

Senate Bill 743 Vehicle Miles Traveled Implementation Policy

City of Salinas

Final Interim Policy, October 13, 2020

1.0 Background

In 2013, SB 743 was signed into law by California Governor Jerry Brown with a goal of reducing Greenhouse Gas (GHG) emissions, promoting the development of infill land use projects and multimodal transportation networks, and to promote a diversity of land uses within developments. One significant outcome resulting from this statute is the removal of automobile delay and congestion, commonly known as level of service (LOS), as a basis for determining significant transportation impacts under the California Environmental Quality Act (CEQA).

The Governor's Office of Planning and Research (OPR) has documented recommended analysis guidelines for SB 743 in its *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) which provides for Vehicle Miles Traveled (VMT) as the principal measure to replace LOS for determining significant transportation impacts. VMT is a measure of total vehicular travel that accounts for the number of vehicle trips and the length of those trips. OPR selected VMT, in part, because jurisdictions are already familiar with this metric. VMT is already used in CEQA to study other potential impacts such as GHG, air quality, and energy impacts and is used in planning for regional Sustainable Communities Strategies (SCS).

VMT also allows for an analysis of a project's impact throughout the jurisdiction rather than only in the vicinity of the proposed project allowing for a better understanding of the full extent of a project's transportation-related impact. It should be noted that SB 743 does not disallow the City of Salinas to use LOS for other planning purposes outside the scope of CEQA.

2.0 Use of This Document

Note that although this document includes footnotes and references to other documents, this document has been developed to serve both as the basis of SB 743 implementation and VMT analysis within the City. Accordingly, the document does not require the reader to reference the footnotes unless they are interested in understanding the technical basis of elements of this document's preparation. Analysis guidelines are separated into two distinct approaches, those that relate to land use projects (Section 3.0) and those that relate to transportation improvement projects (Section 4.0). If a project includes both land use and transportation improvement elements, analysis would be required to be carried out for both. Projects not subject to CEQA are not required to follow these guidelines. This includes projects that are reviewed under existing ministerial or administrative processes, site plan review, and other actions that do not require environmental review.

This policy shall be jointly administered by the Community Development Department (CDD) and Public Works Department (PW). Regardless of lead on analysis, it is expected that staff from both departments will collaborate on related VMT tasks. For example, Community Development may request Public

Works' assistance in determining the most applicable Institute of Transportation Engineers (ITE) code for a given project.

3.0 Land Use Projects

An approach to identify transportation impacts under CEQA for land-use that closely align with guidance provided within the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018). While the OPR guidance related to SB 743 has been a helpful introduction to using VMT to evaluate projects, it does not provide a complete solution. There are a multitude of complex practical issues that are not addressed by the OPR guidance. OPR Guidance does not specifically address land uses beyond residential, office and retail, and it provides latitude on some elements of implementation. In response to this, a specific series of analysis steps for SB 743 project evaluation have been developed to clarify requirements and reduce potential confusion. **Exhibit 1** provides a graphical representation of this analysis process.

Exhibit 1 – Process for CEQA VMT Analysis for Land Use Projects



Step 1: Determine if project is ministerial or discretionary

The initial step is to determine if the proposed land use project is ministerial or discretionary. If the project is ministerial or otherwise not subject to CEQA, this policy would not apply. If the land use project is subject to discretionary review or otherwise subject to CEQA, this policy applies for analysis of potential transportation impacts.

Step 2: Determine ITE Land Use Type

If it is determined that this policy applies to a land use project, the second step will be to evaluate the project for the following considerations:

- **Land use type.** For the purposes of analysis, the Institute of Transportation Engineers (ITE) land use codes serve as the basis of land use definitions. Although it is recognized that VMT evaluation tools and methodologies are typically not fully sensitive to some of the distinctions between some ITE categories, the use of ITE land use codes is useful for maintaining consistency across analyses, determining trip generation for other planning level tools, and maintaining a common understanding of trip making characteristics amongst transportation professionals. The ITE land use code is also used as an input into the VMT Analysis Tool described in Step 4 of this Section
- **Mixed Use.** If there are multiple distinct land uses within the project (residential, office, retail, etc.), they will be required to be analyzed separately unless they are determined to be insignificant to the total VMT. Mixed use projects are permitted to account for internal capture which depending on the methodology may require a distinct approach not covered in this documentation. This analysis would be the responsibility of the applicant and will need to be prepared by a qualified transportation professional and approved by the City of Salinas.
- **Redevelopment projects.** As described under the Non-Significant Screening Criteria section, redevelopment projects which have lower VMT than the existing on-site use can be determined to have a non-significant impact.

Once the land use type(s) are determined, the next step is to screen the project to determine if further CEQA transportation analysis is necessary.

Step 3: Screen for Non-Significant Transportation Impact

The purpose of this step is to determine if a presumption of a non-significant transportation impact can be made on the facts of the project. The guidance in this section is primarily intended to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743. A detailed CEQA transportation analysis will not be required for land use elements of a project that meet the screening criteria shown in **Exhibit 2**. If a project has multiple distinct uses (residential, office, retail, etc.), only those elements of the project that are not screened out would require further evaluation to determine transportation significance for CEQA purposes.

Exhibit 2 – Screening Criteria

Screening Criteria	OPR Guidance
<p>Small Projects¹</p> <p>This applies to projects with low trip generation per existing CEQA exemptions. Note that this includes any land use type (residential, office, open space, neighborhood parks, etc.)</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> ▪ Project generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by City of Salinas <p>Unless:</p> <ul style="list-style-type: none"> ▪ It is inconsistent with the Sustainable Communities Strategy as determined by the City of Salinas
<p>Projects Near High Quality Transit²</p> <p>High quality transit provides a viable option for many to replace automobile trips with transit trips resulting in an overall reduction in VMT.</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> ▪ Within a ½ mile of an existing major transit stop; and ▪ Maintains a service interval frequency of 15 minutes or less during the morning and afternoon peak commute periods). <p>Unless:</p> <ul style="list-style-type: none"> ▪ Has a Floor Area Ratio (FAR) of less than 0.75; or ▪ Includes more parking, excluding on-street parking, for use by residents, customers, or employees of the project than required by the City of Salinas zoning code; or ▪ It is inconsistent with the Sustainable Communities Strategy as determined by the City of Salinas; or ▪ Replaces affordable residential units with a smaller number of moderate- or high-income residential units
<p>Local-Serving Retail³</p> <p>The introduction of new Local-serving retail has been determined to reduce VMT by shortening trips that will occur out</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> ▪ No single store on-site exceeds 50,000 square feet; and ▪ Project is local-serving as determined by the City of Salinas <p>Unless:</p>

¹ 2018 OPR Guidance, page 12

² 2018 OPR Guidance, page 13

³ 2018 OPR Guidance, page 16

Exhibit 2 – Screening Criteria

Screening Criteria	OPR Guidance
of necessity (groceries, other essentials, etc.).	<ul style="list-style-type: none"> The nature of the service is regionally focused as determined by the City of Salinas
<p>Affordable Housing⁴</p> <p>Lower-income residents make fewer trips on average, resulting in lower VMT overall.</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> A high percentage of affordable housing is provided as determined by the City of Salinas <p>Unless:</p> <ul style="list-style-type: none"> The percentage of affordable housing is determined by the City of Salinas to not be high in relation to the residential element of a project
<p>Local Essential Service⁵</p> <p>As with Local-Serving Retail, the introduction of new Local Essential Services shortens non-discretionary trips by putting those goods and services closer to residents, resulting in an overall reduction in VMT.</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> Building is less than 50,000 square feet: and Land Use is : <ul style="list-style-type: none"> Day care center; or Public K-12 School; or Police or Fire facility; or Medical/Dental office building; or Government offices (in-person services such as post office, library, and utilities) <p>Unless:</p> <ul style="list-style-type: none"> The nature of the service is regionally focused as determined by the City of Salinas
<p>Map-Based Screening</p> <p>This method eliminates the need for complex analyses, by allowing existing VMT</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> Area of development is under threshold as shown on screening map as allowed by City of Salinas <p>Unless:</p>

⁴ 2018 OPR Guidance, page 14. As described, “Evidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in infill locations. Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed-use projects) containing a particular amount of affordable housing, based on local circumstances and evidence.”

⁵ Based on assumption that, like local-serving retail, the addition of necessary local in-person services will reduce VMT given that trips to these locations will be made irrespective of distance given their non-discretionary nature.

Exhibit 2 – Screening Criteria

Screening Criteria	OPR Guidance
<p>data to serve as a basis for the screening smaller developments. Note that screening is limited to residential and office projects utilizing the maps.</p>	<ul style="list-style-type: none"> ▪ Represent significant growth as to substantially change regional travel patterns as determined by the City of Salinas
<p>Redevelopment Projects⁶</p> <p>Projects with lower VMT than existing on-site uses, can under limited circumstances, be presumed to have a non-significant impact. In the event this screening does not apply, projects should be analyzed as though there is no existing uses on site (project analysis cannot take credit for existing VMT).</p>	<p>Presumed to cause a less-than-significant impact:</p> <ul style="list-style-type: none"> ▪ Project replaces an existing VMT-generating land use and does not result in a net overall increase in VMT <p>Unless:</p> <ul style="list-style-type: none"> ▪ The project replaces an existing VMT-generating land use and results in a net overall increase in VMT

⁶ 2018 OPR Guidance, Page 18

Step 4: Determine Significance Threshold and Methodology

The purpose of this step is to determine the threshold of significance for application to a land use project if it is not screened out in Step 3, or if further analysis is necessary to determine VMT impacts. Significance thresholds are based on land use type, broadly categorized as efficiency and net change metrics. Efficiency metrics include VMT/Capita and Work VMT/employee⁷. As described in **Exhibit 3**, “Net Change” refers to the net change in regional VMT. “Net Change” is used for elements that include a significant customer base, such as commercial uses, although it can extend to a variety of uses that have similar characteristics.

Exhibit 3 - Significance Threshold and Methodology

Example Details	Threshold Basis	
	Efficiency	Net Change
Example Land Use	Residential, Professional Office, Industrial	Retail, Medical Office, Sports Venue
Example VMT Thresholds	Per capita, per employee	Region VMT change
Customer Component	No	Yes
Allowable Methods	Non-Significant Screening Criteria, The City of Salinas VMT Analysis Tool, Travel Demand Model	Non-Significant Screening Criteria, Travel Demand Model

For projects with a significant customer base (retail, medical offices, sports venue, etc.) it is typically appropriate to separate employee trip characteristics from the customer base unless the customer base is minimal in nature. Under these circumstances, it is most appropriate to evaluate the total of the delta in regional VMT resultant from the customer base plus the delta of VMT resultant from employees based on the following formula:

$$(\text{number of employees}) \times (\text{estimated VMT/employee} - \text{threshold VMT/employee})$$

The threshold of significance will accordingly correspond to the “Net Change” threshold as described in **Exhibit 3**. Under these circumstances, it is most appropriate to evaluate this total Net Change as the basis for evaluating the outcome of mitigations in terms of determining transportation significance although each element of the project should be tallied separately for the purposes of clarity.

⁷ Work VMT specifically applies to commute trips as represented by the attractions in the Travel Demand Model. Refer to Appendix A for additional information

VMT Thresholds of Significance

OPR suggests a 15 percent VMT reduction relative to existing local or regional average VMT levels. The thresholds of significance recommended by OPR, as they relate to the City of Salinas, are summarized in **Exhibit 4**.

Exhibit 4 - OPR suggested VMT Thresholds of Significance

Land Use	OPR Guidance ⁸
Residential	15% below existing county-wide average VMT per capita
Office	15% below existing county-wide average VMT per employee
Retail	Net increase in regional VMT

Based on these criteria the VMT thresholds of significance shown in **Exhibit 5** have been established.

Exhibit 5 - VMT Thresholds of Significance

Land Use	VMT Threshold	Basis
Residential	9.7 VMT/capita ⁹	15% below existing county-wide average VMT per capita.
Office	6.6 Work VMT/Employee ¹⁰	15% below existing county-wide average Work VMT per employee
Retail	Net regional change	Using the county geographical area as the basis
Other Employment	Work VMT/Employee ¹¹	15% below existing county-wide average Work VMT per employee for similar land uses
Other Customer	Net regional change	Using the county or another geography deemed appropriate by the City of Salinas as the basis

Note that the inclusion of “Other Employment” and “Other Customer” refers to all other service and goods providers that are not included in the office/retail categories. As shown they follow a similar approach to the office/retail categories with the principal difference being that the average/basis for of the threshold would be the aggregation of the specific “other” land use across the county (i.e. an industrial project would use industrial uses, etc.).

Based on improvements to methods and data as well as other modeling modifications there will be periodic updates to the numerical threshold values shown, however the relative approach for

⁸ 2018 OPR Guidance, Pages 15-16

⁹ Residential VMT specifically applies to all Home-Based trips residential trips as represented in the Travel Demand Model. Refer to Appendix A for additional information.

¹⁰ Work VMT specifically applies to commute trips as represented in the Travel Demand Model. Refer to Appendix A for additional information

¹¹ Work VMT specifically applies to commute trips as represented in the Travel Demand Model. Refer to Appendix A for additional information

calculating them should remain the same. The values in the current VMT Analysis Tool, discussed below, will supersede the information provided in the table above. Additional thresholds for various employment types are also provide in the VMT Analysis Tool.

VMT Analysis Tool

The City of Salinas has developed a VMT Analysis Tool for use in SB 743 land use project analysis. The purpose of the tool is to calculate VMT for a land use project. As with any VMT Analysis Tool, there are distinct limitations in terms of its application including limits on the type and size of development that can be applied to. Note that it is anticipated that the tool will continue to evolve in response to data or methodological changes and as such it is important that the most current version of the tool be utilized. Broadly, the VMT Analysis Tool provides the following information:

- Institute of Transportation Engineers (ITE) Trip Generation
- VMT Threshold Analysis
- Greenhouse Gas (GHG) Estimation
- Transportation Demand Management (TDM) Evaluation

The VMT Analysis methodology is summarized in **Appendix A**.

Step 5: Develop Scope Agreement and Complete VMT Analysis

Prior to undertaking VMT analysis, a scope compliant with the City of Salinas’s requirements must be prepared by the project applicant and submitted to the City for approval by CDD and PW. Given the potential complexities of some uses, particularly those not identified as residential, retail, or office, an agreement regarding the threshold and methodology is important to avoid analysis that is not compliant with the City of Salinas’s requirements. Once a scope is approved, the City of Salinas Public Works Department will hire a consultant to perform the analysis, at the cost of the applicant.

Step 6: Identify Mitigation Measures

During this step, the analysis agreed to under Step 5 should be complete and approved by the City of Salinas. Relevant documentation providing enough detail that assumptions are clearly understandable, and methods that can be replicated should be provided along with the results of the VMT analysis for the proposed project.

If a significant transportation impact is identified, feasible mitigation measures to avoid or reduce the impact must be identified. CEQA requires that mitigation measures are included in the project’s environmental assessment. OPR provides a list of potential measures to reduce VMT but gives the lead agency (the City of Salinas in this case) full discretion in the selection of mitigation measures.

The type and size of the project will determine the most appropriate mitigation strategies for VMT impacts. For large projects such as general plans or specific plans, VMT mitigations should concentrate on the project’s density and land use mix, site design, regional policies, and availability of transit, bicycle, and pedestrian facilities. For smaller projects such as an individual development project, VMT mitigations will typically require the preparation of a transportation demand management (TDM)

program. A TDM program is a combination of strategies to reduce VMT. The program is created by an applicant for their land use project based on a list of strategies agreed to with the City of Salinas.

The City of Salinas has developed a list of potential TDM strategies appropriate for their jurisdiction and what magnitude of VMT reduction could be achieved. The selection process was guided by the California Air Pollution Control Officers Association (CAPCOA) recommendations found in the 2010 publication *Quantifying Greenhouse Gas Mitigation Measures*. The area context of the City of Salinas also influenced the type of TDM strategies that were selected. CAPCOA has found strategies with the largest VMT reduction in rural areas include vanpools, telecommute or alternative work schedules, and master planned communities with design and land-use diversity to encourage intra-community travel. Based on empirical evidence, CAPCOA found the cross-category maximum for all transportation-related mitigation measures is 15% for suburban settings.

In addition to the programmatic TDM measures above, the City has also developed “Banking Projects”, consistent with the OPR guidance. These projects are physical improvements that are of a multimodal nature, i.e. bicycle facilities, which will encourage more bicycle travel and reduce single occupancy vehicle trips. By contributing financially to these physical improvements, the development project would further reduce its VMT impact. The benefit of these banking projects are that the City of Salinas will have funding for infrastructure that reduces VMT.

Appendix B summarizes available TDM strategies along with the maximum VMT reduction, applicable land use application, and complementary strategies. The City of Salinas’s VMT Analysis Tool includes the TDMs summarized in **Appendix B**.

Step 7: Monitor Mitigation.

As required by CEQA, the City of Salinas will require ongoing mitigation monitoring and reporting. The specifics of this will be developed on a project basis.

4.0 Transportation Projects

Depending on the specific nature of a transportation project; it can alter trip patterns, trip lengths, and even trip generation. Research has determined that capacity-enhancing projects can and often do increase VMT. This phenomenon is commonly referred to as “induced demand”. The result of these increases in VMT can often both be measured in congestion increases and negative impacts to air quality including GHG emissions. While methods are generally less developed for the analysis of induced demand compared to other areas of transportation analysis, there is still the need to quantify and understand its impact to the transportation system considering the requirements of SB 743.

Similarly, to land use projects, the approach to transportation project analysis closely align with the 2018 OPR Guidance. In terms of analysis, the analyst should first determine whether the transportation project has been prescreened and determined to have a non-significant impact as described in the following section.

Screen for Non-Significant Transportation Impact

At the discretion of the City of Salinas, the following improvements may be presumed to result in a non-significant impact¹²:

1. Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts;
2. Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
3. Roadside safety devices or hardware installation such as median barriers and guardrails
4. Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
5. Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
6. Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
7. Addition of roadway capacity on local or collector streets, based on the City’s functional classification, provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
8. Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
9. Addition of a new lane that is permanently restricted to use only by transit vehicles
10. Reduction in number of through lanes
11. Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
12. Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
13. Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow
14. Timing of signals to optimize vehicle, bicycle, or pedestrian flow
15. Installation of roundabouts or traffic circles

¹² 2018 OPR Guidance, Page 20

16. Installation or reconfiguration of traffic calming devices
17. Adoption of or increase in tolls
18. Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase
19. Initiation of new transit service
20. Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
21. Removal or relocation of off-street or on-street parking spaces
22. Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
23. Addition of traffic wayfinding signage
24. Rehabilitation and maintenance projects that do not add motor vehicle capacity
25. Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
26. Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel
27. Installation of publicly available alternative fuel/charging infrastructure
28. Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor

Significance Threshold and Methodology

For projects that increase roadway capacity and are not identified under the Non-Significant Screening Criteria in the prior section, the significance criterion should be change in regional VMT. A finding of a significant impact would be determined if a transportation project results in a net increase in regional VMT. As a practical matter, any roadway with more than a quarter mile in new roadway travel lane (through lanes) should be evaluated for induced demand. A competent transportation professional will be required to provide a basis for this evaluation that considers available data, roadway context, and tools. Depending on the location and nature of the roadway this may be best accomplished using a the AMBAG Travel Demand Model. CEQA requires mitigation monitoring. If a project is required to implement VMT mitigation measures, the City of Salinas is required to monitor whether the project is implementing the mitigation measures. Mitigation monitoring will be determined and implemented on a case-by-case basis by the City of Salinas staff

Appendix A

VMT Analysis Methodology

Travel Demand Models (TDMs) are broadly considered to be amongst the most accurate of available tools to assess regional and sub-area VMT. The Association of Monterey Bay Area governments (AMBAG) maintains the regional travel demand model as a part of the Metropolitan Transportation Plan/Sustainable Communities Strategy program (MTP/SCS) that includes Monterey County and the City of Salinas. The latest available version of the AMBAG TDM was developed in 2018.

The 2018 Base Year model scenario was used for the baseline conditions and 2040 Future Year model scenario was used for the cumulative conditions in the City. The incorporated cities included in the model are major contributors of the trips throughout Monterey County during a typical weekday.

As many of AMBAG Region's daily trips originate from or are destined for areas outside of the County such as the Bay area and Santa Clara County (external trips), their total length could not be computed solely using the AMBAG TDM, additional analysis was required. The length of these trips was determined using two main processes, using Big Data and AMBAG TDM output files. Data was obtained from Teralytics that summarized the number of trips to and from the AMBAG Region to the surrounding Counties at the Census Tract level for the entire month of October 2019. The distance between each Census Tract was determined by using the TransCAD software, the modeling platform the AMBAG TDM runs on. The multipath analysis function within the TransCAD software was used to determine the point to point distance between the centroid of each Census Tract using the internal pathing algorithm that determines the shortest path along the roadway network between the centroid of each Census Tract pair. The shortest path between each AMBAG Region Census Tract and each non-AMBAG Region Census Tract that contained at least one trip was multiplied by the share of the total trips to and from each Census Tract within the AMBAG Region to determine the average trip length to and from Census Tracts. The average trip length was applied to each TAZ based on the TAZ to Census Tract association and multiplied by the number of external trips to and from that TAZ to determine the total external VMT by TAZ.

Model Zone Structure

VMT was computed at Traffic Analysis Zone (TAZ) level to determine the thresholds as well as to allow for comparisons among different areas throughout the County.

Socio-Economic Data

Socioeconomic data (SED) and other model inputs are associated with each TAZ. Out of several different variables in the model SED, the VMT analysis mainly focused on population, the number of households, the number of students, and types of employment that are used in the trip generation component. VMT computation was focused on the number of households in each TAZ and employment variables by 6 industries to determine rest of the trips. Employment variables used in the model are listed below.

Employment by Industry type:

1. Agriculture
2. Construction

3. Industrial and Manufacturing
4. Retail and Food
5. Service (White Collar, non-government jobs)
6. Public Administration (Government jobs)

Trip Generation

The AMBAG TDM runs a series of complex steps to estimate daily trip productions and attractions by various trip purposes for each TAZ. The trip purposes are listed below.

Model Trip Purpose:

1. Home-Based Work (HBW)
2. Home-Based Shopping (HBSshop)
3. Home-Based School, K-12 (HBSchool)
4. Home-Based University (HBUniv)
5. Home-Based Other (HBOther)
6. Non-Home-Based Work (NHBW)
7. Non-Home-Based Other (NHBO)
8. Visitor Shop
9. Visitor Tourist

The production model uses several variables such as number of workers, household income, age, household size and car availability depending on the trip purpose. Trip productions for every TAZ in the model were compiled separately by each trip purpose. The attraction model uses employment categories for the HW trip purpose, whereas it uses the employment categories and number of students (K-12 and University) for all non-HW trip purposes. The attraction model estimates trip attractions to each TAZ by regression coefficients that vary by employment type. Trip attractions for every TAZ were compiled by each purpose and by each employment type based on these regression coefficients.

Person Trips, Vehicle Occupancy, Trip Distance

Trip productions and attractions were compiled after the mode choice step, and only auto trips were used for the analysis. After the vehicle trip productions and attractions were computed for each trip purpose, trip lengths were applied for each zone pair from the skim matrices in the model to compute the production and attraction VMT by purpose.

VMT by Land Use Type

The residential VMT was computed by combining the production VMT for all the Home-Based trip purposes. VMT for non-residential land uses was computed from the attraction VMT by appropriate trip purposes and regression coefficients used in the attraction model.

Residential and non-residential VMT by each TAZ were computed and average VMT were determined by City, County and Region levels to determine the City's thresholds.

Appendix B

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
Transit Strategies					
1	Reduce Transit Headways	Makes transit service more appealing by reducing headways, reducing overall transit trip time, and encouraging riders to switch from auto to transit use.	Incentive / Infrastructure	2%	All
2	Transit Rerouting	Coordinate with local transit agency to provide or reroute existing transit services near the site	Infrastructure	2%	All
3	Transit Stops	Coordinate with local transit agency to provide bus stop near the site. Real time transportation information displays support on-the-go decision making to support sustainable trip making. Only get a reduction on a non-HQT line, cannot get both.	Infrastructure	2%	All
4	Safe and Well-Lit Access to Transit	Enhance the route for people walking or bicycling to nearby transit (typically off-site). Provide Emergency 911 phones along these routes to enhance safety.	Infrastructure	1%	All
5	Transit Subsidies	Involves the subsidization of transit fare for residents and employees of the project site. This strategy assumes transit service is already present in the project area.	Incentive	4%	All
		Pays for employees to use local transit. This could either be a discounted ticket or a full-reimbursed transit ticket. Include Trolley considerations.	Incentive	4%	Commute
Communication & Information Strategies					

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
6	Voluntary Travel Behavior Change Program	Involves the development of a travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. Provide a web site that allows employees to research other modes of transportation for commuting. Employee-focused travel behavior change program that targets individuals attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits.	Incentive		All
7	Promotions & Marketing	Involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials. Marketing and public information campaign to promote awareness of TDM program with an on-site coordinator to monitor program.	Incentive	4%	All
8	Required Commute Trip Reduction Program	Employee-focused travel behavior change program that targets individuals attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits.	Incentive		Commute

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
9	Emergency Ride Home (ERH) Program	Provides an occasional subsidized ride to commuters who use alternative modes. Guaranteed ride home for people if they need to go home in the middle of the day due to an emergency or stay late and need a ride at a time when transit service is not available. This supplemental to the other trip reduction strategies. ADD to 5 and 6	Incentive		Commute
10	Commute Assistance Center	Provide a computer kiosk that allows employees to research other modes of transportation for commuting.	Incentive		Commute
11	Multimodal Wayfinding Signage	Wayfinding signage orients users to locations of sustainable transportation choices.	Infrastructure	1%	All
Commuting Strategies					
12	Employer Sponsored Vanpool or Shuttle	Implementation of employer-sponsored employee vanpool or shuttle providing new opportunities for access to connect employees to the project site.	Incentive / Infrastructure	2%	Commute
13	Preferential Carpool / Vanpool Parking Spaces	Reserved carpool / vanpool spaces closer to the building entrance.	Infrastructure	2%	All
14	Passenger Loading Zones for Carpool / Vanpool	Provide easy access for carpools or vanpools.	Infrastructure		All
15	On-site Carts or Shuttles or bikes	Provide on-site cart or shuttle for employees to travel across campus.	Incentive / Infrastructure	1%	All
16	On-site Childcare	Provides on-site childcare to remove the need to drive a child to daycare at a separate location.	Infrastructure	2%	All

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
Shared Mobility Strategies					
17	Ride-Share Program	Increases vehicle occupancy by providing ride-share matching services, designating preferred parking for ride-share participants, designing adequate passenger loading/unloading and waiting areas for ride-share vehicles, and providing a website or message board to connect riders and coordinate rides. Need a point person from the business on-site	Incentive	5%	Commute
18	Employee/Employer Car Share	Implement car sharing to allow people to have on-demand access to a vehicle, as-needed. This may include providing membership to an existing program located within 1/4 mile, contracting with a third-party vendor to extend membership-based service to an area, or implementing a project-specific fleet that supports the residents and employees on-site.	Incentive	1%	All
		Provide an on-site car vehicle for employees who use alternative transportation to commute to work, to use for short trips during the workday. For example, this allows for employees to run errands or travel for lunch.	Incentive		Commute
19	Designated Parking Spaces for Car Share Vehicles	Reserved car share spaces closer to the building entrance.	Infrastructure	1%	All
20	Scooters Share Program	Implement scooter share to allow people to have on-demand access to a scooter, as-needed.	Incentive / Infrastructure	2%	All
21	School Carpool Program	Implements a school carpool program to encourage ride-sharing for students.	Incentive	15%	School
Bicycle Infrastructure Strategies					

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
22	Bike Share	Implement bike share to allow people to have on-demand access to a bicycle, as-needed..	Incentive	0.25%	All
			Infrastructure	7%	
23	Bike Charging Facility	Provide a secure bike charging facility	Infrastructure	1%	All
24	Implement/Improve On-street Bicycle Facility	Implements or provides funding for improvements to corridors and crossings for bike networks identified within a one-half mile buffer area of the project boundary, to support safe and comfortable bicycle travel.	Infrastructure	2%	All
25	Include Bike Parking in excess of City Code	Implements long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations	Infrastructure		
26	Include Secure Bike Parking and Showers in excess of City Code	Implements additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel.	Infrastructure		
27	Bicycle Repair Station / Services	On-site bicycle repair tools and space to use them supports on-going use of bicycles for transportation.	Infrastructure		
Neighborhood Enhancement Strategies					
28	Traffic Calming Improvements	Implements traffic calming measures throughout and around the perimeter of the project site that encourage people to walk, bike, or take transit within the development and to the development from other locations.	Infrastructure	1%	All
29	Pedestrian Network Improvements	Implements pedestrian network improvements throughout and around the project site that encourages people to walk.	Infrastructure	2%	All

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
Miscellaneous Strategies					
30	Healthy Food Retail in Underserved Area	By locating grocery stores and other retailers that provide healthy food options in areas that are underserved, new development can create the option for existing residents and workers to travel shorter distances and by other modes to perform their food shopping.	Infrastructure	2%	All
Parking Strategies					
31	Reduce Parking Supply	Changes on-site parking supply to provide less than the amount required by municipal code. Permitted reductions could utilize mechanisms such as TOC, Density Bonus, Bike Parking ordinance, or locating in a Specific Plan Area.	Infrastructure	4%	All
32	Unbundle Parking	Unbundles parking costs from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost. Implementation of residential permit parking zones for long-term use of on-street parking in residential area at the expense to the developer.	Incentive	5%	Residential
33	Parking Cash-Out	Provide employees a choice of forgoing current parking for a cash payment to be determined by the employer. The higher the cash payment, the higher the reduction.	Incentive	4%	Commute
34	Price Workplace Parking	Implements workplace parking pricing for employees at employment locations for all land-use contexts and all types of development that include employment where trips originate at home and terminate at work.	Incentive	4%	Commute
35	Residential Area Parking Permits	Implementation of residential permit parking zones for long-term use of on-street parking in residential areas.	Incentive	0.25%	All

City of Salinas					
TDM Measure #	Transportation Demand Management Measure	Description	TDM Type	Max VMT Reduction	VMT Reduction Type
36	Parking Management Strategies	Strategies to encourage efficiency in parking facilities and improve the quality of service to parking users.	Incentive	1%	Valet
Miscellaneous Strategies					
37	Virtual Care Strategies for Hospitals	Resources to allow patients to access healthcare services or communicate with healthcare staff through online or off-site programs.	Infrastructure	6%	Hospital / MOB Visitors
Land Use Strategies					
38	TOD	TOD close to transit Facility	Land Use	15%	All
39	Destination Development	Residential Close to Work	Land Use	3%	All
40	Transit Service Expansion	Transit service expansion into new development areas, or increase headways in existing areas	Land Use	3%	All
41	Higher Density	Increase number of units per acre in infill areas	Land Use	4%	All
42	Open Space	Provide open/park space in infill areas to reduce car trips to parks	Land Use	1%	All
43	On-site Affordable Housing	Provides on-site affordable housing close to TOD or work place/business	Land Use	20%	All
44	Street Grid	Grid system without isolated cul de sacs	Land Use	4%	All



