

July 28, 2021

Mr. Mike Masterson
JRT BP 1 LLC
1800 Century Park E. Suite 600
Los Angeles, CA 90067

SUBJECT: BEAUMONT POINTE SPECIFIC PLAN VEHICLE MILES TRAVELED (VMT) ANALYSIS

Dear Mr. Mike Masterson:

The following vehicle miles traveled (VMT) analysis has been prepared for the proposed Beaumont Pointe Specific Plan (**Project**), which is located south of the SR-60 Freeway and west of Jack Rabbit Trail in the City of Beaumont.

PROJECT OVERVIEW

The Project is proposed to consist of approximately 246,000 square feet (sf) of recreational/entertainment commercial use, a 125-room hotel (90,000 sf) and approximately 5,000,000 square feet of industrial warehouse use.

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require 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 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) Based on OPR's Technical Advisory, the Western Riverside Council of Governments (WRCOG) prepared a WRCOG SB 743 Implementation Pathway Document Package (March 2019) to assist its member agencies with implementation tools necessary to adopt analysis methodology, impact thresholds and mitigation approaches for VMT. To add to the previous work effort, WRCOG in February 2020 released its Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (**WRCOG Guidelines**), which provides its member agencies specific procedures for complying with the new CEQA requirements for VMT analysis. (2)

On June 16, 2020 the City of Beaumont adopted agency specific VMT analysis methods and impact thresholds, which utilized the research conducted by OPR and WRCOG (**City Guidelines**). (3)

PROJECT SCREENING

The City Guidelines provides details on appropriate “screening thresholds” 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 three types:

- Project Type Screening
- Map Based Screening based on Low VMT Area
- Transit Priority Area (TPA) Screening

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

For the purposes of this analysis, the initial VMT screening process has been conducted with using the WRCOG VMT Screening Tool (**Screening Tool**), which uses screening criteria consistent with the screening thresholds recommended in the Technical Advisory.

PROJECT TYPE SCREENING

The City Guidelines identifies projects that are consistent with the current Sustainable Communities Strategy (SCS) or general plan, and that generate fewer than 110 daily vehicle trips be presumed to have a less-than-significant impact on VMT. Based on the Project’s trip generation (see Attachment A), the Project is not consistent with the City’s general plan and would generate more than 110 daily vehicle trips, therefore, the Project would not be eligible to screen out based on project type screening.

The Project Type screening threshold is not met.

LOW VMT AREA SCREENING

The City Guidelines also states that, “residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT.” The Screening Tool uses the sub-regional Riverside County Transportation Analysis Model (RIVTAM) to measure VMT performance within individual traffic analysis zones (TAZ’s) within the WRCOG region. The Project’s physical location based on parcel number was selected within the Screening Tool to determine the relevant TAZ’s VMT as compared to the jurisdictional average (see Attachment B). The Project boundary is located in TAZ 4120 and would not appear to be within a low VMT generating TAZ based on daily total VMT per service population.

The Low VMT Area screening threshold is not met.

TPA SCREENING

Consistent with guidance identified in the Technical Advisory and the City Guidelines, 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.

The Project site is not located within ½ mile of an existing major transit stop or along a high-quality transit corridor.

The TPA screening threshold is not met.

As none of the VMT screening criteria are met a project-level VMT analysis has been prepared.

VMT METHODOLOGY

As described in the City Guidelines, “it is recommended to utilize the Riverside County Travel Demand Model (RIVTAM / RIVCOM) and the VMT per service population data, as noted in the WRCOG analysis.” The analysis presented in this report has utilized the most current version of the RIVTAM travel forecasting model and the City’s adopted VMT calculation methodology of VMT per service population.

VMT ANALYSIS

RIVTAM 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. As the RIVTAM model is based on socio-economic data, the first step in preparing the analysis is to convert Project land use information (e.g., building square footage) into socio-economic data inputs (e.g., Project employment) that can be used to represent the Project within RIVTAM. Because specific tenants have not been identified for the Project, this analysis estimates employment based on future building tenants utilizing

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.”).

standard employment factors consistent with the City’s recently adopted General Plan Update (November 2020) to estimate employment for both the industrial and commercial land uses. Table 1 summarizes the conversion of building square footage to employment estimates for the proposed Project.

TABLE 1: EMPLOYMENT ESTIMATES

Land Use	Building Area	Building Area per Employee	Estimated Employees
Industrial Warehouse	4,500,000 sf	1,000 sf/emp	4,500
General Light Industrial	500,000 sf	750 sf/emp	667
Commercial	246,000 sf	NA ³	212
Hotel	90,000 sf	NA	77
Total:	5,277,500 sf	--	5,456

Adjustments to employment within the Project’s TAZ were made to both the RIVTAM base year and cumulative year traffic models. Each model was then run with the updated employment factors included for the Project TAZ.

Consistent with City Guidelines, Project generated VMT includes all vehicle trips that are traced to the project zone or zones. This includes internal to internal (II), internal to external (IX) and external to internal (XI) trips. Project generated VMT is extracted from the RIVTAM model using the origin-destination (OD) trip matrix and that matrix is then multiplied by the final assignment (distance) skims. Project generated VMT was calculated from the base year travel forecasting model used to establish the City’s baseline VMT threshold. Project VMT was then normalized by dividing by the Project’s service population (SP) (i.e., population plus employment). This calculation changes the raw VMT value into an efficiency metric for ease of comparison. As the Project does not contain residential land uses the service population consists entirely of the Project’s employment. As shown in Table 2, the Project’s Baseline VMT per SP is 39.19.

TABLE 2: PROJECT VMT PER SP

	Project
Service Population	5,456
VMT	213,809
VMT / SP	39.19

In addition, since the proposed Project also contains a significant amount of industrial land use, a calculation of Project VMT related to heavy-trucks has also been provided for informational purposes. Consistent with modeling assumptions used for greenhouse gas calculations performed for the Project, the average trip length for heavy trucks has been based on the South Coast Air Quality Management

³ Commercial: 336,000 sf / 9,499,918 City Total Retail/Service sf * 8,170 City Total Retail/Service employment = 289 employees; Beaumont General Plan Update (Beaumont 2040 Plan).

District (SCAQMD) documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 Air Quality Management Plan (AQMP). SCAQMD’s “Preliminary Warehouse Emission Calculations” cites 39.9-mile trip length for heavy-heavy trucks, and 15.5-mile trip length for light-heavy trucks based on SCAG 2016 RTP. As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purposes of this analysis. Using the trip generation rates and estimates obtained from the Project’s traffic study, the number of heavy-truck trips is estimated at 2,276 trip-ends per day. Table 3 presents the estimated heavy-truck VMT for the Project.

TABLE 3: PROJECT HEAVY TRUCK VMT

	Project
Heavy-Truck Trips	2,276
Average Heavy-Truck Trip Length	40.0
Total Heavy-Truck VMT	91,040

IMPACT ASSESSMENT

As noted in the City Guidelines, the Project results in a significant project generated VMT impact if the following condition is met:

- Baseline project generated VMT per service population exceeds 3% below the City of Beaumont current average VMT per service population.

Table 4 illustrates the comparison between Project Baseline VMT per SP to the City’s adopted impact threshold. As shown, the Project would exceed the City’s adopted impact threshold by 45% percent. As such, the Project’s VMT impact is significant.

TABLE 4: PROJECT VMT PER SP COMPARISON

	Project	City of Beaumont Current Average
VMT per SP	39.19	27.87
Less 3%		27.03
Difference		+12.16
Percent Change		+45%

POTENTIAL VMT REDUCTION STRATEGIES

Transportation demand management (TDM) strategies have been evaluated for the purpose of reducing VMT impacts determined to be potentially significant. The effectiveness of TDM strategies to reduce VMT has been determined based on the SB 743 Implementation TDM Strategy Assessment (February 26, 2019, Fehr & Peers) (**WRCOG Report**) prepared for WRCOG and the Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010) (**CAPCOA**). In addition to specific tenancy considerations, which

may affect the effectiveness of TDM measures, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the Project is characteristically suburban. Of itself, the Project's suburban context acts to reduce the range of feasible TDM measures and moderates their potential effectiveness. Relevant discussion in this regard is presented in the WRCOG Report, excerpted in pertinent part below:

The Technical Advisory relies on the Quantifying Greenhouse Gas Mitigation Measures, (CAPCOA) 2010 resource document to help justify the 15 percent reduction in VMT threshold stating, “. . . fifteen percent reduction in VMT are achievable at the project level in a variety of place types . . .”. A more accurate reading of the CAPCOA document is that a fifteen percent is the maximum reduction when combining multiple mitigation strategies for the *suburban center*⁴ place type. For *suburban*⁵ place types 10 percent is the maximum and requires a project to contain a diverse land use mix, workforce housing, and project-specific transit. It is also important to note that the maximum percent reductions were not based on data or research comparing the actual performance of VMT reduction strategies in these place types. Instead, the percentages were derived from a limited comparison of aggregate citywide VMT performance for Sebastopol, San Rafael, and San Mateo where VMT performance ranged from 0 to 17 percent below the statewide VMT/capita average based on data collected prior to 2002. Little evidence exists about the long-term performance of similar TDM strategies in different land use contexts. As such, VMT reductions from TDM strategies cannot be guaranteed in most cases (*WRCOG SB 743 Implementation Pathway Document Package*, pp. 65 – 66).

As indicated in the preceding discussion, even under the most favorable circumstances, projects located within a suburban context, such as the proposed Project evaluated here, can realize a maximum 10 percent reduction in VMT through implementation of feasible TDM measures. This could result in reduction from 39.19 to 35.27 VMT per SP which would still exceed of the jurisdiction's current average VMT per SP threshold of 27.03 by 30.5%.

Consistent with VMT reduction measures described within CAPCOA and further evaluated within the WRCOG Report and the City Guidelines, reductions to VMT should include the following strategies that can be applied to the Project:

- Provide pedestrian and bicycle network improvements within the development connecting to existing off-site facilities to the east along 4th Street.

⁴ **Suburban Center:** A project typically involving a cluster of multi-use development within dispersed, low-density, automobile dependent land use patterns (a suburb). The center may be an historic downtown of a smaller community that has become surrounded by its region's suburban growth pattern in the latter half of the 20th Century. The suburban center serves the population of the suburb with office, retail and housing which is denser than the surrounding suburb (*Quantifying Greenhouse Gas Mitigation Measures*, p. 60).

⁵ **Suburban:** A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside.

- Where applicable ensure design of key intersections and roadways encourage the use of walking, biking and where applicable transit.
- Collaborate with the Riverside Transit Authority (RTA) to determine the feasibility of providing new or re-route existing transit services to the site.
- Commute trip reduction (CTR) programs offered to 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 and storage lockers.
- Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles.

It is also recognized that as the Project area and surrounding communities develop as envisioned under the City of Beaumont General Plan (Beaumont 2040 Plan), new residential, retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the region's jobs/housing ratio, reduce VMT, and support implementation of new or alternative TDM measures. There is no means, however, to quantify any VMT reductions that could result. Additionally, the effectiveness of some of the TDM strategies that have potential to reduce the Project VMT are dependent on as yet unknown Project building tenant(s); and as noted above, "VMT reductions from TDM strategies cannot be guaranteed in most cases."

CUMULATIVE ASSESSMENT

OPR's Technical Advisory states that "a project that falls below an efficiency-based threshold (e.g., VMT per service population) that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less than significant project impact would imply a less than significant cumulative impact and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance."⁶ Since the Project was found to have a significant and unavoidable impact at the project level, it is considered to be cumulatively considerable and therefore to have a significant cumulative impact as well.

CONCLUSION

In summary, the Project's VMT per SP exceeds the City's threshold of 3% below City of Beaumont current average VMT per SP. Even with implementation of the limited feasible TDM measures discussed above, Project VMT cannot be reduced to levels that would be less than significant. Additionally, the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured. The Project VMT impact is therefore considered ***significant and unavoidable***.


⁶ Technical Advisory; Page 6.

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If you have any questions, please contact me directly at aso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.

A handwritten signature in black ink, appearing to read 'Alex So', with a long horizontal flourish extending to the right.

Alex So
Senior Associate

REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **Western Riverside Council of Governments (WRCOG).** *Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment.* February 13, 2020.
3. **City of Beaumont.** *SB 743 Vehicle Miles Traveled (VMT) Thresholds for California Environmental Quality Act (CEQA) Compliance Related to Transportation Analysis.* June 16, 2020.

Attachment A
Project Trip Generation

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center (Building 1)	1,379,191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			8	3	11	4	11	15	224
5+axle:			12	3	15	4	10	14	300
- Truck Trips (Actual Vehicles)			20	6	26	8	21	29	524
Phase 1 Total:			129	39	168	64	164	228	2,938
Phase 2									
High-Cube Fulfillment Center	4,500,000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Subtotal			423	126	549	208	535	743	9,584
General Light Industrial	500,000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Subtotal			308	42	350	41	274	315	2,482
<i>Phase 2 Passenger Cars:</i>			<i>599</i>	<i>140</i>	<i>739</i>	<i>213</i>	<i>682</i>	<i>895</i>	<i>9,826</i>
<i>Phase 2 Trucks:</i>			<i>132</i>	<i>28</i>	<i>160</i>	<i>36</i>	<i>127</i>	<i>163</i>	<i>2,240</i>
Phase 2 Total:			731	168	899	249	809	1,058	12,066
Project Buildout									
High-Cube Fulfillment Center	4,500,000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			413	121	534	207	534	742	9,564

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			278	27	305	39	272	311	2,446
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%) ³			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%) ³			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			559	120	679	210	679	889	9,770
Total Trucks:			132	28	160	36	127	163	2,240
Total Commercial Passenger Cars:			142	79	221	255	159	414	4,256
TOTAL TRIPS (Actual Vehicles)²			833	227	1,060	501	965	1,466	16,266

¹ RM = Room; TSF = Thousand Square Feet² TOTAL TRIPS = Passenger Cars + Truck Trips.³ Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Attachment B
WRCOG VMT Screening Tool

