



Los Angeles cityscape  
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# Transportation Impact Study Guidelines

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For comments or questions regarding the transportation study review policies and practice of the City of Los Angeles, please contact:

**City of Los Angeles Department of Transportation**

**Bureau of Planning & Development Services**

Wes Pringle, P.E., Transportation Engineer, Metro Office

Sergio Valdez, P.E., Transportation Engineer, Valley Office

Eddie Guerrero, P.E., Transportation Engineer, West Los Angeles Office

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## SECTION 1:

# Overview of Process & Procedures

## 1.1 BACKGROUND

The City of Los Angeles Department of Transportation (LADOT) may require Applicants to analyze and evaluate Project-specific transportation impacts to comply with the California Environmental Quality Act (CEQA) and/or City regulations. This edition of the City of Los Angeles Transportation Impact Study (TIS) Guidelines replaces the Traffic Study Policies and Procedures, last updated in August 2014, to identify the criteria, guidelines, objectives, and standards to be used in the preparation of a TIS in the City of Los Angeles.

In 2013, when Governor Edmund G. Brown Jr. signed Senate Bill 743 into law, the Governor's Office of Planning and Research (OPR) was charged with developing new guidelines for evaluating transportation impacts under CEQA using methods that no longer focus on measuring automobile delay and level of service (LOS). Senate Bill 743 directs agencies to develop new guidelines that develop a transportation performance metric that can help promote: the reduction of greenhouse gas emissions, the development of multimodal networks, and a diversity of land uses. Thus, the City's TIS Guidelines are subject to revisions and updates upon the certification and adoption of OPR's recommended guidelines and criteria for determining transportation impacts by the Secretary of the California Natural Resources Agency. The City is in the process of updating its travel demand model and transportation impact thresholds based on vehicle miles traveled (VMT), so revision of these guidelines is imminent.

## 1.2 PURPOSE

At a time when safety, sustainability, smart growth, and the reduction of greenhouse gas emissions - in addition to traditional mobility considerations - are prime concerns for the City of Los Angeles, these TIS Guidelines support the City's goal of developing a

safe, accessible, well-maintained, and well-connected multimodal transportation network for all Angelenos. The TIS Guidelines have been developed to identify Projects that may have transportation impacts, to provide step-by-step guidance for assessing transportation impacts and preparing Transportation Studies, and to ensure consistency in site access design, on-site circulation planning, and off-site improvements for proposed land use Development Projects.

Project Applicants and consultants shall follow the procedures and standards set forth in this document when preparing and submitting a TIS to ensure a timely review by LADOT. However, note that TIS requirements may differ in certain areas of the City where specific plans or similar ordinances establish distinct guidelines. LADOT strongly recommends that the Project applicant and/or consultants communicate with LADOT staff early in the design of the Project to ensure that traffic access, circulation and safety issues are addressed, and to establish the scope and basic assumptions of the TIS. Applicable fees for the various submittals and reviews described in these TIS Guidelines are listed in the Los Angeles Municipal Code (LAMC) Section 19.15 (Planning and Zoning Code) (see **Attachment A**).

## 1.3 INITIAL STEPS

Upon receipt of an application for discretionary action, LADOT will prepare an initial assessment of the Development Project to determine if a Technical Memorandum or a TIS is required. A Development Project is defined as any proposed land use project that changes the use within an existing structure, creates an addition to an existing structure, or new construction, which includes any occupied floor area. For transportation infrastructure Projects for which a transportation analysis is required (e.g. lane reconfiguration, roadway improvement, transit project, etc.), refer to **Section 2.1B** of these guidelines for recommended transportation analysis methods.

The general parameters for determining the appropriate transportation impact review process for a Development Project are as follows:

- A **Technical Memorandum** is required when the Development Project is likely to add 25 to 42 a.m. or p.m. peak hour vehicle trips, and the adjacent intersection(s) are presently estimated to be operating at LOS E or F. The scope of work of a Technical Memorandum, which is a significantly scaled-down version of a TIS, must be reviewed and approved by LADOT. If LADOT determines the preparation of a Technical Memorandum is required, the Project applicant or consultant should evaluate the potential impacts of the Development Project to intersections adjacent to the Project site at a minimum. The Technical Memorandum shall be prepared under the direction of, and signed by, a Professional Engineer, registered in the State of California to practice either Traffic or Civil Engineering.
- A **Transportation Impact Study (TIS)**, previously referred to as a Traffic Study, is required when the Development Project is likely to add 43 or more a.m. or p.m. peak hour vehicle trips. Transportation Studies aim to predict and analyze the circulation and congestion impacts generated by Development Projects and identify feasible mitigation measures to offset any impacts. The criteria, guidelines, objectives, and standards described herein shall be used by the public, private consultants, and City staff in the preparation and review of a TIS in Los Angeles. The preparation of a TIS must follow the guidelines, as described herein, and shall be prepared under the direction of, and signed by, a Professional Engineer, registered in the State of California to practice either Traffic or Civil Engineering. Further, the Consultant hired by a Project Applicant to complete the TIS must have a valid Los Angeles City Business Tax Registration Certificate.

## 1.4 PROCESS

Any Project Applicant or their designated representative (e.g. transportation consultant) required to prepare a Transportation Impact Study (TIS) for a Development Project, shall follow the steps summarized in Figure 1 and described here. Steps applicable to Project Applicants preparing a Technical Memorandum are identified below.

**Step 1** Contact LADOT with a request to prepare a new Technical Memorandum or TIS. During this initial communication, the following information shall be provided:

I. Project Description – Provide a general description of the proposed Project size (defined by square footage per use and/or number of dwelling units), uses, and heights of proposed new buildings and other structures to be remodeled and/or removed. Include information on any sequence of phased construction and any unusual conditions. Specify a building address, legal description and project title.

For Projects that require the preparation of an EIR, the transportation analysis should include Project alternatives. For such Projects, the LADOT assessment letter will be limited to summarizing the findings and requirements for the preferred Project alternative or the alternative that generates the most peak period trips. Should the Project applicant request separate assessments for each alternative, then additional review fees may be required.

II. Proposed Study Assumptions and Content – The assumptions and content of the Technical Memorandum or TIS shall be presented in accordance with:

- a. California Environmental Quality Act (CEQA) guidelines,
- b. the Los Angeles County Congestion Management Program (CMP) (see **Section 2.5** for guidance),

- c. any applicable Transportation Specific Plan (TSP) and
- d. other applicable plans, laws, or ordinances (see **Section 2** for guidance).

**III. Project Site Plan** – Submit the proposed Project’s site plan with driveway location(s), loading/unloading area, and parking scheme to help estimate the distribution of Project trips according to any necessary turn prohibitions at the proposed driveways. Projects should integrate existing alleys into the design of site access and circulation plans. Projects should avoid creating new driveways and consider reducing driveways on roadways within the High Injury Network or where protected bicycle lanes are planned. While existing alleys should be used primarily for vehicular access, loading, and service access, they can also serve as mid-block paseos for pedestrians and bicyclists.

Project site access, circulation, and parking plans should be compliant with the transportation and public accommodation provisions of the Americans with Disabilities Act (ADA). Development proposals that are not able to meet their parking-code requirements and cannot provide accessible parking on-site may be required to install accessible on-street parking space(s) with the complimentary ADA access ramp(s). Additionally, the design of driveways requires approval by LADOT and the Bureau of Engineering. Please refer to the [LADOT “Driveway Design” Guidelines](#) for additional information.

Generally, final LADOT recommendation of driveway location(s) and parking scheme will be conducted at LADOT’s Citywide One-Stop Counter, the Valley Development Review Office, or West Los Angeles Development Review Office (see **Section 5** for contact information) as a clearance on the Project’s building permit. Traffic flow considerations must be designed and incorporated early into the building and parking layout plans. In order to minimize and prevent last

minute building design changes, Project applicants should contact LADOT for driveway width and internal circulation requirements before building or parking layout design.

**Step 2** Consult with other affected agencies or adjacent jurisdictions (i.e., Caltrans, L.A. County Public Works, other cities, transit agencies, etc.) to ensure that all transportation-related concerns and issues that may result from the Project and may affect that agency are properly addressed in the TIS. If a TIS includes the evaluation of an intersection or intersections in a neighboring local jurisdiction, then the TIS standards and methodology and impact thresholds of that local jurisdiction should be used to assess a Project’s impact on that intersection or intersections.

**Step 3** Consult with the Bureau of Engineering and LADOT to determine any highway dedication and street improvement requirements, as well as requirements under the Americans with Disabilities Act (ADA) (see **Attachment C**). For streets that front the proposed Project, the Technical Memorandum or TIS should reference the Mobility Plan 2035 for street classifications, and for roadway and right-of-way standard dimensions.

**Step 4** If the Project is expected to generate a significant number of regional trips, LADOT may require the TIS to use travel demand simulation modeling and predict potential regional Project impacts. The decision to require travel demand modeling shall be made by the Bureau Chief supervising the development review functions of LADOT. These studies will be subject to LADOT’s model calibration and validation standards.

**Step 5** Submit payment of necessary fees per LAMC Section 19.15 (see **Attachment A**). For a TIS, a scoping Memorandum of Understanding (MOU) must be executed (see **Attachment D**). The MOU describes the assumptions that shall be included in the TIS including study intersections, residential street segments and freeway

segments; freeway analysis screening filter; related projects; trip generation rates; ambient growth rate; trip distribution pattern and trip assignments; trip credits for existing active or previous land use; projected buildout year and study methodology.

**Step 6** Collect traffic counts in accordance with standards and methods established in **Section 3.3C** and at LADOT’s discretion.

**Step 7** Inform LADOT on the progress made in completing the TIS. LADOT approval is required for any deviations from the assumptions described in the executed MOU or any other changes made in the analysis, before the final report is prepared.

**Step 8** Submit the complete Technical Memorandum or TIS comprised of all components described in **Section 3** of these guidelines and payment for required fees to initiate LADOT’s review. The consultant shall also submit proof of possessing a valid Los Angeles City Business Tax Certificate.

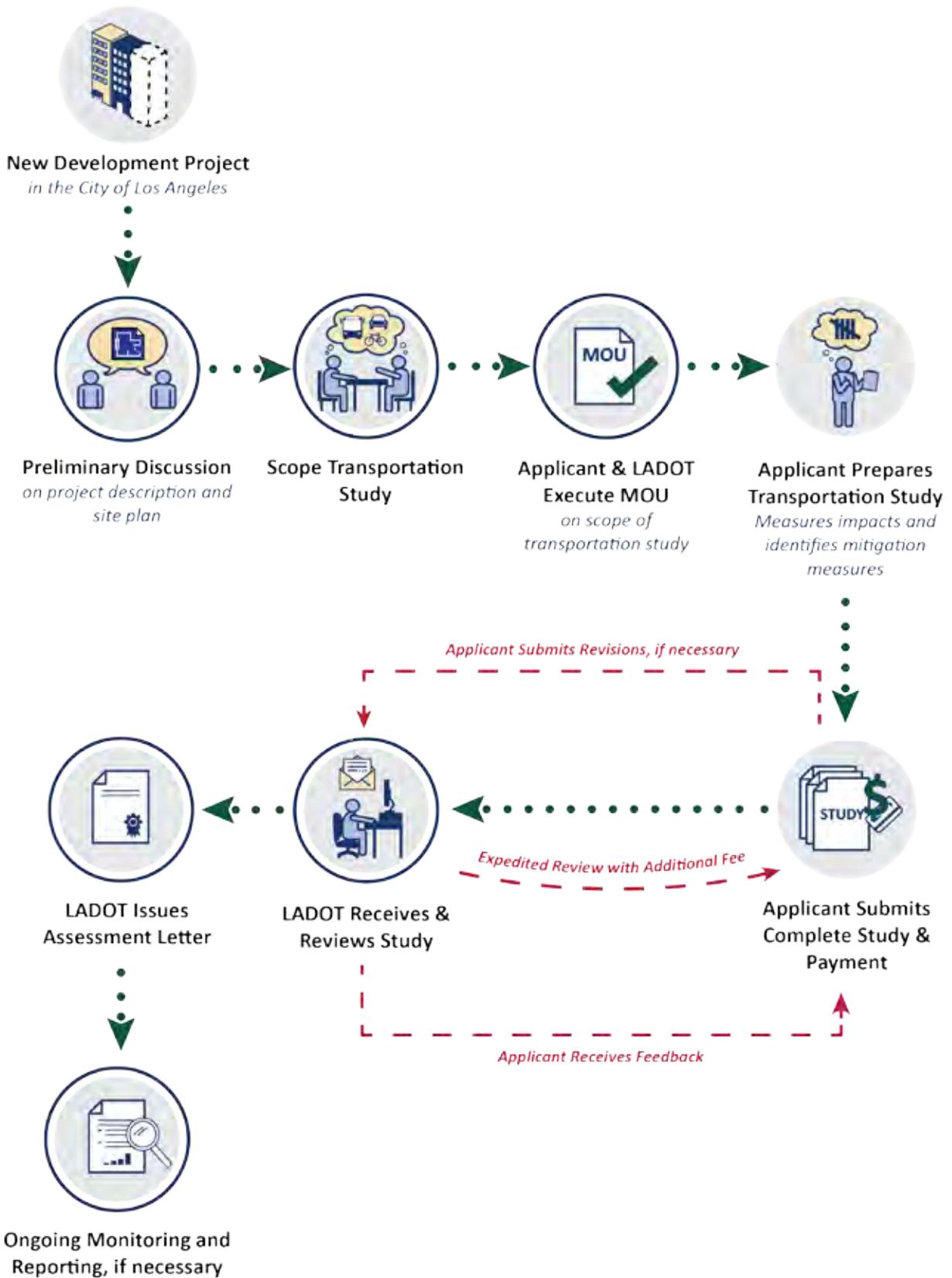
**Step 9** After reviewing the submittal, LADOT will release a Project impact assessment report. LADOT will not release their Project impact assessment report until all necessary review fees are received and the complete and final electronic version of the Technical Memorandum or TIS in portable document format (PDF) has been submitted.

## 1.5 STUDY HIATUS AND INTERRUPTIONS

Occasionally, LADOT will review a TIS for a Project that is later modified. If LADOT determines that the description or scope of the Project has changed such that extensive and major revisions to the TIS are required, then LADOT shall consider the revised Project a new Project, which will require a new TIS and payment of the applicable review fees. If LADOT determines that revisions to the TIS can be accomplished without the preparation of a new TIS, then LADOT may require the preparation of a Technical Memorandum or supplemental analyses and payment of any necessary review fees.

Similarly, if, after LADOT has commented on a TIS, LADOT staff receives no further written communication from the Project Applicant or the Consultant on the status of the Project for one year or more, then LADOT will assume that the Project is no longer being pursued. To reinstate the Project after this time, a new TIS and traffic review fee will be required and the environmental processing “clock” shall start again.

Figure 1: Overall Review Process for Transportation Impact Study



*SECTION 2:*

# Identifying Transportation Impacts

The City of Los Angeles's current policies and procedures for determining a Project's transportation impacts begins with an application for a discretionary action including, but not limited to, a master development plan, planned development, conditional use permit, variance, hillside development permit, design review, and/or a request to alter the assessor's map. This section describes different transportation analyses the City may require as part of a TIS to ensure the proposed Project is consistent with State environmental requirements and local policies.

## 2.1 LEVEL OF SERVICE (LOS) ANALYSIS

Currently, LADOT describes the performance of the City's transportation system using Level of Service (LOS). LOS is a performance measure that considers multiple roadway characteristics such as travel speed, travel time and flow interruptions and describes the quality of vehicular traffic flow. LOS ranges from "A" to "F" with LOS "A" representing excellent, free flow conditions and LOS "F" representing jammed, forced flow conditions. Table 1 provides a description of the different LOS measures and associated Volume/Capacity (V/C) ratios, which are measured on a scale of 0.000 to 1.000.

### 2.1A DEVELOPMENT PROJECTS

To assess the transportation impacts of proposed Development Projects, the Transportation Research Board, Circular 212 Critical Movement Analysis (CMA) Planning Method shall be used to analyze traffic operating conditions at study intersection(s). CMA is a method that determines the volume to capacity (V/C) ratio on a critical lane basis and the LOS associated with each V/C ratio at a signalized intersection. When determining which intersections should be included in the impact analysis for Development Projects, only signalized intersections should be selected.

Unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device(s), but will not be included in the impact analysis. When choosing which unsignalized intersections will be reviewed, intersections that are adjacent to the Project or that are expected to be integral to the Project's site access and circulation plan should be identified. For these intersections, the overall intersection delay should be measured pursuant to procedures accepted by LADOT during the scoping process. Based on the estimated delay, if the resultant LOS is E or F in the "Future with Project" scenario, then the intersection should be evaluated for the potential installation of a new traffic signal. The study shall include a traffic signal warrant analysis prepared pursuant to Section 353 of LADOT's Manual of Policies and Procedures and submitted to LADOT for review and approval.

### 2.1B INFRASTRUCTURE PROJECTS

To assess the transportation impacts of proposed transportation infrastructure Projects, including transit, rail, bicycle, and other roadway improvements, Transportation Studies should use the Highway Capacity Manual's (HCM) delay-based methodology for signalized intersections. In such cases, micro-simulation may also be necessary to fully understand the effects of the Project in terms of queue lengths, traffic signal timing parameters, transit travel times, etc. **Table 1** provides a description of the different LOS performance measures and associated delays in terms of "delay per vehicle."

Table 1: Level of Service Definitions for Signalized Intersections<sup>1</sup>

<i>LEVEL OF SERVICE</i>	<i>VOLUME/ CAPACITY RATIO</i>	<i>DELAY PER VEHICLE (Sec/Vehicle)</i>	<i>DEFINITION</i>
A	0.000 - 0.600	≤ 10	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	> 10 - 20	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	> 20 - 35	GOOD. Occasionally, drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	> 35 – 55	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	> 55 – 80	POOR. Represents the most vehicles that intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	Greater than 1.000	> 80	FAILURE. Backups from nearby intersections or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

## 2.2 SIGNIFICANT IMPACT THRESHOLDS

The thresholds contained herein determine a Development Project’s expected level of impact on the transportation system and determine the need for mitigation. The “Final V/C Ratio” shall define the future V/C ratio at a study intersection considering impacts with Development Project, and ambient and related Project growth without proposed transportation impact mitigation. “Project-Related Increase in V/C” shall be calculated as the change in V/C between the future V/C ratio with Project, ambient and related project growth without proposed traffic mitigation, and the future V/C ratio with ambient and related project growth without Project and proposed traffic mitigation. A transportation impact at a signalized intersection shall be deemed “significant” in accordance with **Table 2**, except as otherwise specified in a TSP, ICO, or CMP.

Table 2: Significant Transportation Impact Thresholds for Development Projects

<i>LEVEL OF SERVICE</i>	<i>FINAL V/C RATIO</i>	<i>PROJECT-RELATED INCREASE IN V/C</i>
C	> 0.701 - 0.800	equal to or greater than 0.040
D	> 0.801 - 0.900	equal to or greater than 0.020
E	> 0.901-1.000	equal to or greater than 0.010
F	Greater than 1.000	equal to or greater than 0.010

<sup>1</sup> Sources: Transportation Research Board, *Interim Materials on Highway Capacity*, Transportation Research Circular No. 212, January 1980; and Transportation Research Board, *Highway Capacity Manual 2010*.

For transportation impact analysis purposes, the “Final Delay” shall mean the future delay per vehicle at an intersection considering impacts with Project, ambient and related Project growth but without proposed traffic mitigation. “Project-Related Increase in Delay” shall mean the change in delay between the future delay with Project, ambient and related project growth without proposed traffic mitigation, and the future delay with ambient and related project growth without Project and proposed traffic mitigation. When using the HCM method for signalized intersections to assess transportation infrastructure Projects, a transportation impact shall be deemed “significant” in accordance with **Table 3**.

Table 3: Significant Transportation Impact Thresholds for Transportation Infrastructure Projects

<i>LEVEL OF SERVICE</i>	<i>FINAL V/C RATIO</i>	<i>PROJECT-RELATED INCREASE IN V/C</i>
C	> 20 - 35	equal to or greater than 6.0 seconds
D	> 35 – 55	equal to or greater than 4.0 seconds
E	> 55 – 80	equal to or greater than 2.5 seconds
F	> 80	equal to or greater than 2.5 seconds

## 2.3 RESIDENTIAL STREET IMPACT ANALYSIS

Commercial Development Projects may be required to conduct Residential Street Impact Analysis. The objective of the Residential Street Impact Analysis is to determine potential increases in average daily traffic associated with cut-through traffic that can result from a Project and impact residential streets. Cut-through trips are measured as vehicles that bypass a congested arterial street or intersection to instead travel along a residential street. To address these potential impacts, non-restrictive traffic calming measures should be considered and, if deemed warranted, implemented to off-set any anticipated impacts. Restrictive traffic calming measures should not be considered. See **Section 4** of these guidelines for a description of restrictive and non-restrictive traffic calming measures.

When selecting residential street segments for analysis during the traffic study scoping process, all of the following conditions must be present:

- the proposed project is a non-residential development and not a school,
- the arterial is sufficiently congested, such that motorists traveling on the arterial may opt to divert to a parallel route through a residential street; the congestion level of the arterial can be determined based on the estimated LOS under project conditions of the study intersection(s); LOS E and F are considered to represent congested conditions,
- the Project is projected to add a significant amount of traffic to the congested arterial that can potentially shift to an alternative route; Project traffic would need to exceed the daily minimum significance thresholds listed below under “Project-Related Increase in ADT,” and
- the local residential street(s) provides motorists with a viable alternative route.

A local residential street shall be deemed significantly impacted based on an increase in the projected average daily traffic (ADT) volumes as shown in **Table 4**.

Table 4: Significant Residential Street Impact Thresholds

<i>PROJECTED ADT WITH PROJECT (FINAL ADT)</i>	<i>PROJECT-RELATED INCREASE IN ADT</i>
0 to 999	120 or more
1,000 to 1,999	12 percent or more of final ADT
2,000 or 2,999	10 percent or more of final ADT
3,000 or more	8 percent or more of final ADT

## 2.4 FUTURE PERFORMANCE MEASURES

The LOS measure calculated by the CMA and HCM methods, respectively, focuses on the performance of transportation facilities for vehicular travel. To help achieve the City’s vision of developing a robust multimodal transportation network and encouraging sustainable modes of travel, LADOT is currently evaluating other performance measures that can better analyze Project impacts on non-vehicular modes of travel. Updating the measures LADOT uses to identify Project impacts can provide useful information regarding the ability of a Project or a mitigation measure to reduce vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions and to promote sustainable modes of travel.

The LOS performance measure cannot quantify the measurable reduction in VMT or GHG emissions of some mitigation measures, thus limiting the number of transportation impact mitigation measures that may be considered. In the case that mitigation measures with potential VMT or GHG reduction benefits are proposed, the TIS should include a description of the proposed improvements and the anticipated benefits to air quality. Additionally, traffic volume counts collected at the study intersections should include the volumes of pedestrians and bicycles that enter the intersection. These are helpful parameters and provide the necessary context when evaluating the overall operation of each intersection.

## 2.5 CONGESTION MANAGEMENT PROGRAM (CMP) TRANSPORTATION IMPACT ANALYSIS

The 2010 Congestion Management Program (CMP) for Los Angeles County includes the “Guidelines for CMP Transportation Impact Analysis” (Appendix “D” of the 2010 CMP) intended to assist local agencies in evaluating impacts of Development Projects on the CMP system through the preparation of a regional transportation impact analysis (TIA). A CMP TIA is necessary for all Projects required to prepare an Environmental Assessment based on local determination. The geographic area examined in the TIA must include, at a minimum, the following:

- All CMP arterial monitoring intersections, including freeway on and off-ramp intersections, where a proposed project is expected to add 50 or more trips during either the weekday a.m. or p.m. peak hours (of adjacent street traffic).
- Mainline freeway monitoring locations where a project is expected to add 150 or more trips, in either direction, during either the weekday a.m. or p.m. peak hours.

Based on these criteria, if the TIA does not identify any impacted regional facilities, then further CMP traffic analysis is not required. However, Projects must still consider transit impacts (also per the 2010 CMP). For further information on the CMP TIA process, visit the Metro CMP website ([https://www.metro.net/projects/congestion\\_mgmt\\_pgm/](https://www.metro.net/projects/congestion_mgmt_pgm/)) or contact Stacy Alameida at (213) 922-7414 or [alameidas@metro.net](mailto:alameidas@metro.net).

## 2.6 FREEWAY IMPACT ANALYSIS SCREENING CRITERIA

Pursuant to the Freeway Agreement between LADOT and the California Department of Transportation (Caltrans) District 7, executed in October 2013 and updated in December 2015, Project applicants may be required to conduct a focused freeway impact analysis in addition to the CMP TIA described in **Section 2.5**. Since the Freeway Agreement is about to expire, to better align with the State's multimodal transportation and environmental action goals, Caltrans is pursuing vehicle miles traveled (VMT) as the metric of Project impacts.

Until further revision of these guidelines; however, all Projects for which a TIS is required shall conduct a freeway impact screening analysis. The screening analysis should be submitted to LADOT along with the Study MOU and should include the Project's trip generation and distribution estimates. Based on these estimates, the screening analysis shall also include a morning and afternoon peak hour Project trip assignment to determine the amount of Project traffic expected to be assigned to the freeway system. The freeway impact screening analysis shall investigate whether the Project meets any of the following screening criteria:

- The Project's peak hour trips would result in a 1% or more increase to the freeway mainline capacity of a freeway segment operating at LOS E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2% or more increase to the freeway mainline capacity of a freeway segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 1% or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 850 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2% or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 850 vehicles per hour per lane).

If the proposed Project meets any of the screening criteria, the Applicant will be directed to Caltrans Intergovernmental Review (IGR) for a determination on the need for analysis beyond the CMP TIA and, if necessary, the methodology to be utilized for a freeway impact analysis. To assist in the evaluation of impacts on State facilities, the Project's transportation consultant should refer to Caltrans' "Guide for the Preparation of Traffic Impact Studies" found at the following web link: [http://www.dot.ca.gov/hq/tpp/offices/ocp/igr\\_ceqa\\_files/tisguide.pdf](http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf)

*SECTION 3:*

## Study Preparation

Each Transportation Impact Study (TIS) should follow a consistent format and organization and include all of the figures, maps, and information presented in this section. The appropriate level of detail required for each Project's transportation impact analysis with respect to specific issues should be determined during the scoping process and identified in the MOU. When this version of the TIS Guidelines is referenced in a TIS report, LADOT suggests using "2016 LADOT Transportation Impact Study Guidelines" to properly identify this reference.

### 3.1 PROJECT DESCRIPTION

All TIS reports shall include a detailed project description at the beginning of the document. The project description should include the following information:

- Project case number, as assigned by the Department of City Planning (if applicable)
- Location of the Project site, address, Assessor's Block and Lot number(s), cross streets, and City Council District
- Existing and proposed total square footage for each type of land use and the number of units for residential, hotel/motel, and live/work projects including the net changes for each type of use
- Existing and proposed type and number of parking spaces
- This section shall also include the following maps and figures:
  - » Project site plan showing driveway locations, loading/unloading area, and any proposed highway dedication
  - » Site map showing study intersections and distance of the Project driveway(s) from the adjacent intersections. Include location and identification of all major buildings, driveways, parking areas and loading docks of the Project

### 3.2 PROJECT CONTEXT

The information on the locale and surroundings of the Project shall be discussed following the Project description as a different section of the TIS report. This section will provide a brief but comprehensive description of the existing transportation infrastructure and conditions in the vicinity of the Project. Normally, the Project vicinity is defined as a ¼-mile radius around the Project site; however, a larger area may be required during the scoping process. The specific boundaries of the TIS area, for both the locale and Project impact analysis, should be confirmed during the initial discussion and scoping process with LADOT. The boundaries of the TIS area are subject to LADOT revision after initial impact analysis.

The Project context section should include the following information, with the level of detail to be directed by LADOT during the scoping process:

- Street designations, classifications, and modal priorities as identified in the Mobility Plan 2035, the Transportation Element of the Los Angeles General Plan. This street information can be found on the following maps in the

Transportation Element of the General Plan: Citywide General Plan Circulation System; Transit Enhanced Network; Neighborhood Enhanced Network; Bicycle Enhanced Network; Bicycle Lane Network; Vehicle Enhanced Network; Pedestrian Analysis; and Goods Movement.

- Description of the TIS area streets, including the number and width of lanes, direction of flow, and the presence of peak period tow-away lanes affecting roadway travel capacity, the presence of bicycle lanes, and any other significant street information.
- Location of, distance from, and routings to and from on-ramps and off-ramps of regional highways and freeways.
- Description of public transit routes operating on the streets within the TIS area, including hours of service, peak period headways, type of vehicle (diesel coach, trolleybus, light rail vehicle, etc.), and service provider.

This section of a Technical Memorandum and TIS will also include the following maps and figures:

- Area map showing location of proposed Project and related projects
- Street maps of the study area indicating street names, classifications, modal priorities
- Table indicating location, size, name, description, and trip generation of each related project

### 3.3 ANALYSIS AND DISCUSSION

Following the descriptions of the Project and its surroundings, the TIS report shall contain a section that details the analyses conducted, summarizes the results, and identifies any impacts and mitigation measures.

#### 3.3A TRIP GENERATION ANALYSIS

The latest edition of the Institute of Transportation Engineer's (ITE) Trip Generation Handbook for trip generation rates and formulas should be used to estimate the Project's trip generation. However, if the Project is in a Transportation Specific Plan (TSP) area, then the procedures and trip rates identified in the TSP should be applied. If other rates are proposed, then these rates must first be submitted with the appropriate background survey data for approval by LADOT. A table presenting the estimated number of daily trips and a.m. and p.m. peak-hour trips generated by the proposed Project entering and exiting the site must be included.

#### 3.3B ADJUSTMENTS TO TRIP GENERATION RATES

Any trip generation rate adjustments must be approved by LADOT during the scoping process and those trips must be included in existing base year traffic counts. The following adjustments may apply to some Projects:

- Unique Developments

Unique types of development may require trip generation studies of similar facilities in order to establish a trip rate for use in the impact analysis. These developments may include land uses for which trip generation rates are not available in the ITE Trip Generation Handbook, or land uses for which the rates in the ITE Trip Generation Handbook are based on a small sample of surveyed sites. The procedures and the results of the trip generation studies must be approved by LADOT.

- Existing Use

When estimating the Project's net new trips, any claim for trip credits for an "existing" active land use requires that the "existing" use is/was in place at the time of the base year traffic counts. Generally, for CEQA purposes this means the "existing" use must have been active for at least 6 months during the past 2 years. To fully ensure that "existing use" trip credit claims are validated by LADOT, supporting documentation (leasing agreements, utility bills, etc.) must be submitted. Documentation of any previous environmental review of the circulation impacts of the "existing" use should be included in this submittal. Note that some TSP ordinances allow different time frames for the determination of existing use trip credits and of any applicable trip fees.

- Terminated Land-Use

Any claim for trip credits for a previously terminated land use must be supported with appropriate documentation of the previous active use, such as copies of any building permit, certificate of occupancy, business license, lease agreement, affidavits, or photographs as well as documentation as to when the previous land use was terminated. Documentation of any previous environmental review of the circulation impacts of the terminated land use should also be submitted in support of such claims. The absence of documentation of previous environmental review may result in denial of the claim for trip credits.

- Pass-by Trips

Any claim for "pass-by" trip generation adjustments must use the trip rates summarized in **Attachment F** titled "Pass-By Trip Rates," which are based on rates published by ITE. However, these rates may be superseded by additional guidelines provided in specific plans or interim control ordinances. Pass-by trip generation adjustments shall not be used in determining the need for a Transportation Impact Study.

- Transit-friendly Projects

LADOT encourages Project applicants to design and construct transit-friendly Projects that create safe and walkable site design and facilities that connect Project patrons to and from transit stations and stops. Consistent with City policy goals to promote the use of transit and walking, LADOT, at its discretion, may allow up to a 25% transit/walk trip generation reduction, subject to the following guidelines, on a case by case basis:

- Developments above or adjacent to a Metro Rail, Metrolink, or Orange Line station, or to a similar dedicated transit line station with convenient pedestrian access to the station may qualify for a maximum 25% trip generation adjustment. The actual adjustment provided should be determined by an analysis of the transit service frequency and density at the specified transit station.
- Developments within a 1/4-mile walking distance of a transit station, or of a RapidBus stop, may qualify for up to a 15% trip generation adjustment. The actual adjustment provided will be determined by an analysis of the transit service frequency and density at the specified transit station or RapidBus stop.
- To obtain the maximum trip generation adjustment, Development Projects should include the following improvements listed in priority order:
  - » Provide a wider than standard sidewalk along the streets fronting the Project through additional sidewalk easement or by dedicating additional right-of-way beyond street standards.
  - » Improve the condition and/or aesthetics of existing sidewalks leading to transit station(s) with adequate lighting and safety improvements to provide for a safer pedestrian environment.

- » Provide continuous paved sidewalks / walkways with adequate lighting from all buildings in the Project to nearby transit services and stops. This may include mid-block paseos.
- » Implement transit shelter enhancements.
- If the Development Project is not within ¼-mile walking distance of a transit station or a RapidBus stop, the Project may still qualify for up to 10% trip generation adjustment. To be eligible for this adjustment, the Project should include design features that promote alternative travel modes and provide certain amenities to tenants and employees. Features and amenities that may qualify a Project for this adjustment include the following:
  - » An on-site transit information kiosk and/or on-site transit pass sales;
  - » On-site facilities such as ATM machines, cafeteria, convenience shopping, showers, and changing rooms;
  - » Pricing for single-occupancy auto parking;
  - » Publicly accessible car share or bike share station, contingent on LADOT approval;
  - » Bicycle racks or amenities for people traveling by bicycle;
  - » Provision of on-site concierge service to facilitate use of transit, taxis, or private shuttles by employees/ residents;
  - » Provision of shuttle service for employees and/or customers.

Transit trip adjustment will not be automatically granted to Development Projects located in an area with infrequent transit service. However, all reasonable efforts by the developer to promote the use of public transit or walking will be considered for transit adjustments on a case-by-case basis.

NOTE: Refer to **Section 4.2** of these TIS Guidelines for transit-related impact mitigation measures.

• Affordable Housing Projects

Residential or mixed-use developments that include Affordable Housing Units [as defined in LAMC 12.22-A.25 (b)] are eligible to use the trip generation rates presented in **Table 5**, which are based on the total number and type of dwelling units reserved as affordable. These trip generation rates are based on vehicle trip count data collected at affordable housing sites in the City of Los Angeles in 2016. These trip generation rates for Affordable Housing units are not subject to any of the aforementioned adjustments in this Section.

Table 5: Trip Generation Rates for Affordable Housing Projects

<i>Affordable Housing Type</i>	<i>Daily Rate (Trips per DU)</i>	<i>Average AM Peak Hr Rate (Trips per DU)</i>	<i>% AM Trips In</i>	<i>% AM Trips Out</i>	<i>Average PM Peak Hr Rate (Trips per DU)</i>	<i>% PM Trips In</i>	<i>% PM Trips Out</i>
Family	4.08	0.50	40%	60%	0.34	55%	45%
Seniors	1.72	0.12	38%	62%	0.15	52%	48%
Permanent Supportive Housing / Special Needs	1.27	0.12	44%	56%	0.12	59%	41%

Family affordable housing offers affordable dwelling units designed for households with children. Senior affordable

housing provides affordable dwelling units designed for mature residents. Permanent supportive housing provides long-term housing with supportive services designed to enable homeless persons and individuals/families at risk of homelessness to ensure that they remain housed and live as independently as possible.

### 3.3C TRAFFIC COUNTS

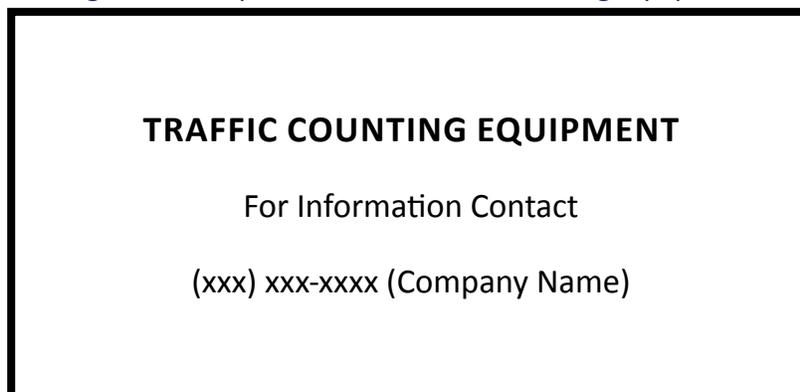
The LADOT traffic count database should be searched for any recent traffic counts at the Study intersections. The TIS should not use any traffic counts that are more than two years old. If recent LADOT traffic counts are not available, then new traffic counts shall be collected by a qualified data collection firm. Turning movement data at the study intersections should be collected in 15-minute intervals during the hours of 7:00 a.m. to 10:00 a.m. and 3:00 p.m. to 6:00 p.m., unless LADOT specifies other hours (e.g., for a signal warrant determination or weekend analysis). Unless otherwise required, all traffic counts should generally be conducted when local schools or colleges are in session, on days of good weather, on Tuesdays through Thursdays during non-Summer months, and should avoid being taken on weeks with a holiday. Relative to the proposed Project description, the TIS may be required to collect traffic data on and evaluate special circumstances, such as:

- Summer weekend activity in recreational areas
- Holidays or special events
- Alternative Project scenarios if required by another City Department or adjacent jurisdiction

Traffic counts should include vehicle classifications, pedestrian volume counts, and bicycle counts. If traffic count data is collected utilizing video technology equipment that is left unattended in the public right-of-way, the video equipment should be clearly labeled as traffic counting equipment and should include the name and contact information of the company conducting the count, as shown in **Figure 2**. All traffic data collected should be summarized and presented in the standard LADOT format depicting turning movement volumes for all required modes as shown in **Attachments G and H**, and submitted in digital and hard copy formats.

The TIS should include map(s) showing the “existing” (specify base year) traffic volumes for both the a.m. and p.m. peak hours at the study intersections and the average daily traffic (ADT) on any analyzed street segments. Additionally, the TIS should include map(s) showing future traffic volumes with ambient growth without Project at the Study intersections and street segments. This map should specify the future year used in the impact analysis and should be based on the expected date of project buildout. The future year identified in this step shall remain consistent for all other analyses and maps used to illustrate future traffic projections.

Figure 2: Sample Label for Traffic Counting Equipment



### **3.3D TRIP DISTRIBUTION**

The TIS must include map(s) showing Project trip distribution percentages (inbound and outbound) at the study intersections, freeway locations and project driveway(s). This map must be pre-approved by LADOT and included in the scoping MOU.

### **3.3E RELATED PROJECTS LIST**

The TIS must consider proposed Projects and associated trip generation within the vicinity of the Project site. The Study must include map(s) showing traffic generated by the related projects only. Use a separate map for similar land uses (e.g. retail, office, residential, industrial/manufacturing) with similar trip distribution patterns (as they affect the study intersections and freeway locations). Consultation with the Department of City Planning and LADOT may be required to compile the related projects list.

### **3.3F SELECTED HORIZON YEAR AND AMBIENT GROWTH RATE**

The TIS must estimate ambient traffic at the Development Project site for the horizon year selected during the scoping phase and recorded in the executed MOU. The Study must clearly identify the horizon year and annual ambient growth rate used for the Study. The horizon year should align with the Development Project's expected completion year. For Development Projects constructed over several years, the TIS should analyze intermediary milestones before the buildout and completion of the Project. The annual ambient growth rate shall be determined by LADOT staff during the scoping process and will be based on an adopted TSP, Metro CMP guidance, or most recent SCAG regional transportation model, as applicable.

### **3.3G TRANSPORTATION ANALYSIS**

The TIS should include calculations, data, and descriptions of any transportation analyses conducted to determine Project impacts on the transportation system. During the scoping process, LADOT staff will determine which of the transportation analyses listed in Section 2 of these TIS Guidelines or other methods of assessment are required.

To assist the evaluation of Development Projects, LADOT has developed a CMA spreadsheet in MS-Excel format to estimate the LOS for study intersections. All Transportation Studies that require the use of CMA to estimate impacts should be prepared using this spreadsheet. Completed LOS calculations must be submitted to LADOT in digital format and included with the submittal of the TIS. A typical sample of a LOS calculation worksheet is shown in **Attachment I**. A digital copy of the spreadsheet will be provided to firms preparing Transportation Studies in the City of Los Angeles. Contact any of the LADOT offices identified in Section L for a copy of the LOS spreadsheet. For some intersections (such as a 5-legged intersection, diamond interchange, etc.), the V/C ratio may need to be calculated manually or may need to be adjusted accordingly. The methodology utilized for these special cases should be discussed with the appropriate LADOT staff during the MOU scoping process.

The intersection capacity at intersections along a congested corridor may need to be adjusted to account for reduced capacity due to gridlock, heavy pedestrian volumes, or other prevailing factors. The LOS spreadsheet developed by LADOT allows users to override the standard CMA capacities to account for these factors. However, any such revisions to the standard capacities or to any formula or function used in the LOS spreadsheet require LADOT approval.

### **3.3H RESULTS & IMPACTS**

The TIS should describe the results of all Project scenarios and identify impacts for all Projects. When a LOS analysis

is conducted, V/C ratios at Study intersections should be calculated to three decimals, rounded and summarized in a table showing weekday a.m. and p.m. peak hour LOS at study intersections for existing conditions, existing with Project, future without Project, future with Project and future with Project plus mitigation. In a separate appendix, the TIS shall include the detailed LOS worksheets for each study intersection. The results of the impact analysis shall be summarized and presented as shown in **Table 6**, in which the “cumulative base” scenario represents existing traffic conditions plus increases in traffic related to ambient growth and related projects and the “project” scenario is equal to the cumulative base scenario plus the Project trips.

**Table 6: Project Impact Summary Table Format**

<i>(Year)</i> <b>Existing Traffic Conditions</b>	<b>Existing Plus Project</b>	<b>Project Impact</b>	<i>(Buildout Year)</i> <b>Cumulative Base</b>	<i>(Buildout Year)</i> <b>Project</b>	<b>Project Impact</b>	<i>(Buildout Year)</i> <b>Project with Traffic Mitigation</b>	<b>Net Project Impact</b>
V/C LOS	V/C LOS		V/C LOS	V/C LOS		V/C LOS	

The TIS should also include a map or table that illustrates the lane configurations and lane volumes for each study intersection. Also, any programmed and funded transportation improvements that are expected to be implemented on or before the project buildout year should be identified in the study. Should these programmed improvements include a modification to the existing lane configuration to any of the study intersections, then the study should identify these changes and include the revised lane configuration in the V/C calculations for all future scenarios.

In determining the lane assignments for an intersection with an unmarked curb lane, the V/C calculations may assume the capacity of a functional right-turn only lane, provided that the lane width is a minimum of 18 feet wide, there are no bus stops at the approach, on-street parking would not impede vehicles turning right, the pedestrian volumes are low during the peak hour, and this de-facto right-turn operation has been verified in the field. Should the TIS include an analysis of freeway segments, then consultation with Caltrans is needed on the capacity analysis methodology used to evaluate state facilities.

### **3.4 ALIGNMENT WITH VISION ZERO**

Directed by Mayor Eric Garcetti’s Vision Zero Los Angeles initiative, the City is committed to creating safer streets for our most vulnerable road users, including children, older adults, and people walking and bicycling. All proposed Projects in the City must be designed to prioritize the safety of people walking, bicycling, rolling, taking transit to improve their connectivity. The City aims to eliminate all traffic-related deaths by the year 2025. To focus the implementation of safety countermeasures, LADOT conducted a citywide traffic collision analysis and identified a network of streets known as the High Injury Network (HIN), which consists of streets where high incidences of collisions involving vulnerable road users have resulted in severe injuries and deaths. Projects proposed on a roadway within the HIN should be designed to enhance safety.

During the preparation of the TIS, the Applicant or designated representative must consult with LADOT to identify treatments that may enhance safety at the Project site. Treatments that have proven to enhance the safety of vulnerable road users and/or lower vehicle speeds include, but are not be limited to, curb extensions, leading

pedestrian intervals, controlled mid-block crosswalks, pedestrian refuge islands, protected bicycle lanes, bike boxes, exclusive bicycle signal phases, protected left-turn lanes, etc. Additionally, site access plans for proposed Projects on roadways identified within the HIN should avoid or minimize the number of proposed driveways on that street. To determine whether a Project is on the HIN, visit the interactive map on [www.navigatela.lacity.org](http://www.navigatela.lacity.org) and/or download the street dataset available on the City’s Vision Zero website ([www.visionzero.lacity.org](http://www.visionzero.lacity.org)).

### 3.5 TRANSPORTATION MITIGATION MEASURES

When a Project is expected to result in significant traffic impacts, as defined in **Sections 2.2 and 2.3**, the Project’s consultant should meet with LADOT to discuss potential transportation mitigation options before submitting a TIS. Different transportation mitigation solutions should be explored when attempting to mitigate a Project’s significant transportation impact to a level of insignificance.

In addition to traditional traffic flow considerations, mitigation programs must primarily aim to minimize the demand for trips by single-occupancy vehicles through transportation demand management (TDM) strategies. A preliminary draft performance-based TDM Program, prepared as outlined in Section 4 of these TIS Guidelines, must be included in the TIS for any Project seeking trip generation amendments supported by TDM. If the TDM Program is acceptable to LADOT, the applicant will be allowed to reduce the total Project trips by an amount determined to be commensurate with the measures proposed in the TDM Program. For additional information on TDM and other mitigation measures, refer to **Section 4** of these guidelines.

The adequacy and feasibility of each mitigation measure must be determined to the satisfaction of LADOT. The final required mitigation measures for the Project will be determined by the appropriate decision maker (e.g., the City Planning Commission, the City Council). All proposed mitigation measures shall comply with the following requirements:

#### 3.5A PLAN PREPARATION FOR PHYSICAL MITIGATION

##### a. Existing Conditions

- Prepare preliminary geometric design drawing to a scale 1” = 40’ for each of the significantly impacted intersections for existing conditions, where lane reconfigurations are a proposed mitigation measure. Conduct field investigations and illustrate all important roadway details, including adjacent land use(s), parking restrictions, sidewalks, driveways, lane dimensions, roadway striping, curb and right-of-way lines, and “footprints” of building line on the plan.
- Use existing LADOT drawings where available and field check for accuracy to reflect current conditions.
- Provide copy of current City Bureau of Engineering District Map illustrating public rights-of-way on impacted streets.

##### b. Future Conditions with Mitigation

- Prepare preliminary geometric design drawing to a scale of 1” = 40’ showing recommended changes in striping including additional roadway and right-of-way necessary to mitigate the significant impact(s) of the project for each location where street reconfiguration is a proposed mitigation measure.
- Plans showing striping modifications should include adequate segments of the roadway (approximately 300-

400 feet on each leg of the intersection) to indicate the appropriate transitions from the existing striping.

- Plans should indicate parking restrictions (existing and proposed), bus stops (existing and relocated), driveways, signals, street lights, signs, trees, utility poles and catchment basins.

c. Traffic Volume Diagram

- Attach the a.m. and p.m. peak hour lane volume diagram with the geometric design plan for each intersection.

d. Finalize Plans as necessary

- Revise mitigation plans as required and resubmit the final mitigation plans to LADOT for approval.

### **3.5B GUARANTEES OF MITIGATION MEASURES**

All physical transportation mitigations and associated traffic signal work within the City must be guaranteed through the B-Permit process of the Bureau of Engineering, prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Temporary certificates of occupancy may be granted in the event of any delay through no fault of the applicant, provided that, in each case, the applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT. All improvements along state highways and freeway ramps require approval from Caltrans. An encroachment permit must be obtained from Caltrans for these improvements before the issuance of any building permits.

In the event the originally proposed mitigation measure becomes infeasible, a substitute mitigation measure may be provided subject to approval by LADOT or other governing agency with jurisdiction over the location, upon demonstration that the substitute measure is equivalent or superior to the original measure in mitigating the project's significant impact.

### **3.5C MITIGATION MONITORING AND REPORTING PROGRAM IN DRAFT EIRS**

Each mitigation measure part of a Project's mitigation monitoring program should be described separately for inclusion in the Draft EIR. The following details are required for each measure:

- Identification of the responsible agency for monitoring the measure and the designated coordination for all participants
- Qualifications, if any, of the necessary monitor(s)
- Monitoring schedule (i.e., the phase of the project during which the measure should be monitored, frequency, and completion/termination) - this should be stated for physical mitigation measures required during construction as well as those that are for the operation/life of the project (e.g., TDM program)
- Funding required and sources of funding for monitoring activities by both project and City personnel (especially for long-term monitoring activities)

*SECTION 4:*

# Mitigating Transportation Impacts

This section of the guidelines presents mitigation categories in order of priority to the City. If a Transportation Impact Study (TIS) identifies Project-related impacts, these mitigation measures should be considered when evaluating and proposing transportation mitigations.

## 4.1 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a general term for strategies and actions that improve overall transportation system efficiency by encouraging and supporting a shift from single-occupancy vehicle trips to other modes of travel, or moving vehicle trips out of peak periods. When successful, TDM influences how people choose to travel in order to make the most of existing transportation facilities and creates livable communities. Development Projects proposing the construction of new, nonresidential development in excess of 25,000 square feet gross floor area are required by LAMC 12.26-J to provide and maintain minimal TDM measures, by way of a covenant and agreement associated with the land, prior to issuance of a building permit, that the owner or applicant agree. LAMC 12.26-J is summarized in **Attachment J**.

LAMC 12.26-J notwithstanding, a consultant may be required to prepare a more comprehensive, integrated program of TDM measures. LADOT strongly encourages the development of a comprehensive TDM program to eliminate as many new Project single-occupancy vehicle trips from the transportation system as possible. TDM strategies should aim to reduce demand for single-occupancy vehicle trips by encouraging, promoting, and supporting the use of other sustainable modes of travel like public transit, walking, and bicycling.

If TDM strategies are claimed as a mitigation of Project-related traffic impacts, or if required under any applicable TSP or other City ordinances, then the TDM program shall include the following elements:

- A. Statement of measurable goals to be achieved
- B. Estimate of trips to be reduced
- C. Key elements of the program
- D. Schedule and responsibilities for funding and implementation
- E. Method of monitoring program performance
- F. Contingency plan and/or penalties for failure to achieve goals

If the Project is a mixed use project that includes housing, LADOT will consider adjusting the Project's trip generation to account for the internal trip characteristics of the Project. This adjustment shall be limited to the trips that would be affected by the special features of the Project relative to ITE or TSP trip generation rates. If the Project site is under one ownership or control; is uniquely located so as to permit accurate monitoring of all site trips; and extraordinary trip reduction goals are proposed, LADOT may recommend a trip cap agreement. Such an agreement typically places a cap on the total vehicle trips entering and leaving the site during peak hours and includes a monitoring and contingency plan.

To achieve additional vehicle trip reductions as traffic mitigation, TDM programs may include, but not be limited to, the following elements:

- Implementation of vehicle trip reduction incentives and services for Project employees and/or tenants; provide on-site education on alternative transportation modes.
- Implementation of flexible / alternative work schedules and telecommuting programs.
- Provide a bicycle and pedestrian-friendly environment; provide bicycle amenities such as secure bicycle racks, lockers and showers for employees.
- Provide bicycle parking beyond the requirements of the Bicycle Parking Ordinance No. 182,386.
- Enhance the environment for bicycling such as consolidating driveways and improving pavement conditions;
- Financial contribution to the City's Bicycle Plan Trust Fund.
- Implement a Neighborhood Friendly Street improvement as identified in the Mobility Plan 2035, which may include curb extensions, wayfinding signage, diverters, bicycle loop detection, shared lane markings, etc.
- Conduct educational workshops for Project employees and/or tenants related to the usage of bicycles on streets including how to integrate bicycles use with transit use and how to ride next to vehicles.
- Provide bicycle repair stations for use by Project employees and/or tenants.
- Provide fully or significantly subsidized transit passes to Project residents and/or employees.
- Implementation of first and last mile solutions that can increase the use of transit by bridging the gap between transit stops/stations and a commuter's origin or final destination.
- Implementation of a parking cash-out program.
- Pursuant to Internal Revenue Code Section 132(f), arrange pre-tax dollar transit commute expense accounts to provide transportation fringe benefits to eligible employees.
- Vehicle trip reduction incentives and services affecting visitors to the project, such as shoppers, clients, patrons, etc.
- Financial support for the capital and/or operating costs of enhanced transit or vanpool service to the project.
- Provision of a variety (mixed use) of land uses in close proximity, facilitating trip making by walking, bicycling or local shuttles.
- Provision of onsite facilities that encourage the use of alternate forms of transportation such as bicycle lanes and amenities, enhanced pedestrian connections, telecommuting facilities, etc.
- Include site trip cap and/or parking cap in trip monitoring agreements.
- Join an existing Transportation Management Organization serving the area where the Project is located.

## 4.2 TRANSIT CAPACITY AND ACCESS IMPROVEMENTS

Vehicle trips generated by a Project may be reduced by operating or contributing to the operation of public transit systems. If a Transit Program is claimed as a mitigation of Project-related impacts, or if required under any applicable TSP or other City ordinances, the Transit Program shall contain elements similar to those in the TDM Program described above. Additionally, a description of the Transit Program and a letter of support from the related transit service provider is required.

The exact mitigation effectiveness shall be determined on the basis of the Project's size, type of use(s), and the frequency/density of transit service in the vicinity of the Project. The following elements should be considered when developing a Transit Program:

- Contribution of funds or equipment to increase the capacity of existing public transit systems (must be coordinated with transit providers)
- Transit shuttles provided by applicant (e.g., bus, taxicab, van, etc.)
- Contributions toward construction or enhancement of public transit stations or centers
- Contributions toward construction of bike share station and/or operation/maintenance costs
- Provision of facilities or equipment which expedite transit flow (e.g., transit priority signal systems, exclusive transit lanes, HOV lanes, etc.)
- Contributions toward operation/maintenance costs and/or fleet vehicle replacement costs of existing public transit service (must be coordinated with providers)

## 4.3 PARKING MANAGEMENT MEASURES

Parking management strategies use existing parking facilities efficiently to reduce parking demand and shift travel away from single-occupancy vehicle trips. If Project-related transportation impacts are mitigated through a Parking Management Program, or if required under any applicable TSP or other City ordinances, the Program shall contain elements similar to those in the TDM program described above. Additionally, the following parking management strategies should be considered:

- Contribution of equipment or funds to LADOT ExpressPark Program to implement intelligent parking systems, which can include the use of new parking meter technology, vehicle sensors, dynamic signage, a central management system, and a real time parking guidance system. Such upgrades should be implemented along appropriate City block faces with existing parking meter zones in the vicinity of the Project, or at all approaches and departures of an impacted intersection.
- "Unbundling" of parking spaces in multiple unit residential development, e.g., parking shall be bought or rented separately when the dwelling units are initially bought or rented, enabling discounts for not using parking spaces and/or complementing Flex Car or other car sharing programs.
- "Unbundling" of parking spaces in non-residential development, e.g., employee parking is not to be provided free-of-charge and/or parking costs are listed as a separate line item in lease agreements. This would be a necessary component of a Parking Cash-Out program.

- Shared parking agreements, e.g., parking is provided by existing parking facilities and shared by multiple land uses through an agreement among private lot and property owners.

#### 4.4 JOBS / HOUSING BALANCE MEASURES

A travel demand mitigation value of up to 10% may be approved for a Development Project that incorporates Work Force housing (dwelling units affordable to, and reserved for, sale to Low and Moderate Income persons/families as defined in CA Health and Safety Code Section 50093 who are employed at the development) or that constructs such housing within a one-half mile of the Project. LADOT will determine the exact mitigation value based on an analysis of the development size and type of land use, employment type/density, and the number of Work Force housing units to be provided. The affordability of the Work Force housing units must be guaranteed for a minimum period of thirty (30) years.

#### 4.5 TRAFFIC SIGNAL OPERATIONAL IMPROVEMENTS

Traffic signal enhancements that include, but are not limited to, traffic signal phasing modifications, communication hub upgrades, new signal installations, CCTV camera installations, additional vehicle detector loops, etc., may be considered and provided as transportation impact mitigation or as supplemental measures to proposed intersection mitigations. Signal improvements that are considered Project-serving or that provide access to the project are not considered impact mitigations.

#### 4.6 STREET RESTRIPING

Generally, street re-striping is not an acceptable mitigation measure because it often requires parking prohibitions which may cause secondary impacts in certain commercial and residential areas. Street restriping may be an acceptable complimentary element to another acceptable mitigation measure, such as installation of left-turn phasing, implementation of traffic signal upgrades, expanding transit service, etc.

#### 4.7 PHYSICAL STREET IMPROVEMENTS

Street improvements recommended as impact mitigation must be physically feasible and meet minimum City standards. Physical mitigation measures proposed on a street identified in one of the six Network Concept Maps of the City's Mobility Plan 2035 should be designed to effectuate the modal priorities identified for that street. See **Attachment K** for a sample intersection mitigation drawing. Proposed physical mitigation measures shall not result in inadequate sidewalk widths, should accommodate pedestrian activities, and should meet ADA requirements.

##### 4.7A PARKING INVENTORY AND DEMAND ANALYSIS

Any mitigation proposal that would require the loss of on-street parking should include an on-street parking utilization study at the intersections and/or along the roadway where the potential improvements were identified. The study results should be presented in a parking inventory and demand analysis that summarizes that area's parking demand and supply, and informs LADOT on the secondary impacts that may result from the loss of parking. This analysis should include proposed measures to mitigate any such impacts to the extent feasible. The scope of the parking utilization study, including study area and survey hours, shall be approved by the appropriate LADOT staff prior to commencing the survey.

#### **4.7B PARKING METER REVENUE LOSS**

When a mitigation proposal for a Development Project requires the permanent removal of any metered parking spaces, payment to LADOT for lost parking meter revenue is required. The lost revenue fee will be determined during the site plan or B-permit plan review process and will be based on the revenue collected over the last twelve continuous months for each removed parking meter, as determined by LADOT's Parking Meter Division. The removal of each on-street metered parking space will require payment to LADOT in the amount of the annual revenue projected over a ten year period. The Project applicant will also be subject to any costs incurred by LADOT during the removal of each parking meter, including but not limited to meter post removal, parking sensors (if any), sign and post removal/relocation, stall marking, pavement messages, and curb painting.

#### **4.8 FAIR SHARE CONTRIBUTIONS**

If a TIS demonstrates that the Project applicant is responsible for only a portion of a large and costly transportation enhancement, such as a bridge or roadway improvement, a fair share contribution toward the cost of the improvement may be an acceptable mitigation. Fair share contributions are applicable in those cases where there are other proposed Development Projects in the vicinity that may also contribute toward the cost or when the City has other funding sources for the improvement.

#### **4.9 TRANSPORTATION MITIGATION TRUST FUND**

If Project is located in a TSP area, an applicant may be required to pay "mobility or trip fees" into a mitigation trust fund for implementation of regional transportation improvements specified in the TSP.

#### **4.10 INFEASIBLE MITIGATION MEASURES**

The TIS should also include a discussion of mitigation measures deemed to be infeasible, as appropriate, to record the reason(s) for rejecting these measures.

#### **4.11 SUBSTITUTE MITIGATIONS**

If a proposed transportation impact mitigation measure does not receive the required approval during plan review, a substitute mitigation measure may be provided subject to the approval of LADOT or other governing agency with jurisdiction over the mitigation location, upon demonstration that the substitute measure is environmentally equivalent or superior to the original measure in mitigating the Project's significant transportation impact. To the extent that a mitigation measure proves to be infeasible and no substitute mitigation is available, then a significant transportation impact would remain.

#### **4.12 UNMITIGATED IMPACTS**

Projects with unmitigated transportation impacts that seek a Statement of Overriding Considerations should evaluate and consider other suitable enhancements that improve quality of life in the public realm, such as non-restrictive traffic calming measures, traffic safety enhancements, signal timing upgrades, and community streetscape features (e.g., lighting, landscaping, shade, sidewalk repairs, etc.) Such community benefit improvements, whether voluntary or required, can serve to offset the significant impacts of a Project. If the Project results in unmitigated impacts after no other mitigation measures are feasible, the developer should consider revising and reducing the scope of the Project.

## 4.13 RESIDENTIAL NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

If the TIS indicates that the Project may result in residential street impacts, the applicant may be required to develop a plan to reduce Project-related trips from traveling through nearby residential areas as part of the mitigation program for the project. If Neighborhood Traffic Management (NTM) measures are required to offset potential residential street impacts, then, prior to Project occupancy, the applicant shall conduct public outreach and develop a NTM Plan. The Project applicant must consult with LADOT, the affected City Council District office, and neighborhood stakeholders to collaboratively prepare the NTM Plan. Coordination with the appropriate City Council District office may be necessary to designate the stakeholders that should facilitate the public outreach.

The Project applicant shall also be responsible for conducting the engineering evaluation of the potential measures to determine the feasibility in regards to drainage, constructability, street design, etc. The applicant shall also be responsible in implementing any NTM measures approved by LADOT and supported by stakeholders. Prior to the outreach, a cost estimate on the potential NTM Plan shall be determined in consultation with LADOT. The cost should be commensurate with the size of the Project and with the level of residential street impacts that are expected. The development of the NTM Plan shall include the analysis of any relevant traffic data, roadway characteristics, and conditions of the impacted residential street segments identified in the TIS.

The NTM Plan should focus solely on implementing non-restrictive traffic calming, which may include, but are not limited to, traffic circles, speed humps, roadway narrowing effects (raised medians, traffic chokers, etc.), landscaping features, roadway striping changes, and stop sign pattern. Restrictive measures such as turn restrictions, physical barriers, signal metering, etc., should not be considered since these measures can potentially lead to the diversion of traffic from one street to another, or one neighborhood to another. The NTM Plan should also consider and evaluate neighborhood improvements that can offset the effects of added traffic, including street trees, sidewalks, landscaping, neighborhood identification features, and pedestrian amenities. Such measures can support trip reduction efforts by encouraging walking, bicycling, and the use of public transit.

As with other mitigation measures, any required NTM measures on City streets must be implemented prior to the issuance of any certificates of occupancy. A temporary certificate of occupancy may be granted in the event of any delay through no fault of the Project applicant, provided that the applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT. The NTM Plan shall be prepared in conformance with the guidelines established by LADOT and should contain, at a minimum, the following elements:

- Description of existing facilities and neighborhood traffic conditions,
- Description of proposed neighborhood traffic controls, including sketches of specific street modifications,
- Analysis of any change in existing or future traffic patterns as a result of implementation of the plan, and
- Implementation and monitoring program.

## SECTION 5:

# Bureau Contact Information

Thank you for your cooperation. If you have any questions, please contact the appropriate LADOT Bureau of Planning and Development Review office based on your geographic area (see **Attachment L**) or stage in development.

## METRO DEVELOPMENT REVIEW

*Projects proposed within all areas south of Mulholland Drive, east of Robertson Boulevard and north of the San Pedro Community Plan area*

**Mail** 100 S. Main Street, 9th Floor  
Los Angeles, CA 90012

**Telephone** (213) 972-8482 or (213) 972-8481

## WEST LOS ANGELES DEVELOPMENT REVIEW

*Projects proposed within San Pedro and all areas south of Mulholland Drive and west of Robertson Boulevard*

**Mail** 7166 W. Manchester Avenue  
Los Angeles, CA 90045

**Telephone** (213) 485-1062

**Fax** (213) 485-1285

## VALLEY DEVELOPMENT REVIEW

*Projects proposed within the entire San Fernando Valley north of Mulholland Drive*

**Mail** 6262 Van Nuys Boulevard, 3rd Floor  
Van Nuys, CA 91401

**Telephone** (818) 374-4699

**Fax** (818) 374-4696

## LADOT CITYWIDE ONE-STOP COUNTER

*Projects proposed within the City that require early consultation on review processes and design standards, permit sign-off, condition clearance, driveway plan review, etc.*

**Mail** 201 N. Figueroa Street, 5th Floor  
Los Angeles, CA 90012

**Telephone** (213) 482-7024

**Fax** (213) 482-7011

ORDINANCE NO. 183270

An ordinance amending Section 19.15 of Article 9 of Chapter 1 of the Los Angeles Municipal Code in its entirety to revise and update the fees paid to the Department of Transportation for the review and assessment of traffic study reports, condition clearance and permit issuance activities related to obtaining any environmental clearance for private development projects within the City of Los Angeles.

**THE PEOPLE OF THE CITY OF LOS ANGELES  
DO ORDAIN AS FOLLOWS:**

Section 1. Section 19.15 of Article 9 of Chapter 1 of the Los Angeles Municipal Code is amended in its entirety to read as follows:

**SEC. 19.15. DEPARTMENT OF TRANSPORTATION TRAFFIC STUDY REVIEW,  
CONDITION CLEARANCE AND PERMIT ISSUANCE FEES.**

(a) **Fees.** The following specific fees shall be paid to the Department of Transportation (Department) for the preparation and processing of traffic reports, clearance of conditions and permit sign-offs in connection with obtaining any environmental clearance and/or permit issuance related tasks.

(1)	Building Permit Sign Offs ( <u>Note 1</u> ).....	\$365
(2)	Dedication & Widening Waivers.....	\$445
(3)	Department Referral Form ( <u>Note 2</u> ).....	\$430
(4)	Driveway Permit Sign Offs ( <u>Note 3</u> ).....	\$535
(5)	Haul Route Review.....	\$420
(6)	Master Plan / Complex Circulation Review ( <u>Note 4</u> ).....	\$1,595
(7)	Project Condition Clearance ( <u>Note 5</u> ).....	\$270
(8)	Revocable Permit.....	\$205
(9)	Street Vacation Requests.....	\$965
(10)	Subdivision Report.....	\$205
(11)	TDM Compliance / Trip Monitoring Report Review.....	\$770
(12)	Technical Study ( <u>Note 6</u> ).....	\$1,340

- (13) Traffic Study MOU.....\$1,175
- (14) Traffic Study Review (Note 7).....\$7,480
- (15) Traffic Study Review /  
Plan Review – Expedited.....See Subsection (c)
- (16) Worksite Traffic Control Plan Review (non B-permit).....\$1,645

**Note 1:** For a project with multiple addresses and permits (i.e., multi-family units), \$365 should be charged per distinct site plan and not per unit. For example: if, for a 100 unit small lot subdivision condominium project, each unit falls into one of three different site plan options, then the Department review fee should be \$1,110 (\$370 X 3) even if there are 100 separate building permits to approve.

**Note 2:** The Department Referral Form may also be submitted to the Department in the form of an Initial Site Assessment Form or a Site Plan Review Form. If this is the case, the Department Referral Form fee still would apply.

**Note 3:** When reviewing a Building Permit application that also includes a Driveway Permit Sign Off, the applicant should not be charged two fees (Building Permit and Driveway Permit). Instead, the applicant should be charged only the Building Permit fee if the driveway plan does not include a new curb cut. If the driveway plan does include a new curb cut, then the applicant only should be charged the Driveway Permit Sign-Off fee.

**Note 4:** This fee applies to Master Plan type developments or large scale projects with complicated circulation plans that require considerable staff time to help applicant arrive at an acceptable access and circulation plan.

**Note 5:** \$270 for the first three condition clearances plus \$200 for each additional condition clearance.

**Note 6:** A “technical study” can include technical memorandums (defined in LADOT’s Traffic Study Guidelines), trip generation assessments, traffic study supplements, shared parking analyses, etc. The fee includes the cost to process a study MOU, if required.

**Note 7:** \$7,480 for the first ten study intersections plus \$400 per each additional study intersection, not to exceed a total of \$25,000.

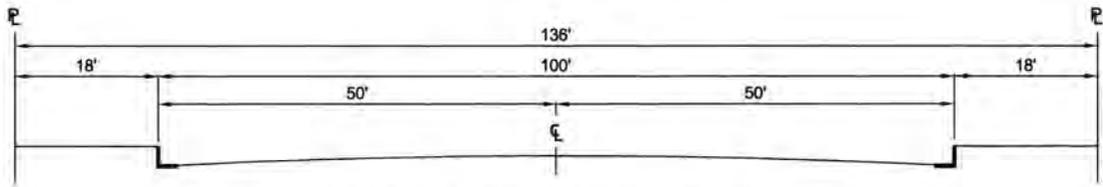
**Special Note:** If a project is approved by LADOT through the subdivision clearance or building permit process and the applicable fees have been paid, future approvals will not require additional fees as long as there have been no substantial changes to the approved portion of the project.

(b) **Transportation Review Fee Fund.** Each fee collected pursuant to this section shall include a five percent surcharge to be deposited into the Transportation Review Fee Fund No. 50Y. This fund shall be used exclusively by the Department to provide funding for the continual enhancement of development review related information technology systems and for procurement costs associated with equipment, software, materials, staff training and, if needed, consultant services. With the exception of the five percent surcharge deposited into the Transportation Fee Fund No. 50Y, the remaining 95 percent fees collected shall be credited to the General Fund.

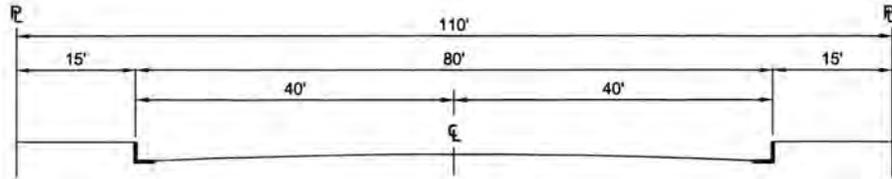
(c) **Expedited Services.** The Department shall offer expedited services in the review of traffic studies or the review of B-permit design plans. Project applicants can choose to pay a higher review fee to allow Department staff to work overtime hours to expedite their review. The actual review fee to process a traffic study, which will be greater than the standard traffic study review fee, will be determined by the Department during the preparation of the Traffic Study Memorandum of Understanding executed between the Department and the applicant's representative. The fee established shall be based on the applicant's desired completion date, the availability of staff to work overtime and the affected division's case workload. During times of peak workloads, the expedited review fee may be utilized by the Department to procure an outside firm from the Department's pre-screened list of consultants to conduct the review of the study. Similarly, the actual fee to process B-permit design plans shall be established by the Department at the pre-design meeting with the applicant's representative.

(d) **Fee Revisions.** The Department shall provide an annual review of the fees established pursuant to this section, and shall submit recommendations for changes in these fees for special services to the Council. The fees shall be revised by the Department to account for any staff salary cost of living adjustments. Notice of a revision in fees shall be in accordance with California Government Code Sections 66018 and 6062a, which require that prior to adoption of a new or increased fee a public hearing be held and notice of that hearing be published in a newspaper with two publications at least five days apart over a ten-day period. The notice period begins the first day of publication, and there must be at least five days intervening between the first and second publications, not counting the dates of publication.

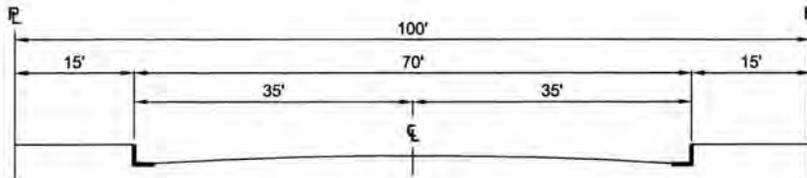
**ARTERIAL STREETS**



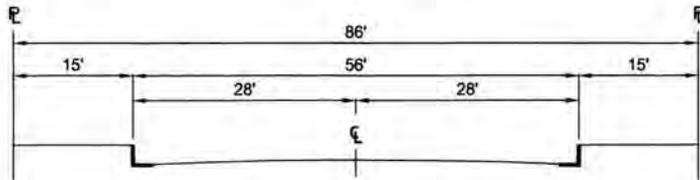
**BOULEVARD I (MAJOR HIGHWAY CLASS I)**



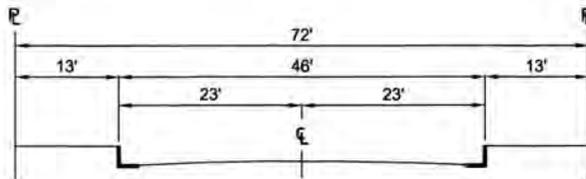
**BOULEVARD II (MAJOR HIGHWAY CLASS II)**



**AVENUE I (SECONDARY HIGHWAY)**

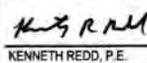
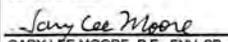
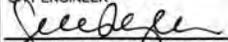
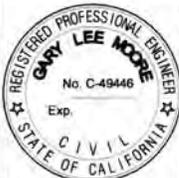


**AVENUE II (SECONDARY HIGHWAY)**



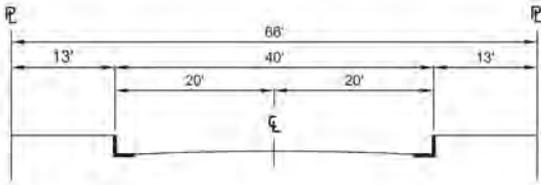
**AVENUE III (SECONDARY HIGHWAY)**



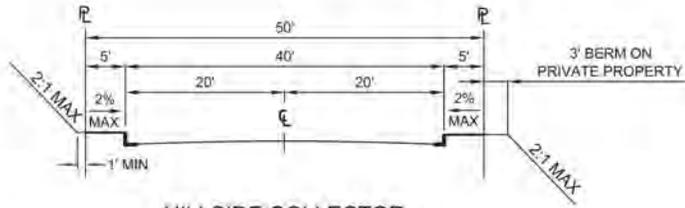
BUREAU OF ENGINEERING		DEPARTMENT OF PUBLIC WORKS		CITY OF LOS ANGELES		
<b>STANDARD STREET DIMENSIONS</b>				<b>STANDARD PLAN S-470-1</b>		
PREPARED  KITTY SIU, P.E. BUREAU OF ENGINEERING  CHECKED  RAFFI MASSABKI, P.E. BUREAU OF ENGINEERING	SUBMITTED   10/13/15 SAMARA ALI-AHMAD, P.E. ENGINEER OF DESIGN BUREAU OF ENGINEERING   10/13/15 KENNETH REDD, P.E. DEPUTY CITY ENGINEER	APPROVED   10-20-15 GARY LEE MOORE, P.E., ENV. SP. CITY ENGINEER   10-21-15 DEPARTMENT OF TRANSPORTATION GENERAL MANAGER   10-21-15 DIRECTOR OF PLANNING		SUPERSEDES	REFERENCES	
				D-22549 S-470-0		
				VAULT INDEX NUMBER: <b>B-4738</b>		
SHEET 1 OF 4 SHEETS						

NON-ARTERIAL STREETS

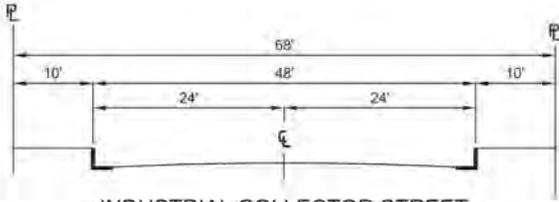
HILLSIDE STREETS



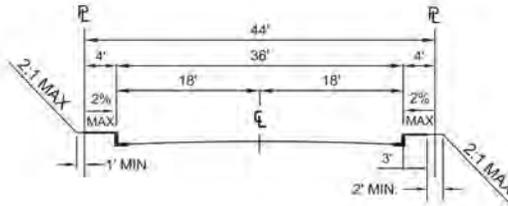
COLLECTOR STREET



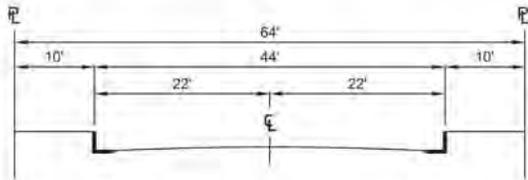
HILLSIDE COLLECTOR



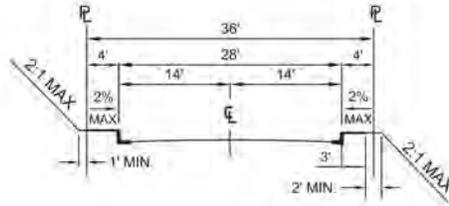
INDUSTRIAL COLLECTOR STREET



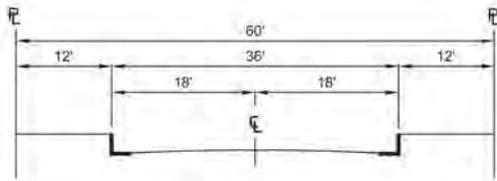
HILLSIDE LOCAL



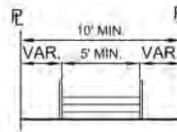
INDUSTRIAL LOCAL STREET



HILLSIDE LIMITED STANDARD

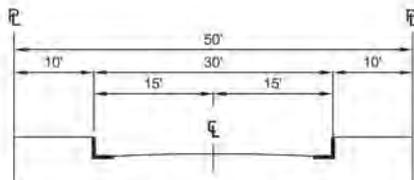


LOCAL STREET - STANDARD



PUBLIC STAIRWAY

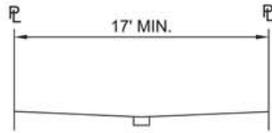
CONSTRUCTED IN ACCORDANCE WITH  
BUREAU OF ENGINEERING STANDARD PLANS



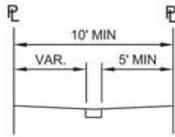
LOCAL STREET - LIMITED



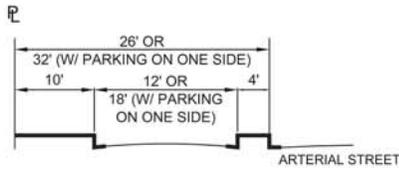
**OTHER PUBLIC RIGHTS-OF-WAY**



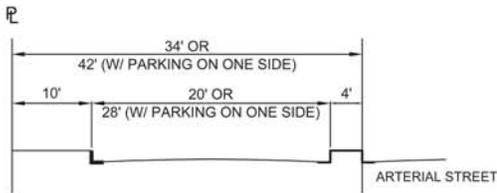
**SHARED STREET**



**PEDESTRIAN WALKWAY**

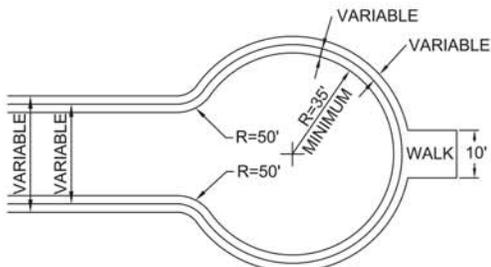


**ONE-WAY SERVICE ROAD**



**BI-DIRECTIONAL SERVICE ROAD**

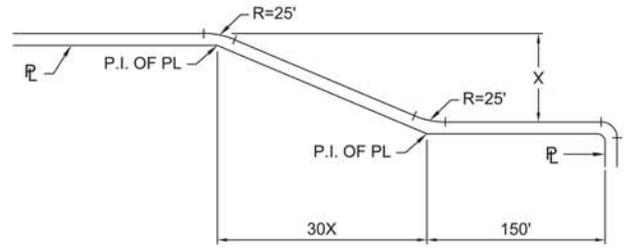
**CUL-DE-SAC**



**MAY BE UNSYMMETRICAL (PLAN VIEW)**

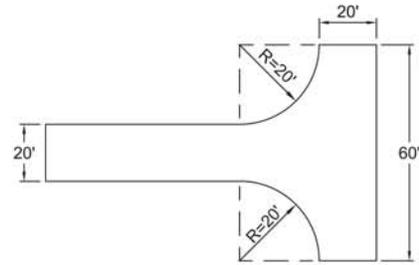
NOTE: FOR FIRE TRUCK CLEARANCE, NO OBSTRUCTION TALLER THAN 6" SHALL BE PERMITTED WITHIN 3FT. OF THE CURB. ON-STREET PARKING SHALL BE PROHIBITED.

**TRANSITIONAL EXTENSIONS**

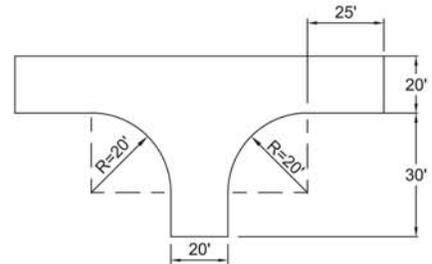


**STANDARD FLARE SECTION (PLAN VIEW)**

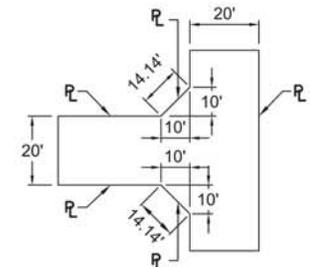
**ALLEYS**



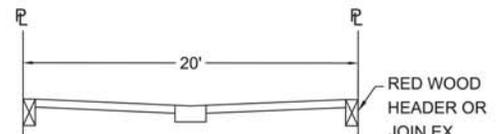
**STANDARD TURNING AREA (PLAN VIEW)**



**MINIMUM TURNING AREA (PLAN VIEW)**



**STANDARD CUT CORNERS FOR 90° INTERSECTION (PLAN VIEW)**



**STANDARD CROSS-SECTION (PLAN VIEW)**



## NOTES

1. CITY COUNCIL MAY, BY ORDINANCE, ADOPT SPECIFIC STANDARDS FOR INDIVIDUAL STREETS THAT DIFFER FROM THESE OFFICIAL STANDARD STREET DIMENSIONS. COMMUNITY PLANS AND SPECIFIC PLANS SHOULD BE REVIEWED FOR FOOTNOTES, INSTRUCTIONS AND/OR MODIFIED STREET DIMENSIONS THAT WOULD REQUIRE STANDARDS DIFFERENT THAN THOSE INDICATED ON THIS STANDARD PLAN.
2. FOR ADDITIONAL GUIDANCE AS TO THE USE OF THE ROADWAY AND SIDEWALK AREA, PLEASE REFER TO THE COMPLETE STREET DESIGN GUIDE AND MANUALS.
3. FOR DISCRETIONARY PROJECTS REQUIRING ACTION FROM THE DEPARTMENT OF CITY PLANNING (PLANNING), PLANNING MAY INCLUDE SPECIFIC INFORMATION AS TO THE DESIGN AND UTILIZATION OF THE SIDEWALK AREA.
4. WHERE A DESIGNATED ARTERIAL CROSSES ANOTHER DESIGNATED ARTERIAL STREET AND THEN CHANGES IN DESIGNATION TO A STREET OF LESSER STANDARD WIDTH, THE ARTERIAL SHALL BE TAPERED IN A STANDARD FLARE SECTION ON BOTH SIDES, AS ON SHEET 3, TO MEET THE WIDTH OF LESSER DESIGNATION AND PROVIDE AN ORDERLY TRANSITION.
5. PRIVATE STREET DEVELOPMENT SHOULD CONFORM TO THE STANDARD PUBLIC STREET DIMENSIONS SHOWN ON THE SHEET, WHERE APPROPRIATE, VARIATIONS MAY BE APPROVED ON A CASE-BY-CASE BASIS BY THE CITY.
6. FIFTY-FOOT CURB RADII (INSTEAD OF THE STANDARD 35' CURB RADII) SHALL BE PROVIDED FOR CUL-DE-SACS IN INDUSTRIAL AREAS. SEE CUL-DE-SAC ILLUSTRATION FOR FURTHER DESIGN STANDARDS.
7. ALLEYS SHALL BE A MINIMUM OF 20' IN WIDTH AND INTERSECTIONS AND/OR DEAD-END TERMINUSES SHALL BE DESIGNED TO CONFORM TO THE ALLEY ILLUSTRATIONS INCLUDED HEREIN.
8. FOR INTERSECTIONS OF STREETS, THE FOLLOWING DEDICATIONS SHALL APPLY:
  - A. INTERSECTIONS OF ARTERIAL STREETS WITH ANY OTHER STREET: 15' X 15' CUT CORNER OR 20' CURVED CORNER RADIUS.
  - B. INTERSECTIONS ON NON-ARTERIAL AND/OR HILLSIDE STREETS: 10' X 10' CUT CORNER OR 15' CURVED CORNER RADIUS.
9. STREETS THAT ARE ACCOMPANIED BY A PARALLEL FRONTAGE AND/OR SERVICE ROAD ARE DEEMED TO MEET THE STREET STANDARDS SET FORTH HEREIN AND THE DEDICATION REQUIREMENT SHALL BE NO MORE THAN IS NECESSARY TO BRING THE ABUTTING SIDEWALK DIMENSION INTO COMPLIANCE WITH THE STREET STANDARD.
10. DUE TO THEIR UNIQUE CHARACTER AND DIMENSIONS ALL STREETS DESIGNATED AS DIVIDED ARE CONSIDERED TO HAVE MET THEIR STREET STANDARD AND THE DEDICATION SHALL BE NO MORE THAN IS NECESSARY TO BRING THE ABUTTING SIDEWALK DIMENSION COMPLIANT WITH THE STREET STANDARD.
11. THE DIMENSION OF ANY MEDIAN, DIVIDED STRIP AND/OR TRANSIT WAY SHALL BE INCLUDED WHEN DETERMINING THE RIGHT-OF-WAY DIMENSION.
12. THE LOCATION OF THE DRAINAGE GUTTER IS NOT RESTRICTED TO THE CENTER OF THE SHARED STREET AND CAN BE PLACED WHERE NECESSARY AS APPROVED BY THE CITY.
13. A SHARED STREET SHALL PROVIDE A DEDICATED PEDESTRIAN ACCESS ROUTE.





## Transportation Impact Study Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Impact Study for the following Project will be prepared in accordance with the latest version of LADOT’s Transportation Impact Study Guidelines:

### I. PROJECT INFORMATION

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Project Description: \_\_\_\_\_

LADOT Project Case Number: \_\_\_\_\_ Project Site Plan attached? (Required)  Yes  No

### II. TRIP GENERATION

Geographic Distribution: N \_\_\_\_\_ % S \_\_\_\_\_ % E \_\_\_\_\_ % W \_\_\_\_\_ %

Illustration of Project trip distribution percentages at Study intersections attached? (Required)  Yes  No

**Trip Generation Adjustments** (Exact amount of credit subject to approval by LADOT)

	Yes	No
Transit Usage	<input type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management	<input type="checkbox"/>	<input type="checkbox"/>
Existing Active Land Use	<input type="checkbox"/>	<input type="checkbox"/>
Previous Land Use	<input type="checkbox"/>	<input type="checkbox"/>
Internal Trip	<input type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input type="checkbox"/>	<input type="checkbox"/>

Source of Trip Generation Rate(s)? ITE 9<sup>th</sup> Edition Other: \_\_\_\_\_

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? (Required)  Yes  No

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
AM Trips	_____	_____	_____
PM Trips	_____	_____	_____

### III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: \_\_\_\_\_ Ambient or CMP Growth Rate: \_\_\_\_\_ % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? (Required)  Yes  No

Subject to Freeway Impact Analysis, in addition to CMP Analysis? (Freeway analysis screening filter must be included in this MOU; selecting “yes” implies that at least one criteria was satisfied)  Yes  No

Map of Study Intersections attached? (May be subject to LADOT revision after initial impact analysis)  Yes  No

Is this Project located on a street within the High Injury Network?  Yes  No

**IV. CONTACT INFORMATION**

CONSULTANT

DEVELOPER

Name: \_\_\_\_\_

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_

\_\_\_\_\_

E-Mail: \_\_\_\_\_

\_\_\_\_\_

Approved by:  \_\_\_\_\_  
Consultant's Representative

\_\_\_\_\_ Date

\_\_\_\_\_  
LADOT Representative

\_\_\_\_\_ Date

**PASS-BY TRIP RATES**

<b>PASS-BY TRIP DISCOUNT RATE</b>	<b>LAND USE CATEGORY</b>
10%	Shopping Center 600,000 sf or more, Quality Restaurant, Specialty Retail, Furniture Store, Medical Office, Day Care, Theater/Cinema, Auto Sales/Repair
15%	Discount Club, Discount Store
20%	Shopping Center 300,000 to less than 600,000 sf, Bank/Savings & Loan, High Turnover Restaurant, Car Wash, Hardware/Lumber Store, Garden Center, Recreation/Health Club
30%	Shopping Center 100,000 to less than 300,000 sf, Auto Parts, Music/Video Store
40%	Shopping Center 50,000 to less than 100,000 sf, Supermarket, Drugstore, Bookstore
50%	Shopping Center less than 50,000 sf, Fast Food Restaurant, Gasoline/Service Station, Convenience Market, Flower/Bakery/Yogurt Shop, Dry Cleaner, Liquor Store

*Note:* These rates are derived from surveys published in the “Trip Generation Handbook: An ITE Recommended Practice,” 2003.

# Attachment E: Manual Traffic Count Summary



City Of Los Angeles  
Department Of Transportation

## MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South BROADWAY

East/West 75TH ST

Day: MONDAY Date: JULY 16, 2007 Weather: SUNNY

Hours: 7-10AM 2-5PM

School Day: YES District: CENTRAL I/S CODE 1451

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED BIKES</b>	101	139	3	6
<b>BIKES</b>	0	11	0	0
<b>BUSES</b>	0	98	0	0

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
<i>AMPK 15 MIN</i>	329 7.15	168 7.45	5 8.00	28 7.15
<i>PMPK 15 MIN</i>	174 2.15	273 4.45	12 2.15	56 2.30
<i>AMPK HOUR</i>	1230 7.15	625 7.15	14 7.15	106 7.15
<i>PMPK HOUR</i>	609 2.00	1002 4.00	33 2.00	111 2.15

### NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	7	1056	94	1157
8-9	4	806	63	873
9-10	2	529	10	541
2-3	9	518	82	609
3-4	5	448	19	472
4-5	8	514	21	543
<b>TOTAL</b>	<b>35</b>	<b>3871</b>	<b>289</b>	<b>4195</b>

### SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	47	550	11	608
8-9	32	459	5	496
9-10	10	374	4	388
2-3	33	679	12	724
3-4	30	816	16	862
4-5	20	973	9	1002
<b>TOTAL</b>	<b>172</b>	<b>3851</b>	<b>57</b>	<b>4080</b>

### TOTAL

N-S	1765
1369	
929	
1333	
1334	
1545	
<b>8275</b>	

### XING S/L

Ped	Sch
63	25
30	8
4	0
89	40
12	4
16	0
<b>214</b>	<b>77</b>

### XING N/L

Ped	Sch
0	0
2	0
1	0
0	0
4	0
5	0
<b>12</b>	<b>0</b>

### EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	1	2	10	13
8-9	2	2	4	8
9-10	6	0	7	13
2-3	6	5	22	33
3-4	6	6	10	22
4-5	9	4	9	22
<b>TOTAL</b>	<b>30</b>	<b>19</b>	<b>62</b>	<b>111</b>

### WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	43	4	54	101
8-9	32	2	34	68
9-10	18	1	19	38
2-3	42	5	60	107
3-4	34	2	27	63
4-5	32	5	27	64
<b>TOTAL</b>	<b>201</b>	<b>19</b>	<b>221</b>	<b>441</b>

### TOTAL

E-W	114
76	
51	
140	
85	
86	
<b>552</b>	

### XING W/L

Ped	Sch
70	39
46	11
30	3
103	100
63	18
48	11
<b>360</b>	<b>182</b>

### XING E/L

Ped	Sch
45	2
35	1
12	0
74	25
38	7
32	0
<b>236</b>	<b>35</b>

**Attachment F: Bicycle and Pedestrian Count Forms**

City of Los Angeles

Department of Transportation

**BICYCLE COUNT SUMMARY**

Level Three  
Draft 6/09/15

**STREET:**

North/South : "A" Street

East/West : "B" Street

Day: Monday

Date: 0

Weather: Sunny

School Day: Yes

District: 0

I/S CODE: 0

Hours: 7-10 AM & 3-6 PM

Staff: 0

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	0	0	0	0	0
8-9	0	0	0	0	0
9-10	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	0	0	0	0	0
8-9	0	0	0	0	0
9-10	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female riders	1	1	1	1	4
- No helmet riders	1	4	1	1	7
- Sidewalk riding	1	4	4	1	10
- Wrong way riding	1	1	1	1	4

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: (company name)

LADOT 2015 CMP

**PEDESTRIAN COUNT SUMMARY**

**STREET:**

**North/South :** "A" Street

**East/West :** "B" Street

**Day:** Monday **Date:** \_\_\_\_\_ **Weather:** Sunny  
**School Day:** Yes **District:** Central **I/S CODE:** 0  
**Hours:** 7-10 AM & 3-6 PM **Staff:** 0

**AM PEAK PERIOD**

**PM PEAK PERIOD**

15 Min. interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00 - 7:15	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0
9:00 - 9:15	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0

15 Min. interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00 - 3:15	0	0	0	0	0
3:15 - 3:30	0	0	0	0	0
3:30 - 3:45	0	0	0	0	0
3:45 - 4:00	0	0	0	0	0
4:00 - 4:15	0	0	0	0	0
4:15 - 4:30	0	0	0	0	0
4:30 - 4:45	0	0	0	0	0
4:45 - 5:00	0	0	0	0	0
5:00 - 5:15	0	0	0	0	0
5:15 - 5:30	0	0	0	0	0
5:30 - 5:45	0	0	0	0	0
5:45 - 6:00	0	0	0	0	0

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7 - 8	0	0	0	0	0
8 - 9	0	0	0	0	0
9 - 10	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3 - 4	0	0	0	0	0
4 - 5	0	0	0	0	0
5 - 6	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**REMARKS (6 hour total):**

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
- Wheelchair/special needs assistance	0	0	0	0	0
- Skateboard/scooter	0	0	0	0	0

N: North, S: South, E: East, W: West, I/S: Intersection

Source: (company name)



## Attachment H: Transportation Demand Management and Trip Reduction Measures Ordinance

### TRANSPORTATION DEMAND MANAGEMENT AND TRIP REDUCTION MEASURES (LAMC Section 12.26-J - amended by Ordinance 168,700)

#### 1. DEFINITIONS

For the purpose of this section, certain words and terms are defined as follows:

**Carpool.** A vehicle carrying two to five persons to and from work on a regular schedule.

**Development.** The construction of new non-residential floor area.

**Gross Floor Area.** That area in square feet confined within the outside surface of the exterior walls of a building, as calculated by adding the total square footage of each of the floors in the building, except for that square footage devoted to vehicle parking and necessary interior driveways and ramps.

**Preferential Parking.** Parking spaces, designated or assigned through use of a sign or painted space markings for Carpools or Vanpools, that are provided in a location more convenient to the entrance for the place of employment than parking spaces provided for single-occupant vehicles. **Transportation**

**Demand Management (TDM).** The alteration of travel behavior through programs of incentives, services, and policies, including encouraging the use of alternatives to single-occupant vehicles such as public transit, cycling, walking, carpooling/vanpooling and changes in work schedule that move trips out of the peak period or eliminate them altogether (as in the case in telecommuting or compressed work weeks).

**Trip Reduction.** Reduction in the number of work-related trips made by single-occupant vehicles.

**Vanpool.** A vehicle carrying six or more persons to and from work on a regular schedule, and on a prepaid basis.

**Vehicle.** Any motorized form of transportation, including but not limited to automobiles, vans, buses and motorcycles.

#### 2. APPLICABILITY

This subdivision applies only to the construction of new non-residential gross floor area. Prior to the issuance of a building permit, the owner/applicant shall agree, by way of a covenant that runs with the land, to provide and maintain in a state of good repair the following applicable transportation demand management and trip reduction measures.

#### 3. REQUIREMENTS

(a) **Development in excess of 25,000 square feet of gross floor area.** The owner shall provide a bulletin board, display case, or kiosk (displaying transportation information) where the greatest number of employees are likely to see it. The transportation information displayed should include, but is not limited to, the following:

- (1) Current routes and schedules for public transit serving the site;
- (2) Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operations;
- (3) Ridesharing promotion material supplied by commuter-oriented organizations;
- (4) Regional/local bicycle route and facility information;
- (5) A listing of on-site services or facilities which are available for carpoolers, vanpoolers, bicyclists, and transit riders.

- (b) **Development in excess of 50,000 square feet of gross floor area.** The owner shall comply with Paragraph (a) above and in addition shall provide:
- (1) A designated parking area for employee carpools and vanpools as close as practical to the main pedestrian entrance(s) of the building(s). This area shall include at least ten percent of the parking spaces required for the site. The spaces shall be signed and striped sufficient to meet the employee demand for such spaces. The carpool/vanpool parking area shall be identified on the driveway and circulation plan upon application for a building permit;
  - (2) One permanent, clearly identified (signed and striped) carpool/vanpool parking space for the first 50,000 to 100,000 square feet of gross floor area and one additional permanent, clearly identified (signed and striped) carpool/vanpool parking space for any development over 100,000 square feet of gross floor area;
  - (3) Parking spaces clearly identified (signed and striped) shall be provided in the designated carpool/vanpool parking area at any time during the building's occupancy sufficient to meet employee demand for such spaces. Absent such demand, parking spaces within the designated carpool/vanpool parking area may be used by other vehicles;
  - (4) No signed and striped parking spaces for carpool/vanpool parking shall displace any handicapped parking;
  - (5) A statement that preferential carpool/vanpool spaces are available on-site and a description of the method for obtaining permission to use such spaces shall be included on the required transportation information board;
  - (6) A minimum vertical clearance of 7 feet 2 inches shall be provided for all parking spaces and access ways used by vanpool vehicles when located within a parking structure;
  - (7) Bicycle parking shall be provided in conformance with Section 12.21A16 of this Code.
- (c) **Development in excess of 100,000 square feet of gross floor area.** The owner shall comply with Paragraphs (a) and (b) above and shall provide:
- (1) A safe and convenient area in which carpool/vanpool vehicles may load and unload passengers other than in their assigned parking area;
  - (2) Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development;
  - (3) If determined necessary by the City to mitigate the project impact, bus stop improvements shall be provided. The City will consult with the local bus service providers in determining appropriate improvements. When locating bus stops and/or planning building entrances, entrances shall be designed to provide safe and efficient access to nearby transit stations/stops;
  - (4) Safe and convenient access from the external circulation system to bicycle parking facilities on-site.

#### 4. EXCEPTIONS

The provisions of this subsection shall not apply to developments for which an application has been deemed complete by the City pursuant to Government Code Section 65943, or for which a Notice of Preparation for a Draft Environmental Impact Report has been circulated or for which plans sufficient for a complete plan check were accepted by the Department of Building and Safety, on or before the effective date of this ordinance **(03/31/1993)**.

**5. MONITORING**

The Department of Transportation shall be responsible for monitoring the owner/applicant's continual implementation and maintenance of the project trip reduction features required by this ordinance.

**6. ENFORCEMENT**

Applicants shall execute and record a Covenant and Agreement that the trip reduction features required by this ordinance will be maintained, that required material specified in Subdivision 3 (a) (1)-(5) will be continually posted, and that additional carpool/vanpool spaces within the designated preferential area will be signed and striped for the use of ridesharing employees based on demand for such spaces. The Covenant and Agreement shall be acceptable to the Department of Transportation.

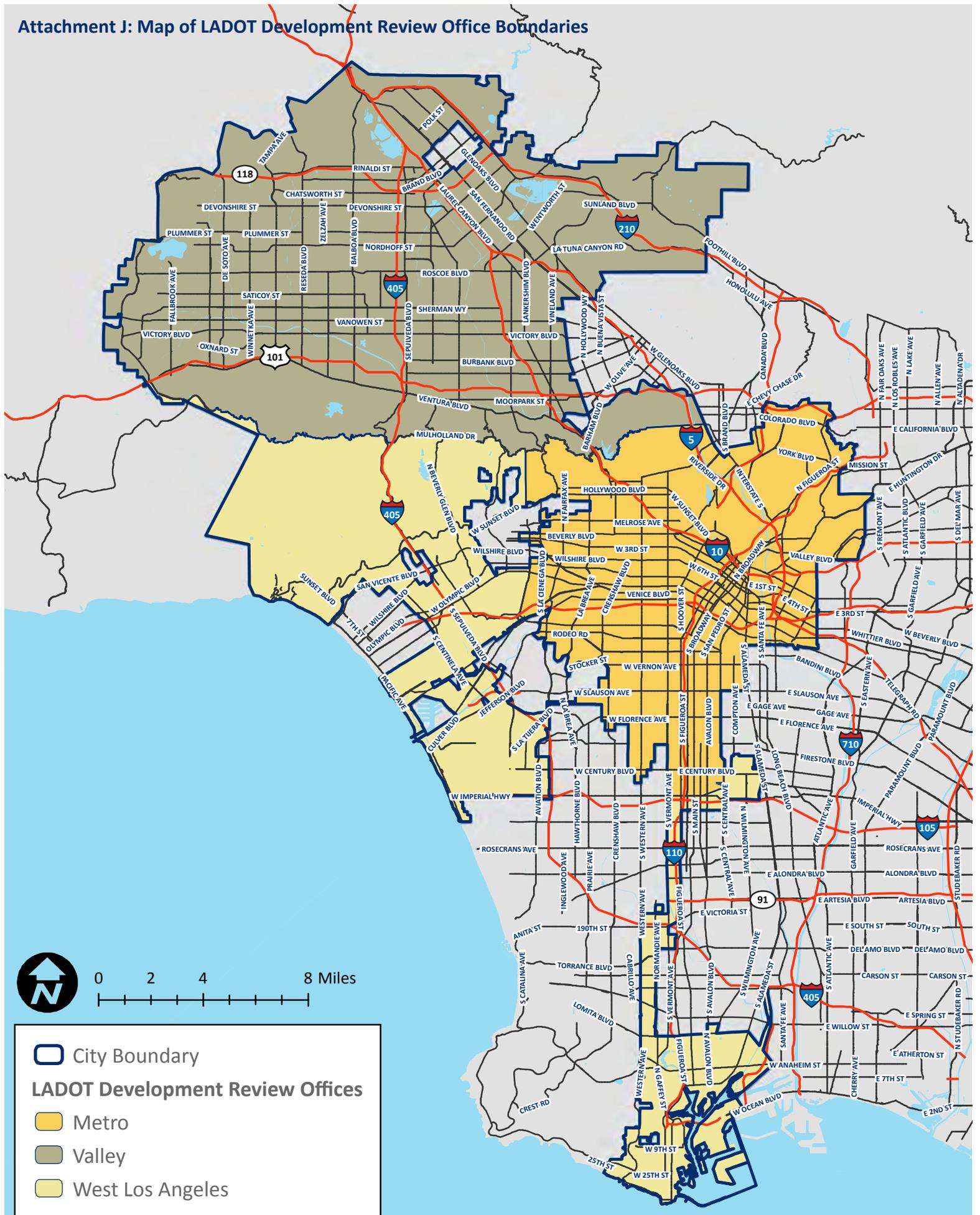
**7. HARDSHIP EXEMPTION**

In cases of extreme hardship, duly established to its satisfaction, the City Council, acting in its legislative capacity, and by resolution, may grant an exemption from any/or all the provisions of this ordinance. In granting such an exemption, the City Council shall make the following findings:

- (a) Specific features of the development make it infeasible to satisfy all of the provisions of this subsection; and
- (b) The applicant has committed to provide equivalent alternative measures to reduce vehicle trips.



# Attachment J: Map of LADOT Development Review Office Boundaries



0 2 4 8 Miles

**City Boundary**

**LADOT Development Review Offices**

- Metro
- Valley
- West Los Angeles

Data Sources: LADOT, Los Angeles County GIS Portal