# TRAFFIC IMPACT REPORT

**PROPOSED HUDSON VINEYARDS WINERY**
**ALONG STATE HIGHWAY 12-121**
**IN NAPA COUNTY**

**April 27, 2015**

**Prepared for:** **Hudson Vineyards Winery**

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# 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 Hudson Vineyards Winery applicant. It has determined if traffic from the proposed Hudson Vineyards Winery will result in any potentially 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 the State Route 12-121 highway (SR 12-121) 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 SR 12-121. Finally, the adequacy of the left turn lane on the eastbound SR 12-121 approach to the proposed project driveways was evaluated based upon Caltrans *Highway Design Manual* (year 2014) criteria. Potentially significant impacts, if any, were identified and measures listed, if needed, to mitigate all potentially significant impacts to a less than significant level.

# III. SUMMARY OF FINDINGS

## A. "WITHOUT PROJECT" OPERATING CONDITIONS

### 1. Existing Volumes – Harvest 2014

Analysis peak traffic hours were based upon total volumes passing through the SR 12-121/project access intersection. SR 12-121 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 (adjacent to the project – 2,715 two-way peak hour vehicles during the Friday PM peak hour versus 2,406 two-way vehicles during the Friday AM peak hour and 2,596 two-way vehicles during the Saturday PM peak hour). The driveway serving the project site had 9 vehicles during the Friday AM peak hour, 13 vehicles during the Friday PM peak hour and 9 vehicles during the Saturday PM peak hour.

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

- **SR 12-121 roadway segments** – unacceptable level of service.
  - Friday AM & PM peak hours and Saturday PM peak traffic hour – eastbound and westbound

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

- **SR 12-121 roadway segments** – unacceptable level of service.
  - Friday AM & PM peak hours and Saturday PM peak hour – eastbound and westbound

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

- **SR 12-121 roadway segments** – unacceptable level of service.
  - Friday AM & PM peak hours and Saturday PM peak hour – eastbound and westbound

## 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* (7:00-8:00) | | FRIDAY PM PEAK HOUR* (4:15-5:15) | | SATURDAY PM PEAK HOUR* (3:15-4:15) | |
|---|---|---|---|---|---|
| INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS |
| 5 | 1 | 7 | 11 | 7 | 6 |

### SUMMER (NON-HARVEST)

| FRIDAY AM PEAK HOUR* (7:00-8:00) | | FRIDAY PM PEAK HOUR* (4:15-5:15) | | SATURDAY PM PEAK HOUR* (3:15-4:15) | |
|---|---|---|---|---|---|
| INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS |
| 12 | 0 | 7 | 19 | 7 | 6 |

* Peak hour along SR 12-121.

2. **Year 2014 Existing + Project Off-Site Circulation Impacts – Harvest or Summer**
The proposed project would not result in any significant off-site level of service impacts to SR 12-121. 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.

3. **Year 2020 + Project Off-Site Circulation Impacts – Harvest**
The proposed project may result in a potentially significant capacity impact to projected unacceptable operation along SR 12-121 east of the project driveway during the Friday PM peak hour (eastbound traffic flow). The potentially significant impact would be due to a combination of employee and visitor traffic.

4. **Year 2020 + Project Off-Site Circulation Impacts – Summer**
The proposed project may result in potentially significant capacity impacts to projected unacceptable operation along SR 12-121 east of the project driveway during both the Friday AM and PM peak hours (westbound during the AM peak hour and eastbound during the PM peak hour). There may also be a potentially significant impact west of the project driveway during the Friday PM peak hour in the westbound direction. Potential impacts would be due primarily to employee traffic. There would be no significant impacts during the Saturday PM peak hour.

5. **Year 2030 + Project Off-Site Circulation Impacts – Harvest**
The proposed project may result in a potentially significant capacity impact to projected unacceptable operation along SR 12-121 east of the project driveway during the Friday PM peak hour (eastbound traffic flow). The potentially significant impacts would be due to a combination of employee and visitor traffic.

6. **Year 2030 Cumulative + Project Off-Site Circulation Impacts – Summer**
The proposed project may result in potentially significant capacity impacts to projected unacceptable operation along SR 12-121 east of the project driveway during both the Friday AM and PM peak hours (westbound during the AM peak hour and eastbound during the PM peak hour). There may also be a potentially significant impact west of the project driveway during the Friday PM peak hour in the westbound direction. Potential impacts would be due primarily to employee traffic. There would be no significant impacts during the Saturday PM peak hour.

7. **Adequacy of Left Turn Lane on SR 12-121 at the Project Entrance**
The existing left turn lane provided on the eastbound SR 12-121 approach to the project entrance is one of the longest driveway approach left turn lanes in the County and is long enough to accommodate expected project traffic volume queuing and deceleration demands.

8. **Sight Lines at Project Driveway**
Sight lines are acceptable at the project's driveway connection to SR 12-121.

**9. Project Driveway Apron**

The project driveway apron connection to SR 12-121 will be upgraded to comply with Caltrans standards as part of the project.

**10. Elimination of Grape Outhaul Trips from Site**

There will be elimination of about 1 to 2 existing grape truck trips per day from the site to SR 12-121 during harvest due to project vineyards supplying part of the winery's grapes.

**11. Mitigations**

- **SR 12-121 Roadway Segment Impacts During Harvest and Summer Conditions**

  Friday AM Peak Hour: Change employee work hours to preclude any employee traffic arriving between 7:00 and 8:00 AM.

  Friday PM Peak Hour: Change employee work hours to preclude any employee traffic leaving between 4:00 and 5:30 PM.

- **Added safety for bicycle riders near project entrance.**
  The applicant shall fund provision of a "Share the Road" sign along westbound SR 12-121 at the project entrance (to be approved and installed by Caltrans) to make drivers aware of potential bicycle traffic in the vicinity of the project driveway.

Potentially significant impacts would be reduced to a less than significant level.

# C. CONCLUSIONS & RECOMMENDATIONS

The project will result in no significant operational impacts to the SR 12-121/project access intersection. Sight lines at the project driveway connection to SR 12-121 are acceptable and the left turn lane already provided on the eastbound SR 12-121 approach to the project driveway will adequately accommodate expected project queuing storage and deceleration demands. Also, the project driveway apron connection to SR 12-121 will be upgraded to comply with Caltrans standards as part of the project. However, the proposed employee work schedules for both harvest and summer months may result in potentially significant capacity impacts to select segments of SR 12-121 during both the Friday AM and PM peak traffic hours.

Required mitigation will be a change in employee shift hours to preclude any employee traffic traveling on SR 12-121 between 7:00 and 8:00 AM as well as between 4:00 and 5:30 PM. These measures will reduce the project significant impacts to SR 12-121 to a less than significant level. In addition, the project shall fund provision of a "Share the Road sign on the westbound SR 12-121 approach to the project driveway to make drivers aware of any potential bicycle traffic at the project entrance.

# IV. PROJECT LOCATION & DESCRIPTION

The Hudson Vineyards Winery (at 5398 Carneros Highway [SR 12-121]) will be located on the north side of SR 12-121 about 6,300 feet east of the Sonoma County line and about 2,800 feet west of the entrance to the Di Rosa Art Center (see **Figure 1**). A paved driveway now used as access to a house and vineyards on the site will be improved to County road and street standards and used for winery access.

The proposed Hudson Vineyards Winery would have the following yearly production and visitor/special event levels.

- 80,000 gallons per year production.
- First year of full production – about 2020.
- Bottling on-site.
- 50 percent of the grapes processed at full production will be grown on site or on adjacent vineyards under common ownership, and the remaining 50 percent will be transported to the site: ± 75 % from the east and 25% from the west.
- There will be elimination of about 1 to 2 existing grape truck trips per day from the site to SR 12-121 during harvest due to project vineyards supplying part of the winery's grapes.
- Tours and tasting by appointment only – 7 days per week from 10:30 AM to 6:30 PM. Maximum visitor levels/day:

| | Harvest | Non-Harvest |
|---|---|---|
| Monday-Thursday | 30 visitors/day (12 vehicles) | 30 visitors/day (12 vehicles) |
| Friday | 120 visitors (47 vehicles) | 120 visitors (47 vehicles) |
| Saturday | 120 visitors (43 vehicles) | 120 visitors (43 vehicles) |
| Sunday | 120 visitors (43 vehicles) | 120 visitors (43 vehicles) |

Maximum 420 visitors/week with 60 visitors/day average.

- Food and wine pairing events – 6 times per month, maximum 24 visitors per event (9-10 vehicles) between 10:00 AM and 10:00 PM, any day of the week.
- Marketing – 7 per year, maximum 75 visitors per event (27-29 vehicles) between 10:00 AM and 10:00 PM, any day of the week.
- Marketing – 3 per year, maximum 125 visitors per event (45-48 vehicles) between 10:00 AM and 10:00 PM, any day of the week.

The project driveway apron connection to SR 12-121 will be improved as needed to conform to County and Caltrans standards for winery access.

# V. EXISTING CIRCULATION SYSTEM EVALUATION PROCEDURES

## A. ANALYSIS LOCATIONS

At County direction, the following locations have been evaluated.

1. **SR 12-121/Project Driveway intersection.**

2. **SR 12-121 two-lane highway segments just east and west of the project driveways.**

**Figure 2** presents a schematic of approach geometrics and control at the project access 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 noon to 6:00 PM turn movement counts were conducted by Crane Transportation Group (CTG) on August 15 & 16, 2014 at the SR 12-121 intersection with the project driveway. The peak traffic hours were 4:15 to 5:15 PM on Friday and 3:15 to 4:15 PM on Saturday. Friday 7:00 to 9:00 AM turn movement counts were also conducted by Crane Transportation Group in mid January 2015 at the same location. The peak hour was 7:00

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

to 8:00 AM. Resultant August 2014 and January 2015 peak hour counts are presented in **Appendix Figure 1**. Overall, two-way volumes along SR 12-121 at the project entrance were higher during the Friday peak hour (about 2,690 vehicles per hour [vph] on Friday versus about 2,540 vph on Saturday). The project access driveway had 13 two-way vehicles during the Friday PM peak hour and 9 vehicles during the Saturday afternoon peak hour.

### 3. SEASONAL ADJUSTMENTS

August 2014 as well as January 2015 peak hour counts were seasonally adjusted to reflect September 2014 harvest conditions based upon monthly and day of week adjustment factors utilized in other Napa Valley jurisdictions. Overall, August counts would be expected to increase by 1 to 2 percent to reflect fall harvest conditions (as shown below), while January AM peak hour two-way counts were projected to increase by about 11 to 12 percent in order to reflect September harvest conditions.

Historical traffic count data from Caltrans as well as past studies, extending back to the Wine Train EIR in 1992, were 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

***Carneros Highway (State Route 12-121)*** provides the only access to the project site driveway. In the project vicinity it has two well-paved 12-foot travel lanes and wide, 8-foot paved shoulders. The roadway has recently been repaved and widened as part of a project to eliminate sharp curves in the project vicinity. The posted speed limit is 55 miles per hour. A 515-foot-long left turn lane is provided on the eastbound approach to the project access driveway along with a median refuge area to the east of the driveway to accommodate drivers turning left from the project driveway. This left turn lane is one of the longest provided on a driveway approach in Napa County.

## D. ROADWAY SEGMENT LEVEL OF SERVICE

### 1. ANALYSIS METHODOLOGY

Roadway segment operation for SR 12-121 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 SR 12-121 .

**ROADWAY SEGMENT CAPACITIES**

| | | LOS A | LOS B | LOS C | LOS D | LOS E |
|---|---|---|---|---|---|---|
| 2-Lane Rural Highway – SR 12-121 | Maximum Peak Direction Volumes | 100 | 330 | 620 | 870 | 1200 |
| | Volume/Capacity Ratio | (.08) | (.28) | (.52) | (.73) | (1.00) |

### 2. MINIMUM ACCEPTABLE OPERATION

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

## E. 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, while 2020 reflects a near term analysis horizon when the winery should be at full production. Traffic modeling for the General Plan shows about a 10 percent growth in two-way weekday PM peak hour traffic along SR 12-121 in the project area between 2014 and 2030. Projecting straight line traffic growth along SR 12-121 for analysis purposes, this translates into about a 3.7 percent growth in two-way PM peak hour traffic from 2014 to 2020. Weekday year 2030 AM peak hour traffic projections were also available from the General Plan traffic model. However, they showed practically no growth in traffic would be expected between 2014 and 2030. Therefore, to provide a conservative analysis, AM peak hour volumes were also increased the same percentages as projected PM peak hour growth.

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

Since traffic modeling projections were only available for weekday AM and PM peak hour conditions and not for the Saturday PM peak hour, east and westbound Saturday PM peak hour volumes on SR 12-121 were also uniformly increased by the PM percentages above.

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

# VII. OFF-SITE CIRCULATION SYSTEM OPERATION – WITHOUT PROJECT

## 1. EXISTING (YEAR 2014) OPERATING CONDITIONS (WITHOUT PROJECT)

### A. HARVEST

#### 1. ROADWAY SEGMENT LEVEL OF SERVICE (SR 12-121) – Table 1A

##### a) Friday AM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### b) Friday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### c) Saturday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

### B. SUMMER (NON-HARVEST)

#### 1. ROADWAY SEGMENT LEVEL OF SERVICE (SR 12-121) – Table 1B

##### a) Friday AM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### b) Friday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### c) Saturday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

## 2. YEAR 2020 OPERATING CONDITIONS (WITHOUT PROJECT)

### A. HARVEST

#### 1. ROADWAY SEGMENT LEVEL OF SERVICE (SR 12-121) – Table 2A

##### a) Friday AM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### b) Friday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### c) Saturday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

## B. SUMMER (NON-HARVEST)

### 3. ROADWAY SEGMENT LEVEL OF SERVICE (SR 12-121) – Table 2B

#### a) Friday AM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

#### b) Friday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

#### c) Saturday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

# 3. YEAR 2030 OPERATING CONDITIONS (WITHOUT PROJECT)

## A. HARVEST

### 1. ROADWAY SEGMENT LEVEL OF SERVICE (SR 12-121) – Table 3A

#### a) Friday AM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

#### b) Friday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

#### c) Saturday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

### B. SUMMER (NON-HARVEST)

#### 1. ROADWAY SEGMENT LEVEL OF SERVICE (SR 12-121) – Table 3B

##### a) Friday AM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### b) Friday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

##### c) Saturday PM Peak Hour

**SR 12-121: Unacceptable operation in both directions both east and west of the project access intersection.**

# VIII. PROJECT IMPACT EVALUATION SIGNIFICANCE CRITERIA

## A. SIGNIFICANCE CRITERIA

The following criteria were developed for recent traffic impact analyses in the County.[3] 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 for Existing + Project evaluation and would require mitigation. For year 2020 or 2030 Cumulative + Project evaluation, an increase in the roadway segment volume to capacity ratio of .005 or greater (for a two-lane rural highway with a

[3] Summers Winery, Vineyard 3646 Winery, 2490 Lake County Highway Winery, Castellucci Family Winery, Corona Winery, Titus Winery, 3730 Silverado Trail Winery, LMR Rutherford Estates Winery, Jamieson Ranch Vineyards, Winery, Kenzo Winery.

directional capacity of 1,200 vehicles per hour) is considered significant and would require mitigation.

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

- If project access to/from the state highway may result in significant safety concerns for bicycle riders.

# IX. PROJECT TRIP GENERATION & DISTRIBUTION

## A. TRIP GENERATION

There are no standard peak hour trip generation rates for wineries since number of employees, employee shift change hours, visitation levels (with or without appointments) and visitation hours vary significantly from winery to winery. Also, the peak traffic hours along the roadways adjacent to a winery can vary significantly depending upon the winery location. For this reason, proposed project trip generation was developed by Crane Transportation Group in consultation with the project applicant for both weekdays and weekend days on an hour-by-hour basis. This allowed determination of the project trip generation projections for the specific peak traffic hours along SR 12-121.

Friday AM and PM peak hour and Saturday afternoon peak hour trip generation worksheets 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 Hudson Vineyards Winery are presented in the **Appendix**. Results are presented on an hourly basis in **Tables 4** and **5** for harvest Friday and Saturday conditions, while **Tables 6** and **7** present results for summer Friday and Saturday conditions. A summary of peak hour trips is presented in **Table 8**. During the harvest Friday AM peak traffic hour there would be a projected 5 inbound and 1 outbound vehicles, while during the harvest Friday PM peak traffic hour there would be a projected 7 inbound and 11 outbound vehicles. During the harvest Saturday PM peak traffic hour, there would be a projected 7 inbound and 6 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 employees would also be working until 7:00 PM every day, as tours and tasting by appointment would close at 6:30 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. The one expected grape delivery per day could be scheduled any time between 6:00 AM and 6:00 PM, although morning deliveries would be typical. However, the project would also result in the elimination of 1 to 2 truck round trips per day during harvest on SR 12-121 due to the new winery now processing grapes from adjacent vineyards that are currently being outhauled.

During summer conditions, project trip generation during the Friday AM and PM peak traffic hours would be higher than during harvest conditions (12 inbound and 0 outbound trips during the summer Friday AM peak hour, with 7 inbound and 19 outbound trips during the summer Friday PM peak hour). The reason for the increase would be the shorter employee working hours, which would shift change times into standard work hours, which are also the peak traffic hours along SR 12-121. Summer project trip generation during Saturday PM peak traffic conditions along SR 12-121 would be the same as during harvest, and would be visitors by appointment only.

## B. TRIP DISTRIBUTION

Project traffic was distributed to SR 12-121 in a pattern reflective of existing vehicle distribution patterns. About two-thirds to 80 percent of visitor and employee traffic would be expected to travel to/from the east on the state highway.

The harvest and summer Friday and Saturday project traffic increments expected on SR 12-121 during the times of ambient peak traffic flows on the state highway are presented in **Figures 9** and **10,** respectively. Friday and Saturday existing "With Project" peak hour volumes are presented in **Figures 11** and **12,** respectively; "With Project" peak hour volumes for year 2020 conditions are presented in **Figures 13** and **14**, respectively, and "With Project" peak hour volumes for 2030 conditions are presented in **Figures 15** and **16**, respectively.

## C. PLANNED ROADWAY IMPROVEMENTS

There are no capacity increasing roadway improvements planned by Caltrans or the County on SR 12-121 in the project vicinity.[4] SR 12-121 has recently been improved in the project area with one of the longest left turn lanes on a driveway approach in Napa County.

# X. PROJECT IMPACTS

## A. EXISTING (YEAR 2014) WITH PROJECT CONDITIONS

### 1. HARVEST

#### a) Summary

Project traffic would not result in any significant level of service impact along any analyzed SR 12-121 roadway segments during any Friday or Saturday peak traffic hour. ***Less than Significant***.

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

#### i) Roadway Segments (SR 12-121) – Table 1A

During both the Friday AM & PM peak hours and the Saturday PM peak hour when "Without Project" operation along SR 12-121 would be unacceptable in both the east and westbound directions, project traffic would only increase segment volumes by 0 to 0.4 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

### 2. SUMMER (NON-HARVEST)

#### a) Summary

Project traffic would not result in any significant level of service impact along any analyzed SR 12-121 roadway segments during any Friday or Saturday peak traffic hour. ***Less than Significant***.

#### i) Roadway Segments (SR 12-121) – Table 1B

During both the Friday AM & PM peak hours and the Saturday PM peak hour when "Without Project" operation along SR 12-121 would be unacceptable in both the east and westbound directions, project traffic would only increase segment volumes by 0 to 0.8 percent, which would be less than the minimum 1 percent traffic added significance criteria limit. ***Less than Significant.***

## B. YEAR 2020 WITH PROJECT CONDITIONS

### 1. HARVEST

#### a) Summary

Project traffic may result in a potentially significant level of service impact along one analyzed SR 12-121 roadway segment during the Friday PM peak hour. There would be no significant impacts during the Friday AM or Saturday PM peak hours. ***Potentially Significant. Less than Significant with Mitigation***.

#### i) Roadway Segments (SR 12-121) – Table 2A

During both the Friday AM & PM peak hours and the Saturday PM peak hour when "Without Project" operation along SR 12-121 would be unacceptable in both the east and westbound directions, project traffic would only increase segment volume to capacity ratios by .004 or less with one exception. During the Friday PM peak hour east of the project driveway the addition of project traffic to eastbound flow would increase the v/c ratio by .006, which would be greater than the minimum .005 volume to capacity ratio increase significance criteria limit.

### 2. SUMMER (NON-HARVEST)

#### a) Summary

Project traffic may result in potentially significant level of service impacts along three analyzed SR 12-121 roadway segments during the Friday peak traffic hours. There would be no significant impacts during the Saturday PM peak hour. ***Potentially Significant. Less than Significant With Mitigation***.

#### i) Roadway Segments (SR 12-121) – Table 2B

During the Friday AM peak hour, the addition of project traffic to westbound SR 12-121 east of the project driveway would increase the segment v/c ratio by an unacceptable .008. During the Friday PM peak hour, the addition of project traffic to eastbound SR 12-121 east of the project driveway would increase the segment v/c ratio by an unacceptable .010, while the addition of project traffic to westbound SR 12-121 west of the project driveway would increase the segment of v/c ratio by an unacceptable .006. All three increases would be above the .005 significance criteria limit. Impacts during the Friday AM peak hour would be totally due to employee traffic, while impacts during the Friday PM peak hour would be about equally due to employee and visitor traffic. All other roadway segments during the Friday and Saturday peak hours would have v/c ratio increases of .004 or less and would not have significant project impacts.

## C. YEAR 2030 WITH PROJECT CONDITIONS

### 1. HARVEST

#### a) Summary

Project traffic may result in a potentially significant level of service impact along one analyzed SR 12-121 roadway segments during the Friday PM peak traffic hour. There would be no significant impacts during the Friday AM or Saturday PM peak hours. ***Potentially Significant. Less than Significant with Mitigation***.

#### i) Roadway Segments (SR 12-121) – Table 3A

During both the Friday AM & PM peak hours and the Saturday PM peak hour when "Without Project" operation along SR 12-121 would be unacceptable in both the east and westbound directions, project traffic would only increase segment volume to capacity ratios by .004 or less with one exception. During the Friday PM peak hour east of the project driveway the addition of project traffic to eastbound flow would increase the v/c ratio by .006, which would be greater than the minimum .005 volume to capacity ratio increase significance criteria limit.

### 2. SUMMER (NON-HARVEST)

#### a) Summary

Project traffic may result in potentially significant level of service impacts along three analyzed SR 12-121 roadway segments during the Friday peak traffic hours. There would be no significant impacts during the Saturday PM peak hour. ***Potentially Significant. Less than Significant with Mitigation***.

#### i) Roadway Segments (SR 12-121) – Table 3B

During the Friday AM peak hour, the addition of project traffic to westbound SR 12-121 east of the project driveway would increase the segment v/c ratio by an unacceptable .007. During the Friday PM peak hour, the addition of project traffic to eastbound SR 12-121 east of the project driveway would increase the segment v/c ratio by an unacceptable .009, while the addition of project traffic to westbound SR 12-121 west of the project driveway would increase the segment v/c ratio by an unacceptable .006. All three increases would be above the .005 significance criteria limit. Impacts during the Friday AM peak hour would be totally due to employee traffic, while impacts during the Friday PM peak hour would be about equally due to employee and visitor traffic. All other roadway segments during the Friday and Saturday peak hours would have v/c ratio increases of .004 or less and would not have significant project impacts.

# XI. PROJECT ACCESS IMPACTS

## A. SIGHT LINE ADEQUACY AT THE PROJECT DRIVEWAY CONNECTION TO SR 12-121

Sight lines would be acceptable for drivers turning from the project driveway to SR 12-121. Sight lines to the east would be about 900 feet, while sight lines to the west would be about 700 feet. Based upon a travel speed along SR 12-121 of 55 miles per hour, the required stopping sight distance would be 500 feet.[5] Therefore, sight lines are greater than stopping distances in both directions. ***Less than Significant.***

## B. PROJECT ENTRANCE SR 12-121 LEFT TURN LANE IMPACTS

### 1. EXISTING (YEAR 2014)

No significant queuing impacts would be expected in the left turn lane on the eastbound SR 12-121 approach to the project access driveway intersection due to the addition of project traffic.

[5] Caltrans Highway Design Manual, March 2014.

The existing 515-foot-long left turn lane on the eastbound SR 12-121 approach to the project access driveway is one of the longest driveway approach left turn lanes in the County and could accommodate vehicle storage and deceleration after inclusion of project traffic. Project traffic during harvest conditions would increase volumes using the eastbound left turn lane by 1 vehicle during the Friday AM peak hour and 2 vehicles during both the Friday and Saturday PM peak hours, while project traffic during summer conditions would increase volumes using the eastbound left turn lane by 2 vehicles during each of the Friday and Saturday analysis peak hours. In addition, project traffic would only increase harvest Friday PM peak hour volumes entering the intersection by 0.5 percent and harvest Saturday PM peak hour volumes by 0.5 percent. Summer volume increases passing through the intersection during the Friday and Saturday PM peak traffic hours would be 0.8 and 0.5 percent, respectively. Twenty-five feet of vehicle storage and 485 feet of deceleration length would adequately serve "with Project" conditions. ***Less than Significant.***

### 2. YEAR 2020

No significant queuing impacts would be expected in the left turn lane on the eastbound SR 12-121 approach to the project access driveway intersection due to the addition of project traffic. The existing 515-foot-long left turn lane on the eastbound SR 12-121 approach to the project access driveway could accommodate vehicle storage and deceleration after inclusion of project traffic. Project traffic during harvest conditions would increase volumes using the eastbound left turn lane by 1 vehicle during the Friday AM peak hour and 2 vehicles during both the Friday and Saturday PM peak hours, while project traffic during summer conditions would increase volumes using the eastbound left turn lane by 2 vehicles during each of the Friday and Saturday analysis peak hours. In addition, project traffic would only increase harvest Friday PM peak hour volumes entering the intersection by 0.5 percent and harvest Saturday PM peak hour volumes by 0.5 percent. Summer volume increases passing through the intersection during the Friday and Saturday PM peak traffic hours would be 0.8 and 0.5 percent, respectively. Twenty-five feet of vehicle storage and 485 feet of deceleration length would adequately serve "with Project" conditions. ***Less than Significant.***

### 3. YEAR 2030

No significant operational impacts would be expected in the left turn lane on the eastbound SR 12-121 approach to the project access driveway intersection due to the addition of project traffic. The existing 515-foot-long left turn lane on the eastbound SR 12-121 approach to the project access driveway could accommodate vehicle storage and deceleration after inclusion of project traffic. Project traffic during harvest conditions would increase volumes using the eastbound left turn lane by 1 vehicle during the Friday AM peak hour and 2 vehicles during both the Friday and Saturday PM peak hours, while project traffic during summer conditions would increase volumes using the eastbound left turn lane by 2 vehicles during each of the Friday and Saturday analysis peak hours. In addition, project traffic would only increase harvest Friday PM peak hour volumes entering the intersection by 0.5 percent and harvest Saturday PM peak hour volumes by 0.5 percent. Summer volume increases passing through the intersection during the Friday and Saturday PM peak traffic hours would be 0.7 and 0.5 percent, respectively. Twenty-

five feet of vehicle storage and 490 feet of deceleration length would adequately serve "with Project" conditions. ***Less than Significant.***

### C. PEDESTRIAN & BICYCLE RIDER IMPACTS

There is no pedestrian traffic along SR 12-121 at the project entrance. There are occasional bicycle riders, but the high volumes and vehicle speeds along SR 12-121 do not make a comfortable bike riding environment. However, it is possible that bike riders may access the winery driveway and that drivers along the state highway may be surprised by bike riders slowing to turn into the project driveway or slowly turning from the driveway. ***Potentially Significant. Less than Significant with Mitigation.***

## XII. MARKETING EVENTS

**Table 9** presents details of the number of guests, employees and hired event staffing that would likely be present for marketing events. The most common event would be food and wine pairings, held up to six times per month. Each would have up to 24 guests (resulting in 9 to 10 vehicle trips to and from the winery). Total hired staffing for the events would result in an additional 6 vehicles accessing the winery. Events would typically last about three hours and would occur between 10:00 AM and 10:00 PM. Events could occur on any day.

Seven marketing events would be held each year with up to 75 guests (resulting in about 27 to 29 vehicle trips to/from the winery) as well as three events per year with up to 125 guests (resulting in about 45 to 48 vehicles to/from the winery). Hired event staffing for each of the 75 guest events would result in an additional 11 or so vehicles accessing the winery, while staffing for each of the 125 guest events would result in an additional 20 or so vehicles accessing the winery. All 10 events would be about three hours long and could occur on any day of the week. It is possible that shuttle buses would be used for the three maximum size events.

There would be no regular visitation allowed during any marketing events.

## XIII. MITIGATION MEASURES

- **SR 12-121 Roadway Segment Impacts During Harvest and Summer Conditions**

  Friday AM Peak Hour: Change employee work hours to preclude any employee traffic arriving between 7:00 and 8:00 AM.

  Friday PM Peak Hour: Change employee work hours to preclude any employee traffic leaving between 4:00 and 5:30 PM.

- **Added safety for bicycle riders near project entrance.**
  The applicant shall fund provision of a "Share the Road" sign along westbound SR 12-121 at the project entrance (to be approved and installed by Caltrans) to make drivers aware of potential bicycle traffic in the vicinity of the project driveway.

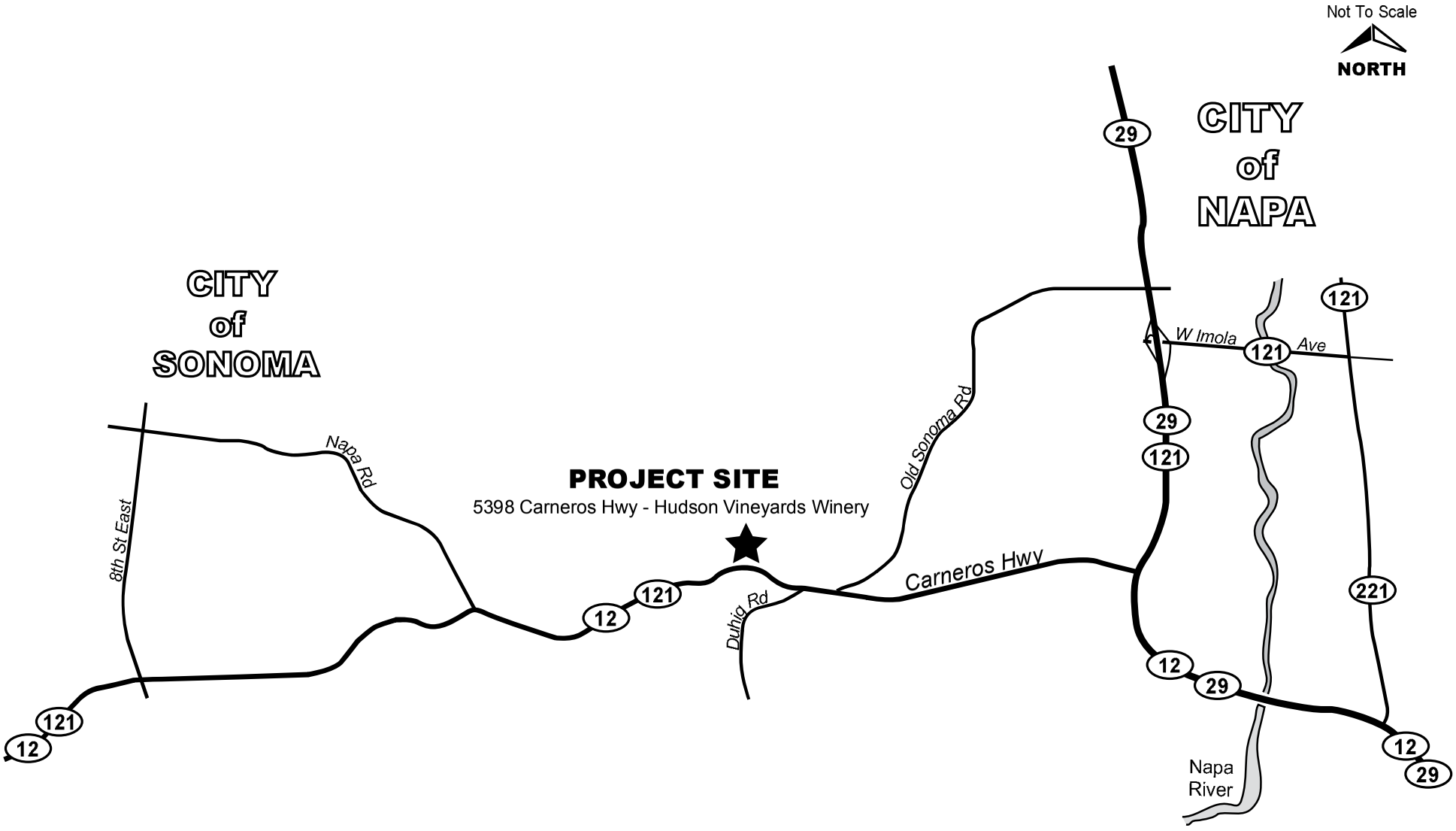
Potentially significant impacts would be reduced to a less than significant level.

# XIV. CONCLUSIONS & RECOMMENDATIONS

The project will result in no significant operational impacts to the SR 12-121/project access intersection. Sight lines at the project driveway connection to SR 12-121 are acceptable and the left turn lane already provided on the eastbound SR 12-121 approach to the project driveway will adequately accommodate expected project queuing storage and deceleration demands. Also, the project driveway apron connection to SR 12-121 will be upgraded to comply with Caltrans standards as part of the project. However, the proposed employee work schedules for both harvest and summer months may result in potentially significant capacity impacts to select segments of SR 12-121 during both the Friday AM and PM peak traffic hours.

Required mitigation will be a change in employee shift hours to preclude any employee traffic traveling on SR 12-121 between 7:00 and 8:00 AM as well as between 4:00 and 5:30 PM. These measures will reduce the project significant impacts to SR 12-121 to a less than significant level. In addition, the project shall fund provision of a "Share the Road sign on the westbound SR 12-121 approach to the project driveway to make drivers aware of any potential bicycle traffic at the project entrance.

# Figures




Hudson Vineyards Winery Traffic Study

CRANE TRANSPORTATION GROUP

**Figure 1**

**Area Map**

Not To Scale

NORTH

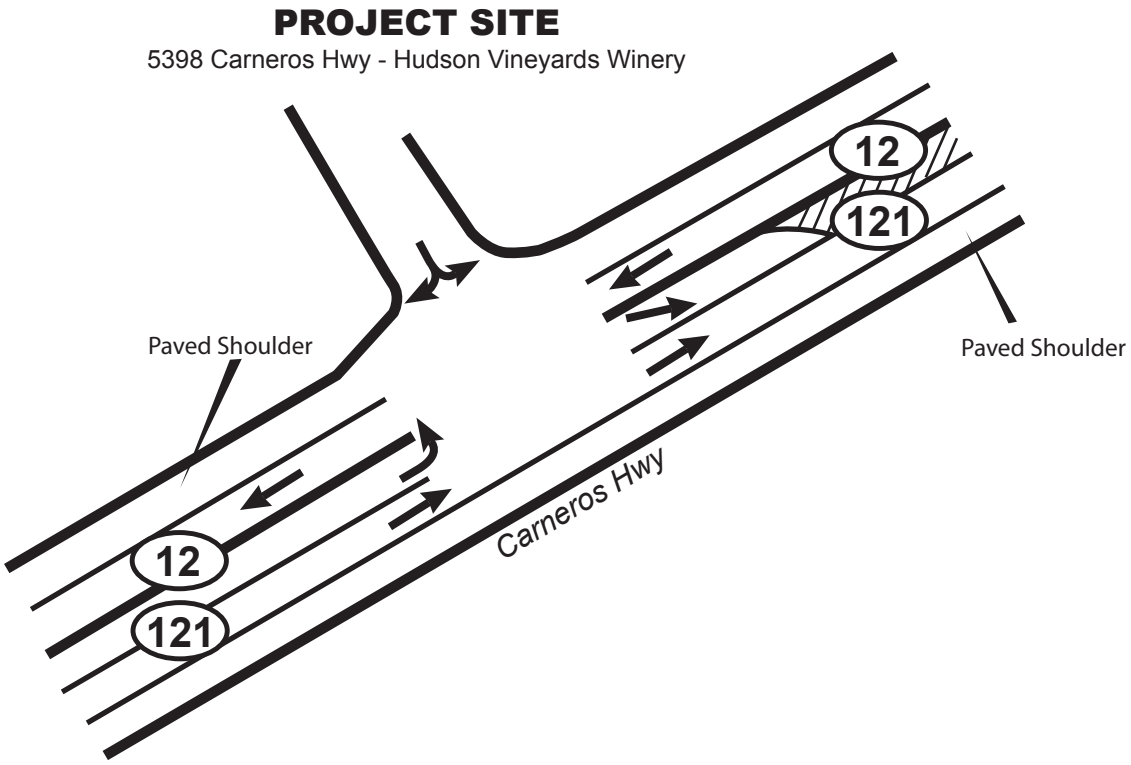
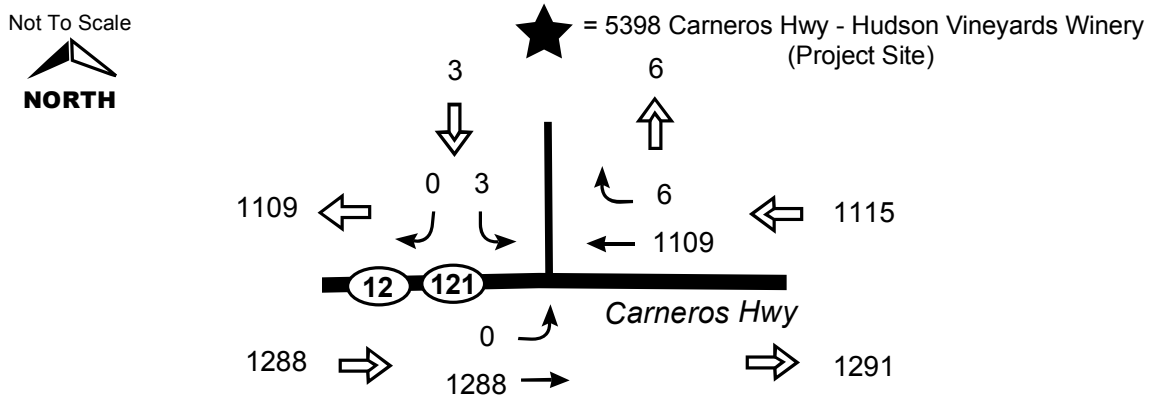




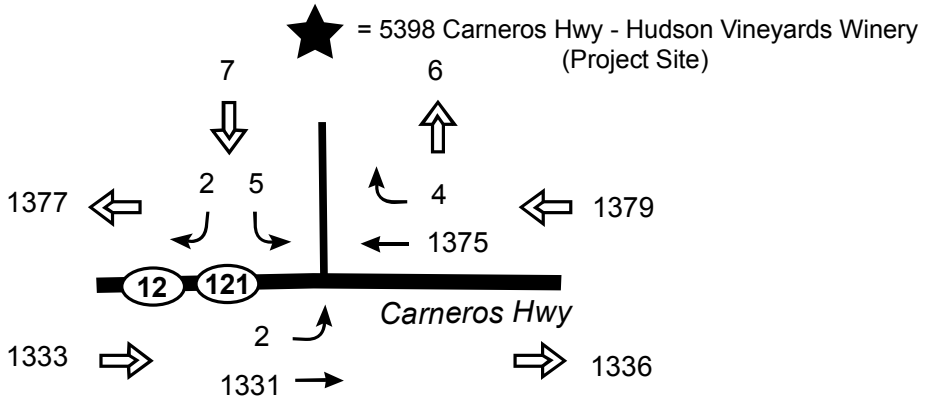

**Figure 2**

**Existing Lane Geometrics**

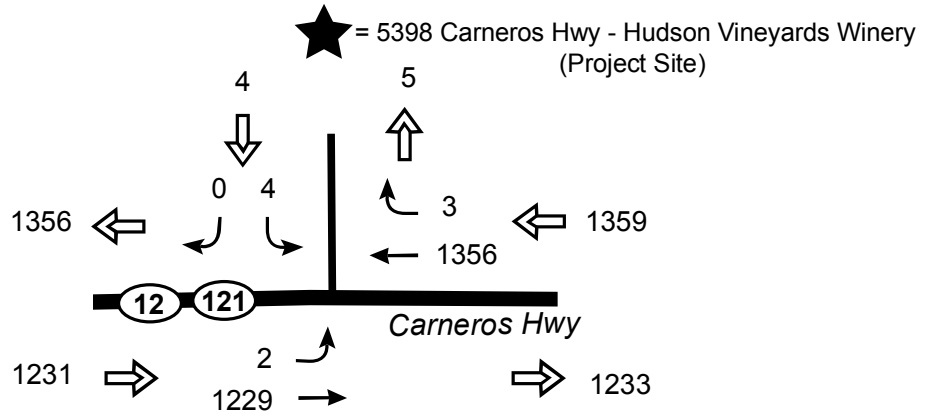
CRANE TRANSPORTATION GROUP




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**



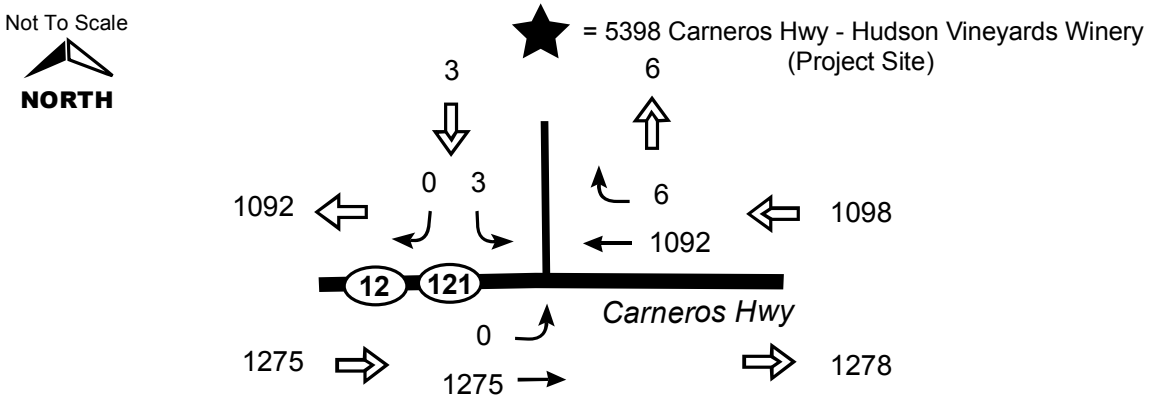

**Saturday PM Peak Hour (3:15-4:15)**

Hudson Vineyards Winery Traffic Study

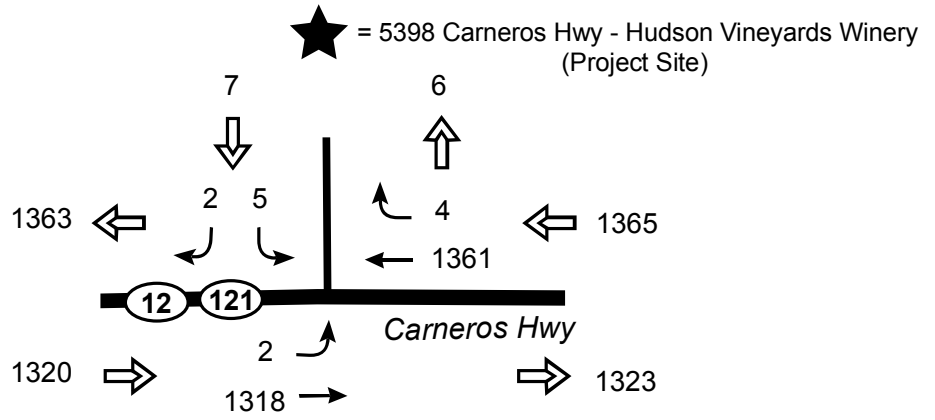
**Figure 3**

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

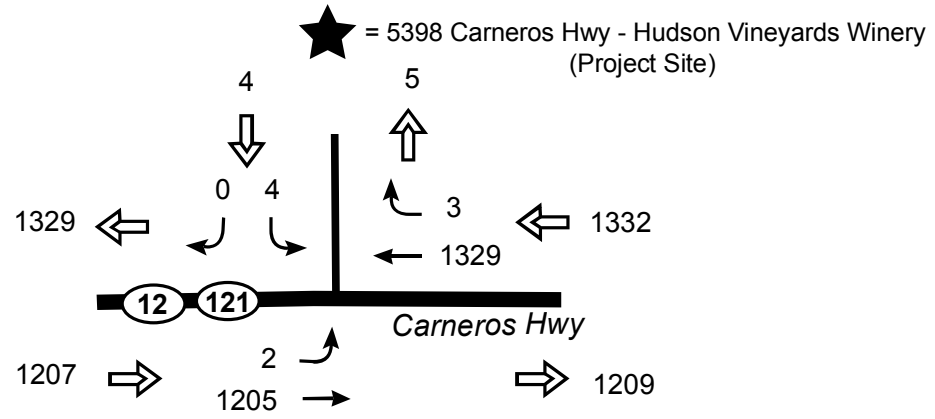
**CRANE TRANSPORTATION GROUP**




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**



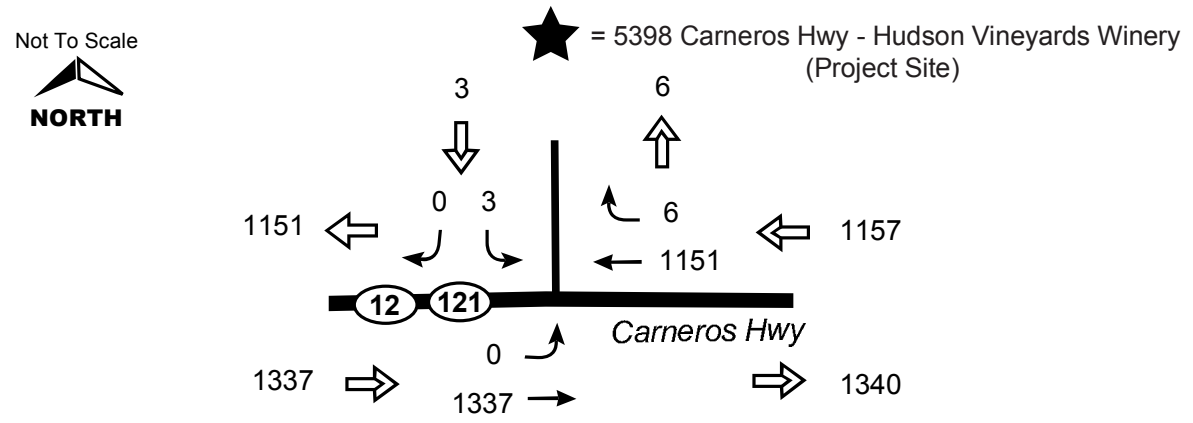

**Saturday PM Peak Hour (3:15-4:15)**



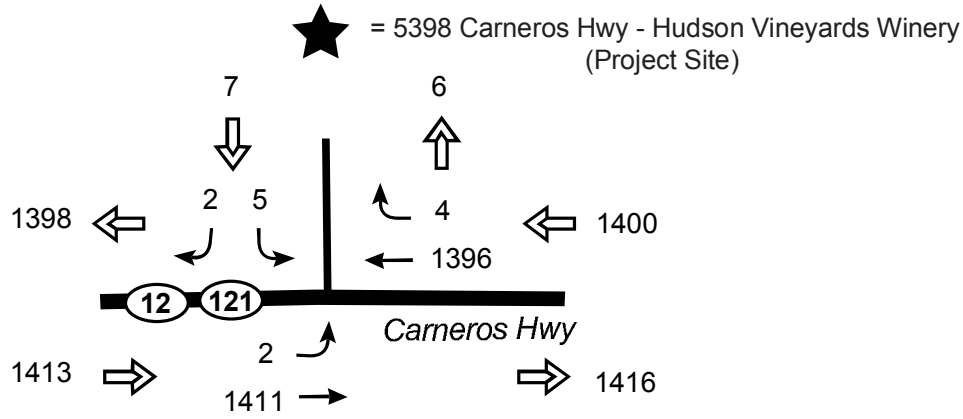
**Figure 4**

**Year 2014 (without Project) Summer Friday AM & PM and Saturday PM Peak Hour Volumes**

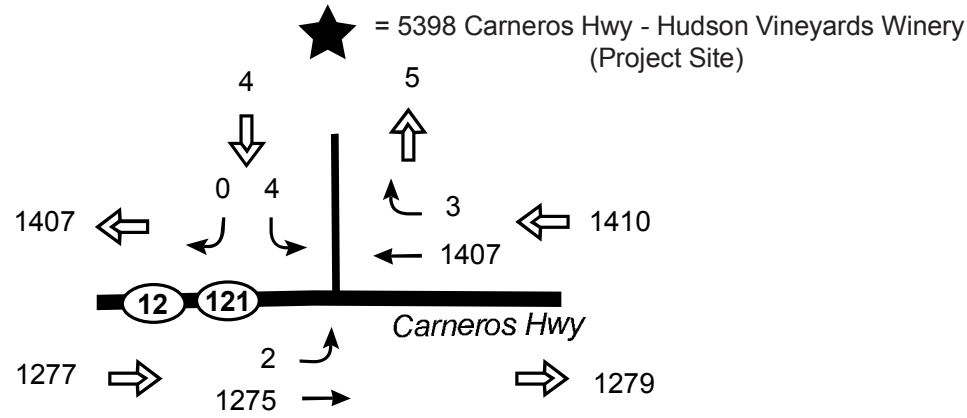
**CRANE TRANSPORTATION GROUP**




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**



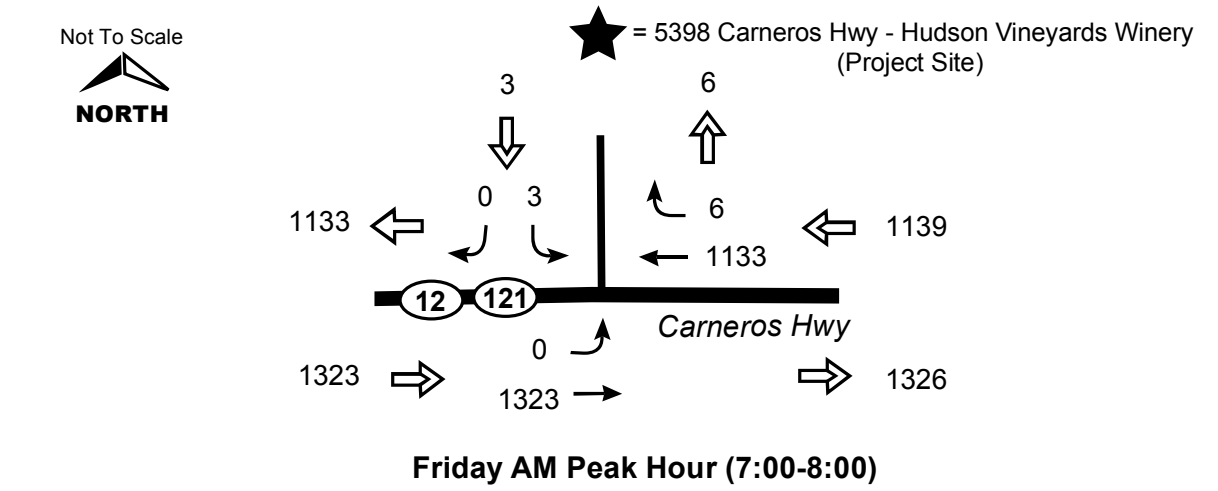

**Saturday PM Peak Hour (3:15-4:15)**



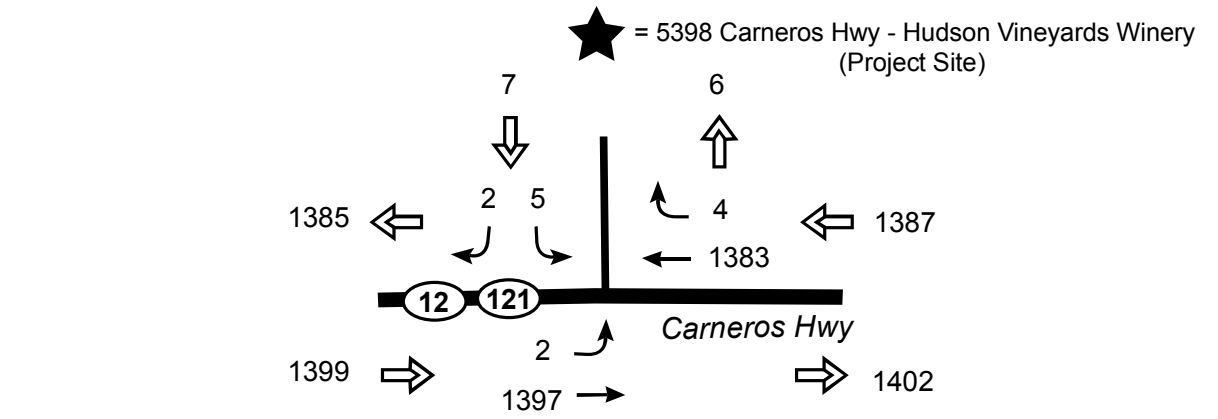
**Figure 5**

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

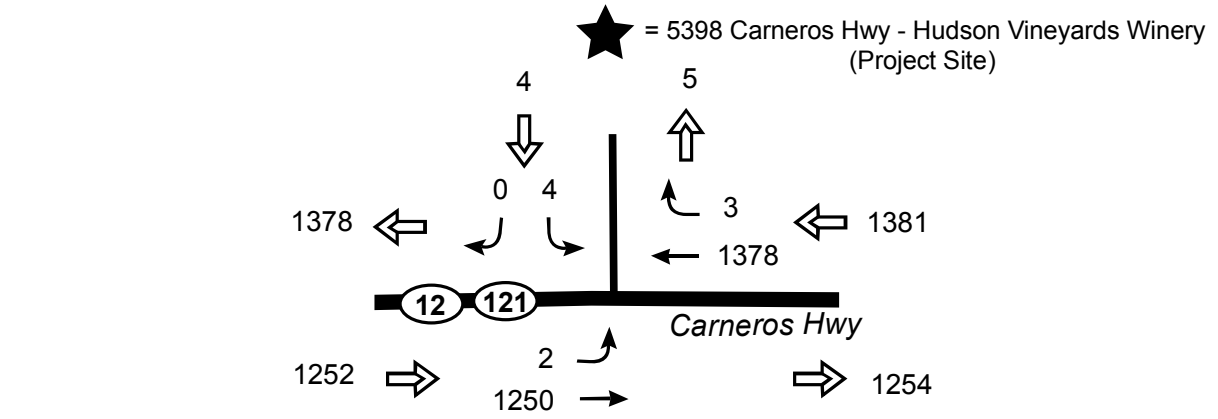
CRANE TRANSPORTATION GROUP




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**



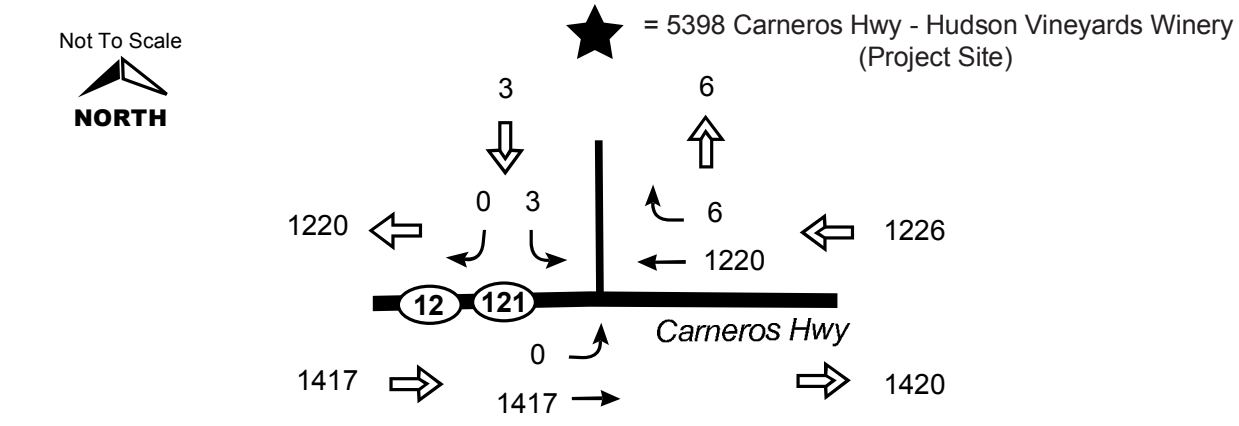

**Saturday PM Peak Hour (3:15-4:15)**

Hudson Vineyards Winery Traffic Study

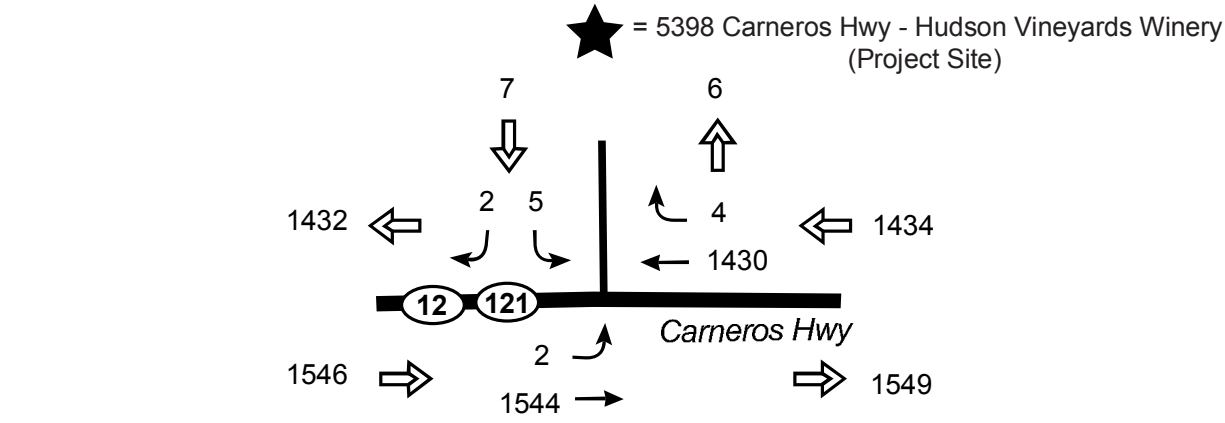
**Figure 6**

**Year 2020 (without Project) Summer Friday AM & PM and Saturday PM Peak Hour Volumes**

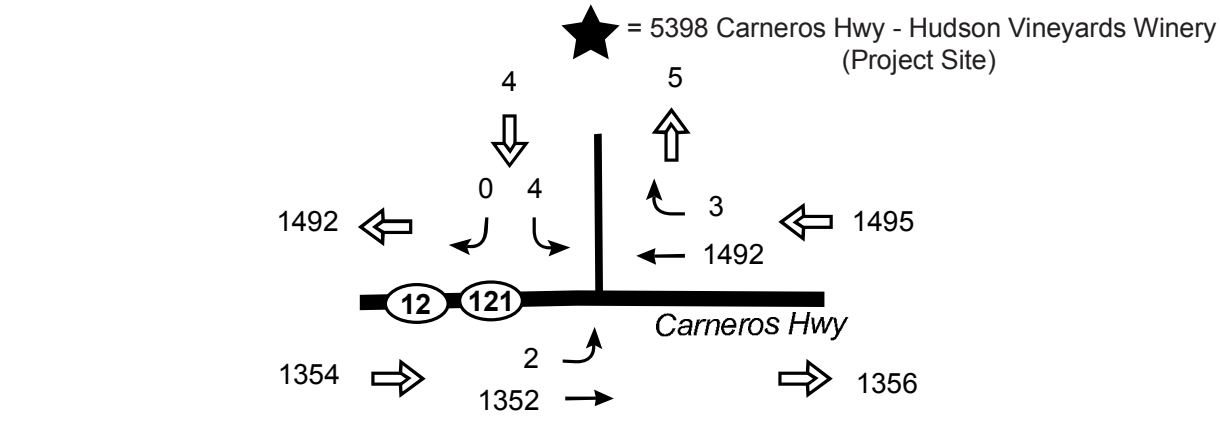
**CRANE TRANSPORTATION GROUP**




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**



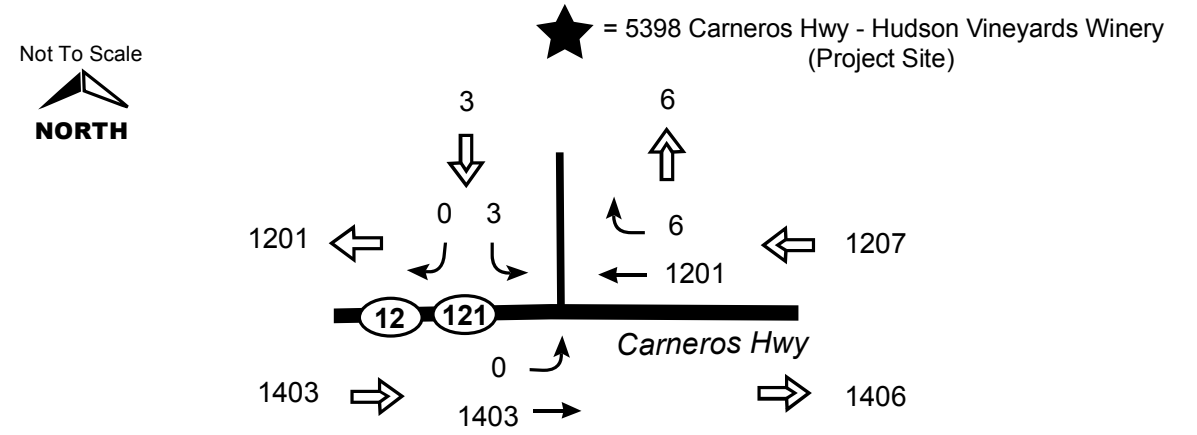

**Saturday PM Peak Hour (3:15-4:15)**



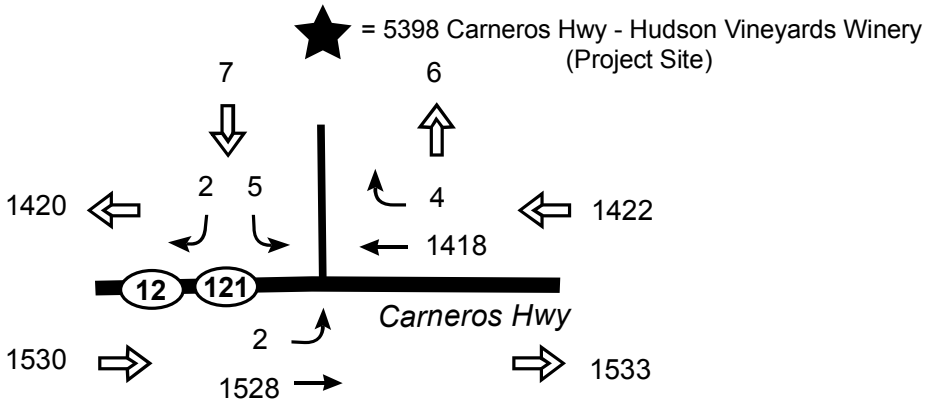
**Figure 7**

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

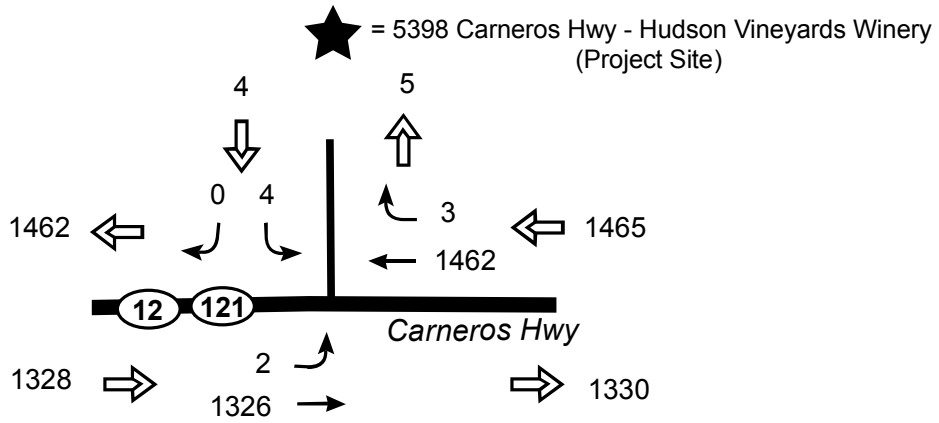
**CRANE TRANSPORTATION GROUP**




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**



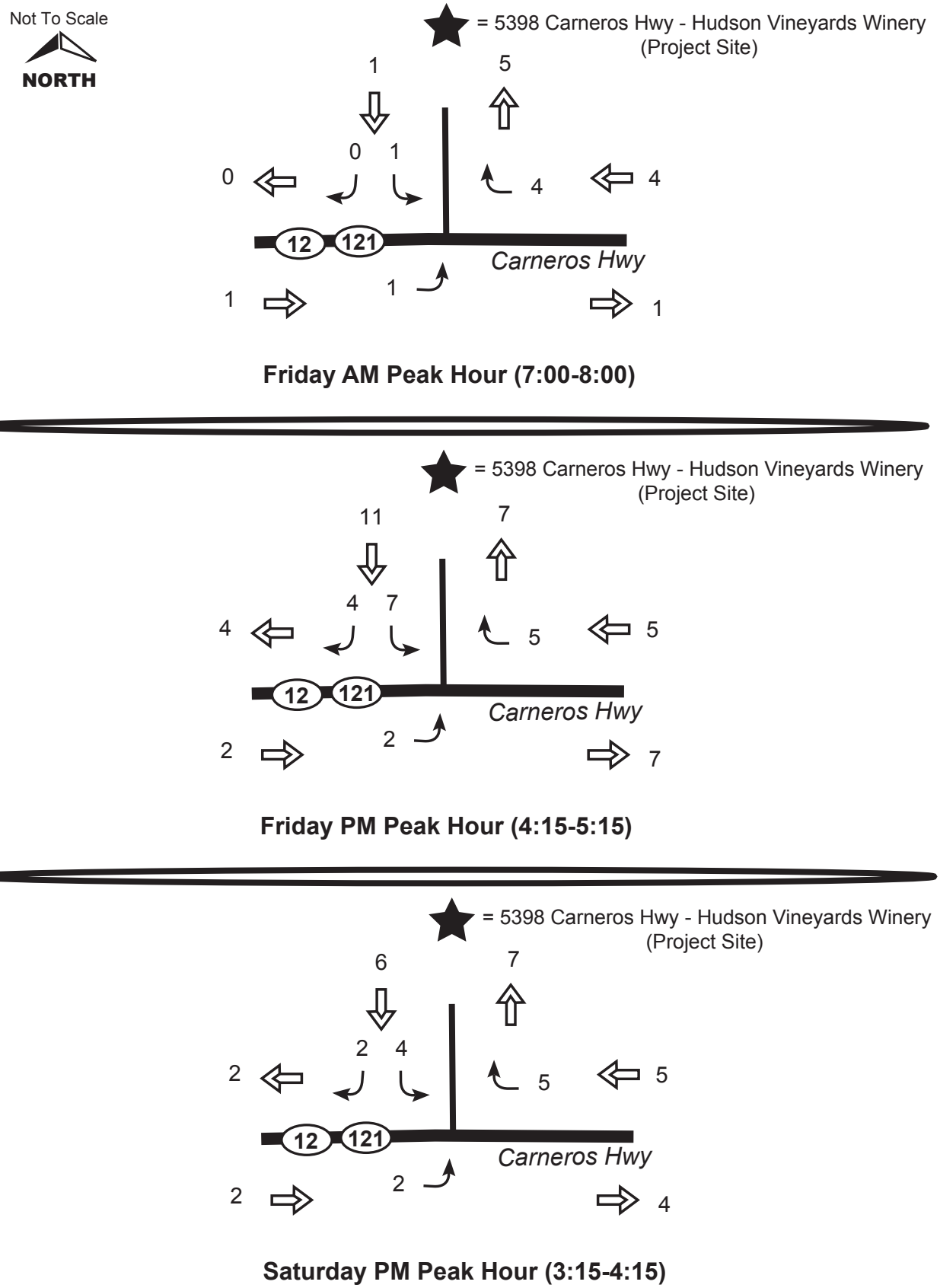

**Saturday PM Peak Hour (3:15-4:15)**

Hudson Vineyards Winery Traffic Study

**Figure 8**

**Year 2030 (without Project) Summer Friday AM & PM and Saturday PM Peak Hour Volumes**

**CRANE TRANSPORTATION GROUP**

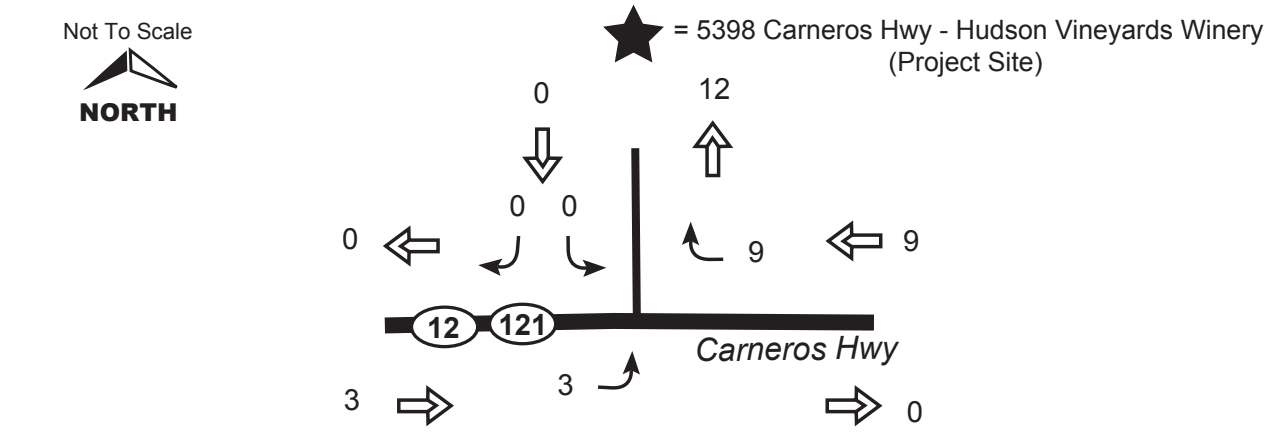



Hudson Vineyards Winery Traffic Study

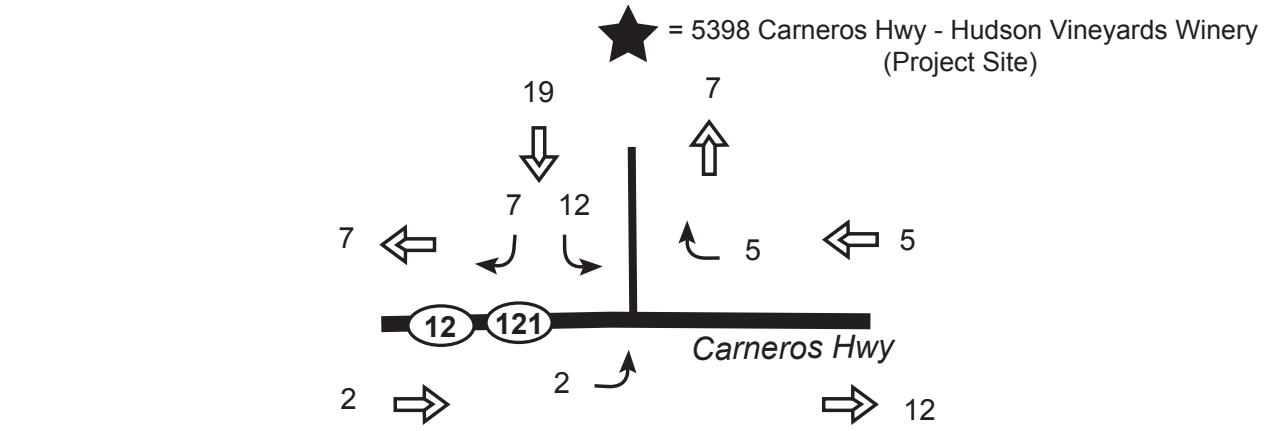
**Figure 9**

**Harvest Friday and Saturday Peak Hour Project Traffic Increment Volumes**

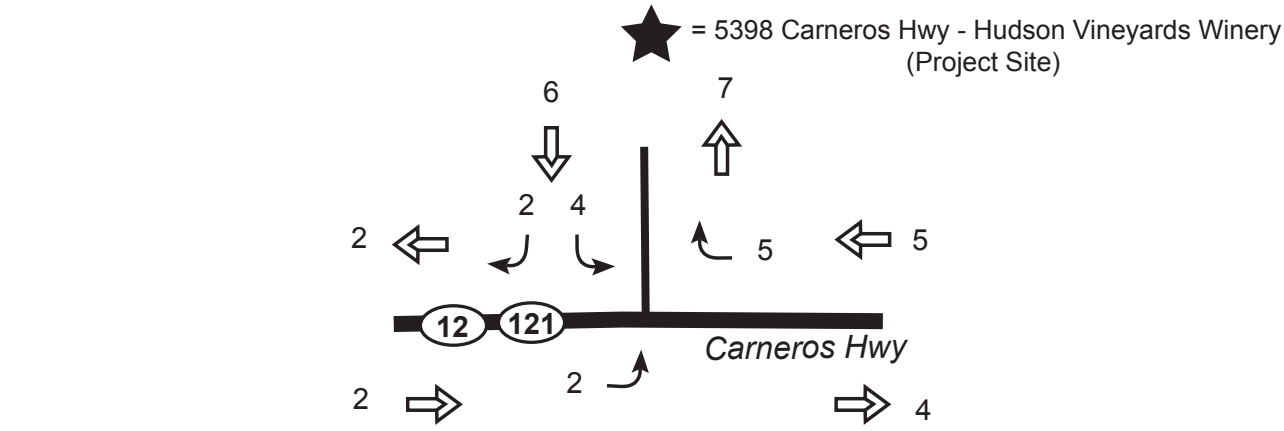
CRANE TRANSPORTATION GROUP




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**




**Saturday PM Peak Hour (3:15-4:15)**



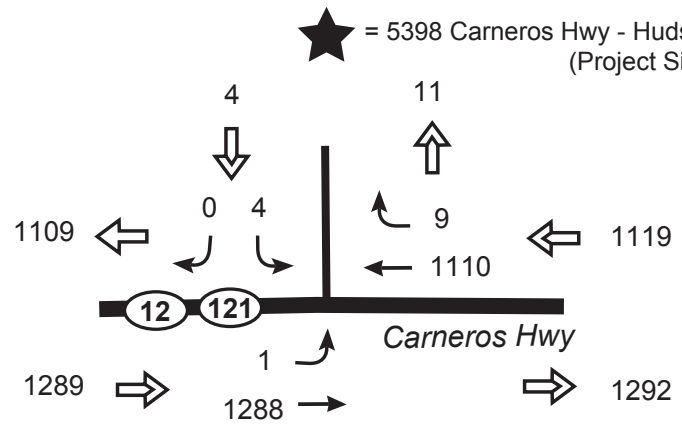
**Figure 10**

**Summer Friday and Saturday Peak Hour Project Traffic Increment Volumes**

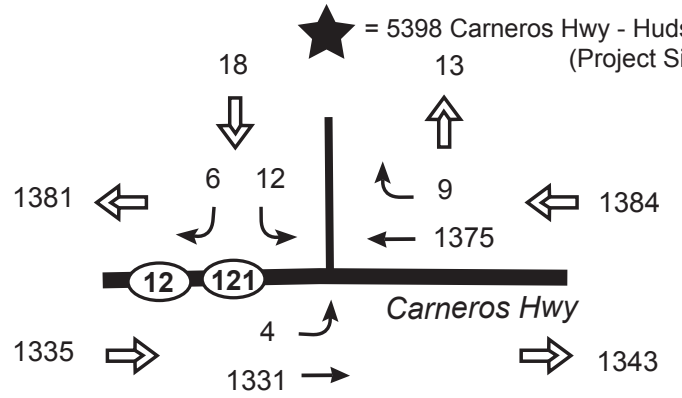
CRANE TRANSPORTATION GROUP

Not To Scale

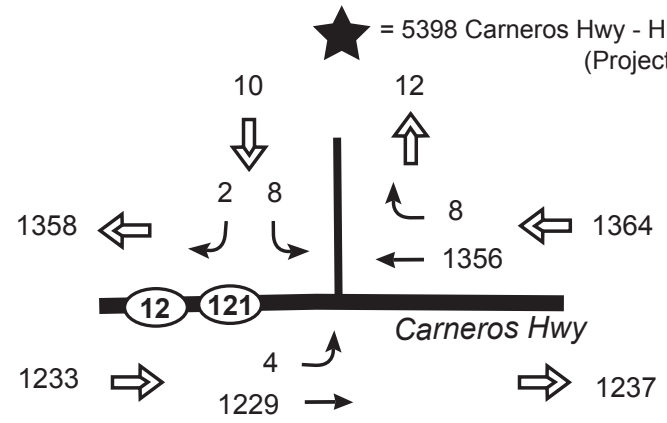
NORTH




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**




**Saturday PM Peak Hour (3:15-4:15)**



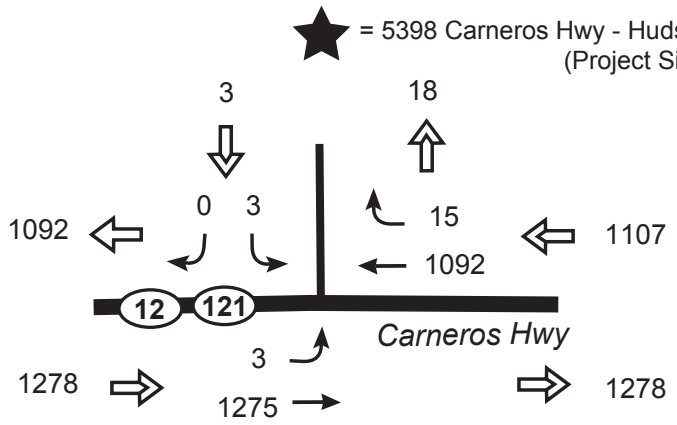
**Figure 11**

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

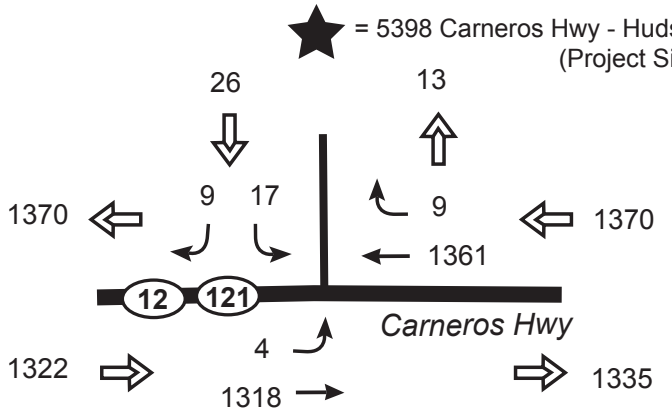
CRANE TRANSPORTATION GROUP

Not To Scale

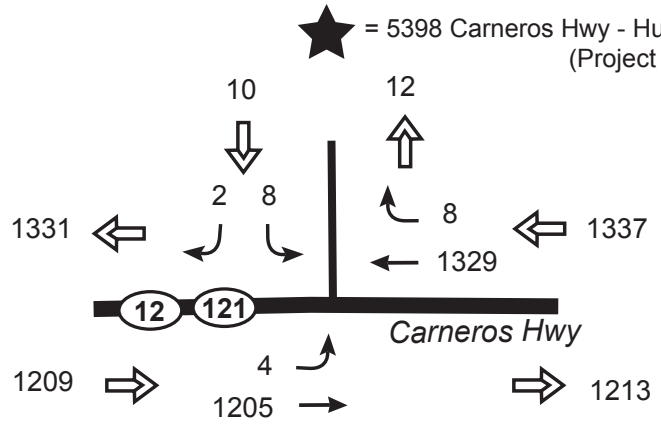
NORTH




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**




**Saturday PM Peak Hour (3:15-4:15)**



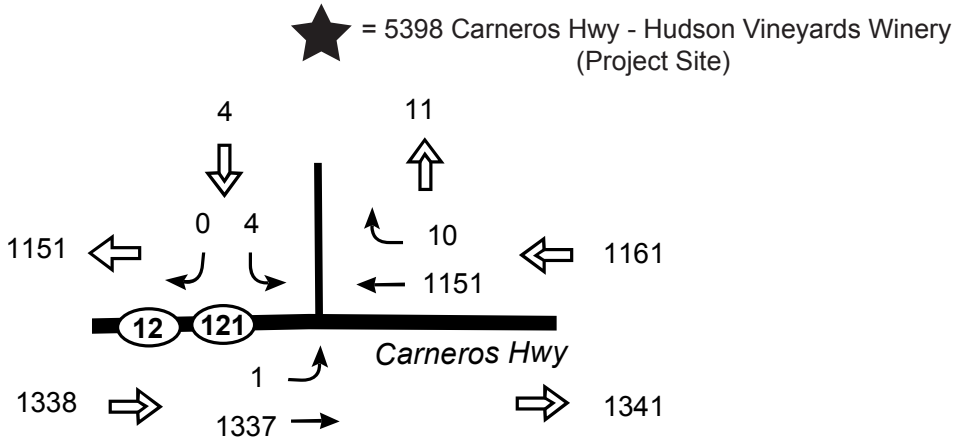
**Figure 12**

**Year 2014 (with Project) Summer Friday AM & PM and Saturday PM Peak Hour Volumes**

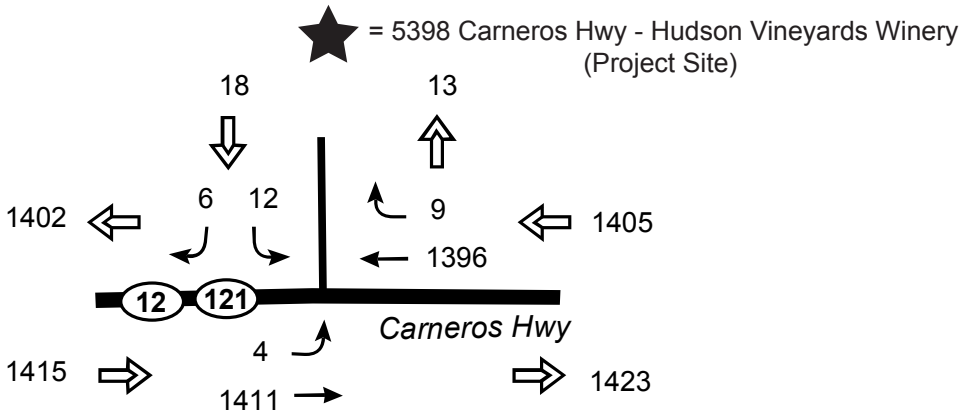
CRANE TRANSPORTATION GROUP

Not To Scale

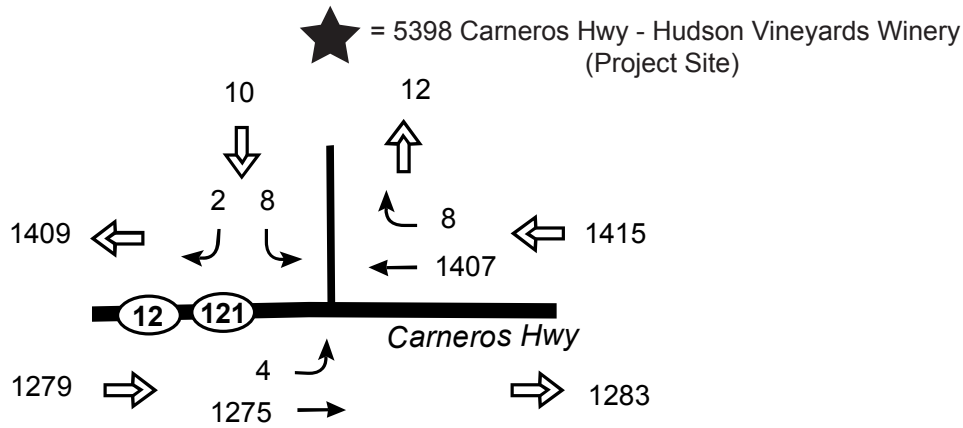
NORTH




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**




**Saturday PM Peak Hour (3:15-4:15)**



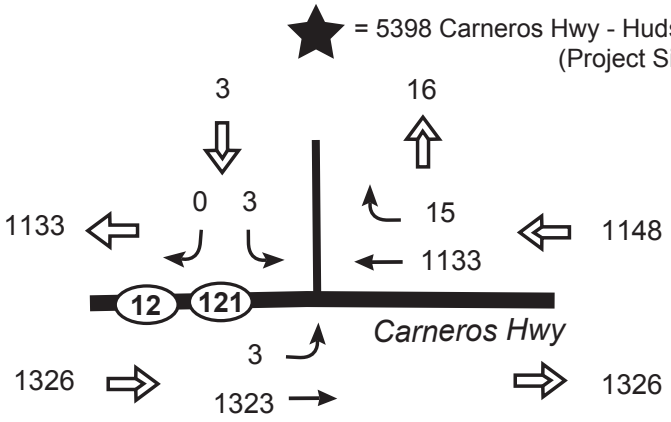
**Figure 13**

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

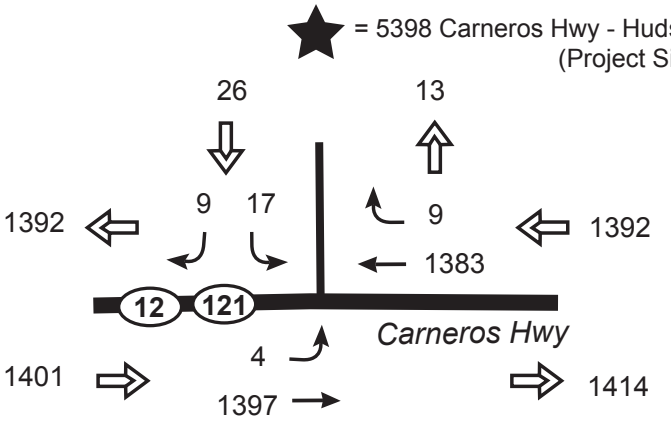
CRANE TRANSPORTATION GROUP

Not To Scale

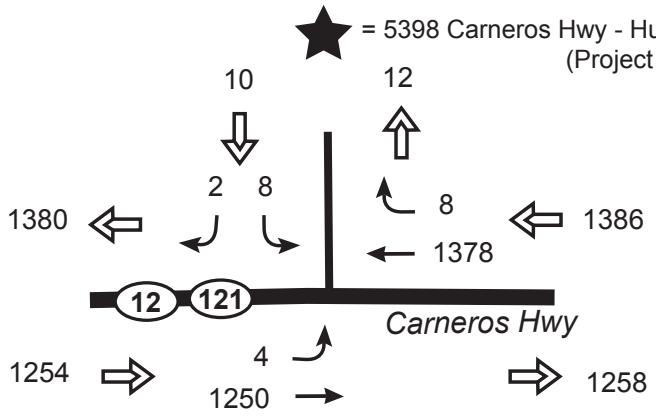
NORTH




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**




**Saturday PM Peak Hour (3:15-4:15)**



**Figure 14**

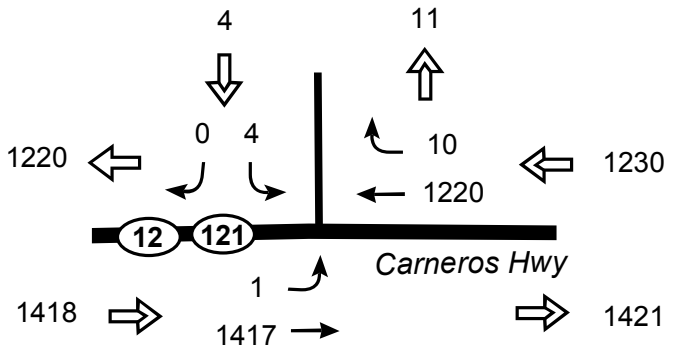
**Year 2020 (with Project) Summer Friday AM & PM and Saturday PM Peak Hour Volumes**

CRANE TRANSPORTATION GROUP

Not To Scale

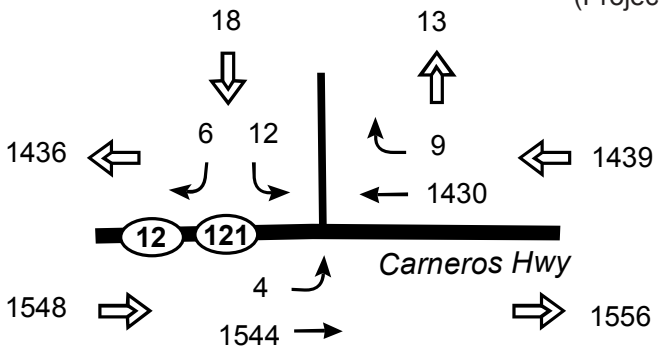
NORTH

= 5398 Carneros Hwy - Hudson Vineyards Winery (Project Site)



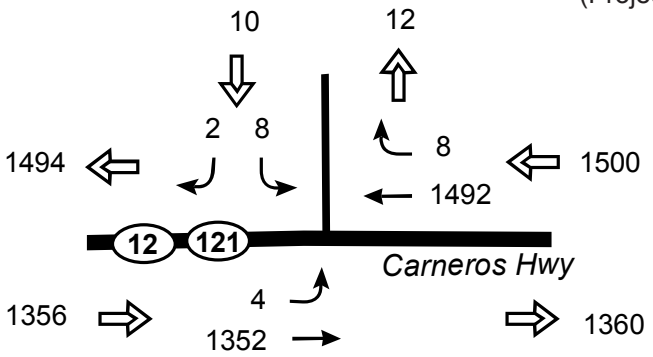

**Friday AM Peak Hour (7:00-8:00)**

= 5398 Carneros Hwy - Hudson Vineyards Winery (Project Site)




**Friday PM Peak Hour (4:15-5:15)**

= 5398 Carneros Hwy - Hudson Vineyards Winery (Project Site)




**Saturday PM Peak Hour (3:15-4:15)**



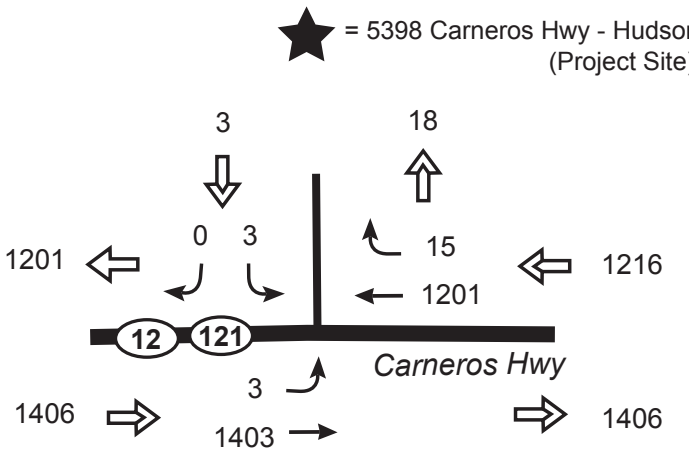
**Figure 15**

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

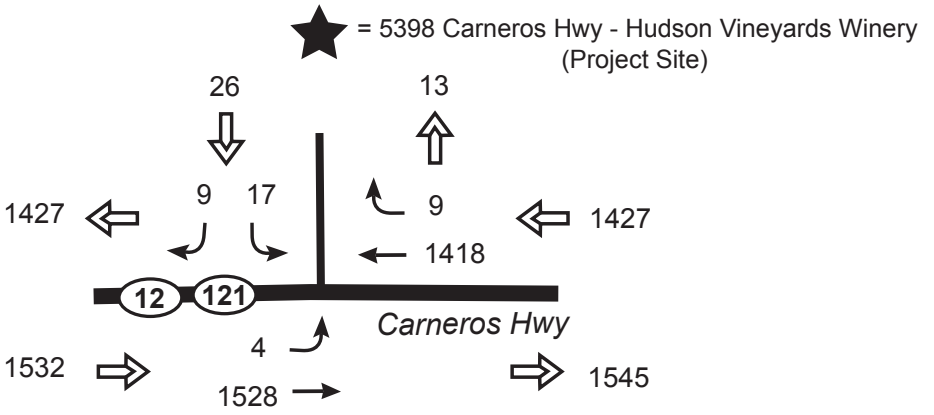
CRANE TRANSPORTATION GROUP

Not To Scale

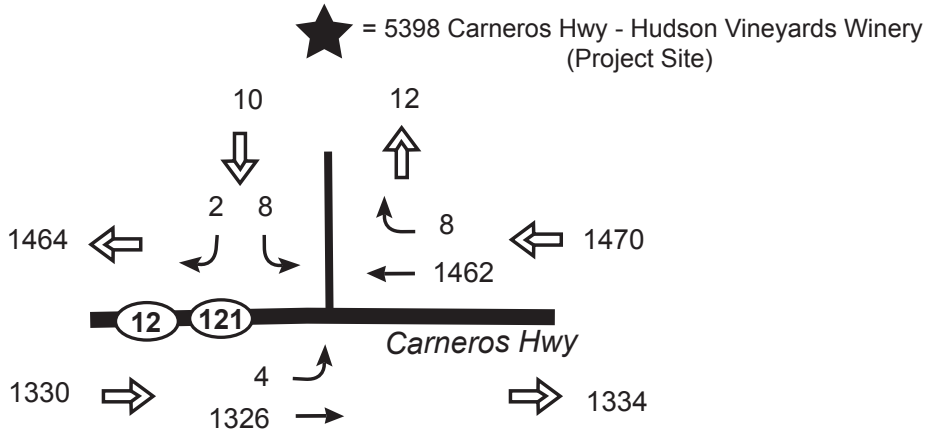
NORTH




**Friday AM Peak Hour (7:00-8:00)**




**Friday PM Peak Hour (4:15-5:15)**




**Saturday PM Peak Hour (3:15-4:15)**



**Figure 16**

**Year 2030 (with Project) Summer Friday AM & PM and Saturday PM Peak Hour Volumes**

CRANE TRANSPORTATION GROUP

# Tables

**Table 1A**

# ROADWAY SEGMENT LEVEL OF SERVICE
## SR 12-121 AT PROJECT SITE

## 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) |
| SR 12-121 East of Project Driveway | EB | 1200 | 1291 | F (1.076) | 1292 | F (1.077) [0.1%][3] | 1336 | F (1.113) | 1343 | F (1.118) [0.5 %] | 1233 | F (1.028) | 1237 | F (1.031) [0.3%] |
| | WB | 1200 | 1115 | E (.929) | 1119 | E (.933) [0.4%][3] | 1379 | F (1.149) | 1384 | F (1.153) [0.4 %] | 1359 | F (1.133) | 1364 | F (1.137) [0.4%] |
| SR 12-121 West of Project Driveway | EB | 1200 | 1288 | F (1.073) | 1289 | F (1.074) [0.1%][3] | 1333 | F (1.111) | 1335 | F (1.113) [0.2 %] | 1231 | F (1.026) | 1233 | F (1.028) [0.2%] |
| | WB | 1200 | 1109 | E (.924) | 1109 | E (.924) [0.0%][3] | 1377 | F (1.148) | 1381 | F (1.151) [0.3%] | 1356 | F (1.130) | 1358 | F (1.132) [0.1%] |

(1) Vol = volume
(2) LOS (V/C) = level of service (volume to capacity ratio)
(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 1B**

# ROADWAY SEGMENT LEVEL OF SERVICE
## SR 12-121 AT PROJECT SITE

## 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) |
| SR 12-121 East of Project Driveway | EB | 1200 | 1278 | F (1.065) | 1278 | F (1.065) [0.0%][3] | 1323 | F (1.103) | 1335 | F (1.112) [0.9%] | 1209 | F (1.008) | 1213 | F (1.011) [0.3%] |
| | WB | 1200 | 1098 | E (.915)] | 1107 | E (.923) [0.8%][3] | 1365 | F (1.138) | 1370 | F (1.142) [0.4 %] | 1332 | F (1.111) | 1337 | F (1.114) [0.4%] |
| SR 12-121 West of Project Driveway | EB | 1200 | 1275 | F (1.063) | 1278 | F (1.065) [0.2%][3] | 1320 | F (1.100) | 1322 | F (1.102) [0.2 %] | 1207 | F (1.006) | 1209 | F (1.008) [0.2%] |
| | WB | 1200 | 1092 | E (.910) | 1092 | E (.910) [0.0%][3] | 1363 | F (1.136) | 1370 | F (1.142) [0.5 %] | 1329 | F (1.108) | 1331 | F (1.109) [0.2%] |

[1] Vol = volume
[2] LOS (V/C) = level of service (volume to capacity ratio)
[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 2A**

# ROADWAY SEGMENT LEVEL OF SERVICE
## SR 12-121 AT PROJECT SITE

## 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) |
| SR 12-121 East of Project Driveway | EB | 1200 | 1340 | F (1.117) | 1341 | F (1.118) [.001][3] | 1416 | F (1.180) | 1423 | F (1.186) [.006] | 1279 | F (1.066) | 1283 | F (1.069) [.003] |
| | WB | 1200 | 1157 | E (.964) | 1161 | E (.967) [.003][3] | 1400 | F (1.167) | 1405 | F (1.171) [.004] | 1410 | F (1.175) | 1415 | E (1.179) [.004] |
| SR 12-121 West of Project Driveway | EB | 1200 | 1337 | F (1.114) | 1338 | F (1.115) [.001][3] | 1413 | F (1.178) | 1415 | F (1.179) [.001] | 1277 | F (1.064) | 1279 | F (1.066) [.002] |
| | WB | 1200 | 1151 | E (.959) | 1551 | F (.959) [0][3] | 1398 | F (1.165) | 1402 | E (1.168) [.003] | 1407 | F (1.173) | 1409 | E (1.174) [.001] |

(1) Vol = volume
(2) LOS (V/C) = level of service (volume to capacity ratio)
(3) [ ] = Change in v/c ratio due to the project.

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 2B**

# ROADWAY SEGMENT LEVEL OF SERVICE
## SR 12-121 AT PROJECT SITE

## 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) |
| SR 12-121 East of Project Driveway | EB | 1200 | 1326 | F (1.105) | 1326 | F (1.105) [0][3] | 1402 | F (1.168) | 1414 | F (1.178) [.010] | 1254 | F (1.045) | 1258 | F (1.048) [.003] |
| | WB | 1200 | 1139 | E (.949) | 1148 | E (.957) [.008][3] | 1387 | F (1.156) | 1392 | F (1.160) [.004] | 1381 | F (1.151) | 1386 | F (1.155) [.004] |
| SR 12-121 West of Project Driveway | EB | 1200 | 1323 | F (1.103) | 1326 | F (1.105) [.002][3] | 1399 | F (1.166) | 1401 | F (1.168) [.002] | 1252 | F (1.043) | 1254 | F (1.045) [.002] |
| | WB | 1200 | 1133 | E (.944) | 1133 | E (.944) [0][3] | 1385 | F (1.154) | 1392 | F (1.160) [.006] | 1378 | F (1.148) | 1380 | F (1.150) [.002] |

(1) Vol = volume
(2) LOS (V/C) = level of service (volume to capacity ratio)
(3) [ ] = Change in v/c ratio due to the project.

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 3A**

# ROADWAY SEGMENT LEVEL OF SERVICE
## SR 12-121 AT PROJECT SITE

## 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) |
| SR 12-121 East of Project Driveway | EB | 1200 | 1420 | F (1.183) | 1421 | F (1.184) [.001][3] | 1549 | F (1.291) | 1556 | F (1.297) [.006] | 1356 | F (1.130) | 1360 | F (1.133) [.003] |
| | WB | 1200 | 1226 | F (1.022) | 1230 | F (1.025) [.003][3] | 1434 | F (1.195) | 1439 | F (1.199) [.004] | 1495 | E (1.246) | 1500 | F (1.250) [.004] |
| SR 12-121 West of Project Driveway | EB | 1200 | 1417 | F (1.181) | 1418 | F (1.182) [.001][3] | 1546 | F (1.289) | 1548 | F (1.290) [.001] | 1354 | F (1.128) | 1356 | F (1.130) [.002] |
| | WB | 1200 | 1220 | F (1.017) | 1220 | F (1.017) [0][3] | 1432 | F (1.193) | 1436 | F (1.197) [.004] | 1492 | E (1.243) | 1494 | F (1.245) [.002] |

(1) Vol = volume
(2) LOS (V/C) = level of service (volume to capacity ratio)
(3) [ ] = Change in v/c ratio due to the project.

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 3B**

# ROADWAY SEGMENT LEVEL OF SERVICE
## SR 12-121 AT PROJECT SITE

## 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) |
| SR 12-121 East of Project Driveway | EB | 1200 | 1406 | F (1.172) | 1406 | F (1.172) [0][3] | 1533 | F (1.278) | 1545 | F (1.287) [.009] | 1330 | F (1.108) | 1334 | F (1.112) [.004] |
| | WB | 1200 | 1207 | F (1.006) | 1216 | F (1.013) [.007][3] | 1422 | F (1.185) | 1427 | F (1.189) [.004] | 1465 | F (1.221) | 1470 | F (1.225) [.004] |
| SR 12-121 West of Project Driveway | EB | 1200 | 1403 | F (1.169) | 1406 | F (1.172) [.003][3] | 1530 | F (1.275) | 1532 | F (1.277) [.002] | 1328 | F (1.107) | 1330 | F (1.108) [.001] |
| | WB | 1200 | 1201 | F (1.001) | 1201 | F (1.001) [0][3] | 1420 | F (1.183) | 1427 | E (1.189) [.006] | 1462 | F (1.218) | 1464 | F (1.220) [.002] |

(1) Vol = volume
(2) LOS (V/C) = level of service (volume to capacity ratio)
(3) [ ] = Change in v/c ratio due to the project.

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 4**

# HUDSON VINEYARDS WINERY
# NET NEW TRIP GENERATION ON LOCAL ROADWAY SYSTEM

## HARVEST FRIDAY

| CATEGORY | NUMBER | HOURS | TRIPS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 7-8 AM | | 8-9 AM | | 3-4 PM | | 4-5 PM | | 5-6 PM | | 4:15-5:15PM | |
| | | | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| Admin Employees | 4 | 8:00AM-5:00PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Production Employees – Full Time | 4 | 1st shift 5AM-1:30 PM 2nd shift 11AM-7:30PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production Employees – Part Time | 6 | 1st shift 5AM-1:30 PM 2nd shift 11AM-7:30PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tours/Tasting Employees | 4 | 9:30AM-7:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grape Delivery Trucks (50% grown off-site) | 3-4/day | 4AM-11AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Visitors | 120 total = 47 vehicles* | 10:30AM-6:30PM | 0 | 0 | 0 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 |
| Other Trucks (winery materials) | 1-2/day | 8AM-5PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | | | 5 | 1 | 0 | 0 | 8 | 8 | 7 | 7 | 6 | 11 | 7 | 11 |

* 2.6 visitors/vehicle average on weekdays per County data.

*Source: Crane Transportation Group*

**Table 5**

# HUDSON VINEYARDS WINERY
# NET NEW TRIP GENERATION ON LOCAL ROADWAY SYSTEM

## HARVEST SATURDAY

| CATEGORY | NUMBER | HOURS | TRIPS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2-3 PM | | 3-4 PM | | 4-5 PM | | 5-6 PM | | 3:15-4:15PM | |
| | | | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| Admin Employees | 1 | 8:00AM-5:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Production Employees – Full Time | 4 | 1st shift 5AM-1:30 PM 2nd shift 11AM-7:30PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production Employees – Part Time | 6 | 1st shift 5AM-1:30 PM 2nd shift 11AM-7:30PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tours/Tasting Employees | 5 | 9:30AM-7:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grape Delivery Trucks (50% grown off-site) | 3-4/day | 4AM-11AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Visitors | 120 total = 43 vehicles* | 10:30AM-6:30PM | 6 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 7 | 6 |
| TOTAL | | | 6 | 6 | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 6 |

* 2.8 visitors/vehicle average on Saturdays per County data.

*Source: Crane Transportation Group*

**Table 6**

# HUDSON VINEYARDS WINERY
# NET NEW TRIP GENERATION ON LOCAL ROADWAY SYSTEM

## SUMMER (NON-HARVEST) FRIDAY

| CATEGORY | NUMBER | HOURS | TRIPS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 7-8 AM | | 8-9 AM | | 3-4 PM | | 4-5 PM | | 5-6 PM | | 4:15-5:15PM | |
| | | | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| Admin Employees | 4 | 8:00AM-5:00PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Production Employees – Full Time | 4 | 8AM-5PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Production Employees – Part Time | 4 | 8AM-5PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Tours/Tasting Employees | 4 | 9:30AM-7:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Visitors | 120 total = 47 vehicles* | 10:30AM-6:30PM | 0 | 0 | 0 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 |
| Other Trucks (winery materials) | 1-2/day | 8AM-5PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | | | 12 | 0 | 0 | 0 | 8 | 8 | 7 | 7 | 6 | 19 | 7 | 19 |

* 2.6 visitors/vehicle average on weekdays per County data.

*Source: Crane Transportation Group*

**Table 7**

# HUDSON VINEYARDS WINERY
# NET NEW TRIP GENERATION ON LOCAL ROADWAY SYSTEM

## SUMMER (NON-HARVEST) SATURDAY

| CATEGORY | NUMBER | HOURS | TRIPS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2-3 PM | | 3-4 PM | | 4-5 PM | | 5-6 PM | | 3:15-4:15PM | |
| | | | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| Admin Employees | 1 | 8:00AM-5:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Production Employees – Full Time | 4 | 8AM-5PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| Production Employees – Part Time | 4 | 8AM-5PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| Tours/Tasting Employees | 5 | 9:30AM-7:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Visitors | 120 total = 43 vehicles* | 10:30AM-6:30PM | 6 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 7 | 6 |
| TOTAL | | | 6 | 6 | 7 | 6 | 6 | 7 | 6 | 15 | 7 | 6 |

* 2.8 visitors/vehicle average on Saturdays per County data.

*Source: Crane Transportation Group*

**Table 8**

# HUDSON VINEYARDS WINERY
# PROJECT TRIP GENERATION

## HARVEST

| FRIDAY AM PEAK HOUR* (7:00-8:00) | | FRIDAY PM PEAK HOUR* (4:15-5:15) | | SATURDAY PM PEAK HOUR* (3:15-4:15) | |
|---|---|---|---|---|---|
| INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS |
| 5 | 1 | 7 | 11 | 7 | 6 |

## SUMMER (NON-HARVEST)

| FRIDAY AM PEAK HOUR* (7:00-8:00) | | FRIDAY PM PEAK HOUR* (4:15-5:15) | | SATURDAY PM PEAK HOUR* (3:15-4:15) | |
|---|---|---|---|---|---|
| INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS | INBOUND TRIPS | OUTBOUND TRIPS |
| 12 | 0 | 7 | 19 | 7 | 6 |

* Peak hour along SR 12-121.

*Source: Crane Transportation Group*

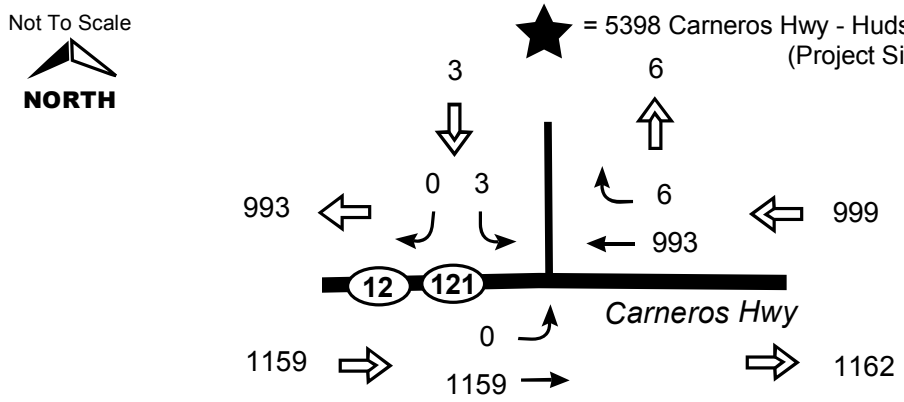
**Table 9**

# HUDSON VINEYARDS WINERY
# MARKETING EVENT TRAFFIC DETAILS

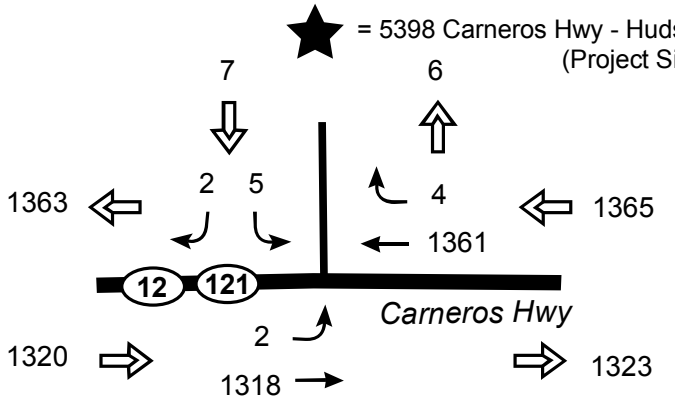
| MARKETING EVENT | STAFF/GUEST CATEGORY | # OF PEOPLE | # OF VEHICLES | TIMES | REGULAR VISITATION ELIMINATED DURING MARKETING EVENT? |
|---|---|---|---|---|---|
| Food & Wine Pairing (6 per month) | Guests | 24 | 9-10 autos | May occur between 10:00 AM-10:00 PM<br><br>Typically 3 hours.<br><br>Any day of the week. | No |
| | Extra Winery Staff | 2 | 2 | | |
| | Caterers | 6 | 3 | | |
| | Entertainers | 2 | 1 | | |
| | Delivery vehicles | 0 | 0 | | |
| | Other? | 0 | 0 | | |
| Marketing (7 per year) | Guests | 75 | 27-29 autos | May occur between 10:00 AM-10:00 PM<br><br>Typically 4 hours.<br><br>Any day of the week. | Yes |
| | Extra Winery Staff | 4 | 4 | | |
| | Caterers | 8 | 3 | | |
| | Entertainers | 3 | 2 | | |
| | Delivery vehicles | 4 | 4 | | |
| | Other? | 0 | 0 | | |
| Marketing (3 per year) | Guests | 125 | 45-48 autos | May occur between 10:00 AM-10:00 PM<br><br>Typically 4 hours.<br><br>Any day of the week. | Yes |
| | Extra Winery Staff | 8 | 8 | | |
| | Caterers | 12 | 5 | | |
| | Entertainers | 4 | 2 | | |
| | Delivery vehicles | 6 | 6 | | |
| | Other? | 0 | 0 | | |

*Source: Hudson Vineyards Winery applicant*

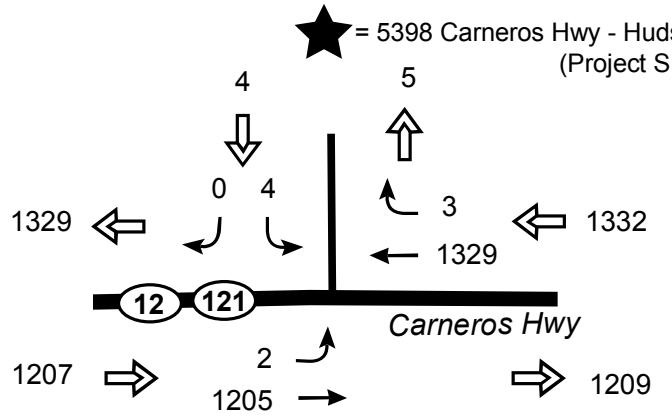
# Appendix




**Friday, January 16, 2015**
**7:00-8:00 AM**




**Friday, August 15, 2014**
**4:15-5:15 PM**




**Saturday, August 16, 2014**
**3:15-4:15 PM**

Hudson Vineyards Winery Traffic Study

**Appendix Figure 1**

**Year 2014 August Friday & Saturday PM and Year 2015 January Friday AM Peak Hour Volumes**

**CRANE TRANSPORTATION GROUP**

**Appendix**

# HUDSON VINEYARDS WINERY
# EXPECTED ACTIVITY ONLY DUE TO PROPOSED PROJECT

## Gallons/Year Production: 80,000

## 1st Year of Expected Full Production: 2020

| | HARVEST CONDITIONS | NON-HARVEST CONDITIONS |
|---|---|---|
| A. | **Full-time admin employees**<br># on Weekdays __4__<br># on Saturday __1___<br># on Sunday ___1__<br>Work hours:<br>Weekday 8:00 AM to 5:00 PM<br>Saturday 8:00 AM to 5:00 PM<br>Sunday 8:00 AM to 5:00 PM | **Full-time admin employees**<br># on Weekdays __4__<br># on Saturday __1___<br># on Sunday ___1__<br>Work hours:<br>Weekday 8:00 AM to 5:00 PM<br>Saturday 8:00 AM to 5:00 PM<br>Sunday 8:00 AM to 5:00 PM |
| B. | **Full-time production employees**<br># on Weekdays __4__<br># on Saturday __4___<br># on Sunday ___4__<br>Work hours:<br>Weekday 1st Shift 5:00 AM to 1:30 PM<br>Weekday 2nd Shift 11:00 AM to 7:30 PM<br>Saturday 1st Shift 5:00 AM to 1:30 PM<br>Saturday 2nd Shift 11:00 AM to 7:30 PM<br>Sunday N/A<br>Napa County assumes 24-hour work cycle. | **Full-time production employees**<br># on Weekdays __4__<br># on Saturday __4___<br># on Sunday ___4__<br>Work hours:<br>Weekday 8:00 AM to 5:00 PM<br>Saturday N/A<br>Sunday N/A |
| C. | **Part-time production employees**<br># on Weekdays __6__<br># on Saturday __6___<br># on Sunday ___6__<br>Work hours:<br>Weekday 1st Shift 5:00 AM to 1:30 PM<br>Weekday 2nd Shift 11:00 AM to 7:30 PM<br>Saturday 1st Shift 5:00 AM to 1:30 PM<br>Saturday 2nd Shift 11:00 AM to 7:30 PM<br>Sunday N/A | **Part-time production employees**<br># on Weekdays __4__<br># on Saturday __4___<br># on Sunday ___4__<br>Work hours:<br>Weekday 8:00 AM to 5:00 PM<br>Saturday N/A<br>Sunday N/A |

**Appendix**

# HUDSON VINEYARDS WINERY
# EXPECTED ACTIVITY ONLY DUE TO PROPOSED PROJECT

| | HARVEST CONDITIONS | NON-HARVEST CONDITIONS |
|---|---|---|
| D. | **Tours & tasting employees**<br># on Weekdays __4__<br># on Saturday __5___<br># on Sunday ___5__<br>Work hours:<br>Weekday 9:30 AM to 7:00 PM<br>Saturday 9:30 AM to 7:00 PM<br>Sunday 9:30 AM to 7:00 PM | **Tours & tasting employees**<br># on Weekdays __4__<br># on Saturday __5___<br># on Sunday ___5__<br>Work hours:<br>Weekday 9:30 AM to 7:00 PM<br>Saturday 9:30 AM to 7:00 PM<br>Sunday 9:30 AM to 7:00 PM |
| E. | **Grape Delivery Trucks**<br># on Weekdays _3.5___<br># on Saturday __3.5_<br># on Sunday __1.5___<br>Delivery hours:<br>Weekday 4:00 AM to 11:00 AM<br>Saturday 4:00 AM to 11:00 AM<br>Sunday 4:00 AM to 8:00 AM<br># days of grape delivery: _7__ | No grape delivery |
| F. | **Maximum tours/tasting visitors**<br># on Mon-Thurs 30 (12 vehicles)<br># on Friday 120 (47 vehicles)<br># on Saturday 120 (43 vehicles)<br># on Sunday 120 (43 vehicles)<br>Tasting hours:<br>Weekday 10:30 AM to 6:30 PM<br>Saturday 10:30 AM to 6:30 PM<br>Sunday 10:30 AM to 6:30 PM | **Maximum tours/tasting visitors**<br># on Mon-Thurs 30 (12 vehicles)<br># on Friday 120 (47 vehicles)<br># on Saturday 120 (43 vehicles)<br># on Sunday 120 (43 vehicles)<br>Tasting hours:<br>Weekday 10:30 AM to 6:30 PM<br>Saturday 10:30 AM to 6:30 PM<br>Sunday 10:30 AM to 6:30 PM |
| G. | **Other employees**<br># on Weekdays __0__<br># on Saturday __0___<br># on Sunday ___0__<br>Work hours:<br>Weekday _____ to ____<br>Saturday _____ to ____<br>Sunday _____ to _____ | **Other employees**<br># on Weekdays __0__<br># on Saturday __0___<br># on Sunday ___0__<br>Work hours:<br>Weekday _____ to ____<br>Saturday _____ to ____<br>Sunday _____ to _____ |

**Appendix**

# HUDSON VINEYARDS WINERY
# EXPECTED ACTIVITY ONLY DUE TO PROPOSED PROJECT

| | HARVEST CONDITIONS | NON-HARVEST CONDITIONS |
|---|---|---|
| H. | **Other trucks – Please detail**<br># on Weekdays __1.4*__<br># on Saturday N/A<br># on Sunday N/A<br>Delivery hours:<br>Weekday 8:00 AM to 5:00 PM<br>Saturday N/A<br>Sunday N/A<br>*Winery materials (bottles, corks, boxes, etc.) | **Other trucks**<br># on Weekdays __1.4*__<br># on Saturday N/A<br># on Sunday N/A<br>Delivery hours:<br>Weekday 8:00 AM to 5:00 PM<br>Saturday N/A<br>Sunday N/A<br>*Winery materials (bottles, corks, boxes, etc.) |

## I. Grape Source & Trucks

Percent grapes grown on site: ± 50%

Grapes grown off site – access route to winery entrance
SR 12-121 from the west: ± 25%
SR 12-121 from the east: ± 75%

Number of existing grape haul truck trips eliminated from Carneros Highway due to use of on-site grapes for proposed winery: 30
Tons hauled from Ranch property: 350

## J. New Special Events

Food & wine pairing – # events/ month: 6
maximum # people/event: 24 (9-10 vehicles)
typical days: Any day of the week
typical hours: between 10:00 AM and 10:00 PM (3-hour-long event)

Marketing events – # events/year: 7
Maximum # people/event: 75 (27-29 vehicles)
typical days: Any day of the week
typical hours: between 10:00 AM and 10:00 PM (4-hour-long event)

Marketing events – # events/year: 3
Maximum # people/event: 125 (45 vehicles)
typical days: Saturday & Sunday
typical hours: between 10:00 AM and 10:00 PM (4-hour-long event)

**Appendix**

# HUDSON VINEYARDS WINERY
# EXPECTED ACTIVITY ONLY DUE TO PROPOSED PROJECT

K. **Bottling**

Twice per year bottling, January and June. Bottling performed by a mobile bottling line which will include approximately three additional people.