



MEMORANDUM

Date: April 7, 2020
To: Sam Fielding and Roscoe Mata, City of Millbrae
Cc: Darcy Kremin, Rincon Associates
From: Mike Hawkins, PE, Fehr & Peers
Subject: **Trip Generation Rates for the Proposed Millbrae Moxy Hotel**

SF19-1032

The following technical memorandum summarizes vehicle trip generation rates for the proposed Moxy Hotel (the project) located in Millbrae, California. The project site is currently occupied by two hotels – the Aloft San Francisco Airport and the Westin San Francisco Airport – and a shared surface parking lot that serves both hotels. The proposed Moxy would be added to the project site such that the existing two hotels would continue to operate, and the three hotels would share one surface parking lot. This memorandum summarizes the key differences between the three hotels on site, includes descriptions of various trip generation rates for hotel land uses, and provides a comparison of vehicle trips generated by the project using each of the trip generation rates.

Hotel Descriptions

The existing Westin and Aloft include several supporting facilities such as a full-service restaurant and extensive meeting facilities. The proposed Moxy will not include such facilities. Descriptions of each of the three hotels are provided below:

Existing Westin: 421 rooms; full-service restaurant, 11 different event rooms, with a total of approximately 13,000 square feet of meeting/event space, including a space with capacity for up to 650 guests.

Existing Aloft: 298 rooms; hotel bar with snack menu (including live music events); 1 event room with 600 square feet and capacity for up to 50 guests.

Proposed Moxy: 209 rooms; no restaurant; lobby bar; no designated event space.



Trip Generation

Trip generation for new projects is typically calculated using the ITE *Trip Generation Manual* (10th Edition, 2017). ITE rates are based on national averages for similar land use types. However, ITE recommends using locally collected trip generation data when available and appropriate rather than using generic national averages included in the manual.

Site-Specific Rates

Since the project site is currently occupied by two existing hotels, Fehr & Peers collected driveways counts at existing driveways to calculate a site-specific trip generation rate for the existing hotels. Driveway counts are inclusive of all vehicle trips entering and exiting the site, including TNCs and vehicle trips associated with the Park 'N Fly that currently operates at the site. **Table 1** presents the trip rate and trip generation for the existing hotels on site.

TABLE 1: EXISTING HOTEL TRIP GENERATION							
Time Period	Hotel Rooms	Observed Traffic Volume ¹			Observed Trip Generation Rate ²		
		Total	In	Out	Total	In	Out
AM Peak Hour (7:45-8:45)	719	297	146	151	0.41	49%	51%
PM Peak Hour (4:15-5:15)		253	113	140	0.35	45%	55%
Daily (Weekday)		3,899	--	--	5.42	--	--

Source: Fehr & Peers, 2019.

Notes:

1. Based on average weekday (Monday – Thursday) traffic counts collected at existing site driveways in October 2019.
2. Trip generation rate = (observed traffic count) / (hotel rooms)

However, as noted above, the project differs substantially from the existing on-site hotels in that it does not include any restaurant or event space.

ITE Trip Generation Rates

The ITE *Trip Generation Manual* includes descriptions for each land use that it provides trip generation rates for. The descriptions for Land Use 310 Hotel and Land Use 312 Business Hotel are included below:



Land Use 310 – Hotel. *Description: A hotel is a place of lodging that provides sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or other retail and service shops. All suites hotel (Land Use 311), business hotel (Land Use 312), motel (Land Use 320), and resort hotel (Land Use 330) are related uses.*

Land Use 312 – Business Hotel. *Description: A business hotel is a place of lodging aimed toward the business traveler but also accommodates a growing number of recreational travelers. These hotels provide sleeping accommodations and other limited facilities, such as a breakfast buffet bar and afternoon beverage bar (no lunch or dinner is served and limited meeting facilities are provided). Each unit is a large single room. Business hotels provide very few or none of the supporting facilities provided at hotels or suite hotels and are usually smaller in size. Hotel (Land Use 310), all suites hotel (Land Use 311), motel (Land Use 320), and resort hotel (Land Use 330) are related uses.*

Trip Generation Comparison

Table 2 summarizes the potential trip generating potential of the proposed 209-room Moxy hotel using three different trip generation rates – ITE Hotel, ITE Business Hotel, and Custom Site-Specific based on existing driveway counts.

TABLE 2: PROPOSED MOXY HOTEL TRIP GENERATION COMPARISON								
Trip Generation Rate	Hotel Rooms	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
ITE – Hotel ¹	209	1,933	58	41	99	67	64	131
ITE – Business Hotel ¹		840	34	48	82	37	30	67
Site-Specific ²		1,133	42	44	86	33	41	73

Source: Fehr & Peers, 2020.

Notes:

1. Base on ITE *Trip Generation 10th Edition* for land uses 310 and 312.
2. Based on traffic counts collected in October 2019.

As shown in Table 2, the ITE – Hotel rate results in the highest vehicle trip generation, while the ITE – Business Hotel rate results in the lowest vehicle trip generation for the project. Based on the hotel descriptions above, the existing Aloft and Westin would be expected to generate trips more similar to the ITE – Hotel rate but actually generate fewer trips due to site-specific conditions (such as



proximity to SFO, proximity to regional transit, availability of restaurants nearby, guest demographics, guests' propensity to rent a car, and other aspects that are difficult to quantify). Further, based on the hotel descriptions above, the proposed Moxy would be expected to generate trips at a lower rate than the existing hotels due to the lack of restaurant and event facilities. Therefore, it would be reasonable to use the ITE – Business Hotel rates for purposes of calculating project trip generation.

Conclusion

Based on the hotel descriptions and the ITE land use descriptions, the existing hotels located on the project site are expected to generate vehicle trips at a rate similar to the ITE – Hotel rate, but when surveyed actually generated trips at a lower rate. Considering that the types of facilities offered by the existing hotels are not entirely representative of the facilities that will be offered by the proposed Moxy, the project is expected to generate trips at a lower rate than the existing site-specific rate, and the ITE – Business Hotel trip generation rate may be appropriate.

The Transportation Study prepared by Fehr & Peers and dated December 2019 used the site-specific trip generation rate to calculate expected project trip generation for the purposes of analyzing the project's effect on the transportation network. That represents a conservative analysis compared to using the ITE – Business Hotel trip rate. The study found no adverse effects to transportation during the peak periods and the conclusions of the report remain valid.