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January 14, 2020

Mr. Ross Geller
Applied Planning, Inc.
11762 De Palma Road, 1-C 310
Corona, CA 92883

SUBJECT: MERRILL COMMERCE CENTER SPECIFIC PLAN VEHICLE MILES TRAVELLED (VMT) ASSESSMENT

Dear Mr. Ross Geller:

The following Vehicle Miles Travelled (VMT) Assessment has been prepared for the proposed Merrill Commerce Center Specific Plan (referred to as "Project") located north of Merrill Avenue between Grove Avenue and Vineyard Avenue in the City of Ontario.

The proposed project will be implemented through a specific plan that permits a variety of industrial and warehouse-related uses. In order to (i) conservatively estimate (and in fact over-estimate) the potential traffic impacts of the project and (ii) be reflective of likely market absorption, a conservative mix of trip rates were used to analyze the project's potential traffic impacts as follows:

- Industrial: 6,312,600 square feet of high-cube fulfillment center warehouse use(TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019)
- High Cube Cold Storage: 701,400 square feet of high-cube cold storage warehouse use (ITE Code 157)
- Business Park: 1,441,000 square feet of a mix of uses including merchant wholesale, professional services, professional office, warehouse/storage, and research and development uses (ITE Code 130)
- **Total of 8,455,000 square feet**

BACKGROUND

Senate Bill 743 (SB 743), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) has recommended the use of VMT as the replacement for automobile delay-based LOS for the purposes of determining a significant transportation impact under CEQA. As of December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., VMT). Lead agencies have the option to immediately apply the new VMT based criteria, however statewide application of the new guidelines is not required until July 1, 2020.

To assist in the implementation of VMT as the primary measure of a transportation impact under CEQA, the OPR published an updated Technical Advisory on Evaluating Transportation Impacts in CEQA in December 2018.

In addition to OPR's guidance, the Western Riverside Council of Governments (WRCOG) recently published the SB 743 Implementation Pathway Document Package in March 2019 ("WRCOG Document"). WRCOG provides a suggested approach to VMT assessment methodology, thresholds of significance and examples of potential mitigation measures.

The San Bernardino County Transportation Authority (SBCTA) is currently conducting a multi-jurisdictional study to develop a set of procedures and provide local jurisdictions with sufficient information to adopt VMT baselines and thresholds of significance at or around the July 2020 required implementation date. Based on the information provided in the February 27, 2019 kick-off meeting for the SBCTA Countywide SB 743 VMT Implementation Study, we expect that SBCTA would follow a similar path to implementation of SB 743 as WRCOG. For the purposes of this analysis, the San Bernardino County Transportation Analysis Model (SBTAM) is assumed to be the appropriate tool to estimate VMT in San Bernardino County. SBTAM is a sub-regional model that was developed based on the Southern California Association of Governments (SCAG) Regional Planning model. SBTAM is functionally similar to the SCAG model with a focused approach to San Bernardino County, having disaggregated zones within the county area and aggregated zones outside of the county. SBTAM uses socioeconomic data to model travel behavior. The model responds to changes in land use types, household and employment characteristics, transportation infrastructure, and travel costs. The use of a travel demand model is supported by substantial evidence since the information contained in the model is specific to the region and for the land use type being proposed. Furthermore, the use of travel demand models is also a recommended practice that is being promoted by the OPR in their updated CEQA guidelines with respect to Senate Bill (SB) 743. Specifically, the latest technical advisory documentation published by OPR (December 2018 see Page 30-31) explicitly states that:

"…agencies can use travel demand models or survey data to estimate existing trip lengths and input those into sketch models such as CalEEMod to achieve more accurate results. Whenever possible, agencies should input localized trip lengths into a sketch model to tailor the analysis to the project location."

The procedure described by OPR in their SB 743 technical advisory is precisely the method that has been used to calculate trip lengths and consequently VMT for the Project.

VMT THRESHOLD

The OPR's 2018 Technical Advisory has the following recommended numeric thresholds for residential, office and retail projects:

- For residential projects, a proposed project exceeding a level of 15% below existing VMT/capita may indicate a significant transportation impact. Existing VMT/capita may be measured as regional VMT per capita or as City VMT per capita.
- For office projects, a proposed project exceeding a level of 15% below existing regional VMT/employee may indicate a significant transportation impact.

- For retail projects, a net increase in total VMT may indicate a significant transportation impact.
- Numerical thresholds are not provided for other project types such as industrial uses.

WRCOG identifies the following criteria for lead agencies to consider:

- Below City-wide average VMT
- Below WRCOG regional average VMT

The San Bernardino Countywide Plan Draft Program Environmental Report (June 2019, "2019 CWP PEIR") identifies the following VMT thresholds for land use development in the unincorporated San Bernardino County:

- A residential VMT exceeding a level of 4% below existing VMT per capita would indicate a significant transportation impact.
- An employment VMT exceeding a level of 4% below existing VMT per employee would indicate a significant transportation impact.

It is our understanding that the City of Ontario has yet to formally adopt VMT thresholds of significance for purposes of determining transportation impacts under CEQA. Notwithstanding, this analysis has utilized a threshold of 15% below baseline average VMT/Service Population (SP)[1] for the City consistent with OPR's Technical Advisory recommendation.

CEQA *Guidelines* Section 15064.3, subdivision (a) states "For the purposes of this section 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." The OPR's 2018 Technical Advisory notes that here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.

Nevertheless, it is also recognized that the Project would generate Heavy Duty Truck (HDT) traffic and has been considered in this VMT assessment. For consistency with other CEQA technical studies, HDT VMT identified in this analysis will be reflected in other applicable technical studies (e.g. Air Quality Impact Analysis, Greenhouse Gas Analysis, etc.).

As previously stated, based on OPR's 2018 Technical Advisory recommendation, Project VMT/SP that is not reduced to a level 15% below the Baseline (2019) average daily VMT/SP for the City of Ontario is considered a significant transportation impact.

Lastly, a less than significant impact at the Project level would not be cumulatively significant. Conversely, significant impacts at the Project level would also be considered cumulatively significant.

[1] Service Population (SP) = Residents + Employees

VMT ANALYSIS

The calculation of VMT for a development project has two components – the total number of vehicle trips generated and the average trip length of each vehicle. The SBTAM is a useful tool to estimate the average trip length as it takes into account interaction between employment centers and housing areas based on socio-economic data such as population, households, employment and others. The vehicle trips produced by a proposed development Project are typically based on the type and size of the proposed development and trip generation rates published in Institute Transportation Engineers (ITE) Trip Generation Manual. The use of ITE based trip rates is typically preferred to ensure consistency with other technical reports such as noise, air quality and greenhouse gas analyses.

AVERAGE TRIP LENGTH

As noted previously, SBTAM is a sub-regional model that was developed based on the Southern California Association of Governments (SCAG) Regional Planning model. SBTAM is functionally similar to the SCAG model with a focused approach to San Bernardino County, having disaggregated zones within the county area and aggregated zones outside of the county. SBTAM uses socioeconomic data to model travel behavior. The model responds to changes in land use types, household and employment characteristics, transportation infrastructure, and travel costs.

The average trip length for automobiles was calculated based on a select-zone model run for the traffic analysis zone (TAZ) in which the Project is located using SBTAM. Where applicable, adjustments were made to the socio-economic data (i.e., number of employees) to reflect the Project's land use. Based on SBTAM model runs, the TAZ in which the Project is located generated a daily automobile flow of 13,063 trips and daily automobile VMT of 215,933 vehicle-miles. Therefore, the average trip length for the Project was calculated by dividing the model VMT by the model daily flow, 215,933/13,063 = 16.5 miles.

The average trip length for heavy trucks were based on the South Coast Air Quality Management 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.

Table 1 provides a summary of average trip length for the Project. As shown on Table 1, the average trip length was 16.5 miles for automobiles and 40.0 miles for heavy trucks.

TABLE 1: AVERAGE TRIP LENGTH

Vehicle Type	Average Trip Length (Miles)
Automobiles	16.5
Heavy Trucks	40.0

TRIP GENERATION

The daily vehicle trips for the Project have been calculated based on trip generation rates consistent with the ITE Trip Generation Manual, 10th Edition (2017) and the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29,2019) consistent with Merrill Commerce Center Specific Plan Traffic Impact Analysis (December 2019, Urban Crossroads, Inc.). As shown on Table 2, the proposed Project is anticipated to generate a net total of 19,806 trip-ends per day with 16,286 daily automobile trips and 3,520 daily truck trips.

TABLE 2: PROJECT TRIP GENERATION SUMMARY[1]

Project	Quantity	Units[2]	Daily[3]
High-Cube Warehouse and Business Park	8,455.00	TSF	
Automobiles:			16,286
Truck Trips (Actual Vehicles):			3,520
		Project Trips	19,806

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017) and TUMF High-cube Warehouse Trip Generation Study, WSP, January 29, 2019.

[2] TSF = thousand square feet

[3] Source: Merrill Commerce Center Specific Plan Traffic Impact Analysis (December 2019, Urban Crossroads, Inc.)

PROJECT VMT

Table 3 provides a summary of Project VMT for passenger cars and trucks. As shown on Table 3, the estimated VMT for the Project is 268,719 vehicle-miles per day for automobiles and 140,800 vehicle-miles per day for trucks resulting in a total VMT of 409,519 vehicle-miles.

TABLE 3: PROJECT VMT

Vehicle Type	Project Trip Generation (Daily)	Average Trip Length (Miles)	Project VMT (Vehicle-Miles)
Automobiles	16,286	16.5	268,719
Trucks	3,520	40.0	140,800
Total	19,806	20.68	409,519

PROJECT VMT/SP

Since the Project does not have any residential component, the Project SP consists of employees only. Because the tenant of the Project's building is not yet known, the number of jobs that the Project would

generate cannot be precisely determined; therefore, for purposes of this analysis, employment estimates were calculated using employment density factors of 0.65 Employees/Thousand Square Feet (TSF) for non-office portions and 2.86 Employees/TSF for office portions of industrial and business park uses consistent with the Ontario General Plan Buildout Methodology document (April 2015)[2]. Based on these employment generation rates, the Project is expected to create approximately 8,638 jobs. As shown on Table 4, the Project's Automobile VMT/SP is 31.11 and the Project's Total VMT/SP is 47.41.

TABLE 4: PROJECT VMT/SP

Project Employment	8,638
Project Automobile VMT	268,719
Project Truck VMT	140,800
Project Total VMT	409,519
Project Automobile VMT/Employee	31.11
Project Total VMT/Employee	47.41

CITYWIDE AVERAGE VMT/SP

The Citywide Average VMT was calculated based on select-zone model runs for all the TAZs within the City of Ontario using 2012 and 2040 SBTAM. The population and employment data were added for all the SBTAM TAZs within the City of Ontario to calculate the citywide service population. A summary of the citywide VMT, population and employment is provided in Table 5. Additional details extracted from the SBTAM 2012 and 2040 models are included in Attachment A of this letter.

TABLE 5: CITYWIDE VMT/SP

	SBTAM 2012	SBTAM 2040
Automobile VMT	8,586,612	14,063,294
Truck VMT	1,062,164	1,810,305
Total VMT	9,648,776	15,873,599
Population	163,356	256,593
Employment	65,602	114,536
SP	228,958	371,129
Auto VMT/SP	37.5	37.9
Total VMT/SP	42.1	42.8

The Baseline (2019) average VMT/SP was calculated by linearly interpolating between 2012 and 2040. Table 5 provides a summary of the average VMT/SP for the City of Ontario. As shown on Table 6, the

[2] Source: http://www.ontarioplan.org/wp-content/uploads/sites/4/2016/01/Methodology-Revised.pdf

Baseline (2019) average Automobile and Total VMT/SP for the City of Ontario is 37.6 and 42.3, respectively.

The threshold level of 15% below the baseline average based on OPR's 2018 Technical Advisory recommendation is 31.96 for Automobile VMT/SP and 35.96 for Total VMT/SP.

TABLE 6: CITYWIDE VMT/SP

Vehicle Type	2012 VMT/SP	2040 VMT/SP	2019 VMT/SP
Automobile	37.5	37.9	37.6
Total	42.1	42.8	42.3

IMPACT AND MITIGATION

The Project generates 31.11 Automobile VMT/SP, which is 0.85 Automobile VMT/SP lower than the 31.96 Automobile VMT/SP threshold based on OPR's 2018 Technical Advisory recommendation. Additionally, the Project generates 47.41 Total VMT/SP, which is 11.45 Total VMT/SP higher than the 35.96 Total VMT/SP threshold based on OPR's 2018 Technical Advisory recommendation.

As such, the Project's transportation impact based on VMT is potentially significant based on OPR's recommended thresholds.

Transportation demand management (TDM) strategies have been evaluated for 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) prepared for the WRCOG. The memo evaluated 50 transportation measures presented in the CAPCOA 2010 report *Quantifying Greenhouse Gas Mitigation Measures* and indicated 41 are applicable at building and site level. The remaining measures are functions of, or depend on, site location and/or actions by local and regional agencies or funders.

Based on available research, WRCOG has determined that for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Furthermore, to even achieve a 10% reduction in VMT, a project would need to contain a diverse land use mix, workforce housing and project-specific transit options.

Review of the 41 transportation measures identified by CAPCOA, indicates that only 7 of those measures may be effective at the project level, which is consistent with WRCOGs findings. Evaluation of potentially applicable TDM strategies in the context of the Project is summarized below. As indicated, of the seven TDMs with potential application to the Project, only two would provide for any potentially meaningful reduction in VMT.

- *Measure 1: Increase Diversity of Land Uses.* Having different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-auto modes of transport. For example, when residential areas are in the same neighborhood as retail

and office buildings, a resident does not need to travel outside of the neighborhood to meet his/her trip needs.

Remarks: The Project proposes the construction of up to 7,014,000 square feet of high-cube fulfillment center uses and up to 1,441,000 square feet of business park uses. In order for the above measure to apply, at least three of the following will be located on or off-site within ¼ mile of the Project: Residential Development, Retail Development, Park, Open Space, or Office. There may be office space located on-site and off-site within ¼ mile of the Project; and potential future residential development may occur off-site within ¼ mile of the Project. However, there are no existing or proposed retail developments proposed within a ¼ mile of the Project, nor is there existing or proposed designated Open Space. This measure is therefore not evaluated further as means of providing a reduction in Project VMT.

It is however recognized that the Project would introduce additional employment opportunities, acting to generally improve the City and region jobs/housing balance. The resulting improved jobs/housing balance could reduce area commute VMT. This analysis however conservatively assumes no such VMT reduction.

- *Measure 2: Provide Pedestrian Network Improvements.* Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT.

  Remarks: Although there are existing sidewalks off-site along portions of Merrill Avenue, Flight Avenue, and Van Vliet Avenue as illustrated at Exhibit 3-17 of the Traffic Impact Analysis, field observations conducted at the time the Traffic Impact Analysis was prepared indicate there is nominal pedestrian activity in the study area likely due to the lack of diversity of land uses. Furthermore, given the industrial nature of the Project and surrounding uses, it is unlikely that there would be substantive pedestrian activity even if a pedestrian network were to be expanded. This measure is therefore not evaluated further as means of providing a reduction in Project VMT.

- *Measure 3: Provide Traffic Calming Measure.* Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.

  Remarks: Given the industrial nature of the Project and similar characteristics of surrounding uses, there is limited opportunity for pedestrian and bicycle activity. This measure is therefore not evaluated further as means of providing a reduction in Project VMT.

- *Measure 4: Implement Car-Sharing Program.* Implementing a car-sharing program would allow individuals to have on-demand access to a shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees.

  Remarks: It is possible that employers within the Project site could implement car-sharing programs. This may provide car access for employees on an as-needed basis, and thereby alleviate some of the costs and responsibilities of individual car ownership. However, this would not necessarily result in a reduction of VMT, but would rather transfer the VMT source from individually-owned autos to employee-subsidized autos. Moreover, CAPCOA indicates that this measure would at most result in 0.4 to 0.7 percent reduction in VMT (CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, p. 245). This measure is therefore not evaluated further as means of providing a reduction in Project VMT.

- *Measure 5: Increase Transit Service Frequency and Speed.* This measure serves to reduce transit-passenger travel time through more reduced headways and increased speed and reliability. This makes transit service more attractive and may result in a mode shift from auto to transit which reduces VMT.

  Remarks: The study area is currently served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County. No bus routes currently provide proximate service (within one-quarter mile) of the Project site. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. It is recommended that the Applicant work in conjunction with the Lead Agency and Omnitrans to coordinate potential bus service to the Project site. Since implementation of this strategy would require agency implementation it is not applicable for individual development projects. This measure is therefore not evaluated further as means of providing a reduction in Project VMT.

- *Measure 6: Encourage Telecommuting and Alternative Work Schedule.* Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered starting times, flexible schedules, or compressed work weeks.

  Remarks: The effectiveness of this measure is dependent on the ultimate building tenant(s) which are unknown at this time. This measure could provide for a potential reduction in Project VMT. CAPCOA notes that implementation of this measure could reduce commute VMT by 0.07 – 5.50 percent (Quantifying Greenhouse Gas Mitigation Measures, p. 236).

- *Measure 7: Provide Ride-Sharing Programs.* This strategy focuses on encouraging carpooling and vanpooling but its ultimate implementation is limited as Measure 6 above.

  Remarks: The effectiveness of this measure is dependent on the ultimate building tenant(s) which are unknown at this time. This measure could provide for a potential reduction in Project VMT. CAPCOA notes that implementation of this measure could reduce commute VMT by 1.0 – 15.0 percent (Quantifying Greenhouse Gas Mitigation Measures, p. 227).

Implementation of applicable TDM strategies (*Measure 6: Encourage Telecommuting and Alternative Work Schedule and Measure 7: Provide Ride-Sharing Programs*) have the potential to reduce the Project Automobile and Total VMT/SP.

The effectiveness of the above-noted TDM measures would be dependent in part on final Project designs and occupancies, which are unknown at this time. Beyond Project design and tenancy considerations, 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 *WRCOG SB 743 Implementation Pathway Document Package* (Fehr + Peers [for WRCOG]) March 2019*,* 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*[3] place type. For *suburban*[4] 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 Project evaluated here, could realize a maximum 10 percent reduction in VMT through implementation of feasible TDM measures. For the Project considered here, this could result in 28.00 Automobile VMT/SP which is below the applicable threshold of 31.96 Automobile VMT/SP. A 10% reduction in Total Project VMT/SP would yield 42.67 VMT/SP, which would still exceed the applicable threshold of 35.96 VMT/SP.

It is also recognized that as the Project area and City develop as envisioned under the City of Ontario Policy Plan, new residential, commercial/retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the City's jobs/housing ratio, diminish VMT/SP, 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 the TDM strategies that have potential to reduce the Project VMT/SP are dependent on as yet unknown final Project designs building tenant(s); and as noted above, "VMT reductions from TDM strategies cannot be guaranteed in most cases." Further, the identified TDM measures are not likely to reduce Project truck VMT. Pointedly, CAPCOA provides no TDM measures targeted at truck traffic.

In summary, the Project's Automobile VMT/SP is lower than the applicable thresholds. However, unmitigated Project Total VMT/SP, including truck VMT, would exceed applicable thresholds. The Project would implement TDM measures that could potentially reduce Automobile VMT/SP impacts to levels

[3] ***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).
[4] ***Suburban:*** A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city . . . (*Quantifying Greenhouse Gas Mitigation Measures,* p. 60).

that would be less-than-significant. Even with implementation of TDM measures, Total VMT/SP impacts could not be reduced to levels that would be less-than-significant. In any case, the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured at this concept stage of Project development. The Project VMT impact is therefore considered ***significant and unavoidable.***

As a point of interest, the significant and unavoidable VMT impact determination for the Project parallels conclusions of the San Bernardino Countywide Plan (CWP) Draft Program EIR. In this latter regard, the CWP Draft Program EIR concludes that . . . "[t]rip generation related to land use development under the projected 2040 buildout of the CWP would exceed the County's VMT reduction threshold (4 percent reduction in VMT/person (residential) and 4 percent reduction in VMT/employee in comparison to existing VMT/person (or employee)" (Draft Program EIR, p. 1-36, et al.)

Cumulative VMT Impacts

As summarized in *WRCOG SB 743 Implementation Pathway Document Package . . .* "VMT thresholds based on an efficiency form of the metric such as VMT per capita, can address project and cumulative impacts in a similar manner that some air districts do for criteria pollutants and GHGs (*WRCOG SB 743 Implementation Pathway Document Package, p. 67).* In this respect, significant and unavoidable VMT impacts at the Project level would also be considered cumulatively significant.

As discussed herein, Project VMT impacts based on a VMT/SP metric would be significant and unavoidable at the Project level, and therefore would also be cumulatively significant and unavoidable.

INDUCED VMT ASSESSMENT

Use of VMT as an environmental impact metric for transportation projects is discretionary under the Section 15064.3 (b) (2) of the CEQA Guidelines:

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

OPR Technical Memorandum states that building new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel. OPR identifies addition of through lanes on existing or new highways, including general purpose lanes, HOV lanes, peak period lanes, auxiliary lanes, or lanes through grade -separated interchanges as project types that would likely leads to a measurable and substantial increase in induced vehicle travel. Further, OPR Technical Memorandum acknowledges that addition of capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists,

and, if applicable, transit would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis.

The Project is proposing to construct site adjacent local streets, collectors and arterials, including sidewalk and bicycle lanes consistent with the City of Ontario Policy Plan (the City's General Plan). The construction of these local facilities consistent with the Policy Plan is not likely to significantly alter regional or interregional travel.

Project job creation would not exceed employment projections developed under the Policy Plan. Growth resulting from Project job creation is anticipated under the Policy Plan, and such growth would not result in environmental impacts not already considered and addressed in the Policy Plan EIR. Growth resulting from or facilitated by Project infrastructure improvements is anticipated under the Policy Plan, and environmental impacts attributable to such growth is considered and addressed in the Policy Plan EIR.

Additionally, the Policy Plan EIR notes that while the City of Ontario is jobs-rich, the subregion as a whole is housing-rich. The Policy Plan EIR concludes that buildout of the Ontario Plan would act to improve the job/housing balance within the subregion. Based on the preceding discussions, the potential for the Project to induce substantial population growth in the area, either directly or indirectly is considered less-than-significant.

It may also be worthwhile noting that the Project would generate approximately one-half of the total daily trips that would result from development of the subject under the site's current Policy Plan Land Use designations (see Table 7). A comparable reduction in total VMT could be expected.

Environmental impacts of VMT generated under the current Policy Plan Land Uses are reflected in related Policy Plan EIR Traffic, Air Quality, Greenhouse Gas/Global Climate Change, and Vehicular-source Noise analyses. The Project would result in a comparative reduction in total ADT and VMT when compared to ADT and VMT generated by the site's current Policy Plan Land Uses. Additionally, roadway improvements proposed by the Project are consistent with and would not provide capacity beyond that reflected in the Policy Plan Mobility Element.

While roadway improvements associated with the Project may facilitate vehicular travel within the City and surrounding areas, total VMT and environmental impacts of such travel would be comparatively reduced when compared with VMT and VMT-related impacts already considered and addressed in the Policy Plan EIR.

TABLE 7: TRIP GENERATION COMPARISON CURRENT POLICY PLAN LAND USES VS. PROJECT

Current Policy Plan Land Use			Project	
Policy Plan Land Use Designation	**ITE Metric**	**ADT (PCE)**	**Policy Plan Land Use Designation**	**ADT (PCE)**
Business Park 303.5 acres; 7,932,300 sf	ITE Land Use 130 3.37 Trips/TSF	26,730	Business Park 55.1 acres; 1,441,000 sf	5,842
Office Commercial 43.3 acres; 1,414,600 sf	ITE Land Use 710 9.74 Trips/TSF	13,778	N/A	--
General Commercial 18.3 acres; 318,900 sf	ITE Land Use 820 33.37 Trips/TSF	10,642	N/A	--
N/A	--	--	Industrial 292.8 acres; 7,014,000 sf	19,356
Right-of-Way/Other 11.2 Acres	--	--	Right-of-way/Other 28.4 Acres	--
Total ADT	**--**	**51,150**	**Total ADT**	**25,198**

Sources: Policy Plan Land Use Element; ITE Trip Generation Manual, 10th Edition (2017); Merrill Commerce Center Specific Plan
Notes:
1. "Right-of-way/other" land use under existing condition assumes balance of site would be assigned to rights-of-way or non-building other uses.
2. Maximum building square footage calculated by multiplying the total acreage of each land use by the anticipated floor area ratio (FAR) for the respective land use designation per Policy Plan Table LU-02 Land Use Designations Summary Table – Industrial FAR = 0.55; Business Park FAR = 0.60; General Commercial FAR = 0.040; Office Commercial FAR = 0.75.
3. Existing Policy Plan Land Use Trip Generation Metrics from ITE Trip Generation Manual, 10th Edition (2017). ITE Land Use Codes: 130-Industrial Park; 710 General Office, 820 Shopping Center.
4. Project Trip Generation from Merrill Commerce Center Specific Plan, Traffic Impact Analysis, City of Ontario (Urban Crossroads, Inc.) December 23, 2019.
5. ADT = Average Daily Trips, TSF = Thousand Square Feet

If you have any questions, please contact me directly at (949) 336-5992.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

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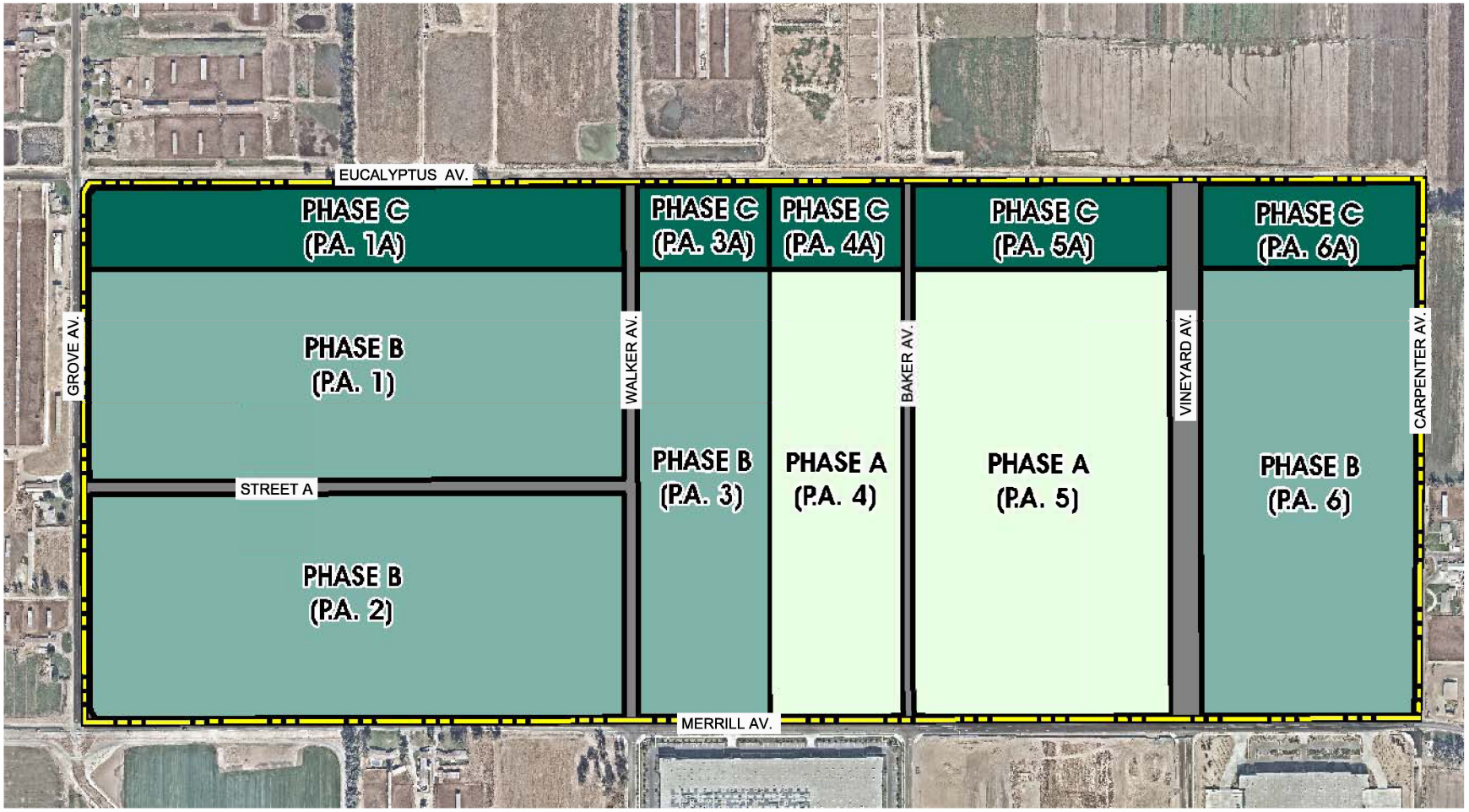
EXHIBIT 1: PRELIMINARY LAND USE PLAN AND PHASING PLAN



LEGEND:

- = PHASE A (2022)
- = PHASE B (2025)
- = PHASE C (2026)

N

12003 - siteplan.dwg

ATTACHMENT A:
SBTAM 2012 AND 2040 VMT, POPULATION AND EMPLOYMENT DATA

SBTAM 2012 - Citywide Average Vehicle Miles Traveled (VMT)/Service Population (SP)

Automobile VMT	8,586,612
Truck VMT	1,062,164
Total VMT	9,648,776

Population	163,356
Employment	65,602
Service Population (SP)	228,958

Automobile VMT/SP - SBTAM	37.5
Total VMT/SP - SBTAM	42.1

SBTAM 2040 - Citywide Average Vehicle Miles Traveled (VMT)/Service Population (SP)

Automobile VMT	14,063,294
Truck VMT	1,810,305
Total VMT	15,873,599

Population	256,593
Employment	114,536
Service Population (SP)	371,129

Automobile VMT/SP - SBTAM	37.9
Total VMT/SP - SBTAM	42.8

City of Ontario Population and Employment - 2012 SBTAM

TIER3ZONE	POP	TOT_EMP
53627101	2087.769677	339.192939
53627102	1285.230323	208.807061
53627201	2576	259
53627301	2343.316961	108.7826017
53627302	2352.683039	109.2173983
53628101	1960	257
53628201	1469.375015	155.3798042
53628202	1367.625114	144.6202094
53635101	2762	442
53635201	44	230
53635301	1	719
53635401	1108	303
53635501	87	463
53638101	2196	202
53638201	2390	481
53638301	781.96511	25.58916849
53638302	1571.034976	51.41083433
53638401	995.9574984	199.7918759
53638402	1990.042392	399.2081021
53639101	1201.187653	509.3134666
53639102	739.8123466	313.6865334
53639201	886.7466921	148.2027898
53639202	549.2533079	91.79721024
53640101	3762	1022
53640201	2560	43
53640301	2364	190
53640401	3642	56
53641101	2041.998018	256.873249
53641201	1545.204955	203.7781207
53641202	744.7950454	98.22187935
53645101	963	188
53645201	691	680
53645301	406.0281133	298.9505774
53645302	249.9718655	184.049407
53645401	403.2922549	320.7724551
53645402	246.7077451	196.2275449
53646101	2232	85
53646201	810.2106146	61.98332571
53646202	765.8522036	58.58978607
53646203	985.9371817	75.42688822
53647101	421	11
53647201	1769	137
53647301	392	522
53647401	4759	441
53647501	946	179

53647601	3054	164
53647701	1450.224515	101.5429759
53647702	677.7754022	47.45701829
53649101	215.2425577	126.0429392
53649102	117.7574495	68.95706505
53649201	79	85
53649301	1421	283
53649401	147.0123199	296.559335
53649402	84.98768008	171.440665
53651101	1500.781647	284.7695856
53651102	1113.218353	211.2304144
53651201	3020	177
53651301	2854	50
53652101	77	47
53652201	34	73
53652301	113	9
53652401	51	22
53652501	0	56
53652601	43	8
53652701	0	0
53653101	60	39
53653201	67	6
53653301	9	0
53653401	29	0
53659101	2560	365
53659201	2873	102
53659301	672	143
53659401	3187	503
53659501	3647	106
53659601	1135	85
53660101	3745	81
53660201	360.0254519	24.68342961
53660202	3723.974667	255.3165786
53660301	1193.334427	241.2800264
53660302	1546.665699	312.719999
53661101	885.4919833	23.80046458
53661102	1319.878431	35.47600705
53661103	882.6296821	23.72353096
53661201	2544	44
53661301	1675	177
53661401	3143.052507	426.44431
53661402	2030.947306	275.5556647
53661501	1313.869505	81.21683478
53661502	967.130574	59.78317007
53662101	334	305
53662201	19	21
53662301	0	687

53662401	7	753
53662501	3	1972
53662601	230	519
53663101	0	466
53663201	0	1001
53663301	0	518
53663401	76	604
53663501	1081	479
53663601	1216	174
53667101	43.4894182	7.498175552
53667102	43.51057664	7.501823559
53667201	416.4504942	30.70146331
53667202	424.5494571	31.2985331
53667301	27.03561802	17.3623235
53667302	28.87169324	18.54145437
53667303	25.61143256	16.44770898
53667304	27.48126102	17.64851625
53667401	26.61267861	14.42556411
53667402	26.61267067	14.4255598
53667403	26.72142116	14.48450867
53667404	27.05323432	14.66437
53668101	2544	352
53668201	3389	25
53668301	1504.958843	809.9324523
53668302	918.0412485	494.0675972
53668401	2202	104
53669101	35	4
53669201	50	9
53669301	14	27
53669401	22	8
53669501	14	0
53669601	0	1
53669701	7	0
53671101	0	10
53671201	498	59
53672101	0	527
53672201	0	132.8474741
53672202	0	78.15251338
53672301	0	409
53672401	0	2072
53672501	4.139601166	48.93802474
53672502	19.6388314	232.1686506
53672503	29.82817601	352.6262452
53672504	19.39339241	229.2670911
53673101	0	2514
53673201	0	475
53673301	0	575

53673401	0	1349
53673501	0	81
53674101	1818	90
53674301	2239.562061	211.5726863
53679101	57	235
53679201	3202	422
53679301	0	1628
53682101	33	3
53682201	15.06431661	3.347625914
53682202	11.93581702	2.652403782
53682301	6	4
53683101	3160	340
53683201	510	24
53683301	2124	20
53683401	4	24
53683501	13	0
53683601	0	13
53683701	0	44
53683801	890	20
53683901	229.8461144	84.36110132
53683902	225.1538856	82.63889868
53684101	3333	189
53684201	4191	134
53684301	3406	96
53685101	0	69.46975842
53685102	0	219.9821101
53685103	0	344.5481315
53685201	0	486
53685301	0	874.9069178
53685302	0	160.0930695
53686101	0	353
53686201	0	771
53686301	0	256.7368873
53686302	0	224.2631276
53687101	0	771
53687201	1	871
53687301	0	818
53687401	0	2060
53687501	0	1058
53687601	0	297
53687701	0	96.2745328
53687702	0	286.9278247
53687703	0	110.7976425
53687801	0	708
53687901	0	467
53690101	1435	3133
53690201	0	922

53694401	0	4653
53694501	0	442
53698101	0	1079.766759
53698102	0	370.2332408
53698201	0	244.8922259
53698202	0	263.1077741
53699101	0	533.1298035
53699102	0	651.8701965
53699201	0	1383
53699301	0	184
53700301	0	767
53700401	0	154
Total	**163355.5605**	**65601.44601**

City of Ontario Population and Employment - 2040 SBTAM

TIER3ZONE	POP	TOT_EMP
53627101	2297.555985	349.6030719
53627102	1077.915058	208.5351657
53627201	2573.744658	255.4706868
53627301	2027	5.208333333
53627302	3190	203.125
53628101	3746.504487	219.5437616
53628201	1371.510143	86
53628202	1570.9141	215.8958333
53635101	2761	583.0603175
53635201	50	333.955163
53635301	2	981.0214797
53635401	1107	630.7546875
53635501	86	1014.530238
53638101	2201	214.9883139
53638201	2384.158416	453.8771626
53638301	817	3.354700855
53638302	1539	75.81623932
53638401	1977.155982	372.4502165
53638402	1916.212821	157.6796537
53639101	987.0329181	684.9519398
53639102	951.3211744	149.4823393
53639201	1156	16.76923077
53639202	286	220.0961538
53640101	4671.799497	957.7065585
53640201	2561	34.5
53640301	2399.934651	187.6540541
53640401	3654.20244	54.92436975
53641101	2383.821999	253.4711674
53641201	3409	82.24615385
53641202	609	224.3076923
53645101	1216.264653	236.6592428
53645201	992	679.3011078
53645301	1351.146575	751.0959752
53645302	13.98082192	301.3908669
53645401	811.1768786	549.4147105
53645402	720.4924855	263.1478873
53646101	2232	83.15151515
53646201	664	15.14851485
53646202	937	60.59405941
53646203	973	106.8811881
53647101	422	11
53647201	1768.245723	274.295082
53647301	392	827.5092937
53647401	4752.019074	432
53647501	946	194.2543103

53647601	3151	161.1782178
53647701	1740	138.6108787
53647702	509	11.83263598
53649101	194.3342776	485.8701299
53649102	136.0339943	316.7922078
53649201	81	160.819407
53649301	1419	699.6200274
53649401	95.32112676	680.728558
53649402	121.7605634	434.9264844
53651101	1580	275.6810857
53651102	1035	164.1696353
53651201	3020	178.5655977
53651301	3201.775654	64.32276657
53652101	77.97104677	47
53652201	48	74.15163934
53652301	108	9.512820513
53652401	50.93298292	23.18181818
53652501	7.199999809	56
53652601	43	10.20154374
53652701	0	0
53653101	63	55.19966087
53653201	9746	126.5
53653301	9	0
53653401	30	0
53659101	2557.322337	346.4302191
53659201	2872.316684	105.8873239
53659301	670	133.6352584
53659401	3191	1709.870307
53659501	3882	1165.398907
53659601	1129	105.3041825
53660101	3744	81
53660201	8.994355007	166.8985177
53660202	4076.441564	126.9737742
53660301	989.5115027	72.0815402
53660302	1940.531571	482.6636467
53661101	382.21147	43.09345794
53661102	1445.454286	61.79439252
53661103	1516.932795	18.70093458
53661201	2916.206275	42.890625
53661301	1676	185.2250804
53661401	3076	291.1231603
53661402	2500	418.9496514
53661501	1181.451953	64.27659574
53661502	1906.115799	94.72340426
53662101	335	562.1996616
53662201	21	281.4705882
53662301	0	1399.126154

53662401	8	1465.936364
53662501	3	2965.866788
53662601	234	849.5284091
53663101	0	572.8422857
53663201	0	1659.694252
53663301	0	840.8010471
53663401	75	1165.020325
53663501	1083	503.6410256
53663601	1490.952204	178.5344828
53667101	64	14.75
53667102	32	3.352272727
53667201	18	0.680161943
53667202	2229	76.17813765
53667301	38	44.34108527
53667302	1328	15.00775194
53667303	37	0
53667304	1601	28.65116279
53667401	9	0.651911469
53667402	20	8.474849095
53667403	51	18.25352113
53667404	27	41.722334
53668101	2546	342.0669145
53668201	3387	25
53668301	1482	312.5429363
53668302	942	920.5540166
53668401	2200.969903	102.5084746
53669101	6803	136.3089431
53669201	157	13.55877617
53669301	1331	1388.333333
53669401	22	2644.275862
53669501	15	1385.363636
53669601	0	2854.163265
53669701	5823	216.6666667
53671101	2216.699951	3405.332362
53671201	500	399.6521739
53672101	0	634.9427481
53672201	553.5	1306.801802
53672202	0	366.0345345
53672301	0	550.6244726
53672401	0	2115.901631
53672501	73.03896104	548.4181818
53672502	0	305.1681818
53672503	1.974025974	1594.709091
53672504	0	88.45454545
53673101	0	3491.072872
53673201	0	748.2184783
53673301	0	1102.161532

53673401	0	1907.271626
53673501	0	215.2607143
53674101	1834	793
53674301	2932	345.997416
53679101	760	202.845815
53679201	3900	363.672619
53679301	0	3089.623973
53682101	4465	5.435897436
53682201	2874	8.228571429
53682202	1118	0
53682301	6357	6.044776119
53683101	3159	332.696
53683201	7668	330.9210526
53683301	2123.24363	21.33333333
53683401	1605	25
53683501	8055	809.3023256
53683601	7801.200195	354.28
53683701	2007.900024	725.1496815
53683801	1922	21.75163399
53683901	1567	944.8876404
53683902	1795	171.3033708
53684101	3330.473274	169.7681818
53684201	4955	613.8119122
53684301	3407	88.71875
53685101	0	79.57675439
53685102	0	671.2390351
53685103	0	390.5942982
53685201	0	820.8643815
53685301	0	992.5
53685302	0	369.957971
53686101	0	1019.232506
53686201	0	882.3198804
53686301	0	111.8167006
53686302	0	450.1486762
53687101	0	926.2295082
53687201	1487	5145.805409
53687301	0	1514.009302
53687401	0	2722.570897
53687501	0	1135.276243
53687601	0	371.2048193
53687701	0	420.7623688
53687702	0	133.6326837
53687703	0	220.3133433
53687801	0	793.7886945
53687901	0	532.6385405
53690101	2627	6106.952188
53690201	0	1288.53873

53694401	0	4913.094704
53694501	0	639.4066798
53698101	0	1206.393939
53698102	0	439.5981818
53698201	0	433.4615385
53698202	0	221.1538462
53699101	0	317.8318106
53699102	0	1022.714701
53699201	0	1539.986797
53699301	0	256.9061135
53700301	0	1063.208562
53700401	0	232
Total	**256592.8829**	**114536.2046**