SB 743/Vehicle Miles Traveled (VMT)

January 29, 2020
Presentation Outline

• SB 743 Background
• Implementing SB 743 in City of Irvine
• Next Steps
SB 743 Background
SB 743 History

“Develop alternative criteria of measuring transportation impacts in support of the State’s goals for greenhouse gas reduction by encouraging higher density, mixed-use development in urban areas served by public transit and more diverse travel options”:

• September 2013 Law Passes

• December 2013 Preliminary Guidelines published – “Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks and promotion of a mix of land uses”

• August 2014 Office of Planning and Research (OPR) recommends VMT replace LOS as primary measure of transportation impacts - Initially only for TODs

• Significant outreach, feedback, comments and concerns

• Final CEQA Guidelines November 2017

• Final OPR Technical Advisory December 2018 – VMT/capita

• Adoption now required by July 1, 2020

• Importantly does not preclude LOS for operational analysis
Implementing SB 743 in City of Irvine
CITY OF IRVINE APPROACH

• Keep LOS analysis requirements consistent with current TIA Guidelines and current practice

• VMT analysis
  – TIA Guidelines updated with VMT analysis section.
  – Use the City’s traffic model (ITAM TransCAD 2018 VMT) to establish the citywide VMT significance threshold goals.
  – Use the City’s traffic model to calculate project VMT rates to identify potential impacts.
PROPOSED SCREENING – Applicant Demonstrates:

• Project nets an increase of 250 or less weekday daily trips (based on latest edition of ITE); or

• The project is located in a High Quality Transit Area (i.e., within half-mile distance of existing rail transit station or located within half-mile of two or more existing bus routes with a frequency of service interval of 15 minutes or less during morning and evening peak hours); or

• Project is a 100 percent restricted affordable housing project units* or

• Project is determined to be locally serving such as: 100,000 square feet or less retail, a daycare or a K-12 locally serving public school.

*If less than 100 percent, the number of restricted affordable units is not subject to VMT impact analysis. “Restricted” for VMT analysis purposes shall mean having a recorded instrument against the property that defines affordability terms.
PROPOSED SIGNIFICANCE THRESHOLDS

• OPR suggests 15% reduction of existing VMT rates

• Early adopters:
  – 0% reduction in Pasadena and Corona
  – 4% reduction in San Bernardino County
  – 15% reduction in Los Angeles, San Jose, Oakland, Santa Ana, and Beverly Hills

• City considering 15% reduction of existing VMT rates
PROPOSED METHODOLOGY

SIGNIFICANCE THRESHOLD GOALS

• Residential VMT per capita
  – Applicable for residential use projects

• Non-residential VMT per employee
  – Applicable for office, industrial, hotel, large retail uses, universities and commercial recreation use projects on a case-by-case basis depending on a project’s specific proposed land use mix

• Mixed-use Projects
  – For projects that include both residential and non-residential uses, all project land uses will be evaluated, except for those specific land uses that may be screened out.
## PROPOSED SIGNIFICANCE THRESHOLD GOALS

<table>
<thead>
<tr>
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<th>Existing</th>
<th>15% Reduction</th>
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<tbody>
<tr>
<td>Residential Rate</td>
<td>17.52</td>
<td>14.90</td>
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<tr>
<td>Non-Residential Rate</td>
<td>49.04</td>
<td>41.68</td>
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PROPOSED METHODOLOGY – TRIP TYPES

Residential VMT per capita
• Home-Based Work (productions) – direct and strategic
• Home-Based School (productions)
• Home-Based University (productions)
• Home-Based Other (productions)
• Rate based on countywide population

Non-residential VMT per employee
• Home-Based Work (attractions) – direct and strategic
• Home-Based School (attractions)
• Home-Based University (attractions)
• Home-Based Other (attractions)
• Work-Based Other (productions)
• Work-Based Other (attractions)
• Other-Based Other (productions)
• Other-Based Other (attractions)
• Rate based on countywide number of employees

The City’s VMT Tool (within ITAM):
1. Calculates the distance based on a congested roadway system
2. Applies that distance to each trip
3. Categorizes each trip into Residential or Non-residential VMT
Project VMT is significantly influenced by project location, size and land use mix:

- Access to transit, pedestrian connectivity, and ride-sharing opportunities.
- Nearby job opportunities
- Nearby school availability
- Nearby recreational availability
- Nearby shopping availability
Project A is adding 600 dwelling units in a planning area. Project applicant has provided sufficient justification that project has prior entitlement and CEQA clearance documentation for the 600 dwelling units. The project contributes an additional 3,000 daily trips to existing condition. Using ITAM VMT TransCAD model, the project results in an increase of 48,000 VMT and an increase in population of 1,600 countywide.

**Tier 1**

- Does the project meet any of the criterion listed in Tier 1?
  - Yes, if applicant can demonstrate that Project A has prior entitlement and appropriate CEQA clearance documentation of the 600 dwelling units, and when compared to the prior entitlement the project does not result in a net increase of 250 daily trips;
  - Then no further VMT analysis is required.
PROJECT B (RESIDENTIAL)

Project B is adding 600 dwelling units in a planning area that does not have prior entitlement or CEQA clearance documentation in an undeveloped area of the City. This project contributes additional 3,000 daily trips to existing condition. The project results in an increase of 48,000 VMT and an increase in population of 1,600 countywide.

**Tier 1**
- Does the project meet any of the criterion listed in Tier 1?
  - No

**Tier 2**
- Calculate Project Residential VMT/Capita
  - \( \frac{48,000}{1,600} = 30 \)
- Compare Project VMT/Capita with adopted residential VMT threshold rate of 14.90

**Result**
- Project B requires mitigation
PROJECT B (RESIDENTIAL)

Project B results in Residential VMT/Capita of 30. The adopted Residential VMT threshold rate is 14.90. Project B proposes on-site infrastructure improvements that provide pedestrian connectivity and bike parking. Project B proposes to be a participant of Transportation Demand Management (TDM) program.

**Step 1**
- Calculate residential VMT Mitigation Percentage
  - \( \frac{(30-14.90)}{14.90} = 101\% \)

**Step 2**
- Apply 2.5% reduction for on-site infrastructure
- Apply 5% reduction for TDM, if applicable

**Result**
- Project B requires additional mitigation:
  - Participate in VMT mitigation fee program and/or
  - Demonstrate that the proposed mitigation measures are supported by substantial evidence documenting their effect on reducing project VMT per capita or VMT per employee or
  - Prepare EIR that requires City Council adoption of Statement of Overriding Consideration
PROJECT C (MIXED USE)

Project C is a mixed use project with 1,000 dwelling units, 200 TSF retail, 100 TSF of office, 250-room hotel and 60 TSF of warehouse in a planning area that does not have prior entitlement or CEQA clearance documentation in an undeveloped area of the City. This project contributes additional 20,000 daily trips based on ITE. The project results in increase of 45,000 residential VMT and 55,000 non-residential VMT (28,000 commute VMT and 27,000 other VMT). The project results in a population increase of 3,000 and employee increase of 1,500 countywide.

Tier 1

- Does the project meet any of the criterion listed in Tier 1?
  - No

Tier 2

- Calculate Project Residential VMT per capita
  - 45,000/3,000 = 15
- Compare Project Residential VMT per capita with the adopted Residential VMT threshold of 14.90
- Calculate Project Non-Residential VMT per employee
  - 55,000/1,500 = 37
- Compare Project Non-Residential VMT per employee with adopted Non-Residential VMT threshold rate of 41.68

Result

- Project C requires mitigation for Residential VMT per capita
Project C results in Residential VMT per Capita of 15. The adopted Residential VMT threshold rate is 14.90. Project C proposes on-site infrastructure improvements that provide pedestrian network connectivity and bike facilities.

**Step 1**
- Calculate residential VMT Mitigation Percentage
  - \((15 - 14.90)/14.90 = 0.7\%\)

**Step 2**
- Apply 2.5% reduction for on-site infrastructure

**Result**
- Project C mitigates VMT impact
Next Steps

• Feedback from stakeholders – Submit to Melissa Chao, Senior Planner, at mchao@cityofirvine.org by February 28, 2020

• Transportation Commission – updated TIA Guidelines to include VMT Impact Analysis

• Planning Commission review and City Council adoption – updated CEQA Manual and updated TIA Guidelines

• Statewide VMT implementation deadline is July 1, 2020.
Questions?
SB 743/Vehicle Miles Traveled (VMT)
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Appendix 1. Considerations About Which VMT to Count

Consistent with the obligation to make a good faith effort to disclose the environmental consequences of a project, lead agencies have discretion to choose the most appropriate methodology to evaluate project impacts. A lead agency can evaluate a project’s effect on VMT in numerous ways. The purpose of this document is to provide technical considerations in determining which methodology may be most useful for various project types.

Background on Estimating Vehicle Miles Traveled

Before discussing specific methodological recommendations, this section provides a brief overview of modeling and counting VMT, including some key terminology.

Here is an illustrative example of some methods of estimating vehicle miles traveled. Consider the following hypothetical travel day (all by automobile):

1. Residence to Coffee Shop
2. Coffee Shop to Work
3. Work to Sandwich Shop
4. Sandwich Shop to Work
5. Work to Residence
6. Residence to Store
7. Store to Residence

*Trip-based* assessment of a project’s effect on travel behavior counts VMT from individual trips to and from the project. It is the most basic, and traditionally the most common, method of counting VMT. A trip-based VMT assessment of the residence in the above example would consider segments 1, 5, 6 and 7. For residential projects, the sum of home-based trips is called *home-based VMT*. 
Analysis of infill development using LOS

Relatively little vehicle travel loaded onto the network

... but numerous LOS impacts
Analysis of greenfield development using LOS

Typically three to four times the vehicle travel loaded onto the network relative to infill development

…but relatively few LOS impacts

Traffic generated by the project is sufficiently dispersed by the time it reaches congested areas that it doesn’t trigger LOS thresholds, even though it contributes broadly to regional congestion.