

Draft Memorandum

Date: August 23, 2021
To: Abby Wittman and Toby Long, CHxTLD
From: Sam Tabibnia, Fehr & Peers
Subject: **BCRE Project – VMT Analysis and Trip Generation**

OK20-0368

This memorandum presents the results of the vehicles miles traveled (VMT) analysis and trip generation for the proposed BCRE Project (the project) in Pinole, CA. The project site is located at 2801 Pinole Valley Road and currently contains a commercial and office building of approximately 25,200 square feet with 115 parking spaces. Based on the site plan received August 10, 2021, the project consists of an 17,280 square foot addition to the existing commercial and office building, of which approximately 3,600 square feet would be a bank, and a new 29-unit residential building. The results of our analysis show that:

- The project would satisfy the Located in TPA VMT screening criterion and is therefore presumed to have a less than significant impact on VMT.
- The project would generate approximately 490 daily, 63 AM peak hour and 58 PM peak hour net new automobile trips.

The following sections describe the detailed VMT analysis and the estimated trip generation for the project land uses.

VMT Assessment

This section presents the effects of the project on VMT using guidelines, thresholds of significance, and screening criteria for evaluating VMT in CEQA documents as required by the State.

California Senate Bill 743

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, LOS, and other similar



measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.”

In December 2018, the State Office of Planning and Research (OPR) completed an update to the CEQA Guidelines to implement the requirements of SB 743. The Guidelines state that VMT must be the metric used to determine significant transportation impacts. The Guidelines require all lead agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 2020.

The OPR Guidelines recommend developing screening criteria for development projects that meet certain criteria that can readily lead to the conclusion that they would not cause a significant impact on VMT. The OPR Guidelines also recommend evaluating VMT impacts using an efficiency-based version of the metric, such as VMT per resident for residential developments and/or VMT per worker for office or other employment-based developments.

While the City of Pinole has not developed their screening criteria or thresholds of significance for VMT assessment, the Contra Costa Transportation Authority (CCTA), which supports travel demand modeling for the county, has developed VMT screening criteria, analysis methodologies, and thresholds of significance. Therefore, this analysis uses the screening criteria, analysis methodologies, and the thresholds of significance recommended by CCTA as described in the *VMT Analysis Methodology for Land Use Projects in Contra Costa Technical Memorandum* (CCTA VMT Methodology Memorandum, July 2020).

VMT Definitions

Terms used for VMT screening and estimation are defined below:

- **Home-based VMT** – VMT for trips that begin or end at a residence. Home-based VMT per resident is defined as the total VMT generated by residents with an origin within a geographic area and tracked throughout the regional network on a typical weekday divided by the number of residents in that geographic area.
- **Home-work VMT** – VMT associated with commute trips between a residence and an employment-generating use, also referred to as home-based-work trips. Home-work VMT per worker is defined as the total VMT generated by workers in a geographic area commuting between home and work and tracked throughout the regional network on a typical weekday divided by the number of workers in that geographic area.
- **Local Serving Uses** – Land uses that are expected to draw users from a local area, typically no more than a 2- to 3-mile radius. The definition of local-serving uses may vary by jurisdiction. These uses may generally include local-serving public facilities such as a



branch library, a police or fire station, neighborhood-based schools, and local-serving retail businesses such as grocery stores, coffee shops or dry cleaners.

- **Transit Priority Areas (TPAs)** – TPAs are areas of close proximity to a significant transit mode, defined as one-half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor. Public Resources Code, § 21064.3 defines “major transit stop” as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of 15 minutes or less during the morning and afternoon peak commute periods. Public Resources Code, § 21155 defines a “high-quality transit corridor” as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

VMT Screening

According to the CCTA *VMT Methodology Memorandum*, screening thresholds can be used to quickly identify projects that can be expected to cause a less than significant impact without conducting a detailed study. The CCTA *VMT Methodology Memorandum* recommended screening thresholds and their applicability to the proposed project are described below.

- **Small Projects** – Projects that have fewer than 10,000 square feet of non-residential space or 20 residential units or less may be assumed to cause a less than significant VMT impact. The proposed project would have over 10,000 square feet of non-residential space and over 20 residential units, therefore it would not meet this screening threshold.
- **Local-Serving Uses** – Projects that consist of local-serving uses can be presumed to have a less than significant impact, since they would primarily draw users and customers from a relatively small geographical area. The proposed project would include a local-serving bank and other locally-serving commercial uses. Therefore, the commercial component of the project would meet this screening threshold.
- **Located in TPAs**– Projects located within a TPA can be presumed to have a less than significant impact, unless the project meets one or more of the following:
 1. Has a Floor Area Ratio (FAR) of less than 0.75;
 2. Includes more parking for use by residents, customers, or employees than required by the lead agency (if the agency allows but does not require the project to supply a certain amount of parking);
 3. Is inconsistent with the applicable Sustainable Communities Strategy (SCS) (as determined by the lead agency, with input from the Metropolitan Transportation Commission (MTC)); or
 4. Results in a net reduction in multi-family housing units.



WestCAT, the bus service provider in western Contra Costa County, operates Route JPX connecting Hercules and Pinole to the El Cerrito del Norte BART station with weekday headways of 15 minutes during the peak commute periods. Although service frequency has temporarily been reduced due to the ongoing COVID-19 pandemic and the associated shelter-in-place orders, it is expected that 15-minute headway service will be restored after the pandemic and the lifting of the shelter-in-place orders. The nearest Route JPX bus stops to the project site are located on both directions of Pinole Valley Road, just south of Henry Road, about 0.4 miles north of the project site, which is less than 0.5 miles from the site. Thus, this segment of Pinole Valley Road is classified as a high-quality transit corridor, and the project is located in a TPA. The project would satisfy this screening threshold because it would also meet the following:

1. It would have an FAR of 0.93, which is not less than 0.75;
 2. The project would include 123 parking spaces, which is less than the 162 parking spaces required by the City of Pinole Municipal Code. Therefore, the project would not include more parking for use by residents, customers, or employees than required by the lead agency;
 3. The project is located in the Pinole Old Town San Pablo Avenue Priority Development Area (PDA) and is therefore, not inconsistent with the applicable SCS; or
 4. The project would not demolish any existing housing units and would therefore not result in a net reduction in multi-family housing units.
- **Located in Low VMT Areas** – Residential and employment-generating projects located within a low VMT-generating area can be presumed to have a less than significant impact. Low VMT areas are defined as follows:
 - For housing projects: Cities and unincorporated portions within CCTA's five subregions that have existing home-based VMT per capita that is 85 percent or less of the existing County-wide average. Based on the results of the CCTA Countywide Travel Demand Model (CCTA Model), the project is not located in an area that would meet this threshold.
 - For employment-generating projects: Cities and unincorporated portions of CCTA's five subregions that have existing home-work VMT per worker that is 85 percent or less of the existing regional average. Based on the CCTA model, the project is not located in an area that would meet this threshold.

Since the project would meet the CCTA's Located in TPA screening threshold, it is presumed to have a less than significant impact on VMT. Therefore, a more detailed evaluation of the Project's VMT impact is not required.



Automobile Trip Generation

Trip generation is the process of estimating the number of automobiles that would likely access the project on any given day. Fehr & Peers calculated the project's trip generation for the weekday AM and PM peak hours. The rates used in the calculations were derived from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. **Table 1** documents project vehicle trips for weekday daily, AM peak hour, and PM peak hour using these rates. The project would generate about 490 daily, 63 AM peak hour and 58 PM peak hour net new automobile trips.

Table 1: Project Vehicle Trip Generation

ITE Land Use	Size	Units ¹	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total
Office ²	13.7	KSF	150	34	5	39	3	14	17
Bank ³	3.574	KSF	240	12	8	20	19	24	43
<i>Pass-by Reduction, Bank⁴</i>			-60	-3	-2	-6	-7	-8	-15
<i>Adjusted Bank Trips</i>			180	9	6	14	12	16	28
Apartments ⁵	29	DU	160	3	7	10	8	5	13
Total New Automobile Trips			490	46	18	63	23	35	58

Notes:

1. KSF = 1,000 square feet, DU = dwelling units.
2. ITE Trip Generation (10th Edition) land use category 710 (General Office Building):
 Daily: $\text{Ln}(T) = 0.97 \cdot \text{Ln}(X) + 2.50$ (86% in, 14% out)
 AM Peak Hour: $T = 0.94 \cdot \text{Ln}(X) + 26.49$ (16% in, 84% out)
 PM Peak Hour: $\text{Ln}(T) = 0.95 \cdot \text{Ln}(X) + 0.36$
3. ITE Trip Generation (10th Edition) land use category 911 (Walk-In Bank), except as noted
 Daily: $T = 48.8(X) + 68.9$, based on daily Drive-In Bank rate and ratio of PM Walk-In Bank to Drive-In Bank rates
 AM Peak Hour: $T = 5.89(X)$, based on AM Drive-In Bank rate and ratio of PM Walk-In Bank to Drive-In Bank rates (58% in, 42% out)
 PM Peak Hour: $T = 12.13(X)$ (44% in, 56% out)
4. Pass-by rate based on ITE Trip Generation Manual (10th Edition) for Drive-In Bank:
 Daily: 25% pass-by reduction
 AM Peak Hour: 29% pass-by reduction
 PM Peak Hour: 35% pass-by reduction
5. ITE Trip Generation (10th Edition) land use category 221 (Mid-Rise Apartments):
 Daily: $T = 5.45(X) - 1.75$
 AM Peak Hour: $\text{Ln}(T) = 0.98 \cdot \text{Ln}(X) - 0.98$ (26% in, 72% out)
 PM Peak Hour: $\text{Ln}(T) = 0.96 \cdot \text{Ln}(X) - 0.63$ (61% in, 39% out)

Source: Fehr & Peers, 2021.