

## **Guidelines for Preparing Transportation Impact Studies**

Submitted to the City of Troy Planning Department

These guidelines establish the minimum information and analysis. Meeting these guidelines does not ensure acceptance of the study. Methodology used and conclusions drawn must be reasonable.

**Required Transportation Impact Studies shall be submitted with the site plan application and/or any application to the Board of Adjustment or Planning Commission for such development requiring a Transportation Impact Study.**

A transportation impact study is a document prepared by qualified transportation and traffic engineering firms that assess the potential impacts and effects of a proposed development on the surrounding roadway network and to identify any infrastructure improvements or mitigation measures needed to ensure the road network will operate acceptably and safely upon completion of the proposed development. The study is conducted to ensure that the proposed development will not cause undue impacts to the transportation system and to identify any necessary mitigation measures to alleviate those impacts. A transportation impact study will typically consider factors such as: traffic volume, vehicle mix, speed, turning movements, and possible pedestrian and bicycle activity. Once completed, the transportation impact study can be used to help inform decisions related to zoning, land use, and transportation infrastructure investments.

Studies will be considered "stale" after 6 months, but may be updated by the provider to meet requirements. Studies with appropriate updates are considered stale after 12 months from original study date. Such updates shall identify and analyze the impact of additional developments not identified in the prior report and current traffic data. The engineer should address other factors that may have significant impact on the infrastructure. The engineer should specify in the update whether or not all of the changes listed above exist, and explain the changes and resulting effects. The updated information can be provided in the form of a letter update attached to the original application. Studies over 12 months old will not be accepted.

The engineer should prepare the study based on a site visit to the community in which the project is located and other available information. The study should be detailed, provide a logical basis for all conclusions, clearly indicate the impacts and effects of a proposed development on the surrounding roadway network and identify any infrastructure improvements or mitigation measures needed to ensure the road network will operate acceptably and safely upon completion of the proposed development.

The transportation impact study report shall contain, at a minimum, the following data and information:

1. Executive summary. The executive summary should include a concise summary of each section of the transportation impact study including data, analysis, and conclusions. The executive summary section should include, at a minimum:

- a. Concise description of the site and the immediately surrounding area/surrounding land uses.
  - b. Brief summary of the subject development.
  - c. Summary of existing conditions.
  - d. Precise statement of key conclusions reached by the analyst. This statement should provide a definitive evaluation of the proposed development and its impact. This statement should reconcile any conflicting data indicators among the various sections of the report.
  - e. Precise statement of engineer's opinion of traffic impacts.
  - f. Summary of the recommendation of improvements to mitigate transportation impacts.
2. Introduction and Scope of Work. The introduction of the market study should summarize the report's purpose and scope of work conducted during the preparation of the report. The introduction and scope of work section should include, at a minimum:
  - a. Type of report.
  - b. Scope of work.
  - c. Client and project developer
  - d. Intended use and users of the report.
  - e. Steps taken in completion of the report.
  - f. Date of field work and site visit.
  - g. Person conducting field work.
  - h. Primary engineer reaching conclusions of report.
3. General site description. The project description detailing the analyst's understanding of the project as proposed, a description of the proposed ingress/egress of the subject property and any potential concerns with site accessibility, a detailed description of the roadway network within one (1) mile of the site, a description of the proposed land uses and the immediately surrounding area/surrounding land uses, the anticipated stages of construction, and the anticipated completion date of the proposed land development shall be provided. This description shall include a map which shall include the following items:
  - a. All major intersections.
  - b. All proposed and existing ingress and egress locations.
  - c. All existing roadway widths and rights-of-way.
  - d. All existing traffic signals and traffic-control devices
  - e. The project location and parking diagram.
  - f. The proposed ingress/egress points of the subject property.
4. Description of existing traffic conditions. A report based on the following shall be provided: A 24-hour traffic count shall be conducted for a period of five (5) weekdays (Monday – Friday) on all roadways that have direct access to a proposed development site. The existing average daily traffic (ADT) volume and the highest average peak hour volume for any weekday hour between 3 PM and 6 PM shall be recorded. These traffic volumes shall be

averaged to determine the average hourly peak traffic volume for the five days Monday through Friday.

5. Transportation impact of the development. The average weekday trip generation rates (trip ends) and the highest average hourly weekday trip generation rate between 7 AM and 9 AM and between 3 PM and 6 PM for the proposed use shall be determined from the latest edition of Trip Generation published by the Institute of Transportation Engineers, or from figures provided by a qualified traffic engineer. A report shall be made detailing the nature and extent of the trip generation expected to result from the proposed development.
6. Analysis of transportation impact. The projected total future peak hour traffic demand shall be calculated for all roads fronting on a proposed site and all major intersections within one-half (1/2) mile of the site. This demand shall consist of the anticipated traffic that will be generated by the proposed development, plus an assumed normal increase of traffic volume of one (1) percent per year, unless traffic-engineering studies indicate a different rate of change. An analysis shall be undertaken to determine if roadways and intersections will operate at the appropriate level of service following completion of the development given the future peak hour traffic that will be generated by the proposed development.
7. Recommendation of improvements to mitigate transportation impacts. The recommendation of operational transportation system improvements and other measures required to ensure that acceptable operation of the transportation system is maintained. The physical and operational road network deficiencies that have been identified in the traffic impact study must be addressed and solutions provided that are feasible and economic to implement. Improvements could include but are not limited to: traffic signs; widening of the adjacent road network; pedestrian sidewalks, multi-use paths or walkways; addition of on-street bike lanes; new transit stops or relocation of existing stops; addition of left or right turn lanes at intersections and/or accesses; acceleration/deceleration lanes; restriction or relocation of existing accesses; change in traffic control at an intersection; upgrading of traffic control signal through additional phasing and/or improved timing; coordination of traffic control signals; relocation or closure of existing public streets or intersections; installation or removal of a median barrier or other median treatments; and/or turning restrictions at accesses or intersections.

The transportation impact study report shall also contain, at a minimum, the following:

1. Date report was prepared, date of inspection and name and telephone number of engineer preparing study.
2. Certifications that state:
  - a. No identity of interest between the engineer and the entity for which the report is prepared.
  - b. Recommendations and conclusions are based solely on professional opinion and best efforts.
3. Certification that recommendations and conclusions are based solely on professional opinion and best efforts.

4. Statement of engineer's qualifications.
5. List of sources for data in the study that are not otherwise identified.