

“H”

## Traffic Study

## Existing Conditions Winery Traffic Information / Trip Generation

***Determine Winery Daily Trips. Complete Sections A through H below to determine your winery project's estimated baseline daily and peak hour trips.***

### Section A. Maximum Daily Weekday Traffic (Friday, non-harvest season)

1. Total number of FT employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
2. Total number of PT employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
3. Maximum weekday visitors<sup>1</sup>: \_\_\_\_\_/2.6 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
4. Gallons of production: \_\_\_\_\_/1,000 x 0.009 daily truck trips<sup>2</sup> x 2 one-way trips = \_\_\_\_\_ daily trips
5. TOTAL = \_\_\_\_\_ daily trips

### Section B. Maximum Daily Weekday Traffic (Friday, harvest season)

6. Total number of FT employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
7. Total number of PT employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
8. Maximum weekday visitors<sup>1</sup>: \_\_\_\_\_/2.6 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
9. Gallons of production: \_\_\_\_\_/1,000 x 0.009 daily truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
10. Avg. annual tons of grape on-haul: \_\_\_\_\_ / 144 truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
11. TOTAL = \_\_\_\_\_ daily trips

### Section C. Maximum Daily Weekend Traffic (Saturday, non-harvest season)

12. Total number of FT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
13. Total number of PT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
14. Maximum Saturday visitors<sup>1</sup>: \_\_\_\_\_/2.8 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
15. TOTAL = \_\_\_\_\_ daily trips

### Section D. Maximum Daily Weekend Traffic (Saturday, harvest season)

16. Total number of FT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
17. Total number of PT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
18. Maximum Saturday visitors<sup>1</sup>: \_\_\_\_\_/2.8 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
19. Gallons of production: \_\_\_\_\_/1,000 x 0.009 daily truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
20. Avg. annual tons of grape on-haul: \_\_\_\_\_ / 144 truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
21. TOTAL = \_\_\_\_\_ daily trips

## Existing Conditions Winery Traffic Information / Trip Generation

### Section E. PM Peak Hour Trip Generation (Friday, non-harvest season)

(Sum of daily trips from Sec. A, lines 3 and 4) x 0.38 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

### Section F. PM Peak Hour Trip Generation (Friday, harvest season)

(Sum of daily trips, Sec. B, lines 8, 9, 10) x 0.38 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

### Section G. PM Peak Hour Trip Generation (Saturday, non-harvest season)

<sup>1</sup> The number of weekday visitors shall include guests of the largest of any event that is proposed to occur two or more times in a month, on average. Full-time and part-time employees that staff such events shall also be included in the employee numbers.

<sup>2</sup> Assumes 1.47 materials and supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see Traffic Information Sheet Addendum for reference.)

(Daily trips from Sec. C, line 14) x 0.57 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

**Section H. PM Peak Hour Trip Generation (Saturday, harvest season)**

(Sum of daily trips Sec. D, lines 18, 19, 20) x 0.57 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

**Section I. Estimated Annual Trips**

(Sec. A, line 5 x 206) + (Sec. B, line 11 x 55) + (Sec. C, line a5 x 82) + (Sec. D, line 21 x 22) = \_\_\_\_\_ Annual trips

## Proposed Project Winery Traffic Information / Trip Generation

***Determine Winery Daily Trips. Complete Sections J through M below to determine your winery project's estimated future daily and peak hour trips.***

### Section J. Maximum Daily Weekday Traffic (Friday, non-harvest season)

1. Total number of FT employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
2. Total number of PT employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
3. Maximum weekday visitors<sup>3</sup>: \_\_\_\_\_/2.6 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
4. Gallons of production: \_\_\_\_\_/1,000 x 0.009 daily truck trips<sup>4</sup> x 2 one-way trips = \_\_\_\_\_ daily trips
5. TOTAL = \_\_\_\_\_ daily trips

### Section K. Maximum Daily Weekday Traffic (Friday, harvest season)

6. Total number of FT employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
7. Total number of PT employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
8. Maximum weekday visitors<sup>1</sup>: \_\_\_\_\_/2.6 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
9. Gallons of production: \_\_\_\_\_/1,000 x 0.009 daily truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
10. Avg. annual tons of grape on-haul: \_\_\_\_\_ / 144 truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
11. TOTAL = \_\_\_\_\_ daily trips

### Section L. Maximum Daily Weekend Traffic (Saturday, non-harvest season)

12. Total number of FT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
13. Total number of PT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
14. Maximum Saturday visitors<sup>1</sup>: \_\_\_\_\_/2.8 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
15. TOTAL = \_\_\_\_\_ daily trips

### Section M. Maximum Daily Weekend Traffic (Saturday, harvest season)

16. Total number of FT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 3.05 one-way trips per employee = \_\_\_\_\_ daily trips
17. Total number of PT Sat. employees<sup>1</sup>: \_\_\_\_\_ x 1.90 one-way trips per employee = \_\_\_\_\_ daily trips
18. Maximum Saturday visitors<sup>1</sup>: \_\_\_\_\_/2.8 visitors per vehicle x 2 one-way trips = \_\_\_\_\_ daily trips
19. Gallons of production: \_\_\_\_\_/1,000 x 0.009 daily truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
20. Avg. annual tons of grape on-haul: \_\_\_\_\_ / 144 truck trips x 2 one-way trips = \_\_\_\_\_ daily trips
21. TOTAL = \_\_\_\_\_ daily trips

<sup>3</sup> The number of weekday visitors shall include guests of the largest of any event that is proposed to occur two or more times in a month, on average. Full-time and part-time employees that staff such events shall also be included in the employee numbers.

<sup>4</sup> Assumes 1.47 materials and supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see Traffic Information Sheet Addendum for reference.)

## Proposed Project Winery Traffic Information / Trip Generation

***Determine Winery Peak Hour Trips. If the number of daily trips on either Section J, line 5, or Section L, line 15, is greater than 20, or Public Works Director determines that other circumstances such as access safety or other potential network impacts warrant further analysis, then the potential transportation impacts of your project must be evaluated in a transportation impact study (TIS) prepared in accordance with Napa County Public Works TIS Guidelines. Follow the direction outlined in Transportation Impact Study Analysis, below. If the number of daily trips on either Section J, line 5, or Section L, line 15, is equal to or less than 20, complete Sections N through Q below to determine your project's estimated peak hour trips. In lieu of completing Sections N through Q, you may opt to prepare a project-specific transportation impact analysis if you anticipate the number of peak hour trips from your proposal is different from that estimated here.***

**Section N. PM Peak Hour Trip Generation (Friday, non-harvest season)**

(Sum of daily trips from Sec. J, lines 3 and 4) x 0.38 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

**Section O. PM Peak Hour Trip Generation (Friday, harvest season)**

(Sum of daily trips from Sec. K, lines 8, 9, 10) x 0.38 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

**Section P. PM Peak Hour Trip Generation (Saturday, non-harvest season)**

(Daily trips from Sec. L, line 14) x 0.57 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

**Section Q. PM Peak Hour Trip Generation (Saturday, harvest season)**

(Sum of daily trips, Sec. M, lines 18, 19, 20) x 0.57 + (No. of FTE) + (No. of PTE / 2) = \_\_\_\_\_ PM peak trips

**Section R. Estimated Annual Trips**

(Sec. J, line 5 x 206) + (Sec. K, line 11 x 55) + (Sec. L, line 15 x 82) + (Sec. M, line 21 x 22) = \_\_\_\_\_ Annual trips

***Transportation Impact Study Analysis. If the number of daily trips on either Section J, line 5, or Section L, line 15, is greater than 20, then the potential transportation impacts of your project must be evaluated in a traffic impact study (TIS) prepared in accordance with Napa County Public Works TIS Guidelines. Existing trip counts on the transportation network should be collected during the harvest season (August 16 – October 31). If collected outside of the harvest season, during the months of November through February, counts shall be adjusted upward by 15 percent to estimate harvest season network volumes. If collected during the weeks between March 1 and August 15, counts shall be adjusted upward by seven percent.***

***For peak hour analysis in the TIS, the County will allow any one of the following methodologies:***

- a) Use the peak hour factors in Sections F through I, above, to estimate the peak hour trips generated by the project. To determine the potential peak hour impacts of the project, apply the harvest season estimated peak hour project trips (Sections G and I for the existing condition, and Sections O and Q for the proposed project) to roadway volumes during the hour between 3:00 p.m. and 4:00 p.m. on Fridays and Saturdays; or***
- b) Use peak hour trip counts as projected using the Institute for Transportation Engineers' (ITE) peak hour factors for winery land uses from the most current version of ITE Trip Generation. To determine the potential peak hour impacts of the project, apply the estimated peak hour project trips from ITE to roadway volumes during the hour between 4:00 p.m. and 5:00 p.m. on a Friday and 1:45 p.m. and 2:45 p.m. on a Saturday; or***
- c) Conduct a site-specific analysis informed by actual trip counts at the driveway of the project (for winery use permit modifications) or at the driveway of a project with comparable operating characteristics to that proposed (for new winery use permits). To determine the potential peak hour impacts of the project, apply the site-specific peak hour of generator to the peak hour of the network on a Friday and the peak hour of the roadway on a Saturday, based on the assembled trip count data.***