November 12, 2021

Ms. Kaitlyn Dodson-Hamilton
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**SUBJECT: CAJON TRUCK TERMINAL VEHICLE MILES TRAVELLED (VMT) ANALYSIS**

Dear Ms. Kaitlyn Dodson-Hamilton:

The following Vehicle Miles Travelled (VMT) Analysis has been prepared for the proposed Cajon Truck Terminal (**Project**), which is located east of Cajon Blvd. and west of the railway tracks. The northernmost corner of the site is located just south of where Cajon Blvd. and the railroad intersect in the County of San Bernardino.

## PROJECT OVERVIEW

The proposed project would consist of a 28,680 square feet (SF) truck terminal structure. The project would be consistent with the zoning designation for the project, as the intent of the Heavy Industrial zone is to provide for certain industrial uses that include primary outdoor storage. The Heavy Industrial zone is generally located in areas that are served by the railroad, are not visible from Scenic Corridors, and/or allow for additional screening from public views.

## BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**). (1) The County of San Bernardino City Council adopted analytical procedures, screening tools and impact thresholds for VMT, which are documented in the San Bernardino County Transportation Impact Study Guidelines (July 2019) (**County Guidelines**). (2)

## PROJECT SCREENING

The County Guidelines provides details on appropriate criteria that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed analysis. Screening thresholds are broken into the following four types:

- Project Type Screening

- Transit Priority Area (TPA) Screening
- Low VMT Area

A land use project need only to meet one of the above screening thresholds to result in a less than significant impact.

## PROJECT TYPE SCREENING

The County Guidelines identifies that local serving retail of less than 50,000 square feet or other local serving essential services (e.g., local parks, day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary.

Additionally, the County Guidelines notes smaller projects that generate fewer than 110 trips per day are assumed to cause a less than significant VMT impact. Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017. (2) The proposed Project is anticipated to generate a total of 540 vehicle trip-ends per day exceeding the 110-vehicle trip per day criteria. (See Attachment A)

**Project Type screening criteria is not met.**

## TPA SCREENING

Consistent with guidance identified in the Technical Advisory, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2]) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

Based on the Screening Tool results presented in Attachment B, the Project site is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means 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 service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

**TPA screening criteria is not met.**

### LOW VMT AREA SCREENING

As noted in the County Projects located within a low VMT generating area (e.g. development in efficient areas of the County will reduce VMT per person/employee and is beneficial to the region). It is our understanding that the County of San Bernardino utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool (Screening Tool). The Screening Tool allows users to input an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual traffic analysis zones (TAZ's) within the region. The Project's physical location, based on parcel number, is input into the Screening Tool to determine project located TAZ's VMT as compared to the jurisdictional average. The parcel containing the proposed Project was selected and the Screening Tool was run for VMT per worker (employee) metric of VMT. Based on the Screening Tool results (see Attachment B), the Project's TAZ does not appear to be within a low VMT area.

**Low VMT Area screening criteria is not met.**

The Project was not found meet any of the screening thresholds and would therefore require further VMT analysis.

## VMT ANALYSIS

The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle. The San Bernardino Transportation Analysis Model (SBTAM) is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. The County Guidelines identifies SBTAM as the appropriate tool for conducting VMT analysis for land use projects in the County of San Bernardino. Therefore, the vehicle trips and average daily trip length for project-related vehicle trips are model derived from SBTAM.

Project VMT has been calculated using the most current version of SBTAM. Adjustments in socio-economic data (SED) (i.e., employment) have been made to the appropriate traffic analysis zone (TAZ) within the SBTAM model to reflect the Project's proposed land use. Table 1 summarizes the employment estimates for the Project. It should be noted that the employment estimates are consistent with the applicant's anticipation of the project's operation of three shifts (i.e., 24-hours a day) and employ up to 10 people per shift.

Adjustments to employment for the Project's TAZ were made to the SBTAM baseline year model. Project generated total VMT was calculated for the baseline condition. The total VMT is then normalized by dividing by the Project's employees. As shown in Table 2, the Project Baseline VMT per employee is 25.08.

**TABLE 2: PROJECT VMT PER EMPLOYEE**

| | Project |
|---|---|
| Project Employee Estimate | 30 |
| VMT | 753 |
| VMT per employee | 25.08 |

## PROJECT LEVEL VMT ASSESSMENT

SBCTA provides VMT calculations for base model year for each of its member agencies and the unincorporated County for which Urban Crossroads has obtained this data from SBCTA. The VMT per employee for baseline conditions, which is 19.49.

The County has identified following recommended threshold:

- A project should be considered to have a significant impact if the project VMT per person/employee is greater than 4% below the existing VMT per person for the unincorporated County.

Applying the required threshold of 4% below unincorporated San Bernardino County would result in a VMT per employee of 18.71.

Table 3 illustrates the comparison between Project generated VMT per employee to the Baseline regional (San Bernardino County) VMT per SP. As shown, the Project would exceed the threshold of 4 percent below the baseline County of San Bernardino VMT per employee the Project's VMT impact is therefore considered potentially significant.

**TABLE 3: HBW VMT PER WORKER COMPARISON**

| | Baseline VMT per Employee |
|---|---|
| Project | 25.08 |
| Unincorporated County Threshold | 18.71 |
| Percent Change | +34.07% |
| Potentially Significant? | Yes |

## PROJECT'S CUMULATIVE IMPACT ON VMT

Consistent with County Guidelines, the cumulative impacts of a project should be evaluated if the project is not consistent with the adopted RTP/SCS. As the proposed Project is consistent with the adopted RTP/SCS, then the Project's cumulative impacts shall be less than significant.

## POTENTIAL VMT REDUCTION STRATEGIES

Projects that exceed VMT threshold(s) are required to mitigate to the extent feasible its transportation impact. VMT reduction strategies for smaller individual development projects through the use of transportation demand management (TDM) strategies. [3]

TDM strategies that may be applicable at the implementing project level may include:

- Commute trip reduction (CTR) programs offered by individual building tenants that would encourage the use of vanpools, carpooling, public transit, and biking.
- CTR programs may also provide for alternative work or compressed work schedules to reduce the number of days an employee commutes to work.
- Provision of on-site facilities to provide end of trip services for bicycling such as secure bike parking, storage lockers and showering facilities.

## CONCLUSION

In summary, project generated VMT per employee was found to exceed the existing county-wide average VMT per employee threshold by 34.07%. The Project will provide feasible VMT reduction measures such as those described above, however, inclusion of such VMT reduction measures is areas that are characteristically suburban[4] in context are limited to a maximum VMT reduction of 15%.[5] Therefore, even with the implementation of all feasible VMT reduction measures, project generated VMT cannot be reduced to a level of less than significant.

If you have any questions, please contact me directly at (949) 660-1994.

Respectfully submitted,

URBAN CROSSROADS, INC.

Alex So
Senior Analyst

[3] County Guidelines; page 22.
[4] Suburban: A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city (a suburb).
[5] California Air Pollution Control Officers Association: "Quantifying Greenhouse Gas Mitigation Measures" August 2010; page 55.

## REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **San Bernardino County.** *Transportation Impact Study Guidelines.* July 2019.
3. **Institute of Transportation Engineers.** *Trip Generation Manual.* 10th Edition. 2017.

# ATTACHMENT A:
# PROJECT TRIP GENERATION SUMMARY

## TABLE 1: PROJECT TRIP GENERATION RATES

| Land Use[1] | Units[2] | ITE LU Code | AM Peak Hour In | AM Peak Hour Out | AM Peak Hour Total | PM Peak Hour In | PM Peak Hour Out | PM Peak Hour Total | Daily |
|---|---|---|---|---|---|---|---|---|---|
| **Trip Generation Rates (Actual Vehicles):** | | | | | | | | | |
| Truck Terminal[3,4] | TSF | 30 | 0.926 | 1.044 | 1.970 | 0.972 | 0.898 | 1.870 | 18.700 |
| Passenger Cars (46.0%) | | | 0.426 | 0.480 | 0.906 | 0.447 | 0.413 | 0.860 | 8.602 |
| 2-Axle Trucks (6.1%) | | | 0.056 | 0.064 | 0.120 | 0.059 | 0.055 | 0.114 | 1.141 |
| 3-Axle Trucks (13.9%) | | | 0.129 | 0.145 | 0.274 | 0.135 | 0.125 | 0.260 | 2.599 |
| 4+-Axle Trucks (34.0%) | | | 0.315 | 0.355 | 0.670 | 0.331 | 0.305 | 0.636 | 6.358 |

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet

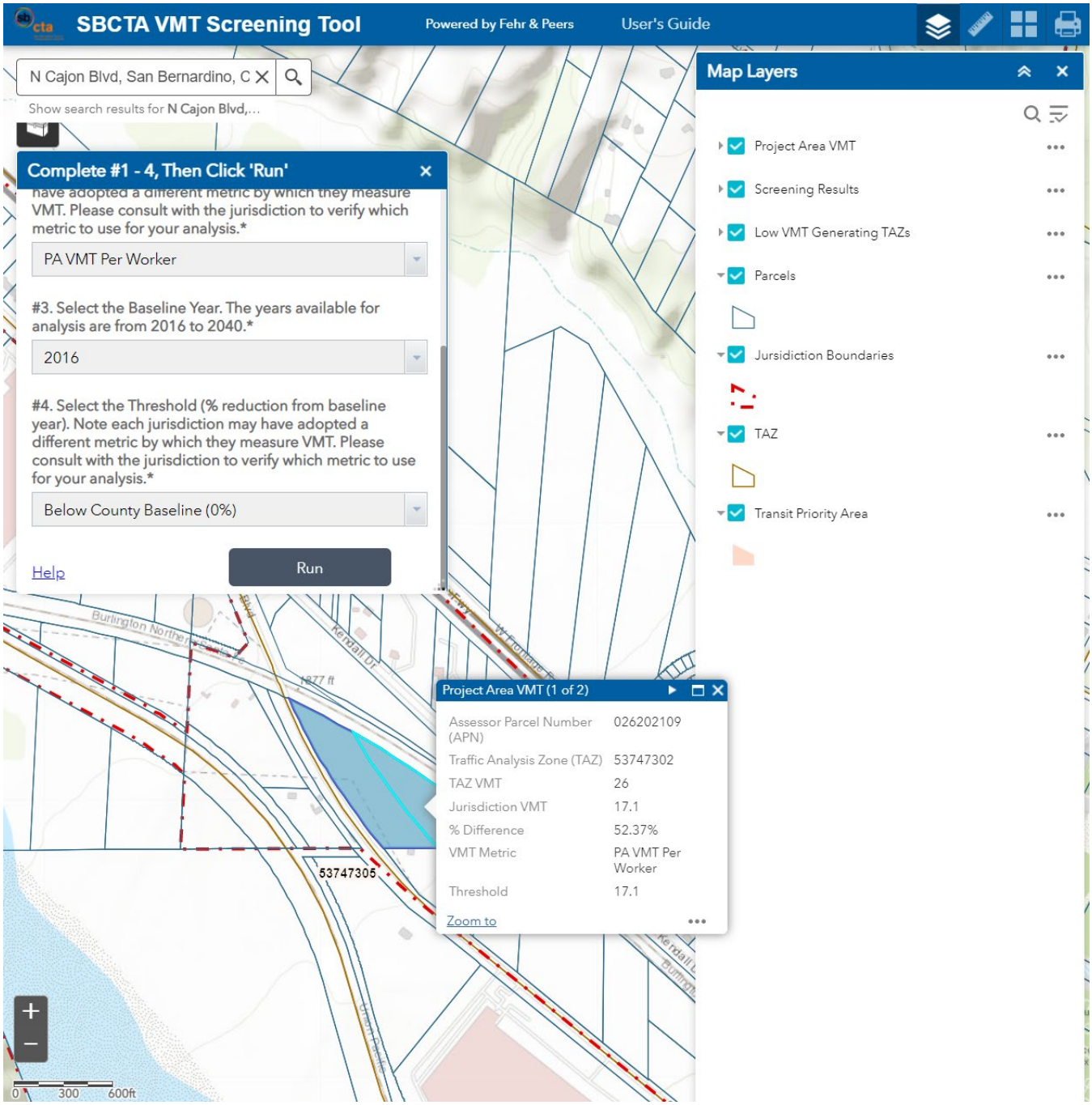
[3] The ITE Trip Generation Manual does not include a daily Trip Generation Rate, therefore the daily rate has been generated as ten times the PM total rate.

[4] Truck mix per City of Fontana Truck Trip Generation Study for LU 030, August 2003.

| Land Use | Quantity | Units[1] | AM Peak Hour In | AM Peak Hour Out | AM Peak Hour Total | PM Peak Hour In | PM Peak Hour Out | PM Peak Hour Total | Daily |
|---|---|---|---|---|---|---|---|---|---|
| **Trip Generation Summary (Actual Vehicles):** | | | | | | | | | |
| Truck Terminal | 28.680 | TSF | | | | | | | |
| Passenger Cars: | | | 12 | 14 | 26 | 13 | 12 | 25 | 248 |
| 2-Axle Trucks: | | | 2 | 2 | 3 | 2 | 2 | 3 | 34 |
| 3-Axle Trucks: | | | 4 | 4 | 8 | 4 | 4 | 7 | 76 |
| 4+-Axle Trucks: | | | 9 | 10 | 19 | 9 | 9 | 18 | 182 |
| Truck Trips: | | | 15 | 16 | 31 | 15 | 15 | 30 | 292 |
| **Total Trips (Actual Vehicles)[2]** | | | **27** | **30** | **57** | **28** | **27** | **55** | **540** |

[1] TSF = thousand square feet

# ATTACHMENT B:
# SCREENING TOOL


SBCTA VMT Screening Tool
Powered by Fehr & Peers
User's Guide
N Cajon Blvd, San Bernardino, C
Show search results for N Cajon Blvd,...
Complete #1 - 4, Then Click 'Run'
have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Worker
#3. Select the Baseline Year. The years available for analysis are from 2016 to 2040.*
2016
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below County Baseline (0%)
Help
Run
Map Layers
Project Area VMT
Screening Results
Low VMT Generating TAZs
Parcels
Jurisdiction Boundaries
TAZ
Transit Priority Area
Project Area VMT (1 of 2)
Assessor Parcel Number (APN) 026202109
Traffic Analysis Zone (TAZ) 53747302
TAZ VMT 26
Jurisdiction VMT 17.1
% Difference 52.37%
VMT Metric PA VMT Per Worker
Threshold 17.1
Zoom to
53747305
Kendall Dr
1877 ft
0 300 600ft