



MEMORANDUM

Date: December 11, 2017
To: Bill Hooper, Kenwood Investments
From: Ian Barnes and Bob Grandy, Fehr & Peers
Subject: **Preliminary Trip Generation Analysis for the Jack London Tap Room Project in Sonoma County, California**

WC17-3440

This memorandum presents the results of a trip generation study for the proposed Jack London Tap Room project in southern Sonoma County, California. The purpose of the analysis summarized in this memorandum is to establish the project trip generation for the proposed project. This information is used to determine what additional transportation analysis, if any, may be required by the County of Sonoma prior to approval of the project.

Project Description

The project site is located at the existing Cornerstone development in southern Sonoma County, California, at the southeast corner of the Arnold Drive (SR 121)/Wagner Road intersection. The Cornerstone development contains a mix of uses totaling approximately 23,000 square feet, including art galleries, wine tasting rooms, and other retail. The uses on site share a common parking area, and the components on site are typically marketed as a single development (although individual business owners may advertise at their discretion). The area surrounding the site consists of primarily agricultural and winemaking uses, with some nearby residential and retail. The proposed project would convert one of the existing, vacant wine tasting facilities (1,200 square feet gross floor area) to a beer tap room.

Tap Room Trip Generation Rate Derivation

The County of Sonoma *Guidelines for Traffic Impact Studies* notes that trip generation rates from the Institute of Transportation Engineers' *Trip Generation Manual* should be used in the calculation of trip generation for a project. Based on a review of the *Trip Generation Manual, 10th Edition* (the most recent version on the *Manual*), it was determined that data from the *Manual* would be unsuitable for use in this calculation given the unique project setting (one component of a mixed-

use development) and the unique project type (tap room) that is not reflected in the underlying data contained in the *Manual*. After consulting with County staff, and in accordance with the guidance in the *Guidelines for Traffic Impact Studies*, it was determined that a trip generation data collection effort would be needed to establish a local trip rate for the tap room land use.

Weekday afternoon peak period (4:00 PM to 6:00 PM) and weekend midday peak period (11:00 AM to 2:00 PM) trip generation data was collected at the following similar uses:

- HenHouse Brewing Company (322 Bellevue Avenue, Santa Rosa): approximately 1,300 square feet gross floor area (public space plus storage and ancillary uses)
- Sonoma Springs Brewing (19449 Riverside Drive #101, Sonoma): approximately 600 square feet gross floor area (public space plus storage and ancillary uses)
- Carneros Brewing Company (22985 Burndale Road, Sonoma): approximately 2,000 square feet gross floor area (public space plus storage and ancillary uses)

The HenHouse and Sonoma Springs locations are located in or very near urbanized areas (the City of Santa Rosa and City of Sonoma, respectively). The Carneros location is a rural setting, similar to the setting of the proposed project. The urbanized locations are anticipated to have a higher trip generation rate than the proposed project due to their proximity to higher levels of population. Trip generation data from the three study locations were averaged to derive a trip generation rate for the proposed project; this process is conservative as it could yield a higher trip generation estimate than may occur for the proposed project given that two urban sites were included in the data collection effort. The weekday afternoon peak hour and weekend midday peak hour trip generation data for the proposed project are summarized below in **Table 1**. Peak period trip generation data for the study sites are included in **Attachment A**.

TABLE 1 – SURVEY SITE PEAK HOUR TRIP GENERATION RATES

Location	Size ¹	Weekday PM				Weekend Midday			
		Peak Hour				Peak Hour			
		In	Out	Total	Rate ²	In	Out	Total	Rate ²
HenHouse Brewing Company	1.3 ksf	26	26	52	40.0	19	11	30	23.1
Sonoma Springs Brewing	0.6 ksf	19	10	29	48.3	14	5	19	31.7
Carneros Brewing Company	2.0 ksf	5	5	10	5.0	6	5	11	5.5
Average Trip Rate		--	--	--	31.1	--	--	--	20.1
Average Directional Split		55%	45%	--	--	65%	35%	--	--

Notes:

- 1 ksf = 1,000 square feet
- Rate expressed in total trips per 1,000 square feet
- Weighted average based on total trips generated at each location

Source: Fehr & Peers, December 2017.

As noted previously, and evidenced by the data in **Table 1**, trip rates for tap room land uses vary substantially over different sizes and settings. The proposed project is located in a rural setting, similar to the Carneros Brewing Company site. Weekday average vehicle occupancies at the survey locations ranged from 1.1 to 1.6 persons per vehicle (average of 1.2 person per vehicle). Weekend average vehicle occupancies at the survey locations ranged from 1.8 to 2.4 persons per vehicle (average of 2.1 per vehicle).

Existing Site Trip Generation Estimation

The proposed project includes the reuse of an existing, unoccupied 1,200 square foot wine tasting room facility at the Cornerstone development. The *Trip Generation Manual, 10th Edition* contains trip generation data for winery and tasting room land uses. However, the *Manual* notes that the data under this land use category constitutes a small sample size and should be "used with caution." Survey sites for the land use category are from California, Illinois and Virginia - these study sites may not be a good representation of travel behavior and patterns for wine tasting rooms in the Sonoma Valley.

The County of Sonoma relies on a specialized trip generation form for the estimation of trips generated by wineries and tasting rooms. This form relies on an assumed number of daily patrons for the wine tasting room to calculate the total number of daily trips generated by the proposed

project. Since the existing site is unused, an estimate of the number of patrons on-site was prepared using data from the State Fire Code.

State Fire Code Chapter 10, Section 1004, Table 1004.1.2 provides ratios to calculate the maximum occupant loads of buildings of various uses. The closest use to a wine tasting room in Table 1004.1.2 is "Assembly without fixed seats – Concentrated (tables and chairs)." This use has an occupant load factor of 15 square feet per person of net floor area. Assuming that 50% of the floor area at the 1,200 square foot existing wine tasting room is used for storage or other non-person uses, this results in a maximum occupancy of 40 persons. Since the Cornerstone development includes a mix of uses on site, the number of patrons that could access the project site is substantially higher than if the project site was a freestanding site, so the wine tasting room would experience a higher than expected occupancy rate (versus a freestanding site) throughout the day.

Assuming that, at peak times, the wine tasting room is at capacity and all seats turn over in the peak hour, the trips generated by the existing use would be 40 inbound person-trips and 40 outbound person-trips. The County specialized winery and tasting room trip generation form notes that wine tasting room vehicle trips have an average vehicle occupancy of 2.5 persons per vehicle. Accordingly, the 40 inbound person-trips and 40 outbound person trips result in 16 inbound vehicle trips and 16 outbound vehicle trips.

Proposed Project Trip Generation Estimation

Trip generation for the proposed project was estimated using the rates presented in **Table 1**. The number of trips estimated for the existing uses on site were deducted from the gross trip generation for the proposed project to arrive at the number of net new project trips. The trip generation calculation is summarized in **Table 2**.

TABLE 2 – PROJECT TRIP GENERATION ESTIMATES

Land Use Scenario	Quantity	Weekday PM			Weekend Midday		
		Peak Hour			Peak Hour		
		In	Out	Total	In	Out	Total
Proposed Tap Room	1.2 ksf ¹	21	16	37	17	8	25
Existing Wine Tasting Room	40 patrons ²	16	16	32	16	16	32
Net New Project Trips		+5	+0	+5	+7	-8	-7

Notes:

1. 1 ksf = 1,000 square feet
 2. Derived based on State Fire Code Table 1004.2.1
- Source: Fehr & Peers, December 2017.

As summarized in **Table 2**, the proposed project would result in a net increase of five weekday PM peak hour trips and a net decrease of seven weekend midday peak hour trips. As noted previously, the underlying trip generation rates used in the calculation include a mix of urban and rural settings; the trip generation rate data for the rural setting suggest a lower trip generation rate. This calculation also assumes that the project is a freestanding site for the purposes of trip generation. Ultimately, the Cornerstone development itself generates trips as a unit, so the number of trips generated by the tap room would likely be less than the estimate suggests. Internalization effects at the Cornerstone site would reduce the number of trips generated by the tap room versus the estimates in **Table 2**.

Next Steps

This memorandum may be submitted to County staff for review and comment. It is anticipated that after reviewing and finalizing this memorandum, County staff would make a determination as to what additional analysis, if any, is required prior to approval of the project.

This concludes our assessment of the project trips generated by the proposed Jack London Tap Room project. Please contact Ian Barnes with any questions at (925) 357-3388.

Attachments

Attachment A Trip Survey Data

ATTACHMENT A
TRIP SURVEY DATA



Ped Count

Location: Carneros Brewing Company (22985 Burndale Rd)
 City: Sonoma, CA

Day: Thursday
 Date: 11/16/2017

Time	Peds (By Group)	
	IN	OUT
4:00 PM	0	0
4:05 PM	0	0
4:10 PM	1	0
4:15 PM	0	1
4:20 PM	0	0
4:25 PM	1	0
4:30 PM	1	1
4:35 PM	0	0
4:40 PM	0	1
4:45 PM	0	0
4:50 PM	1	0
4:55 PM	1	0
5:00 PM	0	1
5:05 PM	0	1
5:10 PM	0	0
5:15 PM	0	1
5:20 PM	0	0
5:25 PM	0	0
5:30 PM	0	0
5:35 PM	0	0
5:40 PM	0	1
5:45 PM	0	0
5:50 PM	0	0
5:55 PM	0	0

Total Peds	
IN	OUT
0	1
0	0
1	1
0	0
0	0
1	1
3	1
0	0
0	1
0	0
4	0
1	0
0	2
0	0
0	0
0	1
0	0
0	0
0	0
0	0
0	4
0	0
0	0
0	0

Ped Count

Location: HenHouse Brewing Company (322 Bellevue Ave)
 City: Santa Rosa, CA

Day: Thursday
 Date: 11/16/2017

Time	Peds (By Group)	
	IN	OUT
4:00 PM	3	0
4:05 PM	3	0
4:10 PM	4	3
4:15 PM	3	0
4:20 PM	3	1
4:25 PM	0	0
4:30 PM	2	2
4:35 PM	2	1
4:40 PM	5	0
4:45 PM	1	1
4:50 PM	3	5
4:55 PM	3	1
5:00 PM	4	0
5:05 PM	0	1
5:10 PM	3	4
5:15 PM	3	3
5:20 PM	1	2
5:25 PM	1	1
5:30 PM	1	2
5:35 PM	1	6
5:40 PM	2	1
5:45 PM	1	1
5:50 PM	4	3
5:55 PM	4	1

Total Peds	
IN	OUT
6	0
3	0
5	3
5	0
6	3
0	0
2	5
3	1
7	0
2	1
8	6
6	1
5	0
0	1
3	5
3	6
1	3
2	2
2	2
1	7
2	2
1	1
5	4
5	1

Ped Count

Location: Sonoma Springs Brewing (19449 Riverside Drive #101)
 City: Sonoma, CA

Day: Thursday
 Date: 11/16/2017

Time	Peds (By Group)	
	IN	OUT
4:00 PM	0	0
4:05 PM	2	0
4:10 PM	2	0
4:15 PM	1	0
4:20 PM	1	1
4:25 PM	1	0
4:30 PM	2	5
4:35 PM	2	1
4:40 PM	1	1
4:45 PM	1	0
4:50 PM	2	0
4:55 PM	2	0
5:00 PM	1	0
5:05 PM	1	1
5:10 PM	1	0
5:15 PM	3	0
5:20 PM	2	1
5:25 PM	1	1
5:30 PM	1	1
5:35 PM	1	1
5:40 PM	2	1
5:45 PM	1	0
5:50 PM	1	1
5:55 PM	2	0

Total Peds	
IN	OUT
0	0
2	0
2	0
0	0
2	1
1	0
2	5
2	2
1	1
1	0
3	0
1	0
0	0
1	1
2	0
3	0
3	1
1	1
1	3
2	1
2	1
3	0
1	1
2	0

Ped Count

Location: HenHouse Brewing Company (322 Bellevue Ave)
 City: Santa Rosa, CA

Day: Saturday
 Date: 11/11/2017

Time	Peds (By Group)	
	IN	OUT
11:00 AM	1	0
11:05 AM	1	0
11:10 AM	0	0
11:15 AM	2	2
11:20 AM	2	0
11:25 AM	0	0
11:30 AM	0	0
11:35 AM	1	1
11:40 AM	1	0
11:45 AM	0	0
11:50 AM	0	1
11:55 AM	0	0
12:00 PM	1	1
12:05 PM	0	1
12:10 PM	1	0
12:15 PM	0	0
12:20 PM	2	1
12:25 PM	1	0
12:30 PM	1	0
12:35 PM	2	1
12:40 PM	2	2
12:45 PM	0	1
12:50 PM	0	0
12:55 PM	1	1
1:00 PM	1	0
1:05 PM	0	0
1:10 PM	1	1
1:15 PM	1	0
1:20 PM	2	0
1:25 PM	1	2
1:30 PM	5	2
1:35 PM	1	0
1:40 PM	4	0
1:45 PM	1	2
1:50 PM	2	2
1:55 PM	0	2

Total Peds	
IN	OUT
1	0
1	0
0	0
2	2
5	0
0	0
0	0
1	1
1	0
0	0
0	1
0	0
1	1
0	4
1	0
0	0
4	1
3	0
2	0
2	1
3	2
0	2
0	0
1	1
10	0
0	0
2	3
2	0
6	0
1	7
11	4
1	0
6	0
2	4
5	3
0	5

Ped Count

Location: Sonoma Springs Brewing (19449 Riverside Drive #101)
 City: Sonoma, CA

Day: Saturday
 Date: 11/18/2017

Time	Peds (By Group)	
	IN	OUT
11:00 AM	2	0
11:05 AM	0	0
11:10 AM	0	0
11:15 AM	0	0
11:20 AM	0	0
11:25 AM	0	0
11:30 AM	0	0
11:35 AM	0	0
11:40 AM	0	0
11:45 AM	0	0
11:50 AM	0	0
11:55 AM	2	0
12:00 PM	1	0
12:05 PM	1	0
12:10 PM	1	0
12:15 PM	0	0
12:20 PM	0	2
12:25 PM	0	0
12:30 PM	0	0
12:35 PM	0	0
12:40 PM	1	0
12:45 PM	1	1
12:50 PM	0	1
12:55 PM	2	0
1:00 PM	0	0
1:05 PM	1	0
1:10 PM	1	0
1:15 PM	0	1
1:20 PM	1	0
1:25 PM	0	0
1:30 PM	1	1
1:35 PM	2	1
1:40 PM	2	0
1:45 PM	3	0
1:50 PM	1	2
1:55 PM	1	0

Total Peds	
IN	OUT
2	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
2	0
5	0
1	0
1	0
0	0
0	2
0	0
0	0
0	0
2	0
2	2
0	1
4	0
0	0
1	0
1	0
0	1
1	0
0	0
1	2
8	2
6	0
4	0
1	2
1	0