerwood Road/Old Crow Canyon Road/Omega Road.	B	B

Source: Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

Existing Plus Project

Based on the findings of the TIA, all study intersections function within acceptable LOS standards under the Existing Plus Project analysis scenario. A negative net difference in trips generated by the

project resulted in reduced traffic and fewer delays at some intersections under Existing Plus Project conditions, as shown in Table 7.

Table 7: Existing Plus Project Intersection Level of Service

Intersection	AM Peak	PM Peak
Crow Canyon Road/Old Crow Canyon Road	A	B
Crow Canyon Road/Twin Creeks Drive	B	C
Crow Canyon Road/San Ramon Valley Boulevard	C	D
Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	D
Hooper Drive/San Ramon Valley Boulevard <i>Worst Approach</i>	A C	A D
Faria Preserve Parkway/San Ramon Valley Boulevard <i>Worst Approach</i>	A C	A D
Deerwood Road/Old Crow Canyon Road/Omega Road.	B	C

Source: Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

Cumulative (General Plan Buildout)

The Cumulative traffic scenario uses the General Plan buildout year of 2040 to evaluate traffic volumes. Roadway link volumes from the 2018 base year and 2040 forecast year were compared to determine an annual incremental growth in traffic volumes at the study intersections. As shown in Table 8, all study intersections function within acceptable LOS standards under this analysis scenario, except for the following intersection:

- Hooper Drive / San Ramon Valley Boulevard (AM and PM peak-hours).

Delay for this intersection is measured at the eastbound stop-controlled approach. Excessive delay at the intersection is due to the anticipated volume of eastbound left turns combined with increased northbound and southbound through traffic on San Ramon Valley Boulevard.

Table 8: Cumulative (2040) Intersection Level of Service

Intersection	AM Peak	PM Peak
Crow Canyon Road/Old Crow Canyon Road	A	B
Crow Canyon Road/Twin Creeks Drive	C	C
Crow Canyon Road/San Ramon Valley Boulevard	D	D
Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	D
Hooper Drive/San Ramon Valley Boulevard	A	A

Intersection	AM Peak	PM Peak
<i>Worst Approach</i>	E	E
Faria Preserve Parkway/San Ramon Valley Boulevard	C	C
Deerwood Road/Old Crow Canyon Road/Omega Road.	B	C

Source: Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

Cumulative Plus Project

A negative net difference in trips resulted in reduced traffic and fewer delays at some intersections under Cumulative Plus Project conditions. As shown in Table 9, all study intersections function within acceptable LOS standards under this analysis scenario, except for the following intersection:

- #5 – Hooper Drive / San Ramon Valley Boulevard (AM and PM peak-hours).

This intersection would continue to operate at unacceptable LOS in the AM and PM peak-hours in the plus project conditions. However, the eastbound stop control delay is reduced in plus project conditions because of fewer trips using this access. Therefore, there are no project impacts at this intersection.

Table 9: Cumulative (2040) Plus Project Intersection Level of Service

Intersection	AM Peak	PM Peak
Crow Canyon Road/Old Crow Canyon Road	A	B
Crow Canyon Road/Twin Creeks Drive	C	C
Crow Canyon Road/San Ramon Valley Boulevard	D	D
Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	D
Hooper Drive/San Ramon Valley Boulevard <i>Worst Approach</i>	A E	A D
Faria Preserve Parkway/San Ramon Valley Boulevard	C	B
Deerwood Road/Old Crow Canyon Road/Omega Road.	B	C

Source: Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

a), b) Summary of 2006 Crow Canyon Specific Plan EIR

The General Plan has established criteria for the determination of significant environmental impacts regarding traffic circulation, bicycle and pedestrian circulation, and transit service. The City’s standard for acceptable levels of service is LOS D or greater during the AM or PM

peak-hour. This criterion is also consistent with the CCTA Transportation Service Objective for intersections on Routes of Regional Significance. Projects that cause an intersection to fail to achieve the standard of LOS D or greater would not be in compliance with the General Plan's measures of effectiveness for the performance of the circulation system. These projects would also not be in compliance with the applicable congestion management program, including LOS standards.

The 2006 Crow Canyon Specific Plan EIR determined that service would degrade during the PM peak-hour from LOS D to LOS E at the unsignalized intersection of San Ramon Valley Boulevard/Purdue Road (study intersection No. 19). Implementation of MM B.1 was determined to reduce impacts to less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The TIA determined that because traffic from the proposed project would not cause the LOS to fall below the thresholds of significance, there would be no significant impacts. The 2006 Crow Canyon Specific Plan EIR recommended mitigation measures to mitigate impacts; however, the TIA prepared for the proposed project determined that LOS impacts for the proposed project would be less than those analyzed in the 2006 Crow Canyon Specific Plan EIR. As previously discussed, and as shown in Table 9, a negative net difference in trips resulted in reduced traffic and fewer delays at some intersections under Cumulative Plus Project conditions. The TIA concluded that there are no impacts associated with the proposed project, and that mitigation is not necessary.³⁷ Therefore, consistent with the 2006 Crow Canyon Specific Plan EIR, impacts would be less than significant.

c) *Summary of 2006 Crow Canyon Specific Plan EIR*

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. However, the 2006 Crow Canyon Specific Plan EIR concluded the plan area is not located near a private airstrip, nor does the plan area contain a private airstrip. The 2006 Crow Canyon Specific Plan EIR concluded that the plan area is located 17 miles south of Buchanan Field Airport and 19 miles east of Oakland International Airport.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project is not located within the vicinity of an airstrip. The nearest airstrips are located more than 10 miles from the project site, and the project site is not within a main flight path for any nearby airport. These conditions preclude the potential for new impacts. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required. Consistent with the 2006 Crow Canyon Specific Plan EIR, impacts would be less than significant.

³⁷ Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

d) Summary of 2006 Crow Canyon Specific Plan EIR

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. However, according to the 2006 Crow Canyon Specific Plan EIR, future development within the plan area, as part of the City's applicant review process, would undergo review by the SRVFPD.

Crow Canyon Specific Plan Update Analysis and Conclusions

According to the TIA, transportation-related impacts could be identified if the project substantially increases traffic hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. The project does not propose incompatible uses, nor does it propose any land uses within the planning area that could potentially result in development and land use types not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. The proposed project would result in minor land use changes with new designations MFR and PDR. These designations would not alter development patterns or land use types previously considered in the 2006 Crow Canyon Specific Plan EIR. Therefore, the proposed land uses within the plan area would not cause a hazard due to incompatible uses.

The project would be subjected to a series of reviews and approval from City of San Ramon Planning Services and from SRVFPD, which would ensure that impacts would be less than significant. Review by the SRVFPD would ensure that project design features do not result in inadequate emergency access from traffic hazards or incompatible uses. Therefore, consistent with the 2006 Crow Canyon Specific Plan EIR, impacts would be less than significant.

e) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that development within the plan area would be required to comply with all fire codes and regulations related to emergency service access. Future development within the plan area, as part of the City's applicant review process, would undergo review by the SRVFPD to ensure adequate access is available for fire and emergency response services. The SRVFPD was prepared and planned to accommodate potential impacts that could result from the 2006 CCSP. Therefore, the 2006 CCSP would not impair implementation or physically interfere with any adopted emergency response plans or emergency evacuation plans. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

As discussed in Impact Question IX(g), the project does not propose changes that could potentially interfere with emergency response, access, or evacuation. Consistent with the 2006 Crow Canyon Specific Plan EIR, any development within the plan area of the proposed project would have to comply with all fire codes and regulations related to emergency access. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. Consistent with the 2006 Crow Canyon Specific Plan EIR, Impacts would be less than significant. No additional analysis is required.

f) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR Impact B.5 contains an analysis of the efficiency of pedestrian, bicycle, and public transit through implementation of the City standards and the General Plan's proposed bicycle and trail network, as well as General Plan policies related to pedestrian and bicycle circulation. The 2006 Crow Canyon Specific Plan EIR concluded that implementation of the 2006 CCSP would generate pedestrian, bicycle, and transit trips, which would use the existing and planned circulation network in the project area. This analysis also concluded that the project would result in an improved pedestrian environment and would not create any adverse impacts to residents. Furthermore, it was determined that with appropriate tree well design and guidelines for bicycle compatibility included in the Specific Plan, the project would not alter, eliminate, or reduce functionality of any of the City's existing or planned bicycle facilities. This analysis also determined that all bus services serving the plan area would have adequate capacity for additional riders and that the CCTA has capacity to provide improved services. This analysis demonstrates that the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The TIA states that impacts to transit, bicycle, or pedestrian facilities could be identified if the project conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities; specifically:

- A pedestrian impact is considered significant if it would:
 - Disrupt existing pedestrian facilities; or
 - Interfere with planned pedestrian facilities; or
 - Create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

- A bicycle impact is considered significant if it would:
 - Disrupt existing bicycle facilities; or
 - Interfere with planned bicycle facilities; or
 - Create inconsistencies with adopted bicycle system plans, guidelines, policies, or standards; or
 - Not provide secure and safe bicycle parking in adequate proportion to anticipated demand.

- A transit impact is considered significant if it would result in development that is inaccessible to transit riders or would generate transit demand that cannot be met by existing or planned transit in the area. Transportation related impacts could also be identified if the project:
 - substantially increases traffic hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses; or
 - results in inadequate emergency access.

The TIA did not identify any impacts that would meet these criteria.³⁸ The project proposes a reduction of residential dwelling units from 735 to 634, which would lessen the plan-generated demand for public transit, bicycle, and pedestrian facilities assessed in the 2006 Crow Canyon Specific Plan Final EIR. Therefore, the proposed project would not introduce new public transit, bicycle, or pedestrian facility service impacts or create more severe service impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required. Consistent with the 2006 Crow Canyon Specific Plan EIR, impacts would be less than significant.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to transportation. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

³⁸ Kimley-Horn and Associates, Inc. 2020. Traffic Impact Analysis Crow Canyon Specific Plan Update. May 15.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XVIII. Utilities and Service Systems					
<i>Would the project:</i>					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Less than significant impact.	No.	No.	No.	None.
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Less than significant impact.	No.	No.	No.	None.
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Less than significant impact.	No.	No.	No.	None.
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Less than significant impact.	No.	No.	No.	None.
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less than significant impact.	No.	No.	No.	None.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Less than significant with mitigation incorporated.	No.	No.	None.	Mitigation Measure K.4.
g) Comply with federal, state, and local statutes regulations related to solid waste?	Less than significant with mitigation incorporated.	No.	No.	None.	Mitigation Measure K.4.

Discussion

a), e) Summary of 2006 Crow Canyon Specific Plan EIR

The Central Contra Costa Sanitary District (Central San) provides wastewater collection and treatment services to the City of San Ramon, including the plan area. The 2006 Crow Canyon Specific Plan EIR concluded Central San could provide adequate service to the plan area and accommodate the planned growth in the plan area. Central San was in compliance with Regional Water Quality Control Board (RWQCB) regulations at the time the EIR was written and if future development in the plan area incurred fees for violations with the RWQCB then those fees may be required to fund system improvements. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project includes a reduction of 54,854 square feet of retail space and 101 fewer dwelling units than the 2006 CCSP proposed. Overall, development and growth proposed in the proposed project would be reduced from the development and growth anticipated in the 2006 Crow Canyon Specific Plan EIR. Since Central San was determined to be capable of adequately providing waste water services to the plan area with the anticipated development and growth of the 2006 CCSP, Central San would be able to provide waste water service to the reduced growth and development anticipated by the proposed project. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b), d) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that the 2006 CCSP would increase water and wastewater transmission and treatment demand, which could require the extension or capacity improvements to existing water and wastewater infrastructure. Central San determined it could provide adequate wastewater services to the plan area. The East Bay Municipal Utilities District (EBMUD) determined the estimated water demand rate generated by the 2006 CCSP would be consistent with EBMUD growth estimates and existing EBMUD water supply could adequately service the plan area. Therefore, impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose any land use or policy changes within the planning area that could potentially result in development and land use types not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. The project proposes minor land use changes with new designations MFR and PDR. These designations would not alter development patterns or land use types previously considered in the 2006 Crow Canyon Specific Plan EIR, as the proposed MFR designation further defines areas already designated RO in the 2006 CCSP and PDR further defines commercial service designations already designated in the 2006 CCSP. Additionally, the proposed project would result in a reduction of 54,854 square feet of retail space and would also result in a reduction of 101 dwelling units than the 2006 CCSP, which would reduce overall demand on water supply and water and wastewater transmission and treatment infrastructure. With these conditions, Central San and EDMUD would be able to meet the demand generated by the proposed project. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

c) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded that development within the plan area could increase stormwater runoff volumes, which could exceed the capacity of existing drainage facilities. Construction activities could cause pollutants to contaminate stormwater runoff and increases in impervious surfaces could allow pollutants to enter the stormwater drainage systems. Implementation of MM F.1 would ensure that development and redevelopment within the plan area incorporate stormwater treatment and source control designs and measures that are compliant with the Contra Costa Countywide NPDES Municipal Stormwater Permit to reduce discharge of pollutants into stormwater systems to the maximum extent possible. Implementation of MM F.2 would ensure BMPs and a SWPPP are in place to prevent construction activities within the plan area releasing pollutants into stormwater runoff and into nearby waterways. To prevent point and non-point source pollution from entering the stormwater drainage system and overwhelming existing drainage facilities, implementation of MM F.3 would ensure future projects within the plan area meet the provisions of the federal Clean Water Act by eliminating and collecting pollutants in stormwater discharge. Therefore,

with the implementation of the aforementioned MMs, impacts were determined to be less than significant

Crow Canyon Specific Plan Update Analysis and Conclusions

The proposed project would result in an expansion of the plan area to include 3.5 acres of Ryan Industrial Court for MFR uses, which was not previously analyzed in the 2006 Crow Canyon Specific Plan EIR. Although the proposed project includes a proposal for a plan area expansion, the proposed expansion area is currently developed and includes stormwater facilities such as storm drains. In addition, future development would be required to implement MMs F.1 through F.3 to reduce stormwater discharge and incorporate stormwater treatments. Therefore, the proposed project would not introduce new impacts related stormwater facilities or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

f), g) Summary of 2006 Crow Canyon Specific Plan EIR

The 2006 Crow Canyon Specific Plan EIR concluded the 2006 CCSP could generate additional amounts of solid waste that exceed disposal capacity and construction activities could have an impact on the City of San Ramon's diversion rate, which could create conflict with the City's California State mandated Source Reduction and Recycling Element/Integrated Waste Management Plan. Implementation of MM K.4 required construction projects within the plan area to segregate recyclable solid waste from non-recyclable waste to decrease the diversion rate to landfills and this was deemed sufficient to maintain compliance with the State mandated plan. Additionally, the Vasco Sanitary Landfill was determined to have sufficient capacity for the anticipated solid waste generated by the 2006 CCSP. Impacts were determined to be less than significant with mitigation incorporated.

Crow Canyon Specific Plan Update Analysis and Conclusions

The project does not propose land use or policy changes that could potentially result in solid waste exceedance or violation of regulation not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. The proposed project does propose 634 dwelling units instead of 735 dwelling units and a reduction of 54,854 square feet in net new retail space within the plan area, which would reduce the amount of generated solid waste previously considered in the 2006 Crow Canyon Specific Plan EIR. Continued implementation of MM K.4 would ensure the City's diversion rate is maintained. Therefore, the proposed project would not introduce new impacts or create more severe impacts than those previously analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

Mitigation Measures

- MM F.1** The project applicant shall comply with provisions of the Contra Costa Countywide NPDES Municipal Stormwater Permit during the design phase. Compliance with the NPDES Permit shall require appropriate source control and site design measures and to design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants to the maximum extent practicable.
- MM F.2** The project sponsor shall comply with the SWRCB General Construction NPDES Permit and the Contra Costa Clean Water Program guidelines to minimize erosion and subsequent transport of sediments and contaminants to nearby surface water bodies.
- MM F.3** Existing pervious surfaces shall be preserved to minimize the amount of stormwater runoff to the greatest extent possible, in accordance with the recommendations provided in the Bay Area Stormwater Management Agencies Association's (BAASMA) (*Start of the Source Design Guidance Manual for Stormwater Quality Protection* (BAASMA,1999). Additionally, the project sponsor shall incorporate appropriate source control measures as recommended in the California Storm Water Best Management Practice Handbook for New Development and Redevelopment (CASQA, 20003b) to minimize the amount of pollutants entering the storm drain system. Facilities such as oil and sediment separator or absorbent filter systems shall be designed and installed within the storm drainage system to provide filtration of stormwater prior to discharge and reduce water quality impacts from the proposed project. For example, runoff from future parking lots shall be filtered through mechanical or natural filtration systems such as pre-manufactured oil water separators or through natural processes such as bioswales and settlement ponds to remove oil and grease prior to discharge.
- MM K.4** Future construction projects shall specify that during construction and demolition phase, contractors would make arrangements to segregate recyclable construction-generated solid waste from non-recyclable waste, as reasonable and cost effective as possible. Recyclable waste is likely to consist in part of materials such as concrete, asphalt, metals, and wood.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to utilities and service systems. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

Environmental Issue Area	Conclusion in 2006 Crow Canyon Specific Plan EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XIX. Wildfire					
<i>If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:</i>					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than significant impact.	No.	No.	None.	None.
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	None.	None.
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified (2006).	No.	No.	None.	None.
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Potentially significant impact.	No.	No.	None.	None.

Discussion

a) *Summary of 2006 Crow Canyon Specific Plan EIR*

The 2006 Crow Canyon Specific Plan EIR included the following implementing policies related to fire protection and emergency medical services.

- Require site design features and fire retardant building materials to reduce risk of fire within the City (Implementing Policy 9.4.I-1).
- Require the completion of fire modeling for new development adjacent to high-risk areas in order to determine which mitigation measures are appropriate to minimize fire hazards (Implementing Policy 9.4.I-2).
- Maintain and update the City's Emergency Response Plan, as required by State law to minimize the risk to life and property of seismic and geological hazards, hazardous materials and waste and fire (Implementing Policy 9.5.I-1).

The 2006 Crow Canyon Specific Plan EIR concluded that development within the plan area would be required to comply with all fire codes and regulations related to emergency service access. Therefore, the 2006 CCSP would not impair implementation or physically interfere with any adopted emergency response plans or emergency evacuation plans. Impacts were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

As discussed in Impact Question IX(g), the project does not propose changes that could potentially interfere with emergency response, access, or evacuation. Consistent with the 2006 Crow Canyon Specific Plan EIR, any development within the proposed project plan area would have to comply with all fire codes and regulations related to emergency access. Therefore, the proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR. No additional analysis is required.

b) *Summary of 2006 Crow Canyon Specific Plan EIR*

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. Additionally, impacts associated with pollutants from wildfire were not evaluated in other sections in the 2006 Crow Canyon Specific Plan EIR. No conclusion was made about the significance level of environmental impacts regarding wildfire risks or risk of exposure to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Crow Canyon Specific Plan Update Analysis and Conclusions

As discussed in Impact Question IX(h), the proposed additions to the 2006 CCSP include areas within the WUI. Therefore, the potential for exposure to pollutants from wildland fires remains a potentially significant impact. Impacts relating to exposure to pollutants concentrations from wildfires or the uncontrolled spread of a wildfire would be discussed and evaluated during the environmental review process for individual site development within the plan area. The

proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR.

c) Summary of 2006 Crow Canyon Specific Plan EIR

This checklist question did not exist at the time the 2006 Crow Canyon Specific Plan EIR was certified. Additionally, wildfire risks due to infrastructure were not evaluated in other sections in the 2006 Crow Canyon Specific Plan EIR. No conclusion was made about the significance level of environmental impacts regarding the installation or maintenance of infrastructure such as roads, fuel breaks, emergency water sources, power lines, or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Infrastructure-related impacts were addressed in the 2006 Crow Canyon Specific Plan EIR in Section K – Utilities and Services, which described the City of San Ramon's existing utility systems and assessed potential environmental effects related to utility services.

Furthermore, the 2006 Crow Canyon Specific Plan EIR discussed the effects the 2006 CCSP would have on the ability of the City of San Ramon and other service providers to deliver services to the Crow Canyon Specific Plan Area and vicinity. To offset any impacts caused by the project, the project would be required to comply with Implementing Policies that were highlighted in the 2006 Crow Canyon Specific Plan EIR, including the following:

- Implementing Policy 3.2-I-3: Require new development to fund public facilities and infrastructure deemed necessary to mitigate the impact of new development.
- Implementing Policy 3.2-I-4: Levy mitigation fees for public facilities and infrastructure improvements proportional to a new developer's impact.

Crow Canyon Specific Plan Update Analysis and Conclusions

The 2006 Crow Canyon Specific Plan EIR contemplated infrastructure such as roads, fuel breaks, emergency water sources, power lines, and other utilities. The project does not propose any land use or policy changes within the planning area that could potentially result in development and land use types not previously contemplated in the 2006 Crow Canyon Specific Plan EIR. The proposed project would result in minor land use changes with new designations MFR and PDR. These designations would not alter development patterns or land use types previously considered in the 2006 Crow Canyon Specific Plan EIR; therefore, impacts would be less than significant.

Compliance with the Implementing Policies 3.2-I-3 and 3.2-I-4 would ensure that services are adequately provided to the site and that the project does not exacerbate any risks related to wildfire. Therefore, impacts would be less than significant.

d) Summary of 2006 Crow Canyon Specific Plan EIR

Wildfire: The 2006 Crow Canyon Specific Plan EIR concluded that the proposed project is located adjacent to open space areas of the Las Trampas Ridge. Due to the proximity of the

Plan Area in relation to open grassy hills there is a potential for portions of the Plan Area to be affected by wildfires. As a result, impacts relating to wildfires would be discussed during the environmental review process of each individual development site. Therefore, impacts due to exposure of people or structures to risk of loss, injury, or death due to wildland fires were determined to be potentially significant.

Flooding: The 2006 Crow Canyon Specific Plan EIR concluded the 2006 CCSP would not place housing within a 100-year flood hazard area as mapped on the federal Flood Hazard Boundary or Insurance Rate Map or other flood hazard delineation map. The plan area is located within FEMA's Flood Zone A (100-year flood zone), which consists of areas immediately lining San Ramon Creek. As shown previously in Exhibit 3, development under the 2006 CCSP did not propose residential uses in areas immediately lining San Ramon Creek. Additionally, the plan area is already urban and mostly developed. New structures would not alter or impede flood flows any more than existing conditions. Therefore, impacts associated with flood risks were determined to be less than significant.

Landslides: The 2006 Crow Canyon Specific Plan EIR concluded that the plan area is generally flat, and the landslide potential was considered low, so landslides were not further evaluated. Impacts related to landslides were determined to be less than significant.

Crow Canyon Specific Plan Update Analysis and Conclusions

The area is not located on a Seismic Hazard Zone for landslides delineated by the CGS. Therefore, the site is not at risk of landslides due to runoff, post-fire slope instability, or drainage changes.

As discussed in Impact Question X(g, h), the San Ramon Zoning Ordinance states no habitable structure shall be located within the CRZ, which is an area located within 100 feet of the centerline of a creek or stream channel.³⁹ Only open space, recreation amenities, and access roads are allowed within the CRZ. Therefore, the proposed project would not place housing within an area that is susceptible to downslope or downstream flooding or landslides due to runoff, post-fire slope instability, or drainage changes. Additionally, the General Plan Implementing Policies 9.4-I-1 through 9.4-I-18 would ensure development within the City of San Ramon is prepared for flood risks and facilities are maintained to minimize flooding.⁴⁰

As discussed in Impact Question IX(h), the proposed additions to the 2006 CCSP include areas within the WUI. Therefore, the potential for wildland fires remains a potentially significant impact. Impacts relating to wildfires would be discussed and evaluated during the environmental review process for individual site development within the plan area. The

³⁹ City of San Ramon. 2018. Zoning Ordinance: D-5-4, pg.-6. Website: https://library.municode.com/ca/san_ramon/codes/code_of_ordinances?nodeId=TITDZO. Accessed December 27, 2019.

⁴⁰ City of San Ramon. 2015. 2035 General Plan, Safety Element. Website: [http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GPG2035%20\(updated%20Map%20as%20of%2011-27-18\).pdf](http://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202017-07-01/2018%20Element%20Updates/FINAL%20ADOPTED%20GPG2035%20(updated%20Map%20as%20of%2011-27-18).pdf). Accessed December 27, 2019.

proposed project would not introduce impacts or create more severe impacts than those analyzed in the 2006 Crow Canyon Specific Plan EIR.

Mitigation Measures

None.

Conclusion

There is no new information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to wildfires. The conclusions from the 2006 Crow Canyon Specific Plan EIR remain unchanged when considering the adoption of the Specific Plan Update.

**Appendix A:
Biological Resources Supporting Information**

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A.1 - CNDDDB Results

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Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad IS (Diablo (3712178) OR Las Trampas Ridge (3712271))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Anomobryum julaceum</i> slender silver moss	NBMUS80010	None	None	G5?	S2	4.2
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Arctostaphylos auriculata</i> Mt. Diablo manzanita	PDERI04040	None	None	G2	S2	1B.3
<i>Arctostaphylos manzanita ssp. laevigata</i> Contra Costa manzanita	PDERI04273	None	None	G5T2	S2	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
<i>Campanula exigua</i> chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
<i>Centromadia parryi ssp. congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Delphinium californicum ssp. interius</i> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
<i>Efferia antiochi</i> Antioch efferian robberfly	IIDIP07010	None	None	G1G2	S1S2	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<i>Eriogonum truncatum</i> Mt. Diablo buckwheat	PDPGN085Z0	None	None	G1	S1	1B.1
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAP10Z130	None	None	G2	S2	1B.2
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	
<i>Hesperolinon breweri</i> Brewer's western flax	PDLIN01030	None	None	G2	S2	1B.2
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Malacothamnus hallii</i> Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Navarretia nigelliformis ssp. radians</i> shining navarretia	PDPLM0C0J2	None	None	G4T2	S2	1B.2
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Phacelia phacelioides</i> Mt. Diablo phacelia	PDHYD0C3Q0	None	None	G2	S2	1B.2
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Streptanthus hispidus</i> Mt. Diablo jewelflower	PDBRA2G0M0	None	None	G2	S2	1B.3
<i>Stuckenia filiformis ssp. alpina</i> slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Triquetrella californica</i> coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 45

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A.2 - CNPS Inventory Results

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*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)


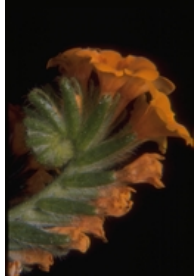


Plant List

53 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 3712271, 3712178, 3712177, 3712167, 3712251 3712158 and 3712157;

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Remove Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Federal Listing Status	Habitats	Lowest Elevation	Highest Elevation	Photo
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	annual herb	Mar-Jun	4.2	S4		<ul style="list-style-type: none"> • Chaparral (often serpentinite) • Cismontane woodland • Coastal scrub 	80 m	1200 m	 <p>2012 Chris Winchell</p>
Amsinckia grandiflora	large-flowered fiddleneck	Boraginaceae	annual herb	(Mar)Apr-May	1B.1	S1	CE FE	<ul style="list-style-type: none"> • Cismontane woodland • Valley and foothill grassland 	270 m	550 m	 <p>J. E. (Jed) and Bonnie McClellan 2007 California Academy of Sciences</p>
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3		<ul style="list-style-type: none"> • Coastal bluff scrub • Cismontane woodland • Valley and foothill grassland 	3 m	500 m	 <p>2011 Neal Kramer</p>
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4		<ul style="list-style-type: none"> • Chaparral • Cismontane woodland • Coastal scrub • Meadows and seeps • Pinyon and juniper woodland • Valley and foothill grassland 	150 m	1305 m	 <p>1998 John Game</p>
Anomobryum julaceum	slender silver moss	Bryaceae	moss		4.2	S2		<ul style="list-style-type: none"> • Broadleafed upland forest • Lower 	100 m	1000 m	no photo available

montane
coniferous
forest
• North
Coast
coniferous
forest

[Arctostaphylos
auriculata](#)

Mt. Diablo
manzanita

Ericaceae

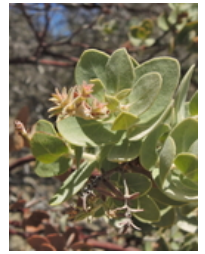
perennial
evergreen
shrub

Jan-Mar

1B.3 S2

• Chaparral
(sandstone)
• Cismontane
woodland

135 m 650 m



2015 John Doyen

[Arctostaphylos
manzanita ssp.
laevigata](#)

Contra Costa
manzanita

Ericaceae

perennial
evergreen
shrub

Jan-Mar(Apr)

1B.2 S2

• Chaparral
(rocky)

430 m 1100 m



2016 Neal Kramer

[Astragalus
tener var. tener](#)

alkali milk-
vetch

Fabaceae

annual herb

Mar-Jun

1B.2 S1

• Playas
• Valley and
foothill
grassland
(adobe clay)
• Vernal
pools

1 m 60 m



1991 Dean Wm. Taylor

[Atriplex
coronata var.
coronata](#)

crownscale

Chenopodiaceae

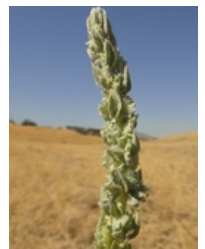
annual herb

Mar-Oct

4.2 S3

• Chenopod
scrub
• Valley and
foothill
grassland
• Vernal
pools

1 m 590 m



2010 Neal Kramer

[Atriplex
depressa](#)

brittlescale

Chenopodiaceae

annual herb

Apr-Oct

1B.2 S2

• Chenopod
scrub
• Meadows
and seeps
• Playas
• Valley and
foothill
grassland
• Vernal
pools

1 m 320 m



2009 Zoya Akulova

[Atriplex
minuscule](#)

lesser
saltscale

Chenopodiaceae

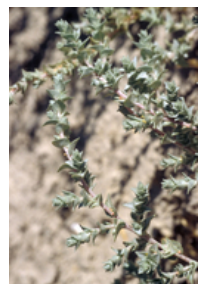
annual herb

May-Oct

1B.1 S2

• Chenopod
scrub
• Playas
• Valley and
foothill
grassland

15 m 200 m



2000 Robert E.
Preston, Ph.D.

[Balsamorhiza
macrolepis](#)

big-scale
balsamroot

Asteraceae

perennial herb

Mar-Jun

1B.2 S2

• Chaparral
• Cismontane
woodland
• Valley and
foothill
grassland

45 m 1555 m

[Calochortus pulchellus](#)

Mt. Diablo fairy-lantern

Liliaceae

perennial bulbiferous herb

Apr-Jun

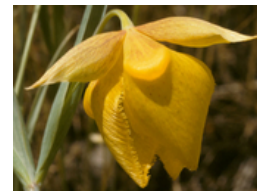
1B.2 S2

• Chaparral
• Cismontane woodland
• Riparian woodland
• Valley and foothill grassland

30 m 840 m



1998 Dean Wm. Taylor



1981 Steve Lowens

[Calochortus umbellatus](#)

Oakland star-tulip

Liliaceae

perennial bulbiferous herb

Mar-May

4.2 S3?

• Broadleaved upland forest
• Chaparral
• Cismontane woodland
• Lower montane coniferous forest
• Valley and foothill grassland

100 m 700 m



2013 Christopher Gurney

[Campanula exigua](#)

chaparral harebell

Campanulaceae

annual herb

May-Jun

1B.2 S2

• Chaparral (rocky, usually serpentinite)

275 m 1250 m



2009 Vernon Smith

[Centromadia parryi ssp. congdonii](#)

Congdon's tarplant

Asteraceae

annual herb

May-Oct(Nov)

1B.1 S1S2

• Valley and foothill grassland (alkaline)

0 m 230 m



2011 Neal Kramer

[Chloropyron palmatum](#)

palmate-bracted bird's-beak

Orobanchaceae

annual herb (hemiparasitic)

May-Oct

1B.1 S1

CE FE

• Chenopod scrub
• Valley and foothill grassland

5 m 155 m



2007 John Game

[Clarkia concinna ssp. automixa](#)

Santa Clara red ribbons

Onagraceae

annual herb

(Apr)May-Jun(Jul)

4.3 S3

• Chaparral
• Cismontane woodland

90 m 1500 m



2004 Janell Hillman

[Delphinium californicum ssp. interius](#)

Hospital Canyon larkspur

Ranunculaceae

perennial herb

Apr-Jun

1B.2 S3


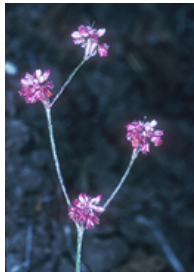



• Chaparral (openings)
• Cismontane woodland (mesic)
• Coastal scrub

195 m 1095 m



2004 Keir Morse

western Thymelaeaceae perennial Jan-Mar(Apr) 1B.2 S2 • 25 m 425 m

Dirca occidentalis	leatherwood		deciduous shrub							<ul style="list-style-type: none"> Broadleaved upland forest • Closed-cone coniferous forest • Chaparral • Cismontane woodland • North Coast coniferous forest • Riparian forest • Riparian woodland 		2004 David A. Tharp	
Eriogonum truncatum	Mt. Diablo buckwheat	Polygonaceae	annual herb	Apr-Sep(Nov-Dec)	1B.1	S1			3 m	350 m	<ul style="list-style-type: none"> • Chaparral • Coastal scrub • Valley and foothill grassland 		2005 John Game
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	4.3	S3			200 m	1025 m	<ul style="list-style-type: none"> • Chaparral • Cismontane woodland • Coastal scrub 		no photo available
Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	annual / perennial herb	(Jun)Jul(Aug)	1B.1	S1			3 m	45 m	<ul style="list-style-type: none"> • Vernal pools 		2010 Chris Winchell
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?			3 m	300 m	<ul style="list-style-type: none"> • Valley and foothill grassland • Vernal pools • Chenopod scrub • Meadows and seeps • Playas • Valley and foothill grassland 		no photo available
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2			1 m	835 m	<ul style="list-style-type: none"> • Chaparral • Cismontane woodland • Pinyon and juniper woodland • Valley and foothill grassland 		no photo available
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	4.2	S3			10 m	1555 m	<ul style="list-style-type: none"> • Cismontane woodland • Pinyon and juniper woodland • Valley and foothill grassland 		1998 John Game
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2			3 m	410 m	<ul style="list-style-type: none"> • Cismontane woodland • Coastal prairie • Coastal scrub • Valley and foothill grassland 		2009 Shawn DeCew
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	1B.2	S2			60 m	1300 m	<ul style="list-style-type: none"> • Broadleaved upland forest • Chaparral • Cismontane 		

woodland
 • Coastal scrub
 • Riparian woodland
 • Valley and foothill grassland



2007 Erin McDermott

[Hesperolinon breweri](#)

Brewer's western flax

Linaceae

annual herb

May-Jul

1B.2 S2

• Chaparral
 • Cismontane woodland
 • Valley and foothill grassland

30 m

945 m



2007 Aaron Schusteff

[Iris longipetala](#)

coast iris

Iridaceae

perennial rhizomatous herb

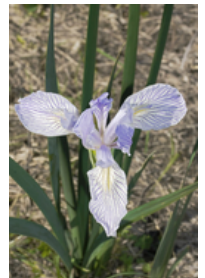
Mar-May

4.2 S3

• Coastal prairie
 • Lower montane coniferous forest
 • Meadows and seeps

0 m

600 m



2014 Aaron Schusteff

[Juglans hindsii](#)

Northern California black walnut

Juglandaceae

perennial deciduous tree

Apr-May

1B.1 S1

• Riparian forest
 • Riparian woodland

0 m

440 m



2012 Neal Kramer

[Lasthenia conjugens](#)

Contra Costa goldfields

Asteraceae

annual herb

Mar-Jun

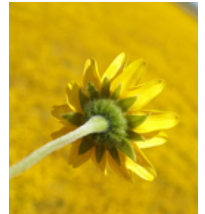
1B.1 S1

FE

• Cismontane woodland
 • Playas (alkaline)
 • Valley and foothill grassland
 • Vernal pools

0 m

470 m



2009 Zoya Akulova

[Leptosiphon acicularis](#)

bristly leptosiphon

Polemoniaceae

annual herb

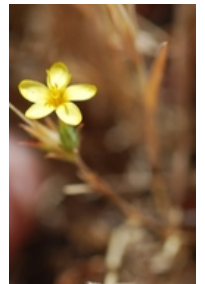
Apr-Jul

4.2 S4?

• Chaparral
 • Cismontane woodland
 • Coastal prairie
 • Valley and foothill grassland

55 m

1500 m



2009 Genevieve K. Walden

[Leptosiphon ambiguus](#)

serpentine leptosiphon

Polemoniaceae

annual herb

Mar-Jun

4.2 S4

• Cismontane woodland
 • Coastal scrub
 • Valley and foothill grassland

120 m

1130 m



2010 Neal Kramer

[Malacothamnus hallii](#) Hall's bush-mallow Malvaceae perennial evergreen shrub (Apr)May-Sep(Oct) 1B.2 S2 • Chaparral • Coastal scrub 10 m 760 m



2012 Aaron Arthur

[Monardella antonina ssp. antonina](#) San Antonio Hills monardella Lamiaceae perennial rhizomatous herb Jun-Aug 3 S1S3 • Chaparral • Cismontane woodland 320 m 1000 m



2007 Neal Kramer

[Monolopia gracilens](#) woodland woollythreads Asteraceae annual herb (Feb)Mar-Jul 1B.2 S3 • Broadleaved upland forest (openings) • Chaparral (openings) • Cismontane woodland • North Coast coniferous forest (openings) • Valley and foothill grassland 100 m 1200 m



2009 Vernon Smith

[Navarretia nigelliformis ssp. radians](#) shining navarretia Polemoniaceae annual herb (Mar)Apr-Jul 1B.2 S2 • Cismontane woodland • Valley and foothill grassland • Vernal pools 65 m 1000 m



2008 Steve Matson

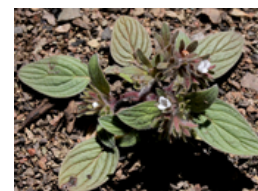
[Navarretia paradoxiclara](#) Patterson's navarretia Polemoniaceae annual herb May-Jun(Jul) 1B.3 S2 • Meadows and seeps 150 m 430 m no photo available

[Navarretia prostrata](#) prostrate vernal pool navarretia Polemoniaceae annual herb Apr-Jul 1B.1 S2 • Coastal scrub • Meadows and seeps • Valley and foothill grassland (alkaline) • Vernal pools 3 m 1210 m



2007 Janell Hillman

[Phacelia phacelioides](#) Mt. Diablo phacelia Hydrophyllaceae annual herb Apr-May 1B.2 S2 • Chaparral • Cismontane woodland 500 m 1370 m








2011 Vernon Smith

[Plagiobothrys glaber](#) hairless popcornflower Boraginaceae annual herb Mar-May 1A SH • Meadows and seeps (alkaline) • Marshes and swamps (coastal salt) 15 m 180 m



2011 Steve Matson

[Puccinellia simplex](#) California alkali grass Poaceae annual herb Mar-May 1B.2 S2 • Chenopod scrub • Meadows 2 m 930 m no photo available

<u>Ranunculus lobbii</u>	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	S3		<ul style="list-style-type: none"> and seeps • Valley and foothill grassland • Vernal pools • Cismontane woodland • North Coast coniferous forest • Valley and foothill grassland • Vernal pools 	15 m	470 m		2008 Jorg Fleige
<u>Sanicula saxatilis</u>	rock sanicle	Apiaceae	perennial herb	Apr-May	1B.2	S2	CR	<ul style="list-style-type: none"> Broadleaved upland forest • Chaparral • Valley and foothill grassland 	620 m	1175 m		no photo available
<u>Senecio aphanactis</u>	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2		<ul style="list-style-type: none"> • Chaparral • Cismontane woodland • Coastal scrub 	15 m	800 m		2010 Neal Kramer
<u>Spergularia macrotheca var. longistyla</u>	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May(Jun)	1B.2	S2		<ul style="list-style-type: none"> • Meadows and seeps • Marshes and swamps 	0 m	255 m		no photo available
<u>Streptanthus albidus ssp. peramoenus</u>	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2	S2		<ul style="list-style-type: none"> • Chaparral • Cismontane woodland • Valley and foothill grassland 	95 m	1000 m		1994 Robert E. Preston, Ph
<u>Streptanthus hispidus</u>	Mt. Diablo jewelflower	Brassicaceae	annual herb	Mar-Jun	1B.3	S2		<ul style="list-style-type: none"> • Chaparral • Valley and foothill grassland 	365 m	1200 m		2010 Rebecca Wenk
<u>Stuckenia filiformis ssp. alpina</u>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3		<ul style="list-style-type: none"> • Marshes and swamps (assorted shallow freshwater) 	300 m	2150 m		no photo available
<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2		<ul style="list-style-type: none"> • Marshes and swamps • Valley and foothill grassland (mesic, alkaline) • Vernal pools 	0 m	300 m		2005 Aaron Schusteff
<u>Triquetrella californica</u>	coastal triquetrella	Pottiaceae	moss		1B.2	S2		<ul style="list-style-type: none"> • Coastal bluff scrub • Coastal scrub 	10 m	100 m		no photo available

[Viburnum
ellipticum](#)oval-leaved
viburnum

Adoxaceae

perennial
deciduous
shrub

May-Jun

2B.3 S3?

- Chaparral 215 m 1400 m
- Cismontane woodland
- Lower montane coniferous forest



2006 Tom Engstrom

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 27 December 2019].

Search the Inventory[Simple Search](#)[Advanced Search](#)[Glossary](#)**Information**[About the Inventory](#)[About the Rare Plant Program](#)[CNPS Home Page](#)[About CNPS](#)[Join CNPS](#)**Contributors**[The Calflora Database](#)[The California Lichen Society](#)[California Natural Diversity Database](#)[The Jepson Flora Project](#)[The Consortium of California Herbaria](#)[CalPhotos](#)**Questions and Comments**rareplants@cnps.org

Appendix B: Cultural Supporting Information

Appendix B contains sensitive information pertaining to cultural resources and has been withheld from public distribution pursuant to Public Resources Code, Sections 5097.9 and 5097.993.

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**Appendix C:
Noise**

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Project Number: ~~2491~~ 2491.0027
 Project Name: Crow Canyon Specific Plan
 Test Personnel: Spencer P.

Sheet ___ of ___

Noise Measurement Survey

Site Number: ST-1 Date: 1/23/2020 Time: From 12:22 pm To 12:42 pm

Site Location: Parking lot between Redwood International School and Agape Presbyterian Church about 50 feet to the eastern wall; 20 feet to childrens playground

Primary Noise Sources: Highway auto traffic and automobile noise on Old Crow Canyon Road

Measurement Results

	dBA
Leq	54.6
Lmax	63.5
Lmin	51.1
L5	52.6
L10	50.4
L50	53.9
L90	52.2
Ldn	-
CNEL	-

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: _____

Equipment: LXT-1
 Settings: A-Weighted Other

Measured Difference: -0.04 dBA
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
3.1	1.2	60.3	
Comments: <u>Partly Cloudy, light wind</u>			

Project Number: 2491.0027
 Project Name: Crow Canyon Specific Plan
 Test Personnel: Spencer P.

Sheet ___ of ___

Noise Measurement Survey

Site Number: ST-2 Date: 1/23/2020 Time: From 12:53 pm To 1:13 pm

Site Location:
NW corner of Old Crow Canyon Road / Deerwood Road

Primary Noise Sources: Dogs barking at Woolf Daycare, cars and large trucks on adjacent roadways

Measurement Results

	dBA
Leq	64.7
Lmax	81.0
Lmin	51.5
L5	69.5
L10	67.9
L50	62.2
L90	57.8
Ldn	
CNEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: Inconsistent dog barking near noise device occurred throughout 20 minute monitoring

Equipment: LXT-1
 Settings: A-Weighted Other

Measured Difference: -0.04 dBA
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
3.1	1.2	60.3	
Comments: <u>Partly Cloudy, Light winds</u>			

Project Number: 2491.0027
 Project Name: Crow Canyon Specific Plan
 Test Personnel: Spencer P.

Sheet ___ of ___

Noise Measurement Survey

Site Number: ST-3 Date: 1/23/2020 Time: From 1:30pm To 1:50pm

Site Location:
20 feet to Omega Road between Beta Court and Deerwood Road, across the street from Morgan's Masonry Supply @ 2233 San Ramon Valley Blvd

Primary Noise Sources: Cars and trucks on Omega Road

Measurement Results

	dB(A)
Leq	59.5
Lmax	74.7
Lmin	52.0
L5	65.0
L10	62.9
L50	56.0
L90	53.8
Ldn	
CNEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dB(A)

Comments: _____

Equipment: _____
 Settings: A-Weighted Other _____

Measured Difference: -0.04 dB(A)
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
3.1	1.2	60.3		
Comments: <u>Partly Cloudy, Light Winds</u>				

Summary

Filename LxT_Data.122
 Serial Number 4397
 Model SoundTrack LxT®
 Firmware Version 2.301
 User
 Location
 Job Description
 Note
 Measurement Description
 Start 2020/01/23 14:06:58
 Stop 2020/01/24 14:41:39
 Duration 1 Day 00:34:41.0
 Run Time 1 Day 00:34:41.0
 Pause 0:00:00.0

Pre Calibration 2020/01/23 14:05:24
 Post Calibration None
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
 Peak Weight A Weighting
 Detector Slow
 Preamp PRMLxT2B
 Microphone Correction Off
 Integration Method Exponential
 Overload 145.7 dB

	A	C	Z
Under Range Peak	101.9	98.9	103.9 dB
Under Range Limit	37.9	35.9	43.9 dB
Noise Floor	25.2	25.7	33.1 dB

Results

LASeq 56.6 dB
 LASe 106.1 dB
 EAS 4.479 mPa²h
 EAS8 1.458 mPa²h
 EAS40 7.290 mPa²h
 LApeak (max) 2020/01/23 14:07:17 109.5 dB
 LASmax 2020/01/24 10:27:24 81.2 dB
 LASmin 2020/01/24 0:49:27 35.1 dB
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Community Noise	58.4		58.3	48.5 58.5	59.1	50.0	48.5
LCSeq	62.9 dB						
LASeq	56.6 dB						
LCSeq - LASeq	6.3 dB						
LAleq	57.9 dB						
LAeq	56.6 dB						
LAleq - LAeq	1.3 dB						
# Overloads	0						
Overload Duration	0.0 s						

Dose Settings

	OSHA-1	OSHA-2
Dose Name		
Exch. Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose -99.9 0.02 %
 Projected Dose -99.9 0.01 %
 TWA (Projected) -99.9 21.1 dB
 TWA (t) -99.9 29.2 dB
 Lep (t) 61.5 61.5 dB

Statistics

LAS5.00 57.1 dB
 LAS10.00 53.9 dB
 LAS33.30 49.6 dB
 LAS50.00 47.9 dB
 LAS66.60 46.3 dB
 LAS90.00 43.0 dB

TABLE Existing (2020)-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: San Ramon Valley Boulevard - Hooper Drive to Purdue Road

NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	67.3	137.6	292.7

TABLE Existing (2020)-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020
ROADWAY SEGMENT: San Ramon Valley Boulevard - Purdue Road to Deerwood Road
NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16200 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	71.8	147.8	315.1

TABLE Existing (2020)-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020
ROADWAY SEGMENT: San Ramon Valley Boulevard - Deerwood Road to Crow Canyon Road
NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17300 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	74.7	154.2	329.1

TABLE Existing (2020)-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Crow Canyon Road - Old Crow Canyon Road to Twin Creeks Drive

NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
64.5	120.8	250.9	536.0

TABLE Existing (2020)-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020
ROADWAY SEGMENT: Crow Canyon Road - Twin Creeks Drive to San Ramon Boulevard
NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26900 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
65.5	123.3	256.5	548.3

TABLE Existing (2020)-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Old Crow Canyon Road - Deerwood Road to Crow Canyon Road

NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4500 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	104.9

TABLE Existing (2020)-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Deerwood Road - Old Crow Canyon Road to San Ramon Valley Boulevard

NOTES: Crow Canyon Specific Plan Update - Existing (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	61.8	125.0	265.4

TABLE Existing Plus Project (2020)-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: San Ramon Valley Boulevard - Hooper Drive to Purdue Road

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14900 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	68.4	140.0	298.1

TABLE Existing Plus Project (2020)-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: San Ramon Valley Boulevard - Purdue Road to Deerwood Road

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	72.6	149.6	318.9

TABLE Existing Plus Project (2020)-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: San Ramon Valley Boulevard - Deerwood Road to Crow Canyon Road

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18400 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	77.5	160.6	342.8

TABLE Existing Plus Project (2020)-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Crow Canyon Road - Old Crow Canyon Road to Twin Creeks Drive

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26100 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
64.6	121.0	251.5	537.4

TABLE Existing Plus Project (2020)-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Crow Canyon Road - Twin Creeks Drive to San Ramon
Boulevard

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
65.6	123.6	257.2	549.6

TABLE Existing Plus Project (2020)-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Old Crow Canyon Road - Deerwood Road to Crow Canyon Road

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5000 SPEED (MPH): 30 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	52.5	112.5

TABLE Existing Plus Project (2020)-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/21/2020

ROADWAY SEGMENT: Deerwood Road - Old Crow Canyon Road to San Ramon Valley Boulevard

NOTES: Crow Canyon Specific Plan Update - Existing Plus Project (2020)

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	64.6	131.4	279.2

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**Appendix D:
Traffic Impact Analysis**

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TRANSPORTATION IMPACT ANALYSIS

Crow Canyon Specific Plan Update

PREPARED FOR:
CITY OF SAN RAMON



MAY 15, 2020 | FINAL

Prepared By:

Kimley»»Horn

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EXECUTIVE SUMMARY

This report presents the results of the transportation impact analysis (TIA) analyzing the potential transportation impacts related to a preferred alternative update to the Crow Canyon Specific Plan (CCSP). For the current update, the preferred alternative proposes changes in intensity and distribution to the residential, retail, and hotel land uses. In addition, the preferred alternative proposes expanding the planning area and creating a new land use designation. These changes result in a net decrease in residential of 101 dwelling units, a reduction in retail of 153,854 square feet, the addition of a 90-room hotel, and the integration of Ryan Industrial Court.

This traffic study was prepared to determine potential impacts related to the Project based on standards and methodologies set forth by the City of San Ramon and Contra Costa Transportation Authority (CCTA). This study includes evaluations during the AM and PM peak hour traffic conditions for seven (7) intersections.

PROJECT TRIP ESTIMATES

Institute of Transportation Engineer's (ITE) publication, *Trip Generation Manual, 10th Edition* was used in estimating trip generation for the 2006 specific plan, as well as the new plan with the update. For the entire 2006 CCSP, including existing uses to remain, the area is estimated to generate 41,050 daily trips, 1,203 AM peak hour trips, and 4,035 PM peak hour trips. For the entire updated CCSP, including existing uses to remain, the area is estimated to generate 37,047 daily trips, 1,123 AM peak hour trips, and 3,615 PM peak hour trips. The current CCSP update results in 4,003 fewer daily trips, 80 fewer AM peak hour trips, and 420 fewer PM peak hour trips.

PROJECT IMPACTS AND RECOMMENDED MITIGATION

Project impacts were determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts for unsignalized and signalized intersections are created when traffic from the proposed project causes the level of service (LOS) to fall below a specific threshold. As shown in **Table E1** there are no significant impacts associated with the specific plan update.

Starting on July 1, 2020, under SB 743, projects will be required to study impacts related to vehicle miles traveled (VMT). However, the City does not yet have a defined VMT methodology or VMT thresholds to determine potential VMT impacts. Through the scoping phase of this project, it was anticipated that this project would be completed prior to July 1, 2020 and therefore no VMT impacts are analyzed.

Table E1 – Summary of Project Impact and Mitigation

Impact Type	Level of Significant Impact Before Mitigation	Mitigation Measures	Level of Significant Impact After Mitigation
Intersection Level of Service	Less than Significant	No mitigation required	Less than Significant

1. INTRODUCTION

This report presents the results of the transportation impact analysis (TIA) analyzing the potential transportation impacts related to an amendment to the Crow Canyon Specific Plan (CCSP) that was last approved in 2006. For the current update, the preferred alternative proposes changes in intensity and distribution to the residential, retail, and hotel land uses. In addition, the preferred alternative proposes expanding the planning area and creating a new land use designation. Specifically, the following changes are proposed:

- Residential: Reduction from 735 units to 634 units
- Retail: Reduction from 1,260,000 square feet to 1,106,146 square feet
- Hotel: A new 90-room hotel is approved on the northwest corner of Deerwood Road/Omega Road
- Expand the Planning Area to include Ryan Industrial Court to the southwest
- Create a new land use designation: Production-Distribution-Repair (PDR)

In addition, the following changes have occurred in the City of San Ramon, within the Plan Area:

- Elimination of the Twin Creeks Drive extension from Old Crow Canyon Road to Crow Canyon Road

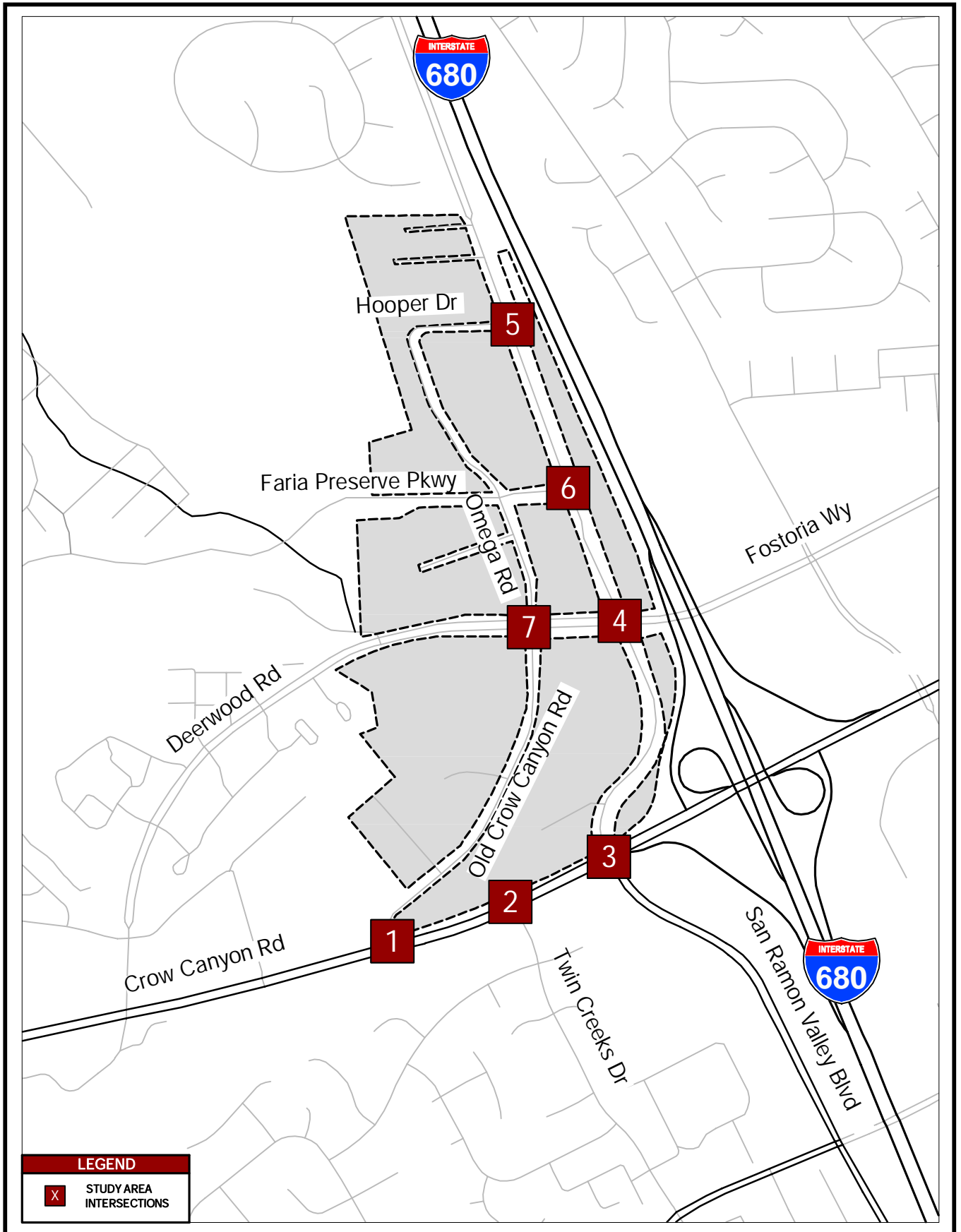
This traffic study was prepared to determine potential impacts related to the Project based on standards and methodologies set forth by the City of San Ramon (City) and Contra Costa Transportation Authority (CCTA). This study includes evaluations during the AM and PM peak hour traffic conditions for seven (7) intersections.

STUDY AREA

The Project will redistribute vehicular trips along Crow Canyon Road, San Ramon Valley Boulevard, and roadways internal to the study area. To assess changes in traffic conditions associated with the proposed project, the following intersections in **Table 1** were evaluated. Study intersections were selected based on locations of anticipated change in volume due to the proposed Project and approved by the City. **Figure 1** illustrates the intersection locations and study area of the proposed project.

Table 1 - Study Intersections

#	Intersection
1	Crow Canyon Road/Old Crow Canyon Road
2	Crow Canyon Road/Twin Creeks Drive
3	Crow Canyon Road/San Ramon Valley Boulevard
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard
5	Hooper Drive/San Ramon Valley Boulevard
6	Faria Preserve Parkway/San Ramon Valley Boulevard
7	Deerwood Road/Old Crow Canyon Road/Omega Road



TRAFFIC CONDITIONS

This TIA evaluates the following traffic scenarios:

- 1) **Existing** - Based on existing counts collected on January 14, 2020.
- 2) **Existing plus Project** - Based on existing counts plus traffic generated by the project. Project traffic was manually added to the count generated volumes.
- 3) **Cumulative (General Plan Buildout)** - Based on Cumulative traffic volumes derived from the CCTA travel demand forecast model for the General Plan buildout year.
- 4) **Cumulative plus Project** - Based on Cumulative conditions plus traffic generated by the project. Project traffic will be manually added to the count generated volumes.

STUDY METHODOLOGY

Analysis of significant environmental impacts at intersections and freeway segments was based on the methodology of level of service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

INTERSECTION LEVEL OF SERVICE

The *Highway Capacity Manual, 2000* (HCM 2000) includes procedures for analyzing intersections, which defines LOS as a function of average control delay for an overall signalized or all way stop-controlled intersection or the worst approach for a side street stop-controlled intersection. **Table 2** relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections. Highway Capacity Manual (HCM) methodologies within Traffix software were used to determine levels of service (LOS) at the study intersections.

Table 2 - Intersection Level of Service Definitions

Level of Service	Description	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	delay ≤ 10.0	delay ≤ 10.0
B	Stable traffic. Traffic flows smoothly with few delays.	10.0 < delay ≤ 20.0	10.0 < delay ≤ 15.0
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	20.0 < delay ≤ 35.0	15.0 < delay ≤ 25.0
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	35.0 < delay ≤ 55.0	25.0 < delay ≤ 35.0
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	55.0 < delay ≤ 80.0	35.0 < delay ≤ 50.0
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	delay > 80	delay > 50

Source: Transportation Research Board, *Highway Capacity Manual 2000*

MULTIMODAL TRANSPORTATION SERVICE OBJECTIVE (MTSO)

CCTA has defined standards on routes of regional significance called Multimodal Transportation Service Objectives (MTSOs). MTSOs are specific to each region within Contra Costa County and regulate the routes of regional significance. The study area falls within the Tri-Valley Transportation Council (TVTC) jurisdiction and MTSOs were evaluated based on criteria outlined in the *Tri-Valley Transportation and Action Plan for Routes of Regional Significance*. The only MTSO defined by the action plan within the study area is a target to maintain LOS E or better at intersections along routes of regional significance. However, the action plan stipulates that if a threshold exists in a specific plan, the specific plan threshold shall govern. Therefore, this study uses thresholds of significance defined by the City of San Ramon. No specific MTSO for transit ridership or pedestrian and bicycle transportation is identified but the existing and proposed facilities are discussed for informational purposes.

THRESHOLDS OF SIGNIFICANCE

Project impacts were determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts are created when traffic from the proposed project causes the LOS to fall below a specific threshold.

CITY OF SAN RAMON

Impacts to City of San Ramon intersections will be considered significant if the project would result in any of the following:

- For signalized intersections:
 - A signalized intersection degrades from an acceptable LOS (i.e. LOS D or better) without the project to an unacceptable LOS (i.e. LOS E or LOS F).
 - The project increases the average delay by more than 5.0 seconds per vehicle at an intersection having an unacceptable LOS without project traffic added.
- For all-way stop control (AWSC) intersections:
 - The project causes the level of service for the intersection to worsen from an acceptable LOS to an unacceptable LOS.
 - The project increases the average delay by more than 5.0 seconds per vehicle at an intersection having an unacceptable LOS without project traffic added and the intersection meets the peak hour volume signal warrant.
- For side-street stop control (SSSC) intersections:
 - The project causes a turning movement to worsen from an acceptable LOS to an unacceptable LOS and the intersection meets the peak hour volume signal warrant.

Impacts to transit, bicycle, or pedestrian facilities could be identified if the project conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities; specifically:

- A pedestrian impact is considered significant if it would:
 - Disrupt existing pedestrian facilities; or
 - Interfere with planned pedestrian facilities; or
 - Create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.
- A bicycle impact is considered significant if it would:

- Disrupt existing bicycle facilities; or
- Interfere with planned bicycle facilities; or
- Create inconsistencies with adopted bicycle system plans, guidelines, policies, or standards; or
- Not provide secure and safe bicycle parking in adequate proportion to anticipated demand.
- A transit impact is considered significant if it would result in development that is inaccessible to transit riders or would generate transit demand that cannot be met by existing or planned transit in the area.

Transportation related impacts could also be identified if the project:

- substantially increases traffic hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses; or
- results in inadequate emergency access.

Starting on July 1, 2020, under SB 743, projects will be required to study impacts related to vehicle miles traveled (VMT). However, the City does not yet have a defined VMT methodology or VMT thresholds to determine potential VMT impacts. Through the scoping phase of this project, it was anticipated that this project would be completed prior to July 1, 2020 and therefore no VMT impacts are analyzed.

REPORT ORGANIZATION

The remainder of the report is divided into the following chapters:

- Chapter 2: Existing Conditions – describes existing conditions on the roadway network, transit system, pedestrian facilities, and bicycle facilities.
- Chapter 3: Existing Plus Project Conditions – describes the proposed project, trip generation, and estimated impact on the transportation system under Existing Plus Project Conditions.
- Chapter 4: Cumulative (2040) Traffic Conditions – describes the traffic conditions under Cumulative Conditions with and without the proposed project.
- Chapter 5: Multimodal Transportation Service Objectives (MTSOs) – describes results of MTSOs analysis conducted for County’s routes of regional significance
- Chapter 6: Summary of Impacts and Recommended Mitigations – summarizes potential impacts of the proposed project and mitigations, if necessary.

2. EXISTING CONDITIONS

This chapter describes the existing conditions of the roadway network, transit service, pedestrian facilities, and bicycle facilities within the vicinity of the project site. The chapter also presents existing turning movement volumes and intersection levels of service.

EXISTING ROADWAY NETWORK

This section provides a description of the specific roadways included in the study area.

CROW CANYON ROAD

Crow Canyon Road is an east-west arterial roadway within the study area that connects to the community of Blackhawk to the east and the unincorporated city of Castro Valley to the west. In the vicinity of the proposed project, it is a six-lane divided roadway with a posted speed limit of 45 mph west of Old Crow Canyon Road, and 40 mph east of Old Crow Canyon Road. No on-street parking is permitted on either side of the street. Crow Canyon Road is identified as a route of regional significance.

SAN RAMON VALLEY BOULEVARD

This is a north-south arterial roadway that is parallel to I-680 along its westerly side. It extends from Danville on the north through San Ramon and Dublin, eventually connecting with I-580. San Ramon Valley Boulevard has two vehicular traffic lanes and a bike lane in each of the northbound and southbound directions. It provides a combination of raised medians, two-way left turn lanes, and striped left turn bays. There is minimal access management on San Ramon Valley Boulevard due to the need to serve multiple closely spaced driveways and intersections. Only a few of the driveways served by San Ramon Valley Boulevard have restricted movements. The posted speed limit within the study area on this arterial roadway is 35 miles per hour, which increases to 40 miles per hour to the north outside of the City limits and increases to 45 miles per hour south of the study area. San Ramon Valley Boulevard is identified as a route of regional significance.

COLLECTOR STREETS

There are several collector roadways that serve the area. Collector roadways are used to travel within and between neighborhoods. These roadways collect traffic from local streets and route it to arterials. The designated collector roadways in the Crow Canyon Specific Plan area include Hooper Drive, Omega Road and Twin Creeks Drive, which are two-lane roadways with posted speed limits of 25 miles per hour in the study area. In the Specific Plan area Deerwood Road is a four-lane collector with bike lanes and a 40 miles per hour posted speed limit. Old Crow Canyon Road functions as a north-south collector in the South-of-Creek Specific Plan Area with one travel lane in each direction and a posted speed limit of 30 miles per hour.

EXISTING TRANSIT FACILITIES

County Connection (operated by the Contra Costa County Transit Authority) provides transit services within San Ramon and other cities in Contra Costa County and the Tri-Valley area. The existing transit services within the study area are described in this section. **Table 3** provides a summary of the existing transit service in the study area.

COUNTY CONNECTION BUS SERVICES

County Connection provides bus service in San Ramon and neighboring cities. The following routes described in this section provide service within the vicinity of the specific plan area.

Route 21 is a local bus service that operates between the Walnut Creek BART Station and the San Ramon Transit Center. It operates during the weekdays between 5:30 AM to 11:20 PM on 30- to 60-minute headways. In the vicinity of the specific plan area, Route 21 runs on San Ramon Valley Boulevard with bus stops located at Fostoria Way, Faria Preserve Parkway, and Hooper Drive. Route 21 does not operate on weekends.

Route 35 is a limited service bus route that operates between the San Ramon Transit Center and the Dublin/Pleasanton Bart Station with select trips on Bollinger Canyon Road and Crow Canyon Road. It operates during the weekdays between 6:00 AM to 8:17 PM in 30- to 60-minute headways and does not operate on weekends. In the vicinity of the specific plan area, Route 35 runs on Crow Canyon Road with bus stops located at Old Crow Canyon Road, Twin Creeks Drive and San Ramon Valley Boulevard.

Route 321 is a local bus route that operates between the Walnut Creek BART Station and the San Ramon Transit Center. It operates on weekends from 7:20 AM to 10:29 PM with approximately 25-minute headways during the AM peak period and with 60- to 120-minute headways during the remaining periods. In the vicinity of the specific plan area, Route 321 runs along San Ramon Valley Boulevard with bus stop located at the Fostoria Way, Faria Preserve Parkway, and Hooper Drive.

Table 3 - Existing Transit Service

Route	From	To	Weekdays			Weekends	
			Operating Hours ¹	Headway ² (minutes)		Operating Hours ¹	Headway ² (minutes)
				Peak	Off-Peak		
County Connection							
21	Walnut Creek BART Station	San Ramon Transit Center	5:30 AM to 11:20 PM	30	60	No weekend service	-
35	San Ramon Transit Center	Dublin/Pleasanton BART Station	6:00 AM to 8:15PM	30	60	No weekend service	-
321	Walnut Creek BART Station	San Ramon Transit Center	No weekday service	-	-	7:20 AM to 10:30 PM	25-120
Notes:							
¹ Operating Hours rounded to the nearest 5 minutes for weekdays and weekends.							
² Headways are defined as the time between transit vehicles on the same route. Listed headways are the modes of the headways and rounded to the nearest 5 minutes.							

EXISTING PEDESTRIAN FACILITIES

As described in the 2006 CCSP, within the study area pedestrians are served by sidewalks that are located on arterials, collectors, and local streets which are built to City standards for pedestrian facilities. Pedestrian call buttons, ADA compliant ramps, and marked crosswalks are provided at each leg of signalized intersections within the study area. Although there is no stop control on San Ramon Valley Boulevard at Faria Preserve Parkway and Hooper Road, there are marked crosswalks across San Ramon Valley Boulevard at these two intersections, in addition to marked crosswalks and ramps on the stop-controlled legs. A sidewalk gap exists on the west side of Old Crow Canyon Road just south of Deerwood Road.

EXISTING BICYCLE FACILITIES

Figure 2 shows existing bicycle facilities within and surrounding the study area. San Ramon Valley Boulevard and Deerwood Road currently provide Class II bike lanes within the specific plan area.

In April 2018, the City approved the *City of San Ramon Bicycle Master Plan* which includes strategies to improve safety and access, as well as to encourage bicycling throughout the City. The plan proposes to add new bicycle facilities and modify some existing bicycle facilities throughout the City. According to the bicycle master plan, **Figure 3** shows the proposed bicycle facilities within the study area.

EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL

Existing intersection lane configuration and traffic controls are illustrated in **Figure 4**.

EXISTING PEAK-HOUR TURNING MOVEMENT VOLUMES

Weekday intersection turning movement volumes for study intersections were collected on Tuesday January 14, 2020 during the AM (7:00-9:00 AM) peak period and PM (4:00-6:00 PM) peak period, while local schools were in session and outside of inclement weather. Peak hour turning movement volumes are shown in **Figure 5**. Turning movement count sheets are included in the **Appendix**.

EXISTING INTERSECTION LEVEL OF SERVICE

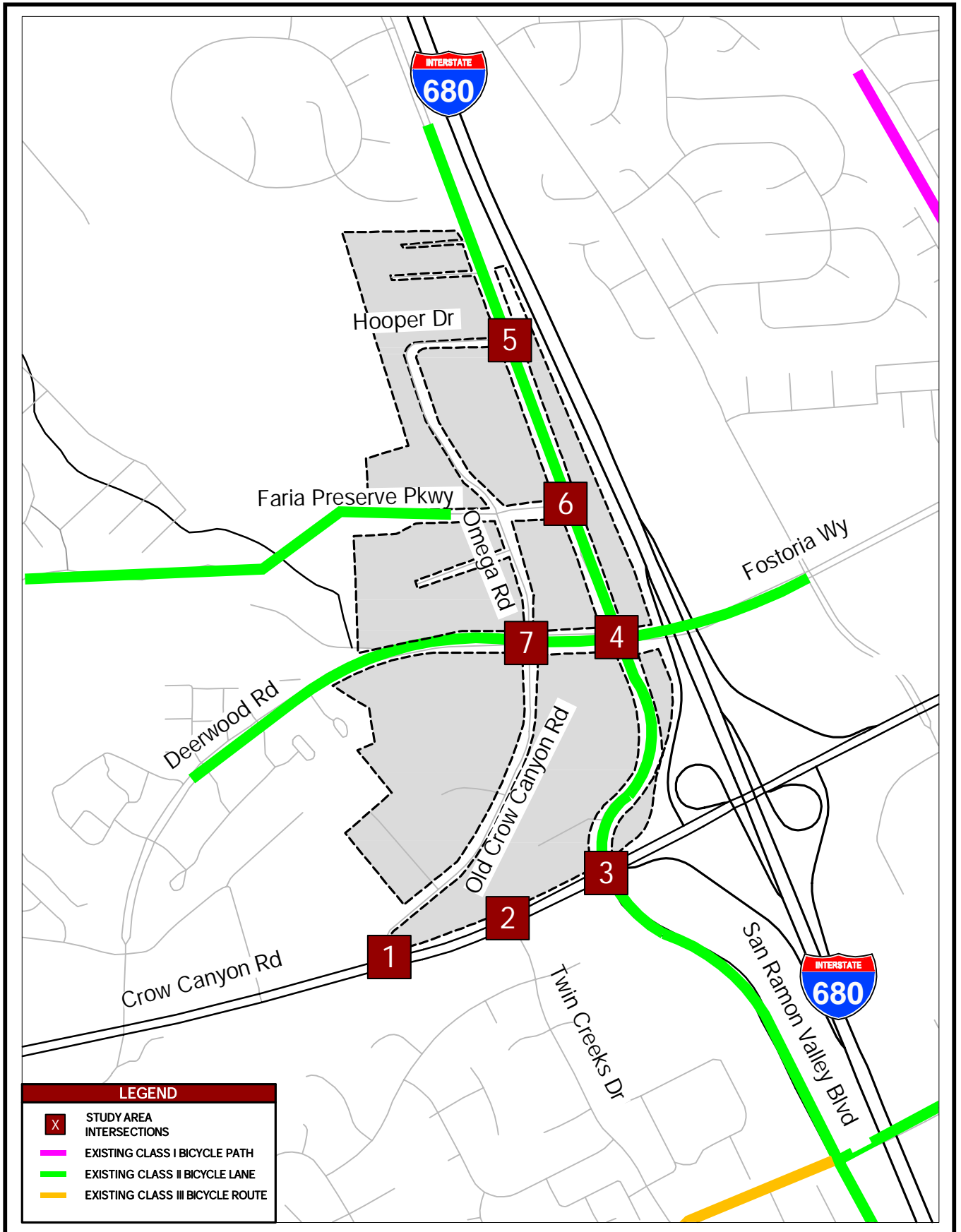
Traffic operations were evaluated at the study intersections under existing traffic conditions. Results of the analysis are presented in **Table 4**. All study intersections function within acceptable LOS standards under this analysis scenario.

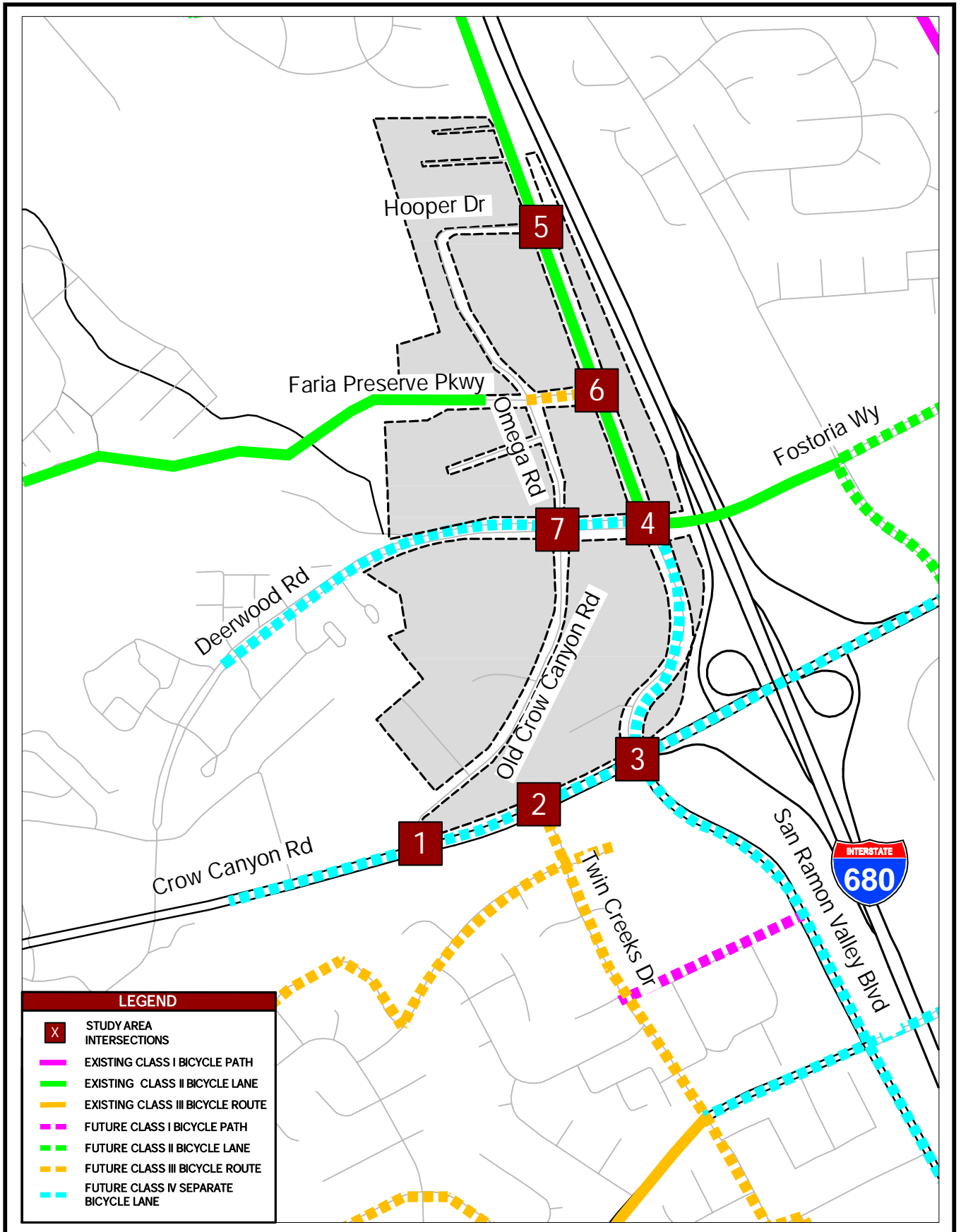
Analysis sheets are provided in the **Appendix**.

Table 4 - Existing Intersection Level of Service Summary

#	Intersection	LOS Criteria	Jurisdiction	Control	Existing			
					AM Peak		PM Peak	
					LOS	Delay (sec)	LOS	Delay (sec)
1	Crow Canyon Road/Old Crow Canyon Road	D	City	Signal	A	8.0	B	10.1
2	Crow Canyon Road/Twin Creeks Drive	D	City	Signal	C	21.2	C	23.5
3	Crow Canyon Road/San Ramon Valley Boulevard	D	City	Signal	C	34.8	D	41.8
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	City	Signal	D	38.3	D	39.5
5	Hooper Drive/San Ramon Valley Boulevard	D	City	SSSC	A	0.9	A	1.4
	<i>Worst Approach</i>				C	16.5	D	26.8
6	Faria Preserve Parkway/San Ramon Valley Boulevard	D	City	SSSC	A	1.7	A	1.9
	<i>Worst Approach</i>				B	14.7	C	20.6
7	Deerwood Road/Old Crow Canyon Road/Omega Road	D	City	AWSC	B	10.8	B	15.6

Note: Intersections that are operating below acceptable levels are shown in **BOLD**.





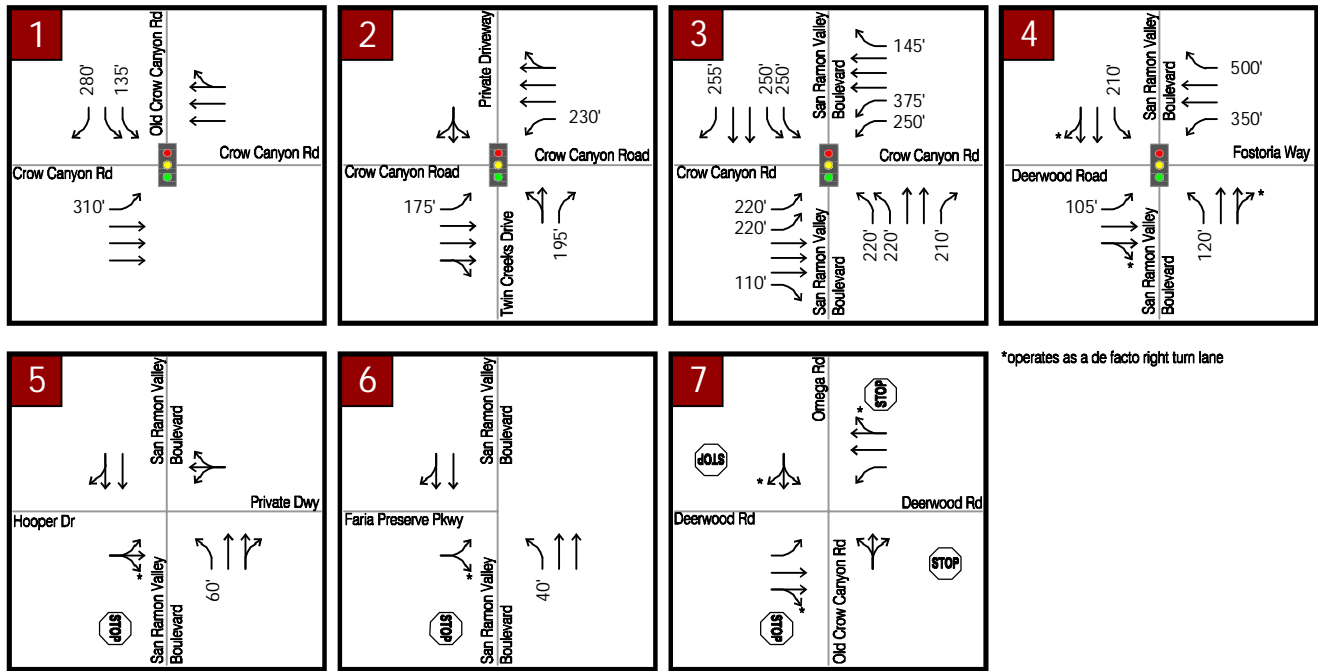
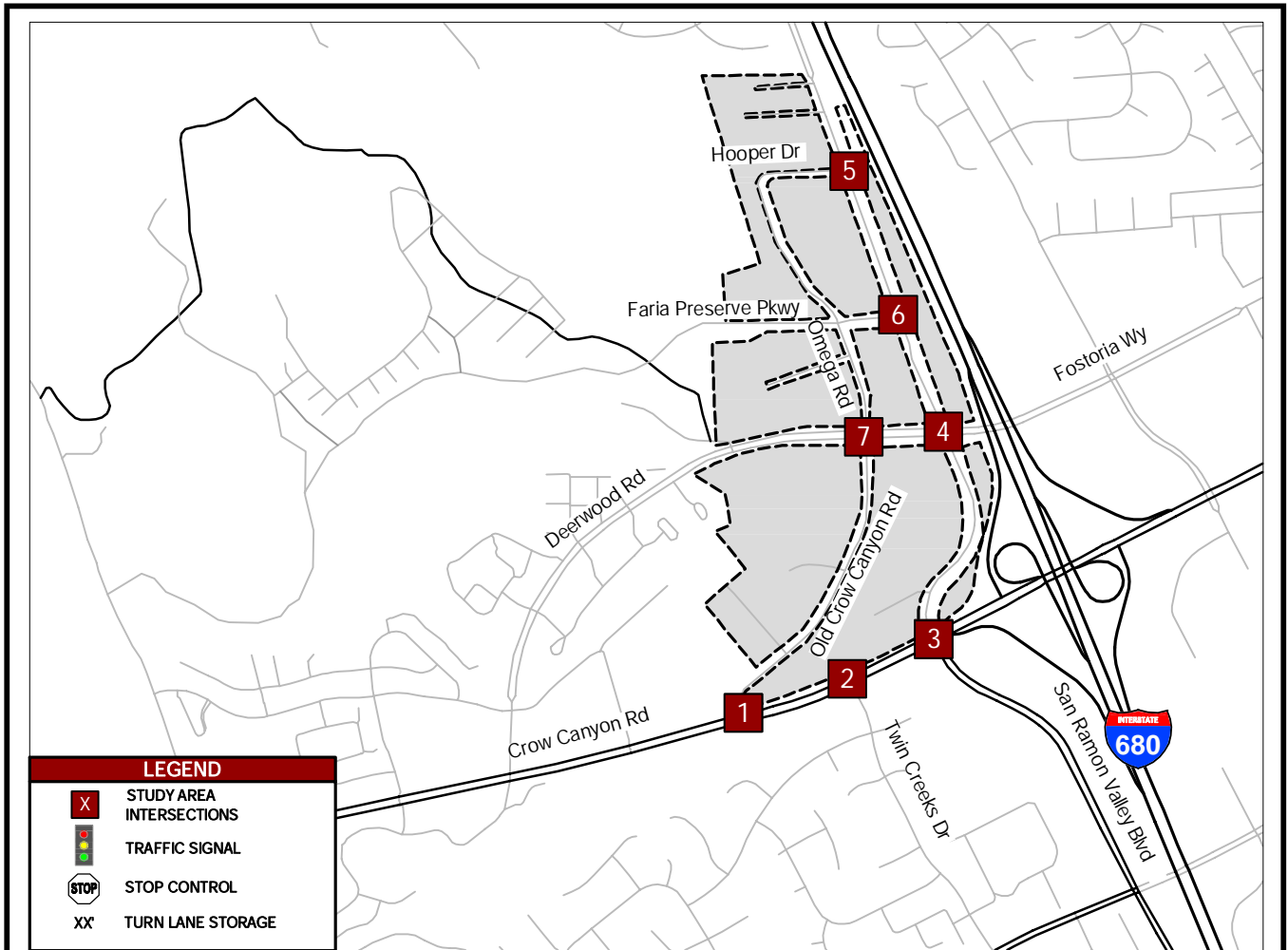
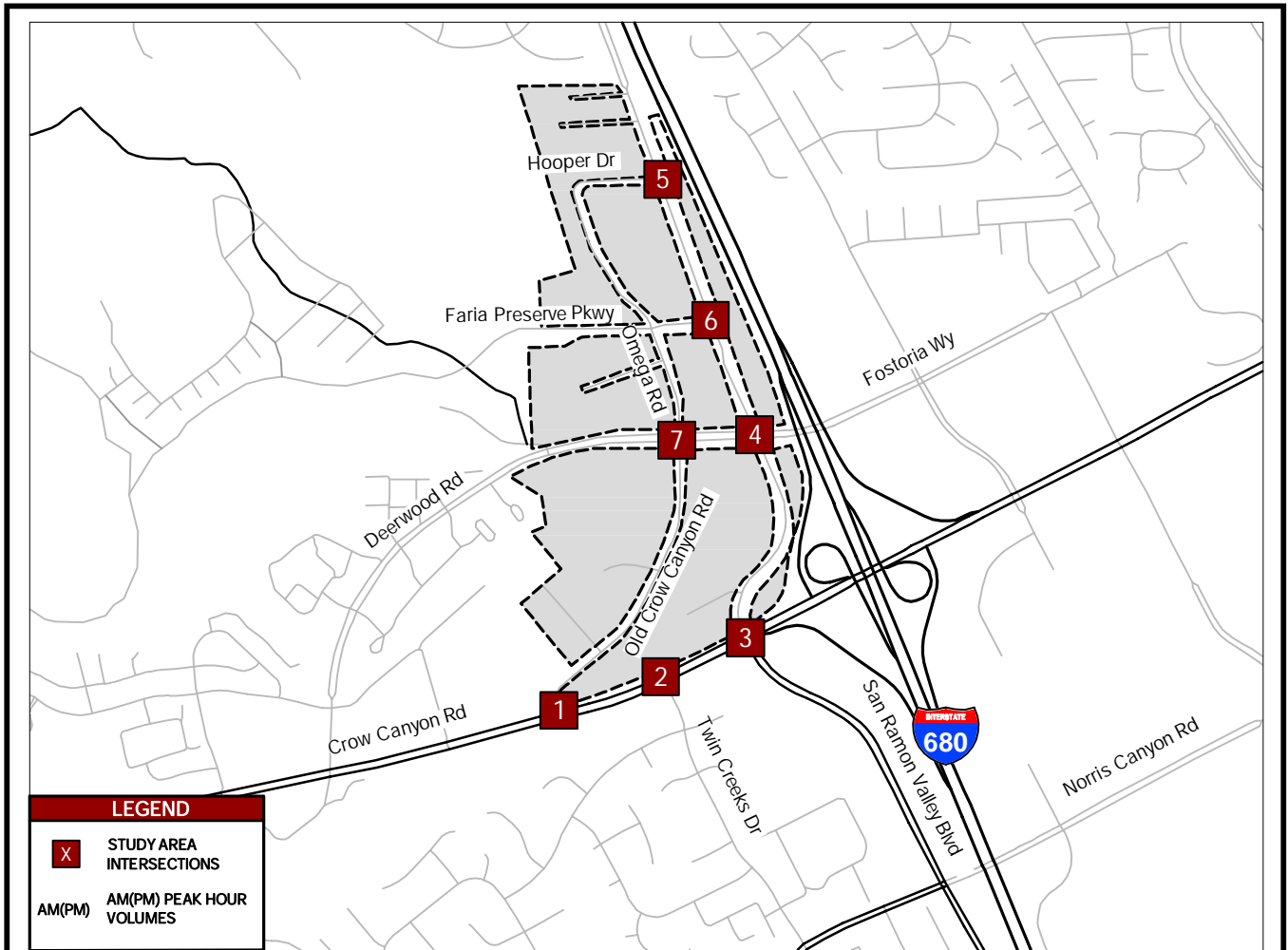


FIGURE 4

EXISTING CONDITION
LANE GEOMETRY AND TRAFFIC CONTROL



LEGEND	
X	STUDY AREA INTERSECTIONS
AM(PM)	AM(PM) PEAK HOUR VOLUMES

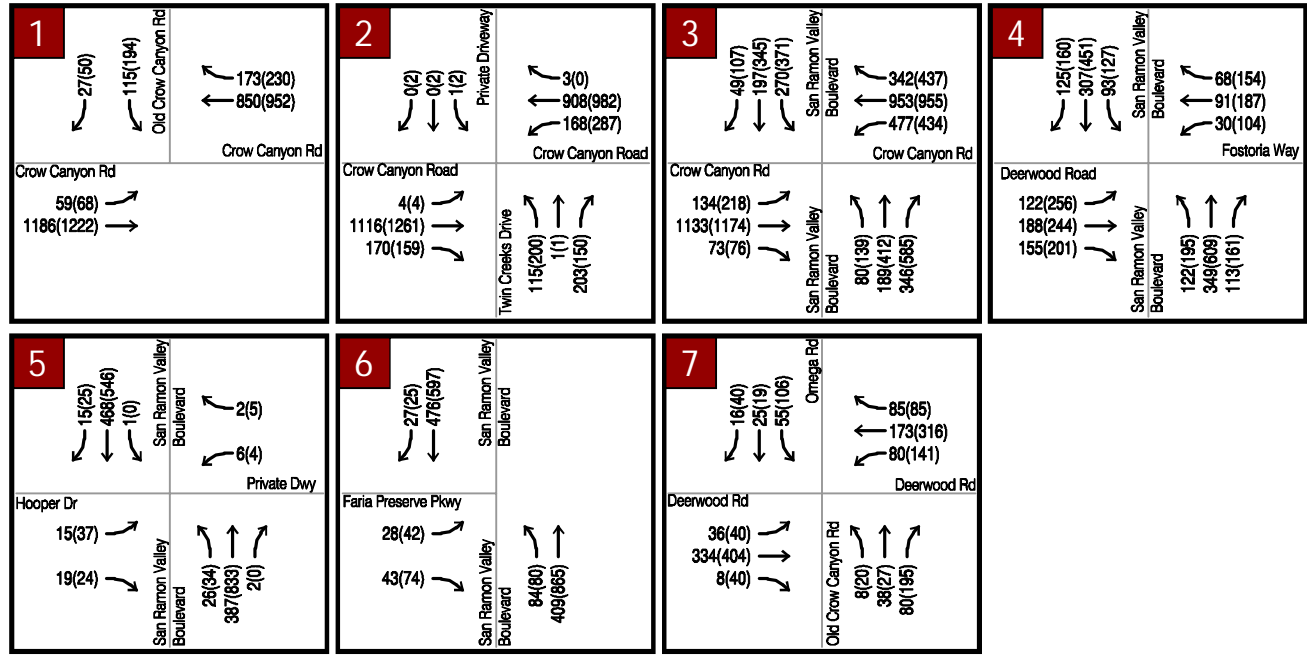


FIGURE 5

EXISTING CONDITIONS
PEAK HOUR TURNING MOVEMENT VOLUMES

3. EXISTING PLUS PROJECT CONDITIONS

This chapter presents a description of the Crow Canyon Specific Plan Update (the Project), trip generation, trip distribution, and trip assignment, as well as potential impacts of the proposed project on the transportation system.

PROJECT DESCRIPTION

The Project is an amendment to the Crow Canyon Specific Plan that was last approved in 2006. For the current (2020) update, the Preferred Alternative proposes the following changes:

- Residential: Reduction from 735 units to 634 units
- Retail: Reduction from 87,000 square feet to 32,146 square feet
- Hotel: A new 90-room hotel is approved on the northwest corner of Deerwood Road/Omega Road
- Expand the Planning Area to include Ryan Industrial Court to the southwest
- Create a new land use designation: Production-Distribution-Repair (PDR)

In addition, the following changes have occurred in the City of San Ramon, within the Plan Area:

- Elimination of the Twin Creeks Drive extension from Old Crow Canyon Road to Crow Canyon Road

TRIP GENERATION

Trip generation for the project was calculated based on information contained in the Institute of Transportation Engineer's (ITE) publication, *Trip Generation Manual, 10th Edition*.¹ The manual is a standard reference used by jurisdictions throughout the country for the estimation of trip generation potential of proposed projects.

A trip is defined in the *Trip Generation Manual* as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either "to" or "from" the site and therefore, a single visitor to a site is counted as two trips.

For purposes of determining the worst-case impacts of traffic on the surrounding street network, the trips generated by the proposed land use changes are estimated for the AM peak hour (between the hours of 7:00 AM and 9:00 AM), and for the PM peak hour (between 4:00 PM and 6:00 PM) on a typical weekday.

It should be noted that the previous version of the Crow Canyon Specific Plan in 2006 utilized the ITE *Trip Generation Manual, 7th Edition* for trip generation rates. This difference may result in a different number of vehicle trips even with no change in land uses. Therefore, for an apples to apples comparison, the same ITE *Trip Generation Manual, 10th Edition* version was used to compare land uses between the 2006 CCSP and the current CCSP.

2006 CCSP TRIP GENERATION

The land uses for the 2006 CCSP were identified in Table 4-4 of the Crow Canyon Specific Plan. This table summarized the land uses by sub-area for the existing uses to remain, the displaced uses, and the replacement uses. The total uses were then calculated and used for the previous 2006 CCSP.

¹ *Trip Generation Manual, 10th Edition*, Institute of Transportation Engineers, 2017.

The previous land uses included three different types of land uses: residential, commercial, and hotel. For the residential uses, the vehicle trips were estimated using ITE land use code 221 Multifamily Housing (Mid-rise). This land use was not used in the 2006 CCSP because it did not exist in the 7th Edition ITE Trip Generation Manual. However, this land use is the most accurate land use based on the available options in the latest 10th Edition of the ITE Trip Generation Manual and was therefore used in this update to estimate trip generation for the 2006 CCSP. A mid-rise residential use is defined in ITE as apartments, townhomes, or condominiums located within the same building as three other units and have between 3-10 floors. Based on the previous CCSP, the height restrictions allowed up to four floors. The average rate was used instead of the fitted curve equation because the R² value (coefficient of determination) is less than 0.75 for the AM and PM peak hours, which means the fitted curve equation does not capture the data sufficiently to be used.

For the commercial retail uses, the vehicle trips were estimated using ITE land use code 820 Shopping Center. Because the commercial land uses do not distinguish the specific type of retail use, the shopping center land use was assumed. The average rate was used instead of the fitted curve equation because the R² value is less than 0.75 for the AM peak hour. For the PM peak hour, the R² value is 0.82, but the average rate was still used to be consistent with the AM peak hour and it also yielded a higher number of vehicle trips (a more conservative evaluation).

For the hotel uses, the vehicle trips were estimated using ITE land use code 310 Hotel. The fitted curve equation was used instead of the average rate because the R² value is greater than 0.75 for the AM and PM peak hours.

As identified in the 2006 CCSP, a retail pass-by trip reduction of 15 percent and a mixed-use/multi-modal trip reduction of 10 percent were used. Table 5 shows a preliminary trip generation table of the 2006 CCSP using the latest ITE *Trip Generation Manual, 10th Edition* rates. For the entire CCSP, including existing uses to remain, the area is estimated to generate 41,050 daily trips, 1,203 AM peak hour trips, and 4,035 PM peak hour trips.

Table 5 - 2006 CCSP Trip Generation

ITE Land Use Code	Land Use	Size	Units	Daily Trips	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
North of Purdue										
221	Multifamily Housing (Mid-Rise)	155	Dwelling Units	844	56	15	41	68	41	27
820	Shopping Center	503.000	KSF	18,990	473	293	180	1,916	920	996
Total Project Trips				19,834	529	308	221	1,984	961	1,023
Mixed-Use & Multi-modal Reduction (10%)				-1,983	-53	-31	-22	-198	-96	-102
Net Trips After Mixed-Use & Multi-modal Reduction				17,851	476	277	199	1,786	865	921
Retail Pass-by Reduction (15%)				-2,564	-64	-40	-24	-259	-124	-135
Total External North of Purdue Project Trips				15,287	412	237	175	1,527	741	786
East of the Boulevard										
820	Shopping Center	109.000	KSF	4,116	102	63	39	415	199	216
Total Project Trips				4,116	102	63	39	415	199	216
Mixed-Use & Multi-modal Reduction (10%)				-412	-10	-6	-4	-42	-20	-22
Net Trips After Mixed-Use & Multi-modal Reduction				3,704	92	57	35	373	179	194
Retail Pass-by Reduction (15%)				-556	-14	-9	-5	-56	-27	-29
Total External East of Boulevard Project Trips				3,148	78	48	30	317	152	165
South of the Creek										
310	Hotel	142	Room(s)	1,178	66	39	27	80	41	39
820	Shopping Center	276.000	KSF	10,420	259	161	98	1,052	505	547
Total Project Trips				11,598	325	200	125	1,132	546	586
Mixed-Use & Multi-modal Reduction (10%)				-1,160	-33	-20	-13	-113	-55	-59
Net Trips After Mixed-Use & Multi-modal Reduction				10,438	292	180	112	1,019	491	527
Retail Pass-by Reduction (15%)				-1,407	-35	-22	-13	-142	-68	-73
Total External South of the Creek Project Trips				9,031	257	158	99	877	423	454
The Core										
221	Multifamily Housing (Mid-Rise)	580	Dwelling Units	3,156	209	54	155	255	156	99
820	Shopping Center	372.000	KSF	14,044	350	217	133	1,417	680	737
Total Project Trips				17,200	559	271	288	1,672	836	836
Mixed-Use & Multi-modal Reduction (10%)				-1,720	-56	-27	-29	-167	-84	-83
Net Trips After Mixed-Use & Multi-modal Reduction				15,480	503	244	259	1,505	752	753
Retail Pass-by Reduction (15%)				-1,896	-47	-29	-18	-191	-92	-99
Total External The Core Project Trips				13,584	456	215	241	1,314	660	654
Total External Project Trips				41,050	1,203	658	545	4,035	1,976	2,059

CURRENT CCSP UPDATE TRIP GENERATION

The land uses for the current CCSP update were identified in the Preferred Alternative Buildout Assumptions dated *DRAFT 8/14/2019* included in the **Appendix**. This table summarized the land uses by site within “The Core” area. All the changes for the “North of Purdue” area and the “East of the Boulevard” area were reverted to existing. For the “South of the Creek” area, the uses were also reverted to existing, except Site R8 was added. These changes result in a decrease of residential units to 634 units and a decrease in the retail to 32,146 square feet.

The same ITE land use codes and assumptions were used as mentioned in the 2006 CCSP section. In addition, the same retail pass-by trip reductions and mixed-use/multi-modal trip reductions were used. **Table 6** shows the trip generation table of the current CCSP update using the latest ITE *Trip Generation Manual, 10th Edition* rates. For the entire CCSP, including existing uses to remain, the area is estimated to generate 37,047 daily trips, 1,123 AM peak hour trips, and 3,615 PM peak hour trips.

Table 6 - Current CCSP Update Trip Generation

ITE Land Use Code	Land Use	Size	Units	Daily Trips	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
North of Purdue										
820	Shopping Center	422.000	KSF	15,932	397	246	151	1,608	772	836
Total Project Trips				15,932	397	246	151	1,608	772	836
Mixed-Use & Multi-modal Reduction (10%)				-1,593	-40	-25	-15	-161	-77	-84
Net Trips After Mixed-Use & Multi-modal Reduction				14,339	357	221	136	1,447	695	752
Retail Pass-by Reduction (15%)				-2,151	-54	-33	-21	-217	-104	-113
Total External North of Purdue Project Trips				12,188	303	188	115	1,230	591	639
East of the Boulevard										
820	Shopping Center	89.000	KSF	3,360	84	52	32	339	163	176
Total Project Trips				3,360	84	52	32	339	163	176
Mixed-Use & Multi-modal Reduction (10%)				-336	-8	-5	-3	-34	-16	-18
Net Trips After Mixed-Use & Multi-modal Reduction				3,024	76	47	29	305	147	158
Retail Pass-by Reduction (15%)				-454	-11	-7	-4	-46	-22	-24
Total External East of Boulevard Project Trips				2,570	65	40	25	259	125	134
South of the Creek										
221	Multifamily Housing (Mid-Rise)	82	Dwelling Units	448	30	8	22	36	22	14
310	Hotel	142	Room(s)	1,178	66	39	27	80	41	39
820	Shopping Center	278.000	KSF	10,496	261	162	99	1,059	508	551
Total Project Trips				12,122	357	209	148	1,175	571	604
Mixed-Use & Multi-modal Reduction (10%)				-1,212	-36	-21	-15	-118	-57	-61
Net Trips After Mixed-Use & Multi-modal Reduction				10,910	321	188	133	1,057	514	543
Retail Pass-by Reduction (15%)				-1,417	-35	-22	-13	-143	-69	-74
Total External South of the Creek Project Trips				9,493	286	166	120	914	445	469
The Core										
221	Multifamily Housing (Mid-Rise)	634	Dwelling Units	3,450	228	59	169	279	170	109
310	Hotel	90	Room(s)	590	40	23	17	41	21	20
820	Shopping Center	317.146	KSF	11,974	298	185	113	1,208	580	628
Total Project Trips				16,014	566	267	299	1,528	771	757
Mixed-Use & Multi-modal Reduction (10%)				-1,601	-57	-27	-30	-153	-77	-76
Net Trips After Mixed-Use & Multi-modal Reduction				14,413	509	240	269	1,375	694	681
Retail Pass-by Reduction (15%)				-1,617	-40	-25	-15	-163	-78	-85
Total External The Core Project Trips				12,796	469	215	254	1,212	616	596
Total External Project Trips				37,047	1,123	609	514	3,615	1,777	1,838

CCSP TRIP GENERATION COMPARISON

Table 7 shows a comparison of the 2006 CCSP trip generation and the current CCSP update trip generation using the latest ITE *Trip Generation Manual, 10th Edition* rates. The current CCSP update results in 4,003 fewer daily trips, 80 fewer AM peak hour trips, and 420 fewer PM peak hour trips. However, it should be noted that the “South of the Creek” area is estimated to increase in AM peak hour trips by 29 trips and in PM peak hour trips by 37 trips. This is due to the new Site R8 development, which adds 82 dwelling units to this area. “The Core” area is also estimated to experience an increase in the AM peak hour of 13 trips, primarily due to the hotel and increase in dwelling units to this area.

Table 7 - Trip Generation Comparison – 2006 CCSP vs. Current CCSP

Plan	Daily Trips	AM Peak			PM Peak		
		Total	In	Out	Total	In	Out
2006 CCSP Project Trips							
North of Purdue	15,287	412	237	175	1,527	741	786
East of Boulevard	3,148	78	48	30	317	152	165
South of the Creek	9,031	257	158	99	877	423	454
The Core	13,584	456	215	241	1,314	660	654
Total 2006 CCSP Project Trips	41,050	1,203	658	545	4,035	1,976	2,059
Current CCSP Update Project Trips							
North of Purdue	12,188	303	188	115	1,230	591	639
East of Boulevard	2,570	65	40	25	259	125	134
South of the Creek	9,493	286	166	120	914	445	469
The Core	12,796	469	215	254	1,212	616	596
Current CCSP Update Project Trips	37,047	1,123	609	514	3,615	1,777	1,838
Difference (Current CCSP Update - 2006 CCSP)							
North of Purdue	-3,099	-109	-49	-60	-297	-150	-147
East of Boulevard	-578	-13	-8	-5	-58	-27	-31
South of the Creek	462	29	8	21	37	22	15
The Core	-788	13	0	13	-102	-44	-58
Difference Project Trips	-4,003	-80	-49	-31	-420	-199	-221

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment was determined using a select zone analysis of the specific plan area within the CCTA travel demand forecast model. The distribution of traffic determined from this analysis was then adjusted based on discussions with City staff, previously approved traffic studies, and observations in the field. **Figure 6** presents the trip distribution assumed for project conditions as summarized in **Table 8**.

Table 8 - Project Trip Distribution

Gateway - Direction	Proposed (AM and PM)
Crow Canyon Road - West	14%
Crow Canyon Road - East	46%
San Ramon Valley Boulevard - North	20%
San Ramon Valley Boulevard - South	8%
Fostoria Way - East	10%
Twin Creeks Drive - South	1%
Purdue Road - West	1%
Total	100%

For existing plus project conditions, project trip assignment was determined based on the CCSP Update land uses where the trips generated by the new proposed land uses were added to the network and the trips generated by existing land uses to be replaced were removed from the network. **Table 9** shows the net new trips from this calculation. Detailed land use assumptions and trip generation calculations for this process are in the **Appendix**. **Figure 7** shows the net redistributed project peak hour turning movement volumes. It should be noted that the change in future land uses from office to residential resulted in a net negative trip assignment for entering AM trips because residential uses primarily have outbound AM peak hour trips and office uses primarily have inbound AM peak hour trips.

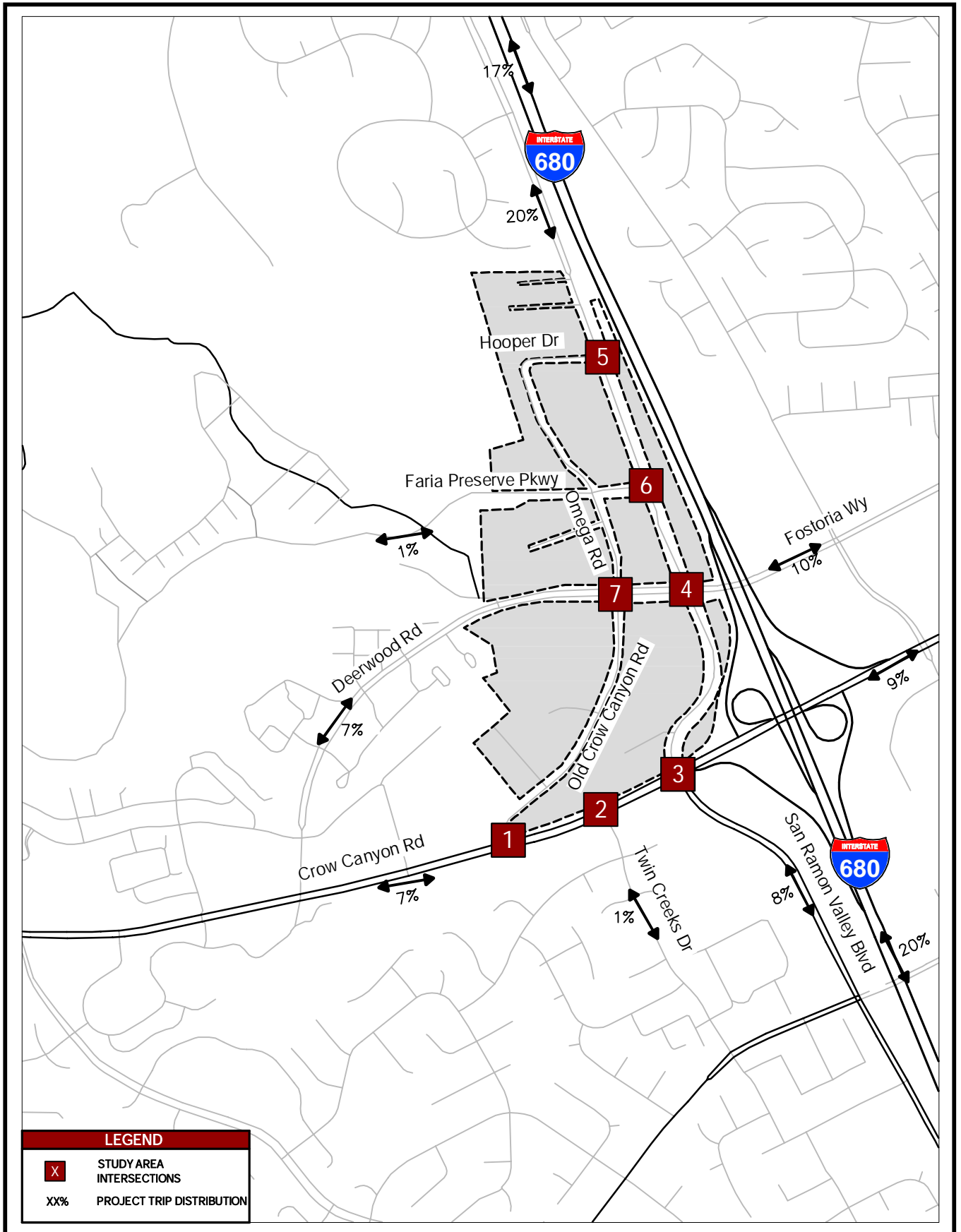
Table 9 – Plus Project Net New Trips (Existing Conditions)

Zone	AM PEAK			PM PEAK		
	Total	IN	Out	Total	IN	OUT
North of Purdue	0	0	0	0	0	0
East of Boulevard	0	0	0	0	0	0
South of the Creek	2	-16	18	8	18	-10
The Core	102	-30	132	194	157	37
Total	104	-46	150	202	175	27

Cumulative plus project conditions net new trip assignment was determined by first removing the old CCSP trip generation from the CCTA travel demand model forecasted cumulative volumes and then adding back in the CCSP Update trip generation. The removal of the old CCSP was a necessary step because the CCTA travel demand forecast model assumed old CCSP land uses. **Table 10** shows the net new trips from this calculation which are identical to the differences shown in **Table 7**. **Figure 8** shows the net redistributed project peak hour turning movement volumes in the cumulative scenario. Project cumulative trip routing and assignment assumptions are included in the **Appendix**.

Table 10 – Plus Project Net New Trips (Cumulative Conditions)

Zone	AM PEAK			PM PEAK		
	Total	IN	Out	Total	IN	OUT
North of Purdue	-109	-49	-60	-297	-150	-147
East of Boulevard	-13	-8	-5	-58	-27	-31
South of the Creek	29	8	21	37	22	15
The Core	13	0	13	-102	-44	-58
Total	-80	-49	-31	-420	-199	-221



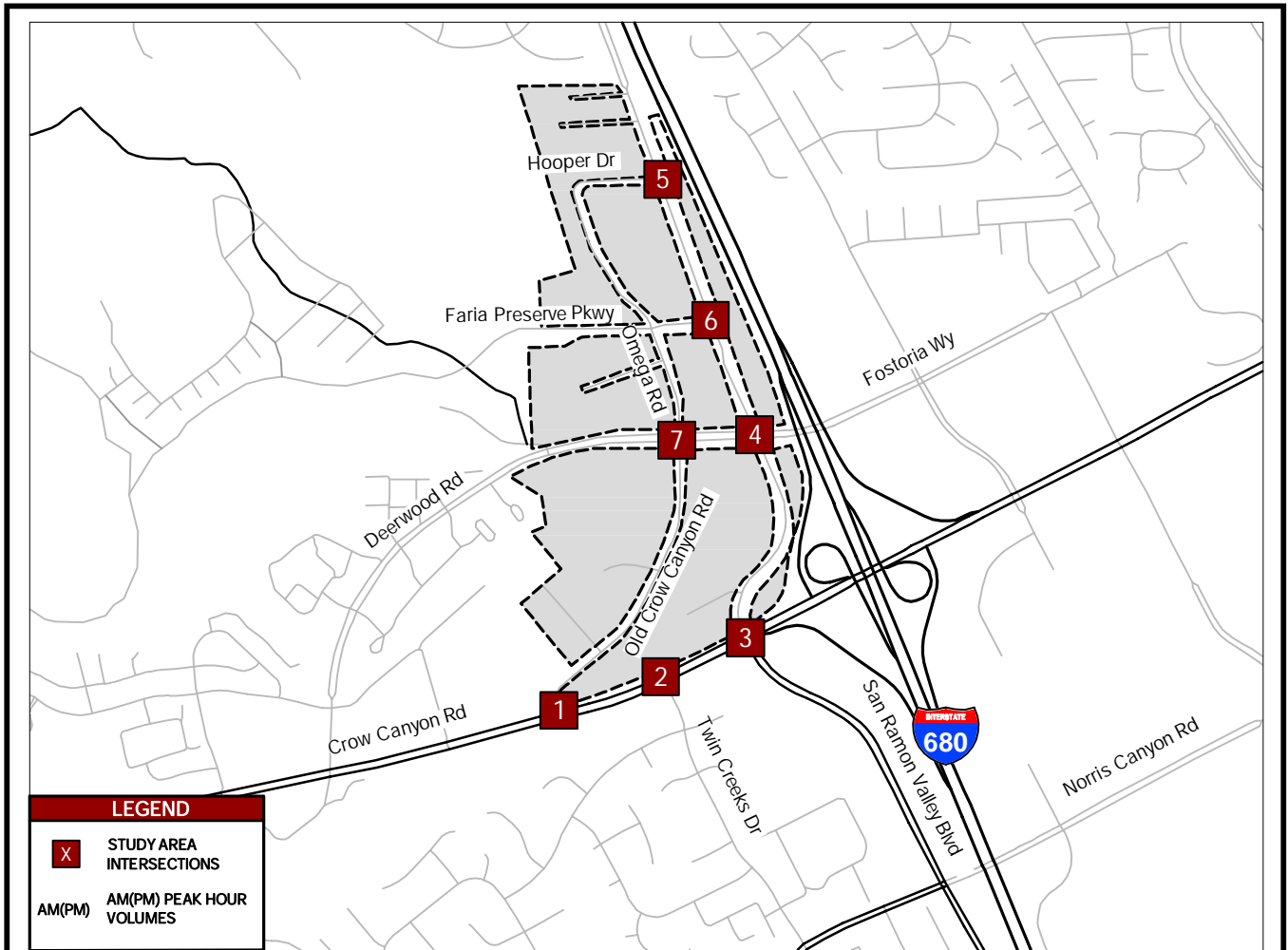
LEGEND

X STUDY AREA INTERSECTIONS

XX% PROJECT TRIP DISTRIBUTION

FIGURE 6

PROJECT TRIP DISTRIBUTION



LEGEND	
X	STUDY AREA INTERSECTIONS
AM(PM)	AM(PM) PEAK HOUR VOLUMES

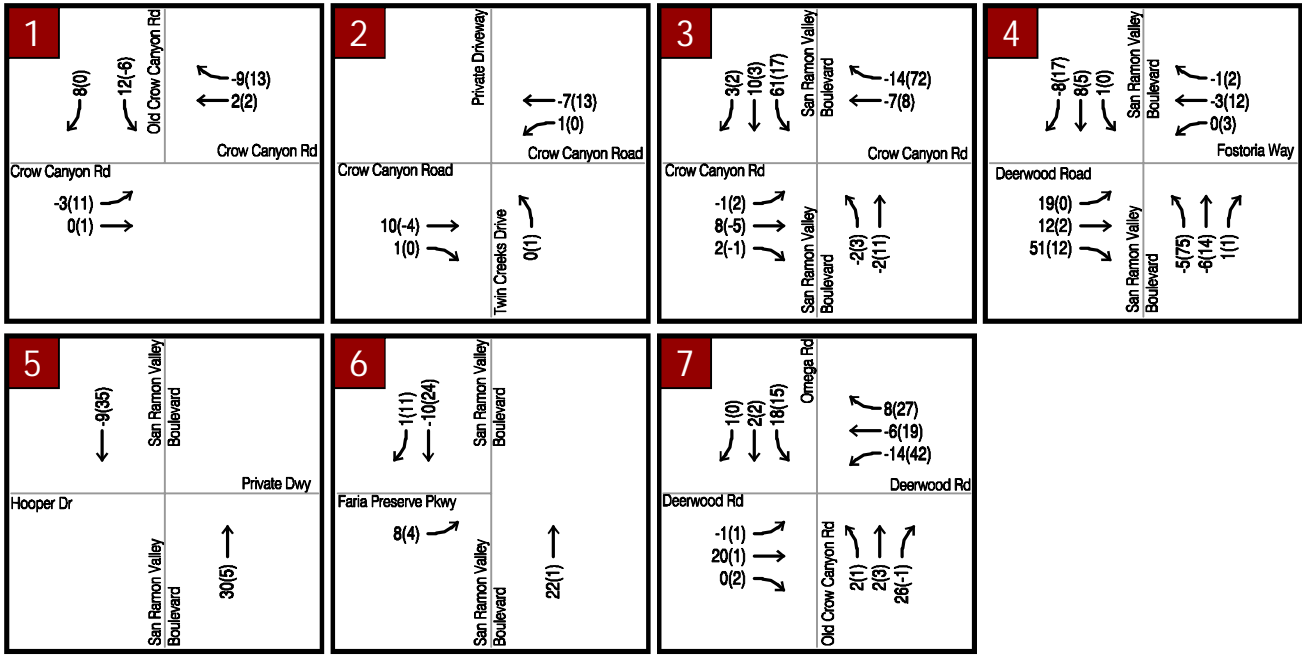
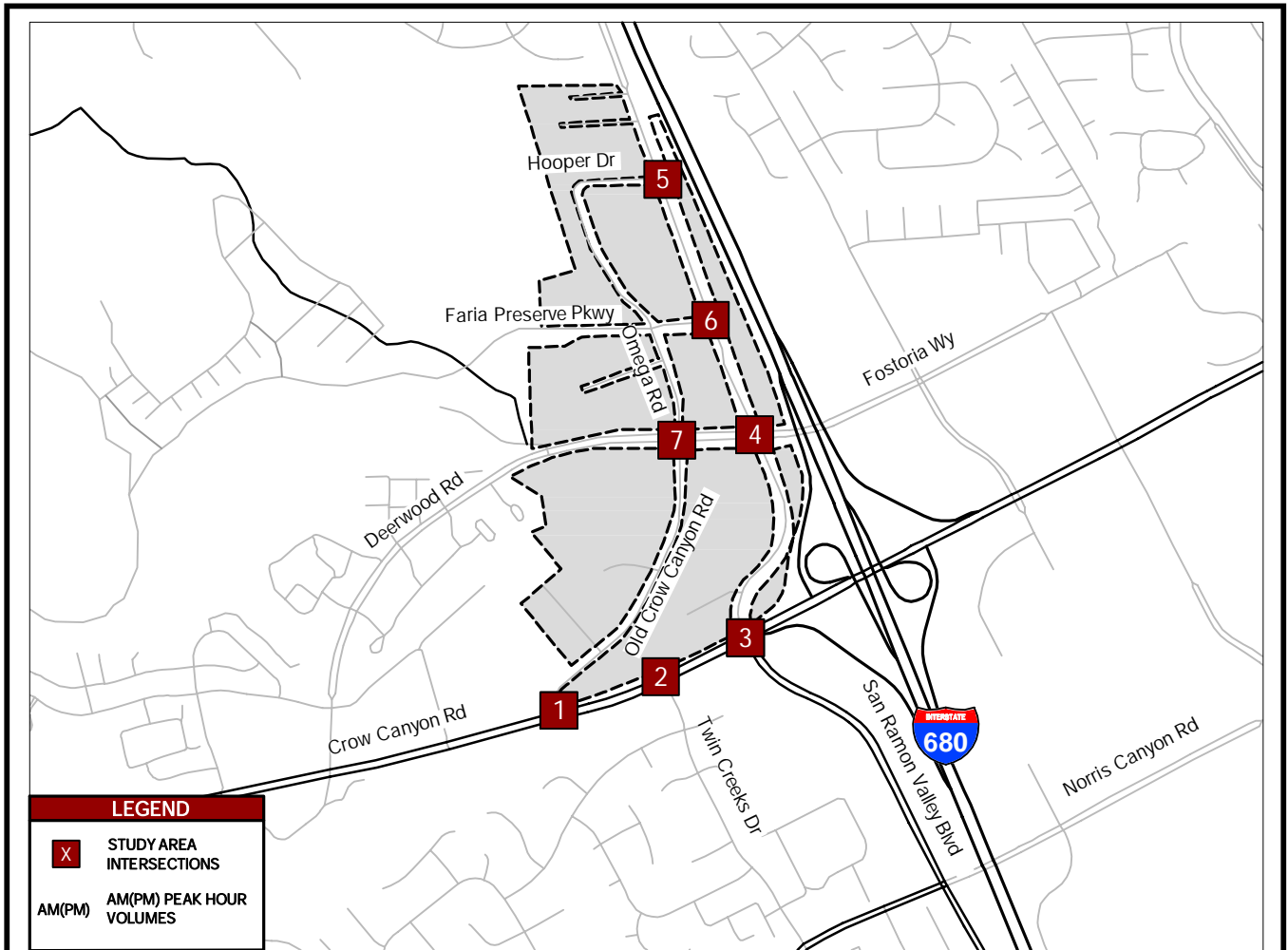


FIGURE 7
PROJECT CONDITIONS (EXISTING 2020)
NET PEAK HOUR TRIP ASSIGNMENT



LEGEND	
X	STUDY AREA INTERSECTIONS
AM(PM)	AM(PM) PEAK HOUR VOLUMES

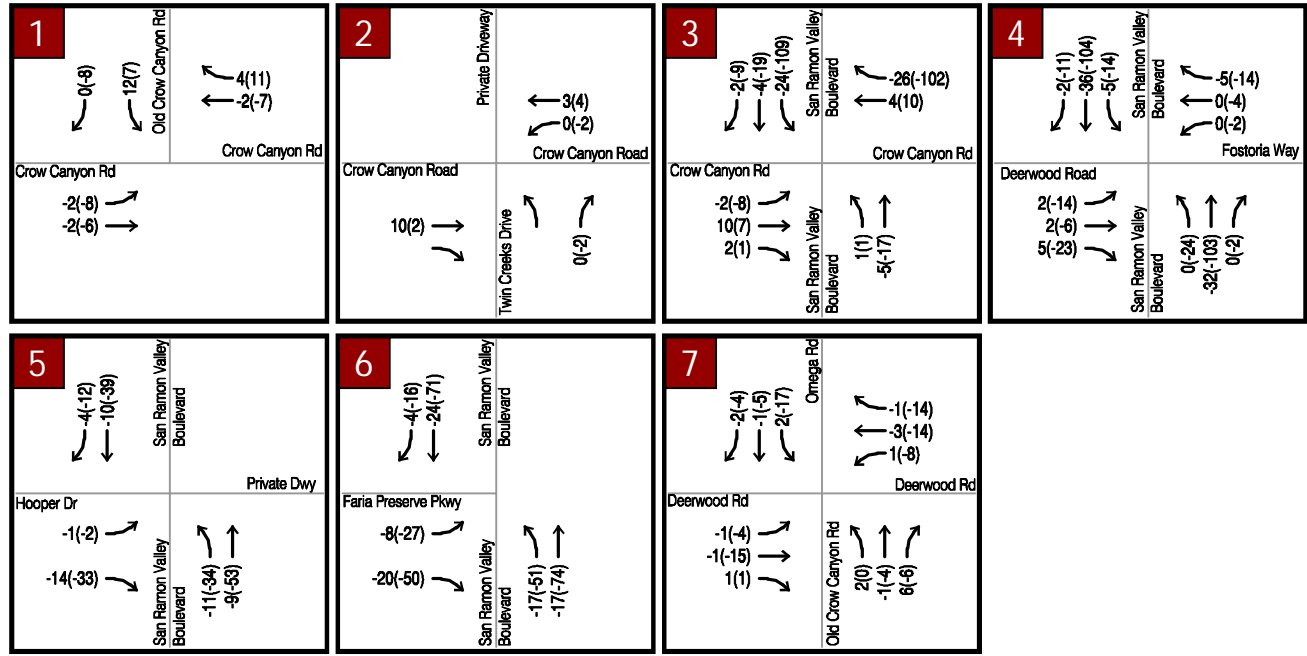


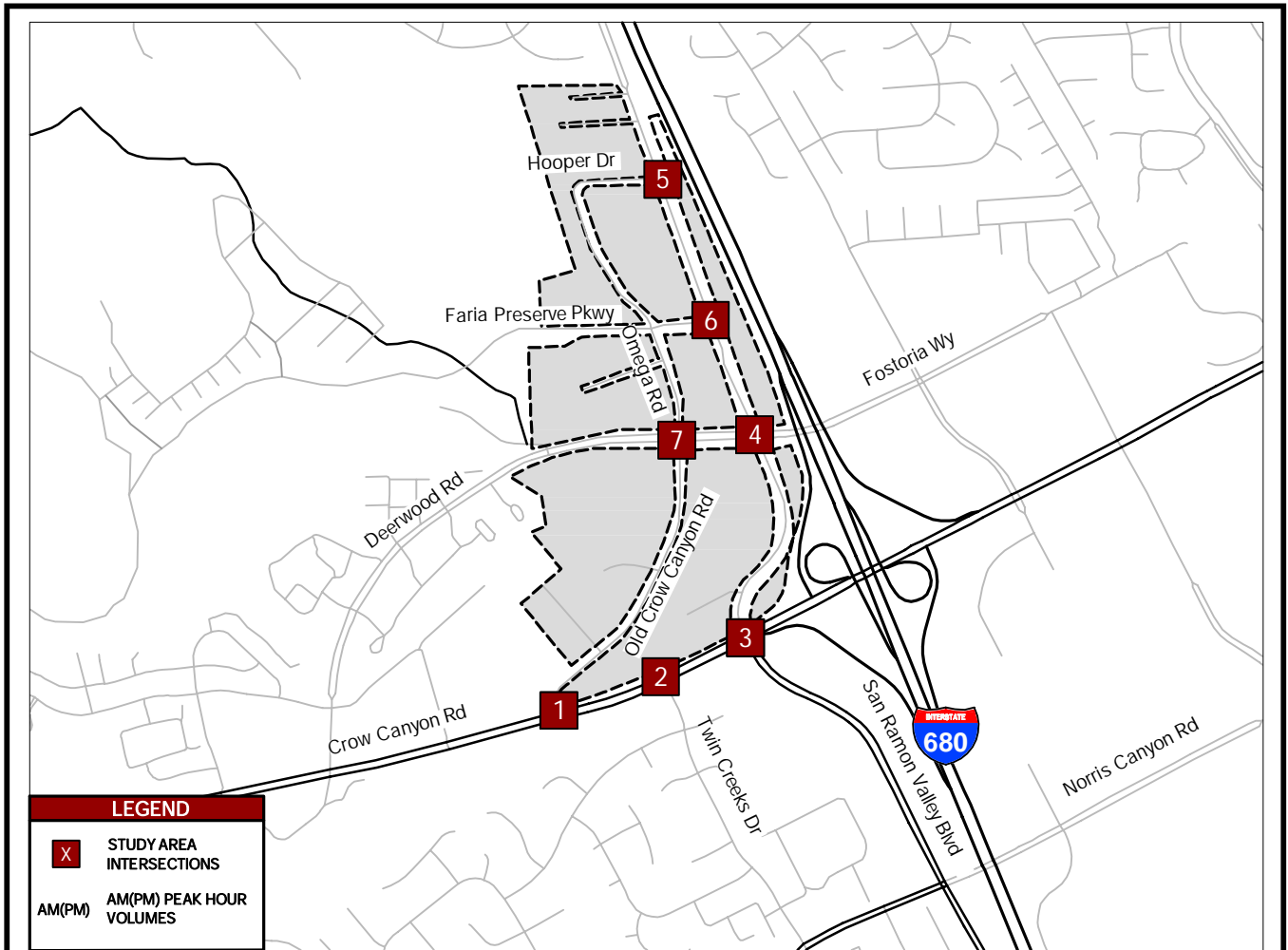
FIGURE 8

PROJECT CONDITIONS (CUMULATIVE 2040)
NET PEAK HOUR TRIP ASSIGNMENT

EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE

Traffic volumes, as shown in **Figure 9**, were evaluated at the study intersections under existing plus project traffic conditions. Results of the analysis are presented in **Table 11**. All study intersections function within acceptable LOS standards under this analysis scenario.

Analysis sheets are provided in the **Appendix**.



LEGEND	
X	STUDY AREA INTERSECTIONS
AM(PM)	AM(PM) PEAK HOUR VOLUMES

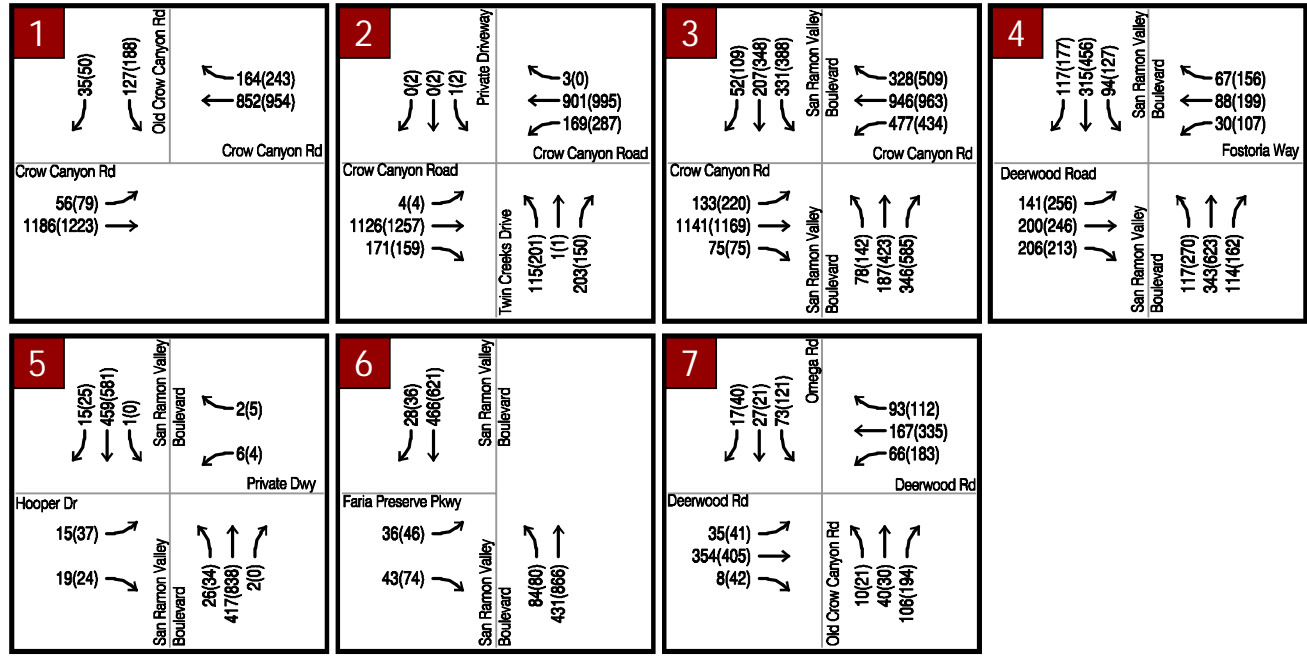


FIGURE 9

EXISTING PLUS PROJECT CONDITIONS
PEAK HOUR TURNING MOVEMENT VOLUMES

Table 11 - Existing Plus Project Intersection Level of Service Summary

#	Intersection	LOS Criteria	Jurisdiction	Control	Existing				Existing + Project					
					AM Peak		PM Peak		AM Peak			PM Peak		
					LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	Delay Var	LOS	Delay (sec)	Delay Var
1	Crow Canyon Road/Old Crow Canyon Road	D	City	Signal	A	8.0	B	10.1	A	8.0	0.0	B	10.2	0.1
2	Crow Canyon Road/Twin Creeks Drive	D	City	Signal	C	21.2	C	23.5	B	19.9	-1.3	C	23.5	0.0
3	Crow Canyon Road/San Ramon Valley Boulevard	D	City	Signal	C	34.8	D	41.8	C	33.4	-1.4	D	42.4	0.6
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	City	Signal	D	38.3	D	39.5	D	35.4	-2.9	D	40.1	0.6
5	Hooper Drive/San Ramon Valley Boulevard	D	City	SSSC	A	0.9	A	1.4	A	0.9	0.0	A	1.5	0.1
	<i>Worst Approach</i>				C	16.5	D	26.8	C	17.1	0.6	D	28.8	2.0
6	Faria Preserve Parkway/San Ramon Valley Boulevard	D	City	SSSC	A	1.7	A	1.9	A	1.8	0.1	A	2.0	0.1
	<i>Worst Approach</i>				B	14.7	C	20.6	C	15.7	1.0	D	22.6	2.0
7	Deerwood Road/Old Crow Canyon Road/Omega Road	D	City	AWSC	B	10.8	B	15.6	B	11.4	0.6	C	16.9	1.3

Note: Intersections that are operating below acceptable levels are shown in **BOLD** and significant impacts are highlighted.

A negative net difference in plus project trips resulted in reduced traffic and lower delays at some intersections under plus project conditions

4. CUMULATIVE (2040) TRAFFIC CONDITIONS

This chapter will discuss the traffic conditions under the Cumulative (2040) and Cumulative (2040) Plus Project Conditions.

CUMULATIVE (2040) TRANSPORTATION IMPROVEMENTS

The following roadway improvements are assumed to be completed for the Cumulative traffic conditions.

San Ramon Valley Boulevard / Deerwood Road

- Add a northbound left turn lane with additional storage
- Increase the eastbound left turn lane storage

San Ramon Valley Boulevard / Faria Preserve Parkway

- Install traffic signal
- Increase the northbound left turn lane storage

Heavy vehicle percentages, peak hour factors, traffic signal cycle length, and pedestrian and bicycle activity at the study intersections are assumed to be unchanged from existing conditions. However, traffic signal phase splits were optimized in Cumulative and Cumulative Plus Project scenarios.

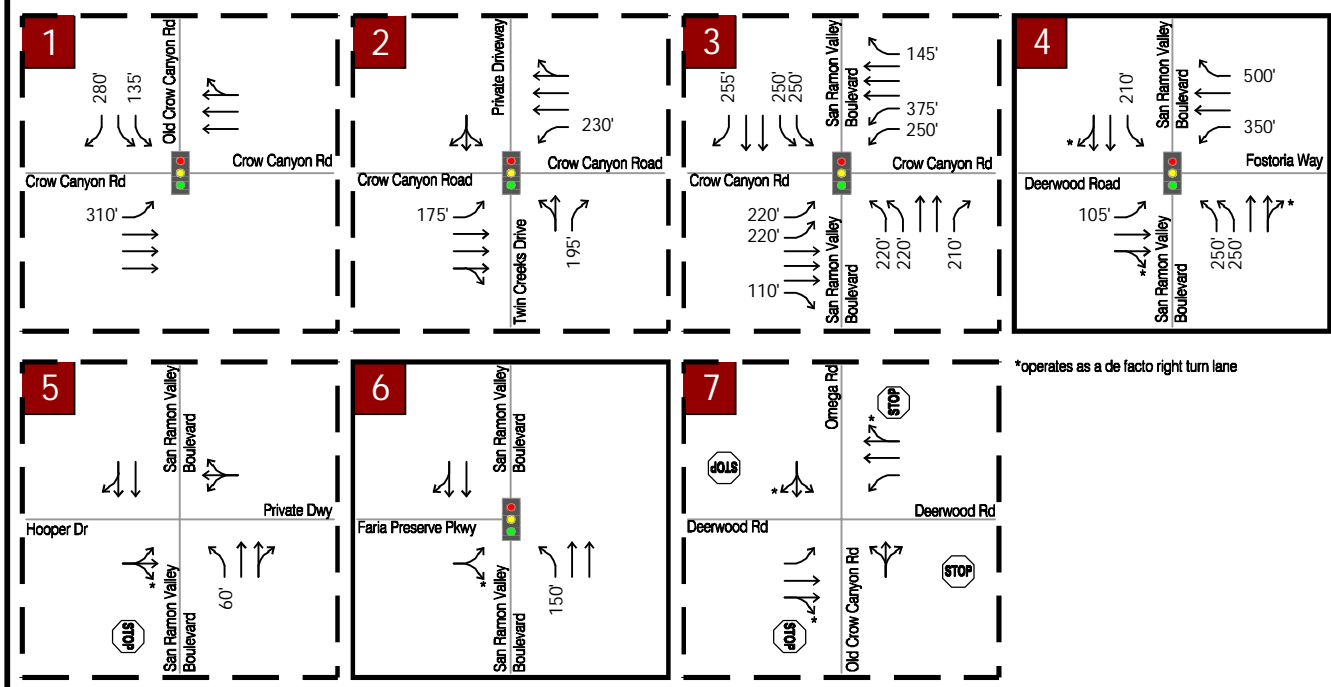
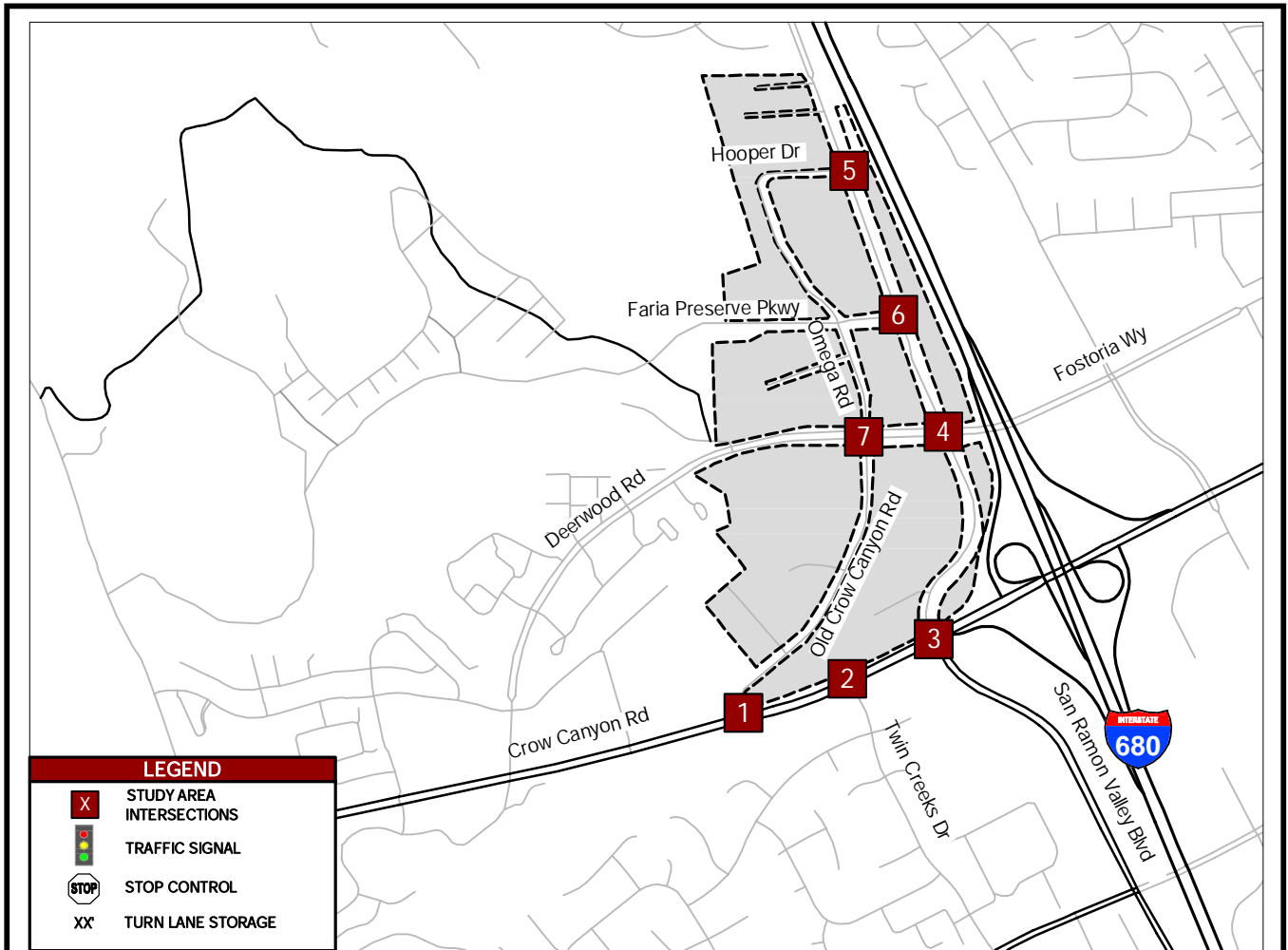
Figure 10 illustrates the intersection geometry and traffic control assumed for the Cumulative analysis.

CUMULATIVE (2040) TRAFFIC VOLUME

To achieve Cumulative traffic conditions, AM and PM roadway link volumes from the CCTA travel demand forecast model were utilized. Roadway link volumes from the 2018 base year and 2040 forecast year were compared to determine an annual incremental growth in traffic volumes at the study intersections. Adjusted Year 2040 roadway link volumes were calculated by adding the growth increment to the existing intersection link volumes. Adjusted Year 2040 link volumes were then converted to intersection turning movement volumes using a traffic modeling standard process commonly referred to as the Furness method. The Furness method uses an iterative process to derive future turning movement volumes based on the future year roadway link volumes and an initial estimate for turning percentages obtained from the existing intersection turning movement counts.

It should be noted that Hooper Drive is not a roadway link in the CCTA model. Therefore, the volume growth on this link was estimated based on a review of the existing volumes and the previous CCSP land uses entering and exiting the North of Purdue zone.

The CCTA model plots are included in the **Appendix**.



*operates as a de facto right turn lane

FIGURE 10
CUMULATIVE CONDITIONS
LANE GEOMETRY AND TRAFFIC CONTROL

CUMULATIVE (2040) INTERSECTION LEVEL OF SERVICE

Cumulative (2040) volumes were evaluated at the study intersections and are presented in **Figure 11**. Results are presented in **Table 12**. All study intersections function within acceptable LOS standards under this analysis scenario, except for the following intersection:

- #5 – Hooper Drive / San Ramon Valley Boulevard (AM and PM peak hours)
 - Delay for this intersection is measure at the eastbound stop-controlled approach. The anticipated volume of eastbound left turns, combined with increased northbound and southbound through traffic on San Ramon Valley Boulevard results in excessive delay at the intersection.

Analysis sheets are provided in the **Appendix**.

Table 12 - Cumulative (2040) Intersection Level of Service Summary

#	Intersection	LOS Criteria	Jurisdiction	Control	Cumulative			
					AM Peak		PM Peak	
					LOS	Delay (sec)	LOS	Delay (sec)
1	Crow Canyon Road/Old Crow Canyon Road	D	City	Signal	A	8.0	B	10.6
2	Crow Canyon Road/Twin Creeks Drive	D	City	Signal	C	21.4	C	25.3
3	Crow Canyon Road/San Ramon Valley Boulevard	D	City	Signal	D	39.8	D	47.1
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	City	Signal	D	37.2	D	42.9
5	Hooper Drive/San Ramon Valley Boulevard	D	City	SSSC	A	1.0	A	3.4
	<i>Worst Approach</i>				E	40.4	E	41.4
6	Faria Preserve Parkway/San Ramon Valley Boulevard	D	City	Signal	C	21.1	C	22.5
7	Deerwood Road/Old Crow Canyon Road/Omega Road	D	City	AWSC	B	13.6	C	19.3

Note: Intersections that are operating below acceptable levels are shown in **BOLD**.

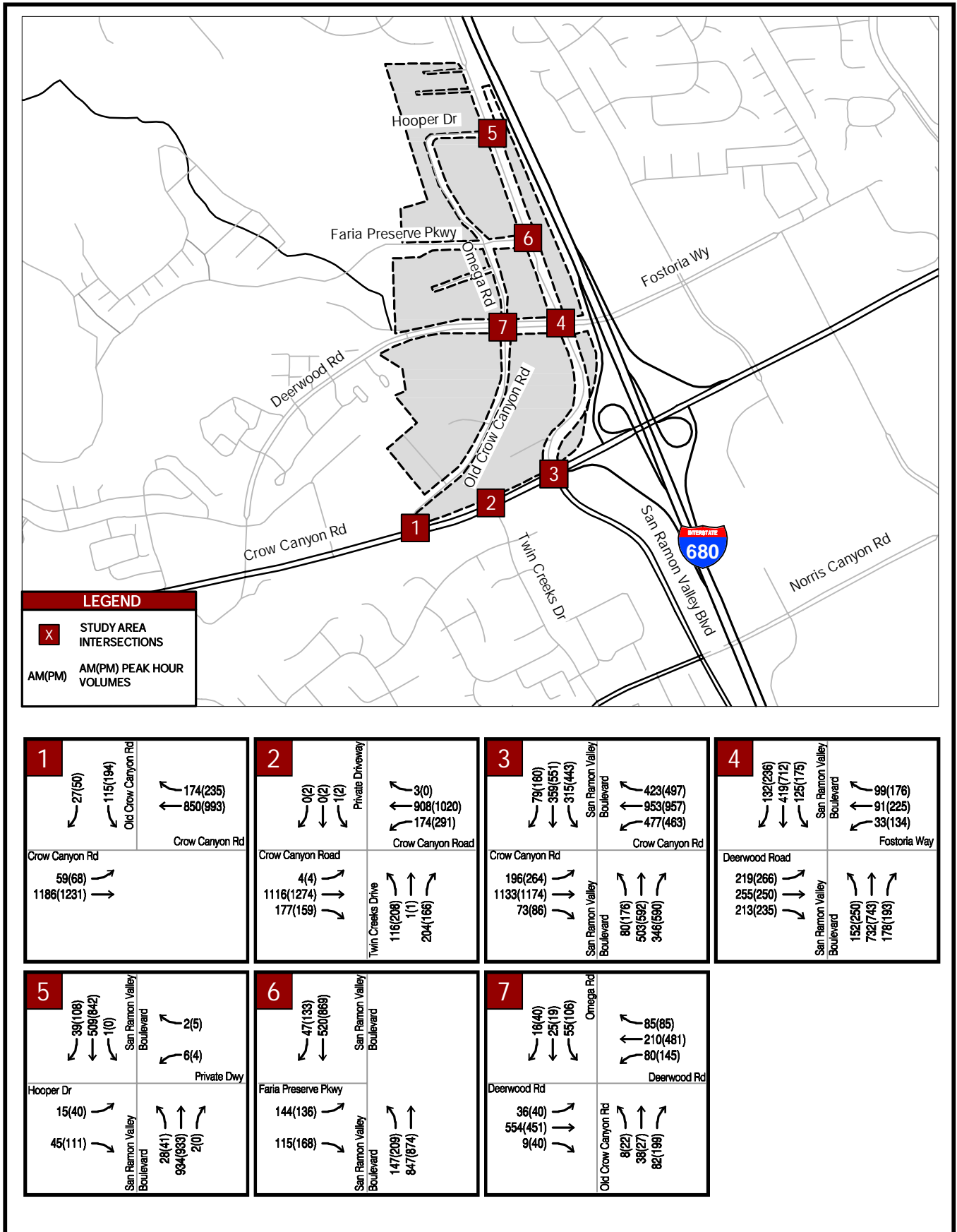


FIGURE 11
 CUMULATIVE CONDITIONS
 PEAK HOUR TURNING MOVEMENT VOLUMES

CUMULATIVE (2040) PLUS PROJECT INTERSECTION LEVEL OF SERVICE

Cumulative (2040) Plus Project traffic conditions were evaluated at the study intersections and are shown in **Figure 12**. Results of the analysis are presented in **Table 13**. All study intersections function within acceptable LOS standards under this analysis scenario, except for the following intersection:

- #5 – Hooper Drive / San Ramon Valley Boulevard (AM and PM peak hours)
 - This intersection will continue to operate at unacceptable LOS in the AM and PM peak hours in the plus project conditions. However, the eastbound stop control delay is reduced in plus project conditions as a result of fewer trips using this access. Therefore, there are no project impacts at this intersection.

Analysis sheets are provided in the **Appendix**.

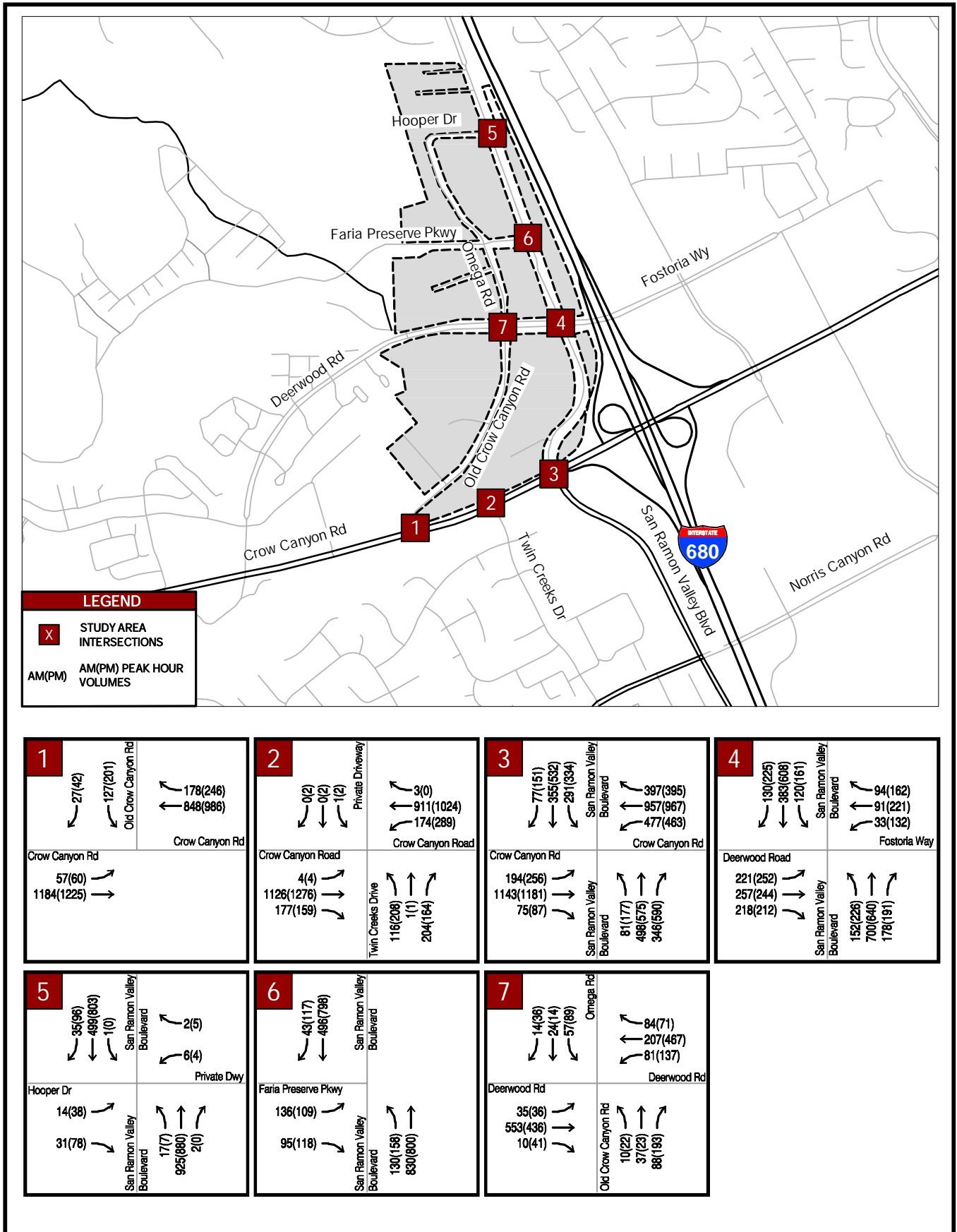


FIGURE 12
 CUMULATIVE PLUS PROJECT CONDITIONS
 PEAK HOUR TURNING MOVEMENT VOLUMES

Table 13 - Cumulative (2040) Plus Project Intersection Level of Service Summary

#	Intersection	LOS Criteria	Jurisdiction	Control	Cumulative				Cumulative + Project					
					AM Peak		PM Peak		AM Peak			PM Peak		
					LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	Delay Var	LOS	Delay (sec)	Delay Var
1	Crow Canyon Road/Old Crow Canyon Road	D	City	Signal	A	8.0	B	10.6	A	8.4	0.4	B	10.4	-0.2
2	Crow Canyon Road/Twin Creeks Drive	D	City	Signal	C	21.4	C	25.3	C	21.3	-0.1	C	25.2	-0.1
3	Crow Canyon Road/San Ramon Valley Boulevard	D	City	Signal	D	39.8	D	47.1	D	39.4	-0.4	D	44.2	-2.9
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	City	Signal	D	37.2	D	42.9	D	37.4	0.2	D	42.4	-0.5
5	Hooper Drive/San Ramon Valley Boulevard	D	City	SSSC	A	1.0	A	3.4	A	0.8	-0.2	A	2.2	-1.2
	<i>Worst Approach</i>				E	40.4	E	41.4	E	36.9	-3.5	D	30.4	-11.0
6	Faria Preserve Parkway/San Ramon Valley Boulevard	D	City	Signal	C	21.1	C	22.5	C	20.0	-1.1	B	18.9	-3.6
7	Deerwood Road/Old Crow Canyon Road/Omega Road	D	City	AWSC	B	13.6	C	19.3	B	13.7	0.1	C	17.6	-1.7

Note: Intersections that are operating below acceptable levels are shown in **BOLD** and significant impacts are highlighted.

A negative net difference in plus project trips resulted in reduced traffic and lower delays at some intersections under plus project conditions

5. MULTIMODAL TRANSPORTATION SERVICE OBJECTIVES

Other than intersection level of service analysis, no other MTSOs were identified or required by the *Tri-Valley Transportation and Action Plan* within the study area. San Ramon Valley Boulevard and Crow Canyon Road are both identified as routes of regional significance in the action plan and intersection LOS analysis is the only identified MTSO. Previous chapters in this report fulfill the requirement from the action plan to evaluate intersection LOS.

While the action plan does not identify any specific MTSO with respect to transit, pedestrian, and bicycle mobility within the study area, the specific plan update does address how it plans to improve these modes of transportation. Specifically, the update mentions the following:

- Guidelines for new development south of Deerwood Road would be designed to encourage creek-oriented development to showcase and allow public access as a way to showcase this important natural amenity.
- Given the focus of near-term development at the village node and the surrounding residential uses envisioned on Deerwood Road, Omega Road, and Old Crow Canyon Road, bicycle and pedestrian improvements would be concentrated in those areas.
- Wide sidewalks, striped crosswalks, street furniture, and bike lanes are envisioned along Omega Road, Old Crow Canyon Road, Faria Preserve Parkway and Deerwood Road near the location of new residential development.
- A network of creekside trails would improve connectivity for current and future San Ramon residents, as would mid-block pedestrian pathways linking residential and commercial/retail areas within the CCSP area.

These proposed improvements and plan elements are consistent with the previous specific plan and are anticipated to improve the walkability of the specific plan area within the core while also facilitating bike and transit use through integrated bike lanes and pedestrian facilities to local bus stops. A map detailing proposed new bike and pedestrian facilities is included as part of the proposed preferred alternative specific plan update included in the **Appendix**.

6. SUMMARY OF IMPACTS AND RECOMMENDED MITIGATIONS

There are no impacts or recommended mitigations associated with the proposed project.

APPENDIX

A - TURNING MOVEMENT COUNTS

B - EXISTING TRAFFIC CONDITIONS LOS REPORTS

C - LAND USE, TRIP GENERATION, AND TRIP ASSIGNMENT ASSUMPTIONS

D - EXISTING PLUS PROJECT TRAFFIC CONDITIONS LOS REPORTS

E - CCTA TRAVEL DEMAND FORECAST MODEL PLOTS

F - CUMULATIVE TRAFFIC CONDITIONS LOS REPORTS

G - CUMULATIVE PLUS PROJECT TRAFFIC CONDITION LOS REPORTS

H - CROW CANYON SPECIFIC PLAN UPDATE – PREFERRED ALTERNATIVE

A - Turning Movement Counts

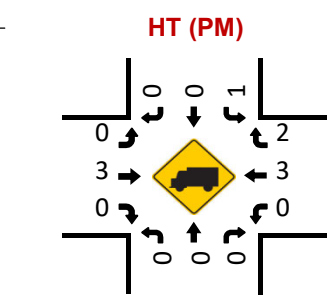
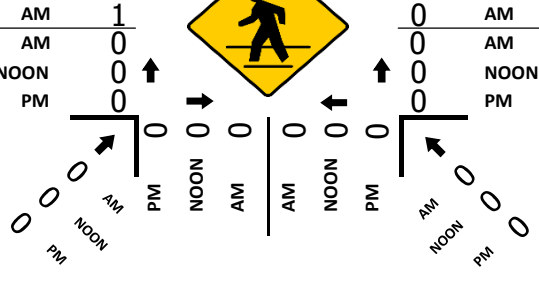
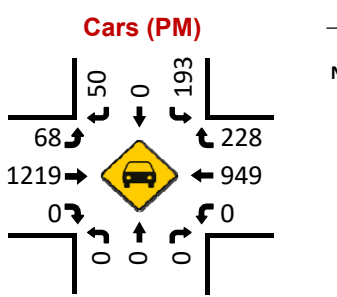
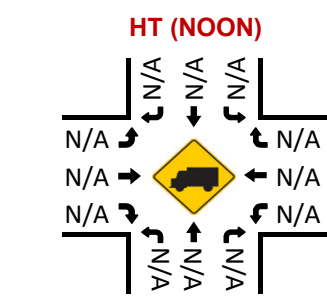
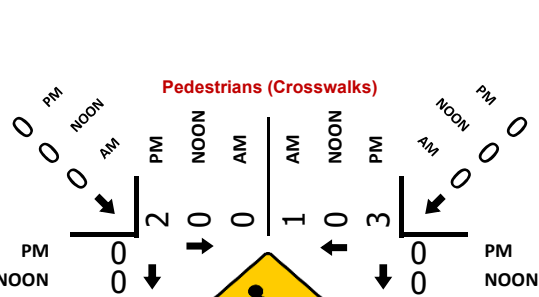
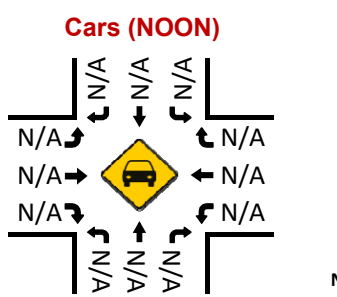
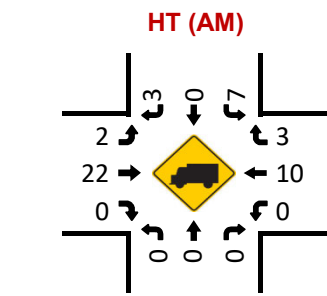
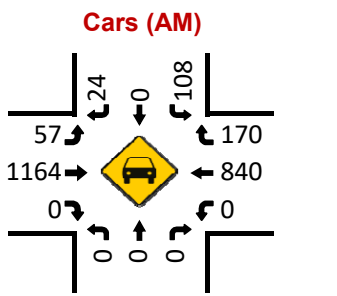
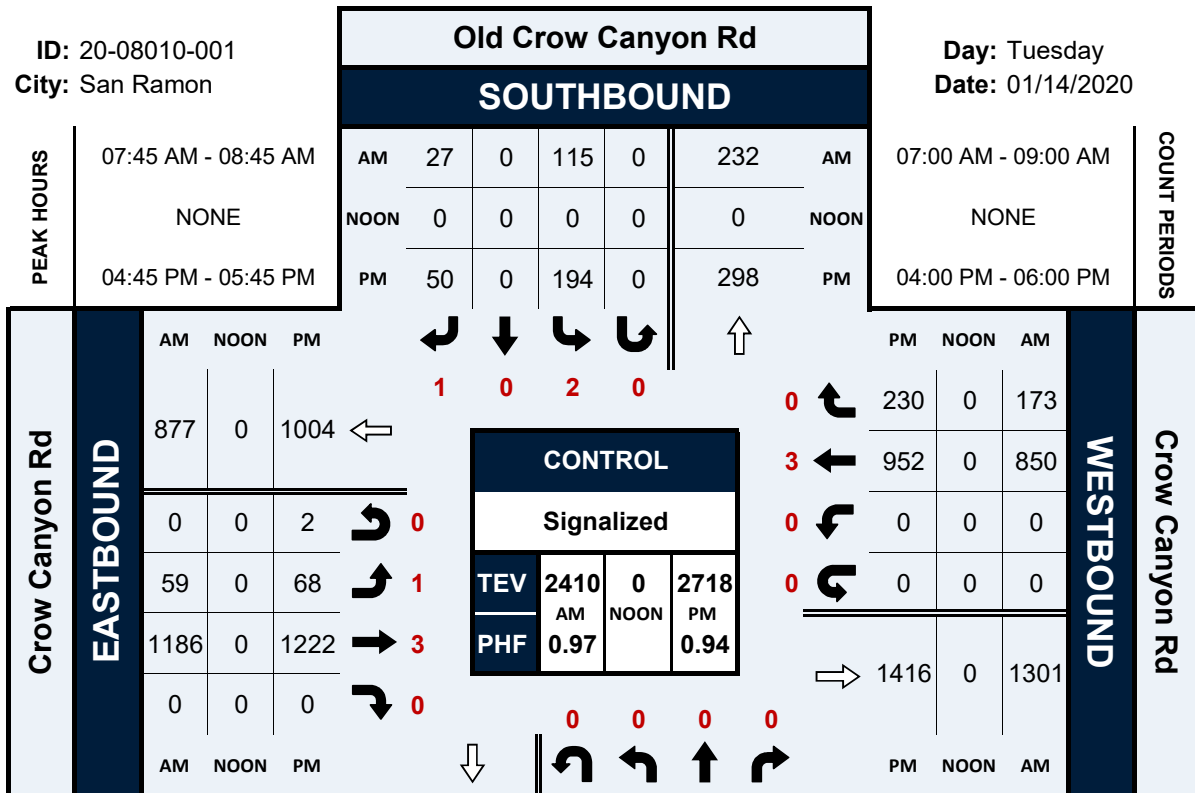


Old Crow Canyon Rd & Crow Canyon Rd

Peak Hour Turning Movement Count

ID: 20-08010-001
City: San Ramon

Day: Tuesday
Date: 01/14/2020

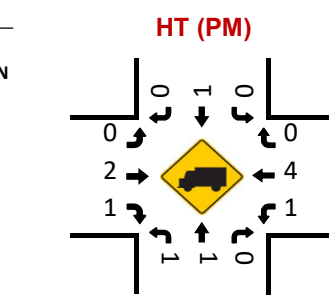
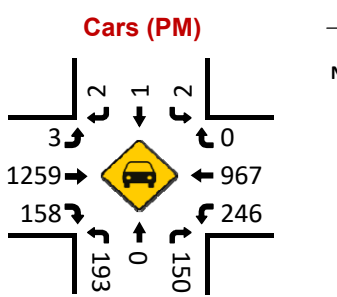
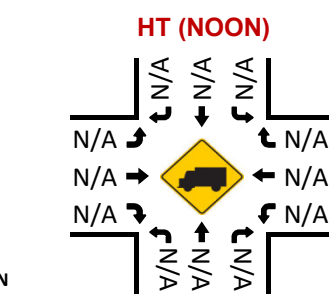
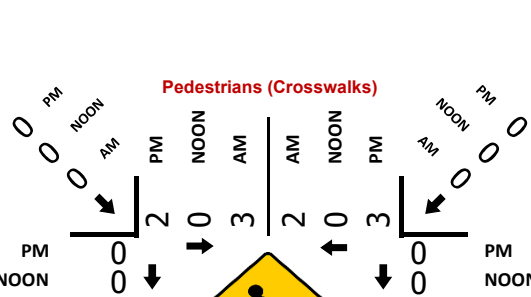
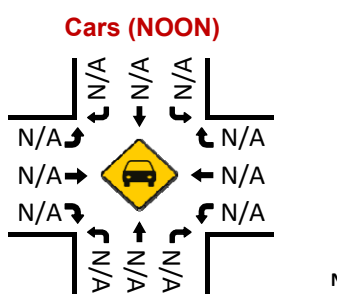
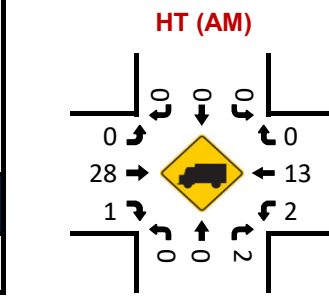
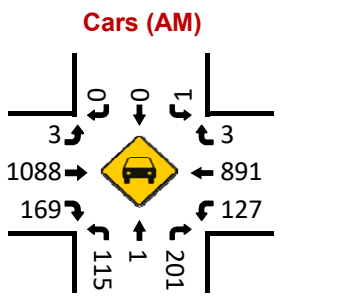
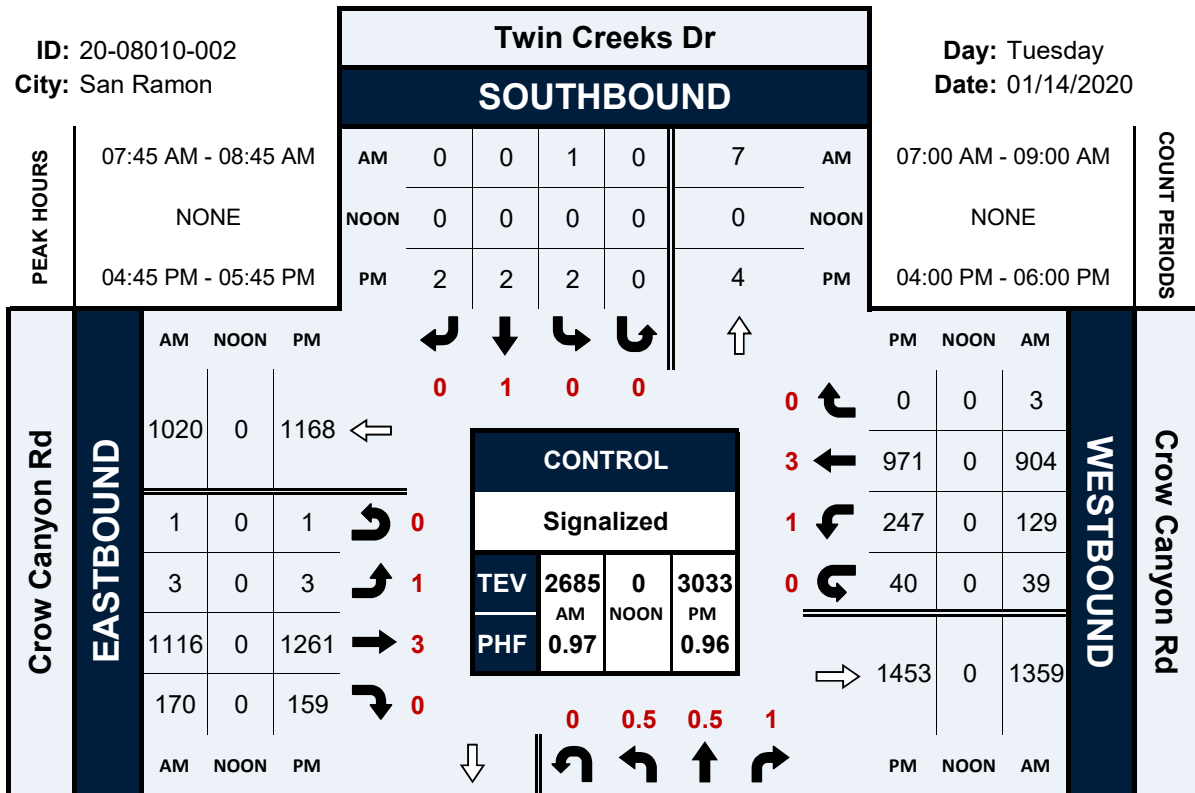


Twin Creeks Dr & Crow Canyon Rd

Peak Hour Turning Movement Count

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City: San Ramon

Day: Tuesday
Date: 01/14/2020

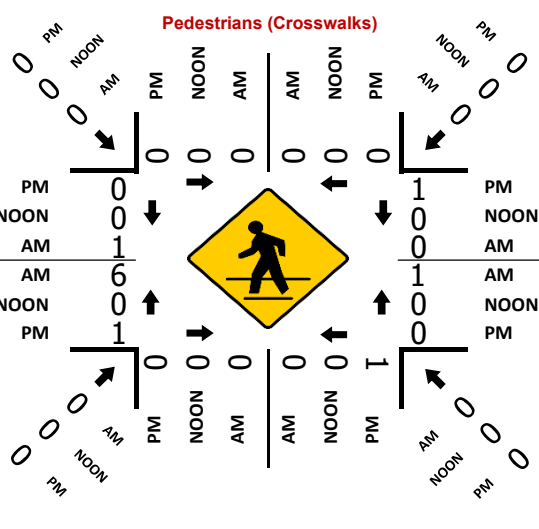
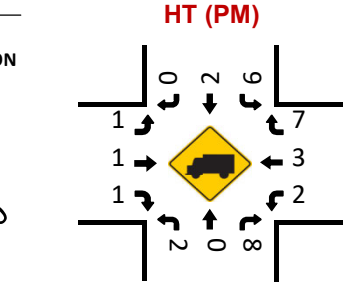
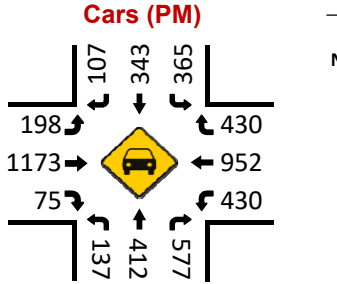
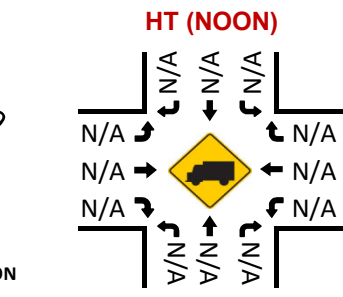
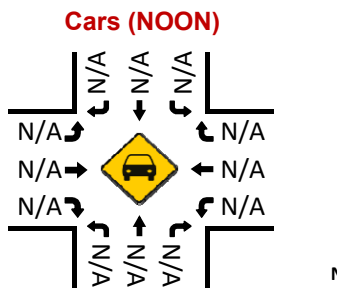
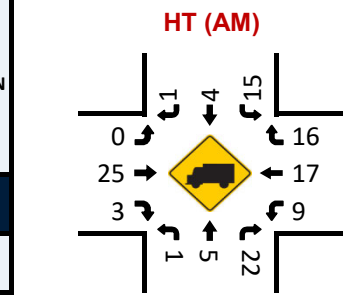
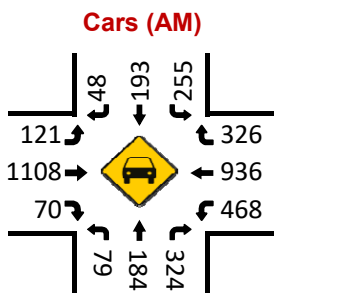
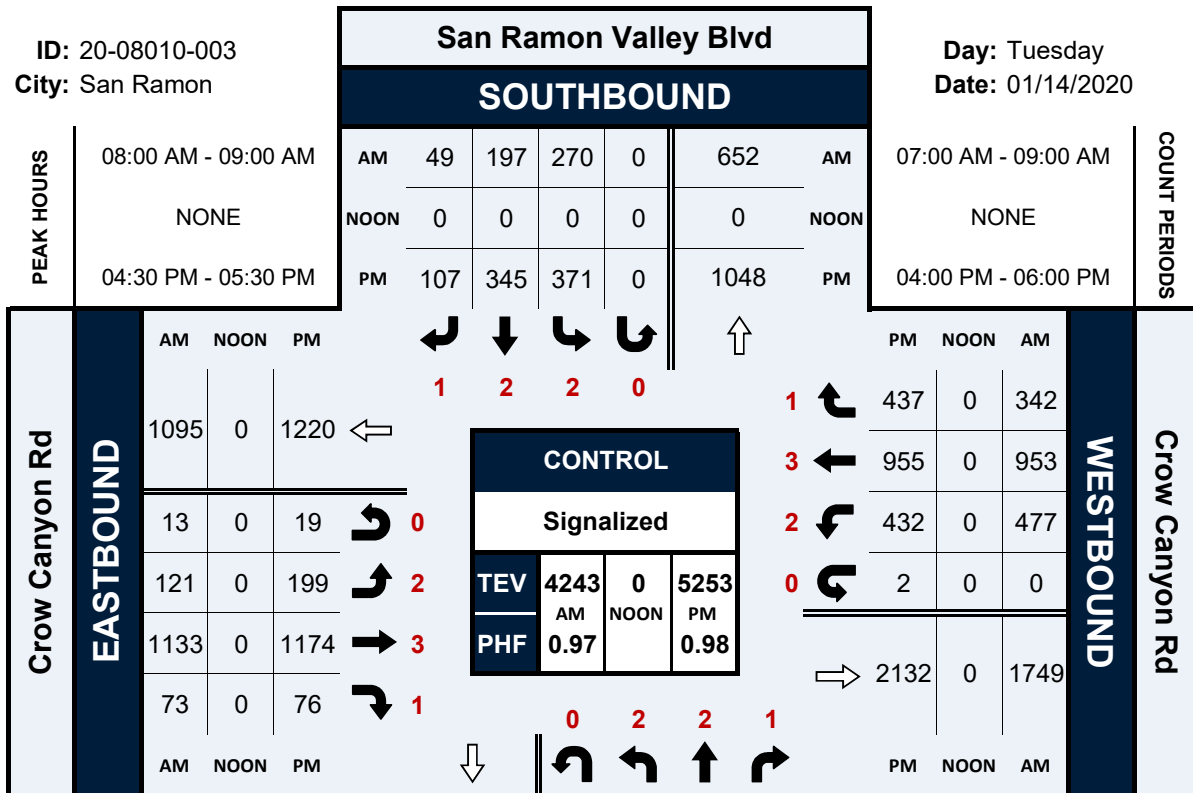


San Ramon Valley Blvd & Crow Canyon Rd

Peak Hour Turning Movement Count

ID: 20-08010-003
City: San Ramon

Day: Tuesday
Date: 01/14/2020

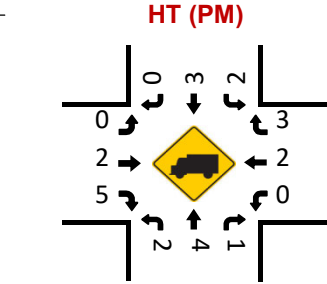
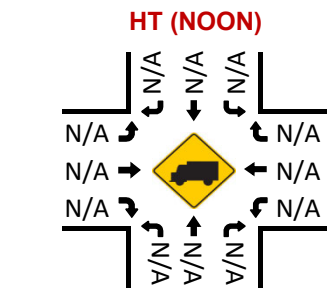
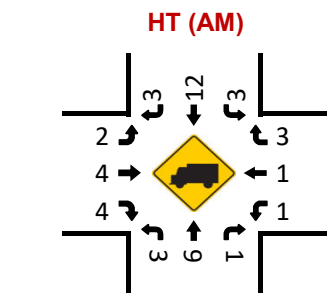
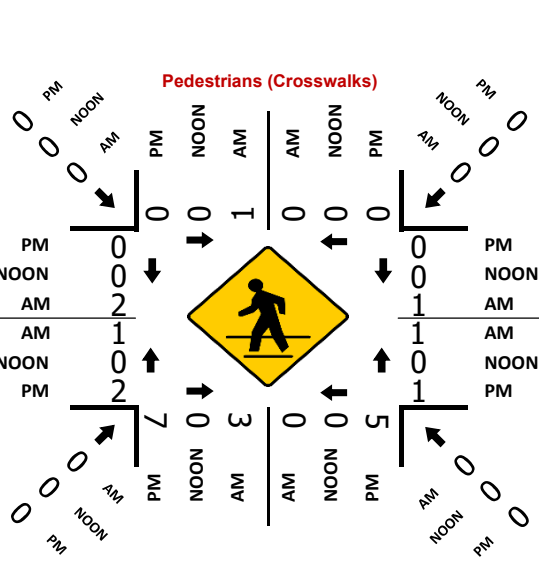
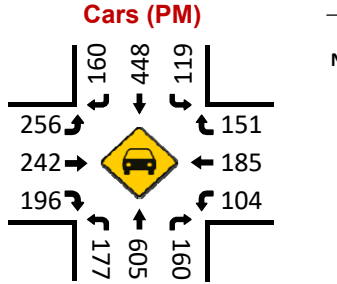
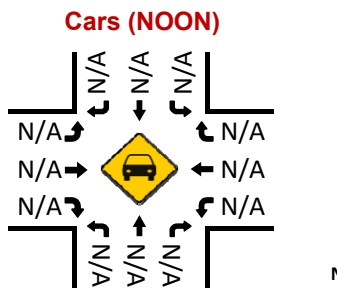
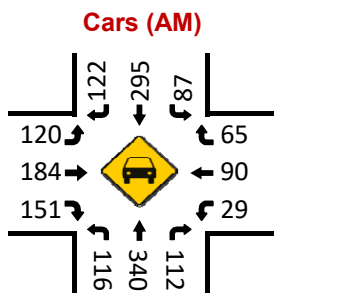
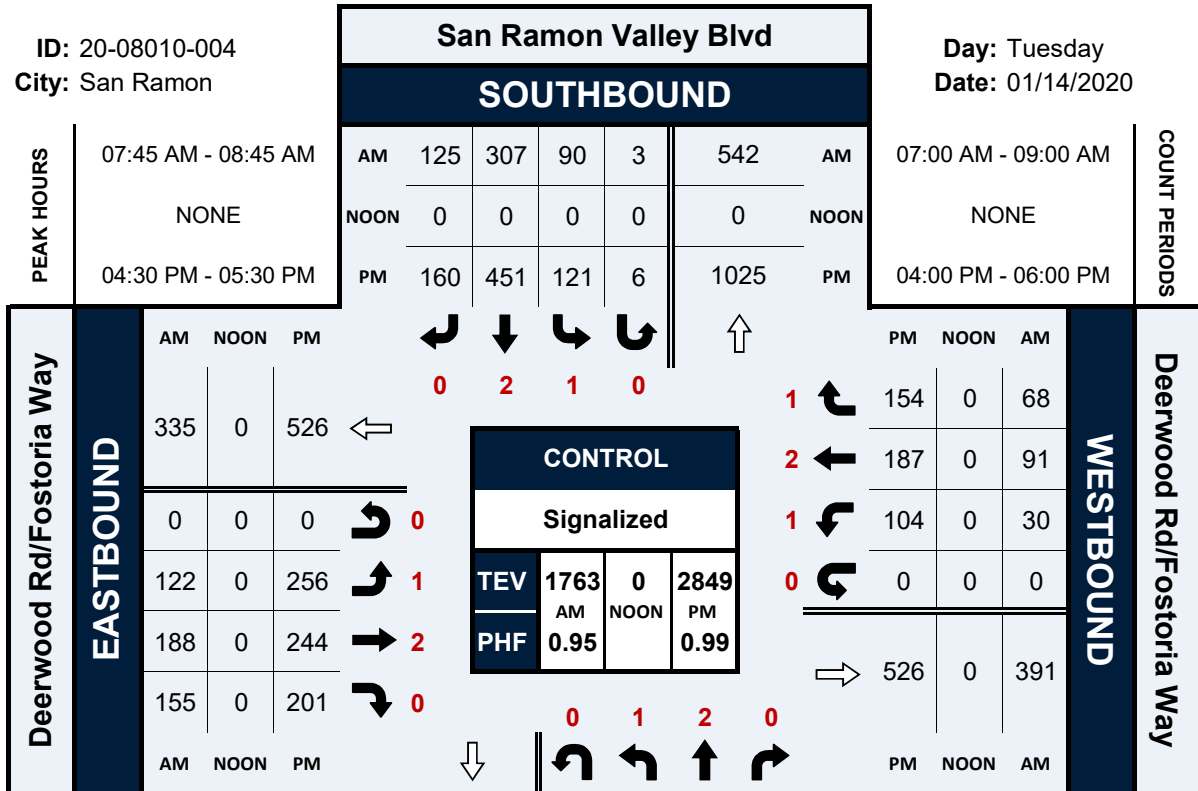


San Ramon Valley Blvd & Deerwood Rd/Fostoria Way

Peak Hour Turning Movement Count

ID: 20-08010-004
City: San Ramon

Day: Tuesday
Date: 01/14/2020

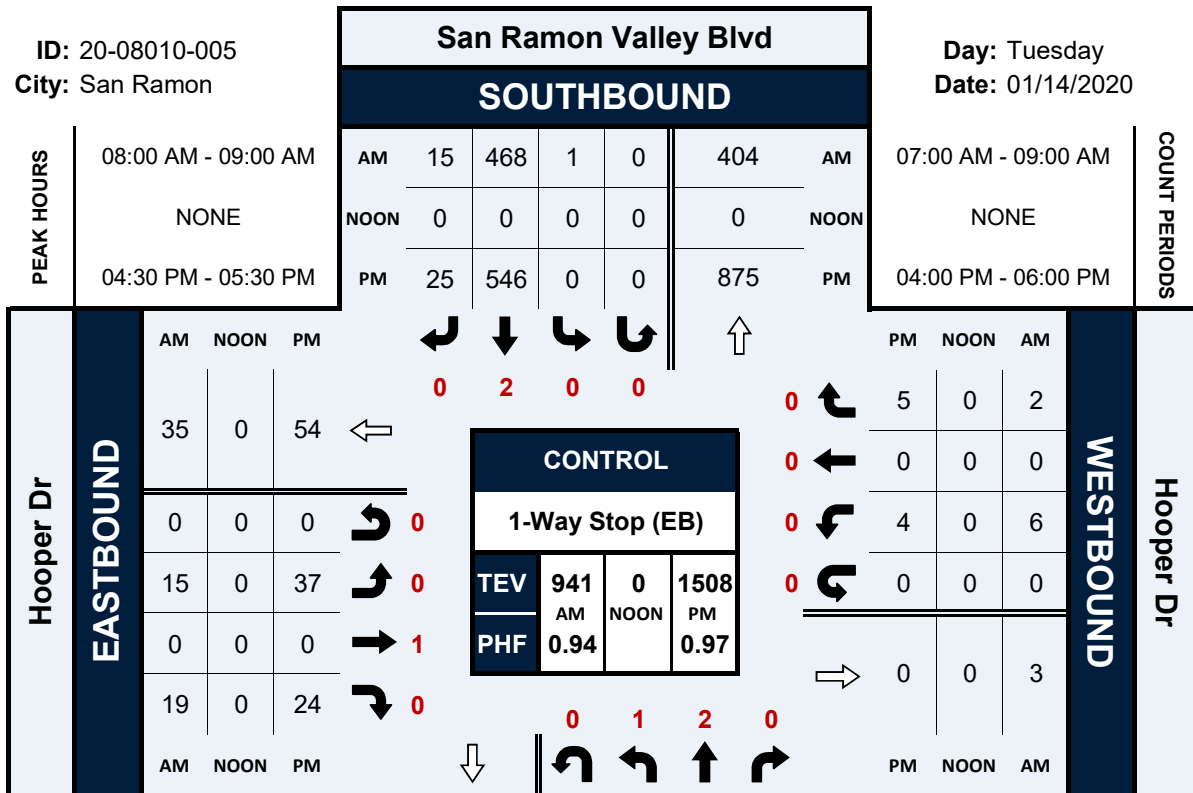


San Ramon Valley Blvd & Hooper Dr

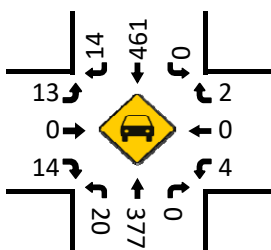
Peak Hour Turning Movement Count

ID: 20-08010-005
City: San Ramon

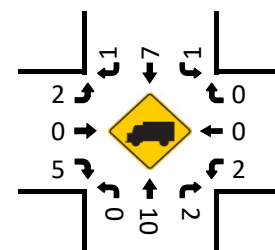
Day: Tuesday
Date: 01/14/2020



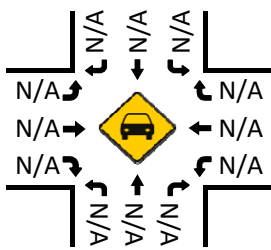
Cars (AM)



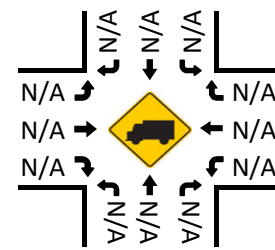
HT (AM)



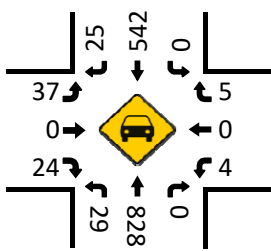
Cars (NOON)



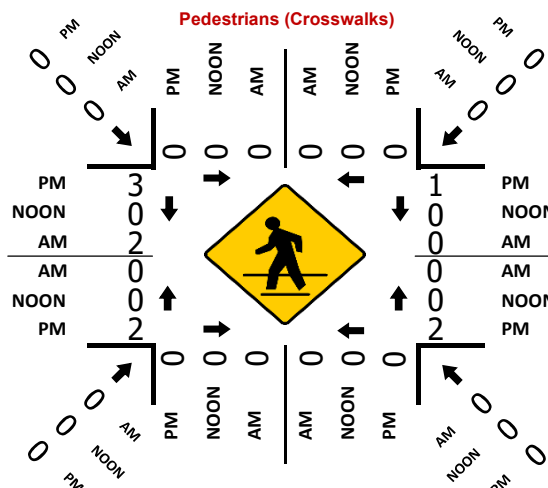
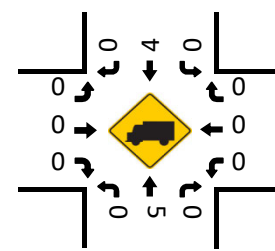
HT (NOON)



Cars (PM)



HT (PM)

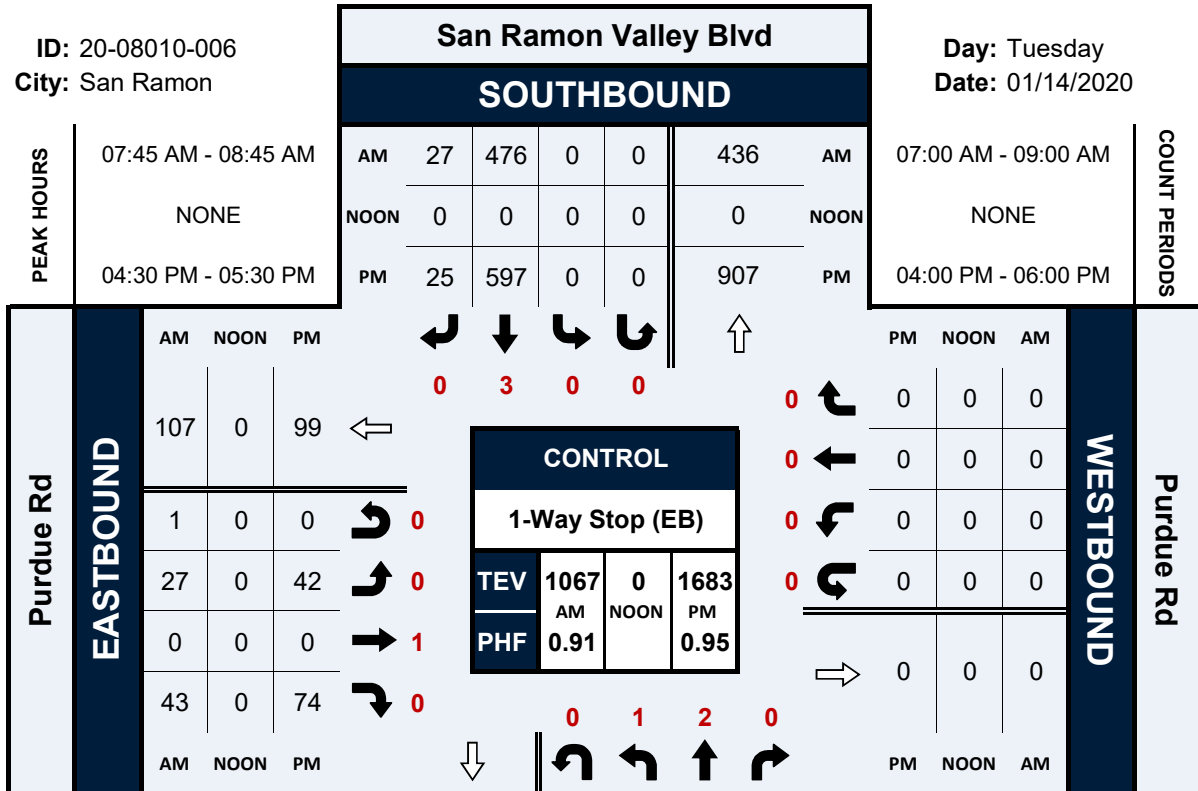


San Ramon Valley Blvd & Purdue Rd

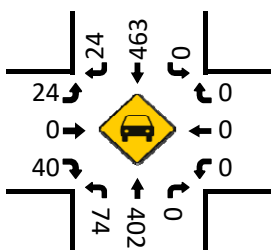
Peak Hour Turning Movement Count

ID: 20-08010-006
City: San Ramon

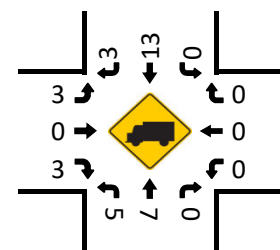
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Date: 01/14/2020



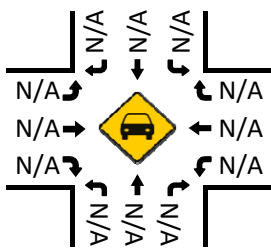
Cars (AM)



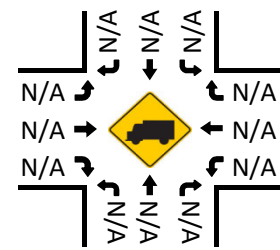
HT (AM)



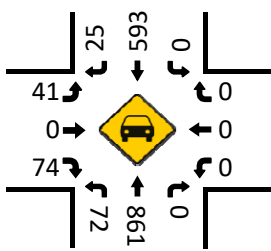
Cars (NOON)



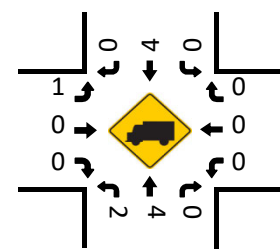
HT (NOON)



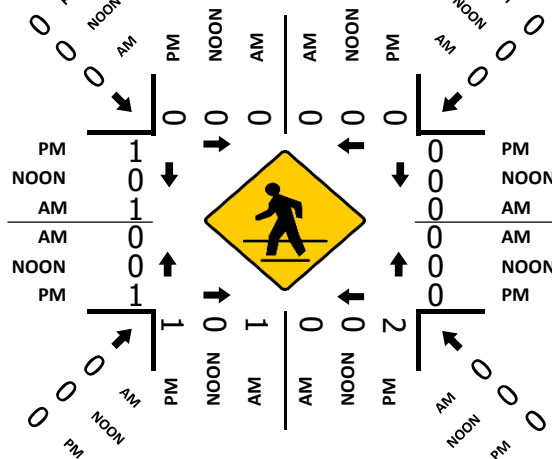
Cars (PM)



HT (PM)



Pedestrians (Crosswalks)



B - Existing Traffic Conditions



Scenario Report

Scenario: Existing AM
Command: Default Command
Volume: Existing AM
Geometry: Existing AM
Impact Fee: Default Impact Fee
Trip Generation: No Project
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base			Future			Change in
		LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1	Crow Canyon Rd/Old Crow Canyon	A	8.0	0.306	A	8.0	0.306	+ 0.000 D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	C	21.2	0.541	C	21.2	0.541	+ 0.000 D/V
# 3	Crow Canyon Rd/San Ramon Valle	C	34.8	0.599	C	34.8	0.599	+ 0.000 D/V
# 4	San Ramon VALley Blvd/Deerwood	D	38.3	0.316	D	38.3	0.316	+ 0.000 D/V
# 5	San Ramon VALley Blvd/Hooper D	C	16.5	0.062	C	16.5	0.062	+ 0.000 D/V
# 6	San Ramon Valley Blvd/Faria Pr	B	14.7	0.125	B	14.7	0.125	+ 0.000 D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	B	10.8	0.322	B	10.8	0.322	+ 0.000 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 110 Critical Vol./Cap.(X): 0.306
Loss Time (sec): 9 Average Delay (sec/veh): 8.0
Optimal Cycle: 60 Level Of Service: A

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 110 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 9 Average Delay (sec/veh): 21.2
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 135 Critical Vol./Cap.(X): 0.599
Loss Time (sec): 12 Average Delay (sec/veh): 34.8
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 135 Critical Vol./Cap.(X): 0.316
Loss Time (sec): 12 Average Delay (sec/veh): 38.3
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C [16.5]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Table with 12 columns for volume counts and adjustment factors.

Critical Gap Module: Table with 12 columns for critical gap and follow-up time values.

Capacity Module: Table with 12 columns for conflict volume, potential capacity, and volume/capacity ratios.

Level Of Service Module: Table with 12 columns for LOS metrics like 2Way95thQ, Control Del, and Shared LOS.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[14.7]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module: Critical Gp, FollowUpTim. Rows include Critical Gp and FollowUpTim.

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows include Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.322
Loss Time (sec): 0 Average Delay (sec/veh): 10.8
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM
Base Vol: 8 38 80 55 25 16 36 334 8 80 173 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 8 38 80 55 25 16 36 334 8 80 173 85
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 8 38 80 55 25 16 36 334 8 80 173 85
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 9 41 87 60 27 17 39 363 9 87 188 92
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 9 41 87 60 27 17 39 363 9 87 188 92
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 9 41 87 60 27 17 39 363 9 87 188 92

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.06 0.30 0.64 0.69 0.31 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 35 165 348 332 151 558 520 1127 627 509 1098 614

Capacity Analysis Module:
Vol/Sat: 0.25 0.25 0.25 0.18 0.18 0.03 0.08 0.32 0.01 0.17 0.17 0.15
Crit Moves: **** **** ****
Delay/Veh: 11.1 11.1 11.1 11.1 11.1 8.8 9.9 11.7 8.3 10.8 10.2 9.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.1 11.1 11.1 11.1 11.1 8.8 9.9 11.7 8.3 10.8 10.2 9.2
LOS by Move: B B B B B A A B A B B A
ApproachDel: 11.1 10.7 11.4 10.1
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 11.1 10.7 11.4 10.1
LOS by Appr: B B B B
AllWayAvgQ: 7.2 7.2 7.2 4.7 4.7 0.7 1.9 10.9 0.3 4.7 4.7 4.0

Note: Queue reported is the distance per lane in feet.

Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound							
	L	--	T	--	R	L	--	T	--	R	L	--	T	--	R		
#1 [HCM2k95thQ]:	0		0		0	109		0		49	109	198	0		0	245	245
#2 [HCM2k95thQ]:	179	180	320		1	0		0		6	503	503	286	308	308		
#3 [HCM2k95thQ]:	93	201	546		307	192		91		160	631	100	454	395	407		
#4 [HCM2k95thQ]:	219	279	173		180	264		208		216	149	245	81	96	142		
#5 [2Way95thQ]:	2.0	xxxx	xxxx		0.1	0.1		xxxx		4.9	4.9	2.2	2.0	2.0	2.0		
#6 [2Way95thQ]:	7.6	xxxx	xxxx		xxxx	xxxx		xxxx		10.5	10.5	5.1	xxxx	xxxx	xxxx		
#7 [AllWayAvgQ]	7.2	7.2	7.2		4.7	4.7		0.7		1.9	10.9	0.3	4.7	4.7	4.0		

Scenario Report

Scenario: Existing PM
Command: Default Command
Volume: Existing PM
Geometry: Existing PM
Impact Fee: Default Impact Fee
Trip Generation: No Project
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 1	Crow Canyon Rd/Old Crow Canyon	B	10.1 0.389	B	10.1 0.389	+ 0.000	D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	C	23.5 0.684	C	23.5 0.684	+ 0.000	D/V
# 3	Crow Canyon Rd/San Ramon Valle	D	41.8 0.813	D	41.8 0.813	+ 0.000	D/V
# 4	San Ramon VALley Blvd/Deerwood	D	39.5 0.547	D	39.5 0.547	+ 0.000	D/V
# 5	San Ramon VALley Blvd/Hooper D	D	26.8 0.256	D	26.8 0.256	+ 0.000	D/V
# 6	San Ramon Valley Blvd/Faria Pr	C	20.6 0.288	C	20.6 0.288	+ 0.000	D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	C	15.6 0.550	C	15.6 0.550	+ 0.000	V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 101 Critical Vol./Cap.(X): 0.389
Loss Time (sec): 9 Average Delay (sec/veh): 10.1
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 18 Jan 2020 << 4:45 PM - 5:45 PM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Volume, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 101 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 9 Average Delay (sec/veh): 23.5
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Table with 12 columns for volume data. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns for saturation flow data. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for capacity analysis data. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 123 Critical Vol./Cap.(X): 0.813
Loss Time (sec): 12 Average Delay (sec/veh): 41.8
Optimal Cycle: 86 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Table with 12 columns for volume counts. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 123 Critical Vol./Cap.(X): 0.547
Loss Time (sec): 12 Average Delay (sec/veh): 39.5
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow, adjustment, lanes, and final saturation.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: D[26.8]

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Lanes:	1	0	1	1	1	0	0	0	2	0	1	0	0	1	0

Volume Module:	>>	Count	Date:	14	Jan	2020	<<	4:30	PM	-	5:30	PM
Base Vol:	34	833	0	0	546	25	37	0	24	4	0	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	833	0	0	546	25	37	0	24	4	0	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	833	0	0	546	25	37	0	24	4	0	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	35	859	0	0	563	26	38	0	25	4	0	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	35	859	0	0	563	26	38	0	25	4	0	5

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	6.9	7.3	7.9	6.9	7.3
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.7	4.2	3.5	3.7	4.2	3.5

Capacity Module:												
Cnflct Vol:	589	xxxx	xxxxx	xxxx	xxxx	xxxxx	1064	1492	281	1210	1518	431
Potent Cap.:	983	xxxx	xxxxx	xxxx	xxxx	xxxxx	155	104	664	119	100	525
Move Cap.:	983	xxxx	xxxxx	xxxx	xxxx	xxxxx	149	100	664	112	96	524
Volume/Cap:	0.04	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.26	0.00	0.04	0.04	0.00	0.01

Level Of Service Module:															
2Way95thQ:	2.8	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2.9	xxxx	xxxx	xxxxx			
Control Del:	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.6	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*	*	*	*	*	*	B	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	149	xxxx	xxxxx	xxxx	199	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.0	xxxx	xxxxx	xxxxx	0.1	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	37.3	xxxx	xxxxx	xxxxx	24.0	xxxxx			
Shared LOS:	*	*	*	*	*	*	E	*	*	*	C	*			
ApproachDel:	xxxxxx				xxxxxx		26.8			24.0					
ApproachLOS:		*			*		D			C					

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C [20.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns for traffic volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Table with 12 columns for critical gap and follow-up time metrics.

Table with 12 columns for capacity and conflict metrics.

Table with 12 columns for level of service and delay metrics.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.550
Loss Time (sec): 0 Average Delay (sec/veh): 15.6
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 1 0 0 1 1 0 2 0 1

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM
Base Vol: 20 27 195 106 19 40 40 404 40 141 316 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 20 27 195 106 19 40 40 404 40 141 316 85
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 20 27 195 106 19 40 40 404 40 141 316 85
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 22 30 214 116 21 44 44 444 44 155 347 93
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 22 30 214 116 21 44 44 444 44 155 347 93
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 22 30 214 116 21 44 44 444 44 155 347 93

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.08 0.11 0.81 0.85 0.15 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 40 54 389 341 61 455 420 901 489 428 911 497

Capacity Analysis Module:
Vol/Sat: 0.55 0.55 0.55 0.34 0.34 0.10 0.10 0.49 0.09 0.36 0.38 0.19
Crit Moves: ****
Delay/Veh: 18.1 18.1 18.1 15.1 15.1 10.7 11.9 17.4 10.4 15.2 14.8 11.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 18.1 18.1 18.1 15.1 15.1 10.7 11.9 17.4 10.4 15.2 14.8 11.2
LOS by Move: C C C C C B B C B C B B
ApproachDel: 18.1 14.0 16.4 14.3
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 18.1 14.0 16.4 14.3
LOS by Appr: C B C B
AllWayAvgQ: 26.4 26.4 26.4 11.0 11.0 2.3 2.7 21.7 2.3 13.0 14.0 5.3

Note: Queue reported is the distance per lane in feet.

 Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
#1 [HCM2k95thQ]:	0	0	0	165	0	81	127	242	0	0	315	315
#2 [HCM2k95thQ]:	344	344	220	8	8	8	6	601	601	442	313	0
#3 [HCM2k95thQ]:	137	313	888	434	256	151	291	749	110	482	487	710
#4 [HCM2k95thQ]:	337	472	230	254	386	261	408	179	300	197	168	288
#5 [2Way95thQ]:	2.8	xxxx	xxxx	xxxx	xxxx	xxxx	24.2	24.2	2.9	3.7	3.7	3.7
#6 [2Way95thQ]:	7.5	xxxx	xxxx	xxxx	xxxx	xxxx	28.1	28.1	9.6	xxxx	xxxx	xxxx
#7 [AllWayAvgQ]	26.4	26.4	26.4	11.0	11.0	2.3	2.7	21.7	2.3	13.0	14.0	5.3

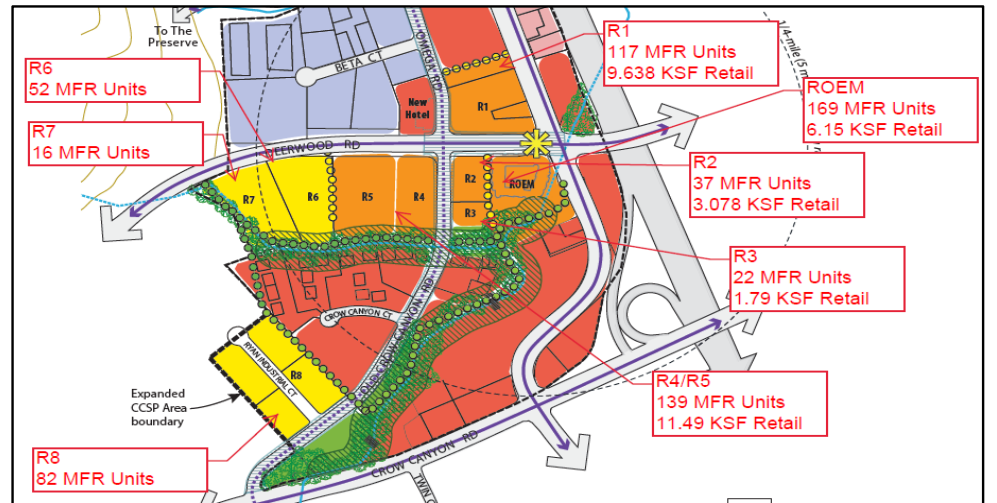
C - Land Use, Trip Generation and Trip Assignment Assumptions

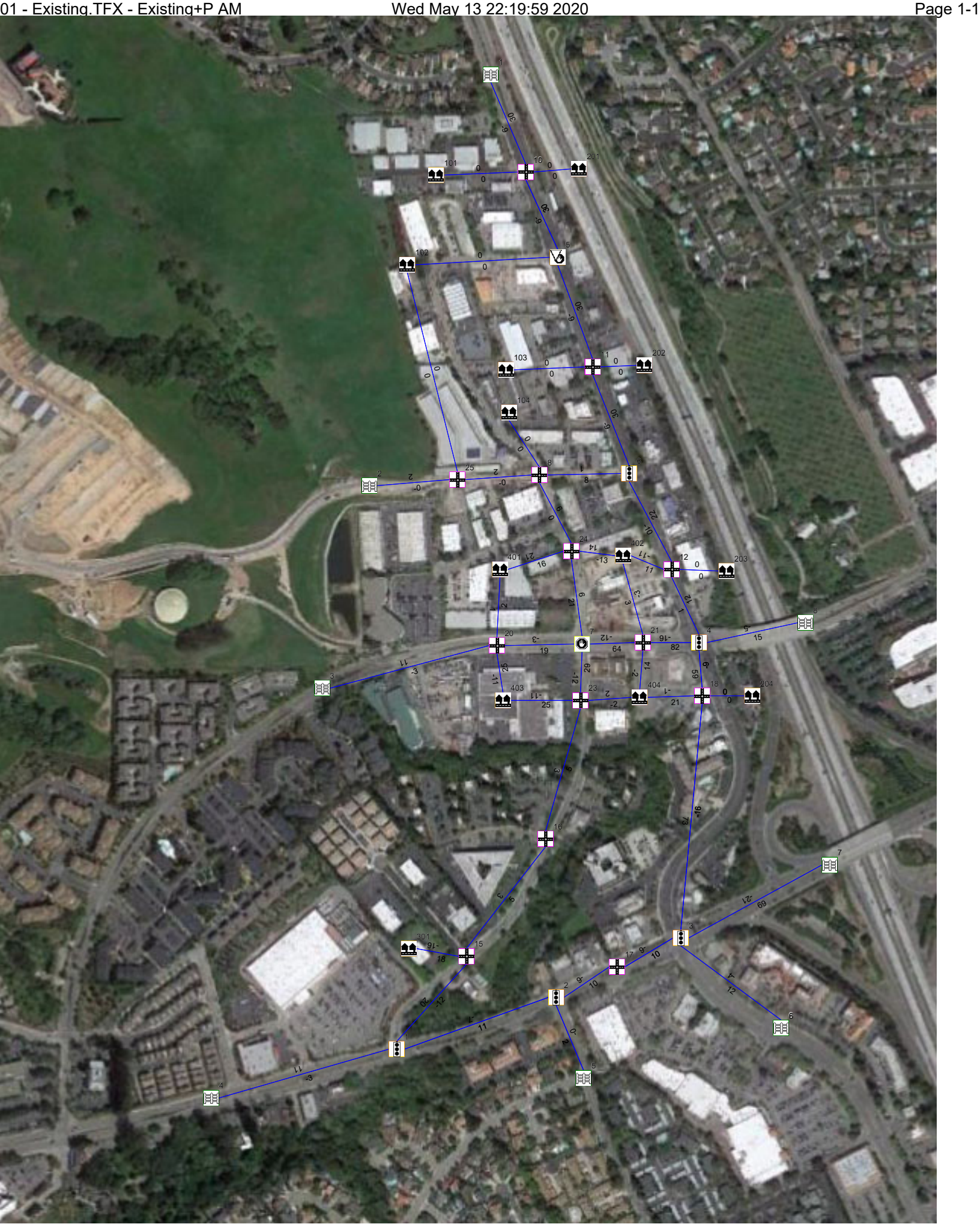


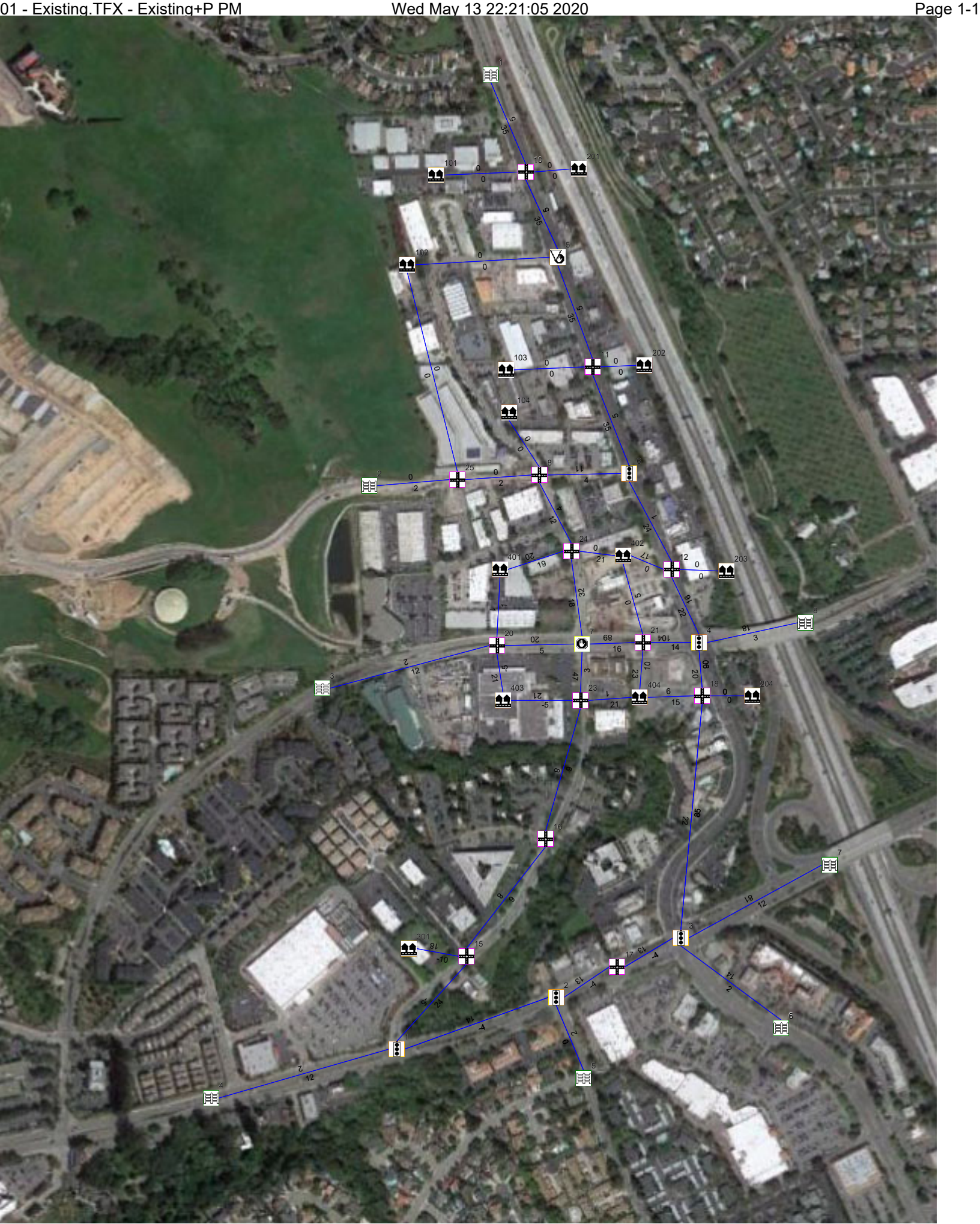
Existing Development and Planned Development Trip Generation Calculations

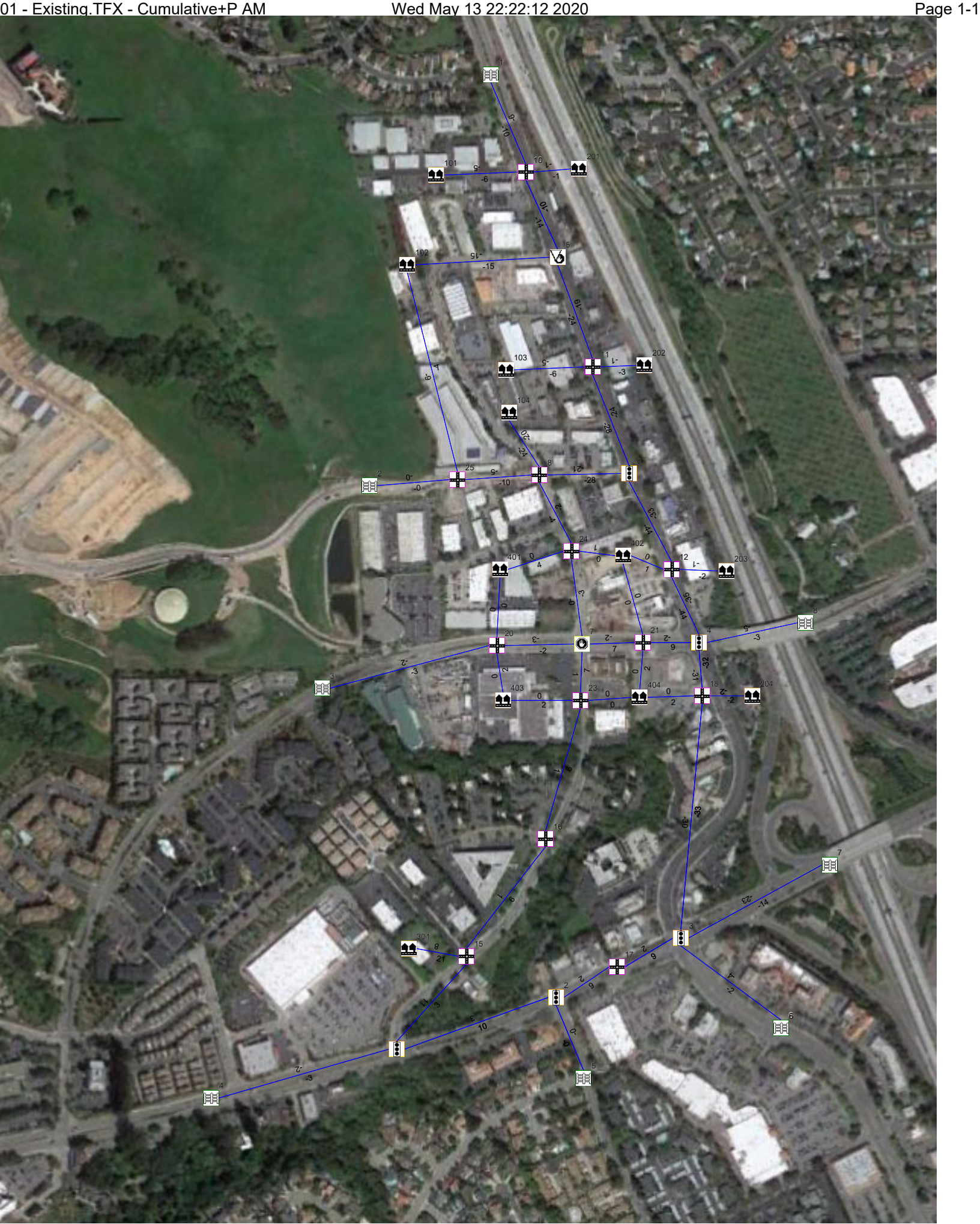
Zone	Scenario Type	ITE Land Use Code	Land Use	Size	Units	Trip Type	AM PEAK			PM PEAK			
							Total	IN	OUT	Total	IN	OUT	
R1	Existing	110	Light Industrial	71.5	KSF	Credit	50	44	6	45	6	39	
	Project	221	Multifamily Housing (Midrise)	117	DU	New	42	11	31	51	31	20	
	Project	820	Shopping Center	9.638	KSF	New	9	6	3	37	18	19	
						Net New	1	-27	28	43	43	0	
R2	Existing	565	Day Care Center	5	KSF	Credit	55	29	26	56	26	30	
	Project	221	Multifamily Housing (Midrise)	37	DU	New	13	3	10	16	10	6	
	Project	820	Shopping Center	3.078	KSF	New	3	2	1	12	6	6	
						Net New	-39	-24	-15	-28	-10	-18	
R3	Existing	560	Church	15	KSF	Credit	5	3	2	7	3	4	
	Project	221	Multifamily Housing (Midrise)	22	DU	New	8	2	6	10	6	4	
	Project	820	Shopping Center	1.79	KSF	New	2	1	1	7	3	4	
						Net New	5	0	5	10	6	4	
R4/5	Existing	495	Recreational Community Center	25	KSF	Credit	0	0	0	58	27	31	
	Existing	730	Government Office	6	KSF	Credit	20	15	5	10	2	8	
	Existing	110	Light Industrial	40	KSF	Credit	28	25	3	25	3	22	
	Project	221	Multifamily Housing (Midrise)	139	DU	New	50	13	37	61	37	24	
	Project	820	Shopping Center	11.49	KSF	New	11	7	4	44	21	23	
						Net New	13	-20	33	12	26	-14	
R6	Existing	110	Light Industrial	10	KSF	Credit	7	6	1	6	1	5	
	Project	221	Multifamily Housing (Midrise)	52	DU	New	19	5	14	23	14	9	
						Net New	12	-1	13	17	13	4	
R7	Existing	151	Mini-Warehouse	30	KSF	Credit	3	2	1	5	2	3	
	Project	221	Multifamily Housing (Midrise)	16	DU	New	6	1	5	7	4	3	
						Net New	3	-1	4	2	2	0	
R8	Existing	710	General Office Building	24	KSF	Credit	28	24	4	28	4	24	
	Project	221	Multifamily Housing (Midrise)	82	DU	New	30	8	22	36	22	14	
						Net New	2	-16	18	8	18	-10	
ROEM	Existing	--	Vacant	--	--	Credit	0	0	0	0	0	0	
	Project	221	Multifamily Housing (Midrise)	169	DU	New	61	16	45	74	45	29	
	Project	820	Shopping Center	6.15	KSF	New	6	4	2	23	11	12	
						Net New	67	20	47	97	56	41	
New Hotel	Existing	--	Vacant	--	--	Credit	0	0	0	0	0	0	
	Project	310	Hotel	90	Rooms	New	40	23	17	41	21	20	
						Net New	40	23	17	41	21	20	
Totals							Credit	196	148	48	240	74	166
							New	300	102	198	442	249	193
							Net New	104	-46	150	202	175	27

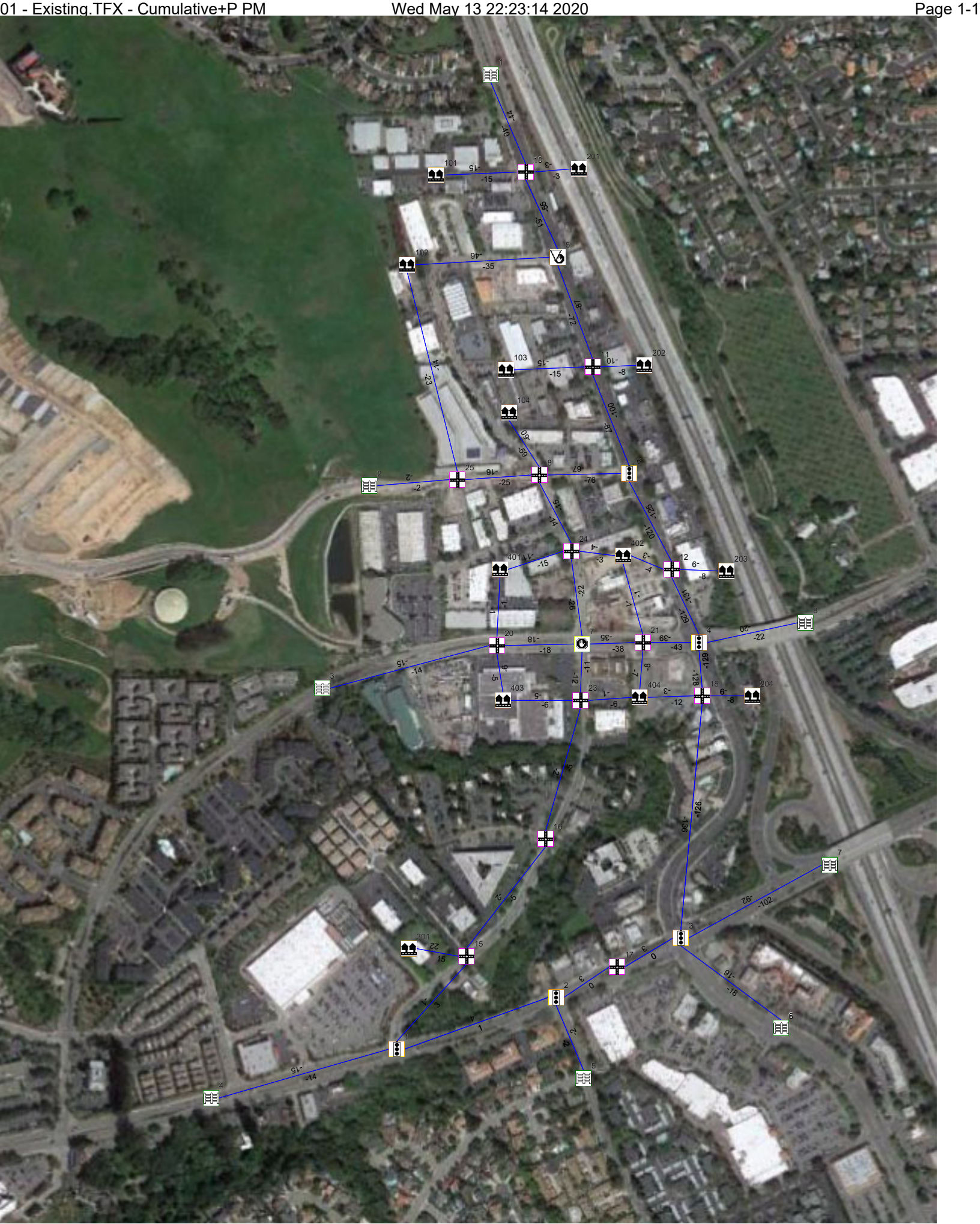
Zone	AM PEAK			PM PEAK		
	Total	IN	Out	Total	IN	OUT
North of Purdue	0	0	0	0	0	0
East of Boulevard	0	0	0	0	0	0
South of the Creek	2	-16	18	8	18	-10
The Core	102	-30	132	194	157	37
Total	104	-46	150	202	175	27











D - Existing Plus Project Traffic Conditions



Scenario Report

Scenario: Existing+P AM
Command: Default Command
Volume: Existing AM
Geometry: Ex+P AM
Impact Fee: Default Impact Fee
Trip Generation: Ex Proj AM
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base			Future			Change in
		LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1	Crow Canyon Rd/Old Crow Canyon	A	7.6	0.308	A	8.0	0.308	+ 0.447 D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	B	19.9	0.545	B	19.9	0.548	+ 0.011 D/V
# 3	Crow Canyon Rd/San Ramon Valle	C	32.1	0.604	C	33.4	0.627	+ 1.213 D/V
# 4	San Ramon VALley Blvd/Deerwood	D	35.2	0.319	D	35.4	0.357	+ 0.228 D/V
# 5	San Ramon VALley Blvd/Hooper D	C	16.5	0.062	C	17.1	0.063	+ 0.540 D/V
# 6	San Ramon Valley Blvd/Faria Pr	B	14.7	0.125	C	15.7	0.160	+ 1.003 D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	B	10.8	0.322	B	11.4	0.353	+ 0.031 V/C

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 101 Critical Vol./Cap.(X): 0.308
Loss Time (sec): 9 Average Delay (sec/veh): 8.0
Optimal Cycle: 60 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 101 Critical Vol./Cap.(X): 0.548
Loss Time (sec): 9 Average Delay (sec/veh): 19.9
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 123 Critical Vol./Cap.(X): 0.627
Loss Time (sec): 12 Average Delay (sec/veh): 33.4
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl/Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis values and 14 rows for various performance metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 123 Critical Vol./Cap.(X): 0.357
Loss Time (sec): 12 Average Delay (sec/veh): 35.4
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume and 12 rows for various adjustments and final volume.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C [17.1]

Table with 4 columns: Approach: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module: Critical Gp, FollowUpTim. Rows include Critical Gp and FollowUpTim.

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows include Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C [15.7]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module: Critical Gp, FollowUpTim. Rows include Critical Gp and FollowUpTim.

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows include Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.353
Loss Time (sec): 0 Average Delay (sec/veh): 11.4
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 1 0 0 1 1 0 2 0 1

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM
Base Vol: 8 38 80 55 25 16 36 334 8 80 173 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 8 38 80 55 25 16 36 334 8 80 173 85
Added Vol: 2 2 26 18 2 1 -1 20 0 -14 -6 8
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 10 40 106 73 27 17 35 354 8 66 167 93
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 11 43 115 79 29 18 38 385 9 72 182 101
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 11 43 115 79 29 18 38 385 9 72 182 101
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 11 43 115 79 29 18 38 385 9 72 182 101

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.06 0.26 0.68 0.73 0.27 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 35 139 368 345 128 546 504 1090 605 488 1047 583

Capacity Analysis Module:
Vol/Sat: 0.31 0.31 0.31 0.23 0.23 0.03 0.08 0.35 0.01 0.15 0.17 0.17
Crit Moves: ****
Delay/Veh: 11.9 11.9 11.9 11.8 11.8 9.0 10.1 12.4 8.5 10.9 10.6 9.7
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.9 11.9 11.9 11.8 11.8 9.0 10.1 12.4 8.5 10.9 10.6 9.7
LOS by Move: B B B B B A B B A B B A
ApproachDel: 11.9 11.4 12.1 10.4
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 11.9 11.4 12.1 10.4
LOS by Appr: B B B B
AllWayAvgQ: 9.9 9.9 9.9 6.4 6.4 0.7 1.9 12.4 0.3 3.9 4.7 4.7

Note: Queue reported is the distance per lane in feet.

Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L --	T --	R	L --	T --	R	L --	T --	R	L --	T --	R
#1 [HCM2k95thQ]:	0	0	0	110	0	58	98	199	0	0	232	232
#2 [HCM2k95thQ]:	169	169	303	1	0	0	5	475	474	271	291	291
#3 [HCM2k95thQ]:	83	188	526	339	184	88	149	608	97	434	380	377
#4 [HCM2k95thQ]:	206	271	172	175	262	187	214	133	280	80	85	129
#5 [2Way95thQ]:	2.0	xxxx	xxxx	0.1	0.1	xxxx	5.0	5.0	2.2	2.1	2.1	2.1
#6 [2Way95thQ]:	7.5	xxxx	xxxx	xxxx	xxxx	xxxx	14.0	14.0	5.1	xxxx	xxxx	xxxx
#7 [AllWayAvgQ]	9.9	9.9	9.9	6.4	6.4	0.7	1.9	12.4	0.3	3.9	4.7	4.7

Scenario Report

Scenario: Existing+P PM
Command: Default Command
Volume: Existing PM
Geometry: Ex+P PM
Impact Fee: Default Impact Fee
Trip Generation: Ex Proj PM
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1	Crow Canyon Rd/Old Crow Canyon	B	10.1 0.389	B	10.2 0.398	+ 0.114 D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	C	23.5 0.684	C	23.5 0.684	-0.013 D/V
# 3	Crow Canyon Rd/San Ramon Valle	D	41.8 0.813	D	42.4 0.849	+ 0.651 D/V
# 4	San Ramon VALley Blvd/Deerwood	D	39.5 0.547	D	40.1 0.591	+ 0.661 D/V
# 5	San Ramon VALley Blvd/Hooper D	D	26.8 0.256	D	28.8 0.275	+ 1.974 D/V
# 6	San Ramon Valley Blvd/Faria Pr	C	20.6 0.288	C	22.6 0.329	+ 1.914 D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	C	15.6 0.550	C	16.9 0.575	+ 0.025 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 101 Critical Vol./Cap.(X): 0.398
Loss Time (sec): 9 Average Delay (sec/veh): 10.2
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 18 Jan 2020 << 4:45 PM - 5:45 PM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, Initial Bse, Added Vol, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 101 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 9 Average Delay (sec/veh): 23.5
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 4:45 PM - 5:45 PM. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 123 Critical Vol./Cap.(X): 0.849
Loss Time (sec): 12 Average Delay (sec/veh): 42.4
Optimal Cycle: 97 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM. Table with 12 columns for volume counts and 12 rows for various adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 123 Critical Vol./Cap.(X): 0.591
Loss Time (sec): 12 Average Delay (sec/veh): 40.1
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM. Table with 12 columns for volume counts and 12 rows for various adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: D[28.8]

Table with 4 columns: Approach: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module: Critical Gp: 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx 7.9 6.9 7.3 7.9 6.9 7.3. FollowUpTim: 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx 3.7 4.2 3.5 3.7 4.2 3.5.

Capacity Module: Cnflct Vol: 625 xxxxx xxxxxx xxxxx xxxxx xxxxxx 1103 1533 299 1234 1559 434. Potent Cap.: 953 xxxxx xxxxxx xxxxx xxxxx xxxxxx 145 97 646 115 94 523. Move Cap.: 953 xxxxx xxxxxx xxxxx xxxxx xxxxxx 139 94 646 107 90 522. Volume/Cap: 0.04 xxxxx xxxxxx xxxxx xxxxx xxxxxx 0.27 0.00 0.04 0.04 0.00 0.01.

Level Of Service Module: 2Way95thQ: 2.9 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx 3.0 xxxxx xxxxx xxxxxx. Control Del: 8.9 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx 10.8 xxxxxx xxxxx xxxxxx. LOS by Move: A * * * * * * * B * * * * *. Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT. Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 139 xxxxx xxxxxx xxxxx 192 xxxxxx. SharedQueue: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 1.0 xxxxx xxxxxx xxxxxx 0.2 xxxxxx. Shrd ConDel: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 40.5 xxxxx xxxxxx xxxxxx 24.7 xxxxxx. Shared LOS: * * * * * * * E * * * * * C *. ApproachDel: xxxxxx xxxxxx 28.8 24.7. ApproachLOS: * * * * * D C.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C [22.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module: Critical Gp, FollowUpTim. Rows include Critical Gp and FollowUpTim.

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows include Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.575
Loss Time (sec): 0 Average Delay (sec/veh): 16.9
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 1 0 0 1 1 0 2 0 1

Volume Module: >> Count Date: 14 Jan 2020 << 4:30 PM - 5:30 PM
Base Vol: 20 27 195 106 19 40 40 404 40 141 316 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 20 27 195 106 19 40 40 404 40 141 316 85
Added Vol: 1 3 -1 15 2 0 1 1 2 42 19 27
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 21 30 194 121 21 40 41 405 42 183 335 112
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 23 33 213 133 23 44 45 445 46 201 368 123
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 23 33 213 133 23 44 45 445 46 201 368 123
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 23 33 213 133 23 44 45 445 46 201 368 123

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.09 0.12 0.79 0.85 0.15 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 40 57 371 333 58 439 401 859 463 420 890 485

Capacity Analysis Module:
Vol/Sat: 0.58 0.58 0.58 0.40 0.40 0.10 0.11 0.52 0.10 0.48 0.41 0.25
Crit Moves: ****
Delay/Veh: 19.4 19.4 19.4 16.6 16.6 11.1 12.4 18.8 10.9 18.2 15.8 12.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 19.4 19.4 19.4 16.6 16.6 11.1 12.4 18.8 10.9 18.2 15.8 12.2
LOS by Move: C C C C C B B C B C C B
ApproachDel: 19.4 15.4 17.6 15.9
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 19.4 15.4 17.6 15.9
LOS by Appr: C C C C
AllWayAvgQ: 29.2 29.2 29.2 14.0 14.0 2.4 2.9 23.8 2.5 20.9 16.1 7.8

Note: Queue reported is the distance per lane in feet.

 Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
#1 [HCM2k95thQ]:	0	0	0	163	0	82	142	235	0	0	325	325
#2 [HCM2k95thQ]:	345	345	219	8	8	8	6	600	600	442	318	0
#3 [HCM2k95thQ]:	141	329	907	464	263	157	317	727	108	470	475	861
#4 [HCM2k95thQ]:	440	465	222	248	410	306	425	186	331	211	183	303
#5 [2Way95thQ]:	2.9	xxxx	xxxx	xxxx	xxxx	xxxx	26.2	26.2	3.0	3.8	3.8	3.8
#6 [2Way95thQ]:	7.8	xxxx	xxxx	xxxx	xxxx	xxxx	33.2	33.2	9.8	xxxx	xxxx	xxxx
#7 [AllWayAvgQ]	29.2	29.2	29.2	14.0	14.0	2.4	2.9	23.8	2.5	20.9	16.1	7.8

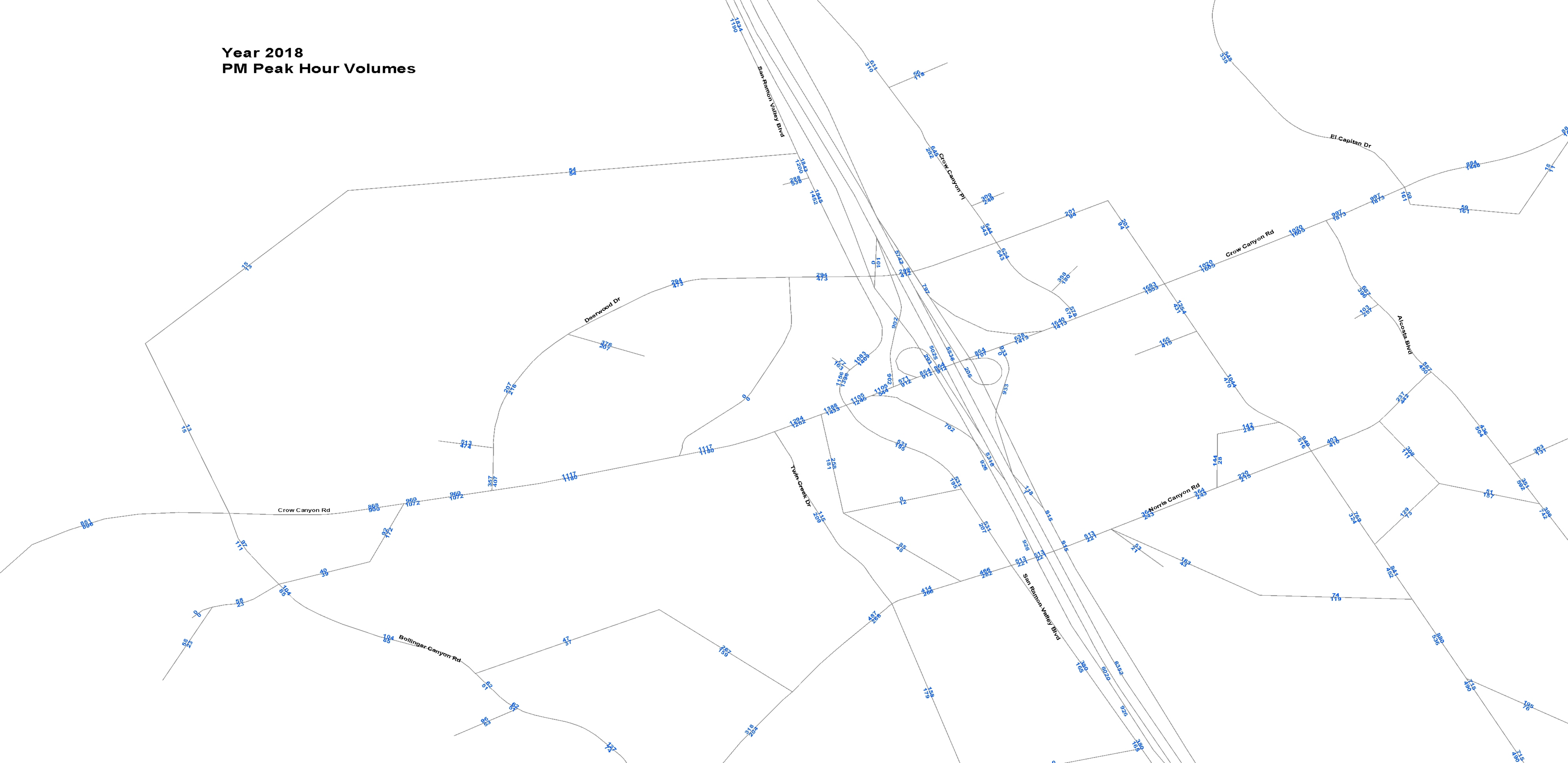
E – CCTA Travel Demand Forecast Model Plots



Year 2018 AM Peak Hour Volumes



**Year 2018
PM Peak Hour Volumes**



F - Cumulative Traffic Conditions



Scenario Report

Scenario: Cumulative AM
Command: Default Command
Volume: Cumulative AM
Geometry: Cumulative AM
Impact Fee: Default Impact Fee
Trip Generation: No Project
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base			Future			Change in
		LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1	Crow Canyon Rd/Old Crow Canyon	A	8.0	0.306	A	8.0	0.306	+ 0.000 D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	C	21.4	0.547	C	21.4	0.547	+ 0.000 D/V
# 3	Crow Canyon Rd/San Ramon Valle	D	39.8	0.681	D	39.8	0.681	+ 0.000 D/V
# 4	San Ramon VALley Blvd/Deerwood	D	37.2	0.541	D	37.2	0.541	+ 0.000 D/V
# 5	San Ramon VALley Blvd/Hooper D	E	40.4	0.114	E	40.4	0.114	+ 0.000 D/V
# 6	San Ramon Valley Blvd/Faria Pr	C	21.1	0.379	C	21.1	0.379	+ 0.000 D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	B	13.6	0.546	B	13.6	0.546	+ 0.000 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 110 Critical Vol./Cap.(X): 0.306
Loss Time (sec): 9 Average Delay (sec/veh): 8.0
Optimal Cycle: 60 Level Of Service: A

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Volume, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 110 Critical Vol./Cap.(X): 0.547
Loss Time (sec): 9 Average Delay (sec/veh): 21.4
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume adjustments and counts.

Saturation Flow Module: Table with 12 columns for saturation flow values and adjustments.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 135 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 12 Average Delay (sec/veh): 39.8
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl/Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 135 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 12 Average Delay (sec/veh): 37.2
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume and 12 rows for various adjustment factors like Growth Adj, PHF Volume, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: E[40.4]

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign										
Rights:	Include			Include			Include			Include										
Lanes:	1	0	1	1	1	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0

Volume Module:	>>	Count	Date:	14	Jan	2020	<<	8:00	AM	-	9:00	AM
Base Vol:	28	934	2	1	509	39	15	0	45	6	0	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	934	2	1	509	39	15	0	45	6	0	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	934	2	1	509	39	15	0	45	6	0	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	30	994	2	1	541	41	16	0	48	6	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	30	994	2	1	541	41	16	0	48	6	0	2

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.9	6.9	7.3	7.9	6.9	7.3
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.7	4.2	3.5	3.7	4.2	3.5

Capacity Module:												
Cnflct Vol:	583	xxxx	xxxxxx	996	xxxx	xxxxxx	1102	1599	271	1327	1639	500
Potent Cap.:	987	xxxx	xxxxxx	691	xxxx	xxxxxx	145	88	676	97	83	471
Move Cap.:	987	xxxx	xxxxxx	691	xxxx	xxxxxx	140	85	676	88	80	471
Volume/Cap:	0.03	xxxx	xxxx	0.00	xxxx	xxxx	0.11	0.00	0.07	0.07	0.00	0.00

Level Of Service Module:															
2Way95thQ:	2.3	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	5.7	xxxx	xxxx	xxxxxx			
Control Del:	8.8	xxxx	xxxxxx	10.2	xxxx	xxxxxx	xxxxxx	xxxx	10.7	xxxxxx	xxxx	xxxxxx			
LOS by Move:	A	*	*	B	*	*	*	*	B	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	140	xxxx	xxxxxx	xxxx	110	xxxxxx			
SharedQueue:	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.4	xxxx	xxxxxx	xxxxxx	0.2	xxxxxx			
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	10.2	xxxx	xxxxxx	33.9	xxxx	xxxxxx	xxxxxx	40.4	xxxxxx			
Shared LOS:	*	*	*	B	*	*	D	*	*	*	E	*			
ApproachDel:	xxxxxx			xxxxxx			16.5				40.4				
ApproachLOS:		*		*			C				E				

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Cycle (sec): 135 Critical Vol./Cap.(X): 0.379
Loss Time (sec): 9 Average Delay (sec/veh): 21.1
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 13 columns for volume and adjustment factors.

Saturation Flow Module: Table with 13 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 13 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.546
Loss Time (sec): 0 Average Delay (sec/veh): 13.6
Optimal Cycle: 0 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign), Rights (Include), Min. Green, and Lanes.

Table with 12 columns for volume counts. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for saturation flow. Rows include Adjustment, Lanes, and Final Sat.

Table with 12 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ.

Note: Queue reported is the distance per lane in feet.

Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
#1 [HCM2k95thQ]:	0	0	0	109	0	49	109	198	0	0	245	245
#2 [HCM2k95thQ]:	182	182	323	1	0	0	6	509	509	295	307	307
#3 [HCM2k95thQ]:	93	514	505	367	318	131	248	689	108	488	456	614
#4 [HCM2k95thQ]:	161	571	251	275	310	186	405	218	373	81	101	233
#5 [2Way95thQ]:	2.3	xxxx	xxxx	0.1	0.1	xxxx	9.4	9.4	5.7	6.2	6.2	6.2
#6 [HCM2k95thQ]:	270	381	0	0	378	61	271	0	219	0	0	0
#7 [AllWayAvgQ]	8.2	8.2	8.2	5.2	5.2	0.8	2.0	27.5	0.4	5.2	6.7	4.5

Scenario Report

Scenario: Cumulative PM
Command: Default Command
Volume: Cumulative PM
Geometry: Cumulative PM
Impact Fee: Default Impact Fee
Trip Generation: No Project
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future			Change in		
		LOS	Del/ Veh	V/ C	LOS	Del/ Veh		V/ C	
# 1	Crow Canyon Rd/Old Crow Canyon	B	10.6	0.397	B	10.6	0.397	+ 0.000	D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	C	25.3	0.691	C	25.3	0.691	+ 0.000	D/V
# 3	Crow Canyon Rd/San Ramon Valle	D	47.1	0.859	D	47.1	0.859	+ 0.000	D/V
# 4	San Ramon VALley Blvd/Deerwood	D	42.9	0.638	D	42.9	0.638	+ 0.000	D/V
# 5	San Ramon VALley Blvd/Hooper D	E	41.4	0.549	E	41.4	0.549	+ 0.000	D/V
# 6	San Ramon Valley Blvd/Faria Pr	C	22.5	0.535	C	22.5	0.535	+ 0.000	D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	C	19.3	0.597	C	19.3	0.597	+ 0.000	V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 110 Critical Vol./Cap.(X): 0.397
Loss Time (sec): 9 Average Delay (sec/veh): 10.6
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Table for Volume Module: 4:45 PM - 5:45 PM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 110 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 9 Average Delay (sec/veh): 25.3
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: 4:45 PM - 5:45 PM. Table with 12 columns for volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module. Table with 12 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 12 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 135 Critical Vol./Cap.(X): 0.859
Loss Time (sec): 12 Average Delay (sec/veh): 47.1
Optimal Cycle: 105 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl/Include), Min. Green, Y+R, and Lanes.

Table with 12 columns representing volume modules. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns representing saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 135 Critical Vol./Cap.(X): 0.638
Loss Time (sec): 12 Average Delay (sec/veh): 42.9
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green (5-5-5), Y+R (5.0-5.0-5.0), and Lanes (2-0-2-0-1).

Volume Module: 4:30 PM - 5:30 PM. Table with 12 columns for volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module. Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module. Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: E[41.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: 4:30 PM - 5:30 PM. Table with 12 columns for volume and adjustment factors.

Critical Gap Module. Table with 12 columns for gap and follow-up times.

Capacity Module. Table with 12 columns for conflict, potent, and move capacity.

Level Of Service Module. Table with 12 columns for delay, LOS, and approach delay.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Cycle (sec): 135 Critical Vol./Cap.(X): 0.535
Loss Time (sec): 9 Average Delay (sec/veh): 22.5
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Table for Volume Module: 4:30 PM - 5:30 PM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.597
Loss Time (sec): 0 Average Delay (sec/veh): 19.3
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 1 0 0 1 1 0 2 0 1

Volume Module:4:30 PM - 5:30 PM
Base Vol: 22 27 199 106 19 40 40 451 40 145 481 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 22 27 199 106 19 40 40 451 40 145 481 85
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 22 27 199 106 19 40 40 451 40 145 481 85
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 24 30 219 116 21 44 44 496 44 159 529 93
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 30 219 116 21 44 44 496 44 159 529 93
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 24 30 219 116 21 44 44 496 44 159 529 93

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.09 0.11 0.80 0.85 0.15 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 41 50 371 318 57 421 393 845 452 414 886 478

Capacity Analysis Module:
Vol/Sat: 0.59 0.59 0.59 0.37 0.37 0.10 0.11 0.59 0.10 0.38 0.60 0.20
Crit Moves: ****
Delay/Veh: 20.2 20.2 20.2 16.3 16.3 11.4 12.6 21.7 11.1 16.2 21.4 11.7
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 20.2 20.2 20.2 16.3 16.3 11.4 12.6 21.7 11.1 16.2 21.4 11.7
LOS by Move: C C C C C B B C B C C B
ApproachDel: 20.2 15.1 20.2 19.2
Delay Adj: 1.00 1.00
ApprAdjDel: 20.2 15.1 20.2 19.2
LOS by Appr: C C C
AllWayAvgQ: 31.1 31.1 31.1 12.1 12.1 2.4 2.9 31.2 2.5 14.5 33.1 5.6

Note: Queue reported is the distance per lane in feet.

 Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
#1 [HCM2k95thQ]:	0	0	0	178	0	87	136	253	0	0	346	346
#2 [HCM2k95thQ]:	377	377	260	8	8	8	6	654	654	478	342	0
#3 [HCM2k95thQ]:	204	528	992	543	448	244	382	795	136	532	520	917
#4 [HCM2k95thQ]:	279	629	295	367	568	353	489	209	409	282	222	366
#5 [2Way95thQ]:	4.8	xxxx	xxxx	xxxx	xxxx	xxxx	58.7	58.7	20.7	6.9	6.9	6.9
#6 [HCM2k95thQ]:	391	346	0	0	605	158	256	0	334	0	0	0
#7 [AllWayAvgQ]	31.1	31.1	31.1	12.1	12.1	2.4	2.9	31.2	2.5	14.5	33.1	5.6

G - Cumulative Plus Project Traffic Conditions



Scenario Report

Scenario: Cumulative+P AM
Command: Default Command
Volume: Cumulative AM
Geometry: Cu+P AM
Impact Fee: Default Impact Fee
Trip Generation: Cu Proj AM
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base			Future			Change in
		LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1	Crow Canyon Rd/Old Crow Canyon	A	8.0	0.306	A	8.4	0.309	+ 0.365 D/V
# 2	Crow Canyon Rd/Twin Creeks Dr	C	21.4	0.547	C	21.3	0.549	-0.044 D/V
# 3	Crow Canyon Rd/San Ramon Valle	D	39.8	0.681	D	39.4	0.673	-0.467 D/V
# 4	San Ramon VALley Blvd/Deerwood	D	37.2	0.541	D	37.4	0.525	+ 0.135 D/V
# 5	San Ramon VALley Blvd/Hooper D	E	40.4	0.114	E	36.9	0.098	-3.481 D/V
# 6	San Ramon Valley Blvd/Faria Pr	C	21.1	0.379	C	20.0	0.368	-1.122 D/V
# 7	Deerwood Rd/Old Crow Canyon Rd	B	13.6	0.546	B	13.7	0.547	+ 0.001 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 110 Critical Vol./Cap.(X): 0.309
Loss Time (sec): 9 Average Delay (sec/veh): 8.4
Optimal Cycle: 60 Level Of Service: A

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume counts and various adjustment factors like PHF, Reduct, PCE, MLF.

Saturation Flow Module: Table with 12 columns for saturation flow values and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 110 Critical Vol./Cap.(X): 0.549
Loss Time (sec): 9 Average Delay (sec/veh): 21.3
Optimal Cycle: 60 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 135 Critical Vol./Cap.(X): 0.673
Loss Time (sec): 12 Average Delay (sec/veh): 39.4
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Ovl/Include), Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, Initial Bse, Added Vol, etc.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 135 Critical Vol./Cap.(X): 0.525
Loss Time (sec): 12 Average Delay (sec/veh): 37.4
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 12 columns for volume and 12 rows for various adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: E[36.9]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 8:00 AM - 9:00 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module: Critical Gap, FollowUpTim. Rows include Critical Gap and FollowUpTim.

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows include Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Cycle (sec): 135 Critical Vol./Cap.(X): 0.368
Loss Time (sec): 9 Average Delay (sec/veh): 20.0
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: >> Count Date: 14 Jan 2020 << 7:45 AM - 8:45 AM. Table with 13 columns for volume and adjustment factors.

Saturation Flow Module: Table with 13 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 13 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.547
Loss Time (sec): 0 Average Delay (sec/veh): 13.7
Optimal Cycle: 0 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign), Rights (Include), Min. Green (0-0-0), and Lanes (0 0 1 0 0).

Table with 12 columns for volume counts. Rows include Volume Module (Count Date: 14 Jan 2020), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns. Rows include Adjustment (1.00), Lanes (0.07), and Final Sat. (38, 140, 333).

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat (0.29), Crit Moves (****), Delay/Veh (12.2), Delay Adj (1.00), AdjDel/Veh (12.2), LOS by Move (B, B, B, B, B, A, B, C, A, B, B, B), ApproachDel (12.2), Delay Adj (1.00), ApprAdjDel (12.2), LOS by Appr (B, B, C, B), and AllWayAvgQ (8.9).

Note: Queue reported is the distance per lane in feet.

 Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
#1 [HCM2k95thQ]:	0	0	0	117	0	48	106	207	0	0	250	250
#2 [HCM2k95thQ]:	182	182	324	1	0	0	6	513	512	295	307	307
#3 [HCM2k95thQ]:	95	507	502	345	318	130	237	687	109	485	456	563
#4 [HCM2k95thQ]:	158	547	254	264	289	187	401	217	378	81	102	221
#5 [2Way95thQ]:	1.4	xxxx	xxxx	0.1	0.1	xxxx	8.0	8.0	3.8	5.6	5.6	5.6
#6 [HCM2k95thQ]:	241	365	0	0	348	54	258	0	181	0	0	0
#7 [AllWayAvgQ]	8.9	8.9	8.9	5.3	5.3	0.7	1.9	27.6	0.4	5.3	6.6	4.4

Scenario Report

Scenario: Cumulative+P PM
Command: Default Command
Volume: Cumulative PM
Geometry: Cu+P PM
Impact Fee: Default Impact Fee
Trip Generation: Cu Proj PM
Trip Distribution: Proj Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in
		LOS	Veh C	LOS	Veh C	
# 1 Crow Canyon Rd/Old Crow Canyon	B	10.6	0.397	B	10.4 0.395	-0.158 D/V
# 2 Crow Canyon Rd/Twin Creeks Dr	C	25.3	0.691	C	25.2 0.690	-0.076 D/V
# 3 Crow Canyon Rd/San Ramon Valle	D	47.1	0.859	D	44.2 0.798	-2.915 D/V
# 4 San Ramon VALley Blvd/Deerwood	D	42.9	0.638	D	42.4 0.578	-0.487 D/V
# 5 San Ramon VALley Blvd/Hooper D	E	41.4	0.549	D	30.4 0.391	-11.087 D/V
# 6 San Ramon Valley Blvd/Faria Pr	C	22.5	0.535	B	18.9 0.444	-3.637 D/V
# 7 Deerwood Rd/Old Crow Canyon Rd	C	19.3	0.597	C	17.6 0.558	-0.039 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Crow Canyon Rd/Old Crow Canyon Rd

Cycle (sec): 110 Critical Vol./Cap.(X): 0.395
Loss Time (sec): 9 Average Delay (sec/veh): 10.4
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: 4:45 PM - 5:45 PM. Table with 12 columns for different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module. Table with 12 columns for different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 12 columns for different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crow Canyon Rd/Twin Creeks Dr

Cycle (sec): 110 Critical Vol./Cap.(X): 0.690
Loss Time (sec): 9 Average Delay (sec/veh): 25.2
Optimal Cycle: 60 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted/Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: 4:45 PM - 5:45 PM. Table with 12 columns for volume and 12 rows for various adjustments like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module. Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Crow Canyon Rd/San Ramon Valley Blvd

Cycle (sec): 135 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 12 Average Delay (sec/veh): 44.2
Optimal Cycle: 84 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: 4:30 PM - 5:30 PM. Table with 12 columns for volume metrics and 4 rows for different time periods.

Saturation Flow Module. Table with 12 columns for saturation flow metrics and 4 rows for different parameters.

Capacity Analysis Module. Table with 12 columns for capacity analysis metrics and 10 rows for various delay and LOS calculations.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Ramon Valley Blvd/Deerwood Rd - Fostoria Way

Cycle (sec): 135 Critical Vol./Cap.(X): 0.578
Loss Time (sec): 12 Average Delay (sec/veh): 42.4
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module (4:30 PM - 5:30 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2k95thQ.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Ramon Valley Blvd/Hooper Dr

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: D[30.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: 4:30 PM - 5:30 PM. Table with 12 columns for traffic movements and 4 rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module. Table with 12 columns for traffic movements and 2 rows for Critical Gap and FollowUpTim.

Capacity Module. Table with 12 columns for traffic movements and 4 rows for Conflict Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module. Table with 12 columns for traffic movements and 6 rows for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Ramon Valley Blvd/Faria Preserve Pkwy

Cycle (sec): 135 Critical Vol./Cap.(X): 0.444
Loss Time (sec): 9 Average Delay (sec/veh): 18.9
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: 4:30 PM - 5:30 PM. Table with 13 columns for volume and adjustment factors across four directions.

Saturation Flow Module. Table with 13 columns for saturation flow and adjustment factors across four directions.

Capacity Analysis Module. Table with 13 columns for capacity analysis metrics across four directions.

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #7 Deerwood Rd/Old Crow Canyon Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.558
Loss Time (sec): 0 Average Delay (sec/veh): 17.6
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 2 0 1

Volume Module:4:30 PM - 5:30 PM
Base Vol: 22 27 199 106 19 40 40 451 40 145 481 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 22 27 199 106 19 40 40 451 40 145 481 85
Added Vol: 0 -4 -6 -17 -5 -4 -4 -15 1 -8 -14 -14
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 22 23 193 89 14 36 36 436 41 137 467 71
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 24 25 212 98 15 40 40 479 45 151 513 78
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 25 212 98 15 40 40 479 45 151 513 78
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 24 25 212 98 15 40 40 479 45 151 513 78

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.09 0.10 0.81 0.86 0.14 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 44 46 387 331 52 432 410 880 475 430 919 498

Capacity Analysis Module:
Vol/Sat: 0.55 0.55 0.55 0.30 0.30 0.09 0.10 0.54 0.09 0.35 0.56 0.16
Crit Moves: ****
Delay/Veh: 18.4 18.4 18.4 14.8 14.8 11.0 12.1 19.4 10.7 15.1 19.3 10.9
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 18.4 18.4 18.4 14.8 14.8 11.0 12.1 19.4 10.7 15.1 19.3 10.9
LOS by Move: C C C B B B B C B C C B
ApproachDel: 18.4 13.8 18.2 17.6
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 18.4 13.8 18.2 17.6
LOS by Appr: C B C C
AllWayAvgQ: 26.6 26.6 26.6 8.8 8.8 2.1 2.5 26.6 2.4 12.6 28.6 4.3

Note: Queue reported is the distance per lane in feet.

 Future Queue Length Report (feet)

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
#1 [HCM2k95thQ]:	0	0	0	182	0	72	124	257	0	0	342	342
#2 [HCM2k95thQ]:	377	377	256	8	8	8	6	654	654	476	343	0
#3 [HCM2k95thQ]:	204	490	934	422	437	233	322	791	136	528	536	663
#4 [HCM2k95thQ]:	247	541	300	330	486	343	447	204	362	267	216	328
#5 [2Way95thQ]:	0.7	xxxx	xxxx	xxxx	xxxx	xxxx	39.9	39.9	13.0	4.9	4.9	4.9
#6 [HCM2k95thQ]:	298	278	0	0	492	124	215	0	241	0	0	0
#7 [AllWayAvgQ]	26.6	26.6	26.6	8.8	8.8	2.1	2.5	26.6	2.4	12.6	28.6	4.3

H – Crow Canyon Specific Plan Update – Preferred Alternative



CROW CANYON SPECIFIC PLAN UPDATE

REVISED DRAFT PREFERRED ALTERNATIVE (AUGUST 2019)

The Revised Draft Preferred Alternative for land use, built form, and connectivity in the Crow Canyon Specific Plan (CCSP) Area seeks to focus near-term development and improvements at the prominent intersection of San Ramon Valley Boulevard and Deerwood Road, where traffic volumes are highest and retail has the best chance of success. This location is already attracting interest from the development community and the intent is to use that momentum to create a village-like node of mixed use residential and retail development here that will catalyze positive change in the CCSP Area over the long term. Mixed use development at this location would be in either a horizontal or vertical configuration with base residential densities of up to 35 dwelling units per acre and building heights of up to 5 stories. Individual projects that provide a substantial affordable housing component may qualify for an additional bonus density under State law.

West of the node, along Deerwood Road, medium density residential development would be encouraged at densities consistent with existing homes further along Deerwood outside of the CCSP Area. Residential densities here would be up to 28 dwelling units per acre and building heights would be up to 3 stories so as to protect views of the surrounding hills, given the higher elevation of the terrain. Additionally, the planning area boundary would be extended to the southwest to include properties on Ryan Industrial Court. The Medium Density Residential (MDR) designation would be applied here to encourage residential development over the long term at densities comparable to the residences recently approved on Ryan Terrace to the north. Guidelines for new development south of Deerwood would be designed to encourage creek-oriented development and allow public access as a way to showcase this important natural amenity.

San Ramon Valley Boulevard is envisioned as an attractive commercial corridor, with lower FARs in the north and more intensive development concentrated at the village node and in the south. In the southeastern portion of the CCSP Area, existing commercial uses would be encouraged and enhanced, taking advantage of traffic volumes and visibility to support retail, hotels and other commercial uses in this part of the CCSP Area. Building heights here would be up to 4 stories, given the lower elevation. North of Purdue, commercial and service commercial uses would be encouraged along San Ramon Valley Boulevard, with design guidelines and policies that support facade improvements and beautification. Building heights here would be up to 3 stories. The Commercial/Service Commercial land use designation would be applied here, which would allow for residential care facilities subject to a conditional use permit.

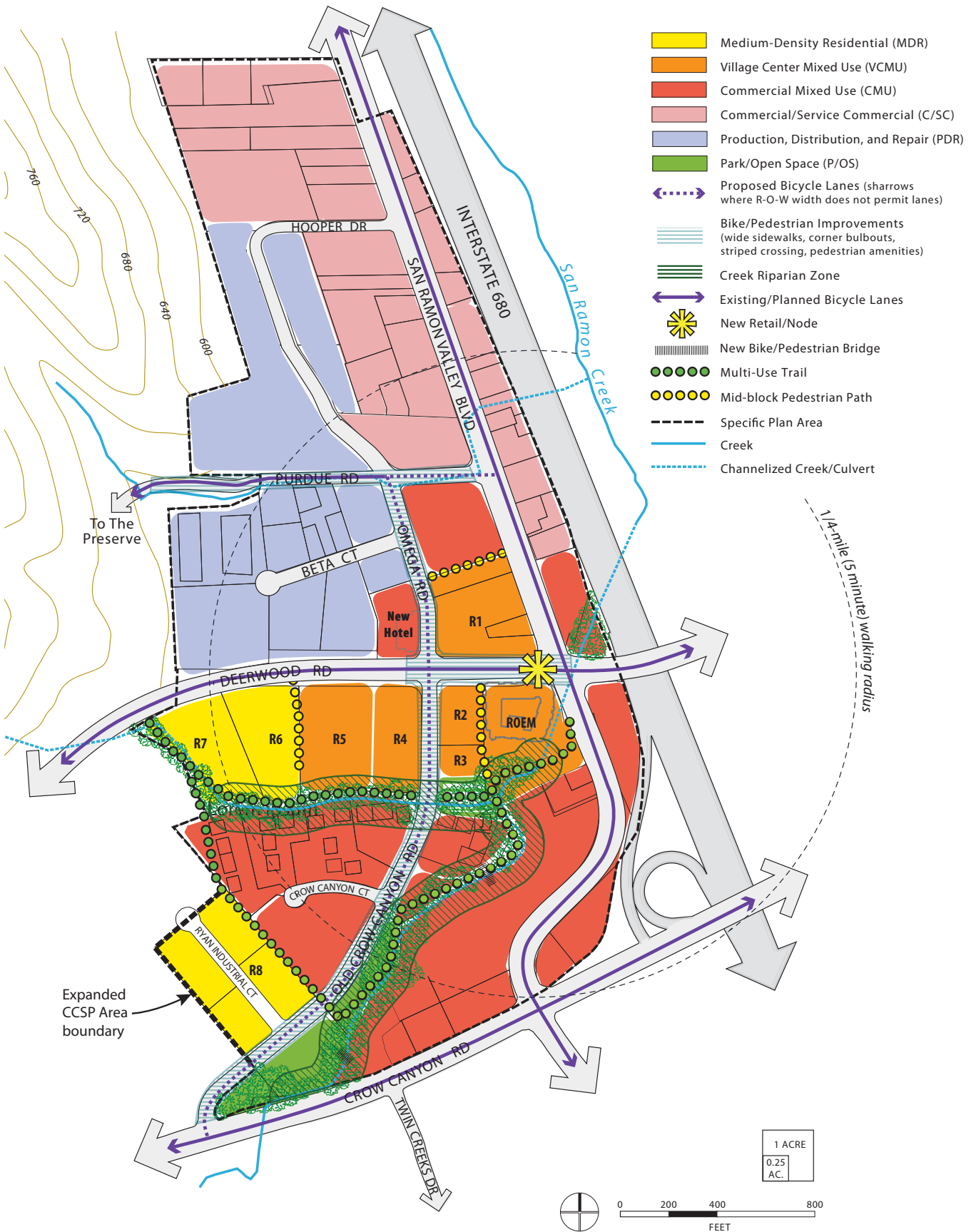
Residential Development Potential	
Total New Housing Units	634
Maximum Residential Density	35 du/acre
Maximum Building Height	5 stories

In the Beta Court sub area and in the northwestern part of the CCSP Area, a new Production, Distribution and Repair (PDR) designation would be applied with the intention of preserving existing service commercial businesses that wish to stay or grow while also allowing for compatible new maker-oriented uses to establish, including production-oriented uses with a retail component such as a tasting room or gift shop. The PDR designation would allow for a range of uses that despite their diversity, share the need for relatively flexible building space, cheap rents, and some degree of separation from housing. New uses compatible with those envisioned on Omega and Deerwood would be allowed by right, while more intensive or industrial uses would be conditionally permitted.

Given the focus of near-term development at the village node and the surrounding residential uses envisioned on Deerwood, Omega and Old Crow Canyon roads, bicycle and pedestrian improvements would be concentrated in those areas. Wide sidewalks, striped crosswalks, street furniture, and bike lanes are envisioned along Omega, Old Crow Canyon, Purdue and Deerwood near the location of new residential development. Provisions of these amenities along these roadways would also foster active transportation connections between the Preserve subdivision and retail at the village node, as well as Diablo Plaza south of the CCSP Area. A network of creekside trails would improve connectivity for current and future San Ramon residents, as would mid-block pedestrian pathways linking residential and commercial/retail areas within the CCSP Area.

Overall, the Preferred Alternative is anticipated to result in 634 new residential units and up to 32,000 square feet of net new retail in the CCSP Area over the 20 year planning horizon. New opportunities for office and flex space would be provided in the Village Center Mixed Use, Mixed Use, and Commercial/Service Commercial designations.

Draft Land Use Concept



The following building precedents represent the type of building character and form desired in each subarea of the CCSP Area. The images have been selected to represent the height, density, and development intensity discussed at the community workshops.

Village Center Mixed Use Subarea



Locale
Fremont, CA



Fourth & U Apartments
Berkeley, CA
50' height



SLO Downtown
San Luis Obispo, CA

Mixed Use Subarea



Tamalpais Commons
Mill Valley, CA
40' height



Tassafaronga Village
Oakland, CA
34' height



The Orchards at Walnut Creek
Walnut Creek, CA
20' - 30' height

Medium Density Residential Subarea



Petaluma Avenue Homes
Sebastopol, CA
22 du/ac

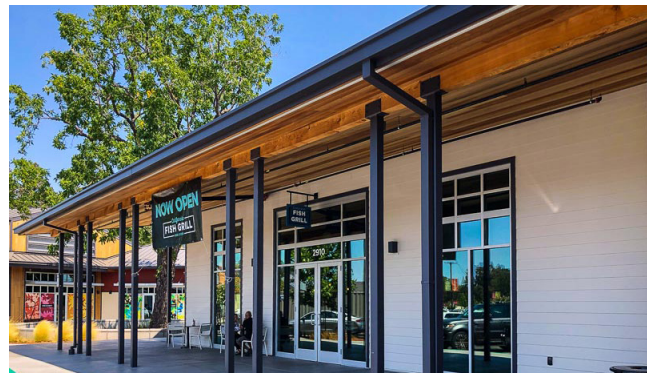


Tilley Row Homes
Austin, TX
22 du/ac

San Ramon Valley Boulevard Subarea



Village Oaks
San Jose, CA



The Orchards at Walnut Creek
Walnut Creek, CA

Beta Court Subarea



Propeller Incubator
New Orleans, LA



1400 16th Street
San Francisco, CA

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November 3, 2020

Cindy Yee, Senior Planner
City of San Ramon
2401 Crow Canyon Road
San Ramon, CA 94583

Subject: Consistency Memorandum for Crow Canyon Specific Plan Residential Overlay

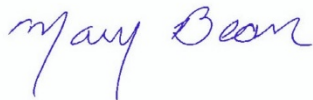
Dear Cindy:

At the request of the City of San Ramon staff, FirstCarbon Solutions (FCS) prepared this Consistency Memorandum to evaluate the proposed reintroduction of the Residential Overlay area within the Crow Canyon Specific Plan (CCSP). The purpose of this Consistency Memorandum is to evaluate whether the Residential Overlay would result in any new or more severe impacts than what is disclosed in the 2020 Addendum prepared for the CCSP Update currently under consideration by the City Council.

As documented herein, FCS concludes that the re-implementation of the proposed Residential Overlay would be consistent with the 2006 CCSP and would not result in any new or more severe impacts than what is already evaluated and disclosed in the 2020 Addendum. The 2006 CCSP and associated Environmental Impact Report (EIR) already approved the construction of 735 residential units; the CCSP Update proposed a reduction of 101 residential units. The proposed Residential Overlay would simply restore the potential for construction of the full 735 residential units that was previously proposed in the 2006 CCSP and analyzed in the 2006 EIR.

All mitigation measures from the 2006 EIR would remain applicable and their implementation would ensure that impacts from the CCSP Update and proposed Residential Overlay would not result in any new or more severe impacts than what were already evaluated and disclosed in the 2006 EIR and 2020 Addendum.

Sincerely,



Mary Bean, Director
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Supplemental Trip Generation Memorandum

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Sacramento Valley
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Suite 170-301
Rocklin, CA 95765

Utah
2901 Bluegrass Boulevard
Suite 200-62
Lehi, UT 84043

Connecticut
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Suite 450
Shelton, CT 06484

New York
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Deposit, NY 13754

56 Broome Corporate Parkway
Conklin, NY 13748

CANADA

UNITED KINGDOM

PORTUGAL

FRANCE

KENYA

AUSTRALIA

PHILIPPINES

CHINA

MALAYSIA

SINGAPORE

PROJECT DESCRIPTION

2006 Crow Canyon Specific Plan

The San Ramon City Council certified the Crow Canyon Specific Plan EIR (2006 EIR) and adopted the Crow Canyon Specific Plan (2006 CCSP) in 2006. As shown in Table 1, the 2006 CCSP encompasses 128 acres of the northern portion of the City of San Ramon. This area is primarily developed with approximately 1.3 million square feet of office and auto-oriented commercial uses. The 2006 CCSP sought to guide the development of pedestrian-oriented, mixed uses. As shown in the summary provided in Table 1 below, the 2006 CCSP evaluated the replacement of 413,000 square feet of existing office and commercial uses with 735 dwelling units and 357,000 square feet of new commercial uses.

Table 1: 2006 CCSP Summary

Sub Area	2006 CCSP		2020 CCSP Update		2020 CCSP Update with Residential Overlay	
	Commercial/Retail	Residential	Commercial/Retail	Residential	Commercial/Retail	Residential
	Gross Square feet	Dwelling Units	Gross Square Feet	Dwelling Units	Gross Square Feet	Dwelling Units
North of Purdue	503,000	155	503,000	–	503,000	101
East of the Boulevard	109,000	–	109,000	–	109,000	–
South of the Creek	276,000	–	276,000	82	276,000	82
West of the Core				68		68
The Core	372,000	580	215,146	484	215,146	484
Total	1,260,000	735	1,205,146	634	1,205,146	735

The 2006 CCSP included a Residential Overlay (RO) land use designation, which applied to areas in the western portion of the CCSP, north and south of Deerwood Road, as shown in Exhibit 1. As stated in the CCSP, the Residential Overlay would be applied to properties designated as Commercial Service/Office (CS/O) north of San Ramon Creek, and adjacent to existing medium-density housing development along Deerwood Road and future housing development planned for the Northwest Specific Plan Area immediately to the west. It is intended to allow for future infill and intensification of underutilized or changing commercial-service properties in a way that minimizes impacts on existing businesses and that can lead to the creation of a cohesive mixed-use district. Within this area, residential development is allowed on assembled sites greater than 1.5 acres, subject to livability conditions intended to mitigate potential conflicts between the new residential development and existing non-residential uses.

Residential development within this designation is limited to a minimum density of 22 dwelling units per acre, and a maximum density of 35 dwelling units per acre. Additional ancillary commercial uses are also allowed on the ground floor up to a maximum 0.4 floor area ratio (FAR). Buildings are required to be oriented to public or publicly-accessible streets and to San Ramon Creek to promote a pedestrian-friendly environment.

2020 Crow Canyon Specific Plan Update

In 2020, the City prepared an Addendum (2020 Addendum) to evaluate a proposed update to the CCSP (CCSP Update). As shown in Exhibit 2, the CCSP Update included new and updated land use designations, and evaluated the removal of the Residential Overlay designation. In summary, the CCSP Update proposed a reduction of 101 residential units and a reduction of 54,854 square feet of retail throughout the plan area, compared to what was analyzed and adopted as part of the 2006 CCSP (Table 2). As described in the 2020 Addendum, the potential environmental effects associated with the proposed reductions would not result in any new or more severe effects than what were evaluated and disclosed in the 2006 EIR.

Table 2: Comparison of the 2006 CCSP to the CCSP Update

Specific Plan	Acres	Dwelling Units	Net New Retail Square Feet	Net New Commercial Square Feet	Open Space
2006 CCSP	128	735	87,000	270,000	207,460
CCSP Update	131.5	634	32,146	270,000	207,460
Net Change	3.5	(101)	(54,854)	0	0

Notes:
Source: City of San Ramon 2019.

2020 Crow Canyon Specific Plan Residential Overlay – Summary of Project Change Evaluated in this Memorandum

The purpose of this Consistency Memorandum is to evaluate the proposed reintroduction of a refined Residential Overlay. In comparison to the Residential Overlay incorporated into the 2006 CCSP, the 2020 Residential Overlay would only cover areas north of Purdue Road, now Faria Preserve Parkway (Exhibit 3). Although the Overlay Area would be smaller than what was originally proposed in 2006, the 2020 Residential Overlay is expected to allow for a total of 735 dwelling units, as originally adopted in the 2006 CCSP and as already evaluated in the 2006 EIR. The reduction of 54,854 square feet of retail included in the CCSP Update would still occur, as shown in Table 3.

Table 3: Comparison of the 2006 CCSP to the CCSP Residential Overlay

Specific Plan	Acres	Dwelling Units	Net New Retail Square Feet	Net New Commercial Square Feet	Open Space
2006 CCSP	128	735	87,000	270,000	207,460
CCSP Update with Residential Overlay	131.5	735	32,146	270,000	207,460
Net Change	3.5	0	(54,854)	0	0
Notes: Source: City of San Ramon 2020.					

ENVIRONMENTAL ANALYSIS

Aesthetics, Light, and Glare

The 2006 EIR considered the effects of 735 dwelling units and found impacts to be less than significant with the exception of the potential for light and glare, which was found to be less than significant with the incorporation of mitigation to require that exterior lighting be designed and oriented to confine illumination to its specific site in order to minimize light spillage to adjacent commercial and residential uses, and public open space and recreational areas (Mitigation Measure [MM] H.3).

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. No change to location, height, or design review requirements would be introduced; therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to aesthetics, light, and glare than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Agricultural and Forest Resources

The 2006 EIR considered the effects of 735 dwelling units and found no impact with respect to agricultural and forest resources.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to agricultural and forest resources than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Air Quality

The 2006 EIR considered the effects of 735 dwelling units and found that impacts on the implementation of the applicable air quality plan as well as impacts on air quality standards to be significant and unavoidable, despite the incorporation of mitigation to require implementation of additional transportation control measures (TCMs) in individual development projects, to the extent feasible (MM C.4). The potential for a net increase of criteria pollutants during construction was found to be less than significant with the incorporation of mitigation to require dust control procedures to reduce fugitive dust and other criteria pollutants (MM C.1 from the 2006 EIR). All other impacts were found to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to air quality than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Biological Resources

The 2006 EIR determined that potential impacts on species identified as candidate, sensitive, or special-status were found to be less than significant with the incorporation of mitigation to require establishment of buffers around the Creek Riparian Zone (CRZ) and the riparian habitat areas to limit human access, installment of permanent signage to inform the public about the danger of feeding or harassing wildlife, and implementation of procedures to protect special-status species (MM G.1a, G.1b, G.2a, G.2b, G.2c, and G.2d).

Potential impacts on riparian habitats and other sensitive natural communities as well as potential impacts on federally protected wetlands were found to be less than significant with the incorporation of a series of mitigation measures that impose work windows to avoid impacts to San Ramon Creek; requirements for pre-construction surveys and associated avoidance or establishment of buffer areas, where needed, to protect sensitive species; requirements for control of non-native invasive species; and requirements for tree protection and revegetation (MM G.3).

Impacts on local policies or ordinances protecting biological resources were found to be less than significant with the incorporation of mitigation to require replacement of woody trees and revegetate disturbed areas (MM G.5). All other impacts were found to either be less than significant without the need for any mitigation or no impact.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part

of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to biological resources than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Cultural and Tribal Cultural Resources

The 2006 EIR considered the effects of 735 dwelling units and found that impacts on historical resources, archaeological resources, paleontological resources, and human remains to be less than significant with the incorporation of mitigation to require that a qualified cultural resources consultant oversees activities on-site and that, in the event that human remains are unearthed and determined to be Native American by the County Coroner, that the California Native Heritage Commission would be contacted and construction activities would cease within 10 feet of these resources (MM V.1 and V.2). All other impacts were found to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to cultural and tribal resources than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Energy

The 2006 EIR considered the effects of 735 dwelling units and found impacts with respect to energy to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to energy than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Geology, Seismicity, and Soils

The 2006 EIR considered the effects of 735 dwelling units and found impacts related to earthquake faults, seismic shaking, seismic-related ground failure, and risks due to unstable geologic units or soils to be less than significant with the incorporation of mitigation to require that necessary studies and

recommendations related to foundation design, earthwork, and site preparation be completed to minimize risk of property damage or personal injury (MM E.1).

All other impacts were found to either be less than significant without the need for any mitigation or no impact.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to geology, seismicity, and soils than were analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Greenhouse Gas Emissions

The 2006 EIR did not evaluate greenhouse gas (GHG) emissions, as the California Environmental Quality Act (CEQA) checklist did not require such analysis at that time.

The 2020 Addendum did provide an analysis based on the extent of development proposed in the CCSP Update and the associated trip generation. A comparison of the trip generation to the trip generation that was disclosed in the 2006 EIR showed that implementation of the CCSP Update would result in a lower level of GHG emissions than what would have resulted from implementation of the 2006 CCSP. On this basis, the 2020 Addendum determined that CCSP Update would not result in new or more severe impacts than the 2006 CCSP. No further analysis is required.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to greenhouse gas emission than those analyzed in the 2020 Addendum. No additional analysis is required.

Hazards and Hazardous Materials

The 2006 EIR considered the effects of 735 dwelling units and found impacts with respect to hazards and hazardous materials to be less than significant or no impact. No mitigation was necessary to address potential impacts related to hazards and hazardous materials.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to hazards and

hazardous materials than were analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Hydrology and Water Quality

The 2006 EIR considered the effects of 735 dwelling units and found no potential for impact related to dam failure or inundation by seiche, tsunami or mudflow. The 2006 EIR found that potential impacts related to the placement of housing within a 100-year flood hazard zone to be less than significant without the need for mitigation. Potential impacts related to water quality and waste discharge standards, groundwater supplies, erosion and siltation, flooding, the capacity of stormwater drainage systems, polluted runoff, and overall water quality would be less than significant with the incorporation of Mitigation Measures F.1, F.2, and F.3, as identified in the 2006 EIR.

MM F.1 would require that source control measures, site design measures, and stormwater treatment measures are implemented to minimize the discharge of stormwater pollutants; MM F.2 would require that construction activities within the plan area would comply with guidelines that minimize erosion and transport of sediment and contaminants to waterways; and MM F.3 would ensure that projects within the plan area would meet the provisions of the federal Clean Water Act by eliminating pollutants in stormwater discharge.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to hydrology and water quality than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Land Use and Planning

The 2006 EIR considered the effects of 735 dwelling units and found impacts to either be less than significant or no impact with the exception of the project's conflict with the 2020 San Ramon General Plan, which was found to be less than significant with the incorporation of an amendment to the General Plan to incorporate the 2006 CCSP (MM A.1). This measure was fulfilled as part of the adoption of the CCSP and is now fully implemented.

The Residential Overlay would be re-introduced within the same general location as was originally contemplated in the 2006 CCSP, and which was already evaluated and disclosed in the 2006 EIR. The 2020 Residential Overlay would result in the potential construction of the full 735 residential units that were contemplated in the 2006 CCSP. No other changes beyond what was already studied in the 2006 EIR and 2020 Addendum are proposed. Therefore, the proposed Residential Overlay and re-introduction

of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to land use than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Mineral Resources

The 2006 EIR considered the effects of 735 dwelling units and found impacts with respect to mineral resources to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to mineral resources than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Noise

The 2006 EIR considered the effects of 735 dwelling units and found impacts to be less than significant, with the exception of temporary noise impacts related to construction activities, which was found to be less than significant with the incorporation of mitigation to require that construction hours are limited to specific times and that individual project applicants conduct site-specific noise studies are that ensure project-level compliance with the General Plan land use compatibility standards and with relevant noise insulation standards (MM D.1a, D.1b, D.3a, D.3b, D.3c, and D.3d).

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. The Residential Overlay would potentially result in additional residential development in the northwestern portion of the CCSP Update area, similar to what was contemplated in the original 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to noise than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Population and Housing

The 2006 EIR considered the effects of 735 dwelling units and found impacts with respect to population and housing to either have no potential for any impact, or to be less than significant without the need for any mitigation.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part

of the 2006 CCSP. As such the 2020 Residential Overlay is fully consistent with the planned for population in the 2006 CCSP. Therefore, the proposed Residential Overlay and potential construction of 101 dwelling units beyond what was contemplated in the CCSP Update would not introduce new environmental impacts or create more severe impacts related to population and housing than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Public Services

The 2006 EIR considered the effects of 735 dwelling units and found impacts with respect to public services to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to public services than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Recreation

The 2006 EIR considered the effects of 735 dwelling units and found impacts with respect to recreation to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to recreation than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

Transportation

To determine the impact of the additional 101 residential units, Kimley-Horn and Associates (KHA) utilized the same methodology that was employed in the preparation of the Traffic Impact Analysis (TIA) for the 2020 Addendum. KHA utilized the Institute of Transportation Engineer's (ITE) publication, Trip Generation Manual, 10th Edition¹ to determine the daily, AM peak-hour, and PM peak-hour trips generated by the additional 101 residential units. KHA identified an additional 550 daily trips, including 36 AM peak-hour trips and 44 PM peak-hour trips. In addition, the TIA assumed a 10 percent mixed-use and multi-modal trip reduction. After incorporating this trip reduction, the additional 101 residential units would result in 495 daily trips, 32 AM peak-hour trips, and 40 PM peak-hour trips.

Since the delay threshold for the transition from an acceptable LOS D to an unacceptable LOS E is 55 seconds for a signalized intersection and 35 seconds for an unsignalized intersection, each intersection

¹ Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017.

delay was reviewed to determine if the additional 32 AM peak-hour trips or 40 PM peak-hour trips would result in a worsening of any intersection LOS to an unacceptable LOS E. In performing this analysis, it should be noted that the project trips are distributed throughout the roadway network and therefore only a portion of the 32 AM peak-hour trips or 40 PM peak-hour trips would be added to each intersection.

As further detailed in Attachment A, KHA determined that it is unlikely that the addition of the 101 residential units will result in any new significant impacts that were not already evaluated or disclosed either in the 2006 EIR or the 2020 Addendum. The reintroduction of the Residential Overlay would effectively reinstate the 735 residential units that were already approved as part of the 2006 CCSP, and the reduction of 54,854 sf of retail uses contemplated in the CCSP Update would still occur, resulting in fewer trips generated than would otherwise occur under the implementation of the approved 2006 CCSP. Furthermore, consistent with City of San Ramon General Plan Policy 3.3-I-3, traffic impact studies would be required for all proposed new developments that generate 50 or more net new peak-hour vehicle trips, or as requested by the City Traffic Engineer.² Implementation of this policy would require additional traffic analysis to be conducted at the project-specific level when each subsequent project application is submitted, and would be able to impose additional requirements and mitigation, if warranted, if any study intersection is found to operate unacceptably at that time. For these reasons, the proposed change to the CCSP Update would not result in any significant impacts for transportation.

Utilities and Service Systems

The 2006 EIR considered the effects of 735 dwelling units and found that impacts related to landfill capacity or regulations related to solid waste to be less than significant with the incorporation of mitigation to require segregation of recyclable solid waste from non-recyclable waste (MM K.4 from the 2006 EIR). All other impacts were found to be less than significant.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. The CCSP Residential Overlay would reintroduce 101 residential units that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. All mitigation measures from the 2006 EIR would continue to be implemented, and would achieve the same protections and reductions in potential impacts as disclosed in the 2006 EIR and 2020 Addendum. Therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to utilities and service systems than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

² City of San Ramon. 2015. City of San Ramon General Plan 2035. May 28. Website: https://www.sanramon.ca.gov/UserFiles/Servers/Server_10826046/File/Our%20City/Departments/Community%20Development/Planning/General%20Plan/General%20Plan%202035%202019-10-21/03%20Growth_Management.pdf. Accessed November 2, 2020.

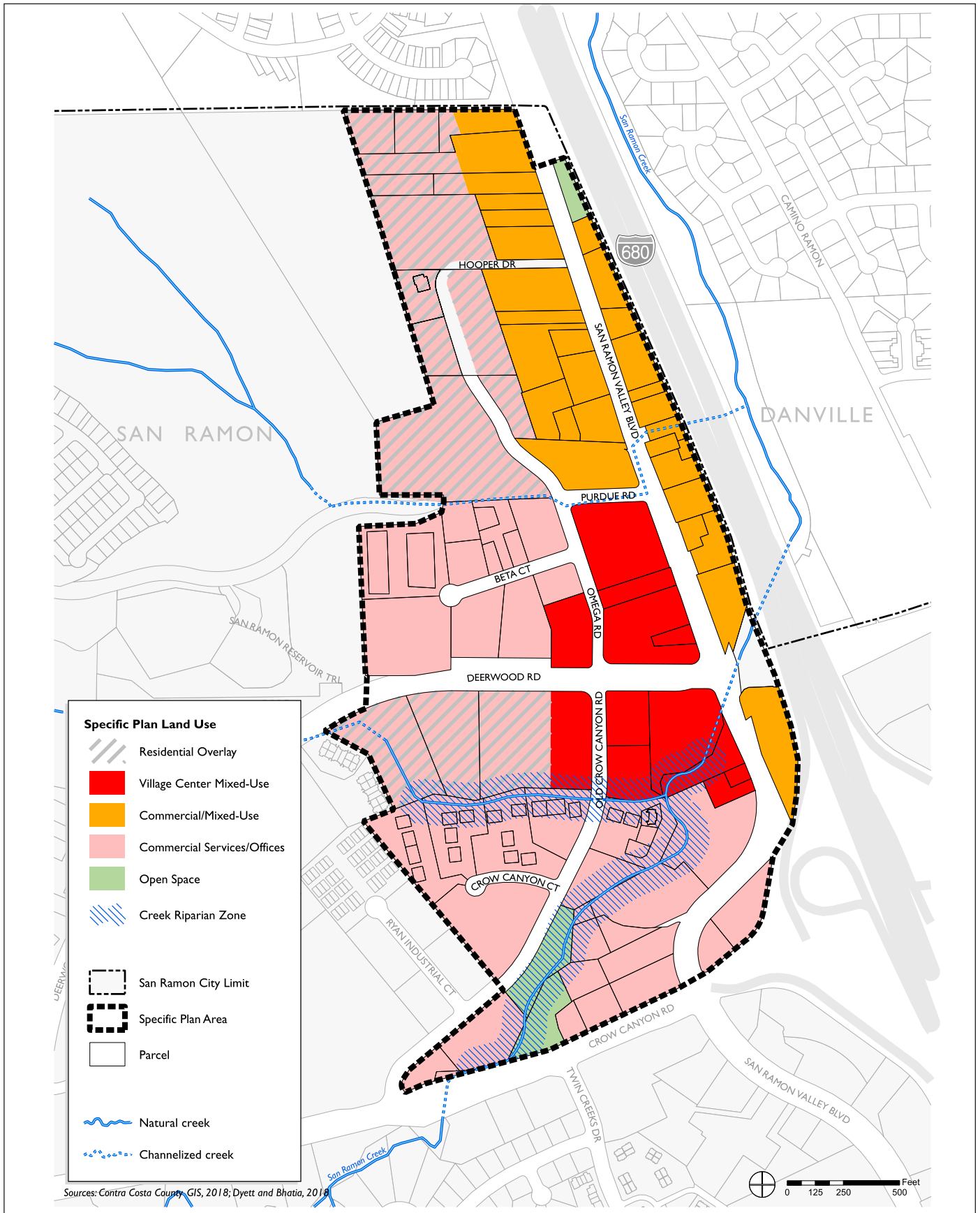
Wildfire

The initial study prepared for the 2006 EIR considered the effects of 735 dwelling units and found that impacts related to wildfire would be evaluated as part of the environmental review process for each individual development site. No further analysis is provided in the 2006 EIR.

The CCSP Residential Overlay would reintroduce 101 residential units into locations within the CCSP boundary that were already evaluated and disclosed as part of the 735 residential units proposed as part of the 2006 CCSP. No change to location, height, or design review requirements would be introduced; therefore, the proposed Residential Overlay and re-introduction of 101 dwelling units would not introduce new environmental impacts or create more severe impacts related to wildfire than those analyzed in the 2006 EIR and the 2020 Addendum. No additional analysis is required.

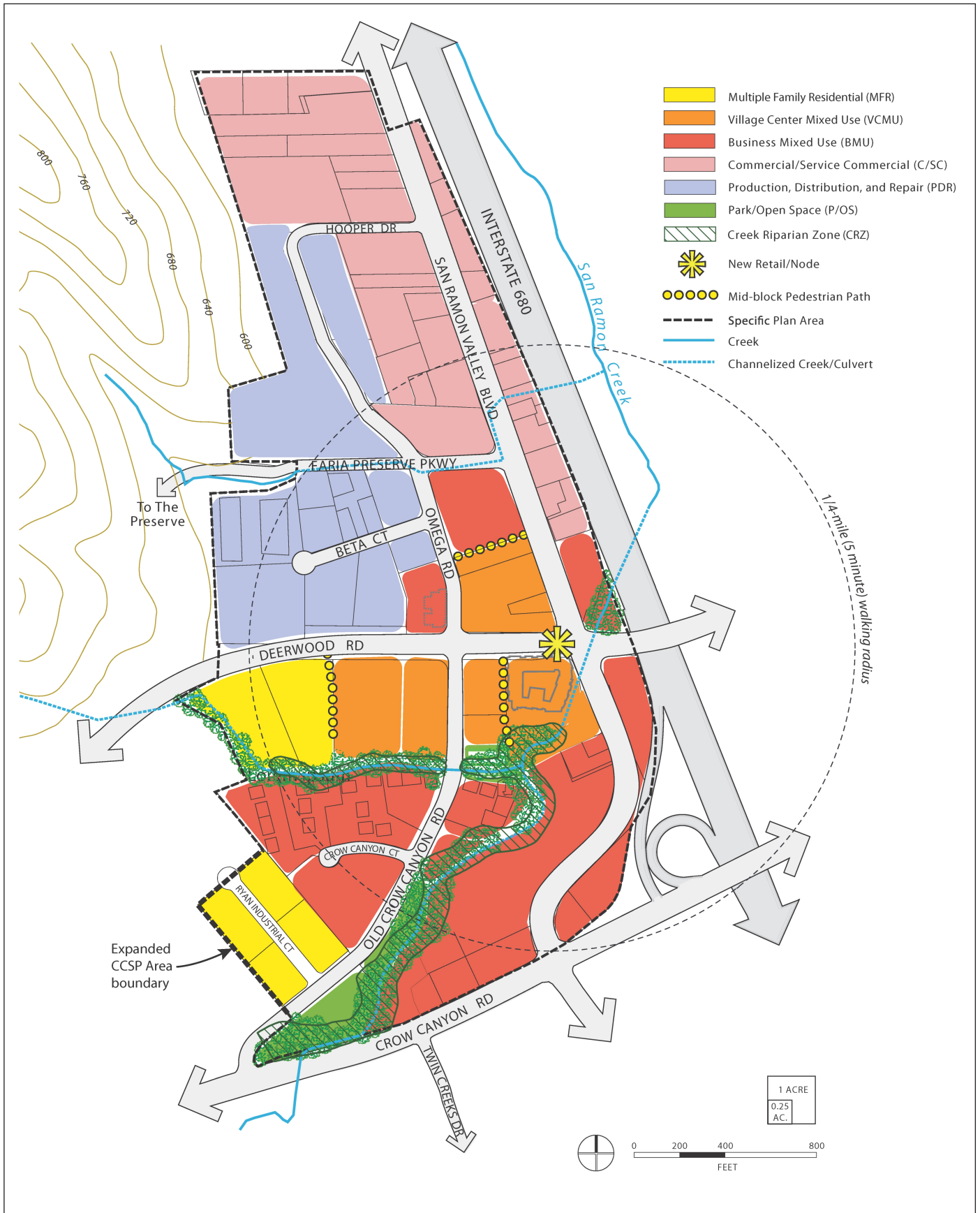
CONCLUSION

As demonstrated in the environmental analysis provided above, and as further evaluated in the 2020 Addendum, the proposed reintroduction of 101 residential units in the 2020 CCSP Residential Overlay does not meet the criteria for preparing a subsequent EIR or negative declaration. The Addendum, as supplemented by this Consistency Memorandum, is appropriate as none of the conditions calling for preparation of a supplemental EIR, subsequent EIR, or negative declaration have occurred (CEQA Guidelines §§ 15162 and 15163).



Sources: Contra Costa County GIS, 2018; Dyett and Bhatia, 2018



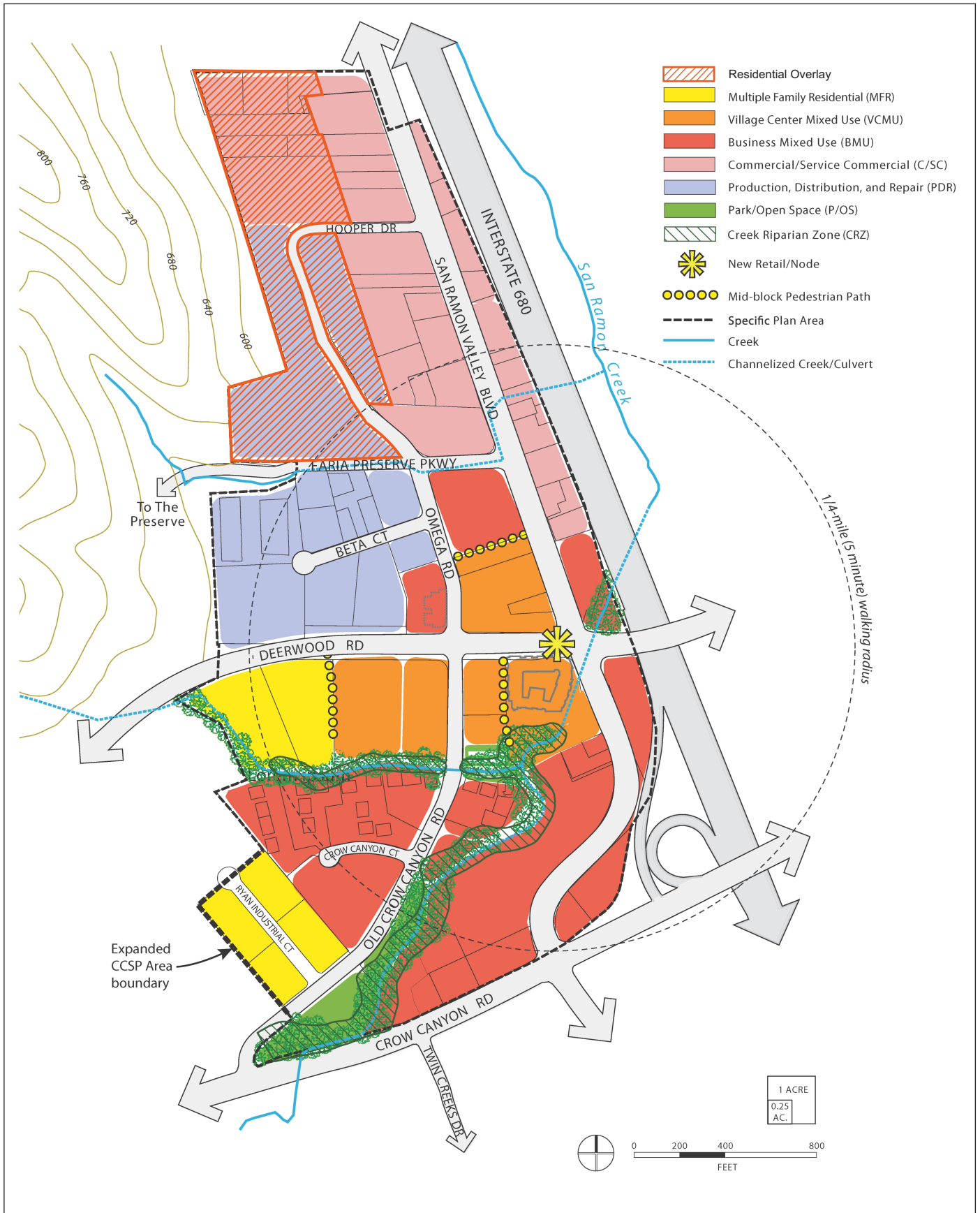


Source: City of San Ramon, June 2020.

Exhibit 2

Crow Canyon Specific Plan Update
Proposed Land Use Plan





Source: City of San Ramon, June 2020.

Exhibit 3

Crow Canyon Specific Plan Update
Proposed Land Use Plan with Residential Overlay





**Attachment A:
Supplemental Trip Generation Memorandum**



MEMORANDUM

To: Cindy Yee, AICP
City of San Ramon

From: Ben Huie, P.E.
Kimley-Horn and Associates, Inc.

Date: October 29, 2020

Re: **Crow Canyon Specific Plan Update – Supplemental Traffic Evaluation**

This memorandum documents the supplemental traffic evaluation to the Crow Canyon Specific Plan (CCSP) Update in 2020 for an additional 101 residential units. The addition of 101 residential units to the Crow Canyon Specific Plan Update would increase the residential units from 634 units to 735 units, which is equivalent to the 2006 Crow Canyon Specific Plan. The Environmental Impact Report (EIR) for the Crow Canyon Specific Plan Update disclosed no significant impacts related to transportation. Since this change to the land uses results in an increase in residential units, a supplemental traffic evaluation was performed to determine if this change would result in any significant impacts related to transportation.

The traffic evaluation shows that it is unlikely that the addition of the 101 residential units will result in any significant impacts. The following will describe the methodology, analysis, results, and conclusions of this evaluation in more detail.

Project Description

The Crow Canyon Specific Plan Update proposed the changes to the land uses and sizes of the previously approved 2006 Crow Canyon Specific Plan. This was analyzed in the Transportation Impact Analysis (TIA) for the EIR. The latest revision to the Crow Canyon Specific Plan Update proposes to increase the residential units back to the 735 units as planned in the 2006 Crow Canyon Specific Plan. **Table 1** summarizes the land uses for each update. As shown, the revised 2020 Crow Canyon Specific Plan would only result in an additional 101 residential units compared to the 2020 Crow Canyon Specific Plan Update. The additional units are planned to occur in the northern portion of the specific plan, known as the North of Purdue Area.

Table 1: Comparison of Land Uses between Crow Canyon Specific Plans

Land Use	2006 CCSP	2020 CCSP	Revised 2020 CCSP	Δ (Revised 2020 CCSP – 2020 CCSP)
Residential Units	735	634	735	+101
Retail Square Feet	87,000	32,146	32,146	0
Commercial Square Feet	270,000	270,000	270,000	0
Open Space Square Feet	207,460	207,460	207,460	0

Trip Generation

To determine the impact of the additional 101 residential units, a trip generation comparison was completed to determine the estimated number of vehicle trips added. Consistent with the trip generation methodology in the TIA, the Institute of Transportation Engineer’s (ITE) publication, *Trip Generation Manual, 10th Edition*¹ was used to determine the daily, AM peak hour, and PM peak hour trips generated by the additional 101 residential units. This results in an additional 550 daily trips, 36 AM peak hour trips, and 44 PM peak hour trips. In addition, the TIA assumed a 10 percent mixed-use and multi-modal trip reduction. **After incorporating this trip reduction, the additional 101 residential units would result in 495 daily trips, 32 AM peak hour trips, and 40 PM peak hour trips.**

Intersection Level of Service Review

To determine if the additional 101 residential units would result in any additional significant impacts, the level of service (LOS) from the Crow Canyon Specific Plan Update was qualitatively reviewed in the Existing plus Project scenario and the Cumulative plus Project scenario.

Existing Plus Project

The acceptable intersection level of service criteria for each study intersection is LOS D or better. The Existing Plus Project level of service from the TIA is shown in **Table 2**. Each intersection operates at a LOS D or better with the Crow Canyon Specific Plan Update. Since the delay threshold for the transition from an acceptable LOS D to an unacceptable LOS E is 55 seconds for a signalized intersection and 35 seconds for an unsignalized intersection, each intersection delay was reviewed to determine if the additional 32 AM peak hour trips or 40 PM peak hour trips would result in worsening the intersection LOS to an unacceptable LOS E. It should be noted that the project trips are distributed throughout the roadway network and therefore only a portion of the 32 AM peak hour trips or 40 PM peak hour trips would be added to each intersection.

¹ *Trip Generation Manual, 10th Edition*, Institute of Transportation Engineers, 2017.

Table 2: Existing Plus Project Level of Service

#	Intersection	LOS Criteria	AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Crow Canyon Road/Old Crow Canyon Road	D	A	8.0	B	10.2
2	Crow Canyon Road/Twin Creeks Drive	D	B	19.9	C	23.5
3	Crow Canyon Road/San Ramon Valley Boulevard	D	C	33.4	D	42.4
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	D	35.4	D	40.1
5	Hooper Drive/San Ramon Valley Boulevard	D	A	0.9	A	1.5
	<i>Worst Approach</i>		C	17.1	D	28.8
6	Faria Preserve Parkway/San Ramon Valley Boulevard	D	A	1.8	A	2.0
	<i>Worst Approach</i>		C	15.7	D	22.6
7	Deerwood Road/Old Crow Canyon Road/Omega Road	D	B	11.4	C	16.9

There are two signalized intersections that operate at LOS D:

- Intersection #3 – Crow Canyon Road/San Ramon Valley Boulevard (PM peak hour)
- Intersection #4 – Deerwood Road-Fostoria Way/San Ramon Valley Boulevard (AM and PM peak hours)

The intersection of Crow Canyon Road/San Ramon Valley Boulevard operates at LOS D with 42.4 seconds of delay in the PM peak hour. 12.5 seconds of delay can be added to the intersection before the intersection operates at an unacceptable LOS E. Based on the project trip distribution in the TIA (as shown in Attachment A), approximately 54 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 22 PM peak hour trips added to intersection #3. This minimal number of trips is unlikely to increase the intersection LOS to an unacceptable LOS E.

The intersection of Deerwood Road-Fostoria Way/San Ramon Valley Boulevard operates at LOS D with 35.4 seconds of delay in the AM peak hour and 40.1 seconds of delay in the PM peak hour. 19.5 seconds of delay in the AM peak hour and 14.8 seconds of delay can be added to the intersection before the intersection operates at an unacceptable LOS E. Based on the project trip distribution in the TIA, approximately 64 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 20 AM peak hour trips and 26 PM peak hour trips added to intersection #4. This minimal number of trips is unlikely to increase the intersection LOS to an unacceptable LOS E.

There are two unsignalized intersections that operate at LOS D:

- Intersection #5 – Hooper Drive/San Ramon Valley Boulevard (PM peak hour)
- Intersection #6 – Faria Preserve Parkway/San Ramon Valley Boulevard (PM peak hour)

The intersection of Hooper Drive/San Ramon Valley Boulevard operates at LOS D with 28.8 seconds of delay for the worst approach in the PM peak hour. 6.1 seconds of delay can be added to the intersection before the intersection operates at an unacceptable LOS E. Based on the project trip distribution in the TIA, approximately 20 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 8 PM peak hour trips added to intersection #5. This minimal number of trips is unlikely to increase the intersection LOS to an unacceptable LOS E.

The intersection of Faria Preserve Parkway/San Ramon Valley Boulevard operates at LOS D with 22.6 seconds of delay for the worst approach in the PM peak hour. 12.3 seconds of delay can be added to the intersection before the intersection operates at an unacceptable LOS E. Based on the project trip distribution in the TIA, approximately 20 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 8 PM peak hour trips added to intersection #6. This minimal number of trips is unlikely to increase the intersection LOS to an unacceptable LOS E.

It is unlikely that the additional 101 residential units would result in a significant impact at a study intersection in the Existing Plus Project scenario.

Cumulative Plus Project

The acceptable intersection level of service criteria for each study intersection is LOS D or better. The Cumulative Plus Project level of service from the TIA is shown in **Table 3** below. Each intersection operates at a LOS D or better with the Crow Canyon Specific Plan Update, except for the worst approach of the intersection of Hooper Drive/San Ramon Valley Boulevard. Since the delay threshold for the transition from an acceptable LOS D to an unacceptable LOS E is 55 seconds for a signalized intersection and 35 seconds for an unsignalized intersection, each intersection delay was reviewed to determine if the additional 32 AM peak hour trips or 40 PM peak hour trips would result in worsening the intersection LOS to an unacceptable LOS E. It should be noted that the project trips are distributed throughout the roadway network and therefore only a portion of the 32 AM peak hour trips or 40 PM peak hour trips would be added to each intersection.

Table 3: Cumulative Plus Project Level of Service

#	Intersection	LOS Criteria	AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Crow Canyon Road/Old Crow Canyon Road	D	A	8.4	B	10.4
2	Crow Canyon Road/Twin Creeks Drive	D	C	21.3	C	25.2
3	Crow Canyon Road/San Ramon Valley Boulevard	D	D	39.4	D	44.2
4	Deerwood Road-Fostoria Way/San Ramon Valley Boulevard	D	D	37.4	D	42.4
5	Hooper Drive/San Ramon Valley Boulevard	D	A	0.8	A	2.2
	<i>Worst Approach</i>		E	36.9	D	30.4
6	Faria Preserve Parkway/San Ramon Valley Boulevard	D	C	20.0	B	18.9
7	Deerwood Road/Old Crow Canyon Road/Omega Road	D	B	13.7	C	17.6

Note: Intersections that are operating below acceptable levels are shown in BOLD and significant impacts are highlighted.

There are two signalized intersections that operate at LOS D:

- Intersection #3 – Crow Canyon Road/San Ramon Valley Boulevard (AM and PM peak hours)
- Intersection #4 – Deerwood Road-Fostoria Way/San Ramon Valley Boulevard (AM and PM peak hours)

The intersection of Crow Canyon Road/San Ramon Valley Boulevard operates at LOS D with 39.4 seconds of delay in the AM peak hour and 44.2 seconds of delay in the PM peak hour. 15.5 seconds of delay can be added to the intersection in the AM peak hour and 10.7 seconds of delay can be added in the PM peak hour before the intersection operates at an unacceptable LOS E. Based on the project trip distribution in the TIA, approximately 54 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 17 AM peak hour trips and 22 PM peak hour trips added to intersection #3. This minimal number of trips is unlikely to increase the intersection LOS to an unacceptable LOS E.

The intersection of Deerwood Road-Fostoria Way/San Ramon Valley Boulevard operates at LOS D with 37.4 seconds of delay in the AM peak hour and 42.4 seconds of delay in the PM peak hour. 17.5 seconds of delay in the AM peak hour and 12.5 seconds of delay can be added to the intersection before the intersection operates at an unacceptable LOS E. Based on the project trip distribution in the TIA, approximately 64 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 20 AM peak hour trips and 26 PM peak hour trips added to intersection #4. This minimal number of trips is unlikely to increase the intersection LOS to an unacceptable LOS E.

There is one unsignalized intersection that operates at LOS D and even an unacceptable LOS E:

- Intersection #5 – Hooper Drive/San Ramon Valley Boulevard (AM and PM peak hours)

The intersection of Hooper Drive/San Ramon Valley Boulevard operates at LOS E with 36.9 seconds of delay in the AM peak hour and LOS D with 30.4 seconds of delay for the worst approach in the PM peak hour. However, when compared to the baseline condition (the Cumulative scenario with the 2006 Crow Canyon Specific Plan), this intersection operates at LOS E with 40.4 seconds of delay in the AM peak hour and operates at LOS E with 41.4 seconds of delay in the PM peak hour. The project would be considered to significantly impact this intersection if it worsened the LOS and delay past this baseline. Therefore, 3.5 seconds of delay can be added to the intersection in the AM peak hour and 11 seconds can be added to the intersection in the PM peak hour before the project significantly impacts the intersection. Based on the project trip distribution in the TIA, approximately 20 percent of the project trips are expected to travel through this intersection. Therefore, this results in only 6 AM peak hour trips and 8 PM peak hour trips added to intersection #5. This minimal number of trips is unlikely to result in a significant impact.

It is unlikely that the additional 101 residential units would result in a significant impact at a study intersection in the Cumulative Plus Project scenario.

Conclusions

The proposed update to the Crow Canyon Specific Plan Update would increase the residential units by 101 residential units. This increase is estimated to result in an additional 32 AM peak hour trips and 40 PM peak hour trips. After review of the LOS results for the Existing plus Project and Cumulative Plus Project scenarios in the Crow Canyon Specific Plan Update, it is unlikely that the additional peak hour trips would result in a new significant impact. It should be noted that the addition of the 101 residential units to the Crow Canyon Specific Plan Update would result in the same number of residential units as included in the 2006 Crow Canyon Specific Plan, but still have 54,854 square feet less of retail uses than the 2006 Crow Canyon Specific Plan. It should also be noted that this is a programmatic document and additional traffic analysis and evaluation would occur at the project specific level during each subsequent project application to determine if any study intersections would operate unacceptably. For these reasons, the proposed change to the Crow Canyon Specific Plan Update would likely not result in any significant impacts for transportation.

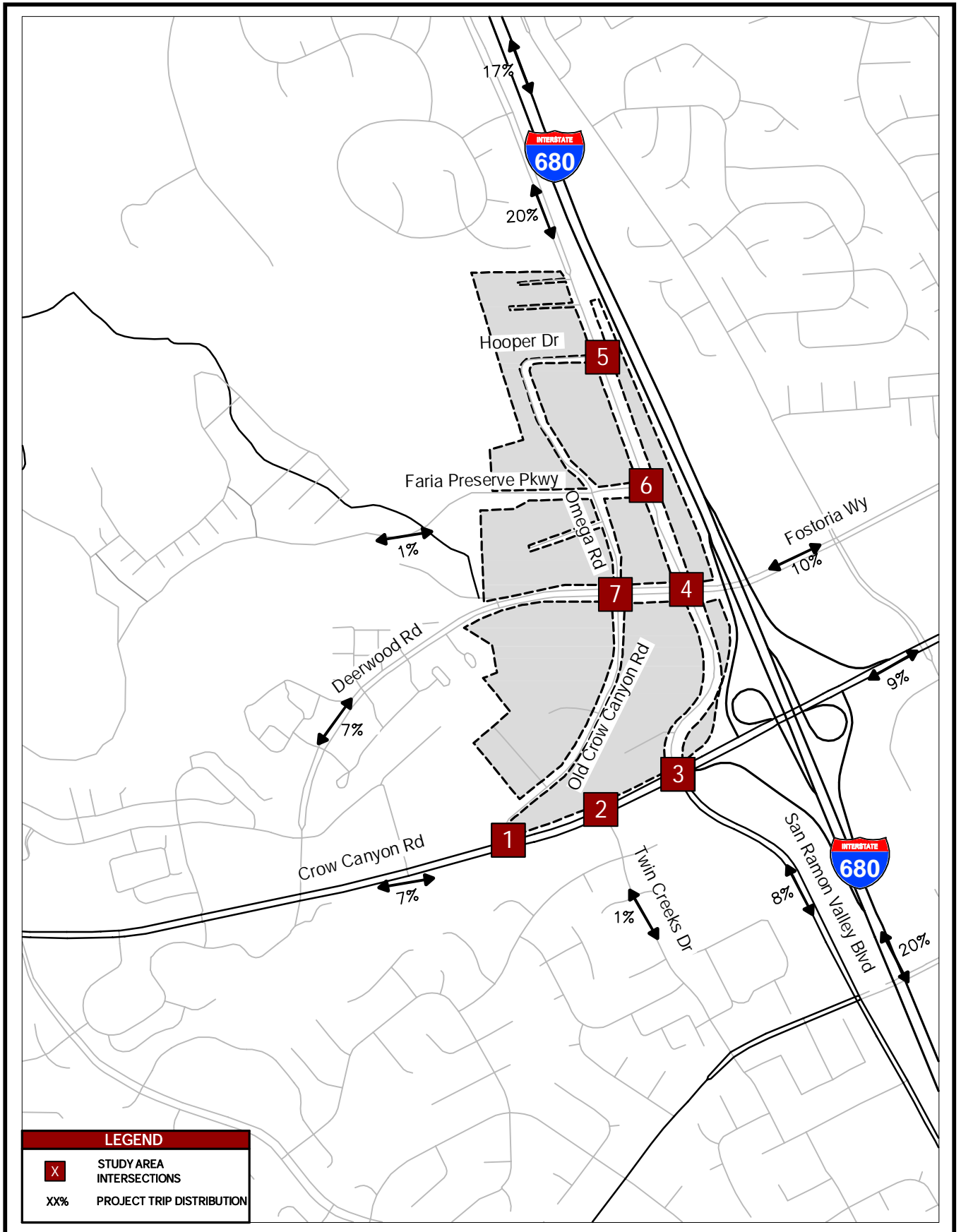


FIGURE 6
PROJECT TRIP DISTRIBUTION