TRAFFIC IMPACT REPORT

PROPOSED DAKOTA SHY WINERY
ALONG SILVERADO TRAIL
AND SAGE CANYON ROAD
IN THE NAPA VALLEY

July 8, 2015

Prepared for: **Dakota Shy Winery**

Prepared by: **Mark D. Crane, P.E.**
California Registered Traffic Engineer (#1381)
CRANE TRANSPORTATION GROUP
2621 E. Windrim Court
Elk Grove, CA 95758
(916) 647-3406

I. INTRODUCTION

This traffic report has been prepared at the request of the Napa County Public Works and Planning, Building and Environmental Sciences Departments as authorized by the Dakota Shy Winery applicant. It has determined if traffic from the proposed Dakota Shy Winery expansion will result in any significant impacts to the local circulation system and the need for any mitigation measures.

II. SCOPE OF SERVICES

The scope of service for this traffic study was approved by the Napa County Public Works and the Planning, Building and Environmental Sciences departments. Evaluation was conducted for both harvest and summer (non-harvest) traffic periods for Friday AM and PM commute and Saturday afternoon peak traffic conditions. Existing, year 2020 and year 2030 (Cumulative – General Plan Buildout) horizons were evaluated both with and without project traffic. Operating conditions along Silverado Trail and Sage Canyon Road (SR 128) as well as at the Silverado Trail/Sage Canyon Road intersection were evaluated for all analysis scenarios based upon significance criteria contained in the General Plan and/or utilized in all recent County traffic studies. In addition, sight line adequacy was evaluated at the project driveway intersections with Sage Canyon Road and Silverado Trail. Finally, the need for a left turn lane on Sage Canyon Road at the proposed inbound only project entrance driveway was evaluated based upon both County and Caltrans warrant criteria. Significant impacts, if any, were identified and measures listed, if needed, to mitigate all impacts to a less than significant level.

III. SUMMARY OF FINDINGS

A. "WITHOUT PROJECT" OPERATING CONDITIONS

1. Existing Volumes – Harvest 2014

Sage Canyon Road adjacent to the proposed project site now has higher September harvest two-way traffic volumes during the Friday PM peak traffic hour compared to either the Friday AM or Saturday PM peak traffic hours (324 two-way peak hour vehicles from 4:15 to 5:15 PM on Friday versus 184 two-way peak hour vehicles from 7:45 to 8:45 AM on Friday or 254 two-way peak hour vehicles from 2:15 to 3:15 PM on Saturday). Along Silverado Trail, two-way volumes south of Sage Canyon Road are also higher during the Friday PM peak hour compared to the Friday AM or Saturday PM peak hours (about 1,615 Friday PM peak hour vehicles versus 1,010 Friday AM or 1,300 Saturday PM peak hour vehicles). The two driveways serving the project site had a total of 1 vehicle during the Friday AM peak hour, 3 vehicles during the Friday PM peak hour and 5 vehicles during the Saturday PM peak hour. Annual average daily two-way volumes along Sage Canyon Road adjacent to the project site are now 2,850 vehicles based upon Caltrans traffic counts.

2. Year 2014 Harvest or Summer – Circulation System Unacceptable Operation

- **Silverado Trail/Sage Canyon Road** intersection – unacceptable level of service.
  - Friday & Saturday PM peak traffic hours
- **Silverado Trail/Sage Canyon Road** intersection – volumes exceed peak hour signal warrant criteria levels.
  - Friday AM & PM peak hours and Saturday PM peak hour
- **Silverado Trail** roadway segments – unacceptable level of service.
  - Friday PM peak hour – southbound (north and south of Sage Canyon Road)

3. Year 2020 Harvest or Summer – Circulation System Unacceptable Operation

- **Silverado Trail/Sage Canyon Road** intersection – unacceptable level of service.
  - Friday & Saturday PM peak traffic hours
- **Silverado Trail/Sage Canyon Road** intersection – volumes exceed peak hour signal warrant criteria levels.
  - Friday AM & PM peak hours and Saturday PM peak hour
- **Silverado Trail** roadway segments – unacceptable level of service.
  - Friday PM peak hour – southbound (north and south of Sage Canyon Road)

4. Year 2030 Harvest or Summer – Circulation System Unacceptable Operation

- **Silverado Trail/Sage Canyon Road** intersection – unacceptable level of service.
  - Friday & Saturday PM peak traffic hours
- **Silverado Trail/Sage Canyon Road** intersection – volumes exceed peak hour signal warrant criteria levels.
  - Friday AM & PM peak hours and Saturday PM peak hour
- **Silverado Trail** roadway segments – unacceptable level of service.
  - Friday AM peak hour – northbound (north and south of Sage Canyon Road)
  - Friday and Saturday PM peak hours – southbound (north and south of Sage Canyon Road)

B. PROJECT IMPACTS

1. **Project Trip Generation**

The proposed project will result in the following trip generation during the Friday and Saturday peak traffic hours.

PROJECT TRIP GENERATION

HARVEST

FRIDAY AM PEAK HOUR* (7:45-8:45)		FRIDAY PM PEAK HOUR* (4:15-5:15)		SATURDAY PM PEAK HOUR* (2:15-3:15)	
INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS
2	1	1	1	2	1

SUMMER (NON-HARVEST)

FRIDAY AM PEAK HOUR* (7:45-8:45)		FRIDAY PM PEAK HOUR* (4:15-5:15)		SATURDAY PM PEAK HOUR* (2:15-3:15)	
INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS
2	0	1	1	2	1

* Peak hour at the Silverado Trail/Sage Canyon Road intersection.
Source: Dakota Shy Winery; compiled by Crane Transportation Group

Trips during the Friday and Saturday PM peak hours will be visitors by appointment, while trips during the Friday AM peak hour will be employees and, during harvest, possibly a grape delivery truck.

2. **Revised Project Site Access to Sage Canyon Road & Silverado Trail**
The project will revise existing two-way flow operation on both driveways connecting to Sage Canyon Road to provide inbound flow only on its east driveway and outbound flow only on its west driveway. The project's Silverado Trail driveway will be limited to emergency vehicle access only.

3. **Year 2014 Existing + Project Off-Cite Circulation Impacts – Harvest or Summer**
The proposed project would not result in any significant off-site circulation impacts to Silverado Trail, Sage Canyon Road or to the Silverado Trail/Sage Canyon Road intersection. The project would not degrade operation from acceptable to unacceptable at any analyzed location and/or increase peak hour volumes by 1 percent or greater at any location already experiencing unacceptable "Without Project" operation.

4. **Year 2020 Existing + Project Off-Site Circulation Impacts – Harvest or Summer**
The proposed project would not result in any significant off-site circulation impacts to Silverado Trail, Sage Canyon Road or to the Silverado Trail/Sage Canyon Road intersection. The project would not degrade operation from acceptable to unacceptable at any analyzed location and/or increase peak hour volumes by 1 percent or greater at any location already experiencing unacceptable "Without Project" operation.

5. **Year 2030 Existing + Project Off-Site Circulation Impacts – Harvest or Summer**
The proposed project would not result in any significant off-site circulation impacts to Silverado Trail, Sage Canyon Road or to the Silverado Trail/Sage Canyon Road

intersection. The project would not degrade operation from acceptable to unacceptable at any analyzed location and/or increase peak hour volumes by 1 percent or greater at any location already experiencing unacceptable "Without Project" operation.

6. **Need for Left Turn Lane on Sage Canyon Road at Project Entrance**
Volumes along Sage Canyon Road at the project entrance in combination with daily volumes on the project driveway will not meet either Caltrans or County warrant criteria for provision of a left turn lane on the westbound Sage Canyon Road approach to the project east (inbound) driveway.

7. **Sight Lines at Project Exit Driveway**
Sight lines are adequate at the project's proposed outbound (west) driveway connection to Sage Canyon Road.

8. **Mitigations**
There are no required mitigations other than maintaining landscaping along the project's Sage Canyon Road frontage to provide acceptable sight lines for drivers turning from the project exit and scheduling the two marketing events to eliminate guest and hired event staff traffic from the local circulation system between 2:00 and 6:00 PM on both days.

C. CONCLUSIONS & RECOMMENDATIONS

The project would result in no significant off-site circulation system operational impacts to Silverado Trail and Sage Canyon Road or to the Silverado Trail/Sage Canyon Road intersection. Project traffic in combination with ambient traffic volumes along Sage Canyon Road will not meet Caltrans or County warrant criteria for provision of a left turn lane on the westbound Sage Canyon Road approach to the project entrance driveway. In addition, the vast majority of project employee and visitor traffic accessing the site will be coming from Silverado Trail and making a right turn to the inbound (east) driveway. Sight lines at the proposed project outbound driveway connection to Sage Canyon Road will be adequate assuming landscaping along the project frontage is maintained so as not to block existing sight lines. Also, both marketing events should be scheduled to avoid contributing traffic to the local roadway network between 2:00 and 6:00 PM.

IV. PROJECT LOCATION & DESCRIPTION

The Dakota Shy Winery will be located on the west side of Sage Canyon Road and the east side of Silverado Trail (see **Figure 1**). There are currently two driveways along Sage Canyon Road serving the existing residence, guest house and minimal (1,000 gallons per year) winery operation. The east and west driveways are about 1,400 feet and 1,100 feet, respectively, from Silverado Trail. Both have two-way traffic flow and both are gated. Currently, there is also inbound right turn access to the project site for northbound grape haul trucks on Silverado Trail via a driveway connection about 1,200 feet south of the Sage Canyon Road intersection. Grape delivery trucks then exit to Sage Canyon Road.

The proposed project will convert operation of the two driveways along Sage Canyon Road to one-way flow: inbound at the east driveway and outbound at the west driveway, where sight lines are better for turn movements to the state highway. The Silverado Trail entrance will be closed and used for emergency vehicle access.

The proposed Dakota Shy Winery will have the following yearly production and visitor/special event levels.

- 14,000 gallons per year production (increased from 1,000 gallons per year).
- Bottling on-site.
- 98 percent of the grapes will be transported to site (with around 60 percent coming from the south on Silverado Trail and the remaining 38 percent coming from the north on Silverado Trail). All grape truck access to the winery will be from Sage Canyon Road.
- Tours and tasting will be by appointment only – 7 days per week from 10:00 AM to 6:00 PM, maximum 20 visitors per day (resulting in 9 to 10 vehicles).
- Wine release – 2 per year, maximum 40 visitors (15 vehicles) per event on weekends between 10:00 AM and 11:00 PM, with no traffic added during peak traffic periods along Silverado Trail.

V. EXISTING CIRCULATION SYSTEM EVALUATION PROCEDURES

A. ANALYSIS LOCATIONS

At County direction, the following locations have been evaluated.

1. **Silverado Trail/Sage Canyon Road (SR 128)-Conn Creek Winery driveway intersection (Sage Canyon Road & Conn Creek Winery approaches are stop sign controlled).**

2. **Sage Canyon Road/Project Driveway intersections.**

3. **Silverado Trail/Project inbound grape delivery driveway intersection.**

4. **The Silverado Trail two-lane highway segments just north and south of Sage Canyon Road as well as the Sage Canyon Road two-lane highway segments between Silverado Trail and the project driveways as well as to the east of the project driveways.**

Figure 2 presents a schematic of approach geometrics and control at each analysis intersection.

B. VOLUMES

1. ANALYSIS SEASONS AND DAYS OF THE WEEK

At County request project traffic impacts have been evaluated during both harvest and peak summer (non-harvest) conditions. Based upon more than four years of historical information from Caltrans PeMS (Performance Measurement System) count surveys along SR 29 in the Napa Valley, September has the highest daily volumes of the year (during harvest), with August having the highest summer non-harvest daily volumes of the year. August counts were almost as high as September counts. Therefore, conditions during these two months were selected for evaluation.

In regards to the peak traffic days of the week, the recently released Napa County Travel Behavioral Study[1] shows that the highest weekday volumes in Napa Valley occur on a Friday, with the highest weekend volumes occurring on a Saturday. In addition, historical count data from the City of Napa show that Friday has the highest volumes of any weekday, while Caltrans historical counts for SR 29 between St. Helena and Napa also show that weekday AM and PM peak hour volumes are higher on a Friday than on either a Wednesday or Thursday. Therefore, Friday and Saturday peak traffic conditions were evaluated in this study.

2. COUNT RESULTS

Friday 3:00 to 6:00 PM and Saturday 1:00 to 6:00 PM turn movement counts were conducted by Crane Transportation Group (CTG) in May 2014 at the Silverado Trail/Sage Canyon Road and Sage Canyon Road/Property access driveway intersections. The east driveway is paved and gated, while the west driveway is unpaved but gated. The peak traffic hours were determined to be 4:15-5:15 PM on Friday and 2:15-3:15 PM on Saturday. Friday 7:00-9:00 AM turn movement counts were also conducted by Crane Transportation Group in January 2015 at the Silverado Trail/Sage Canyon Road and Sage Canyon Road/Project property access driveway intersections. The peak traffic hour was 7:45-8:45 AM. Resultant May 2014 and January 2015 peak hour counts are presented in **Appendix Figure 1**. Overall, two-way volumes along Sage Canyon Road at the project entrance were higher during the May Friday PM peak traffic hour (315 vehicles per hour [vph] on Friday versus 250 vph on Saturday). Along Silverado Trail, May two-way volumes south of Sage Canyon Road were higher during the Friday PM peak hour compared to the Saturday PM peak hour (1,581 two-way vehicles versus 1,285 two-way vehicles).

Daily two-way counts were also conducted along Sage Canyon Road adjacent to the project site on Tuesday, Wednesday and Thursday, May 20-22, 2014. Daily two-way volumes were 2,488, 2,601 and 2,652 vehicles, respectively, with a three-day daily two-way average of 2,580 vehicles. However, Caltrans's most recent annual average daily traffic volume for Sage Canyon Road adjacent to the project site is 2,850 vehicles.

[1] Fehr & Peers, December 8, 2014.

3. SEASONAL ADJUSTMENTS

May 2014 and January 2015 peak hour traffic counts were seasonally adjusted to reflect September harvest conditions based upon monthly and day of week adjustment factors utilized in other Napa Valley jurisdictions. Overall, May counts would be expected to increase by about 3 percent to reflect fall harvest conditions, while January counts would be expected to increase about 18 percent to reflect fall harvest conditions. Historical traffic count data from Caltrans as well as past studies, extending back to the Wine Train EIR in 1992, were then utilized to determine the seasonal difference in August versus September weekday and weekend peak hour volumes. While some sources showed August volumes at a few locations in the Napa Valley being the same or a little higher than those in September, overall it was determined that September volumes at the vast majority of locations were slightly higher than August volumes by the following factors.

	September Compared to August Peak Hour Volumes
Weekday	+ 1%
Saturday	+ 2%

Resultant 2014 Friday AM and PM and Saturday PM peak hour harvest volumes are presented in **Figure 3** while summer volumes are presented in **Figure 4**.

C. ROADWAYS

Roadway descriptions are based upon the designation that Silverado Trail runs in a general north-south direction through the project area and Sage Canyon Road runs in an east-west direction.

Sage Canyon Road (State Route 128) will provide the only visitor and employee access to the winery. Adjacent to the project site it has two well-paved 12-foot travel lanes and no paved shoulders, with the exception of a wide paved shoulder area at the east project driveway connection. The posted speed limit is 40 miles per hour and the roadway is level. The highway is straight at each driveway connection, but has a horizontal curve between driveways as well as to the east and west of the project driveways. Sage Canyon Road is stop sign controlled on its single lane westbound approach to Silverado Trail which has been widened to allow left and right turning vehicles to separate.. The Conn Creek Winery driveway is the fourth (west) stop sign controlled leg of the Silverado Trail/Sage Canyon Road intersection.

Silverado Trail in the project vicinity has two well-paved 12-foot travel lanes and wide paved shoulders that are signed and striped as Class II bicycle lanes. The posted speed limit is 55 miles per hour at Sage Canyon Road. A left turn lane is provided on the southbound Silverado Trail approach to Sage Canyon Road as well as on the northbound Silverado Trail approach to the same intersection. The northbound left turn serves vehicles turning to the Conn Creek Winery driveway. Silverado Trail is designated State Route 128 north of Sage Canyon Road.

D. INTERSECTION LEVEL OF SERVICE

1. ANALYSIS METHODOLOGY

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. LOS is a description of the quality of a roadway facility's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system.

Signalized Intersections. For signalized intersections, the 2000 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology was utilized. With this methodology, operations are defined by the level of service and average control delay per vehicle (measured in seconds) for the entire intersection. For a signalized intersection, control delay is the portion of the total delay attributed to traffic signal operation. This includes delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 1** summarizes the relationship between delay and LOS for signalized intersections.

Unsignalized Intersections. For unsignalized (all-way stop-controlled and side-street stop-controlled) intersections, the 2010 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology for unsignalized intersections was utilized. For side-street stop-controlled intersections, operations are defined by the level of service and average control delay per vehicle (measured in seconds), with delay reported for the stop sign controlled approaches or turn movements, although overall delay is also typically reported for intersections along state highways. For all-way stop-controlled intersections, operations are defined by the average control delay for the entire intersection (measured in seconds per vehicle). The delay at an unsignalized intersection incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. It should be noted that the 2010 analysis software for unsignalized intersections does not report overall intersection delay. However, the year 2000 software does report overall delay and was utilized to report overall intersection operation. **Table 2** summarizes the relationship between delay and LOS for unsignalized intersections.

2. MINIMUM ACCEPTABLE OPERATION

Napa County has no published minimum level of service standards for unsignalized public road or private driveway intersections. The County General Plan (Policy CIR-16) states that the County shall seek to maintain an arterial Level of Service D or better on all County roadways except where maintaining this desired level of service would require installation of more travel lanes than shown on the Circulation Map. For this study, LOS D has been used for unsignalized intersections as the poorest acceptable operation for the entire intersection, with LOS E as the poorest acceptable operation for a side street stop sign controlled intersection approach. The reason for use of LOS E as the criteria for individual movements and LOS D as the criteria for the overall intersection is that the poorest operation at an unsignalized intersection is typically a specific stop sign controlled movement, unless side street volumes are high, in which case both

the overall intersection and stop sign controlled movement are LOS F. Stop sign controlled intersections along Silverado Trail with low volumes of side street traffic tend to have poor stop sign controlled levels of service, but good to acceptable overall operation. As side street volumes increase, overall intersection operation also tends to degrade, but will usually remain one or more levels of service better than the stop sign controlled movement. When overall operation also degrades to LOS E or F operation, it is an indication of large volumes on the stop sign controlled approach, and the potential need for intersection signalization. The combined use of both criteria allows the County to identify those stop sign controlled intersections that have unacceptable delay for side street traffic as well as a sufficient amount of side street traffic that may meet signal warrant criteria levels.

E. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION

1. ANALYSIS METHODOLOGY

Traffic signals are used to provide an orderly flow of traffic through an intersection. Many times they are needed to offer side street traffic an opportunity to access a major road where high volumes and/or high vehicle speeds block crossing or turn movements. They do not, however, increase the capacity of an intersection (i.e., increase the overall intersection's ability to accommodate additional vehicles) and, in fact, often slightly reduce the number of total vehicles that can pass through an intersection in a given period of time. Signals can also cause an increase in traffic accidents if installed at inappropriate locations.

There are 9 possible tests for determining whether a traffic signal should be considered for installation. These tests, called "warrants", consider criteria such as actual traffic volume, pedestrian volume, presence of school children, and accident history. The intersection volume data together with the available collision histories were compared to warrants contained in the *Manual on Uniform Traffic Control Devices* (MUTCD), Federal Highway Administration, 2012, California Supplement, which has been adopted by the State of California as a replacement for *Caltrans Traffic Manual*. Section 4C of the MUTCD provides guidelines, or warrants, which may indicate need for a traffic signal at an unsignalized intersection. As indicated in the MUTCD, satisfaction of one or more warrants does not necessarily require immediate installation of a traffic signal. It is merely an indication that the local jurisdiction should begin monitoring conditions at that location and that a signal may ultimately be required.

Warrant 3, the peak hour volume warrant, is often used as an initial check of signalization needs since peak hour volume data is typically available and this warrant is usually the first one to be met. Warrant 3 is based on a logarithmic curve and takes only the hour with the highest volume of the day into account.

In areas where there are less than 10,000 people in the immediate vicinity of an intersection or where the travel speeds on the uncontrolled intersection approaches are greater than 40 miles per hour, “rural” warrant criteria apply. They require only 70 percent of the volume levels of

"urban" warrant criteria. The Silverado Trail/Sage Canyon Road intersection is in such a location.

Please see the **Appendix** for the rural warrant chart.

F. ROADWAY SEGMENT LEVEL OF SERVICE

1. ANALYSIS METHODOLOGY

Roadway segment operation for Silverado Trail and Sage Canyon Road has been evaluated based upon criteria developed for Napa County roadways as part of the County General Plan Update in 2007: Napa County General Plan Update EIR – Technical Memorandum for Traffic and Circulation Supporting the Findings and Recommendations by Dowling Associates, February 2007. Table 5 in this report, "Peak Hour Roadway Capacities," shows the following directional capacity limit-level of service relationships for a two-lane rural highway, such as Silverado Trail, as well as a two-lane collector roadway, such as Sage Canyon Road.

		LOS A	LOS B	LOS C	LOS D	LOS E
2-Lane Rural Highway	Maximum Peak Direction Volumes	100	330	620	870	1200
	Volume/Capacity Ratio	(.08)	(.28)	(.52)	(.73)	(1.00)
2-Lane Collector	Maximum Peak Direction Volumes	73	97	480	760	810
	Volume/Capacity Ratio	(.09)	(.12)	(.59)	(.94)	(1.00)

2. MINIMUM ACCEPTABLE OPERATION

Level of service D (LOS D) is the poorest acceptable roadway segment operation in Napa County.

G. PLANNED IMPROVEMENTS

There are no planned and funded improvements at any location evaluated in this study.[2]

VI. FUTURE HORIZON TRAFFIC VOLUME PROJECTIONS

Traffic analysis has been conducted for existing, year 2020 and year 2030 horizons at County request. The 2030 horizon reflects the County General Plan Buildout year. Traffic modeling for

[2] Mr. Paul Wilkinson, Napa County Public Works Department, February 2015.

the General Plan shows a 27 to 32 percent growth in two-way weekday PM peak hour traffic along Silverado Trail in the project area between 2014 and 2030, with about a 39 percent growth in two-way weekday PM peak hour traffic along Sage Canyon Road during the same time period. Projecting straight line traffic growth for analysis purposes, this translates into about a 10 to 12 percent growth in two-way PM peak hour harvest traffic from 2014 to the year 2020 along Silverado Trail, with about a 15 percent growth in two-way PM peak hour harvest traffic from 2014 to 2020 along Sage Canyon Road.

Since reliable traffic modeling projections were available for only weekday PM peak hour conditions and not for the weekday AM or Saturday PM peak hours, north and southbound Friday AM and Saturday PM peak hour volumes on Silverado Trail as well as east and westbound volumes on Sage Canyon Road were both uniformly increased by the percentages above. However, due to the greater detail available for weekday PM peak hour volumes, which showed higher increases in southbound versus northbound traffic on Silverado Trail and higher increases in eastbound versus westbound traffic on Sage Canyon Road, Friday PM peak hour volumes were adjusted directionally, with the guidance that the two-way volume percent increases should be as listed above.

Resultant year 2020 harvest and summer "Without Project" Friday and Saturday peak hour volumes are presented in **Figures 5** and **6**, respectively, while year 2030 harvest and summer "Without Project" Friday and Saturday peak hour volumes are presented in **Figures 7** and **8**, respectively.

VII. OFF-SITE CIRCULATION SYSTEM OPERATION – WITHOUT PROJECT

1. EXISTING OPERATING CONDITIONS (WITHOUT PROJECT)

A. HARVEST

1. INTERSECTION LEVEL OF SERVICE (Silverado Trail/Sage Canyon Road) – Table 3

a) Friday AM Peak Hour

Acceptable overall intersection operation: LOS A
Acceptable Sage Canyon Road stop sign controlled operation: LOS C

b) Friday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

c) Saturday PM Peak Hour

Acceptable overall intersection operation: LOS D
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

2. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION (Silverado Trail/Sage Canyon Road) – Table 4

a) Friday AM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

b) Friday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

c) Saturday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

3. ROADWAY SEGMENT LEVEL OF SERVICE (Silverado Trail & Sage Canyon Road) – Table 5

a) Friday AM Peak Hour

Silverado Trail: Acceptable operation both north and south of Sage Canyon Road: LOS D northbound and LOS B southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS B eastbound and westbound.

b) Friday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS E operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

c) Saturday PM Peak Hour

Silverado Trail: Acceptable operation north and south of Sage Canyon Road: LOS C northbound and LOS D southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

B. SUMMER (NON-HARVEST)

1. INTERSECTION LEVEL OF SERVICE (Silverado Trail/Sage Canyon Road) – Table 3

a) Friday AM Peak Hour

Acceptable overall intersection operation: LOS A
Acceptable Sage Canyon Road stop sign controlled operation: LOS C

b) Friday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

c) Saturday PM Peak Hour

Acceptable overall intersection operation: LOS C
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

2. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION (Silverado Trail/Sage Canyon Road) – Table 4

a) Friday AM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

b) Friday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

c) Saturday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

3. ROADWAY SEGMENT LEVEL OF SERVICE (Silverado Trail & Sage Canyon Road) – Table 5

a) Friday AM Peak Hour

Silverado Trail: Acceptable operation both north and south of Sage Canyon Road: LOS D northbound and LOS B southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS B eastbound and westbound.

b) Friday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS E operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

c) Saturday PM Peak Hour

Silverado Trail: Acceptable operation north and south of Sage Canyon Road: LOS C northbound and LOS D southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

2. YEAR 2020 OPERATING CONDITIONS (WITHOUT PROJECT)

A. HARVEST

1. INTERSECTION LEVEL OF SERVICE (Silverado Trail/Sage Canyon Road) – Table 6

a) Friday AM Peak Hour

Acceptable overall intersection operation: LOS A
Acceptable Sage Canyon Road stop sign controlled operation: LOS D

b) Friday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

c) Saturday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

2. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION (Silverado Trail/Sage Canyon Road) – Table 7

a) Friday AM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

b) Friday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

c) Saturday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

3. ROADWAY SEGMENT LEVEL OF SERVICE (Silverado Trail & Sage Canyon Road) – Table 8

a) Friday AM Peak Hour

Silverado Trail: Acceptable operation both north and south of Sage Canyon Road: LOS D northbound and LOS B or C southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

b) Friday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS F operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

c) Saturday PM Peak Hour

Silverado Trail: Acceptable operation north and south of Sage Canyon Road: LOS D northbound and southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

B. SUMMER (NON-HARVEST)

1. INTERSECTION LEVEL OF SERVICE (Silverado Trail/Sage Canyon Road) – Table 6

a) Friday AM Peak Hour

Acceptable overall intersection operation: LOS A
Acceptable Sage Canyon Road stop sign controlled operation: LOS D

b) Friday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

c) Saturday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

2. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION (Silverado Trail/Sage Canyon Road) – Table 7

a) Friday AM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

b) Friday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

c) Saturday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

3. ROADWAY SEGMENT LEVEL OF SERVICE (Silverado Trail & Sage Canyon Road) – Table 8

a) Friday AM Peak Hour

Silverado Trail: Acceptable operation both north and south of Sage Canyon Road: LOS D northbound and LOS B or C southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

b) Friday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS F operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

c) Saturday PM Peak Hour

Silverado Trail: Acceptable operation north and south of Sage Canyon Road: LOS D northbound and southbound.

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

3. YEAR 2030 OPERATING CONDITIONS (WITHOUT PROJECT)

A. HARVEST

1. INTERSECTION LEVEL OF SERVICE (Silverado Trail/Sage Canyon Road) – Table 9

a) Friday AM Peak Hour

Acceptable overall intersection operation: LOS A
Acceptable Sage Canyon Road stop sign controlled operation: LOS E

b) Friday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

c) Saturday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

2. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION (Silverado Trail/Sage Canyon Road) – Table 10

a) Friday AM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

b) Friday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

c) Saturday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

3. ROADWAY SEGMENT LEVEL OF SERVICE (Silverado Trail & Sage Canyon Road) – Table 11

a) Friday AM Peak Hour

Silverado Trail: Acceptable operation southbound, but **unacceptable LOS E operation northbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

b) Friday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS F operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

c) Saturday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS E operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

B. SUMMER (NON-HARVEST)

1. INTERSECTION LEVEL OF SERVICE (Silverado Trail/Sage Canyon Road) – Table 9

a) Friday AM Peak Hour

Acceptable overall intersection operation: LOS A
Acceptable Sage Canyon Road stop sign controlled operation: LOS E

b) Friday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

c) Saturday PM Peak Hour

Unacceptable overall intersection operation: LOS F
Unacceptable Sage Canyon Road stop sign controlled operation: LOS F

2. INTERSECTION PEAK HOUR SIGNAL WARRANT EVALUATION (Silverado Trail/Sage Canyon Road) – Table 10

a) Friday AM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

b) Friday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

c) Saturday PM Peak Hour

Volumes meet peak hour signal warrant criteria #3.

3. ROADWAY SEGMENT LEVEL OF SERVICE (Silverado Trail & Sage Canyon Road) – Table 11

a) Friday AM Peak Hour

Silverado Trail: Acceptable operation southbound, but **unacceptable LOS E operation northbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

b) Friday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS F operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

c) Saturday PM Peak Hour

Silverado Trail: Acceptable operation northbound, but **unacceptable LOS E operation southbound both north and south of Sage Canyon Road.**

Sage Canyon Road: Acceptable operation in both directions east of Silverado Trail: LOS C eastbound and westbound.

VIII. PROJECT IMPACT EVALUATION SIGNIFICANCE CRITERIA

A. SIGNIFICANCE CRITERIA

The following criteria were developed for recent traffic impact analyses in the County. These same criteria have been utilized in this study to determine the significance of impacts due to the project. An impact is considered to be significant if any of the following conditions are met.

- If a roadway segment has "Without Project" LOS A, B, C or D operation and deteriorates to LOS E or F operation with the addition of project traffic (and increases volumes by 1 percent or more), the impact is significant and would require mitigation.

- If a roadway segment already has "Without Project" unacceptable LOS E or F operation, an increase in directional traffic of 1 percent or greater is considered significant and would require mitigation.

- If an unsignalized intersection has "Without Project" overall LOS A, B, C or D operation and deteriorates to LOS E or F operation with the addition of project traffic (and increases volumes by 1 percent or more) – or – has a stop sign controlled movement operating at LOS A, B, C, D or E and deteriorates to LOS F with the additional project traffic (and increases volumes by 1 percent or more), the impact is considered significant and would require mitigation.

- If an unsignalized intersection already has "Without Project" overall LOS E or F operation – or – if a stop sign controlled movement or approach is already operating at LOS F, an increase in traffic passing through the intersection of 1 percent or more due to the project is considered to be significant and would require mitigation.

- If the addition of project traffic to an unsignalized intersection increases "Without Project" volumes to meet peak hour signal warrant criteria levels (and increases volumes by 1 percent or more), the impact is considered significant and would require mitigation.

- If "Without Project" volumes at an unsignalized intersection already meet peak hour signal warrant criteria levels and the level of service is already at an unacceptable level, an increase in traffic of 1 percent or more due to the project is considered significant and would require mitigation.

- If projected daily volumes on the project driveway in combination with volumes on the roadway providing access to the project driveway meet County warrant criteria for provision of a left turn lane on the approach to the project entrance – or – if peak

hour volumes at the project inbound access driveway intersection meet Caltrans left turn lane warrant criteria.

- If sight lines at project access driveways do not meet Caltrans stopping sight distance criteria based upon prevailing vehicle speeds.

IX. PROJECT TRIP GENERATION & DISTRIBUTION

A. TRIP GENERATION

Friday AM and PM peak hour and Saturday afternoon peak hour trip generation projections were developed with the assistance of the project applicant and their representative for all components of the employee, grape delivery and visitor activities at the proposed Dakota Shy Winery (see worksheets in the **Appendix**). Results are presented on an hourly basis in **Tables 12** and **13** for harvest Friday and Saturday conditions, while **Tables 14** and **15** present results for summer Friday and Saturday conditions. A summary of peak hour trips is presented in **Table 16**. During the harvest Friday AM peak traffic hour there would be a projected 2 inbound and 1 outbound vehicles, while during the harvest Friday PM peak traffic hour there would be a projected 1 inbound and 1 outbound vehicles. During the harvest Saturday PM peak traffic hours, there would be a projected 2 inbound and 1 outbound vehicles. As shown, winery administrative and production employees would not be expected on the local roadway network during harvest Friday or Saturday PM peak hour conditions. The visitor-serving employee would also be working until 6:00 PM every day, as tours and tasting by appointment would close at 6:00 PM. Therefore, the only winery-related traffic expected on the local roadway network during both the Friday and Saturday PM peak traffic hours would be visitor traffic related. During the harvest Friday AM peak hour, project trips would be employee related or a grape delivery truck. The one expected grape delivery per day could be scheduled any time between 7:00 AM and 3:00 PM, although morning deliveries would be typical.

Summer project trip generation projections are the same as harvest for the Friday and Saturday PM peak traffic hours. They would be all visitor related. During a summer Friday AM peak hour, there would be no grape delivery, but one additional inbound employee vehicle.

B. TRIP DISTRIBUTION

Project traffic was distributed to Sage Canyon Road and Silverado Trail in a pattern reflective of existing distribution patterns at the Silverado Trail/Sage Canyon Road intersection as well as existing traffic distribution at project driveway connections to Sage Canyon Road. Virtually all visitor and employee traffic would be expected to travel to/from the west on Sage Canyon Road to Silverado Trail. During the eight hours of turn counts at the project driveway intersections, about 75 percent of all turn movements at project driveways were to or from the west (and Silverado Trail). Grape truck traffic will travel along Silverado Trail and then access the site via Sage Canyon Road.

Sage Canyon Road access to the project site will change with winery development. The east driveway will be designated and signed for inbound flow only, while the west driveway will be designated and signed for outbound flow only (see **Figure 9**). This one-way loop system will continue to the central part of the site.

The harvest and summer Friday and Saturday project traffic increments expected on Sage Canyon Road and Silverado Trail during the times of ambient peak traffic flows are presented in **Figures 10** and **11,** respectively. Friday and Saturday existing "With Project" peak hour volumes are presented in **Figures 12** and **13,** respectively; "With Project" peak hour volumes for year 2020 conditions are presented in **Figures 14** and **15**, respectively, and "With Project" peak hour volumes for 2030 conditions are presented in **Figures 16** and **17**, respectively.

C. PLANNED ROADWAY IMPROVEMENTS

There are no capacity increasing roadway improvements planned by Caltrans or the County on the local roadway network serving the project site.[3]

X. PROJECT OFF-SITE IMPACTS

A. EXISTING WITH PROJECT CONDITIONS

1. HARVEST

a) Summary

Project traffic would not result in any significant level of service or signal warrant impacts at the Silverado Trail/Sage Canyon Road intersection, or any level of service impacts along any analyzed Silverado Trail or Sage Canyon Road roadway segments during any Friday or Saturday peak traffic hours. ***Less than Significant***.

b) Intersection Level of Service (Silverado Trail/Sage Canyon Road) – Table 3

The Silverado Trail/Sage Canyon Road intersection would maintain acceptable Friday AM peak hour operation with the addition of project traffic. During both the Friday and Saturday PM peak hours when the intersection would have unacceptable "Without Project" operation, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

c) Signalization Needs (Silverado Trail/Sage Canyon Road) – Table 4

[3] Paul Wilkinson, Napa County Public Works Department, February 2015.

The Silverado Trail/Sage Canyon Road intersection would have "Without Project" volumes exceeding signal warrant criteria levels during all analyzed Friday and Saturday peak traffic hours. However, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

d) Roadway Segments (Silverado Trail & Sage Canyon Road) – Table 5

All analyzed roadway segments would maintain acceptable operation with the addition of project traffic during the Friday AM and Saturday PM peak traffic hours. During the Friday PM peak hour, acceptable operation would be maintained along all roadway segments except southbound Silverado Trail, where "Without Project" operation would be an unacceptable LOS E. However, the project would not be expected to add any traffic in this direction, and even a one car addition would be less than a .1 percent addition in traffic. ***Less than Significant.***

2. SUMMER (NON-HARVEST)

a) Summary

Project traffic would not result in any significant level of service or signal warrant impacts at the Silverado Trail/Sage Canyon Road intersection, or any level of service impacts along any analyzed Silverado Trail or Sage Canyon Road roadway segments during any Friday or Saturday peak traffic hours. ***Less than Significant***.

b) Intersection Level of Service (Silverado Trail/Sage Canyon Road) – Table 3

The Silverado Trail/Sage Canyon Road intersection would maintain acceptable Friday AM peak hour operation with the addition of project traffic. During both the Friday and Saturday PM peak hours when the intersection would have unacceptable "Without Project" operation, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

c) Signalization Needs (Silverado Trail/Sage Canyon Road) – Table 4

The Silverado Trail/Sage Canyon Road intersection would have "Without Project" volumes exceeding signal warrant criteria levels during all analyzed Friday and Saturday peak traffic hours. However, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

d) Roadway Segments (Silverado Trail & Sage Canyon Road) – Table 5

All analyzed roadway segments would maintain acceptable operation with the addition of project traffic during the Friday AM and Saturday PM peak traffic hours. During the Friday PM peak

hour acceptable operation would be maintained along all roadway segments except southbound Silverado Trail, where "Without Project" operation would be an unacceptable LOS E. However, the project would not be expected to add any traffic in this direction, and even a one car addition would be less than a 0.1 percent addition in traffic. ***Less than Significant.***

B. YEAR 2020 WITH PROJECT CONDITIONS

1. HARVEST

a) Summary

Project traffic would not result in any significant level of service or signal warrant impacts at the Silverado Trail/Sage Canyon Road intersection, or any level of service impacts along any analyzed Silverado Trail or Sage Canyon Road roadway segments during any Friday or Saturday peak traffic hours. ***Less than Significant***.

b) Intersection Level of Service (Silverado Trail/Sage Canyon Road) – Table 6

The Silverado Trail/Sage Canyon Road intersection would maintain acceptable Friday AM peak hour operation with the addition of project traffic. During both the Friday and Saturday PM peak hours when the intersection would have unacceptable "Without Project" operation, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

c) Signalization Needs (Silverado Trail/Sage Canyon Road) – Table 7

The Silverado Trail/Sage Canyon Road intersection would have "Without Project" volumes exceeding signal warrant criteria levels during all analyzed Friday and Saturday peak traffic hours. However, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

d) Roadway Segments (Silverado Trail & Sage Canyon Road) – Table 8

All analyzed roadway segments would maintain acceptable operation with the addition of project traffic during the Friday AM and Saturday PM peak traffic hours. During the Friday PM peak hour acceptable operation would be maintained along all roadway segments except southbound Silverado Trail north and south of Sage Canyon Road, where "Without Project" operation would be an unacceptable LOS F. However, the project would not be expected to add any traffic in this direction, and even a one car addition would be less than a 0.1 percent addition in traffic. ***Less than Significant.***

2. SUMMER (NON-HARVEST)

a) Summary

Project traffic would not result in any significant level of service or signal warrant impacts at the Silverado Trail/Sage Canyon Road intersection, or any level of service impacts along any analyzed Silverado Trail or Sage Canyon Road roadway segments during any Friday or Saturday peak traffic hours. ***Less than Significant***.

b) Intersection Level of Service (Silverado Trail/Sage Canyon Road) – Table 6

The Silverado Trail/Sage Canyon Road intersection would maintain acceptable Friday AM peak hour operation with the addition of project traffic. During both the Friday and Saturday PM peak hours when the intersection would have unacceptable "Without Project" operation, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

c) Signalization Needs (Silverado Trail/Sage Canyon Road) – Table 7

The Silverado Trail/Sage Canyon Road intersection would have "Without Project" volumes exceeding signal warrant criteria levels during all analyzed Friday and Saturday peak traffic hours. However, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

d) Roadway Segments (Silverado Trail & Sage Canyon Road) – Table 8

All analyzed roadway segments would maintain acceptable operation with the addition of project traffic during the Friday AM and Saturday PM peak traffic hours. During the Friday PM peak hour acceptable operation would be maintained along all roadway segments except southbound Silverado Trail north and south of Sage Canyon Road, where "Without Project" operation would be an unacceptable LOS F. However, the project would not be expected to add any traffic in this direction, and even a one car addition would be less than a 0.1 percent addition in traffic. ***Less than Significant.***

C. YEAR 2030 WITH PROJECT CONDITIONS

1. HARVEST

a) Summary

Project traffic would not result in any significant level of service or signal warrant impacts at the Silverado Trail/Sage Canyon Road intersection, or any level of service impacts along any

analyzed Silverado Trail or Sage Canyon Road roadway segments during any Friday or Saturday peak traffic hours. ***Less than Significant***.

b) Intersection Level of Service (Silverado Trail/Sage Canyon Road) – Table 9

During all analyzed Friday and Saturday peak traffic hours, the intersection would be experiencing unacceptable "Without Project" operation. However, the project would only increase volumes by 0.1 to 0.2 percent during any of the three peak hours, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

c) Signalization Needs (Silverado Trail/Sage Canyon Road) – Table 10

The Silverado Trail/Sage Canyon Road intersection would have "Without Project" volumes exceeding signal warrant criteria levels during all analyzed Friday and Saturday peak traffic hours. However, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

d) Roadway Segments (Silverado Trail & Sage Canyon Road) – Table 11

All analyzed roadway segments would maintain acceptable operation with the addition of project traffic during the Friday AM & PM and Saturday PM peak traffic hours with the following exceptions, where "Without Project" volumes would already be at unacceptable levels.

Friday AM Peak Hour: Northbound Silverado Trail would be operating at LOS E both north and south of Sage Canyon Road with or without project traffic. Project traffic would increase volumes by, at most, 0.1 percent.

Friday PM Peak Hour: Southbound Silverado Trail would be operating at LOS F both north and south of Sage Canyon Road with or without project traffic. No project traffic would be expected to be added to traffic traveling in this direction.

Saturday PM Peak Hour: Southbound Silverado Trail would be operating at LOS E both north and south of Sage Canyon Road with or without project traffic. Project traffic would be expected to increase volumes by, at most, 0.1 percent.

Less than Significant.

2. SUMMER (NON-HARVEST)

a) Summary

Project traffic would not result in any significant level of service or signal warrant impacts at the Silverado Trail/Sage Canyon Road intersection, or any level of service impacts along any

analyzed Silverado Trail or Sage Canyon Road roadway segments during any Friday or Saturday peak traffic hours. ***Less than Significant***.

b) Intersection Level of Service (Silverado Trail/Sage Canyon Road) – Table 9

During all analyzed Friday and Saturday peak traffic hours, the intersection would be experiencing unacceptable "Without Project" operation. However, the project would only increase volumes by 0.1 to 0.2 percent during any of the three peak hours, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

c) Signalization Needs (Silverado Trail/Sage Canyon Road) – Table 10

The Silverado Trail/Sage Canyon Road intersection would have "Without Project" volumes exceeding signal warrant criteria levels during all analyzed Friday and Saturday peak traffic hours. However, the project would only increase volumes by 0.1 to 0.2 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

d) Roadway Segments (Silverado Trail & Sage Canyon Road) – Table 11

All analyzed roadway segments would maintain acceptable operation with the addition of project traffic during the Friday AM & PM and Saturday PM peak traffic hours with the following exceptions, where "Without Project" volumes would already be at unacceptable levels.

Friday AM Peak Hour: Northbound Silverado Trail would be operating at LOS E both north and south of Sage Canyon Road with or without project traffic. Project traffic would increase volumes by, at most, 0.1 percent.

Friday PM Peak Hour: Southbound Silverado Trail would be operating at LOS F both north and south of Sage Canyon Road with or without project traffic. No project traffic would be expected to be added to traffic traveling in this direction.

Saturday PM Peak Hour: Southbound Silverado Trail would be operating at LOS E both north and south of Sage Canyon Road with or without project traffic. Project traffic would be expected to increase volumes by, at most, 0.1 percent.

Less than Significant.

XI. PROJECT ACCESS IMPACTS

A. SIGHT LINE ADEQUACY AT PROJECT EXIT DRIVEWAY

Sight lines would be acceptable for drivers turning to Sage Canyon Road from the west project driveway, which would be designated exclusively for exiting movements. Sight lines to the west would be about 350 feet, while sight lines to the east would be about 400 feet. Based upon observed travel speeds along Sage Canyon Road of 40 miles per hour (the posted speed), the required stopping sight distances would be 300 feet for east and westbound drivers.[4] Therefore, sight lines would be greater than the minimum required stopping sight distances. It should be noted, however, that landscaping should be maintained and/or not planted along the project frontage that would interfere with the acceptable sight lines.

B. PROJECT ENTRANCE LEFT TURN LANE REQUIREMENT

Both Caltrans and County warrant criteria have been evaluated to determine the need for a left turn lane on the westbound Sage Canyon Road approach to the project's east (inbound flow) driveway. Caltrans warrant criteria in **Table 17** shows that even with 2030 traffic, peak hour volumes would be well below warrant criteria levels. County warrant criteria in **Table 18** shows that average two-way daily traffic volumes along Sage Canyon Road in combination with projected weekday two-way daily volumes on the project inbound driveway will not meet County warrant criteria for provision of a left turn lane on the westbound Sage Canyon Road intersection approach even with 2030 volumes. It should also be noted that while County criteria only take into consideration daily traffic volumes on the main road and project driveway and not the pattern of turn movements at the project access intersection, at least 75 percent of the turns into the east project driveway would be expected to be right turns.

XII. MARKETING EVENTS

Table 19 presents details of the number of guests, employees and hired event staffing that would likely be present for the two proposed marketing events which would have up to 40 guests (resulting in about 15 vehicle trips to and from the winery). Total hired staffing for the events would result in an additional 4 vehicles accessing the winery. Events would last about three hours and would occur on weekends at times other than peak traffic periods along Silverado Trail.

There will be no regular visitation allowed during either of the two marketing events.

[4] Caltrans *Highway Design Manual,* March 2014.

XIII. MITIGATION MEASURES

- No off-site or access mitigation measures are required since there are no significant off-site or access-related project impacts.

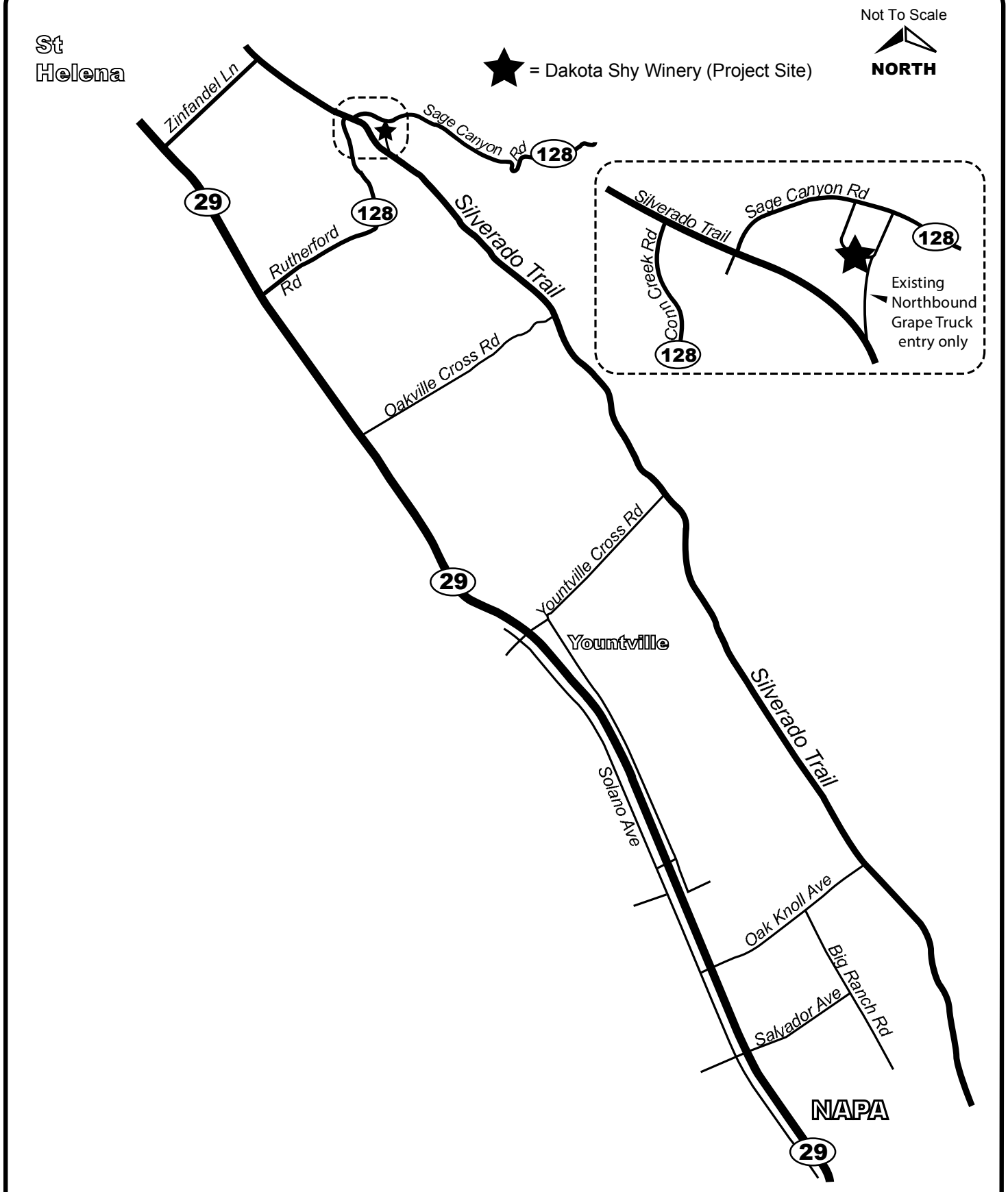
- Vegetation along the project's Sage Canyon Road frontage that may block sight lines for drivers turning from the project exit driveway should not be planted or should be maintained at heights which will not interfere with sight lines.

- Both marketing events should either end by 2:00 PM or begin after 6:00 PM in order to avoid having guests and hired staffing traveling on the local roadway network during peak traffic hours.

XIV. CONCLUSIONS & RECOMMENDATIONS

The project would result in no significant off-site circulation system operational impacts to Silverado Trail and Sage Canyon Road or to the Silverado Trail/Sage Canyon Road intersection. Project traffic in combination with ambient traffic volumes along Sage Canyon Road will not meet Caltrans or County warrant criteria for provision of a left turn lane on the westbound Sage Canyon Road approach to the project entrance driveway. In addition, the vast majority of project employee and visitor traffic accessing the site will be coming from Silverado Trail and making a right turn to the inbound (east) driveway. Sight lines at the proposed project outbound driveway connection to Sage Canyon Road will be adequate assuming landscaping along the project frontage is maintained so as not to block existing sight lines. Also, both marketing events should be scheduled to avoid contributing traffic to the local roadway network between 2:00 and 6:00 PM.

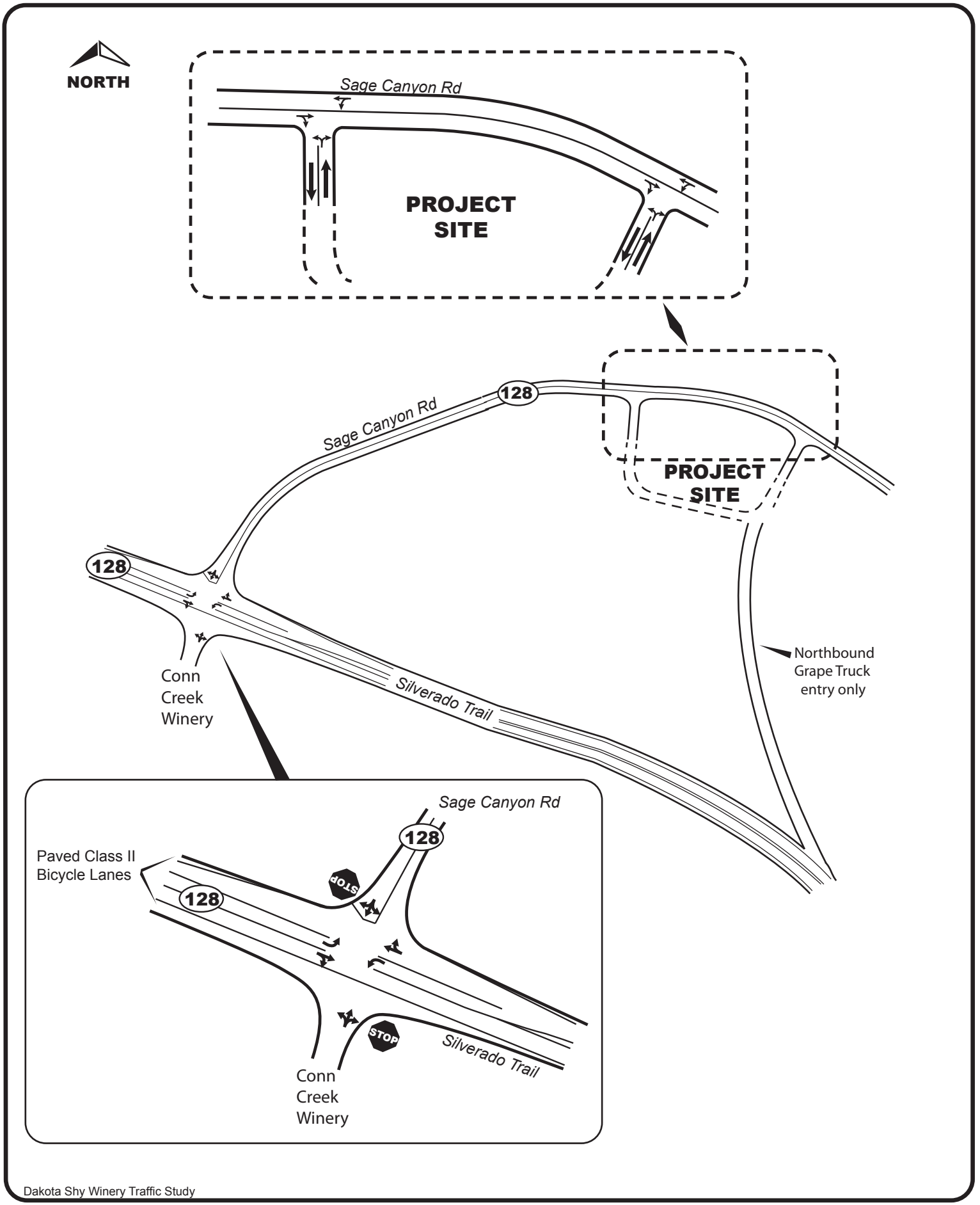
Figures



Dakota Shy Winery Traffic Study

CRANE TRANSPORTATION GROUP

Figure 1
Area Map
Dakota Shy Winery

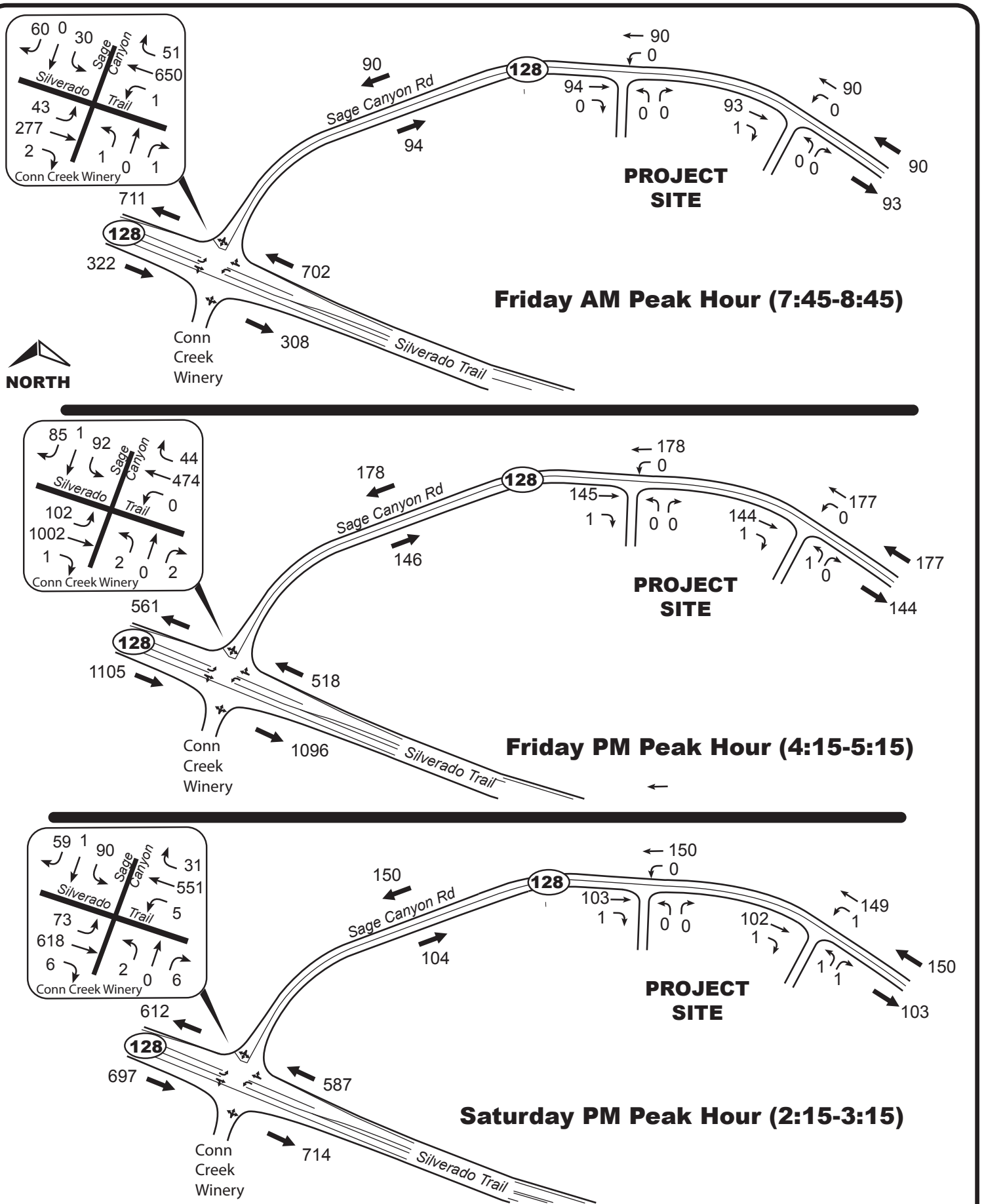


Dakota Shy Winery Traffic Study

Figure 2

Existing Lane Geometrics and Intersection Control

CRANE TRANSPORTATION GROUP

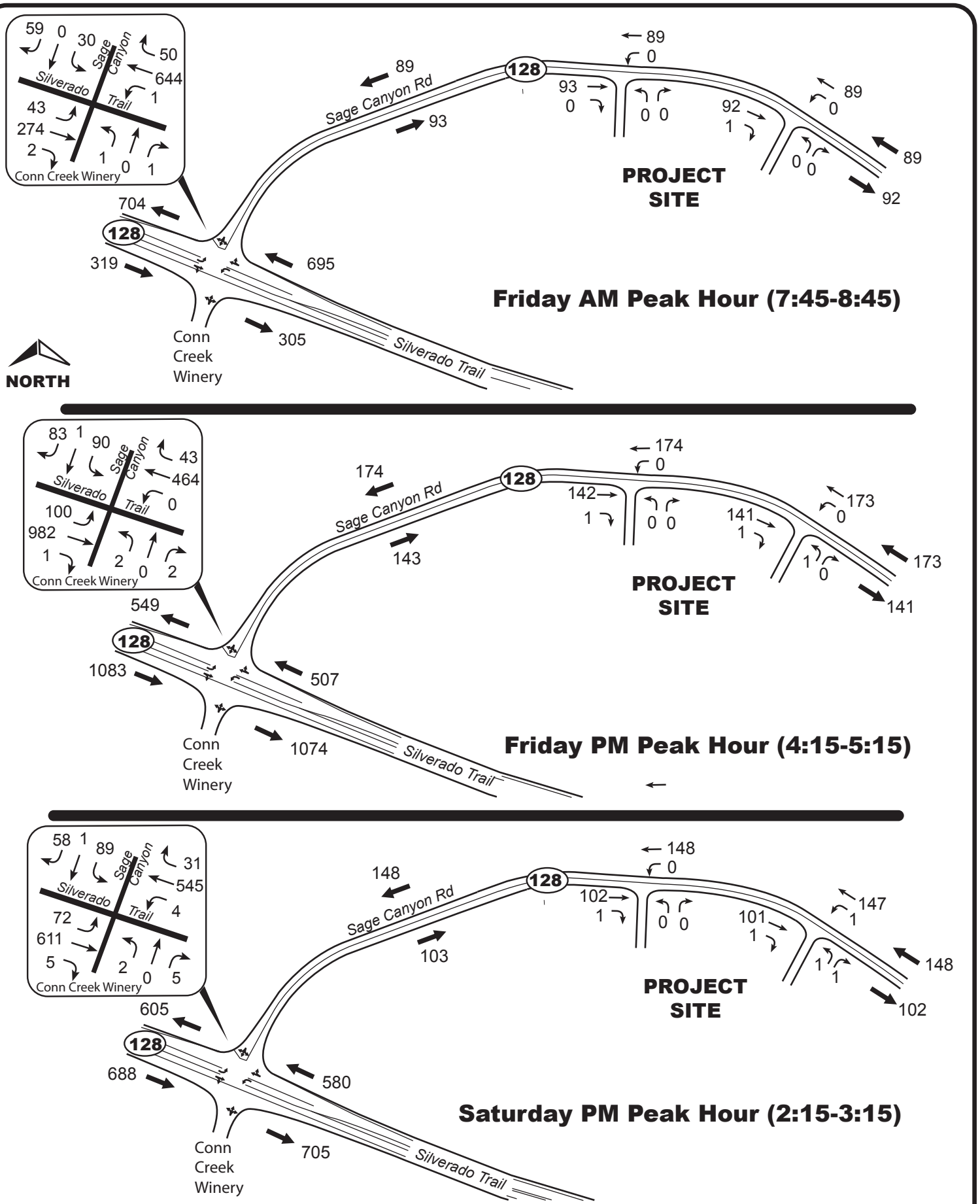


Dakota Shy Winery Traffic Study

Figure 3

2014 Harvest (without Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

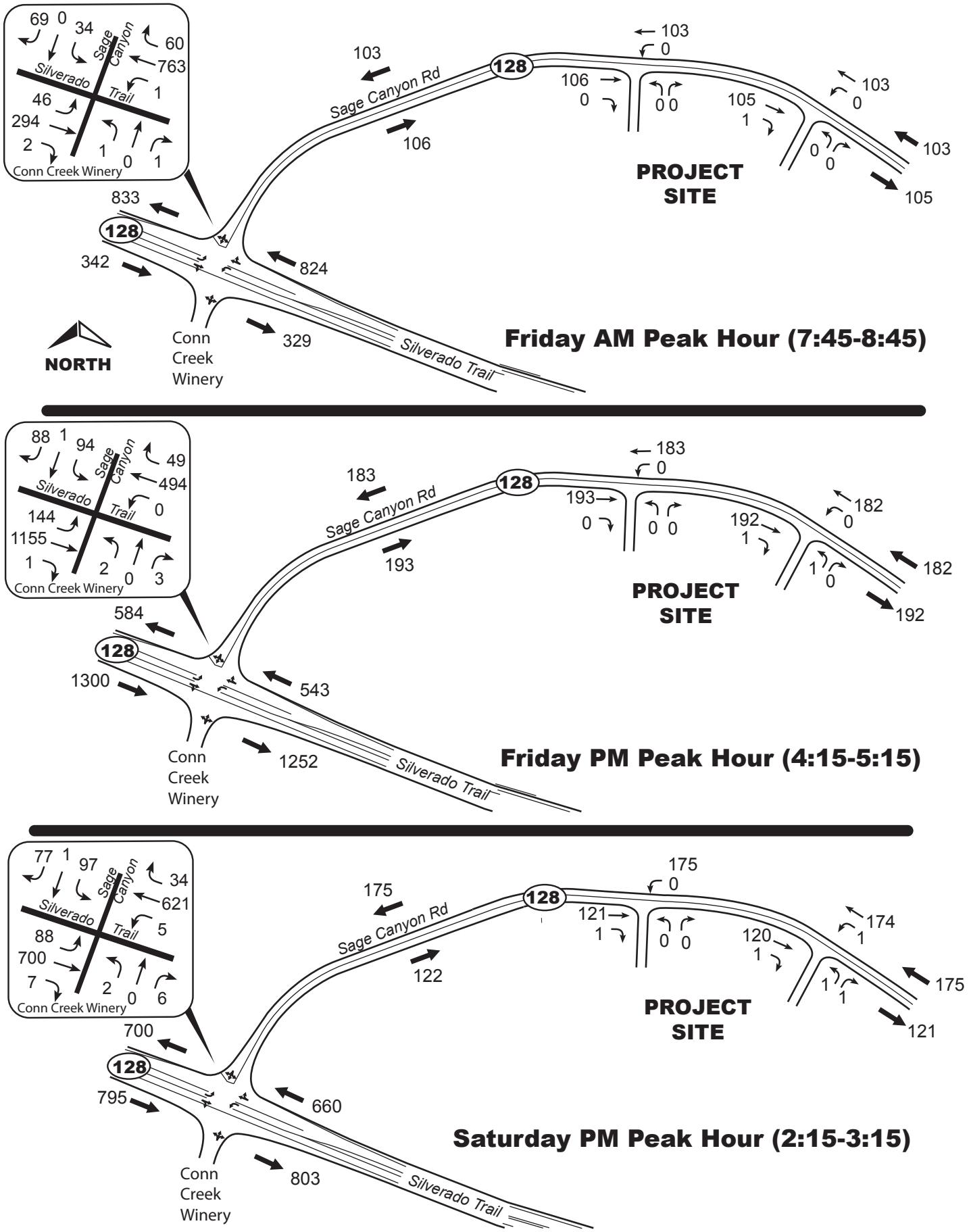


Dakota Shy Winery Traffic Study

Figure 4

2014 Summer Non-Harvest (without Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP



Dakota Shy Winery Traffic Study

Figure 5

Harvest 2020 (without Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

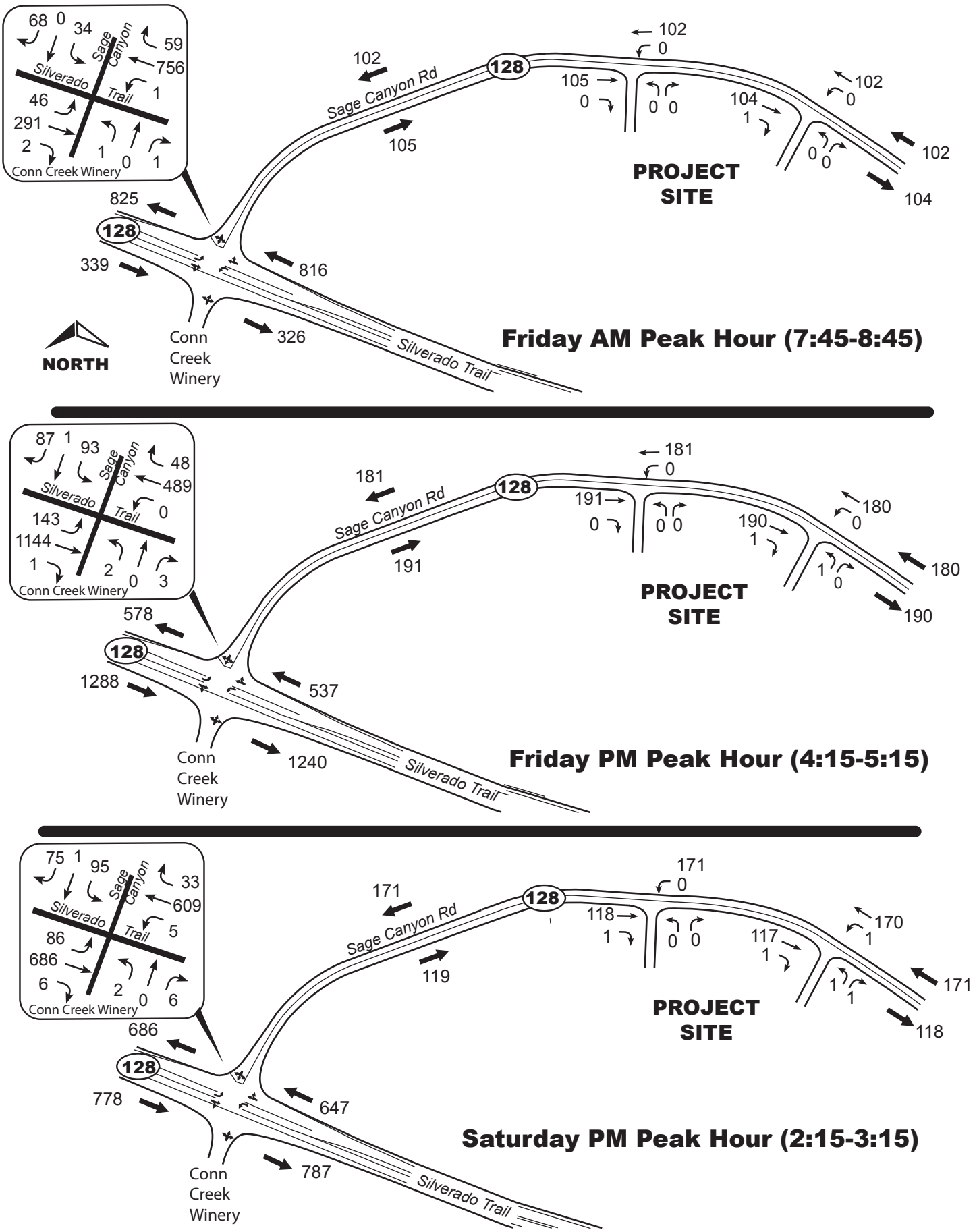
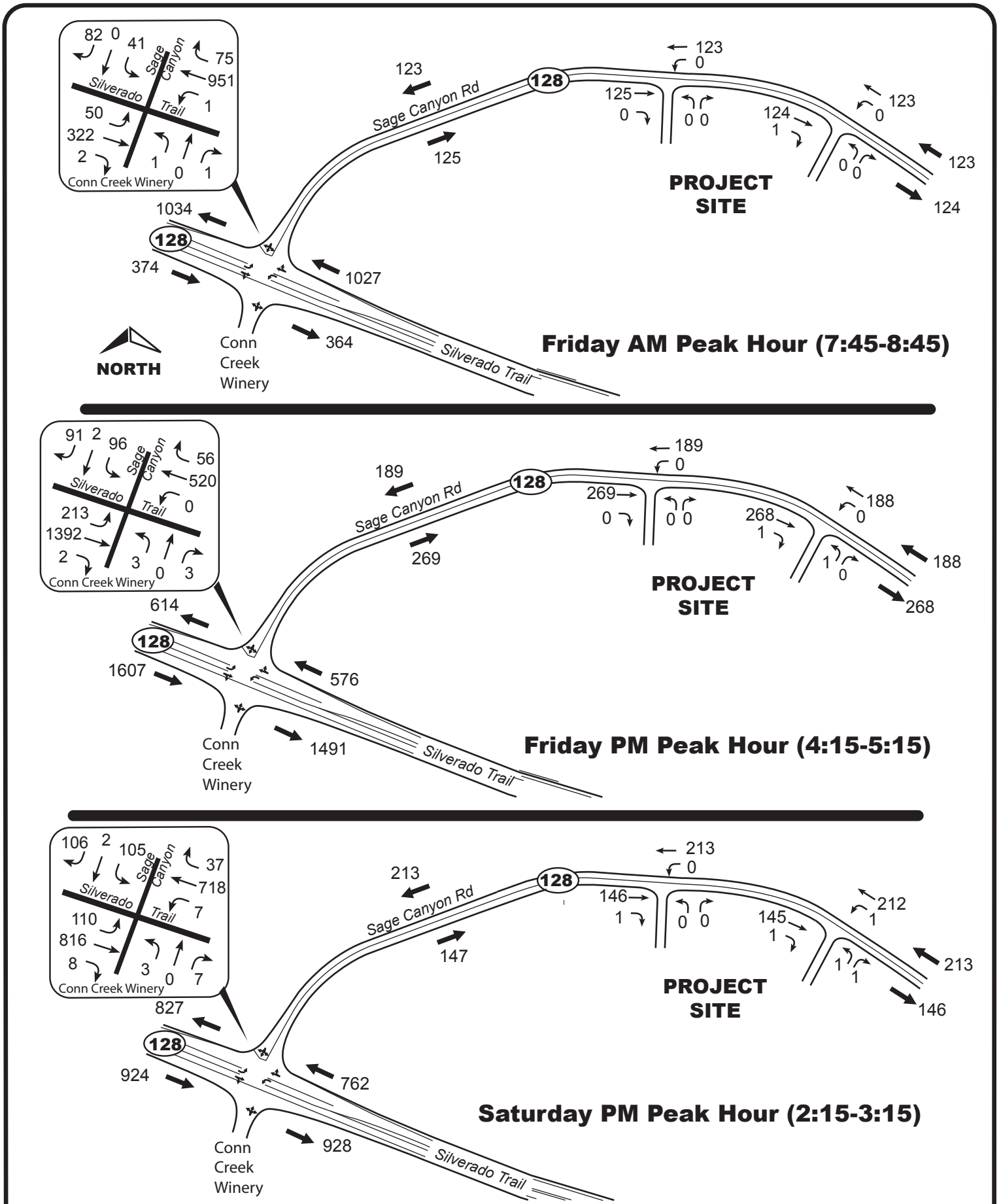


Figure 6

Summer Non-Harvest 2020 (without Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

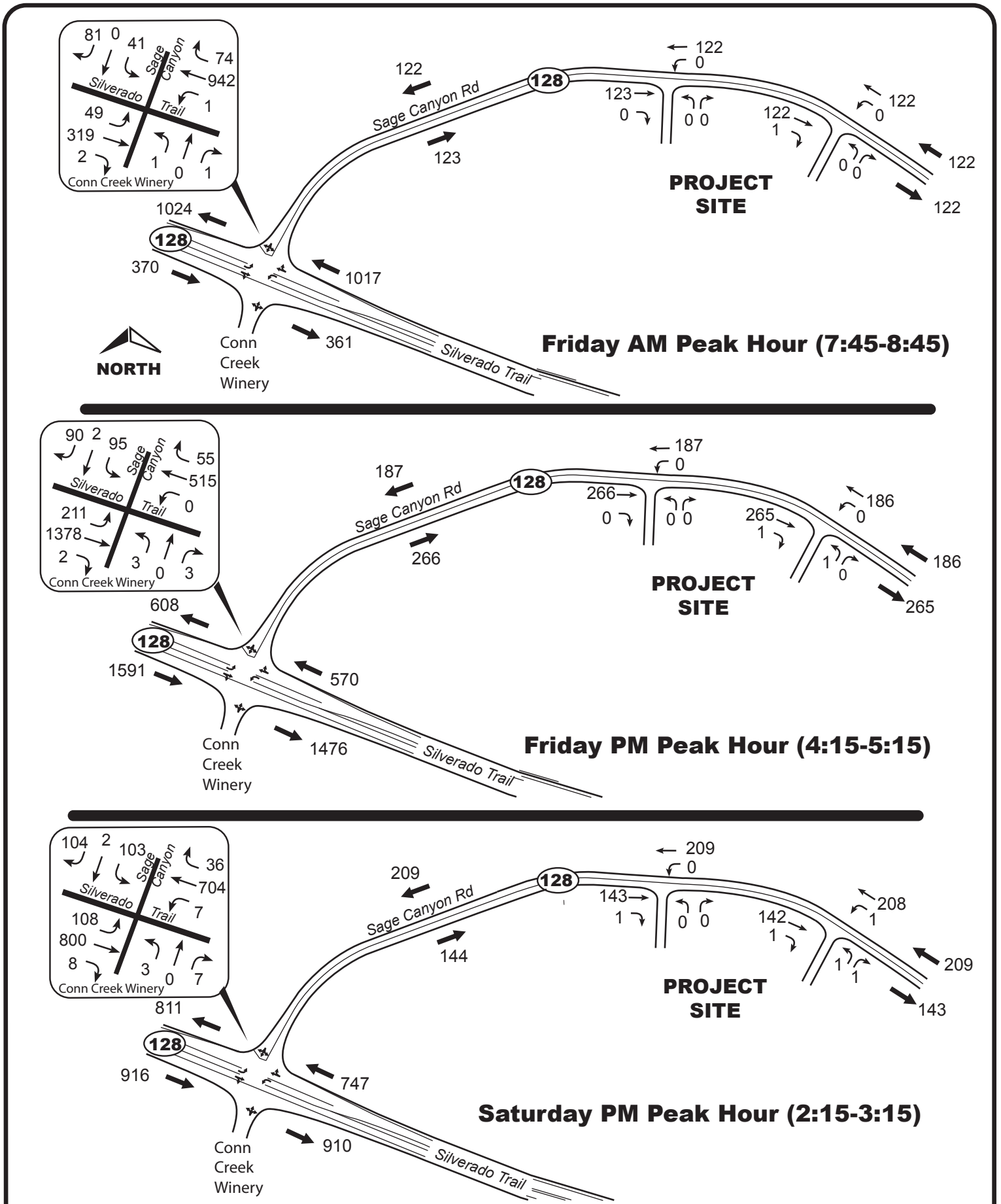


Dakota Shy Winery Traffic Study

Figure 7

Harvest 2030 (without Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

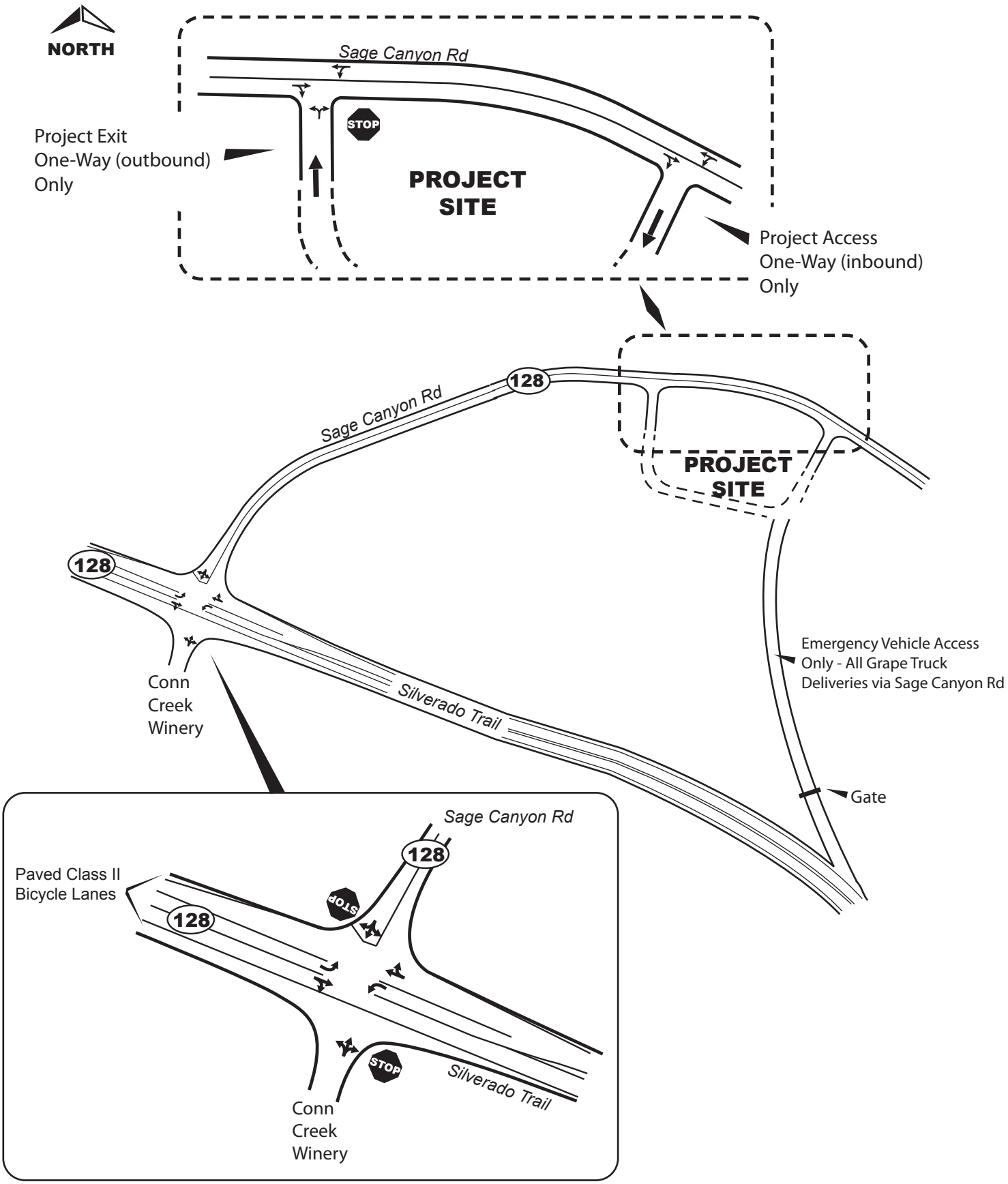


Dakota Shy Winery Traffic Study

Figure 8

Summer Non-Harvest 2030 (without Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

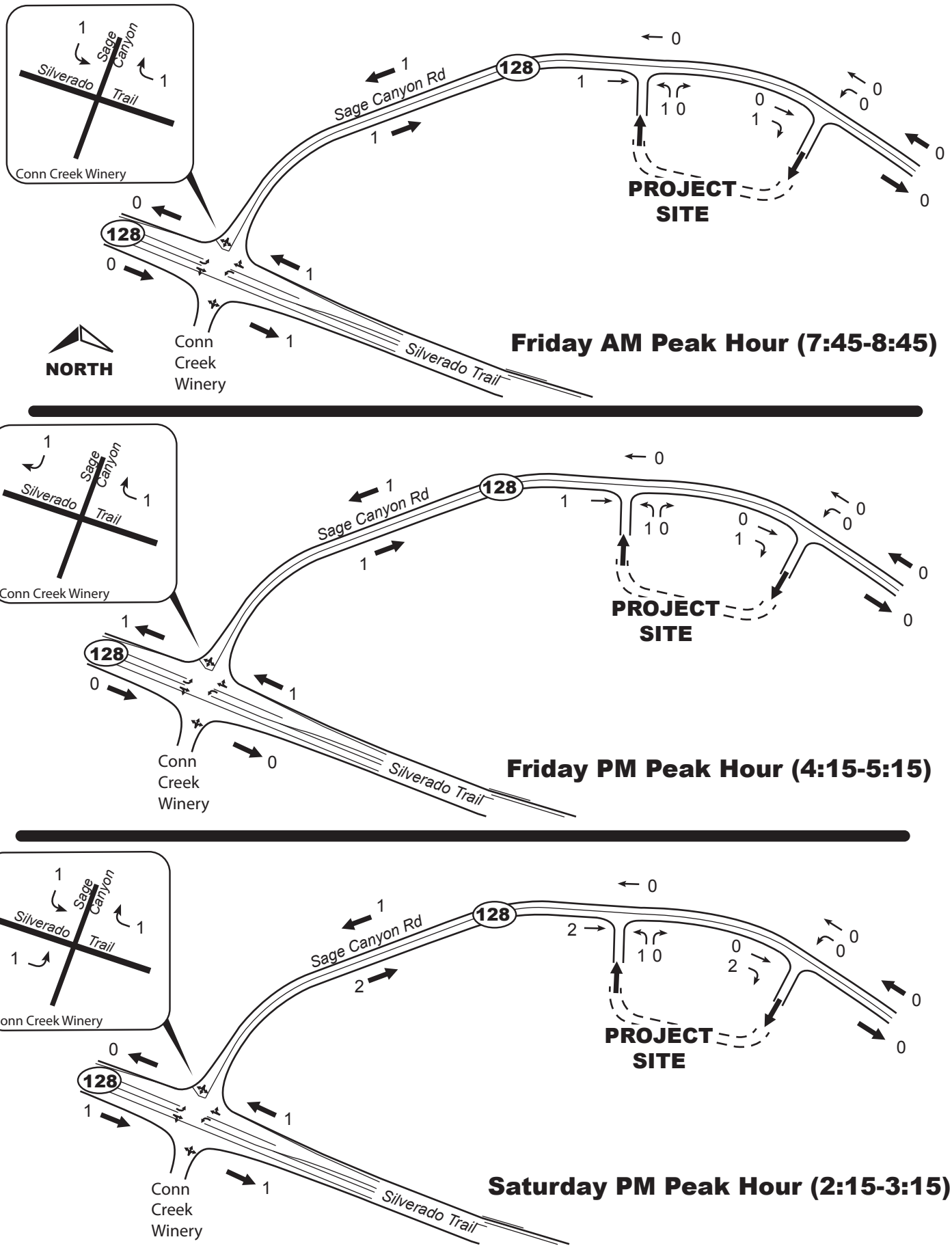


Dakota Shy Winery Traffic Study

Figure 9

Revised Site Access with Project

CRANE TRANSPORTATION GROUP

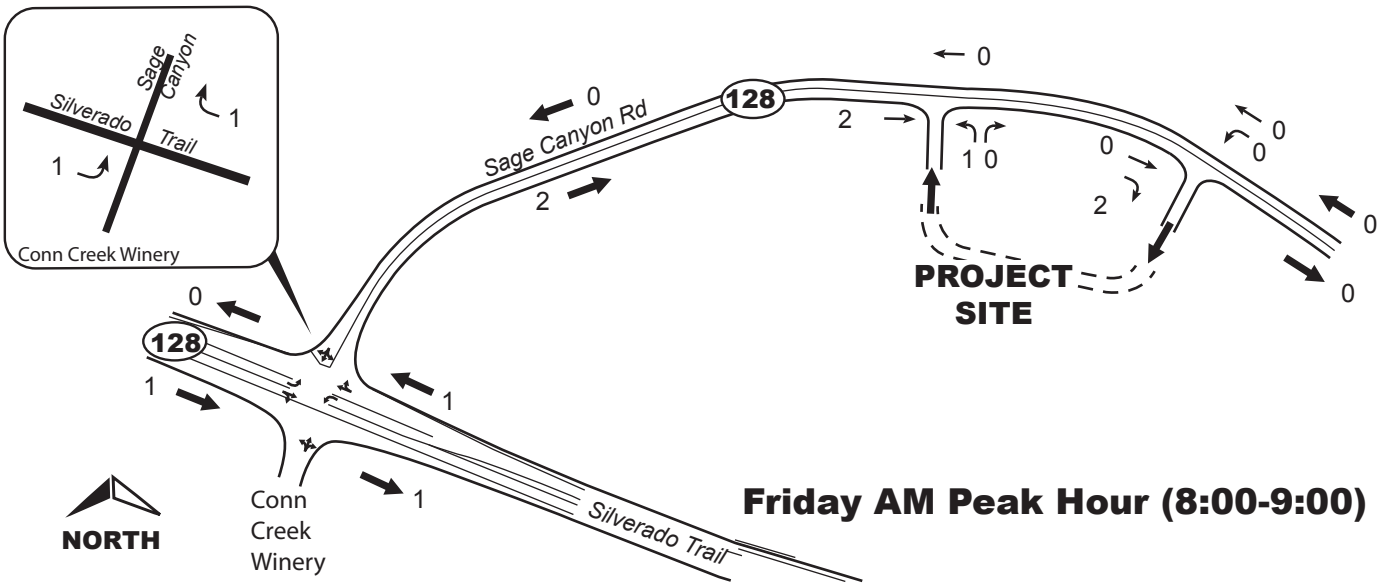


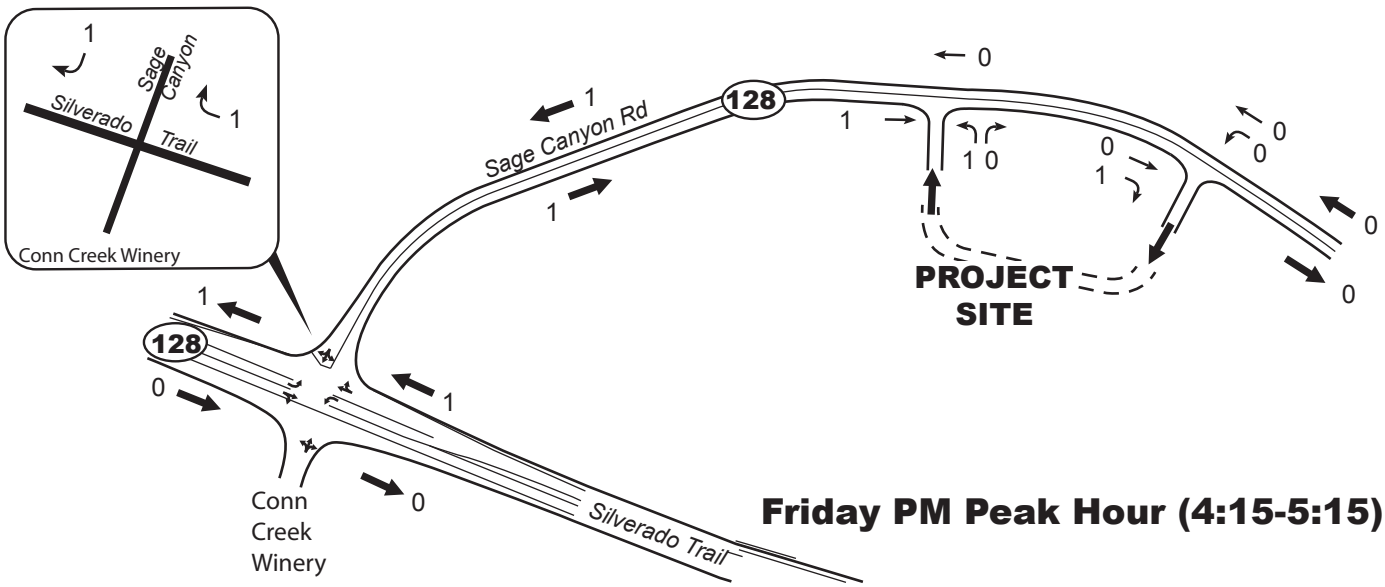
Dakota Shy Winery Traffic Study

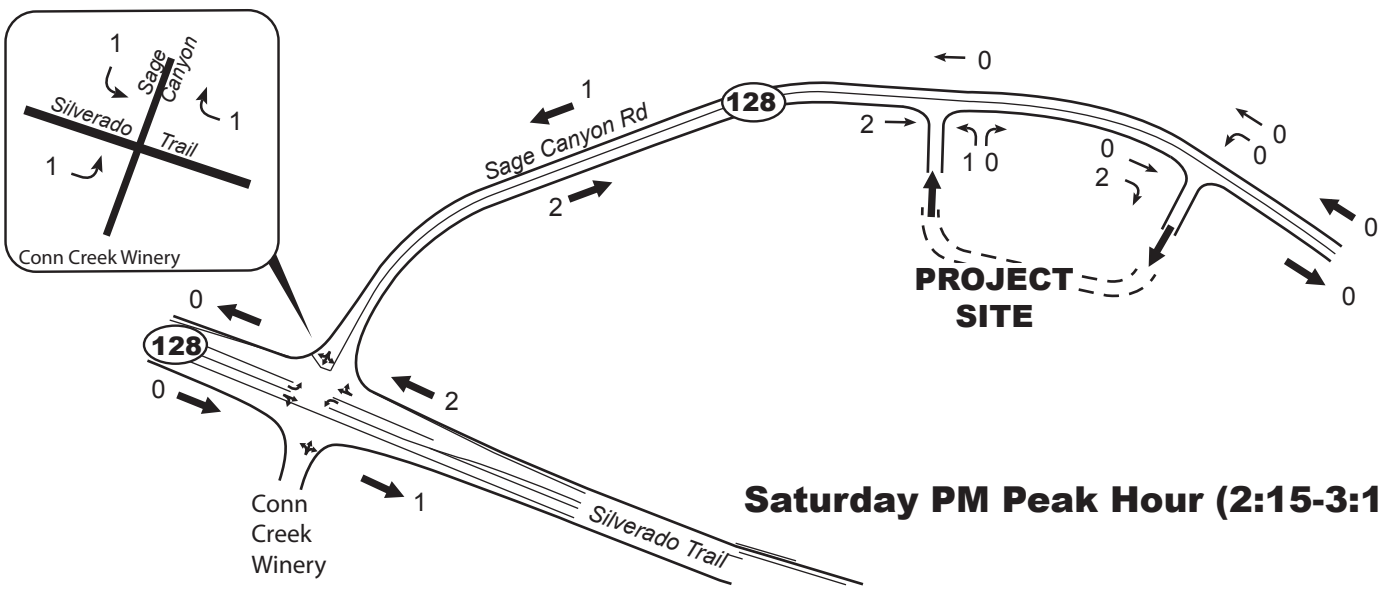
Figure 10

Harvest Project Increment Friday AM & PM and Saturday PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP





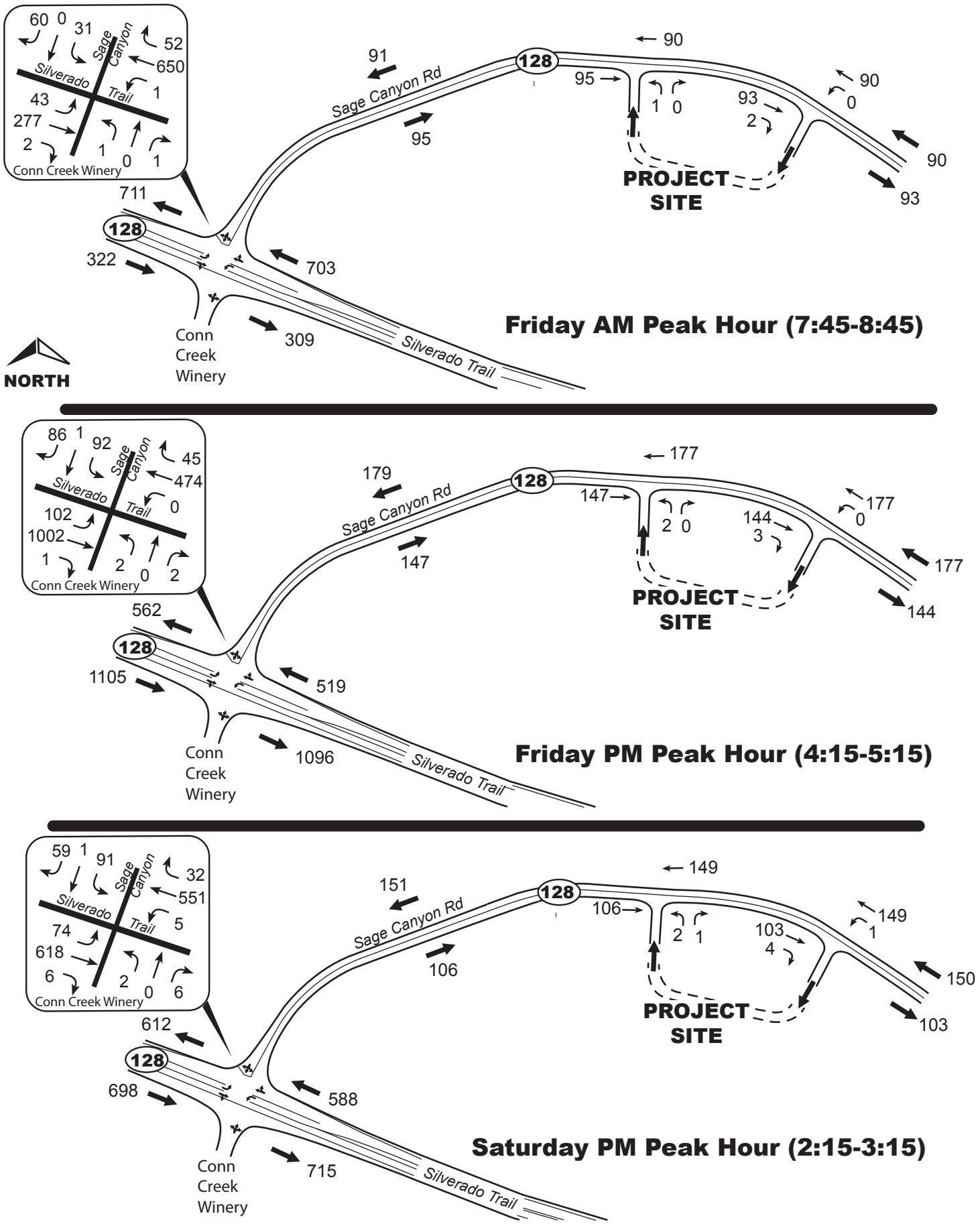


Dakota Shy Winery Traffic Study

Figure 11

Summer Project Increment
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

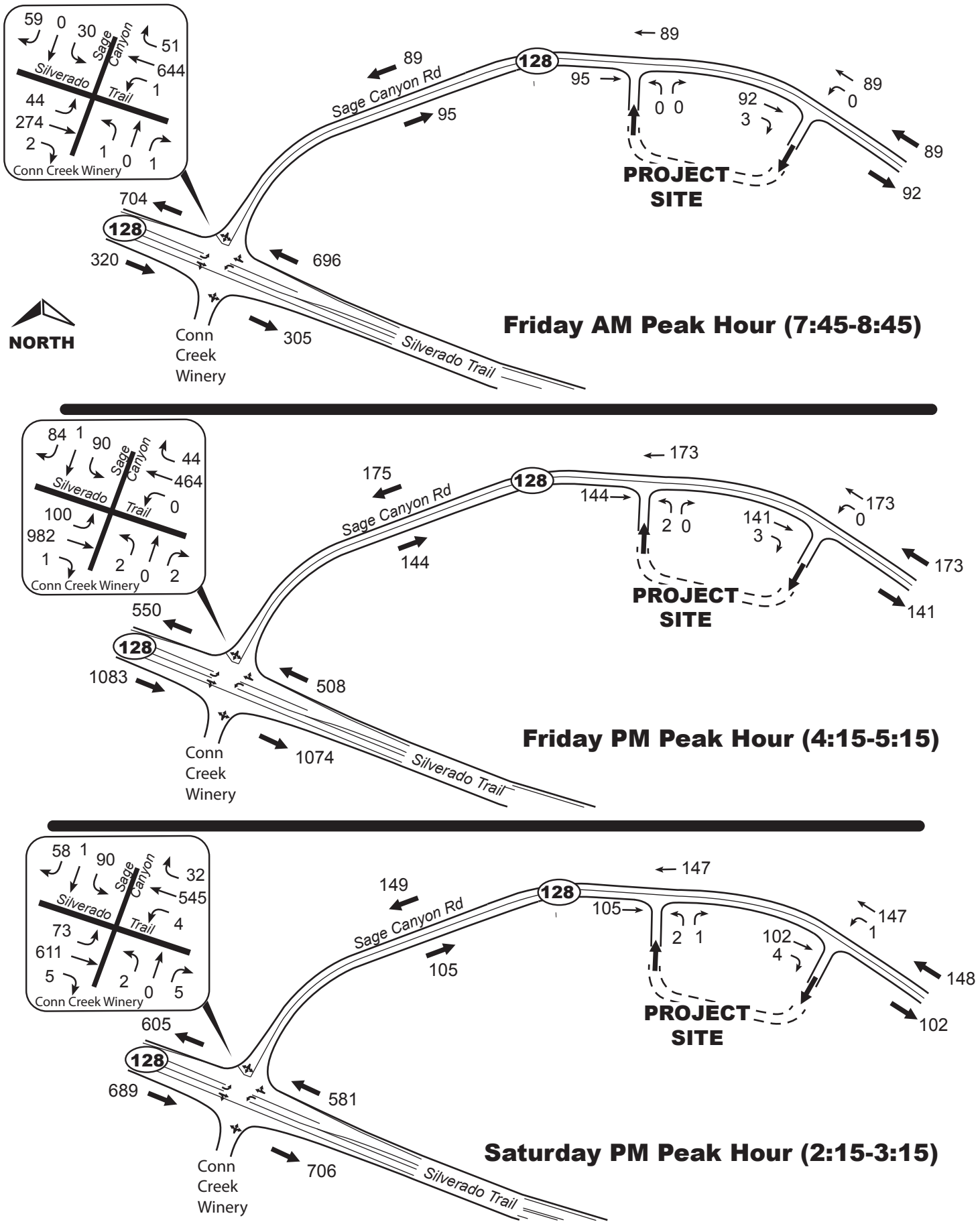


Dakota Shy Winery Traffic Study

Figure 12

2014 Harvest (with Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

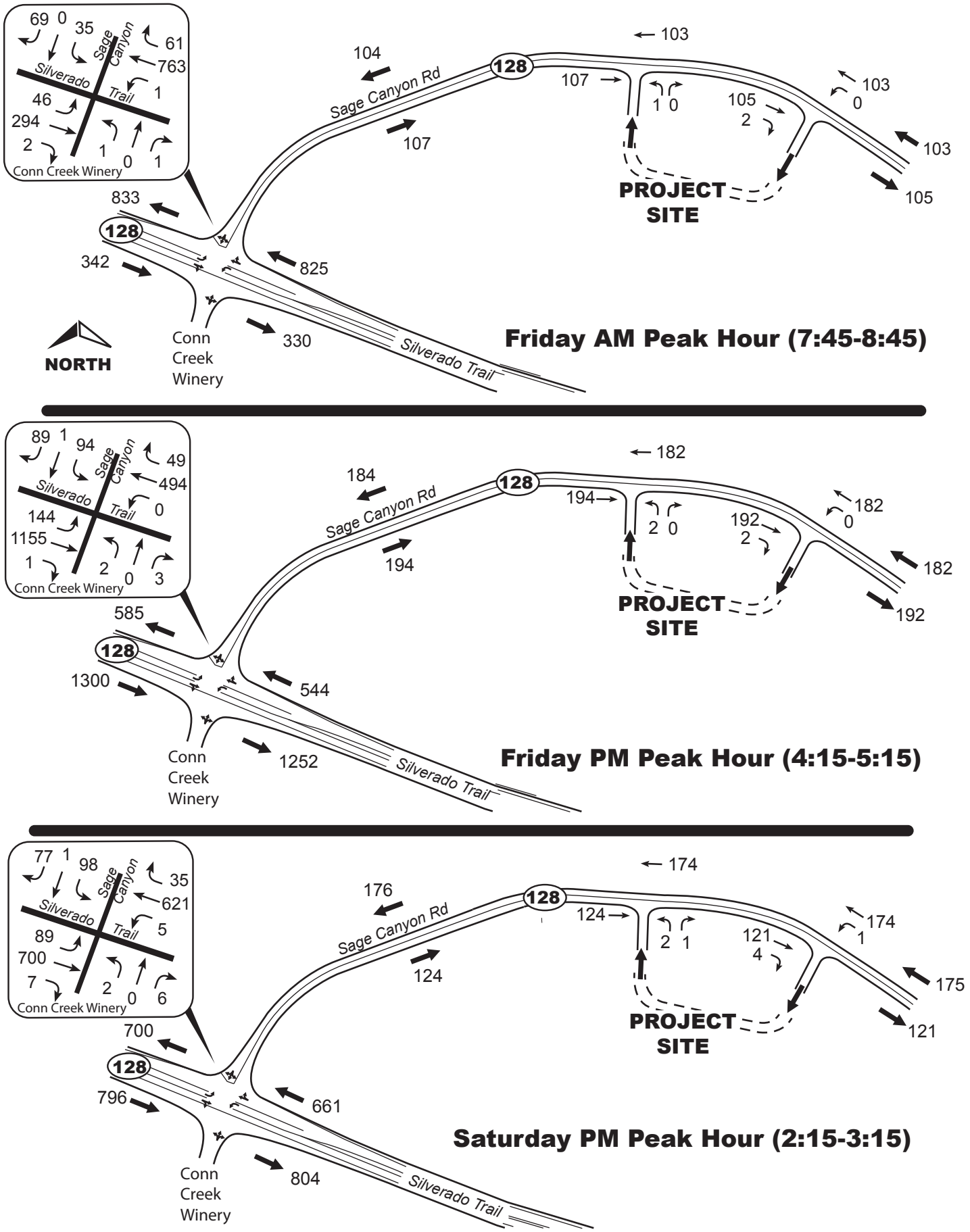


Dakota Shy Winery Traffic Study

Figure 13

2014 Summer Non-Harvest (with Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

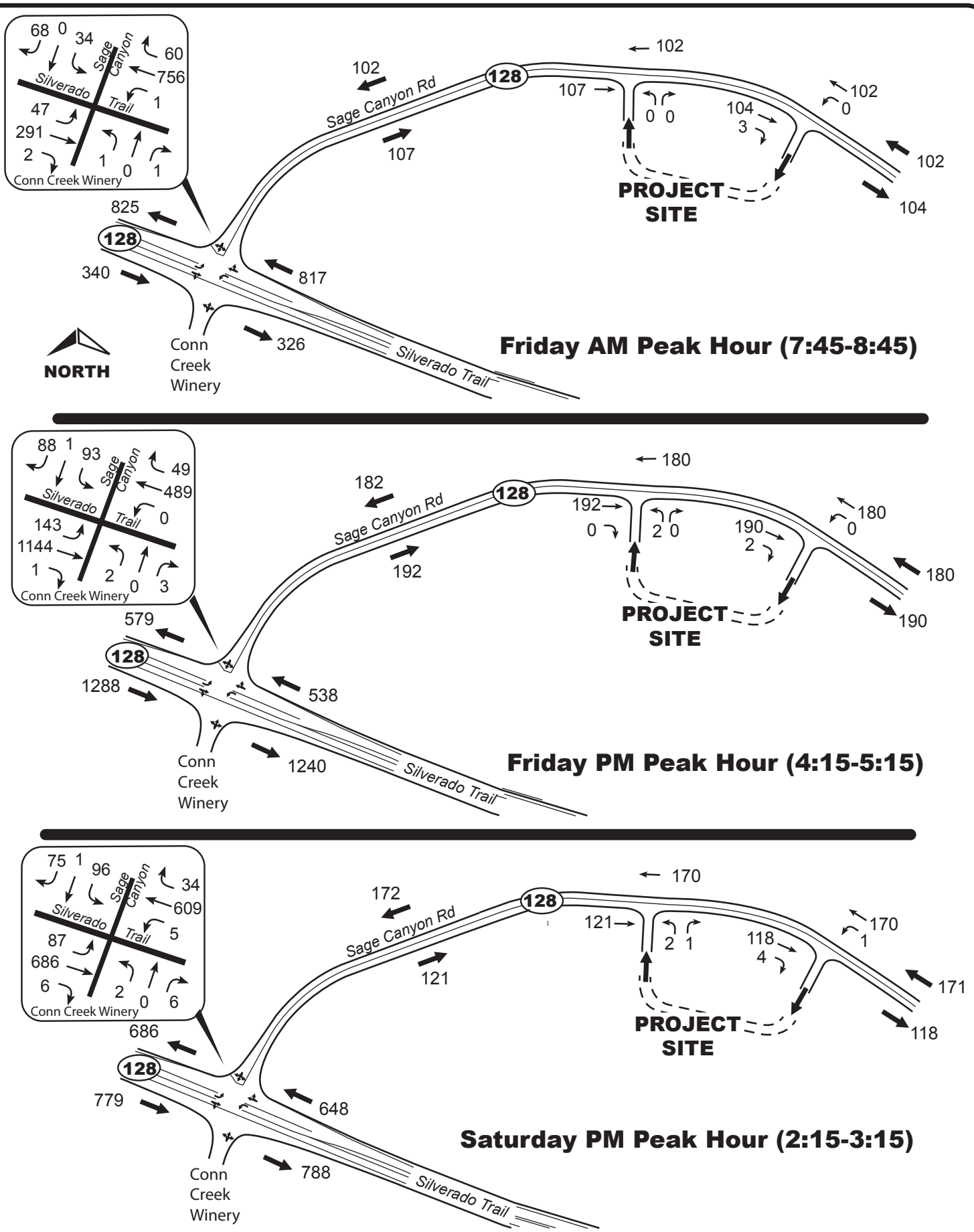


Dakota Shy Winery Traffic Study

Figure 14

Harvest 2020 (with Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

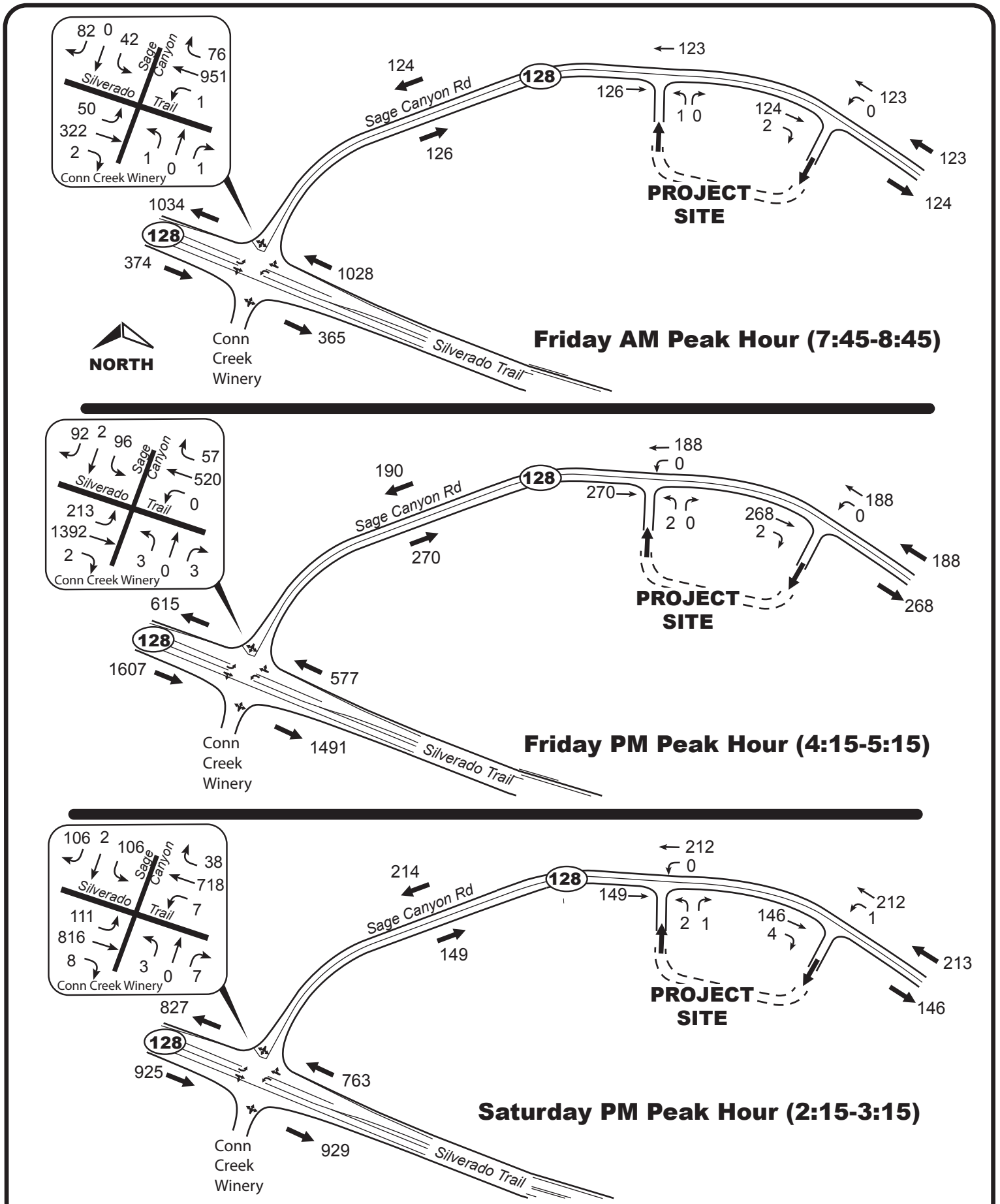


Dakota Shy Winery Traffic Study

Figure 15

Summer Non-Harvest 2020 (with Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP



Dakota Shy Winery Traffic Study

Figure 16

Harvest 2030 (with Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

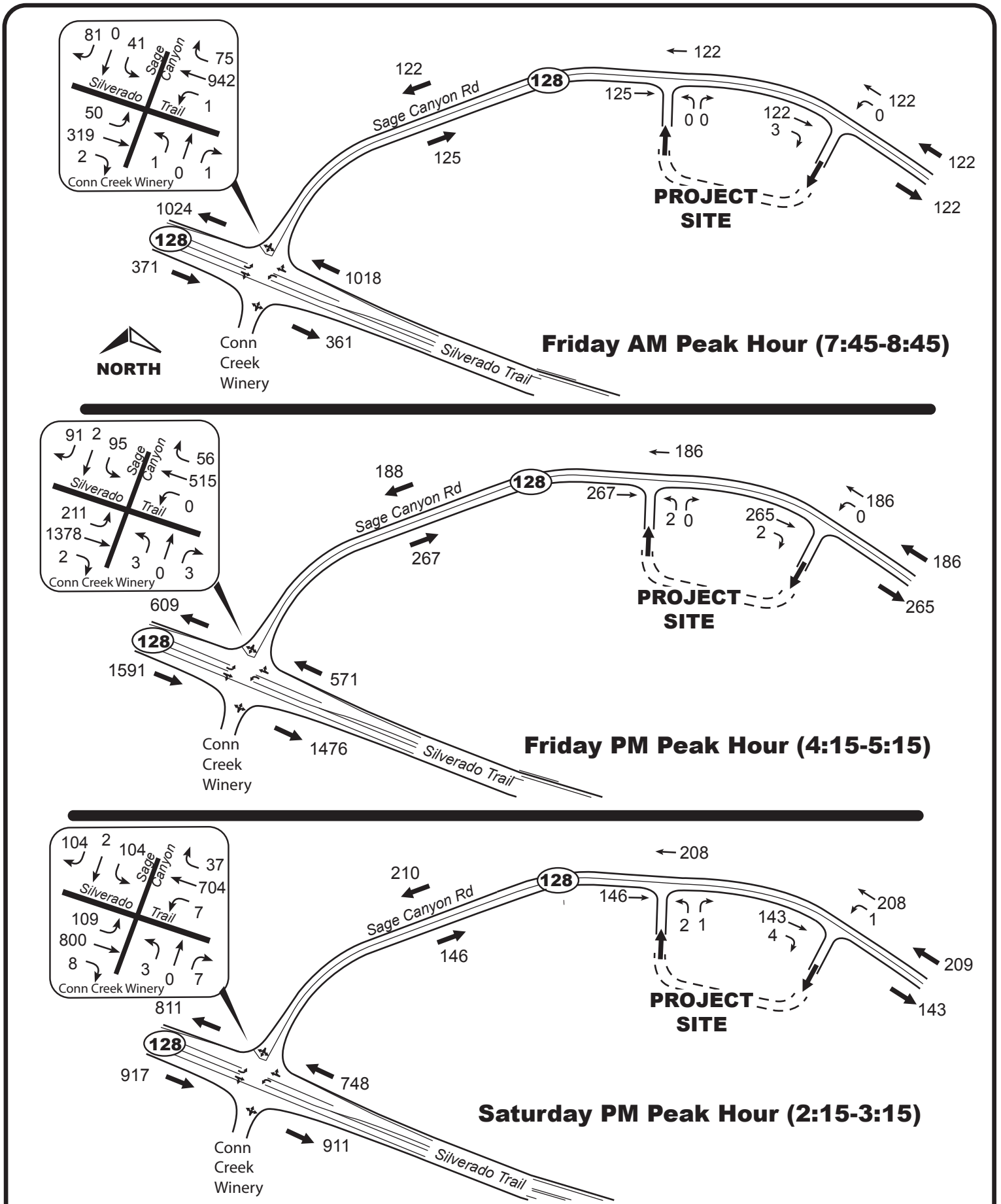


Figure 17

Summer Non-Harvest 2030 (with Project)
Friday AM & PM and Saturday
PM Peak Hour Volumes

CRANE TRANSPORTATION GROUP

Tables

Table 1

SIGNALIZED INTERSECTION LOS CRITERIA

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 80.0

Source: 2000 Highway Capacity Manual (Transportation Research Board).

Table 2

UNSIGNALIZED INTERSECTION LOS CRITERIA

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)
A	Little or no delays	≤ 10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded (for an all-way stop), or with approach/turn movement capacity exceeded (for a side street stop controlled intersection)	> 50.0

Source: 2000 Highway Capacity Manual (Transportation Research Board).

Table 3

INTERSECTION LEVEL OF SERVICE
SILVERADO TRAIL/SAGE CANYON ROAD (SR 128)

EXISTING – 2014

HARVEST

LOCATION	FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Silverado Trail/ Sage Canyon Rd. (SR 128)	C-20.8/A-9.5[1] **A-1.4**[2]	C-21.0/A-9.5 **A-1.4**	F - > 120[1]/ A-9.0[2] **F - > 120**[3]	F - > 120/ A-9.0 **F - > 120** (0.1%)*	F - > 120[1]/ A-9.4[2] **D-25.7**[3]	F - > 120/ A-9.4 **D-26.7** (0.2%)*

SUMMER (NON-HARVEST)

LOCATION	FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Silverado Trail/ Sage Canyon Rd. (SR 128)	C-20.5/A-9.5[1] **A-1.4**[2]	C-20.5/A-9.5 **A-1.4**	F - > 120/ A-9.0[2] **F-112.0**[3]	F - > 120/ A-9.0 **F-113.0** (0.1%)*	F - > 120[1]/ A-9.4[2] **C-22.1**[3]	F - > 120/ A-9.4 **C-23.0** (0.2%)*

[1] Unsignalized level of service – control delay in seconds. Sage Canyon Road westbound stop sign controlled approach/Silverado Trail southbound left turn.

[2] **Unsignalized level of service – control delay in seconds (entire intersection).**

* (Percent project traffic added to intersection) Less than a 1% increase is not considered a significant impact.

Year 2010 Highway Capacity Manual (HCM) Analysis Methodology – individual approach or turn movement results
Year 2000 HCM results for overall intersection operation. No overall intersection operation results obtainable from 2010 software.
Source: Crane Transportation Group

Table 4

INTERSECTION SIGNAL WARRANT EVALUATION

SILVERADO TRAIL/SAGE CANYON ROAD (SR 128)

Do volumes meet peak hour signal Warrant #3 rural condition criteria?

EXISTING – 2014

HARVEST

FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Yes	Yes (0.2%)*	Yes	Yes (0.1%)*	Yes	Yes (0.2%)*

SUMMER (NON-HARVEST)

FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Yes	Yes (0.2%)*	Yes	Yes (0.1%)*	Yes	Yes (0.2%)*

* (Percent project traffic.) Less than a 1% increase is not considered a significant impact.

Source: Crane Transportation Group

Table 5 (page 1 of 2)

ROADWAY SEGMENT LEVEL OF SERVICE
SAGE CANYON ROAD & SILVERADO TRAIL

EXISTING – 2014

HARVEST

LOCATION	DIRECTION	DIRECTIONAL CAPACITY (VEH/HR)	FRIDAY AM PEAK HOUR				FRIDAY PM PEAK HOUR				SATURDAY PM PEAK HOUR			
			W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT	
			VOL[1]	LOS (V/C)[2]	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)
Silverado Trail South Of Sage Canyon Rd.	NB	1200	702	D	703	D	518	C	519	C	587	C	588	C
	SB	1200	308	B	309	B	1096	E (.913)	1096	E (.913) [0.0%]	714	D	715	D
Silverado Trail North Of Sage Canyon Rd.	NB	1200	711	D	711	D	561	C	562	C	612	C	612	C
	SB	1200	322	B	322	B	1105	E (.921)	1105	E (.921) [0.0%]	697	D	698	D
Sage Canyon Rd. Between Silverado Trail & Project Access	EB	810	94	B	95	B	146	C	147	C	104	C	106	C
	WB	810	90	B	91	B	178	C	179	C	150	C	151	C
Sage Canyon Rd. East of Project Access	EB	810	93	B	93	B	144	C	144	C	103	C	103	C
	WB	810	90	B	90	B	177	C	177	C	150	C	150	C

[1] Vol = volume

[2] LOS (V/C) = level of service (volume to capacity ratio) at locations with unacceptable "Without Project" operation.

[3] [ ] = % project traffic added to road segment at locations with unacceptable "Without Project" operation. Less than a 1% increase is not considered a significant impact.

Analysis Methodology Source: Napa County General Plan Update EIR Technical Memorandum for Traffic and Circulation Supporting the Findings and recommendations, Dowling Associates, February 9, 2007.

Compiled by: Crane Transportation Group

Table 5 (page 2 of 2)

ROADWAY SEGMENT LEVEL OF SERVICE
SAGE CANYON ROAD & SILVERADO TRAIL

EXISTING – 2014

SUMMER (NON-HARVEST)

LOCATION	DIRECTION	DIRECTIONAL CAPACITY (VEH/HR)	FRIDAY AM PEAK HOUR				FRIDAY PM PEAK HOUR				SATURDAY PM PEAK HOUR			
			W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT	
			VOL[1]	LOS (V/C)[2]	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)
Silverado Trail South Of Sage Canyon Rd.	NB	1200	695	D	696	D	507	C	508	C	580	C	581	C
	SB	1200	305	B	305	B	1074	E (.895)	1074	E (.895) [0.0%]	705	D	706	D
Silverado Trail North Of Sage Canyon Rd.	NB	1200	704	D	704	D	549	C	550	C	605	C	605	C
	SB	1200	319	B	320	B	1083	E (.903)	1083	E (.903) [0.0%]	688	D	689	D
Sage Canyon Rd. Between Silverado Trail & Project Access	EB	810	93	B	95	B	143	C	144	C	103	C	105	C
	WB	810	89	B	89	B	174	C	175	C	148	C	149	C
Sage Canyon Rd. East of Project Access	EB	810	92	B	92	B	141	C	141	C	102	C	102	C
	WB	810	89	B	89	B	173	C	173	C	148	C	148	C

(1) Vol = volume

(2) LOS (V/C) = level of service (volume to capacity ratio) at locations with unacceptable "Without Project" operation.

(3) [ ] = % project traffic added to road segment at locations with unacceptable "Without Project" operation. Less than a 1% increase is not considered a significant impact.

Analysis Methodology Source: Napa County General Plan Update EIR Technical Memorandum for Traffic and Circulation Supporting the Findings and recommendations, Dowling Associates, February 9, 2007.

Compiled by: Crane Transportation Group

Table 6

INTERSECTION LEVEL OF SERVICE
SILVERADO TRAIL/SAGE CANYON ROAD (SR 128)

YEAR 2020

HARVEST

LOCATION	FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Silverado Trail/ Sage Canyon Rd. (SR 128)	D-26.3/B-10.1 **A-1.6**	D-26.7/B-10.1 **A-1.6**	F - > 120/ A-9.4 **F - > 120**	F - > 120/ A-9.4 **F - > 120** (0.1%)*	F - > 120/ A-9.8 **F-62**	F - > 120/ A-9.8 **F-63.7** (0.2%)*

SUMMER (NON-HARVEST)

LOCATION	FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Silverado Trail/ Sage Canyon Rd. (SR 128)	D-25.9/B-10.1 **A-1.6**	D-25.9/B-10.1 **A-1.6**	F - > 120/ A-9.3 **F - > 120**	F - > 120/ A-9.3 **F - > 120** (0.1%)*	F - > 120/ A-9.7 **F-52.2**	F - > 120/ A-9.8 **F-54.0** (0.2%)*

(1) Theoretical delay results greater than 120 seconds. Standard traffic engineering industry software does not produce meaningful delay results above 120 seconds.

(2) Unsignalized level of service – control delay in seconds. Sage Canyon Road westbound stop sign controlled approach/Silverado Trail southbound left turn.

(3) **Unsignalized level of service – control delay in seconds (entire intersection).**

* (Percent project traffic added to intersection) Less than a 1% increase is not considered a significant impact.

Year 2010 Highway Capacity Manual (HCM) Analysis Methodology – individual approach or turn movement results
Year 2000 HCM results for overall intersection operation. No overall intersection operation results obtainable from 2010 software.
Source: Crane Transportation Group

Table 7

INTERSECTION SIGNAL WARRANT EVALUATION

SILVERADO TRAIL/SAGE CANYON ROAD (SR 128)

Do volumes meet peak hour signal Warrant #3 rural condition criteria?

YEAR 2020

HARVEST

FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Yes	Yes (0.2%)*	Yes	Yes (0.1%)*	Yes	Yes (0.2%)*

SUMMER (NON-HARVEST)

FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Yes	Yes (0.2%)*	Yes	Yes (0.1%)*	Yes	Yes (0.2%)*

* (Percent project traffic.) Less than a 1% increase is not considered a significant impact.

Source: Crane Transportation Group

Table 8 (page 1 of 2)

ROADWAY SEGMENT LEVEL OF SERVICE
SAGE CANYON ROAD & SILVERADO TRAIL

YEAR 2020

HARVEST

LOCATION	DIRECTION	DIRECTIONAL CAPACITY (VEH/HR)	FRIDAY AM PEAK HOUR				FRIDAY PM PEAK HOUR				SATURDAY PM PEAK HOUR			
			W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT	
			VOL[1]	LOS (V/C)[2]	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)
Silverado Trail South Of Sage Canyon Rd.	NB	1200	824	D	825	D	543	C	544	C	660	D	661	D
	SB	1200	329	B	330	B	1252	F (1.043)	1252	F (1.043) [0.0%]	803	D	804	D
Silverado Trail North Of Sage Canyon Rd.	NB	1200	833	D	833	D	584	C	585	C	700	D	700	D
	SB	1200	342	C	342	C	1300	F (1.083)	1300	F (1.083) [0.0%]	795	D	796	D
Sage Canyon Rd. Between Silverado Trail & Project Access	EB	810	106	C	107	C	193	C	194	C	122	C	124	C
	WB	810	103	C	104	C	183	C	184	C	175	C	176	C
Sage Canyon Rd. East of Project Access	EB	810	105	C	105	C	192	C	192	C	121	C	121	C
	WB	810	103	C	103	C	182	C	182	C	175	C	175	C

(1) Vol = volume

(2) LOS (V/C) = level of service (volume to capacity ratio) at locations with unacceptable "Without Project" operation.

(3) [ ] = % project traffic added to road segment at locations with unacceptable "Without Project" operation. Less than a 1% increase is not considered a significant impact.

Analysis Methodology Source: Napa County General Plan Update EIR Technical Memorandum for Traffic and Circulation Supporting the Findings and recommendations, Dowling Associates, February 9, 2007.

Compiled by: Crane Transportation Group

Table 8 (page 2 of 2)

ROADWAY SEGMENT LEVEL OF SERVICE
SAGE CANYON ROAD & SILVERADO TRAIL

YEAR 2020

SUMMER (NON-HARVEST)

LOCATION	DIRECTION	DIRECTIONAL CAPACITY (VEH/HR)	FRIDAY AM PEAK HOUR				FRIDAY PM PEAK HOUR				SATURDAY PM PEAK HOUR			
			W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT	
			VOL[1]	LOS (V/C)[2]	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)
Silverado Trail South Of Sage Canyon Rd.	NB	1200	816	D	817	D	537	C	538	C	647	D	648	D
	SB	1200	326	B	326	B	1240	F (1.033)	1240	F (1.033) [0.0%]	787	D	788	D
Silverado Trail North Of Sage Canyon Rd.	NB	1200	825	D	825	D	578	C	579	C	686	D	686	D
	SB	1200	339	C	340	C	1288	F 1.073)	1288	F (1.073) [0.0%]	778	D	779	D
Sage Canyon Rd. Between Silverado Trail & Project Access	EB	810	105	C	107	C	191	C	192	C	119	C	121	C
	WB	810	102	C	102	C	181	C	182	C	171	C	172	C
Sage Canyon Rd. East of Project Access	EB	810	104	C	104	C	190	C	190	C	118	C	118	C
	WB	810	102	C	102	C	180	C	180	C	171	C	171	C

[1] Vol = volume

[2] LOS (V/C) = level of service (volume to capacity ratio) at locations with unacceptable "Without Project" operation.

[3] [ ] = % project traffic added to road segment at locations with unacceptable "Without Project" operation. Less than a 1% increase is not considered a significant impact.

Analysis Methodology Source: Napa County General Plan Update EIR Technical Memorandum for Traffic and Circulation Supporting the Findings and recommendations, Dowling Associates, February 9, 2007.

Compiled by: Crane Transportation Group

Table 9

INTERSECTION LEVEL OF SERVICE
SILVERADO TRAIL/SAGE CANYON ROAD (SR 128)

YEAR 2030

HARVEST

LOCATION	FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Silverado Trail/ Sage Canyon Rd. (SR 128)	E-46.1/B-11.2 **A-2.8**	E-47.0/B-11.2 **A-2.8** (0.1%)*	F - > 120/ A-10.0 **F - > 120**	F - > 120/ A-10.0 **F - > 120** (0.1%)*	F - > 120/ B-10.5 **F - > 120**	F - > 120/ B-10.5 **F - > 120** (0.2%)*

SUMMER (NON-HARVEST)

LOCATION	FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Silverado Trail/ Sage Canyon Rd. (SR 28)	E-44.9/B-11.1 **A-2.7**	E-44.9/B-11.1 **A-2.7** (0.1%)*	F - > 120/ A-9.9 **F - > 120**	F - > 120/ A-9.9 **F - > 120** (0.1%)*	F - > 120/ B-10.4 **F - > 120**	F - > 120/ B-10.5 **F - > 120** (0.2%)*

(1) Theoretical delay results greater than 120 seconds. Standard traffic engineering industry software does not produce meaningful delay results above 120 seconds.

(2) Unsignalized level of service – control delay in seconds. Sage Canyon Road westbound stop sign controlled approach/Silverado Trail southbound left turn.

(3) **Unsignalized level of service – control delay in seconds (entire intersection).**

* (Percent project traffic added to intersection) Less than a 1% increase is not considered a significant impact.

Year 2010 Highway Capacity Manual (HCM) Analysis Methodology – individual approach or turn movement results Year 2000 HCM results for overall intersection operation. No overall intersection operation results obtainable from 2010 software.
Source: Crane Transportation Group

Table 10

INTERSECTION SIGNAL WARRANT EVALUATION

SILVERADO TRAIL/SAGE CANYON ROAD (SR 128)

Do volumes meet peak hour signal Warrant #3 rural condition criteria?

YEAR 2030

HARVEST

FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Yes	Yes (0.1%)*	Yes	Yes (0.1%)*	Yes	Yes (0.2%)*

SUMMER (NON-HARVEST)

FRIDAY AM PEAK HOUR		FRIDAY PM PEAK HOUR		SATURDAY PM PEAK HOUR	
W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT	W/O PROJECT	WITH PROJECT
Yes	Yes (0.1%)*	Yes	Yes (0.1%)*	Yes	Yes (0.2%)*

* (Percent project traffic.) Less than a 1% increase is not considered a significant impact.

Source: Crane Transportation Group

Table 11 (page 1 of 2)

ROADWAY SEGMENT LEVEL OF SERVICE
SAGE CANYON ROAD & SILVERADO TRAIL

YEAR 2030

HARVEST

LOCATION	DIRECTION	DIRECTIONAL CAPACITY (VEH/HR)	FRIDAY AM PEAK HOUR				FRIDAY PM PEAK HOUR				SATURDAY PM PEAK HOUR			
			W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT	
			VOL[1]	LOS (V/C)[2]	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)
Silverado Trail South Of Sage Canyon Rd.	NB	1200	1027	E (.856)	1028	E (.857)[0.1%]	576	C	577	C	762	D	763	D
	SB	1200	364	C	365	C	1491	F (1.243)	1491	F (1.243) [0.0%]	928	E (.773)	929	E (.774) [0.1%]
Silverado Trail North Of Sage Canyon Rd.	NB	1200	1034	E (.862)	1034	E (.862)[0.0%]	614	C	615	C	827	D	827	D
	SB	1200	374	C	374	C	1607	F (1.339)	1607	F (1.339) [0.0%]	924	E (.770)	925	E (.771) [0.1%]
Sage Canyon Rd. Between Silverado Trail & Project Access	EB	810	125	C	126	C	269	C	270	C	147	C	149	C
	WB	810	123	C	124	C	189	C	190	C	213	C	214	C
Sage Canyon Rd. East of Project Access	EB	810	124	C	124	C	268	C	268	C	146	C	146	C
	WB	810	123	C	123	C	188	C	188	C	213	C	213	C

(1) Vol = volume

(2) LOS (V/C) = level of service (volume to capacity ratio) at locations with unacceptable "Without Project" operation.

(3) [ ] = % project traffic added to road segment at locations with unacceptable "Without Project" operation. Less than a 1% increase is not considered a significant impact.

Analysis Methodology Source: Napa County General Plan Update EIR Technical Memorandum for Traffic and Circulation Supporting the Findings and recommendations, Dowling Associates, February 9, 2007.

Compiled by: Crane Transportation Group

Table 11 (page 2 of 2)

ROADWAY SEGMENT LEVEL OF SERVICE
SAGE CANYON ROAD & SILVERADO TRAIL

YEAR 2030

SUMMER (NON-HARVEST)

LOCATION	DIRECTION	DIRECTIONAL CAPACITY (VEH/HR)	FRIDAY AM PEAK HOUR				FRIDAY PM PEAK HOUR				SATURDAY PM PEAK HOUR			
			W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT		W/O PROJECT		WITH PROJECT	
			VOL[1]	LOS (V/C)[2]	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)	VOL	LOS (V/C)
Silverado Trail South Of Sage Canyon Rd.	NB	1200	1017	E (.848)	1018	E (.848) [0.1%]	570	C	571	C	747	D	748	D
	SB	1200	361	C	361	C	1476	F (1.230)	1476	F (1.230) [0.0%]	910	E (.758)	911	E (.759) [0.1%]
Silverado Trail North Of Sage Canyon Rd.	NB	1200	1024	E (.853)	1024	E (.853) [0.0%]	608	C	609	C	811	D	811	D
	SB	1200	370	C	371	C	1591	F (1.326)	1591	F (1.326) [0.0%]	916	E (.763)	917	E (.764) [0.1%]
Sage Canyon Rd. Between Silverado Trail & Project Access	EB	810	123	C	125	C	266	C	267	C	144	C	146	C
	WB	810	122	C	122	C	187	C	188	C	209	C	210	C
Sage Canyon Rd. East of Project Access	EB	810	122	C	122	C	265	C	265	C	143	C	143	C
	WB	810	122	C	122	C	186	C	186	C	209	C	209	C

(1) Vol = volume

(2) LOS (V/C) = level of service (volume to capacity ratio) at locations with unacceptable "Without Project" operation.

(3) [ ] = % project traffic added to road segment at locations with unacceptable "Without Project" operation. Less than a 1% increase is not considered a significant impact.

Analysis Methodology Source: Napa County General Plan Update EIR Technical Memorandum for Traffic and Circulation Supporting the Findings and recommendations, Dowling Associates, February 9, 2007.

Compiled by: Crane Transportation Group

Table 12

PROJECT TRIP GENERATION
DAKOTA SHY WINERY

HARVEST

FRIDAY

	TOTAL	HOURS	TRIPS									
			7-8 AM		8-9 AM		3-4 PM		4-5 PM		5-6 PM	
			IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Admin Employees – Full Time	1	9AM-6PM	0	0	1	0	0	0	0	0	0	0
Production Employees – Full Time	2	6AM-6PM	0	0	0	0	0	0	0	0	0	0
Production Employees – Part Time	2	6AM-6PM	0	0	0	0	0	0	0	0	0	0
Tours/Tasting Employees	1	10AM-6PM	0	0	0	0	0	0	0	0	0	0
Grape Delivery Trucks (2% grown on site)	1/day	7AM-4PM[(1)]	0	0	1*	1	0	0	0	0	0	0
Visitors	20 total = 8 vehicles[(2)]	10AM-6PM	0	0	0	0	1	2	1	1	0	1
TOTAL			0	0	2	1	1	2	1	1	0	1

* Enters via northbound right turn to Silverado Trail driveway.
(1) Grapes typically delivered in the morning.
(2) 2.6 visitors/vehicle average on weekdays per County data.

Source: Dakota Shy Winery project applicant; Compiled by: Crane Transportation Group

Table 13

PROJECT TRIP GENERATION
DAKOTA SHY WINERY

HARVEST

SATURDAY

	TOTAL	HOURS	TRIPS							
			2-3 PM		3-4 PM		4-5 PM		5-6 PM	
			IN	OUT	IN	OUT	IN	OUT	IN	OUT
Admin Employees – Full Time	1	9AM-6PM	0	0	0	0	0	0	0	0
Production Employees – Full Time	2	6AM-6PM	0	0	0	0	0	0	0	0
Production Employees – Part Time	2	6AM-6PM	0	0	0	0	0	0	0	0
Tours/Tasting Employees	1	10AM-6PM	0	0	0	0	0	0	0	0
Grape Delivery Trucks (2% grown on site)	1/day	7AM-4PM[(1)]	0	0	0	0	0	0	0	0
Visitors	20 total = 8 vehicles[(2)]	10AM-6PM	2	1	1	2	1	1	0	1
TOTAL			2	1	1	2	1	1	0	1

(1) Grapes typically delivered in the morning.
(2) 2.8 visitors/vehicle average on Saturdays per County data.

Source: Dakota Shy Winery project applicant; Compiled by: Crane Transportation Group

Table 14

PROJECT TRIP GENERATION
DAKOTA SHY WINERY

SUMMER (NON-HARVEST)

FRIDAY

	TOTAL	HOURS	TRIPS									
			7-8 AM		8-9 AM		3-4 PM		4-5 PM		5-6 PM	
			IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Admin Employees – Full Time	1	9AM-6PM	0	0	1	0	0	0	0	0	0	0
Production Employees – Full Time	2	9AM-6PM	0	0	2	0	0	0	0	0	0	0
Production Employees – Part Time	1	9AM-6PM	0	0	1	0	0	0	0	0	0	0
Tours/Tasting Employees	1	10AM-6PM	0	0	0	0	0	0	0	0	0	0
Visitors	20 total = 8 vehicles[(1)]	10AM-6PM	0	0	0	0	1	2	1	1	0	1
TOTAL			0	0	4	0	1	2	1	1	0	1

(1) 2.6 visitors/vehicle average on weekdays per County data.

Source: Dakota Shy Winery project applicant; Compiled by: Crane Transportation Group

Table 15

PROJECT TRIP GENERATION
DAKOTA SHY WINERY

SUMMER (NON-HARVEST)

SATURDAY

	TOTAL	HOURS	TRIPS							
			2-3 PM		3-4 PM		4-5 PM		5-6 PM	
			IN	OUT	IN	OUT	IN	OUT	IN	OUT
Admin Employees – Full Time	1	9AM-6PM	0	0	0	0	0	0	0	0
Production Employees – Full Time	0		0	0	0	0	0	0	0	0
Production Employees – Part Time	0		0	0	0	0	0	0	0	0
Tours/Tasting Employees	1	10AM-6PM	0	0	0	0	0	0	0	0
Visitors	20 total = 8 vehicles[(1)]	10AM-6PM	2	1	1	2	1	1	0	1
TOTAL			2	1	1	2	1	1	0	1

(1) 2.8 visitors/vehicle average on Saturdays per County data.

Source: Dakota Shy Winery project applicant; Compiled by: Crane Transportation Group

Table 16

PROJECT TRIP GENERATION SUMMARY
DAKOTA SHY WINERY

HARVEST

FRIDAY AM PEAK HOUR* (7:45-8:45)		FRIDAY PM PEAK HOUR* (4:15-5:15)		SATURDAY PM PEAK HOUR* (2:15-3:15)	
INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS
2	1	1	1	2	1

SUMMER (NON-HARVEST)

FRIDAY AM PEAK HOUR* (7:45-8:45)		FRIDAY PM PEAK HOUR* (4:15-5:15)		SATURDAY PM PEAK HOUR* (2:15-3:15)	
INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS	INBOUND TRIPS	OUTBOUND TRIPS
2	0	1	1	2	1

* Peak hour at the Silverado Trail/Sage Canyon Road intersection.

Source: Dakota Shy Winery; compiled by Crane Transportation Group

Table 17

CALTRANS HOURLY VOLUME WARRANTS FOR PROVISION OF LEFT TURN DECELERATION LANES ON TWO-LANE STATE HIGHWAYS

	40 mph Operating Speed			
	Advancing Volumes, VPH*			
Opposing Volume, VPH*	**5% Left Turns**	**10% Left Turns**	**20% Left Turns**	**30% Left Turns**
800	330	240	150	180
600	410	305	225	200
400	510	380	275	245
200	640	470	360	305
100	720	575	390	340
	50 mph Operating Speed			
800	280	210	165	135
600	350	260	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
	60 mph Operating Speed			
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240

* VPH = vehicles per hour

Note: For 2030 conditions the advancing volume is 207 vehicles. There are 0.5% left turns and the opposing volume is 153 vehicles per hour.

Source: Caltrans Guidelines for Reconstruction of Intersections, 1985.

Dakota Shy Winery

SR128 East of Silverado Trail at the Dakota Shy Winery Inbound Entrance Driveway

Table 18

COUNTY of NAPA LEFT TURN WARRANT GRAPH at Private Road and Driveway Intersections

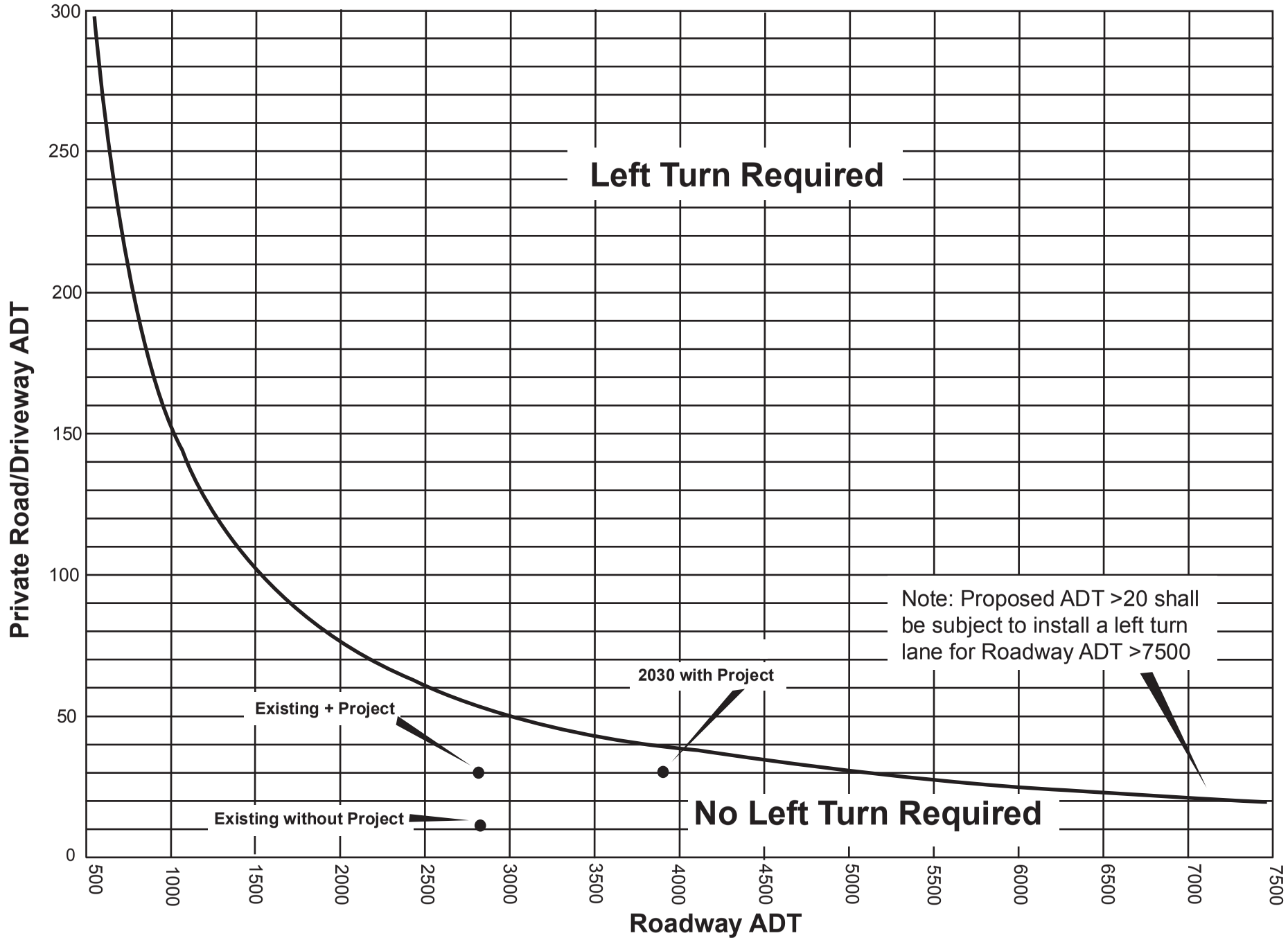


Table 19

DAKOTA SHY WINERY
MARKETING EVENT TRAFFIC DETAILS

MARKETING EVENT	STAFF/GUEST CATEGORY	# OF PEOPLE	# OF VEHICLES	TIMES	REGULAR VISITATION ELIMINATED DURING MARKETING EVENT?
Wine Release (2 per year)	Guests	40	15 vehicles	Will occur during off peak traffic hours along Silverado Trail. Typically 3 hours long. Saturday or Sunday	Yes
	Extra Winery Staff	0	N/A		
	Caterers	3	1		
	Entertainers	2	1		
	Delivery vehicles	2	1		
	Florist	1	1		

Source: Dakota Shy applicant; compiled by Crane Transportation Group

Appendix

Appendix

DAKOTA SHY WINERY
EXPECTED PROJECT TRAFFIC ACTIVITY DETAILS

	HARVEST CONDITIONS	NON-HARVEST CONDITIONS
A.	**Full-time admin employees** # on Weekdays __1__ # on Saturday __1__ # on Sunday __1__ Work hours: Weekday 9:00 AM to 6:00 PM Saturday 9:00 AM to 6:00 PM Sunday 9:00 AM to 6:00 PM	**Full-time admin employees** # on Weekdays __1__ # on Saturday __0__ # on Sunday __0__ Work hours: Weekday 9:00 AM to 6:00 PM Saturday __–___ to ___–_ Sunday __–___ to ___–_
B.	**Full-time production employees** # on Weekdays __2__ # on Saturday __2__ # on Sunday __2__ Work hours: Weekday 6:00 AM to 6:00 PM Saturday 6:00 AM to 6:00 PM Sunday 6:00 AM to 6:00 PM	**Full-time production employees** # on Weekdays __2__ # on Saturday __0__ # on Sunday __0_ Work hours: Weekday 9:00 AM to 6:00 PM Saturday __–___ to ___–_ Sunday ___–___ to ___–_
C.	**Part-time production employees** # on Weekdays __2__ # on Saturday __2__ # on Sunday __2__ Work hours: Weekday 6:00 AM to 6:00 PM Saturday 6:00 AM to 6:00 PM Sunday 6:00 AM to 6:00 PM	**Part-time production employees** # on Weekdays __1__ # on Saturday __0__ # on Sunday __0__ Work hours: Weekday 9:00 AM to 6:00 PM Saturday __–___ to ___–_ Sunday __–___ to ___–_
D.	**Tours & tasting employees** # on Weekdays __1__ # on Saturday __1__ # on Sunday __1___ Work hours: Weekday 10:00 AM to 6:00 PM Saturday 10:00 AM to 6:00 PM Sunday 10:00 AM to 6:00 PM	**Tours & tasting employees** # on Weekdays __1__ # on Saturday __1__ # on Sunday __1___ Work hours: Weekday 10:00 AM to 6:00 PM Saturday 10:00 AM to 6:00 PM Sunday 10:00 AM to 6:00 PM

Appendix

DAKOTA SHY WINERY
EXPECTED PROJECT TRAFFIC ACTIVITY DETAILS

	HARVEST CONDITIONS	NON-HARVEST CONDITIONS
E.	**Grape Delivery Trucks** # on Weekdays __1__ # on Saturday ___1__ # on Sunday __0__ Delivery hours: Weekday 7:00 AM to 4:00 PM Saturday 7:00 AM to 4:00 PM Sunday _–___ to ___–_	No grape delivery
F.	**Maximum tours/tasting visitors** # on Weekdays __20 (8 vehicles)* # on Saturday ___20 (8 vehicles)** # on Sunday __20 (8 vehicles)** Tasting hours: Weekday 10:00 AM to 6:00 PM Saturday 10:00 AM to 6:00 PM Sunday 10:00 AM to 6:00 PM	**Maximum tours/tasting visitors** # on Weekdays __20 (8 vehicles) # on Saturday ___20 (8 vehicles) # on Sunday __20 (8 vehicles) Tasting hours: Weekday 10:00 AM to 6:00 PM Saturday 10:00 AM to 6:00 PM Sunday 10:00 AM to 6:00 PM
G.	**Other employees** # on Weekdays __0__ # on Saturday ___0__ # on Sunday __0___ Work hours: Weekday _–___ to ___–_ Saturday _–___ to ___–_ Sunday _–___ to ___–_	**Other employees** # on Weekdays __0__ # on Saturday ___0__ # on Sunday __0___ Work hours: Weekday _–___ to ___–_ Saturday _–___ to ___–_ Sunday _–___ to ___–_
H.	**Other trucks** # on Weekdays __1-2/week__ # on Saturday ___0__ # on Sunday __0___ Delivery hours: Weekday 9:00 AM to 4:00 PM Saturday _–___ to ___–_ Sunday _–___ to ___–_	**Other trucks** # on Weekdays __1-2/week__ # on Saturday ___0__ # on Sunday __0___ Delivery hours: Weekday 9:00 AM to 4:00 PM Saturday _–___ to ___–_ Sunday _–___ to ___–_

* 2.6 winery visitors/vehicle County average.
** 2.8 winery visitors/vehicle County average.

Appendix

DAKOTA SHY WINERY
EXPECTED PROJECT TRAFFIC ACTIVITY DETAILS

GRAPE DELIVERY

Percent of grapes grown on site: _2%

Percent grapes imported to the site coming from the north on Silverado Trail: 38%

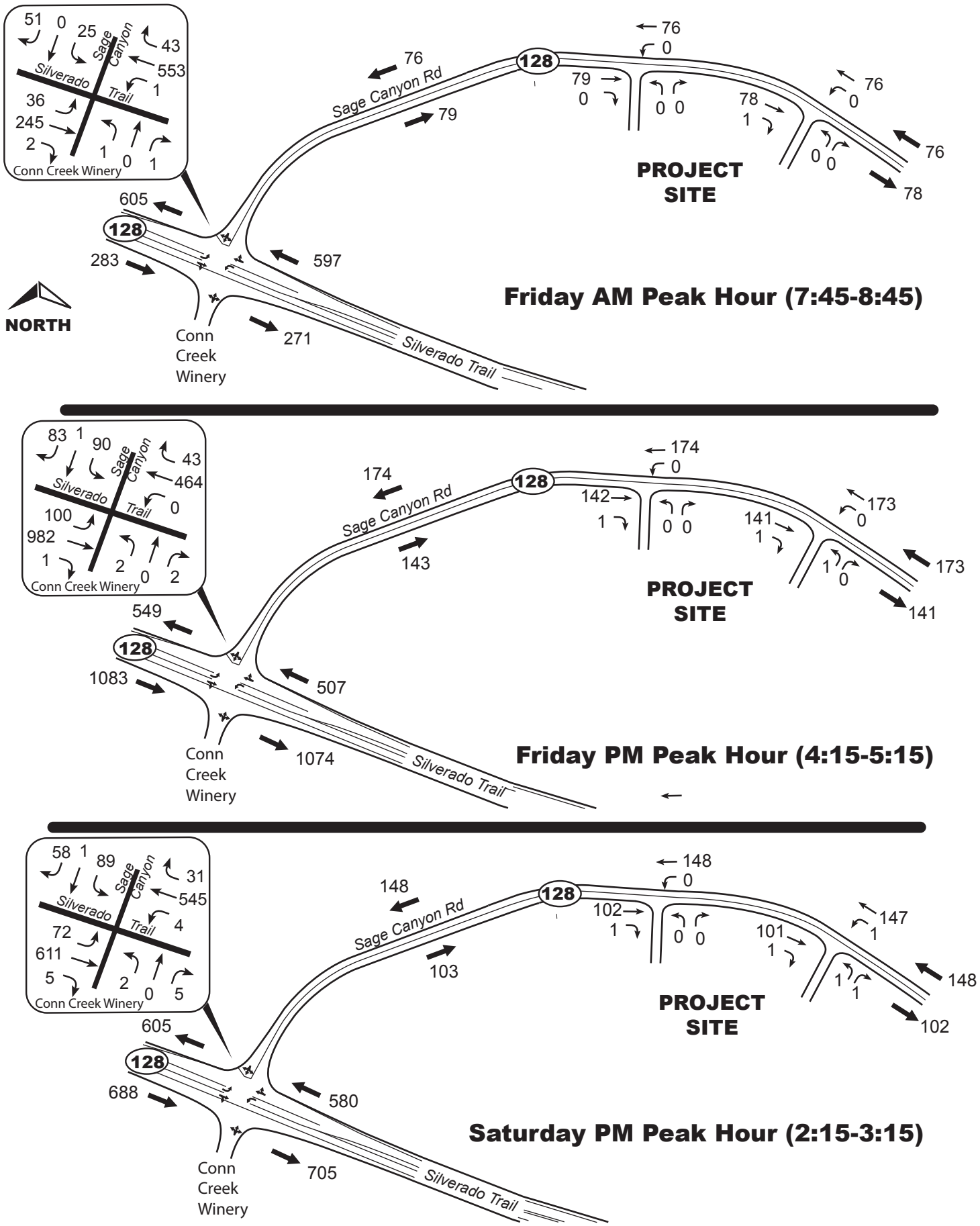
Percent grapes imported to the site coming from the south on Silverado Trail: 60%

Percent grapes imported to the site coming from the west on SR 128: 0%

MARKETING EVENTS

Wine releases –

events/year: 2
people/event: 40
typical days: Weekends
typical start time: between 10:00 AM & 6:00 PM but avoiding adding traffic to Silverado Trail during peak traffic periods.



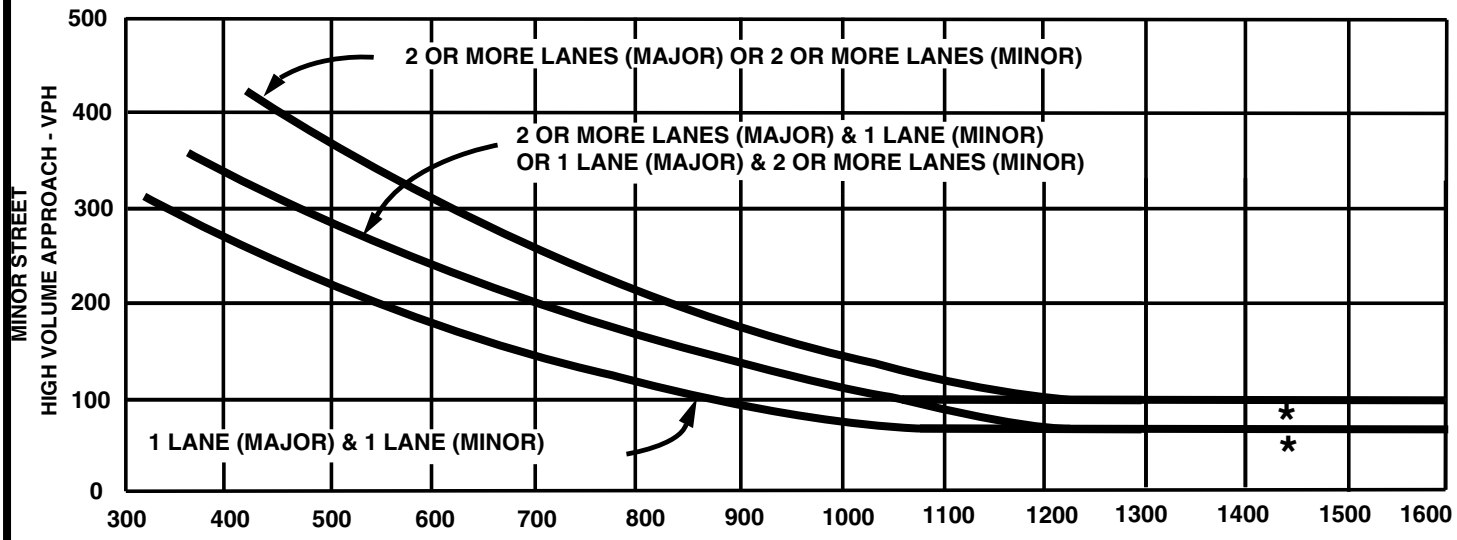
Appendix Figure 1

January 2015 AM and May 2014 PM & Saturday Peak Hour Volumes

CRANE TRANSPORTATION GROUP

Appendix

PEAK HOUR VOLUME WARRANT #3
(Rural Area)



*** NOTE**

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE

Source: California Manual on Uniform Traffic Control Devices, 2010

TECHNICAL APPENDIX

Capacity Worksheets

HCM Worksheets

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Harvest Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 without Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	763	60	46	294	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	838	65	52	337	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	34	0	69	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	35	0	72	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	52		107			8	
C(m) (vph)	1231	757		388			171	
v/c	0.00	0.07		0.28			0.05	
95% queue length	0.00	0.22		1.11			0.15	
Control Delay	7.9	10.1		26.3			27.1	
LOS	A	B		D			D	
Approach Delay				26.3			27.1	
Approach LOS				D			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Harvest Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	763	61	46	294	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	838	67	52	337	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	35	0	69	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	36	0	72	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	52		108			8	
C(m) (vph)	1231	756		381			169	
v/c	0.00	0.07		0.28			0.05	
95% queue length	0.00	0.22		1.15			0.15	
Control Delay	7.9	10.1		26.7			27.4	
LOS	A	B		D			D	
Approach Delay				26.7			27.4	
Approach LOS				D			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Harvest w-o Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	494	49	144	1155	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93
Hourly Flow Rate, HFR	0	548	54	154	1241	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	94	1	88	2	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	134	1	125	6	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	154		260			15	
C(m) (vph)	568	980		55			48	
v/c	0.00	0.16		4.73			0.31	
95% queue length	0.00	0.56		28.99			1.08	
Control Delay	11.3	9.4		1827			111.0	
LOS	B	A		F			F	
Approach Delay				1827			111.0	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Harvest with Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	494	50	144	1155	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93
Hourly Flow Rate, HFR	0	548	55	154	1241	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	94	1	89	2	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	134	1	127	6	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	154		262			15	
C(m) (vph)	568	979		55			48	
v/c	0.00	0.16		4.76			0.31	
95% queue length	0.00	0.56		29.24			1.08	
Control Delay	11.3	9.4		1843			111.0	
LOS	B	A		F			F	
Approach Delay				1843			111.0	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Harvest w-o Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	621	34	88	700	6
Peak-Hour Factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92
Hourly Flow Rate, HFR	7	748	40	95	760	6
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	97	1	77	2	0	6
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	115	1	91	4	0	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	7	95		207			17	
C(m) (vph)	856	840		99			141	
v/c	0.01	0.11		2.09			0.12	
95% queue length	0.02	0.38		17.85			0.40	
Control Delay	9.2	9.8		594.2			34.0	
LOS	A	A		F			D	
Approach Delay				594.2			34.0	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Harvest with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	621	35	89	700	6
Peak-Hour Factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92
Hourly Flow Rate, HFR	7	748	42	96	760	6
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	98	1	77	2	0	6
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	116	1	91	4	0	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	7	96		208			17	
C(m) (vph)	856	839		97			141	
v/c	0.01	0.11		2.14			0.12	
95% queue length	0.02	0.39		18.17			0.40	
Control Delay	9.2	9.8		619.1			34.0	
LOS	A	A		F			D	
Approach Delay				619.1			34.0	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Summer Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 without Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	756	59	46	291	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	830	64	52	334	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	34	0	68	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	35	0	71	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	52		106			8	
C(m) (vph)	1235	763		394			174	
v/c	0.00	0.07		0.27			0.05	
95% queue length	0.00	0.22		1.07			0.14	
Control Delay	7.9	10.1		25.9			26.7	
LOS	A	B		D			D	
Approach Delay				25.9			26.7	
Approach LOS				D			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Summer Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	756	60	46	291	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	830	65	52	334	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	34	0	68	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	35	0	71	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	52		106			8	
C(m) (vph)	1235	762		394			174	
v/c	0.00	0.07		0.27			0.05	
95% queue length	0.00	0.22		1.07			0.14	
Control Delay	7.9	10.1		25.9			26.7	
LOS	A	B		D			D	
Approach Delay				25.9			26.7	
Approach LOS				D			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Summer w-o Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	489	48	143	1144	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93
Hourly Flow Rate, HFR	0	543	53	153	1230	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	93	1	87	2	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	132	1	124	6	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	153		257			15	
C(m) (vph)	573	985		57			48	
v/c	0.00	0.16		4.51			0.31	
95% queue length	0.00	0.55		28.39			1.08	
Control Delay	11.3	9.3		1724			111.0	
LOS	B	A		F			F	
Approach Delay				1724			111.0	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Summer with Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	489	49	143	1144	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93
Hourly Flow Rate, HFR	0	543	54	153	1230	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	93	1	88	2	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	132	1	125	6	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	153		258			15	
C(m) (vph)	573	985		57			48	
v/c	0.00	0.16		4.53			0.31	
95% queue length	0.00	0.55		28.52			1.08	
Control Delay	11.3	9.3		1732			111.0	
LOS	B	A		F			F	
Approach Delay				1732			111.0	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Summer w-o Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	609	33	86	686	6
Peak-Hour Factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92
Hourly Flow Rate, HFR	7	733	39	93	745	6
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	95	1	75	2	0	6
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	113	1	89	4	0	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	7	93		203			17	
C(m) (vph)	868	852		103			148	
v/c	0.01	0.11		1.97			0.11	
95% queue length	0.02	0.37		16.98			0.38	
Control Delay	9.2	9.7		539.0			32.5	
LOS	A	A		F			D	
Approach Delay				539.0			32.5	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2020 Summer with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	609	34	87	686	6
Peak-Hour Factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92
Hourly Flow Rate, HFR	7	733	40	94	745	6
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	96	1	75	2	0	6
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	114	1	89	4	0	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	7	94		204			17	
C(m) (vph)	868	851		103			148	
v/c	0.01	0.11		1.98			0.11	
95% queue length	0.02	0.37		17.10			0.38	
Control Delay	9.2	9.8		543.1			32.5	
LOS	A	A		F			D	
Approach Delay				543.1			32.5	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Harvest Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 without Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	951	75	50	322	2
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	1022	80	57	370	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	41	0	82	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	43	0	86	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	57		129			8	
C(m) (vph)	1198	637		208			103	
v/c	0.00	0.09		0.62			0.08	
95% queue length	0.00	0.29		3.59			0.25	
Control Delay	8.0	11.2		47.0			42.9	
LOS	A	B		E			E	
Approach Delay				47.0			42.9	
Approach LOS				E			E	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Harvest Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	951	76	50	322	2
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	1022	81	57	370	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1 0		1	1 0	
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	42	0	82	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	44	0	86	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1 0		0	1 0	
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	57		130			8	
C(m) (vph)	1198	637		206			102	
v/c	0.00	0.09		0.63			0.08	
95% queue length	0.00	0.29		3.69			0.25	
Control Delay	8.0	11.2		48.3			43.3	
LOS	A	B		E			E	
Approach Delay				48.3			43.3	
Approach LOS				E			E	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Harvest w-o Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	520	56	213	1392	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	577	62	224	1465	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	96	2	91	3	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	137	2	130	9	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	224		269			18	
C(m) (vph)	466	950		28			19	
v/c	0.00	0.24		9.61			0.95	
95% queue length	0.00	0.92		33.17			2.54	
Control Delay	12.7	10.0-		4145			467.1	
LOS	B	A		F			F	
Approach Delay				4145			467.1	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Harvest with Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	520	57	213	1392	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	577	63	224	1465	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	96	2	92	3	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	137	2	131	9	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	224		270			18	
C(m) (vph)	466	949		28			19	
v/c	0.00	0.24		9.64			0.95	
95% queue length	0.00	0.92		33.29			2.54	
Control Delay	12.7	10.0-		4161			467.1	
LOS	B	A		F			F	
Approach Delay				4161			467.1	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Harvest w-o Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	718	37	110	816	8
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94
Hourly Flow Rate, HFR	8	844	43	117	868	8
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	105	2	106	3	0	7
Peak Hour Factor, PHF	0.85	0.85	0.85	0.44	0.44	0.44
Hourly Flow Rate, HFR	123	2	124	6	0	15
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	8	117		249			21	
C(m) (vph)	779	772		69			69	
v/c	0.01	0.15		3.61			0.30	
95% queue length	0.03	0.53		26.08			1.11	
Control Delay	9.7	10.5		1299			78.5	
LOS	A	B		F			F	
Approach Delay				1299			78.5	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Harvest with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	718	38	111	816	8
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94
Hourly Flow Rate, HFR	8	844	44	118	868	8
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	106	2	106	3	0	7
Peak Hour Factor, PHF	0.85	0.85	0.85	0.44	0.44	0.44
Hourly Flow Rate, HFR	124	2	124	6	0	15
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	8	118		250			21	
C(m) (vph)	779	771		68			69	
v/c	0.01	0.15		3.68			0.30	
95% queue length	0.03	0.54		26.31			1.11	
Control Delay	9.7	10.5		1331			78.5	
LOS	A	B		F			F	
Approach Delay				1331			78.5	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Summer Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 without Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	942	74	49	319	2
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	1012	79	56	366	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	41	0	81	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	43	0	85	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	56		128			8	
C(m) (vph)	1202	643		212			107	
v/c	0.00	0.09		0.60			0.07	
95% queue length	0.00	0.29		3.44			0.24	
Control Delay	8.0	11.1		44.9			41.3	
LOS	A	B		E			E	
Approach Delay				44.9			41.3	
Approach LOS				E			E	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Summer Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	942	75	50	319	2
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	1012	80	57	366	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	41	0	81	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	43	0	85	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	57		128			8	
C(m) (vph)	1202	643		212			107	
v/c	0.00	0.09		0.60			0.07	
95% queue length	0.00	0.29		3.44			0.24	
Control Delay	8.0	11.1		44.9			41.3	
LOS	A	B		E			E	
Approach Delay				44.9			41.3	
Approach LOS				E			E	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Summer w-o Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	515	55	211	1378	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	572	61	222	1450	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	95	2	90	3	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	135	2	128	9	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	222		265			18	
C(m) (vph)	472	955		30			19	
v/c	0.00	0.23		8.83			0.95	
95% queue length	0.00	0.90		32.44			2.54	
Control Delay	12.6	9.9		3780			467.1	
LOS	B	A		F			F	
Approach Delay				3780			467.1	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Summer with Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	515	56	211	1378	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	572	62	222	1450	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	95	2	91	3	0	3
Peak Hour Factor, PHF	0.70	0.70	0.70	0.33	0.33	0.33
Hourly Flow Rate, HFR	135	2	130	9	0	9
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	222		267			18	
C(m) (vph)	472	954		30			19	
v/c	0.00	0.23		8.90			0.95	
95% queue length	0.00	0.90		32.69			2.54	
Control Delay	12.6	9.9		3810			467.1	
LOS	B	A		F			F	
Approach Delay				3810			467.1	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Summer w-o Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	704	36	108	800	8
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94
Hourly Flow Rate, HFR	8	828	42	114	851	8
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	103	2	104	3	0	7
Peak Hour Factor, PHF	0.85	0.85	0.85	0.44	0.44	0.44
Hourly Flow Rate, HFR	121	2	122	6	0	15
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	8	114		245			21	
C(m) (vph)	791	783		74			75	
v/c	0.01	0.15		3.31			0.28	
95% queue length	0.03	0.51		25.04			1.01	
Control Delay	9.6	10.4		1159			70.7	
LOS	A	B		F			F	
Approach Delay				1159			70.7	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: 2030 Summer with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	7	704	37	109	800	8
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94
Hourly Flow Rate, HFR	8	828	43	115	851	8
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	104	2	104	3	0	7
Peak Hour Factor, PHF	0.85	0.85	0.85	0.44	0.44	0.44
Hourly Flow Rate, HFR	122	2	122	6	0	15
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	8	115		246			21	
C(m) (vph)	791	783		73			75	
v/c	0.01	0.15		3.37			0.28	
95% queue length	0.03	0.51		25.27			1.01	
Control Delay	9.6	10.4		1187			70.7	
LOS	A	B		F			F	
Approach Delay				1187			70.7	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Harvest Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing without Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	650	51	43	277	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	714	56	49	318	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	30	0	60	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	31	0	63	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	49		94			8	
C(m) (vph)	1251	849		494			226	
v/c	0.00	0.06		0.19			0.04	
95% queue length	0.00	0.18		0.70			0.11	
Control Delay	7.9	9.5		20.8			21.5	
LOS	A	A		C			C	
Approach Delay				20.8			21.5	
Approach LOS				C			C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Harvest Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	650	52	43	277	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	714	57	49	318	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	31	0	60	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	32	0	63	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	49		95			8	
C(m) (vph)	1251	848		484			226	
v/c	0.00	0.06		0.20			0.04	
95% queue length	0.00	0.18		0.72			0.11	
Control Delay	7.9	9.5		21.0			21.5	
LOS	A	A		C			C	
Approach Delay				21.0			21.5	
Approach LOS				C			C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Harvest w-o Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	474	44	102	1002	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	526	48	112	1101	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	92	1	85	2	0	2
Peak Hour Factor, PHF	0.67	0.67	0.67	0.33	0.33	0.33
Hourly Flow Rate, HFR	137	1	126	6	0	6
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	112		264			12	
C(m) (vph)	641	1004		87			62	
v/c	0.00	0.11		3.03			0.19	
95% queue length	0.00	0.38		25.94			0.65	
Control Delay	10.6	9.0		1020			76.5	
LOS	B	A		F			F	
Approach Delay				1020			76.5	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Harvest with Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	474	45	102	1002	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	526	50	112	1101	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	92	1	86	2	0	2
Peak Hour Factor, PHF	0.67	0.67	0.67	0.33	0.33	0.33
Hourly Flow Rate, HFR	137	1	128	6	0	6
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	112		266			12	
C(m) (vph)	641	1002		87			60	
v/c	0.00	0.11		3.06			0.20	
95% queue length	0.00	0.38		26.18			0.67	
Control Delay	10.6	9.0		1030			79.4	
LOS	B	A		F			F	
Approach Delay				1030			79.4	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Harvest w-o Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	551	31	73	618	6
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90
Hourly Flow Rate, HFR	6	680	38	81	686	6
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	90	1	59	2	0	6
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	107	1	70	4	0	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			Yes /1			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	6	81		178			17	
C(m) (vph)	912	892		122			192	
v/c	0.01	0.09		1.46			0.09	
95% queue length	0.02	0.30		12.39			0.29	
Control Delay	9.0	9.4		311.1			25.6	
LOS	A	A		F			D	
Approach Delay				311.1			25.6	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Harvest with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	551	32	74	618	6
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90
Hourly Flow Rate, HFR	6	680	39	82	686	6
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	90	1	60	2	0	6
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	107	1	71	4	0	13
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	6	82		179			17	
C(m) (vph)	912	892		121			190	
v/c	0.01	0.09		1.48			0.09	
95% queue length	0.02	0.30		12.58			0.29	
Control Delay	9.0	9.4		319.9			25.8	
LOS	A	A		F			D	
Approach Delay				319.9			25.8	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Summer Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing without Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	644	50	43	274	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	707	54	49	314	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	30	0	59	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	31	0	62	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	49		93			8	
C(m) (vph)	1256	856		501			232	
v/c	0.00	0.06		0.19			0.03	
95% queue length	0.00	0.18		0.67			0.11	
Control Delay	7.9	9.5		20.5			21.1	
LOS	A	A		C			C	
Approach Delay				20.5			21.1	
Approach LOS				C			C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 05/02/2015
Analysis Time Period: Summer Friday AM Peak Hour
Intersection: Silverado Trail/Sage Canyon Rd
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing with Project
Project ID: Dakota Shy
East/West Street: Sage Canyon Rd
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	644	51	44	274	2
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87
Hourly Flow Rate, HFR	1	707	56	50	314	2
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	30	0	59	1	0	1
Peak Hour Factor, PHF	0.95	0.95	0.95	0.25	0.25	0.25
Hourly Flow Rate, HFR	31	0	62	4	0	4
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	1	50		93			8	
C(m) (vph)	1256	854		498			231	
v/c	0.00	0.06		0.19			0.03	
95% queue length	0.00	0.19		0.68			0.11	
Control Delay	7.9	9.5		20.5			21.1	
LOS	A	A		C			C	
Approach Delay				20.5			21.1	
Approach LOS				C			C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Summer w-o Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	464	43	100	982	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	515	47	109	1079	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	90	1	83	2	0	2
Peak Hour Factor, PHF	0.67	0.67	0.67	0.33	0.33	0.33
Hourly Flow Rate, HFR	134	1	123	6	0	6
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	109		258			12	
C(m) (vph)	653	1014		92			65	
v/c	0.00	0.11		2.80			0.18	
95% queue length	0.00	0.36		24.67			0.62	
Control Delay	10.5	9.0		912.9			72.5	
LOS	B	A		F			F	
Approach Delay				912.9			72.5	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: PM Peak Hour
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Summer with Project
Project ID: Dakota Shy Winery
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	464	44	100	982	1
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91
Hourly Flow Rate, HFR	0	515	48	109	1079	1
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	90	1	84	2	0	2
Peak Hour Factor, PHF	0.67	0.67	0.67	0.33	0.33	0.33
Hourly Flow Rate, HFR	134	1	125	6	0	6
Percent Heavy Vehicles	1	0	1	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	0	109		260			12	
C(m) (vph)	653	1013		92			65	
v/c	0.00	0.11		2.83			0.18	
95% queue length	0.00	0.36		24.91			0.62	
Control Delay	10.5	9.0		922.5			72.5	
LOS	B	A		F			F	
Approach Delay				922.5			72.5	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Summer w-o Project
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	4	545	31	72	611	5
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90
Hourly Flow Rate, HFR	4	672	38	80	678	5
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	89	1	58	2	0	5
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	105	1	69	4	0	11
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	4	80		175			15	
C(m) (vph)	919	899		127			184	
v/c	0.00	0.09		1.38			0.08	
95% queue length	0.01	0.29		11.64			0.26	
Control Delay	8.9	9.4		275.9			26.3	
LOS	A	A		F			D	
Approach Delay				275.9			26.3	
Approach LOS				F			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: DRR
Agency/Co.: CTG
Date Performed: 15/06/2014
Analysis Time Period: Saturday PM Peak
Intersection: Silverado Trail/Sage Canyon
Jurisdiction: Napa Co
Units: U. S. Customary
Analysis Year: Existing Summer withProject
Project ID: Dakota Shy
East/West Street: Sage Canyon
North/South Street: Silverado Trail
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	4	545	32	73	611	5
Peak-Hour Factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90
Hourly Flow Rate, HFR	4	672	39	81	678	5
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	90	1	58	2	0	5
Peak Hour Factor, PHF	0.84	0.84	0.84	0.44	0.44	0.44
Hourly Flow Rate, HFR	107	1	69	4	0	11
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		Yes /1			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR			LTR	
v (vph)	4	81		177			15	
C(m) (vph)	919	898		126			184	
v/c	0.00	0.09		1.40			0.08	
95% queue length	0.01	0.30		11.94			0.26	
Control Delay	8.9	9.4		287.0			26.3	
LOS	A	A		F			D	
Approach Delay				287.0			26.3	
Approach LOS				F			D	

Traffix Worksheets

2014 Friday Harvest AM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[21.6]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	650		52			43	277		2			1		0		1		31		0		60	
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:	1	650		52			43	277		2			1		0		1		31		0		60	
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			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	714		57			49	318		2			4		0		4		33		0		63	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	714		57			49	318		2			4		0		4		33		0		63	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	321	xxxx	xxxxx				771	xxxx	xxxxx				1195		1192		320		1165		1165		743	
Potent Cap.:	1245	xxxx	xxxxx				848	xxxx	xxxxx				165		189		726		172		195		417	
Move Cap.:	1245	xxxx	xxxxx				848	xxxx	xxxxx				133		178		726		163		184		417	
Volume/Cap:	0.00	xxxx	xxxx				0.06	xxxx	xxxx				0.03		0.00		0.01		0.20		0.00		0.15	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.2	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	7.9	xxxx	xxxxx				9.5	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		225		xxxxx		xxxx		632		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.1		xxxxx		xxxxx		0.5		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		21.6		xxxxx		xxxxx		11.7		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		C		*		*		B		*	
ApproachDel:	xxxxxx						xxxxxx						21.6						11.7					
ApproachLOS:	*						*						C						B					

Note: Queue reported is the number of cars per lane.

2014 Friday Harvest AM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[21.5]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	650		51			43	277		2			1		0		1		30		0		60	
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:	1	650		51			43	277		2			1		0		1		30		0		60	
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			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	714		56			49	318		2			4		0		4		32		0		63	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	714		56			49	318		2			4		0		4		32		0		63	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	321	xxxx	xxxxx				770	xxxx	xxxxx				1194		1191		320		1165		1164		742	
Potent Cap.:	1245	xxxx	xxxxx				849	xxxx	xxxxx				165		189		726		172		195		417	
Move Cap.:	1245	xxxx	xxxxx				849	xxxx	xxxxx				134		178		726		163		184		417	
Volume/Cap:	0.00	xxxx	xxxx				0.06	xxxx	xxxx				0.03		0.00		0.01		0.19		0.00		0.15	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.2	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	7.9	xxxx	xxxxx				9.5	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		226		xxxxx		xxxx		626		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.1		xxxxx		xxxxx		0.5		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		21.5		xxxxx		xxxxx		11.8		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		C		*		*		B		*	
ApproachDel:	xxxxxx						xxxxxx						21.5						11.8					
ApproachLOS:	*						*						C						B					

Note: Queue reported is the number of cars per lane.

2014 Friday Harvest PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 128.3 Worst Case Level Of Service: F[986.8]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	474	45	102	1002	1	2	0	2	92	1	86
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:	0	474	45	102	1002	1	2	0	2	92	1	86
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:	0.90	0.90	0.90	0.91	0.91	0.91	0.33	0.33	0.33	0.67	0.67	0.67
PHF Volume:	0	527	50	112	1101	1	6	0	6	137	1	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	527	50	112	1101	1	6	0	6	137	1	128
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	577	xxxx	xxxxx	1942	1902	1102	1881	1878	552
Potent Cap.:	xxxx	xxxx	xxxxx	1002	xxxx	xxxxx	50	70	260	55	72	536
Move Cap.:	xxxx	xxxx	xxxxx	1002	xxxx	xxxxx	34	62	260	49	64	536
Volume/Cap:	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	0.18	0.00	0.02	2.82	0.02	0.24
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	60	xxxxx	xxxx	90	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	26.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	79.6	xxxxx	xxxxx	987	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			79.6			986.8		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2014 Friday Harvest PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 127.5 Worst Case Level Of Service: F[984.7]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	474	44	102	1002	1	2	0	2	92	1	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:	0	474	44	102	1002	1	2	0	2	92	1	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:	0.90	0.90	0.90	0.91	0.91	0.91	0.33	0.33	0.33	0.67	0.67	0.67
PHF Volume:	0	527	49	112	1101	1	6	0	6	137	1	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	527	49	112	1101	1	6	0	6	137	1	127
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	576	xxxx	xxxxx	1941	1901	1102	1880	1877	551
Potent Cap.:	xxxx	xxxx	xxxxx	1003	xxxx	xxxxx	50	70	260	55	72	536
Move Cap.:	xxxx	xxxx	xxxxx	1003	xxxx	xxxxx	34	62	260	49	64	536
Volume/Cap:	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	0.18	0.00	0.02	2.81	0.02	0.24
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	60	xxxxx	xxxx	90	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	25.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	79.1	xxxxx	xxxxx	985	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			79.1			984.7		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2014 Saturday Harvest PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 26.7 Worst Case Level Of Service: F[244.9]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	5	551		32			74	618		6			2		0		6		91		1		59	
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:	5	551		32			74	618		6			2		0		6		91		1		59	
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:	0.81	0.81		0.81			0.90	0.90		0.90			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	6	680		40			82	687		7			5		0		14		108		1		70	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	6	680		40			82	687		7			5		0		14		108		1		70	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	693	xxxx	xxxxx				720	xxxx	xxxxx				1603		1587		690		1574		1570		700	
Potent Cap.:	911	xxxx	xxxxx				891	xxxx	xxxxx				86		109		449		90		112		443	
Move Cap.:	911	xxxx	xxxxx				891	xxxx	xxxxx				66		98		449		81		101		443	
Volume/Cap:	0.01	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.03		1.34		0.01		0.16	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	9.0	xxxx	xxxxx				9.5	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		184		xxxxx		xxxx		137		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.3		xxxxx		xxxxx		11.3		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		26.7		xxxxx		xxxxx		245		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		D		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						26.7						244.9					
ApproachLOS:	*						*						D						F					

Note: Queue reported is the number of cars per lane.

2014 Saturday Harvest PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 25.7 Worst Case Level Of Service: F[236.7]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	5	551		31			73	618		6			2		0		6		90		1		59	
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:	5	551		31			73	618		6			2		0		6		90		1		59	
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:	0.81	0.81		0.81			0.90	0.90		0.90			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	6	680		38			81	687		7			5		0		14		107		1		70	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	6	680		38			81	687		7			5		0		14		107		1		70	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	693	xxxx	xxxxx				719	xxxx	xxxxx				1600		1583		690		1571		1567		699	
Potent Cap.:	911	xxxx	xxxxx				892	xxxx	xxxxx				86		110		449		91		112		443	
Move Cap.:	911	xxxx	xxxxx				892	xxxx	xxxxx				67		99		449		81		101		443	
Volume/Cap:	0.01	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.03		1.32		0.01		0.16	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	9.0	xxxx	xxxxx				9.4	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		185		xxxxx		xxxx		138		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.3		xxxxx		xxxxx		11.1		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		26.6		xxxxx		xxxxx		237		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		D		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						26.6						236.7					
ApproachLOS:	*						*						D						F					

Note: Queue reported is the number of cars per lane.

2014 Friday Summer AM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[21.3]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	644		51			44	274		2			1		0		1		30		0		59	
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:	1	644		51			44	274		2			1		0		1		30		0		59	
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			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	708		56			51	315		2			4		0		4		32		0		62	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	708		56			51	315		2			4		0		4		32		0		62	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	317	xxxx	xxxxx				764	xxxx	xxxxx				1186		1183		316		1157		1156		736	
Potent Cap.:	1249	xxxx	xxxxx				854	xxxx	xxxxx				167		191		729		174		197		421	
Move Cap.:	1249	xxxx	xxxxx				854	xxxx	xxxxx				136		180		729		165		185		421	
Volume/Cap:	0.00	xxxx	xxxx				0.06	xxxx	xxxx				0.03		0.00		0.01		0.19		0.00		0.15	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.2	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	7.9	xxxx	xxxxx				9.5	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		229		xxxxx		xxxx		635		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.1		xxxxx		xxxxx		0.5		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		21.3		xxxxx		xxxxx		11.7		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		C		*		*		B		*	
ApproachDel:	xxxxxx						xxxxxx						21.3						11.7					
ApproachLOS:	*						*						C						B					

Note: Queue reported is the number of cars per lane.

2014 Friday Summer AM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[21.2]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	1	644	50	43	274	2	1	0	1	30	0	59
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:	1	644	50	43	274	2	1	0	1	30	0	59
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	0.87	0.87	0.87	0.25	0.25	0.25	0.95	0.95	0.95
PHF Volume:	1	708	55	49	315	2	4	0	4	32	0	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	708	55	49	315	2	4	0	4	32	0	62
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	317	xxxx	xxxxx	763	xxxx	xxxxx	1183	1180	316	1154	1153	735
Potent Cap.:	1249	xxxx	xxxxx	854	xxxx	xxxxx	168	192	729	175	198	421
Move Cap.:	1249	xxxx	xxxxx	854	xxxx	xxxxx	137	181	729	166	186	421
Volume/Cap:	0.00	xxxx	xxxx	0.06	xxxx	xxxx	0.03	0.00	0.01	0.19	0.00	0.15
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	230	xxxxx	xxxx	635	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	21.2	xxxxx	xxxxx	11.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			21.2			11.6		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

2014 Friday Summer PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 112.9 Worst Case Level Of Service: F[874.2]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	464	44	101	982	1	2	0	2	90	1	83
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:	0	464	44	101	982	1	2	0	2	90	1	83
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:	0.90	0.90	0.90	0.91	0.91	0.91	0.33	0.33	0.33	0.67	0.67	0.67
PHF Volume:	0	516	49	111	1079	1	6	0	6	134	1	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	516	49	111	1079	1	6	0	6	134	1	124
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	564	xxxx	xxxxx	1904	1866	1080	1845	1842	540
Potent Cap.:	xxxx	xxxx	xxxxx	1012	xxxx	xxxxx	53	73	268	58	76	544
Move Cap.:	xxxx	xxxx	xxxxx	1012	xxxx	xxxxx	37	65	268	52	67	544
Volume/Cap:	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	0.16	0.00	0.02	2.59	0.02	0.23
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	65	xxxxx	xxxx	95	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	24.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	73.2	xxxxx	xxxxx	874	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			73.2			874.2		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2014 Friday Summer PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 112.2 Worst Case Level Of Service: F[867.6]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	464	43	100	982	1	2	0	2	90	1	83
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:	0	464	43	100	982	1	2	0	2	90	1	83
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:	0.90	0.90	0.90	0.91	0.91	0.91	0.33	0.33	0.33	0.67	0.67	0.67
PHF Volume:	0	516	48	110	1079	1	6	0	6	134	1	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	516	48	110	1079	1	6	0	6	134	1	124
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	563	xxxx	xxxxx	1902	1863	1080	1842	1839	539
Potent Cap.:	xxxx	xxxx	xxxxx	1013	xxxx	xxxxx	53	74	268	58	76	544
Move Cap.:	xxxx	xxxx	xxxxx	1013	xxxx	xxxxx	37	66	268	52	68	544
Volume/Cap:	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	0.16	0.00	0.02	2.58	0.02	0.23
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	65	xxxxx	xxxx	96	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	24.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	72.7	xxxxx	xxxxx	868	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			72.7			867.6		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2014 Saturday Summer PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 23.0 Worst Case Level Of Service: F[210.6]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	4	545		32			73	611		5			2		0		5		90		1		58	
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:	4	545		32			73	611		5			2		0		5		90		1		58	
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:	0.81	0.81		0.81			0.90	0.90		0.90			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	5	673		40			81	679		6			5		0		11		107		1		69	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	5	673		40			81	679		6			5		0		11		107		1		69	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	684	xxxx	xxxxx				712	xxxx	xxxxx				1581		1566		682		1552		1549		693	
Potent Cap.:	918	xxxx	xxxxx				897	xxxx	xxxxx				89		112		454		93		115		447	
Move Cap.:	918	xxxx	xxxxx				897	xxxx	xxxxx				69		102		454		84		104		447	
Volume/Cap:	0.01	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.03		1.27		0.01		0.15	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	8.9	xxxx	xxxxx				9.4	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		175		xxxxx		xxxx		144		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.3		xxxxx		xxxxx		10.5		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		27.6		xxxxx		xxxxx		211		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		D		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						27.6						210.6					
ApproachLOS:	*						*						D						F					

Note: Queue reported is the number of cars per lane.

2014 Saturday Summer PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 22.1 Worst Case Level Of Service: F[203.2]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	4	545		31			72	611		5			2		0		5		89		1		58	
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:	4	545		31			72	611		5			2		0		5		89		1		58	
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:	0.81	0.81		0.81			0.90	0.90		0.90			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	5	673		38			80	679		6			5		0		11		106		1		69	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	5	673		38			80	679		6			5		0		11		106		1		69	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	684	xxxx	xxxxx				711	xxxx	xxxxx				1579		1563		682		1549		1546		692	
Potent Cap.:	918	xxxx	xxxxx				898	xxxx	xxxxx				89		113		454		94		116		447	
Move Cap.:	918	xxxx	xxxxx				898	xxxx	xxxxx				70		102		454		85		105		447	
Volume/Cap:	0.01	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.03		1.25		0.01		0.15	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	8.9	xxxx	xxxxx				9.4	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		176		xxxxx		xxxx		145		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.3		xxxxx		xxxxx		10.3		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		27.5		xxxxx		xxxxx		203		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		D		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						27.5						203.2					
ApproachLOS:	*						*						D						F					

Note: Queue reported is the number of cars per lane.

2020 Friday Harvest AM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: D[27.4]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	1	763	61	46	294	2	1	0	1	35	0	69
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:	1	763	61	46	294	2	1	0	1	35	0	69
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	0.87	0.87	0.87	0.25	0.25	0.25	0.95	0.95	0.95
PHF Volume:	1	838	67	53	338	2	4	0	4	37	0	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	838	67	53	338	2	4	0	4	37	0	73
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	340	xxxx	xxxxx	905	xxxx	xxxxx	1355	1353	339	1321	1320	872
Potent Cap.:	1225	xxxx	xxxxx	755	xxxx	xxxxx	128	151	708	134	158	351
Move Cap.:	1225	xxxx	xxxxx	755	xxxx	xxxxx	96	141	708	126	146	351
Volume/Cap:	0.00	xxxx	xxxx	0.07	xxxx	xxxx	0.04	0.00	0.01	0.29	0.00	0.21
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	169	xxxxx	xxxx	530	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	27.4	xxxxx	xxxxx	13.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			27.4			13.6		
ApproachLOS:	*			*			D			B		

Note: Queue reported is the number of cars per lane.

2020 Friday Harvest AM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: D[27.3]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	1	763	60	46	294	2	1	0	1	34	0	69
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:	1	763	60	46	294	2	1	0	1	34	0	69
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	0.87	0.87	0.87	0.25	0.25	0.25	0.95	0.95	0.95
PHF Volume:	1	838	66	53	338	2	4	0	4	36	0	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	838	66	53	338	2	4	0	4	36	0	73
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	340	xxxx	xxxxx	904	xxxx	xxxxx	1355	1351	339	1320	1320	871
Potent Cap.:	1225	xxxx	xxxxx	756	xxxx	xxxxx	128	152	708	134	158	352
Move Cap.:	1225	xxxx	xxxxx	756	xxxx	xxxxx	96	141	708	126	146	352
Volume/Cap:	0.00	xxxx	xxxx	0.07	xxxx	xxxx	0.04	0.00	0.01	0.28	0.00	0.21
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	169	xxxxx	xxxx	525	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	27.3	xxxxx	xxxxx	13.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			27.3			13.6		
ApproachLOS:	*			*			D			B		

Note: Queue reported is the number of cars per lane.

2020 Friday Harvest PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 204.9 Worst Case Level Of Service: F[1765.5]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	494	50	144	1155	1	2	0	3	94	1	89
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:	0	494	50	144	1155	1	2	0	3	94	1	89
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:	0.90	0.90	0.90	0.93	0.93	0.93	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	549	56	155	1242	1	6	0	9	134	1	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	549	56	155	1242	1	6	0	9	134	1	127
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	604	xxxx	xxxxx	2193	2157	1242	2133	2129	577
Potent Cap.:	xxxx	xxxx	xxxxx	978	xxxx	xxxxx	33	48	215	36	50	518
Move Cap.:	xxxx	xxxx	xxxxx	978	xxxx	xxxxx	21	41	215	30	42	518
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	0.28	0.00	0.04	4.42	0.03	0.25
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	46	xxxxx	xxxx	57	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	29.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	117	xxxxx	xxxxx	1766	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			116.7			1765.5		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2020 Friday Harvest PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 203.7 Worst Case Level Of Service: F[1762.8]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	494	49	144	1155	1	2	0	3	94	1	88
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:	0	494	49	144	1155	1	2	0	3	94	1	88
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:	0.90	0.90	0.90	0.93	0.93	0.93	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	549	54	155	1242	1	6	0	9	134	1	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	549	54	155	1242	1	6	0	9	134	1	126
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	603	xxxx	xxxxx	2192	2155	1242	2133	2129	576
Potent Cap.:	xxxx	xxxx	xxxxx	979	xxxx	xxxxx	33	48	215	36	50	519
Move Cap.:	xxxx	xxxx	xxxxx	979	xxxx	xxxxx	21	41	215	30	42	519
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	0.28	0.00	0.04	4.42	0.03	0.24
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	47	xxxxx	xxxx	57	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	29.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	116	xxxxx	xxxxx	1763	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			115.9			1762.8		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2020 Saturday Harvest PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 63.7 Worst Case Level Of Service: F[566.7]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	5	621		35			89	700		7			2		0		6		98		1		77	
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:	5	621		35			89	700		7			2		0		6		98		1		77	
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:	0.83	0.83		0.83			0.92	0.92		0.92			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	6	748		42			97	761		8			5		0		14		117		1		92	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	6	748		42			97	761		8			5		0		14		117		1		92	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	768	xxxx	xxxxx				790	xxxx	xxxxx				1786		1761		765		1746		1743		769	
Potent Cap.:	855	xxxx	xxxxx				839	xxxx	xxxxx				64		85		407		68		87		404	
Move Cap.:	855	xxxx	xxxxx				839	xxxx	xxxxx				44		75		407		60		77		404	
Volume/Cap:	0.01	xxxx	xxxx				0.12	xxxx	xxxx				0.10		0.00		0.03		1.95		0.02		0.23	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.4	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	9.2	xxxx	xxxxx				9.9	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		134		xxxxx		xxxx		103		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.5		xxxxx		xxxxx		17.7		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		36.1		xxxxx		xxxxx		567		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						36.1						566.7					
ApproachLOS:	*						*						E						F					

Note: Queue reported is the number of cars per lane.

2020 Saturday Harvest PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 62.0 Worst Case Level Of Service: F[553.3]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	5	621		34			88	700		7			2		0		6		97		1		77	
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:	5	621		34			88	700		7			2		0		6		97		1		77	
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:	0.83	0.83		0.83			0.92	0.92		0.92			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	6	748		41			96	761		8			5		0		14		115		1		92	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	6	748		41			96	761		8			5		0		14		115		1		92	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	768	xxxx	xxxxx				789	xxxx	xxxxx				1783		1757		765		1744		1741		769	
Potent Cap.:	855	xxxx	xxxxx				840	xxxx	xxxxx				64		86		407		69		88		404	
Move Cap.:	855	xxxx	xxxxx				840	xxxx	xxxxx				45		75		407		60		77		404	
Volume/Cap:	0.01	xxxx	xxxx				0.11	xxxx	xxxx				0.10		0.00		0.03		1.92		0.02		0.23	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.4	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Control Del:	9.2	xxxx	xxxxx				9.8	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		134		xxxxx		xxxx		104		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.5		xxxxx		xxxxx		17.5		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		36.0		xxxxx		xxxxx		553		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						36.0						553.3					
ApproachLOS:	*						*						E						F					

Note: Queue reported is the number of cars per lane.

2020 Friday Summer AM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #1 Silverado Trail/Sage Canyon Rd

****

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: D[26.9]

****

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	756		60			47	291		2			1		0		1		34		0		68	
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:	1	756		60			47	291		2			1		0		1		34		0		68	
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			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	831		66			54	334		2			4		0		4		36		0		72	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	831		66			54	334		2			4		0		4		36		0		72	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	337	xxxx	xxxxx				897	xxxx	xxxxx				1345		1343		336		1312		1311		864	
Potent Cap.:	1228	xxxx	xxxxx				761	xxxx	xxxxx				130		153		711		136		160		355	
Move Cap.:	1228	xxxx	xxxxx				761	xxxx	xxxxx				98		142		711		128		148		355	
Volume/Cap:	0.00	xxxx	xxxx				0.07	xxxx	xxxx				0.04		0.00		0.01		0.28		0.00		0.20	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.2	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	7.9	xxxx	xxxxx				10.1	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			B	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		172		xxxxx		xxxx		533		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.1		xxxxx		xxxxx		0.7		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		26.9		xxxxx		xxxxx		13.5		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		D		*		*		B		*	
ApproachDel:	xxxxxx						xxxxxx						26.9						13.5					
ApproachLOS:	*						*						D						B					

****

Note: Queue reported is the number of cars per lane.

****

2020 Friday Summer AM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 1.6 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	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	1	756		59	46	291		2	1	0		1	34	0		68
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:	1	756		59	46	291		2	1	0		1	34	0		68
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	0.87	0.87		0.87	0.25	0.25		0.25	0.95	0.95		0.95
PHF Volume:	1	831		65	53	334		2	4	0		4	36	0		72
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
FinalVolume:	1	831		65	53	334		2	4	0		4	36	0		72
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1	6.5		6.2	7.1	6.5		6.2
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0		3.3	3.5	4.0		3.3
Capacity Module:																
Cnflict Vol:	337	xxxx	xxxxx		896	xxxx	xxxxx		1343	1339		336	1309	1308		863
Potent Cap.:	1228	xxxx	xxxxx		762	xxxx	xxxxx		130	154		711	137	160		356
Move Cap.:	1228	xxxx	xxxxx		762	xxxx	xxxxx		99	143		711	129	149		356
Volume/Cap:	0.00	xxxx	xxxx		0.07	xxxx	xxxx		0.04	0.00		0.01	0.28	0.00		0.20
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.2	xxxx	xxxxx		xxxx	xxxx		xxxxx	xxxx	xxxx		xxxxx
Control Del:	7.9	xxxx	xxxxx		10.1	xxxx	xxxxx		xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx
LOS by Move:	A	*		*	B	*		*	*	*		*	*	*		*
Movement:	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx		xxxxx	xxxx	xxxx		xxxxx	xxxx	173		xxxxx	xxxx	533		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx	xxxxx	0.1		xxxxx	xxxxx	0.7		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx	xxxxx	26.8		xxxxx	xxxxx	13.4		xxxxx
Shared LOS:	*	*		*	*	*		*	*	D		*	*	B		*
ApproachDel:	xxxxxx				xxxxxx				26.8				13.4			
ApproachLOS:	*				*				D				B			

Note: Queue reported is the number of cars per lane.

2020 Friday Summer PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #1 Silverado Trail/Sage Canyon Rd

****

Average Delay (sec/veh): 193.5 Worst Case Level Of Service: F[1668.5]

****

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	0	489		49			143	1144		1			2		0		3		93		1		88	
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:	0	489		49			143	1144		1			2		0		3		93		1		88	
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:	0.90	0.90		0.90			0.93	0.93		0.93			0.33		0.33		0.33		0.70		0.70		0.70	
PHF Volume:	0	543		54			154	1230		1			6		0		9		133		1		126	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	0	543		54			154	1230		1			6		0		9		133		1		126	
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx				598	xxxx	xxxxx				2172		2136		1231		2113		2109		571	
Potent Cap.:	xxxx	xxxx	xxxxx				984	xxxx	xxxxx				34		50		219		37		51		522	
Move Cap.:	xxxx	xxxx	xxxxx				984	xxxx	xxxxx				22		42		219		31		43		522	
Volume/Cap:	xxxx	xxxx	xxxx				0.16	xxxx	xxxx				0.27		0.00		0.04		4.22		0.03		0.24	
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				0.6	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				9.3	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*				A	*	*				*	*	*				*	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		48	xxxxx			xxxx		59	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		1.1	xxxxx			xxxxx		28.5	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		111	xxxxx			xxxxx		1669	xxxxx		
Shared LOS:	*	*	*				*	*	*				*		F	*			*		F	*		
ApproachDel:	xxxxxx						xxxxxx						110.9						1668.5					
ApproachLOS:	*						*						F						F					

****

Note: Queue reported is the number of cars per lane.

****

2020 Friday Summer PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 192.4 Worst Case Level Of Service: F[1665.9]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	489	48	143	1144	1	2	0	3	93	1	87
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:	0	489	48	143	1144	1	2	0	3	93	1	87
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:	0.90	0.90	0.90	0.93	0.93	0.93	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	543	53	154	1230	1	6	0	9	133	1	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	543	53	154	1230	1	6	0	9	133	1	124
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	597	xxxx	xxxxx	2171	2135	1231	2113	2109	570
Potent Cap.:	xxxx	xxxx	xxxxx	985	xxxx	xxxxx	34	50	219	37	51	523
Move Cap.:	xxxx	xxxx	xxxxx	985	xxxx	xxxxx	22	42	219	31	43	523
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	0.27	0.00	0.04	4.22	0.03	0.24
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	48	xxxxx	xxxx	59	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	28.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	110	xxxxx	xxxxx	1666	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			110.1			1665.9		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2020 Saturday Summer PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 54.0 Worst Case Level Of Service: F[480.1]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	5	609		34			87	686		6			2		0		5		96		1		75	
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:	5	609		34			87	686		6			2		0		5		96		1		75	
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:	0.83	0.83		0.83			0.92	0.92		0.92			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	6	734		41			95	746		7			5		0		11		114		1		89	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	6	734		41			95	746		7			5		0		11		114		1		89	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	752	xxxx	xxxxx				775	xxxx	xxxxx				1750		1725		749		1710		1708		754	
Potent Cap.:	867	xxxx	xxxxx				850	xxxx	xxxxx				68		90		415		72		92		412	
Move Cap.:	867	xxxx	xxxxx				850	xxxx	xxxxx				48		79		415		64		81		412	
Volume/Cap:	0.01	xxxx	xxxx				0.11	xxxx	xxxx				0.09		0.00		0.03		1.78		0.01		0.22	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.4	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	9.2	xxxx	xxxxx				9.8	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		130		xxxxx		xxxx		111		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.4		xxxxx		xxxxx		16.4		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		36.5		xxxxx		xxxxx		480		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						36.5						480.1					
ApproachLOS:	*						*						E						F					

Note: Queue reported is the number of cars per lane.

2020 Saturday Summer PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 52.5 Worst Case Level Of Service: F[468.0]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	5	609		33			86	686		6			2		0		5		95		1		75	
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:	5	609		33			86	686		6			2		0		5		95		1		75	
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:	0.83	0.83		0.83			0.92	0.92		0.92			0.44		0.44		0.44		0.84		0.84		0.84	
PHF Volume:	6	734		40			93	746		7			5		0		11		113		1		89	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	6	734		40			93	746		7			5		0		11		113		1		89	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	752	xxxx	xxxxx				773	xxxx	xxxxx				1747		1721		749		1707		1705		754	
Potent Cap.:	867	xxxx	xxxxx				851	xxxx	xxxxx				68		90		415		73		92		413	
Move Cap.:	867	xxxx	xxxxx				851	xxxx	xxxxx				48		80		415		64		82		413	
Volume/Cap:	0.01	xxxx	xxxx				0.11	xxxx	xxxx				0.09		0.00		0.03		1.76		0.01		0.22	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.4	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	9.2	xxxx	xxxxx				9.8	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		131		xxxxx		xxxx		112		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.4		xxxxx		xxxxx		16.2		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		36.3		xxxxx		xxxxx		468		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						36.3						468.0					
ApproachLOS:	*						*						E						F					

Note: Queue reported is the number of cars per lane.

2030 Friday Harvest AM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: E[43.1]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	951		76			50	322		2			1		0		1		42		0		82	
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:	1	951		76			50	322		2			1		0		1		42		0		82	
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:	0.93	0.93		0.93			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	1023		82			57	370		2			4		0		4		44		0		86	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	1023		82			57	370		2			4		0		4		44		0		86	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	372	xxxx	xxxxx				1104	xxxx	xxxxx				1595		1593		371		1554		1553		1063	
Potent Cap.:	1192	xxxx	xxxxx				636	xxxx	xxxxx				87		108		679		93		114		272	
Move Cap.:	1192	xxxx	xxxxx				636	xxxx	xxxxx				55		98		679		86		103		272	
Volume/Cap:	0.00	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.01		0.52		0.00		0.32	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	8.0	xxxx	xxxxx				11.2	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			B	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		102		xxxxx		xxxx		284		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.2		xxxxx		xxxxx		2.3		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		43.1		xxxxx		xxxxx		28.0		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		D		*	
ApproachDel:	xxxxxx						xxxxxx						43.1						28.0					
ApproachLOS:	*						*						E						D					

Note: Queue reported is the number of cars per lane.

2030 Friday Harvest AM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: E[43.1]

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	951		75			50	322		2			1		0		1		41		0		82	
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:	1	951		75			50	322		2			1		0		1		41		0		82	
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:	0.93	0.93		0.93			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	1023		81			57	370		2			4		0		4		43		0		86	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	1023		81			57	370		2			4		0		4		43		0		86	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	372	xxxx	xxxxx				1103	xxxx	xxxxx				1594		1592		371		1553		1552		1063	
Potent Cap.:	1192	xxxx	xxxxx				637	xxxx	xxxxx				87		108		679		93		114		272	
Move Cap.:	1192	xxxx	xxxxx				637	xxxx	xxxxx				55		99		679		86		104		272	
Volume/Cap:	0.00	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.01		0.50		0.00		0.32	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	8.0	xxxx	xxxxx				11.2	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			B	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		102		xxxxx		xxxx		283		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.2		xxxxx		xxxxx		2.3		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		43.1		xxxxx		xxxxx		28.0		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		D		*	
ApproachDel:	xxxxxx						xxxxxx						43.1						28.0					
ApproachLOS:	*						*						E						D					

Note: Queue reported is the number of cars per lane.

2030 Friday Harvest PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 443.2 Worst Case Level Of Service: F[4238.2]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	520	57	213	1392	2	3	0	3	96	2	92
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:	0	520	57	213	1392	2	3	0	3	96	2	92
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:	0.90	0.90	0.90	0.95	0.95	0.95	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	578	63	224	1465	2	9	0	9	137	3	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	578	63	224	1465	2	9	0	9	137	3	131
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	641	xxxx	xxxxx	2591	2556	1466	2529	2525	609
Potent Cap.:	xxxx	xxxx	xxxxx	948	xxxx	xxxxx	17	27	159	19	28	497
Move Cap.:	xxxx	xxxx	xxxxx	948	xxxx	xxxxx	9	21	159	14	21	497
Volume/Cap:	xxxx	xxxx	xxxx	0.24	xxxx	xxxx	0.99	0.00	0.06	9.50	0.13	0.26
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	17	xxxxx	xxxx	28	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.7	xxxxx	xxxxx	33.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	533	xxxxx	xxxxx	4238	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			533.3			4238.2		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2030 Friday Harvest PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 440.8 Worst Case Level Of Service: F[4233.0]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	520	56	213	1392	2	3	0	3	96	2	91
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:	0	520	56	213	1392	2	3	0	3	96	2	91
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:	0.90	0.90	0.90	0.95	0.95	0.95	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	578	62	224	1465	2	9	0	9	137	3	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	578	62	224	1465	2	9	0	9	137	3	130
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	640	xxxx	xxxxx	2590	2555	1466	2528	2525	609
Potent Cap.:	xxxx	xxxx	xxxxx	949	xxxx	xxxxx	17	27	159	19	28	497
Move Cap.:	xxxx	xxxx	xxxxx	949	xxxx	xxxxx	9	21	159	14	21	497
Volume/Cap:	xxxx	xxxx	xxxx	0.24	xxxx	xxxx	0.98	0.00	0.06	9.49	0.13	0.26
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	18	xxxxx	xxxx	28	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.7	xxxxx	xxxxx	33.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	529	xxxxx	xxxxx	4233	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			528.6			4233.0		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2030 Saturday Harvest PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 150.3 Worst Case Level Of Service: F[1280.8]

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 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	7	718	38	111	816	8	3	0	7	106	2	106
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:	7	718	38	111	816	8	3	0	7	106	2	106
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:	0.85	0.85	0.85	0.94	0.94	0.94	0.44	0.44	0.44	0.85	0.85	0.85
PHF Volume:	8	845	45	118	868	9	7	0	16	125	2	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	845	45	118	868	9	7	0	16	125	2	125
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	877	xxxx	xxxxx	889	xxxx	xxxxx	2056	2014	872	2000	1996	867
Potent Cap.:	779	xxxx	xxxxx	770	xxxx	xxxxx	41	59	353	45	61	355
Move Cap.:	779	xxxx	xxxxx	770	xxxx	xxxxx	23	50	353	38	51	355
Volume/Cap:	0.01	xxxx	xxxx	0.15	xxxx	xxxx	0.30	0.00	0.05	3.30	0.05	0.35
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.7	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	66	xxxxx	xxxx	70	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	xxxxx	26.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	86.5	xxxxx	xxxxx	1281	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			86.5			1280.8		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2030 Saturday Harvest PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 146.9 Worst Case Level Of Service: F[1255.3]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	7	718	37	110	816	8	3	0	7	105	2	106
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:	7	718	37	110	816	8	3	0	7	105	2	106
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:	0.85	0.85	0.85	0.94	0.94	0.94	0.44	0.44	0.44	0.85	0.85	0.85
PHF Volume:	8	845	44	117	868	9	7	0	16	124	2	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	845	44	117	868	9	7	0	16	124	2	125
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	877	xxxx	xxxxx	888	xxxx	xxxxx	2053	2011	872	1997	1994	866
Potent Cap.:	779	xxxx	xxxxx	771	xxxx	xxxxx	41	60	353	45	61	355
Move Cap.:	779	xxxx	xxxxx	771	xxxx	xxxxx	23	50	353	38	51	355
Volume/Cap:	0.01	xxxx	xxxx	0.15	xxxx	xxxx	0.30	0.00	0.05	3.25	0.05	0.35
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.7	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	66	xxxxx	xxxx	71	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	xxxxx	26.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	85.9	xxxxx	xxxxx	1255	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			85.9			1255.3		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2030 Friday Summer AM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #1 Silverado Trail/Sage Canyon Rd

****

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: E[41.8]

****

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	0	1	0		1	0	0	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	1	942		75			50	319		2			1		0		1		41		0		81	
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:	1	942		75			50	319		2			1		0		1		41		0		81	
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:	0.93	0.93		0.93			0.87	0.87		0.87			0.25		0.25		0.25		0.95		0.95		0.95	
PHF Volume:	1	1013		81			57	367		2			4		0		4		43		0		85	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	1	1013		81			57	367		2			4		0		4		43		0		85	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	369	xxxx	xxxxx				1094	xxxx	xxxxx				1581		1578		368		1540		1539		1053	
Potent Cap.:	1195	xxxx	xxxxx				642	xxxx	xxxxx				89		110		682		95		116		276	
Move Cap.:	1195	xxxx	xxxxx				642	xxxx	xxxxx				57		100		682		88		106		276	
Volume/Cap:	0.00	xxxx	xxxx				0.09	xxxx	xxxx				0.07		0.00		0.01		0.49		0.00		0.31	
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	8.0	xxxx	xxxxx				11.2	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	A	*		*			B	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		106		xxxxx		xxxx		288		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		0.2		xxxxx		xxxxx		2.2		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		41.8		xxxxx		xxxxx		27.2		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		E		*		*		D		*	
ApproachDel:	xxxxxx						xxxxxx						41.8						27.2					
ApproachLOS:	*						*						E						D					

****

Note: Queue reported is the number of cars per lane.

****

2030 Friday Summer AM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: E[41.6]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	1	942	74	49	319	2	1	0	1	41	0	81
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:	1	942	74	49	319	2	1	0	1	41	0	81
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:	0.93	0.93	0.93	0.87	0.87	0.87	0.25	0.25	0.25	0.95	0.95	0.95
PHF Volume:	1	1013	80	56	367	2	4	0	4	43	0	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	1013	80	56	367	2	4	0	4	43	0	85
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	369	xxxx	xxxxx	1092	xxxx	xxxxx	1578	1575	368	1537	1536	1053
Potent Cap.:	1195	xxxx	xxxxx	643	xxxx	xxxxx	90	111	682	95	117	276
Move Cap.:	1195	xxxx	xxxxx	643	xxxx	xxxxx	58	101	682	88	106	276
Volume/Cap:	0.00	xxxx	xxxx	0.09	xxxx	xxxx	0.07	0.00	0.01	0.49	0.00	0.31
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.0	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	106	xxxxx	xxxx	288	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	2.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	41.6	xxxxx	xxxxx	27.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	E	*	*	D	*
ApproachDel:	xxxxxx			xxxxxx			41.6			27.1		
ApproachLOS:	*			*			E			D		

Note: Queue reported is the number of cars per lane.

2030 Friday Summer PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 416.6 Worst Case Level Of Service: F[3985.4]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	515	56	211	1378	2	3	0	3	95	2	91
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:	0	515	56	211	1378	2	3	0	3	95	2	91
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:	0.90	0.90	0.90	0.95	0.95	0.95	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	572	62	222	1451	2	9	0	9	136	3	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	572	62	222	1451	2	9	0	9	136	3	130
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	634	xxxx	xxxxx	2566	2530	1452	2504	2500	603
Potent Cap.:	xxxx	xxxx	xxxxx	954	xxxx	xxxxx	18	28	162	20	29	501
Move Cap.:	xxxx	xxxx	xxxxx	954	xxxx	xxxxx	10	21	162	15	22	501
Volume/Cap:	xxxx	xxxx	xxxx	0.23	xxxx	xxxx	0.93	0.00	0.06	8.97	0.13	0.26
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	18	xxxxx	xxxx	29	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.6	xxxxx	xxxxx	33.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	493	xxxxx	xxxxx	3985	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			492.5			3985.4		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2030 Friday Summer PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 414.3 Worst Case Level Of Service: F[3980.5]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	0	515	55	211	1378	2	3	0	3	95	2	90
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:	0	515	55	211	1378	2	3	0	3	95	2	90
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:	0.90	0.90	0.90	0.95	0.95	0.95	0.33	0.33	0.33	0.70	0.70	0.70
PHF Volume:	0	572	61	222	1451	2	9	0	9	136	3	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	572	61	222	1451	2	9	0	9	136	3	129
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	633	xxxx	xxxxx	2564	2529	1452	2503	2500	603
Potent Cap.:	xxxx	xxxx	xxxxx	954	xxxx	xxxxx	18	28	162	20	29	501
Move Cap.:	xxxx	xxxx	xxxxx	954	xxxx	xxxxx	10	21	162	15	22	501
Volume/Cap:	xxxx	xxxx	xxxx	0.23	xxxx	xxxx	0.93	0.00	0.06	8.96	0.13	0.26
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	19	xxxxx	xxxx	29	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.6	xxxxx	xxxxx	32.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	488	xxxxx	xxxxx	3981	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			488.2			3980.5		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2030 Saturday Summer PM
with Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #1 Silverado Trail/Sage Canyon Rd

****

Average Delay (sec/veh): 133.9 Worst Case Level Of Service: F[1139.9]

****

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	7	704	37	109	800	8	3	0	7	104	2	104
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:	7	704	37	109	800	8	3	0	7	104	2	104
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:	0.85	0.85	0.85	0.94	0.94	0.94	0.44	0.44	0.44	0.85	0.85	0.85
PHF Volume:	8	828	44	116	851	9	7	0	16	122	2	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	828	44	116	851	9	7	0	16	122	2	122
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	860	xxxx	xxxxx	872	xxxx	xxxxx	2016	1975	855	1962	1958	850
Potent Cap.:	790	xxxx	xxxxx	782	xxxx	xxxxx	44	63	361	48	64	363
Move Cap.:	790	xxxx	xxxxx	782	xxxx	xxxxx	25	53	361	40	54	363
Volume/Cap:	0.01	xxxx	xxxx	0.15	xxxx	xxxx	0.27	0.00	0.04	3.03	0.04	0.34
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.6	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	71	xxxxx	xxxx	75	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.2	xxxxx	xxxxx	25.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	77.5	xxxxx	xxxxx	1140	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			77.5			1139.9		
ApproachLOS:	*			*			F			F		

****

Note: Queue reported is the number of cars per lane.

****

2030 Saturday Summer PM
without Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Sage Canyon Rd

Average Delay (sec/veh): 130.9 Worst Case Level Of Service: F[1117.3]

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 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	7	704	36	108	800	8	3	0	7	103	2	104
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:	7	704	36	108	800	8	3	0	7	103	2	104
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:	0.85	0.85	0.85	0.94	0.94	0.94	0.44	0.44	0.44	0.85	0.85	0.85
PHF Volume:	8	828	42	115	851	9	7	0	16	121	2	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	828	42	115	851	9	7	0	16	121	2	122
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	860	xxxx	xxxxx	871	xxxx	xxxxx	2013	1972	855	1959	1955	849
Potent Cap.:	790	xxxx	xxxxx	783	xxxx	xxxxx	44	63	361	48	65	364
Move Cap.:	790	xxxx	xxxxx	783	xxxx	xxxxx	25	53	361	41	55	364
Volume/Cap:	0.01	xxxx	xxxx	0.15	xxxx	xxxx	0.27	0.00	0.04	2.98	0.04	0.34
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.6	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	72	xxxxx	xxxx	76	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.2	xxxxx	xxxxx	24.9	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	76.9	xxxxx	xxxxx	1117	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			76.9			1117.3		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.