



## Memorandum

*Date:* February 14, 2018  
*To:* Record No. 2015-012094GEN  
*Prepared by:* Colin B. Clarke  
*Reviewed by:* Wade Wietgreffe  
*RE:* **Transportation Impact Analysis Guidelines, Update Process and Style Guide**

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### Introduction

The Environmental Planning Division within the San Francisco Planning Department reviews projects for potential impacts on the environment, a process known as environmental review. The department conducts reviews pursuant to the California Environmental Quality Act (CEQA) and Chapter 31 of the San Francisco Administrative Code. As part of environmental review, the department reviews background technical studies, such as transportation impact studies, to assess a project's effects on the physical environment. These background technical studies support the conclusions of the environmental impact evaluation and guide decision-makers during project review before approval. To assist in the preparation of transportation impact studies, the department provides consultants and city staff a guidance document, the Transportation Impact Analysis Guidelines for Environmental Review. The department periodically updates the guidelines, with the last update in 2002.

The department will issue a series of memoranda that provide updates to topics (e.g., transit, loading) within the guidelines. The guidelines that were prepared in 2002 did not include the contents that are now included within this memo below and its appendix. The department will use this memo as a reference in the development for each of the aforementioned memos and for general use in transportation analysis. The department prepared this memo in consultation with stakeholders (e.g., city and county agencies).

Transportation analysis will evolve as transportation technologies, devices/modes, systems, services, networks, and legislation change. Therefore, the department may periodically update this memo to reflect those changes, as discussed below.

The organization of the memo is as follows: Process for Updates and Precision. The appendix is under separate cover and consists of commonly used acronyms, abbreviations, and definitions. The department may update the appendix to the memo more regularly than the body of the memos.

### Process for Updates

This section describes some of the reasons that may justify updates to the main body of the memos and associated appendices. The department will not revise memos if the reasons prompting an update are generally not applicable to several projects over a period of time.

**Justification for Updates – Main Body**

The department does not intend to update the main body of the memos frequently. At a minimum, the department will assess the necessity of updates approximately every four years, following the periodic updates to the San Francisco County Transportation Plan, or following updates to the San Francisco General Plan, or Transportation Element of the San Francisco General Plan. The following list includes some of the reasons that would induce potential updates, if applicable:

- Published CEQA appellate or supreme court decisions
- Statutory changes to CEQA
- Regulatory changes to the CEQA Guidelines
- Legislative changes to San Francisco Administrative Code chapter 31
- Findings from the Planning Commission or Board of Supervisors in response to a CEQA appeal
- Resolutions adopted by the Planning Commission or Board of Supervisors
- New substantial evidence<sup>1</sup> regarding travel demand (e.g., demographics, economics, emerging mobility services and technologies, etc.)
- Major policy documents (e.g., if a policy document identifies goals for vehicle miles traveled) or code changes (e.g., if a code change eliminates the possibility of a significant effect for a significance criterion, that methodology or significance criterion may be removed or revised)
- Substantial changes to methodologies and review processes
- Other updates as determined by the department

In most instances, when the department updates the main body of the memorandum, it will supersede the previous memorandum. The department will use that new guidance for all transportation analyses, despite the status of the transportation analysis for any particular project (e.g., if the department has started, but not yet finalized a transportation analysis). However, instances may occur where the department already commenced analysis that is more conservative (e.g., more stringent in what the department considers an impact on the environment), but yet would not be misleading to the public and decision-makers, and therefore the department may consider the analysis complete and adequate. Example: if the department issues revised trip generation rates that result in lower, but not substantially lower, trip generation than prior analysis already commenced for a particular project, the department may consider not updating the already commenced analysis. Another example: if the department removes a significance criterion, the department may consider presenting the already commenced analysis for informational purposes only, at the department's discretion.

**Justification for Updates – Appendices**

The department may update the appendices of the memos more frequently than the main body. At a minimum, the department will assess the necessity of updates approximately every two years. The following list includes some of the reasons that would induce potential updates, if applicable:

- The department identifies new mitigation or improvement measures
- The Planning Commission adopts an area plan and associated mitigation measures
- A department or consultant-prepared transportation study that includes a useful example of an impact and mitigation measure

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<sup>1</sup> CEQA defines the term "substantial evidence", which the department will use, and the department will determine if something is "major" or "substantial" as it relates to other listed items.

- Updated terms and definitions as a result of code or policy changes or emerging technologies and services
- Updated data maintenance requirements
- Other updates as determined by the department

In most instances, when the department updates an appendix, it will supersede the previous appendix. The department generally uses the appendices as additional *resources* (e.g., sample projects, sample mitigation measures and improvement measures, sample design solutions), with the exception of acronyms, terms, and definitions contained herein, as opposed to *guidance*. Therefore, the department will generally not use updates to the appendices, as opposed to direction regarding the main body of the memos, for already commenced analysis (e.g., a consultant submitted draft 1 of a transportation analysis).

**Precision**

This section describes the level of precision that the department will use in the presentation of any transportation analysis in tables or text/narrative within a transportation study or section. The department may include more detailed level of precision, if necessary, in appendices of a transportation study or section (e.g., spreadsheet).<sup>2</sup> Level of precision will depend on the subject matter and flexibility should be allowed where appropriate to illustrate any meaningful difference (e.g., more precision may be warranted if the total reported value is small). The following table is intended to provide guidance, not strict rules, and it includes a non-comprehensive list of metrics and the associated level of precision.

**Figure 1: Precision**

Metric	Level of Precision, i.e., rounding
<i>Project Description and Existing Baseline (i.e., actual observations)</i>	
distance	actual distance via each transportation mode, not as the crow flies; less than 50, nearest foot; between 50 and 100, nearest 10 feet; between 100 and 1,000, nearest 50 feet; greater than 1,000, nearest 0.25 mile
linear feet for sidewalk and roadway width	nearest whole foot (text); nearest six inches (table, figure)
square feet	less than 100 square feet, nearest 10; between 100 and 1,000, nearest 50; between 1,000 and 10,000, nearest 100; ... between 90,000 and 99,999, nearest 900; greater than or equal to 100,000, nearest 1,000

<sup>2</sup> In other words, the appendices of a transportation study or section should present a greater level of precision (e.g., calculations in mathematical formulas) than the main body of a transportation study or section.

Metric	Level of Precision, i.e., rounding
parking spaces (e.g., bicycle, loading, vehicle)	less than 100, nearest whole number; between 100 and 200, nearest five spaces; greater than 200, nearest 10 spaces
parking rate (e.g., neighborhood, per unit, per square footage)	nearest 5/100 (e.g., 0.15, 0.20, etc.)
counts (number of people walking, riding transit, bicycling, driving)	less than 100, nearest 10; between 100 and 199, nearest 20; ... between 900 and 999, nearest 90; greater than or equal to 1,000, nearest 100;
counts (commercial and passenger loading spaces or trips, number of parking spaces)	nearest whole number
transit headway(s)	nearest half minute
utilization (e.g., transit, parking, etc.)	nearest whole percentage
injuries or fatalities	nearest whole number, rounding up
<i>Modeling, Forecasting, and Projections (i.e., estimates)</i>	
transit delay or speed	nearest second or 1/10 mile per hour
vehicle miles traveled per metric (e.g., household or land use (retail, office, etc.))	nearest 1/10 (e.g., 0.1, 0.2, etc.)
trip generation rate (estimate)	nearest 1/10 (e.g., 0.1, 0.2, etc.)
trip generation (number of people walking, riding transit, bicycling, driving)	less than 100, nearest 10; between 100 and 199, nearest 20; ... between 900 and 999, nearest 90; greater or equal than 1,000, nearest 100
commercial and passenger loading demand, parking demand	round up to whole number
average number of persons in a vehicle (i.e., average vehicle occupancy)	nearest 1/10 (e.g., 0.1, 0.2, etc.)
ways people travel (i.e., mode split); common destinations (i.e., trip distribution)	less than 10%, nearest 1/10 (0.1%, 0.2%, etc.); greater than 10%, nearest whole percentage