



**TAHOE
REGIONAL
PLANNING
AGENCY**

ATTACHMENT G

PROJECT IMPACT ANALYSIS UPDATE: PROJECT IMPACT ASSESSMENT AND AIR QUALITY MITIGATION FEE FRAMEWORK

Project Impact Assessment and Fee Framework

The project level transportation impact assessment and mitigation fee updates will provide a streamlined, transparent, and predictable process for projects that modify, change¹, or expand an existing or previous use resulting in additional vehicle miles traveled (VMT) by transparently determining significant impacts and mitigations; providing a streamlined review process for simpler projects; and providing detailed analysis for significance and mitigation determination of more complex projects. For projects subject to environmental analysis for air quality and greenhouse gas, those impacts will be evaluated using VMT as factors in those analyses.

Goals of the modernized program include:

- Incentivizing development in low VMT areas
- Reducing greenhouse gas emissions
- Promoting mobility
- Reducing reliance on the personal automobile

TRPA is developing, in collaboration with Placer County, California, a project level analytical tool. The tool will use data from the TRPA Travel Demand Model to evaluate projects to determine if they meet defined screening criteria, to further evaluate non-screened residential, and tourist accommodation unit projects for impacts to VMT and provide appropriate mitigation strategies as needed, and to calculate the mobility mitigation fee for projects' generated VMT. Commercial, recreation, and other projects not defined in the framework that are not screened from additional impact assessment will submit a detailed assessment of the project's impact on VMT, including needed mitigation strategies and fee. An applicant could choose to have a more detailed analysis if they believe it would more accurately reflect the project's effect on VMT or if a pre-approved alternative analysis, e.g., a market study, would provide more information than considered in the tool.

The updated tool and fees will advance implementation of the Regional Transportation Plan (RTP) by empowering applicants with information they need to design better projects and to mitigate project impacts with strategies and fees, each of which are linked to the RTP constrained project list.

The framework proposes changes to key facets of the current project impact assessment and mitigation fee processes that include:

1. Replacing Daily Vehicle Trip Ends (DVTE) with Vehicle Miles Travelled (VMT) in each process
2. Determining if any project types should be exempt from assessment and/or fees
3. Simplifying project evaluation using specific targets for land use equivalents
4. Establishing geographic boundaries (i.e., zones) for project impact assessment
5. Defining unique projects to be assessed on a case-by-case basis
6. Requiring all projects to mitigate VMT through implementation of VMT mitigations and/or paying a fee

¹ Changes in operation include but are not limited to expansion of gross floor area; or change in the applicable land use listed in Subparagraph 65.2.3.A, normally indicated by a substantial change in products or services provided

The outcomes of these updates will be to reduce the approximately 7% of additional VMT from development and redevelopment within the RTP forecast. The proposed framework demonstrates consistency with the updated per capita VMT threshold standard as it will contribute to the overall effort to attain and maintain that per capita VMT reduction standard.

The framework will be reviewed and revised within a year following an adopted update to the RTP so that the updated TRPA Model data and projections and RTP constrained project list, costs, and anticipated funding, are reflected in the project impact assessment, mitigation strategies, and mobility mitigation fee.

Project Impact Assessment Elements

Consultant Fehr & Peers provided evaluation of the TRPA model (Appendix 1), best practices, and relevant research, and made recommendations for the project impact assessment update. Input received from the Transportation Technical Advisory Committee and individual stakeholder discussions further informed the framework and associated code changes presented here (Figure 1).

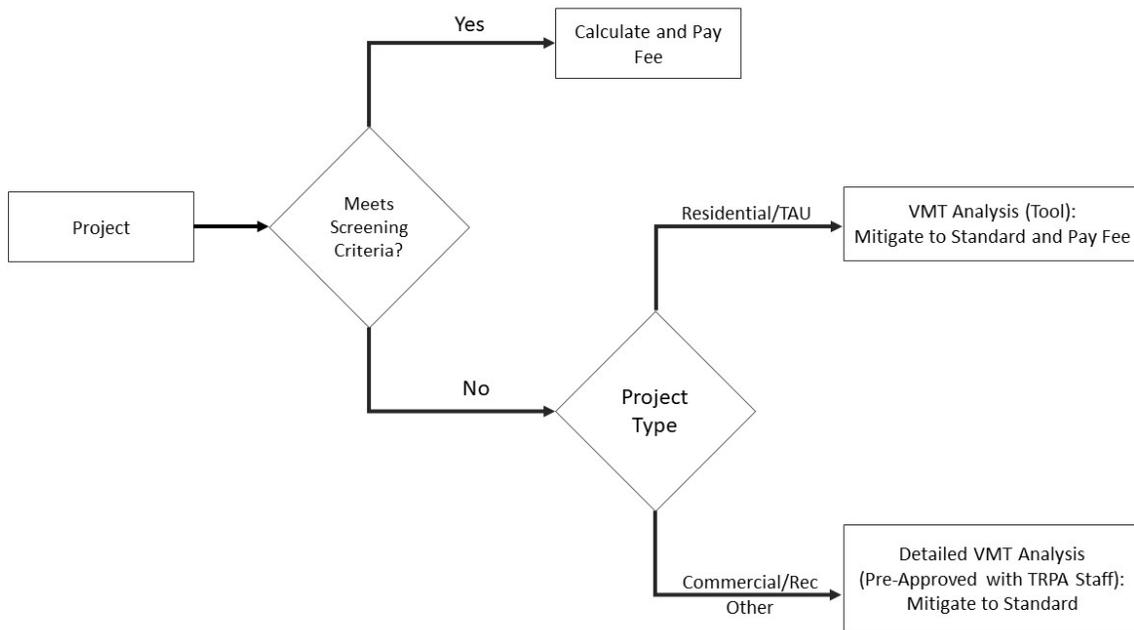


Figure 1: Proposed Project Impact Assessment and Fee Update Framework

The substantive elements of the updates are:

1. Standards of Significance

Establish minimum expectations for projects, and ensure all development and redevelopment are consistent with the regional goal.

2. Screening Criteria

Screen smaller and less complex projects where fee contribution to regional projects is more appropriate for mitigating VMT and promote projects in town centers and areas where regional investments in VMT mitigation are focused.

3. Mobility Fee Update

Ensure projects contribute their fair share by updating the fee basis from trips to VMT.

4. Project Tool

Provide a streamlined, transparent, and predictable process that empowers applicants with information they need to locate and design better projects.

The following section summarizes each of the facets of the project impact and mitigation fee updates.

VMT Metric

The VMT Metric is the basic unit of measurement of a project’s impact to transportation. An efficiency VMT metric, which measures VMT as a ratio or rate, is most appropriate for project generated VMT and supports goals to improve the efficiency of vehicle travel by influencing land use and transportation network decisions. Projects whose impact is better understood through its influence on total VMT are best evaluated by an absolute VMT metric.

Table 1 lists the proposed VMT metrics for each project type.

Table 1: VMT Metrics

Project Types	VMT Metric
Commercial	Total VMT
Public Service ²	VMT per Public Service Use
Recreation ³	Total VMT
Residential Uses	VMT per resident ⁴
Tourist Accommodation Unit	VMT per TAU

2 Public service uses defined Per Table 21.4-A in the Tahoe Code of Ordinances: Religious assembly, Day care centers / pre-schools, Government offices, Hospitals, Local public health and safety facilities, Schools – college, Schools – kindergarten through secondary, Social service organizations, and threshold-related research facilities

3 Recreation uses defined from Recreation Per Table 21.4-A in the Tahoe Code of Ordinances: Beach recreation, Boat launching facilities, Cross country ski courses, Day use areas, Developed campgrounds, Downhill ski facilities, Golf courses, Group facilities, Marinas, Off-road vehicle courses, Outdoor recreation concessions, Participant sports facilities, Recreation centers, Recreational vehicle parks, Riding and hiking trails, Rural sports, Snowmobile courses, Sport assembly, Undeveloped campgrounds, and Visitor information centers

4 Resident is defined here per the US Census definition: all persons who are "usually resident" in a specified geographic area, and VMT generated from those residents which is calculated at the transportation analysis zone (TAZ) level

Project Types	VMT Metric
Transportation Projects	Total VMT

Screening Criteria

The main goal of screening is to streamline VMT impact assessment by removing projects that are 1) expected to have a minor impact to transportation by producing less VMT than the adopted standard of significance or by providing a beneficial outcome (e.g., affordable housing); or 2) are simple enough that their impacts can be determined without undergoing a complex analysis.

Screening criteria typically include small projects, such as a single-family residence, projects that would reduce trips or trip length, such as local serving retail or affordable housing, and projects with short or no vehicle trips, such as certain transportation projects like bike paths and sidewalks. Screening can also serve to reduce the time and cost for project development when the project is consistent with adopted local and regional plans.

Projects that are screened most effectively mitigate their impacts with VMT through paying mobility mitigation fees, which help fund implementation of projects and programs identified in the RTP to mitigate anticipated future VMT in the region. Non-screened projects are of a size that can meaningfully mitigate VMT at the project level through implementation of mitigation strategies and paying fees that support regional VMT mitigations.

Commercial, recreation, and other project types not defined here that do not meet the screening criteria will submit a detailed assessment of the project’s impact on VMT. Applicants should consult TRPA staff for guidance on the most appropriate approach to analyzing impacts.

Projects that are inconsistent with adopted plans cannot be screened and must submit a detailed assessment of the project’s impact on VMT.

Screening Approach

The screening criteria were created referencing available data, various jurisdictional approaches, and the State of California’s Office of Planning and Research (OPR) guidance on implementation of SB 743, which utilizes VMT for project impact assessment for environmental review in that state (appendices 2 and 3).

When a project is screened it is not required to mitigate to the standard of significance for the project type. Screened projects mitigate through payment of the mobility mitigation fee for the calculated VMT associated with the project to offset the net additional VMT it generates.

Affordable Housing

Affordable housing that is 100% deed-restricted affordable, moderate, or achievable⁵ and is in an area eligible for affordable housing bonus units⁶ would be exempt from additional project impact assessment

5 Per 90.2 Other Terms Defined in the TRPA Code of Ordinances

6 Per 52.3.4 Affordable, Moderate, and Achievable-Income Housing in the TRPA Code of Ordinances

because data demonstrates an association between lower VMT rates and lower household incomes.⁷ The low-income factor used in the TRPA model will be applied to VMT calculation for affordable housing to reflect the lower VMT associated with this type of project.

The Tahoe Living Housing Initiative's forthcoming recommendations may change how housing types in this screen are defined, analyzed, and/or charged fees. Those recommendations will inform future updates to the project impact assessment and mitigation fee processes.

Active Transportation

Transportation projects involving active transportation or transit would be exempt from additional project impact assessment because these classes of projects would likely not lead to a substantial or measurable increase in VMT, e.g., bicycle, pedestrian, and transit projects.⁸

Previously Analyzed Projects

Projects analyzed in Area Plans with an environmental analysis per 65.2.4.E of the TRPA Code of Ordinances would be exempt from additional project impact assessment.

Low-VMT

The current project impact assessment process, based on daily vehicle trip ends (DVTE), identifies projects that produce less than 200 DVTE as having a minor or insignificant increase and so not requiring additional analysis.⁹ To identify lower VMT producing projects which do not require more complex analysis low-VMT is defined in two ways, depending on the location of the project:

1. Town and regional centers and their half-mile buffer: The VMT equivalent of 200 DVTE: 1,300 VMT¹⁰
2. All other areas of the region: The VMT equivalent of OPR recommended 110 DVTE: 715 VMT¹⁰

Projects that do not meet the low-VMT screen will be required to conduct additional analysis and apply mitigations (strategies and/or fees) to reduce the project's VMT to at or below the corresponding standard of significance.

The low-VMT screen for town and regional centers differs from OPR guidance (110 DVTE) in a few ways.

First, OPR guidance for screening projects includes a presumption of less than significant impact for residential, retail, and office projects of any size, when located near a major transit stop or along a high-quality transit corridor, criteria geared toward urban areas and thus not appropriate in Tahoe. The low-VMT screen for town and regional centers and their half-mile buffer supports the same policy aim as the OPR guidance "major transit stop" and "high-quality transit corridor" screen, by encouraging development near transit, and is more conservative because project size in Tahoe is limited by the 1,300 VMT equivalent of 200 DVTE.

7 See: [Household Income and Vehicle Fuel Economy in California \(sjsu.edu\)](#) and [Microsoft Word - CNT Working Paper revised 2015-12-18 kn mg edits](#)

8 Per the Technical Advisory on Evaluating Transportation Impacts in CEQA

9 Per 65.2.3 Definitions of the TRPA Code of Ordinances

10 Calculated using the regional average in-basin trip length of 6.53 miles, per the 2018 TRPA Travel Demand Model

Second, the low-VMT screen for town and regional centers differs from OPR guidance because that guidance does not recognize trip length, which can vary depending on project location and the underlying land use types and transportation contexts; and because it best reflects the appropriate mechanisms for projects in the Tahoe region to mitigate their impacts based on their VMT. That is, when a project's impact with VMT is below the low-VMT screen, it is best able to mitigate its impacts by advancing regional VMT mitigating projects and programs from the RTP by paying the mobility mitigation fee, and, when a project is above the low-VMT screen, by implementing mitigations at the project level and paying fees. The RTP supports the low-VMT screen by providing effective VMT reductions for low-VMT screened projects to advance by paying mobility mitigation fees.

Third, the updated screening criteria functions differently than that in the OPR guidance in that all projects, including those that qualify for screening, excepting active transportation projects, will be required, at a minimum, to mitigate through paying the mobility mitigation fee. This is stricter than OPR guidance which requires no mitigation of VMT by projects below 110 DVTE.

Fourth, some stakeholders assert that the OPR screening guidance does not apply to the Tahoe Region because the entire basin is "sensitive" under CEQA. However, TRPA already prohibits or tightly controls development on sensitive lands within the basin and the proposed transportation impact assessment does not include any modifications to those development restrictions.

As a result, this framework, through overall implementation, will garner more mitigation than a screen based on OPR guidance.

Standards of Significance

Standards of significance set a defined level above which a project would have a significant transportation impact, as measured by VMT, and therefore require additional analysis and/or mitigation.

Standards of significance for the proposed system have been determined based on analysis and guidance from OPR, input from stakeholders and the Transportation Technical Advisory Committee, and adapted for the needs of the Tahoe region:

- 15% below the sub-regional average VMT for residential uses, e.g., VMT/Resident for Residential and VMT/Tourist Accommodation Unit, and 15% below the sub-regional average VMT for Public Service projects
- No-net increase in VMT for commercial, recreation and transportation projects¹¹
- Other projects will be determined on a case-by-case basis

The framework uses sub-regional (i.e., jurisdictional¹²) standards of significance for residential, tourist accommodation uses, and public service uses. These standards of significance are designed to encourage applicants to reduce VMT by locating projects in the most efficient parts of each jurisdiction (Table 2).

¹¹ Per the California Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA

¹² Jurisdictions include Carson City, City of South Lake Tahoe, Douglas County, El Dorado County, Placer County, and Washoe County

Where a project replaces existing VMT-generating land uses that leads to a net overall decrease in VMT the project will lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the standards of significance described below would apply.

A mixed-use project would be evaluated using the respective standards of significance for each of the project land use types, per OPR Guidance. Mixed-use project evaluation will recognize internal trip capture within the project site in its trip generation and VMT calculation.

Table 2: Standards of Significance

Project Types	Standard of Significance¹⁰
Commercial	No-net VMT
Mixed Uses	Evaluate each land use component of a mixed-use project independently, and apply the threshold of significance for each land use type included
Public Services	15% below sub-regional average VMT per Public Service Use
Recreation	No-net VMT
Residential Uses	15% below sub-regional average VMT per resident
Tourist Accommodation Unit	15% below sub-regional average VMT per TAU
Transportation	No-net VMT

Mitigation

The purpose of mitigations is to ensure that new development and redevelopment, projected through the year 2045 by the TRPA Model for the 2020 RTP, offsets its VMT impacts through mitigations, where feasible, and mitigation fees.

All projects are expected to have a less-than-significant impact. Projects that are not screened must reduce their impact to less-than-significant through implementing appropriate VMT mitigation strategies. Non-screened projects that cannot mitigate to less-than-significant impact should consult TRPA staff for guidance on the most appropriate approach to achieving less-than-significant impact.

Projects that receive VMT credit through 65.2.8 of the TRPA Code of Ordinances or a jurisdiction level VMT credit program will have the VMT credit recognized in project impact assessment and mobility mitigation fee calculation.

Screened projects, excluding transportation projects that include bicycle, pedestrian, and/or transit, will be required to pay the mobility mitigation fee if additional VMT is generated. Screened 100% deed-restricted affordable, moderate, and achievable housing projects will be required to pay a fee should new VMT be generated. Forthcoming recommendations from the Tahoe Living Housing Initiative will inform future updates to the mitigation fee program and its approach to affordable, moderate, and achievable housing.

Mitigation Strategies

Mitigation strategies are those that may be used to reduce VMT associated with land use projects, land use plans, and non-active transportation projects in the Tahoe Basin.

Consultant, Fehr & Peers, identified the following VMT mitigation strategies to be appropriate to reduce project generated VMT in Tahoe, based on the draft 2020 RTP, the Placer County Resort Triangle Transportation Plan, the CAPCOA Quantifying Greenhouse Gas Mitigation Measures report, and additional research, (Appendix 4):

- Increase Transit Accessibility
- Integrate Affordable and Below Market Rate Housing
- Improve Design of Development
- Unbundle Parking Costs from Property Cost
- Implement Market Price Public Parking
- Implement Voluntary Commute Trip Reduction Program
- Implement Required Commute Trip Reduction Program
- Provide Ride-Sharing Programs
- Implement Subsidized or Discounted Transit Program
- Encourage Telecommuting and Alternative Work Schedules
- Marketing for Commute Trip Reduction Program
- Targeted Behavioral Interventions
- Employer-Sponsored Vanpool/Shuttle
- Price Workplace Parking
- Provide Traffic Calming Measures

Mobility Mitigation Fees

The Air Quality Mitigation (AQM) fee is being updated and renamed to the Mobility Mitigation Fee.

Fees are used by the region's jurisdictions and implementing agencies to provide the transportation infrastructure necessary to implement the policies and achieve the goals of the RTP.

Each trip that produces VMT has an origin and a destination. The origin is the production of the trip and the destination is the attraction of the trip, with each being responsible for a proportional share of the trip's associated VMT. Since 1987, TRPA has weighted the origin/production of a vehicle trip at 90 percent, and the destination/attraction end of the trip at 10 percent. Within this framework, "beds" account for the origins/productions (e.g., houses, hotel/motel rooms, campgrounds) and commercial, recreation, public service, and other uses as the destinations/attractions, meaning Residential and Tourist Accommodation Units are charged 90% of the AQM fee and Commercial, Recreation, Public Service, and Other land use projects are charged 10% of the AQM fee.

The current approach to apportioning fees based on the land use type of the project is continued under the mobility mitigation fee.

The "per VMT" fee amount will be determined using significant projects identified in the adopted RTP constrained project list, calculated using projects costs less anticipated funding (including estimated funds from jurisdiction-level VMT mitigating fee programs), that address new VMT from development and redevelopment projected in the TRPA model, and as modified by applicable constitutional principles

and the policy considerations used to generate the existing AQM fee. The mobility mitigation fee will be adjusted annually for inflation using the Consumer Price Index for the San Francisco region.

The mobility mitigation fee will be charged on all new, unmitigated VMT. Screened projects will pay the mobility mitigation fee on all new VMT.

Local jurisdictions that have MOUs with TRPA will collect the TRPA mobility mitigation fee for covered projects. TRPA will collect the fee when no MOU is in place and for non-covered projects.

The fee will be set in consideration of current transportation fees in the region and in nearby communities and completed in consultation with jurisdictions, stakeholders, and the development community post-adoption of the 2020 RTP adoption and updates to project impact assessment and mitigation fee processes.

Updating the mobility mitigation fee will require a revision of the TRPA Rules of Procedure and Governing Board action at a public hearing.

Use of the fees will continue to require approval by the TRPA Governing Board to ensure monies are being used towards projects identified in the RTP and that reduce VMT.

Local VMT Fees

Some jurisdictions have or could have fee programs to mitigate VMT at a local scale, e.g., Placer County's Tahoe Transportation Fee Program.

The mobility mitigation fee program can recognize these local fee program revenues when calculating the TRPA mobility mitigation fee, as described above.

VMT Calculation

Project generated VMT is calculated based on the land use type, size, and location of the proposed project using location-based data from the TRPA travel demand model.

The travel demand model's 282 TAZs have been grouped into a set of 79 zones to simplify analysis and to recognize the underlying land use and transportation contexts more closely, e.g., neighborhoods and transportation systems, and modified to reflect actual parcel boundaries

These 79 zones are used as the basis for providing VMT data for project generated VMT and mobility mitigation fee calculation for each defined land use type (Figure 2).

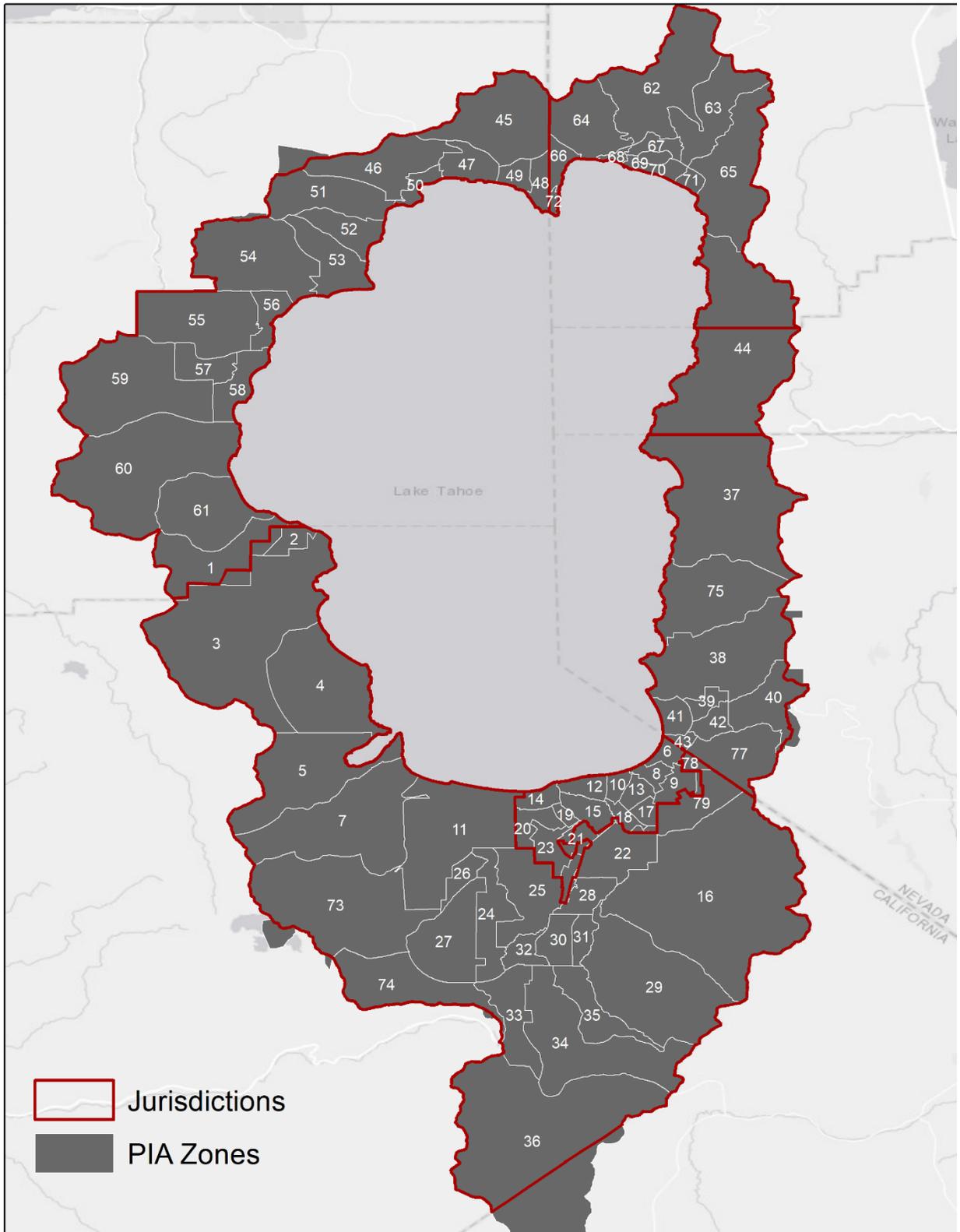


Figure 2: VMT Calculation Zones

Residential

Residential project VMT is calculated using the number of proposed residential units and location (i.e., zone) of the project. Residential VMT per resident is calculated by summing all VMT of residents in each zone and then dividing by the number of residents in the zone (Appendix 5). Where a project is proposed will determine its assumed residential VMT per resident. Resident is defined here per the US Census definition: all persons who are "usually resident" in a specified geographic area.

To calculate residential project generated VMT, the project's zone VMT per resident is multiplied by the average number of people per household and is then multiplied by the number of proposed units:

$$\text{Zone VMT Per Resident} * \text{Persons per Household} * \text{Number of Proposed Units}$$

Non-Residential Project Types

Project generated VMT for non-residential projects, e.g., Commercial, Recreation, Public Service, and TAU, are calculated using a combination of ITE trip rates and the TRPA model trip lengths for the project location (i.e., zone) (Appendix 6). Average trip length was calculated for each zone by averaging all trips that started or ended in the zone.

$$\text{Project generated VMT} = \text{Zone average trip length} * \text{ITE trip generation for project type-size}$$

$$\text{Project efficiency} = \text{Project generated VMT} / \text{Project type-size}$$

Standard of Significance

Efficiency based standards of significance for each land use type utilizes the same methodology as previously described for calculating project generated VMT.

$$\text{Residential Projects} = \text{Sub-regional average VMT Per Resident} * \text{Persons per Household} * \text{Number of Proposed Units} * 0.85$$

$$\text{Non-Residential Projects} = \text{Sub-regional average trip length} * \text{ITE trip generation for project type/size} * 0.85$$

Mitigation Monitoring

TRPA is committed to monitoring the efficacy of the updated program. However, approaches to monitoring VMT mitigations at the project level are evolving. The National Center for Sustainable Transportation at the University of California, Davis¹³ is initiating a project to develop recommendations for monitoring VMT impacts and assessing the efficacy of VMT reduction strategies at the project level. Staff have been working with this research team on a parallel effort, VMT Measurement in the Tahoe Region. The development of project impact assessment VMT mitigation monitoring will be informed by both efforts as they develop over time.

Framework Update

The framework will be reviewed and revised within a year following an adopted update to the Regional Transportation Plan so that the updated TRPA Model data and projections and RTP constrained project

13 <https://ncst.ucdavis.edu/project/monitoring-vehicle-miles-traveled-reduction-claims-local-development-review>

list, costs, and anticipated funding, are reflected in the project impact assessment and mitigation strategies and fees.

Tool Development

TRPA is developing a project impact assessment tool with Placer County and consultant, Fehr and Peers. The tool will be driven by data from the TRPA Travel Demand model according to the framework detailed here and for California jurisdiction impact assessment to comply with CA SB 743. The tool will be available to the public, consultants, developers, and others to facilitate consistent and transparent impact assessment.

Contact Information:

For questions regarding the project impact assessment and mitigation fee update, please contact Melanie Sloan at (775) 589-5208 or msloan@trpa.org.

Appendix 1: Tahoe Activity-Based Travel Demand Model Assessment

Appendix 2: Review of Screening Criteria for Vehicle Miles Travelled

MEMORANDUM

Date: January 13, 2021 – 3rd Draft

To: Melanie Sloan, Senior Planner – Transportation

From: Michael Conger, AICP, Senior Planner – Long Range Planning

Subject: **Review of Screening Criteria for Vehicle Miles Travelled**

Summary

In reviewing available data, various jurisdictions' approaches, and OPR's guidance, I have come to a key conclusion: there is little information about the relationship between land uses and Vehicle Miles Travelled (VMT). VMT is most conclusively estimated by considering trip generation from individual land uses and trip lengths which are most often done at a Transportation Analysis Zone (TAZ) level. As a result of the lack of definitive information, I recommend that we stick as closely as possible to the Governor's Office of Planning and Research (OPR) guidance, which is well substantiated.

Purpose

This document is intended to explain the recommendations in greater detail and identify various options for alternatives.

Findings in Brief

- (1) Most jurisdictions are following OPR's guidelines, with some proposing jurisdiction-specific deviations.
- (2) There is no readily accessible data on trip length as it relates to specific land uses.
- (3) The line between local and regional retail for Tahoe falls somewhere between 10,000 and 40,000 square feet.
 - a. Retailers under 10,000 square feet can be presumed to be local serving.
 - b. Nonetheless some retailers over 10,000 square feet are also local serving.
 - c. Most non-grocery retailers over 40,000 square feet will need to draw from beyond Tahoe and are therefore regional serving.
- (4) 1,300 Vehicle Miles Travelled is an appropriate benchmark for determining the size of developments that can be screened.
- (5) Trip-length / mode-share adjustments of 20 percent for Town Centers and 35 percent for the Regional Center / High-Density Tourist District are appropriate.

Recommendation

The following table summarizes the proposed recommendation in relation to OPR's guidance:

Screen	OPR Guidance	Recommendation
Small Projects	Generates \leq 110 daily trips or sized \leq 10,000 sqft	Require both \leq 110 daily trips and \leq 10,000 sqft

Affordable Housing	Projects with 100-percent affordable housing	Follow OPR recommendation but also include affordable housing in mixed-use developments
Local-serving retail	Retail projects with less than 50,000 square feet of retail space	<ul style="list-style-type: none"> • Retail projects with less than 10,000 square feet of space¹⁴; and • Retail projects with less than 40,000 square feet of space when “local-serving” • Include other local serving uses
Projects near Transit	Projects within ½ mile of a major transit stop or high-quality transit corridor	Exclude this screen, as there are no qualifying transit stops or corridors in the region
Projects in Low-VMT areas	Residential and office projects in areas where VMT is already below the threshold	Expand to include Centers; Limit to the following uses and sizes: <ul style="list-style-type: none"> • Moderate income and achievable housing • Redevelopment projects that result in lower VMT • Commercial projects • Recreation projects
Transportation Projects	Transportation projects that promote non-automobile transportation	<i>Same as OPR Recommendation</i>

Recommended Screens

Screen #1: Small Projects

OPR’s Recommendation

OPR recommends that projects that generate no more than 110 daily trips or are no larger than 10,000 square feet be screened.

Proposed Approach for TRPA

TRPA should implement this screen but require that projects meet both the trip and square footage limitations rather than one or the other. This screen would apply regionwide.

Projects that Could Be Screened

Any type of project could use the small projects screen. The level of development that would be allowed is based on trip generation and square footage. The following non-exhaustive examples illustrate the level of development that could be allowed under the small projects screen:

- 1 single-family residence on an existing lot
- 11 condominiums of 900 square feet each
- 4 detached residences of 2,500 square feet each
- A small hotel addition of 13 tourist accommodation units
- 10,000 square feet of low-trip-generating service commercial use, like mini-storage

¹⁴ Outside of Centers,

Rationale

These projects are relatively small. TRPA's current practice is to screen out projects from transportation analysis that generate fewer than 200 daily trips. The trip and square footage recommended by OPR comes from the Class 1 exemption from the California Environmental Quality Act (CEQA). OPR rationalizes that if this level of development has been identified as resulting in insignificant impacts, the associated VMT would also be below a level of significance.

Alternative Approaches

Using VMT for the Small Project Screen

Rather than using the number of daily trips, the small project screen could be set based on VMT. In this case, 700 VMT would be an appropriate figure¹⁵. Alternative B2 uses this approach. With VMT as a limiting factor, the level of screened development would depend upon location:

Land Use	Low VMT Area Incline Village	Average VMT Area	High VMT Area Tahoe City
Trip Length	4.09 mi	6.53 mi	10.52 mi
Detached residences (units)	17	11	6
Attached residences (units)	25	16	10
General Merchandise (sqft)	3,900	2,400	1,500
Restaurant (sqft)	800	500	300
Tourist accommodation (units)	17	11	6
Service / industrial (sqft)	4,800	3,000	1,900

Limiting the Small Project Screen to Low-VMT Areas

All or some components (e.g., residences and tourist accommodation units) of the small project screen could be limited to designated low-VMT areas and centers. The concern with this approach is that it may overlook the need to screen relatively small projects outside of these areas. If we are to take this approach, we will want to run several test cases to ensure that we are not unintentionally requiring smaller projects to go through VMT analysis.

Basing the screen on 200 trips / 1,300 VMT

Rather than using 110 trips / 700 VMT as the benchmark for the small project screen, TRPA could choose to increase the small project screen up to 200 trips. This is consistent with existing practice, where projects are screened from transportation analysis if they generate fewer than 200 trips.

Other Jurisdictions

Most other jurisdictions are implementing the small project screen using daily trips only, while some are using daily trips or square footage. Several jurisdictions have deviated from OPR's recommendation by allowing more trips (e.g., 300 daily trips, or in one case 525 daily trips). All jurisdictions reviewed are using some form of the small project screen.

¹⁵ This is based on 110 daily trips multiplied by the region's average trip length of 6.534, rounded to the nearest hundred.

Screen #2: Affordable Housing Projects

OPR's Recommendation

OPR recommends that 100-percent affordable housing projects be screened.

Proposed Approach for TRPA

Implement the screen as proposed by OPR but also allow use of the screen when a mixed-use development contains at least 80 percent housing and the housing is 100-percent affordable. This screen would apply regionwide. Similarly, the affordable housing component of any mixed-use project could qualify for screening. Qualifying projects would need to meet parking and active transportation design criteria.

Rationale

OPR's technical guidance¹⁶ provides substantial evidence to demonstrate that "adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT." TRPA's growth management and zoning controls would restrict multi-family residential development to infill areas.

Alternative Approaches

Expanding the Screen to Include Moderate-Income and Achievable Housing

Using OPR's rationale, TRPA could choose to expand the affordable housing screen to also include moderate-income¹⁷ and achievable¹⁸ housing.

Limiting the Screen to Low-VMT Areas

TRPA could choose to apply the screen only to low-VMT areas. The negative of this approach is that there may be lucrative affordable housing sites in higher VMT areas that could still reduce commute length substantially.

Other Jurisdictions

Most other jurisdictions appear to be implementing the affordable housing screen as proposed, with several acknowledging the option for mixed-use. Several jurisdictions have chosen not to implement this screen, presumably for political reasons. A couple jurisdictions limit the use of this screen to low-VMT areas or areas near high-quality transit.

Screen #3: Local-Serving Retail

OPR's Recommendation

OPR recommends that local-serving retail uses be screened. Retail uses over 50,000 square feet could be presumed not to be local serving.

Proposed Approach for TRPA

The proposed approach for TRPA would be a two-tiered approach:

- Certain retail commercial uses would be presumed to be local serving if they are under a specific size limit:

¹⁶ State of California, Governor's Office of Planning and Research (December 2018). Technical advisory: On evaluating transportation impacts in CEQA.

¹⁷ 80-120 percent of annual median income.

¹⁸ 120-160 percent of annual median income.

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- 10,000 square feet outside of Centers
 - 12,000 square feet inside of Town Centers
 - 13,500 square feet in the Regional Center / High-Density Tourist District
 - Retail commercial uses that exceed those size limits but are under 40,000 square feet would be reviewed on a case-by-case basis to consider if they are local serving. TRPA may require a market study if there is a question about the local-serving nature of a business.

The proposal would also include an additional screen for other local serving uses, such as churches, banks, and doctors' offices. This screen would apply regionwide. Qualifying projects would need to meet parking and active transportation design criteria.

Rationale

OPR's technical guidance notes that "new retail development typically redistributes shopping trips rather than creating new trips... By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT." Defining what is *local serving* is up to the individual lead agencies. Based on my review, the line between local serving and regional serving falls somewhere between 10,000 and 40,000 square feet. The proposal also includes other non-retail local serving uses. This is because these other uses act similarly to local-serving use in redistributing trips that may otherwise go to a further destination.

Alternative Approaches

Exclude the Case-by-Case Consideration for Structures up to 40,000 Square Feet

Making a case-by-case determination of the local-serving nature of a use may be complicate administration. In that case, we may want to eliminate case-by-case consideration from this framework. This would leave only structures below the lower limits as eligible for screening. If this were to occur, I recommend we establish a higher screening threshold for grocery stores and pharmacies, as these are commonly local serving even when over 10,000 square feet in size.

Eliminate the Non-Retail Uses

Rather than expanding the screen to include public service and other non-retail local serving uses, the screen could be limited just to retail uses.

Other Jurisdictions

Most other jurisdictions have adopted some form of the local-serving retail screen. The most common approach is to presume that a business is local serving if it is under 50,000 square feet. This is commonly adjusted by local jurisdictions. San Francisco, Palo Alto, and Goleta all use 10,000 square feet. San Diego expands the limit to 100,000 square feet and Rancho Cordova expands it to 200,000 square feet in certain parts of the city. It is also common for jurisdictions to include public service and other non-retail uses in the screen.

Screen #4: Low-VMT Areas

OPR's Recommendation

OPR recommends that residential and office projects that exhibit similar design characteristics be screened in areas where VMT is already below threshold.

Proposed Approach for TRPA

TRPA could establish a screen for areas where VMT is already below threshold levels based on mapped TAZ boundaries. The screen should also be expanded to include all Centers regardless of their VMT characteristics, as these areas have design standards and requirements that ensure development will be pedestrian oriented. The screen should apply only to certain classes of development:

- (1) Moderate-Income and Achievable Housing Projects. Projects comprised 100 percent of moderate-income or achievable housing, or a mixed-use development with no more than 20 percent of non-residential uses where 100 percent of the residential component is moderate-income or achievable housing. This would also include any moderate-income / achievable housing components within a mixed-use development.
- (2) Redevelopment Projects that Result in Less VMT. Projects that result in less net VMT than the development it is replacing.
- (3) Commercial and Recreation Projects. Commercial and Recreation projects up to a certain size (based on 1,300 VMT):

Land Use	Outside of Center	Town Centers	Regional Center / High-Density Tourist District
Commercial (square feet)	6,500	8,000	9,000
Indoor Recreation (square feet)	6,500	8,000	9,000
Outdoor Recreation (acres)	20	24	27

Qualifying projects would need to meet parking and active transportation design criteria.

Rationale

Areas that are currently below threshold VMT will continue to be low VMT. OPR notes that projects “that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT.” While OPR limits its analysis to residential and office projects, it may be appropriate to screen commercial and recreation projects of a certain size. Additionally, it would be appropriate to screen redevelopment projects that result in a net reduction in VMT.

Alternative Approaches

Break Commercial Sizes Down by Use

Commercial uses could be broken down into smaller categories and set square footages for each on the basis of 1,300 VMT:

Trip Rate Categories		General Categories	Retail Categories
<ul style="list-style-type: none"> • Auto repair and service • Bank 	<ul style="list-style-type: none"> • Hospital • Industrial services 	<ul style="list-style-type: none"> • General merchandise 	<ul style="list-style-type: none"> • Retail • Non-Retail • Restaurants

<ul style="list-style-type: none"> • Building materials/ lumber • Clinic • Convenience market • Discount store • Drinking place • Fast food restaurant • Furniture store • General light industrial • General office building • Hardware / paint store • High-turnover sit-down restaurant 	<ul style="list-style-type: none"> • Laundry and dry cleaning • Manufacturing • Mini-warehouse • Movie theatre • New car sales • Nursery • Quality restaurant • Research center • Savings and loan • Self-service car wash • Service station • Specialty retail center • Supermarket • Warehousing • Wholesale market 	<ul style="list-style-type: none"> • Convenience shopping • Specialty retail and offices • Personal services • Service / industrial • Restaurants • Entertainment 	
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Include Tourist Accommodation Units

TRPA could choose to include tourist accommodation units in the low-VMT screen. Based on the 1,300 VMT limit, this would amount to roughly:

- 22 units outside of centers
- 26 units in Town Centers
- 30 units in the Regional Center / High-Density Tourist District

Alternatively, a weighting factor could be applied (i.e., 100% trip length factor) to account for longer trip lengths (see Alternative A1).

Include Market-Rate Residential Units

TRPA could choose to include market-rate residential units. Because tourist and detached residential units have similar trip generation factors, the same number of units would result:

- 22 units outside of centers
- 26 units in Town Centers
- 30 units in the Regional Center / High-Density Tourist District

Exclude all but Residential and Office Uses

To keep as closely as possible to the OPR recommendations, TRPA could limit the low-VMT screen to apply only to residential and office projects.

Expand the Map

If the low-VMT map, which is based on subregional thresholds, is too limiting, we could consider applying the screen to areas that meet *either* the regional or the subregional threshold. This would substantially increase applicability.

Other Jurisdictions

Most of the reviewed jurisdictions are using the regional (rather than subregional or jurisdictional) threshold to screen low-VMT areas. These tend to be based on mapping layers provided to the city/county by their MPO, with TAZs as the base layer. In several cases, once you meet the locational criteria, all projects are screened. In other cases, only residential and office projects are screened. It is common to see this screen expanded to include industrial projects, employment-based projects, and redevelopment projects that result in lower VMT.

Screen #5: Transportation Projects

OPR's Recommendation

OPR recommends that transportation projects that do not promote automobile use be screened from VMT analysis. They include a list of project types.

Proposed Approach for TRPA

The OPR recommendation should be applied as the screen. The list of project types provided to TTAC in December can be used.

Rationale

While many transportation projects change travel patterns, a project that leads to additional vehicle travel on a roadway could result in generation of additional VMT. Certain classes of project would not likely lead to a substantial or measurable increase in vehicle travel and should be exempted from VMT analysis.

Alternative Approaches

No alternative approaches were considered.

Other Jurisdictions

All reviewed jurisdictions appear to implement some form of the transportation project screen. The individual types of projects listed tended to vary, however.

Findings

(1) **Most jurisdictions are following OPR's guidelines.** Most cities and counties have decided to adopt the same screening thresholds as those recommended in OPR's guidelines. While many jurisdictions have chosen to adjust the screening criteria, these adjustments tend to be relatively minor and stick within the larger framework of OPR's guidance. Some of the adjustments made include:

- Increasing or reducing the size of retailers defined as "local-serving." OPR recommends 50,000 square feet. The range appears to be 10,000 (San Francisco) to 200,000 square feet (Rancho Cordova).
- Increasing or reducing the range of "small projects" that may be screened out. OPR recommends 110 daily vehicle trips or 10,000 square feet. Some jurisdictions require both the trip generation and square footage. Others allow more than 110 trips – San Diego allows 300 trips and Long Beach allows 525 trips. Placer County's recommended screen would be based on 880 vehicle miles travelled¹⁹ rather than the number of trips.

¹⁹ 880 VMT is equivalent to 110 daily trips multiplied by Placer County's average trip length.

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- Defining “local-serving” uses by use category. Alternatively, some jurisdictions require case-by-case consideration of whether a business is local-serving.
 - Screening out redevelopment projects that result in fewer VMT than the projects they are replacing.
 - Screening out local-serving public service uses.

(2) **There is no readily accessible data on trip length as it relates to specific land uses.** This analysis is intended to consider vehicle miles travelled as a metric. Unfortunately, there is very little data on how individual land uses affect trip length. Most studies point to trip length being most correlated to features of the surrounding environment and not to any individual proposed land use. For example, a coffee shop would generate larger trip lengths in an auto-dominated environment when compared with placement in a pedestrian-oriented downtown. As a result, the analysis I conducted focused largely on trip generation as a proxy for vehicle miles travelled. It is assumed that trip lengths are equal except where an adjustment was made²⁰. Because data is limited, my recommendation is to stick as closely as possible to the OPR guidance.

(3) **The line between local and regional retail for Tahoe falls somewhere between 10,000 and 40,000 square feet.**

- a. **Retailers under 10,000 square feet can be presumed as local serving.** According to the data, roughly 92 percent of Tahoe businesses in local-serving uses are under 10,000 square feet in size. As such, presumption of a local-serving nature is justified for businesses under 10,000 square feet.
- b. **Nonetheless, some retailers over 10,000 square feet are local serving.** Local-serving businesses that are larger than 10,000 square feet include the following:
 - Grocery stores, such as Safeway or Raley’s, which range from 35,000 to 65,000 square feet, with an average of 51,000 square feet.
 - Pharmacies, such as CVS or Rite Aid, which range from 7,000 to 35,000 square feet, with an average of 21,000 square feet.

Both grocery stores and pharmacies, though larger than 10,000 square feet, tend to serve a local population and reduce VMT by locating in close proximity to their user base. Additionally, the data indicates that certain other types of businesses tend to be over 10,000 square feet. These include:

- Industrial services (~100%)
- Movie theatre (~100%)
- Warehousing (~100%)
- Mini-warehouse (storage units) (~80%)
- Wholesale market (~50%)
- Laundry and dry cleaning (~40%)

²⁰ For example, Alternative A1 uses weighting to adjust trip lengths down for convenience shopping and up for tourist accommodation units. All alternatives also use trip length/mode share weighting for Town Centers and the Regional Center.

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- New car sales (~40%)
 - Furniture stores (~30%)
 - Building materials and lumber (~25%)
 - General light industrial (~20%)

Several of the above uses (e.g., furniture store, and building materials and lumber) could be considered local serving in nature, as even larger facilities serve a primarily local population.

- c. **Most non-grocery retailers over 40,000 square feet will need to draw from beyond Tahoe and are therefore regional serving.** For a variety of reasons, most large formula retail will not locate in the Tahoe region. The region includes two distinct markets – north shore and south shore. Only the south shore is capable of attracting non-grocery retailers of 40,000 square feet. Furthermore, the north and south shore are part of a larger sub-regional market area that includes places like Truckee and Carson City and a regional market area that includes the Reno area. Development restrictions in Tahoe are far stricter than in these other communities. To support large retailers over 40,000 square feet, the store would need to draw from outside of the region. This is made difficult by high mountain passes. Additionally, locations like Carson City are more centralized to other population centers in western Nevada. As a result, retailers tend to choose Carson City and Reno over the Lake Tahoe region.

- (4) **1,300 VMT is an appropriate benchmark for determining the size of screened development.**

TRPA has historically considered projects that generate more than 200 trips as crossing a threshold of significance for the purposes of environmental review. This equates to roughly 1,300 VMT. As such, to ensure that no major impacts would occur, we could continue to use 1,300 VMT as the de minimis benchmark to determine screening levels.

- (5) **Trip-length / mode-share adjustments of 20 percent for Town Centers and 35 percent for the Regional Center / High-Density Tourist District are appropriate.** Trip lengths in Town Centers average about 80 percent of the basinwide average, based on an analysis of underlying TAZs. This justifies applying a trip length reduction factor of 20 percent in Centers. An additional 15 percent mode-share reduction factor is also justified for projects in the Regional Center and High-Density Tourist District, as a greater number of trips in this area are pedestrian, bicycle, and transit. These adjustment factors align with the 2018 summer travel surveys, which indicates roughly 35 percent of trips in the tourist core were non-automobile.

Additional Recommendations

- **Run several types of projects through the screens and make adjustments, as necessary.** The screens should be tested by running several different scenarios. This would include variations in land use, size, existing use, and location. A preliminary list follows:
 - (1) Single family residence on an existing legal lot of record
 - a. Inside Low-VMT area
 - b. Outside Low-VMT area
 - (2) Adding a secondary unit
 - a. Inside Low-VMT area

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- b. Outside Low-VMT area
- (3) 10-unit luxury condominium in Tourist Core Area Plan
 - (4) 20-unit boutique hotel in Tourist Core Area Plan
 - (5) Redevelopment of an existing shopping center in Tahoe City
 - (6) Change in use – 2,500 square foot retail to restaurant
 - (7) 7,000 square foot gym in Tahoe Valley area
 - (8) Redevelopment of a shopping center in Tahoe Valley
 - (9) Large-scale redevelopment at Nevada North Stateline

Methodology

OPR Guidance

OPR guidance was used as a starting point for developing the screening recommendations. OPR recommends six types of projects be screened:

- Small projects
- Affordable housing projects
- Local-serving retail
- Projects in low-VMT areas
- Projects near high-quality transit
- Transportation projects

All but the projects near high-quality transit are carried forward as recommendations. High-quality transit was excluded, as there are presently no high-quality transit corridors in the Tahoe Region. High quality transit refers to rail transit, a ferry terminal served by bus or rail, or major bus routes operating on 15-minute headways during peak hours.

I also reviewed various local jurisdictions' screening recommendations and noted other common adjustments being made. Some opportunities for adjustment include the following:

- Requiring that small projects not exceed *both* 110 daily trips and 10,000 square feet in size, rather than one or the other.
- Expanding the affordable housing screen to include moderate and achievable housing
- Defining the maximum square footage for retail to be presumed as *local serving*.
- Defining criteria for mapped low-VMT areas.
- Limiting the amount of development to be screened in low-VMT areas.

Review of Local Jurisdiction Proposals

In addition to the OPR guidance, I also reviewed the following jurisdictions' recommended screening approaches:

- Arroyo Grande
- Carlsbad
- Fairfield
- Goleta
- Long Beach
- Los Altos
- Los Angeles County
- Menifee
- Monrovia
- Palo Alto
- Placer County
- Rancho Cordova
- Redlands
- San Diego
- San Diego County
- San Francisco
- San Jose
- Truckee
- Tulare

Tahoe Business Data

My analysis relied upon data from 2014 that was obtained as part of the Development Rights Strategic Initiative. This data identifies all businesses in the Tahoe Basin and includes a range of business square footage. As part of the Development Rights effort, a land use type and trip rate category were applied to each business. This data was used to draw conclusions about the size and nature of Tahoe businesses and to estimate VMT impacts using trip generation as a proxy.

Queries were run on this data, including the following:

- Business sizes by business type
- Trip rates by business category

Retailer Typologies

For the purposes of comparison, several retailer typologies were developed (see Table 1). These typologies are based upon store sizes for several retailers in the Northern Nevada and Greater Sacramento areas. Data was gathered on store size by estimating gross leasable area using Google Earth. The stores that were reviewed fell into the following categories:

- Regional retailer
- Home hardware
- Specialty anchor
- Department store
- Discount store
- Grocery
- Discount grocery
- Specialty grocery
- Pharmacy
- Convenience store

These categories were further condensed into a series of retail typologies.

Category	Size (1,000 sqft)	Market	Population (1,000)
 Boutique Retail <ul style="list-style-type: none"> • T-shirt store • Art gallery 	0-2.5	Local	0-2
 Small Retail <ul style="list-style-type: none"> • Local pet store • Hardware store • 7-Eleven • Dollar General 	2.5-10	Local	1-3
 Grocery Stores and Pharmacies <ul style="list-style-type: none"> • Raley's • Safeway • CVS • Rite Aid 	10-65	Local or Sub-regional	3-19
 Large General Retail <ul style="list-style-type: none"> • K-Mart • JC Penney 	50-75	Sub-regional	17-23
 Large Specialty Retail <ul style="list-style-type: none"> • Ross • Bed Bath & Beyond • Big Lots • Bevmo! • Dick's Sporting Goods • Petco 	10-100+	Local or Sub-regional	3-30+
 Big-Box Retail <ul style="list-style-type: none"> • Costco • Wal-Mart • Kohls • Macy's 	75-200+	Sub-regional or Regional	37-110+

	<ul style="list-style-type: none"> • Home Depot • Target 			
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Markets

- Local – includes just the south shore and north shore areas respectively, with travel generally from 0-10 miles
- Sub-regional – includes local areas, plus Carson City and the Truckee area for the north shore, and the Carson Valley for the south shore, with travel generally up to 30 miles
- Regional – includes sub-regional areas, plus the Reno metro area, with travel generally up to 50 miles

Businesses Likely to Locate in Tahoe	Businesses Unlikely to Locate in Tahoe
<ul style="list-style-type: none"> • Boutique retail • Small retail • Grocery stores and pharmacies • Specialty retail under 40,000 square feet 	<ul style="list-style-type: none"> • Big-box retail • Specialty retail over 40,000 square feet • Large general retail

National Retailer Sizes

7-Eleven	2900	Best Buy	36800
Dollar General	10100	Whole Foods	43200
Bevmo	11600	Safeway	45500
Dollar Tree	12400	Dick's Sporting Goods	48000
Trader Joe's	14200	Raley's	49900
Petco	14500	Smith's	62200
CVS	19300	JC Penney	63600
Rite Aid	23200	K-Mart	70500
Michaels	23800	Kohls	82400
Smart & Final	25900	Dillard's	102100
TJ Maxx	26600	Home Depot	107700
Grocery Outlet	27100	Macy's	124200
Bed Bath and Beyond	28700	Target	125300
Ross	29900	Costco	141100
Marshalls	31500	Walmart	197500
Big Lots	35100		

Construction Trends

On average, we allocate roughly 10,000 square feet of Commercial Floor Area each year, based on years 2013-2018. In three of these six years, more CFA square footage was banked than allocated for new development.

Service Population Calculations

Service population for each store was calculated based on several different statistics, including the median household income and population per household. It is assumed that 40% of household income is used for retail spending²¹ and that such spending is divided as follows²²:

- Apparel.....7.1%
- General Merchandise12.1%
- Furniture / Appliances.....2.3%
- Specialty.....13.8%
- Food20.8%
- Eating / Drinking13.4%
- Building/Hardware.....6.4%
- Auto Dealers / Parts12.3%
- Service Stations.....11.8%

Retail sales were estimated as follows²²:

- \$250/square foot for boutique retail, small retail, and large specialty retail
- \$300/square foot for general retail and big box retail
- \$400/square foot for grocery stores and pharmacies

This spending was then allocated to estimated percentages for each business type. Retail capture was estimated at 50 percent for all uses except grocery and pharmacy, which was allocated 75 percent capture. The number of households needed to support each store at its low, medium, and high square footages were then calculated.

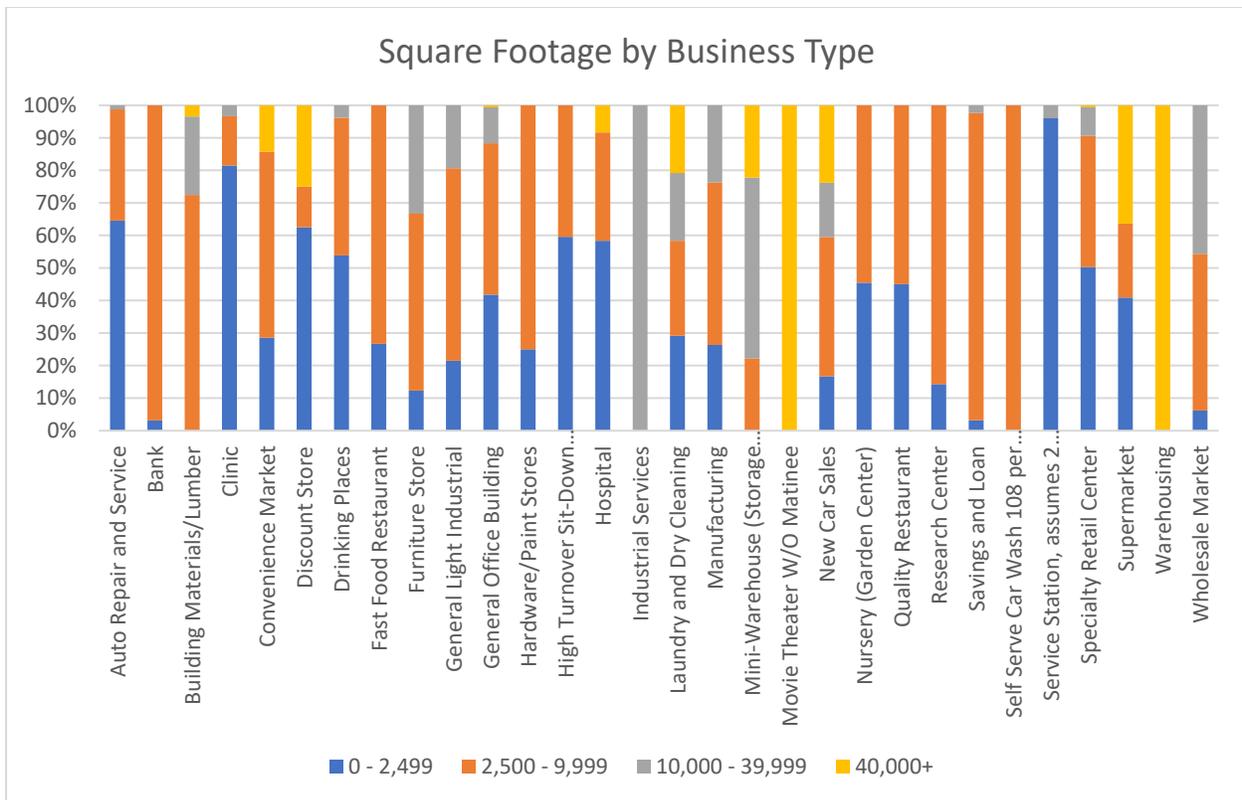
Local-Serving Retail

Determining retail square footage

Roughly 88 percent of businesses in the Lake Tahoe Region are less than 10,000 square feet in size, indicating a tendency towards smaller businesses. Additionally, 92 percent of businesses with local-serving uses are no larger than 10,000 square feet. Most national formula retailers that draw from a sub-regional or regional market area are over 40,000 square feet in size. As such, an appropriate place to draw the line between local- and regional-serving uses would be somewhere between 10,000 and 40,000 square feet. To be conservative in our screening, a 10,000 square foot limit would be recommended. Construction trends indicate that it has been uncommon for a commercial project to exceed 10,000 square feet. Nonetheless, it would be appropriate to consider the local-serving nature of businesses between 10,000 and 40,000 square feet on a case-by-case basis. Over 3,800 retailers are included in the 2014 business data. These retailers are divided into the following categories based on the trip generation rates assigned to them:

²¹ The Natelson Dale Group (2012). San Miguel Economic Strategy

²² From Urban Land Institute (2008). Dollars and Cents of Shopping Centers



Roughly 88 percent of businesses are under 10,000 square feet in size. Roughly 92 percent of businesses characterized as “local-serving” are under 10,000 square feet in size.

Adjusting for Centers

VMT is the product of trip generation and trip length. Trip lengths in Regional Plan-designated centers are roughly 80 percent of the average regional trip length as calculated. Because trip lengths in Centers are shorter, buildings in Centers would generate fewer VMT. The recommended 20 percent adjustment accounts for this by allowing larger buildings in Centers. A further 15 percent adjustment, for a total of 35 percent is recommended for the Regional Center and High-Density Tourist District. This is intended to account for modal shift, as the Regional Transportation Plan calls for this area to be well-served by transit and active transportation opportunities. The overall 35 percent adjustment figure is consistent with information on non-auto trips from the *2018 Summer TRPA Travel Mode Share Survey* for locations near the Stateline area, which estimated non-automotive trip percentage in this area as approximately 37 percent²³.

Low-VMT Areas

Determining square footage based on trip generation

Using the business data, trips generated by commercial floor area were estimated using a basis of 300 trips at the average trip length (6.534 miles). This equates to just under 2,000 vehicle miles travelled as the screen for low-VMT areas, which is then used as a basis to determine the number of commercial

²³ From LSC Transportation Consultants (August 18, 2020). Old Colony Inn Redevelopment / TCAP Amendments – Trip Generation and VMT Analysis.

trips that could be generated. The generated trips translate into building square footage using ITE trip generation rates. The following were used for trip generation rates:

Screening	Land Use	Trip Rate
Recommendation	Commercial	32.17 trips / 1,000 sqft
	Indoor Recreation	33.82 trips / 1,000 sqft
	Outdoor Recreation	10.99 trips / acre
Alternatives A1 and A2	Tourist Accommodation Units*	9.67 trips / unit
	General Merchandise	44.42 trips / 1,000 sqft
	Convenience Shopping*	349.48 trips / 1,000 sqft
	Specialty Retail and Offices	18.41 trips / 1,000 sqft
	Personal Services	44.32 trips / 1,000 sqft
	Service / Industrial	35.36 trips / 1,000 sqft
	Restaurants	203.7 trips / 1,000 sqft
	Entertainment	78.06 trips / 1,000 sqft
	Public Services	9.17 trips / 1,000 sqft 24 sqft / person
	Recreation	33.82 trips / 1,000 sqft
Alternative A2	Residential	9.52 trips / unit
Alternative A3	Tourist Accommodation	9.67 trips / unit
	Commercial Retail	52.01 trips / 1,000 sqft
	Commercial Non-Retail	22.4 trips / 1,000 sqft
	Restaurants	203.7 trips / 1,000 sqft
	Public Services	9.17 trips / 1,000 sqft 24 sqft / person
	Recreation	33.82 trips / 1,000 sqft
Alternative B1	Commercial	32.17 trips / 1,000 sqft
	Public Services	27.92 trips / 1,000 sqft 24 sqft / person
	Indoor Recreation	33.82 trips / 1,000 sqft
	Outdoor Recreation	10.99 trips / acre
Alternative B2	Commercial	32.17 trips / 1,000 sqft
	Public Services	14.72 trips / employee
	Indoor Recreation	33.82 trips / 1,000 sqft
	Outdoor Recreation	10.99 trips / acre

* - weighting is applied in Alternative A1.

Commercial Trip Rates

Trip rates for the various commercial categories were generated using the same methodology as the Development Rights Strategic Initiative. A trip rate has been assigned to each business in the Tahoe Basin. Once a category is assigned, the average trip rate is calculated.

Public Services Trip Rates

Public service use trip rates were generated several different ways. The recommendation uses a Government Office Complex as a proxy to determine the trip rate. Alternatives A1 through A3 use a

church as a proxy to determine trip rate. Alternative B establishes a per-employee trip rate by using the same methodology as the commercial trip rates.

Recreation Trip Rates

Recreation trip rates were determined through two methods. The recommendation and all alternatives use an indoor trip rate associated with a recreation center. The recommendation includes an outdoor recreation screen using acreage, which is based on the same methodology as used for the commercial trip rates.

Removing tourist-accommodation and market-rate residential

In the recommendation, tourist accommodation and market-rate residential were removed from consideration, though they were included in various alternatives. The rationale for removing these uses is that tourist accommodation results in longer vehicle miles travelled as they cater to people from outside of the region. Additionally, as a large share of market-rate residences function as second homes and vacation rentals²⁴, longer average trip lengths are anticipated. This is justification to exclude these uses from screening.

Adjusting for Centers

The same 20 percent adjustment for Town Centers and 35 percent adjustment for the Regional Center / High-Density Tourist District as applied for local-serving retail were applied to the low-VMT areas.

Weighting in Alternative A1

The following weighting was applied to Alternative A1

- Tourist Accommodation Units had a 100% trip length adjustment added. This is on the basis that at least two trips begin/end outside of the region.
- Convenience shopping had a 75% trip length reduction added. This is on the basis that the nature of convenience shopping leads to lower trip lengths.

Site Design Criteria

OPR guidance notes that not all project meeting the screening criteria may be suitable for screening. For example, a project in a low-VMT area may not be suitable for screening if it is automobile-oriented, excessively parked, and disconnected from pedestrian and bicycle infrastructure. To recognize this, all projects other than small projects should also comply with certain design criteria, specifically:

- Parking. To be screened out a project should not have excess parking.
- Active Transportation. To be screened out a project should have some connection to the active transportation system or be close by to existing infrastructure.

OPR considered several other disqualifying factors, but these were focused on the transit priority area screen, which we are not proposing to carry forward. OPR's suggestion is that projects that are not built at an FAR of at least 0.75 should not be considered for screening under that criterion.

²⁴ Tahoe Prosperity Center (October 2019). South Shore Region Housing Needs and Opportunities.

Parking Practices in the Tahoe Region

Location	Parking Rates	Adjustments
CITY OF SOUTH LAKE TAHOE		
Tourist Core AP	Multi-Family Residential (MFR): 2 spaces/unit General merchandise: 1 space / 300 sqft	Allowed through Special Use Permit
Tahoe Valley AP		
Bijou / Al Tahoe CP		
South Y Industrial Tract CP		
Balance of City		
DOUGLAS COUNTY		
Round Hill CP	General merchandise: 1 space / 300 sqft MFR: 1 space / 2 beds and ½ space per bedroom	Allowed with submittal of parking analysis
South Shore AP	Retail: 1 space / 250 sqft MFR: 2 spaces / unit plus 1 guest space / 4 units	Allowed with submittal of parking analysis
Balance of County		No mechanism available
WASHOE COUNTY		
Incline Village Commercial CP	MFR: 1 space / 2 beds and ½ space per bedroom General merchandise: 1 space / 300 sqft	Allowed with submittal of parking analysis
Incline Village Tourist CP		
Nevada North Stateline CP		
Ponderosa Ranch CP		
Balance of County	MFR: 1.6-2.1 spaces/unit Retail: 3 spaces/1,000 sqft	Allowed with Director discretion
EL DORADO COUNTY		
Meyers AP	MFR: 1.5 spaces/unit	No mechanism
Balance of County	General retail: 1 space / 300 sqft active use + 1 space / 600 sqft storage	No mechanism
PLACER COUNTY		
Placer County Tahoe Basin AP	MFR: 1 per bedroom for the first 2 bedrooms and ½ space per additional bedroom General merchandise: 3.33 per 1,000 sqft	Allowed with submittal of parking analysis

All Washoe County community plan areas have a maximum parking equal to 10 percent over the minimum parking. City substitute standards have a maximum parking equal to 25 percent over the minimum parking.

Section 34.4, *Parking* in the TRPA Code of Ordinances is “[Reserved].” As a result, parking standards in local plans or municipal codes apply.

Project-Based Parking Practices that Can Reduce VMT

- Decoupling parking from lease/rent price
- Establishing paid parking
- Providing bicycle parking

Active Transportation Practices in the Tahoe Region

Location	Goals / Policies	Standards / Guidelines
CITY OF SOUTH LAKE TAHOE		
Tourist Core AP	<ul style="list-style-type: none"> • Provide bike/pedestrian connections (T-2.2) • Provide infrastructure as conditions of approval (T-2.4, T-2.5) • Maintain paths year-round (T-2.7) • Develop complete streets (T-5) 	<ul style="list-style-type: none"> • Provide internal pedestrian circulation and connections to the sidewalk, neighboring properties, and transit. (Standard D) • Interior walkway design standards (Standard D.5) • Provide bicycle parking (Standard E)
Tahoe Valley AP	<ul style="list-style-type: none"> • Provide bike/pedestrian connections (T-3.1, 4.1) • Require projects to construct sidewalks (T-3.4) • Remove obstacles in right-of-way (T-3.5) • Plow trails in winter (T-4.3) 	<ul style="list-style-type: none"> • Provide internal pedestrian circulation and connections to the sidewalk, neighboring properties, and transit. (Standard D) • Interior walkway design standards (Standard D.5) • Provide bicycle parking (Standard E)
Bijou / Al Tahoe CP	<ul style="list-style-type: none"> • Pedestrian and bicycle facilities shall be constructed as part of the CIP (Trans. 4.C) • Implement improvements as part of the CIP or conditions of project approval (Impl. 1.d) 	<ul style="list-style-type: none"> • Cross sections for Highway 50, arterial streets, and local commercial streets.
South Y Industrial Tract CP	None	<ul style="list-style-type: none"> • Sidewalk improvements on both sides of D Street
Balance of City	None	<ul style="list-style-type: none"> • A pedestrian circulation system shall be incorporated into the site. (Standard 1.A(4)) • Guidelines for design, wayfinding (Guideline 4)
DOUGLAS COUNTY		
Round Hill CP	<ul style="list-style-type: none"> • Develop pedestrian linkages (Transp. 6a) • Pedestrian/recreation trail to be developed as part of the 	None

Location	Goals / Policies	Standards / Guidelines
	CIP or conditions of approval (Transp. 6c) <ul style="list-style-type: none"> • Develop a trail system (Rec. 2a) 	
South Shore AP	<ul style="list-style-type: none"> • Pedestrian linkage between parking lots shall be provided (T-4.2) 	<ul style="list-style-type: none"> • Pedestrian access standards/guidelines (Sec. 2.5) • Bicycle access standards/guidelines (Sec. 2.6)
WASHOE COUNTY		
Incline Village Commercial CP	<ul style="list-style-type: none"> • Expand bicycle paths (ICCP 8.1) • Create a pedestrian corridor along SR 28 (ICCP 9.1.1) • Create pedestrian connections (ICCP 9.1.3) 	None – some policies implemented as standards
Incline Village Tourist CP	<ul style="list-style-type: none"> • Projects shall provide on-site pedestrian paths (ITCP 2.1.2) • Provide trail connections (ITCP 8.1) 	None – some policies implemented as standards
Nevada North Stateline CP	<ul style="list-style-type: none"> • Projects shall connect with the path system (NNSCP 1.3) • Pedestrian paths and bicycle trails shall be provided (NNSCP 5.2.2) • On-site pedestrian networks required (NNSCP 8.1.1) • Bike lanes should be created (NNSCP 9.1.1) • Bike parking to be provided (NNSCP 9.1.2) 	None – some policies implemented as standards
Ponderosa Ranch CP	<ul style="list-style-type: none"> • Expand the path system (PRCP 8.1, 8.2) 	None
EL DORADO COUNTY		
Meyers AP	<ul style="list-style-type: none"> • Encourage bike and pedestrian linkage (Transp. 6) • Build bicycle and pedestrian facilities per active transportation plan (Transp. Action 14-16; Rec. Action 2) • Remove snow on bike/pedestrian paths (Transp. Action 17) 	<ul style="list-style-type: none"> • Pedestrian circulation shall be incorporated into a project site plan (Standard B.1.b.B)

Location	Goals / Policies	Standards / Guidelines
PLACER COUNTY		
Placer County Tahoe Basin AP	<ul style="list-style-type: none"> • Create complete streets (T-P-23) • Provide pedestrian and bicycle connections with projects (T-P-26) • Explore funding sources to maintain paths in the winter (T-P-28) • Preserve facility condition (T-P-29) 	<ul style="list-style-type: none"> • Streetscape and roadway design and construction obligation – cross sections, widths, etc. (Standard 3.06)

Code of Ordinances

Section 36.5.2.B: “An active transportation circulation system shall be incorporated into the site plan to assure that all active transportation users can move safely and easily both on the site and between properties and activities within the neighborhood year-round.” – Applies to commercial, tourist accommodation, public service, and multi-residential projects. All projects that include such facilities also must file a maintenance plan (36.5.5)

Section 65.3 requires granting of an easement for development of at least five residential or tourist units or up to 10,000 square feet when a property is situated along a designated bicycle or pedestrian trail.

Project-Based Active Transportation Practices that Can Reduce VMT

- Connecting with existing active transportation infrastructure
- Providing active transportation infrastructure across the site

Summary of Alternatives

Alternatives A1 through A3 are modified versions of the screens presented to TTAC in December. Alternative B is a modified version of the preliminary recommendation.

Alternative A

Alternative A consists of three versions derived from staff’s December TTAC recommendation. All versions of Alternative A requires that a project (other than a single-family residence) be located within a low-VMT area. This contrasts with the preliminary recommendation and Alternative B, both of which offer several screens for projects outside of low-VMT areas.

Alternative A1

Alternative A1 is the modified original version with weighting. It breaks down commercial uses into multiple categories and assigns a square footage based on each category’s trip generation rate. Unlike the recommendation, this alternative include tourist accommodation units. Under this alternative, two of the uses are weighted. Convenience shopping is adjusted down by 75 percent to account for low trip lengths. Tourist accommodation units are adjusted up by 100 percent to account for high trip lengths.

Alternative A2

Alternative A2 is the modified original version without weighting, using the same commercial categories as Alternative A1. It also includes residential units as a possible screen, as they result in similar VMT generation to tourist accommodation units²⁵.

	Outside of Centers	Town Centers	Regional Center
Residential (units)	22	26	30
Tourist Accommodation (units)			
<i>Without Weighting</i>	22	26	30
<i>With Weighting</i>	11	13	15
Commercial			
General Merchandise (sqft)	5,000	6,000	6,500
Convenience Shopping (sqft)	500	500	1,000
<i>With Weighting</i>	2,500	3,000	3,500
Specialty Retail and Offices (sqft)	11,500	14,000	16,000
Personal Services (sqft)	5,000	6,000	6,500
Service / Industrial (sqft)	6,000	7,500	8,000
Restaurants (sqft)	1,000	1,500	1,500
Entertainment (sqft)	3,000	3,500	3,500
Public Services (persons)	900		
Recreation (sqft)	6,500	8,000	9,000
Transportation Projects	[same as recommendation]		

Alternative A3

Alternative A3 collapses commercial categories down into three: retail commercial, non-retail commercial, and restaurants. No weighting is applied.

	Outside of Centers	Town Centers	Regional Center
Commercial			
Retail ²⁶ (sqft)	4,000	5,000	5,500
Non-Retail	9,500	11,500	13,000
Restaurants (sqft)	1,000	1,500	1,500

Alternative B

Alternatives B1 and B2 are modified versions of the recommendation.

²⁵ I was unable to come up with a rationale for excluding residential units, but not tourist accommodation units, from the screening. If we include one, we should include the other or come up with a compelling reason to distinguish between the two.

²⁶ A further alternative could consider weighting retail trips on the basis that they will be reducing trip lengths.

Comparison Table of the Alternatives

	December TTAC Proposal	Recommendation	Alternatives A1 through A3	Alternative B1 and B2
Small Project Screen	No	Yes	No	Yes
Affordable Housing Screen	Low-VMT Areas	Basinwide	Low-VMT Areas	Basinwide
AH Screen Includes Moderate / Achievable	Yes	Low-VMT Areas	Yes	Yes
Local-Serving Retail Screen	Low-VMT Areas	Basinwide	Low-VMT Areas	Basinwide
Low-VMT Area Screen	Subregional Threshold and Town Centers	Subregional Threshold and Town Centers	Subregional Threshold and Town Centers	Alt B1: Regional Threshold and Town Centers Alt B2: Subregional Threshold and Town Centers
Tourist Accommodation	Low-VMT Areas	No	Low-VMT Areas	No
Redevelopment Projects	No	Low-VMT Areas	No	No
Market-Rate Residential	No	No	Alt A1 & A3: No Alt A2: Low-VMT Areas	No
Public Services Uses	Low-VMT Areas	Basinwide	Low-VMT Areas	Alt B1: Low-VMT Areas Alt B2: Basinwide
Transportation Projects	Low-VMT Areas	Basinwide	Low-VMT Areas	Basinwide
Weighting Used	No	No	Alt A1: Yes Alt A2 & A3: No	No

Alternative B1

Alternative B1 is similar to the recommendation with the following distinctions:

- The affordable housing project screen includes moderate-income and achievable housing and does not account for mixed-use development.
- The local-serving use screen is limited to retail projects only and does not afford case-by-case consideration.

Maximum Size	Outside Centers	Town Centers	Regional Center
Retail Commercial (sqft)	10,000	12,000	13,500

- The low-VMT area screen uses the regional threshold rather than the subregional threshold

Maximum Size	Outside Centers	Town Centers	Regional Center
Commercial ²⁷ (sqft)	6,500	8,000	9,000
Public Services (persons ²⁸)	300	350	425
Indoor Recreation (sqft)	6,500	8,000	9,000
Outdoor Recreation (acres)	20	24	27

- There is no option for redevelopment projects to be screened in low-VMT areas.
- Public services are added as a screen in low-VMT areas.
- Design criteria relies on the ITE Parking Generation manual.

Alternative B2

Alternative B2 is similar to the Alternative B1, with the following distinctions:

- The small project screen is determined based on Vehicle Miles Travelled rather than trip generation or building size. As a result, the level of project that gets screened depends on the trip lengths in the project's TAZ.
- The affordable housing project screen includes mixed-use projects where at least 80 percent of the development is residential and 100 percent of that is affordable, moderate, or achievable.
- The local-serving retail screen is expanded to include other local-serving uses. The square footage screens are also doubled for grocery stores and pharmacies, as these tend to be local serving even when over 10,000 square feet in size. Under this alternative, a planner would need to screen a project and make a determination that the use is indeed local serving.

Maximum Size	Outside Centers	Town Centers	Regional Center
Food and Beverage Retail Sales (sqft)			
Grocery Store	20,000	24,000	27,000
Other	10,000	12,000	13,500
Health Care Services (sqft)			
Drug Store / Pharmacy	20,000	24,000	27,000
Other	10,000	12,000	13,500
Other Local-Serving Uses (sqft)	10,000	12,000	13,500

²⁷ Includes all commercial uses in Table 21.4-A

²⁸ Structural capacity as permitted under the fire code.

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- Rather than using the subregional threshold, the low-VMT screen would use the regional threshold. This expands the number of TAZs that could use the screen. Additionally, public services uses would be screened based on number of employees rather than capacity.

Maximum Size	Outside Centers	Town Centers	Regional Center
Public Services (employees)	15	18	20

- The parking and active transportation criteria would be rephrased to be disqualifying factors rather than design criteria.

Proposed Screening Recommendation

- (1) **Small Projects.** Projects that generate fewer than 110 trips and involve no more than 10,000 square feet in structural development.

Examples of Small Projects

- 1 single-family residence on an existing lot
- 11 condominiums of 900 square feet each
- 4 detached residences of 2,500 square feet each
- A small hotel addition of 13 tourist accommodation units
- 10,000 square feet of low-trip-generating service commercial use

- (2) **Affordable Housing Projects.** Projects comprised of 100-percent affordable housing; or mixed-use projects with a maximum 20 percent of non-residential use and all residential areas comprised of 100 percent affordable housing.

- (3) **Local-Serving Retail and Other Local-Serving Uses.**

- a. **Qualifying Uses.** The following uses qualify for screening under this provision:

Commercial

Retail

- Building materials and hardware
- Food and beverage retail sales
- Furniture, home furnishings, and equipment
- General merchandise stores
- Mail order and vending
- Outdoor retail sales

Services

- Business support services
- Financial services
- Health care services

Public Services

General

- Religious assembly
- Day care centers / pre-schools
- Government offices
- Hospitals
- Local public health and safety facilities
- Schools – college
- Schools – kindergarten through secondary
- Social service organizations
- Threshold-related research facilities

- b. **Local-Serving Presumption.** Qualifying projects with structural areas at or below the following levels are presumed to be local serving:
- i. 10,000 square feet outside of Centers

- ii. 12,000 square feet within Town Centers
- iii. 13,500 square feet within the Regional Center and High-Density Tourist District

c. **Local-Serving Determination.** TRPA may determine that individual local-serving projects with structural areas that are under 40,000 square feet, but exceed what is allowed by Subparagraph C.1, are local-serving businesses. In cases where the local-serving nature of a retail business is in question, TRPA may require preparation of a market study.

(4) **Projects in Centers and Low-VMT Areas.** Certain classes of projects within designated Centers and areas where existing VMT is already below the subregional threshold:

- a. **Moderate-Income and Achievable Housing.** Projects comprised of 100-percent moderate-income or achievable housing; or mixed-use projects with a maximum 20 percent of non-residential use and all residential areas comprised of 100 percent moderate-income or achievable housing.
- b. **Redevelopment Projects that Result in Reduced VMT.** Redevelopment projects where the proposed project VMT is below the VMT of the project it is replacing.
- c. **Commercial and Recreational Development.** Commercial and recreational development up to a specified size limit:

Maximum Size	Outside Centers	Town Centers	Regional Center
Commercial ²⁹ (sqft)	10,000	12,000	13,500
Indoor Recreation (sqft)	10,000	12,000	13,500
Outdoor Recreation (acres)	30	36	40

(5) **Transportation Projects.** Projects involving active transportation or transit, including:

- Bicycle, pedestrian, and transit projects
- New bicycle lanes or sidewalks
- Bicycle or pedestrian improvements to the roadway system (e.g., “green lanes,” bike boxes, pedestrian-activated crossings, etc.)
- Amendments to the RTP / SCS to include new bicycle, pedestrian, and transit projects (excluding microtransit), located within one-half mile of a transit stop within the boundaries of the City of South Lake Tahoe or the Regional Center, Town Center, or High-Density Tourist District.
- New bicycle, pedestrian, and transit projects (excluding microtransit) not included in the RTP / SCS, but which are located within one-half mile of a transit stop, within the boundaries of the City of South Lake Tahoe or within the boundaries of a Regional Center, Town Center, or the High-Density Tourist District.

²⁹ Includes all commercial uses in Table 21.4-A

DESIGN CRITERIA

- (1) **Maximum parking.** Project parking shall not exceed the number of spaces required by the local city or county.
- (2) **Integration with the active transportation network.** Commercial, tourist accommodation, public service, and multi-residential projects shall comply with the requirements for an integrated active transportation network, as set forth in Subparagraph 36.5.2.B.

Appendix 3: Technical Advisory on Evaluating Transportation Impacts in CEQA

Appendix 4: Review of Vehicle Miles Traveled Mitigation Strategies for Use in the Tahoe Basin

Appendix 5: Residential VMT Data per Zone

Appendix 6: Trip Length Data per Zone