

TRAFFIC IMPACT ANALYSIS INFORMATION
Preliminary Meeting

Project Name: _____ Date: _____

Project Description: _____

Project Location: _____ State Road: Yes No

Developer: _____ Phone/E-Mail: _____

Consultant: _____ Phone/E-Mail: _____

Study Area Details:

The following intersections will be analyzed:

1. _____ 4. _____

2. _____ 5. _____

3. _____ 6. _____

Weekday: A.M. _____ P.M. _____ Growth Rate: 2.2% or _____

Weekend: Day _____ Hours _____ ITE Land Use Codes: _____

Design Year: _____ Passby Percentages: _____

Background Traffic:

Other approved development plans in the vicinity

1. _____ 3. _____

2. _____ 4. _____

Approved Capital and Development Projects:

1. _____ 2. _____

Notes: _____

TRAFFIC IMPACT ANALYSIS REPORT OUTLINE

Developers of all projects projected to generate 25 new peak hour trips per day or 249 trips per day are required to submit a traffic impact analysis.

An impact analysis must include the following information:

Introduction

- Explanation of Project/Purpose of Report
- Area Map showing site location

Existing

- Existing Traffic Counts and Analysis
- Existing Lane Configuration Sketch
- Narrative of site observations
- Pedestrian traffic (if required)

Background

- Annual Growth in traffic to build year
- Background Traffic generated by other approved developments
- Background Analysis (Background Traffic = Existing Traffic + Growth in Existing Traffic + Approved Developments)
- Background Analysis with approved/funded highway projects

Traffic Projection

- Traffic generated by the proposed development (i.e., site generated traffic) at projected build out
- Total Traffic Analysis (Total Traffic = Background + Site Generated)
- Analyze total traffic with improvements
- Analyze pedestrian/parking conflicts

Recommendations

- Explain results of analysis
- Recommended Improvements to mitigate development impacts

Appendix

- All work sheets, traffic counts and pertinent correspondence

If a TIA is deemed necessary, the Town staff must approve a complete and comprehensive TIA for the proposed development so it can be forwarded to the Planning Commission with recommendations and conditions. Any TIA not meeting the following guidelines shall be considered incomplete and unacceptable. If the TIA is deemed to be unacceptable, recommendations for transportation requirements of the development cannot be submitted to the Planning Commission.

Minimum Requirements for a Traffic Impact Analysis (TIA).

A complete TIA is required for any residential, industrial, institutional or commercial development that is projected to generate 25 new peak-hour trips or 249 trips per day. If a development will generate fewer than 25 new peak-hour trips or 249 trips per day, the Town may, at its discretion, require a TIA. Trip generation projections shall be determined by utilizing methods set forth in the latest available Institute of Transportation Engineers (ITE) Trip Generation Manuals available.

The minimum acceptable level of service in a residential district shall be "C." The minimum acceptable level of service in commercial/industrial districts shall be "D." If any intersection within the study area has any of the failing conditions listed above, the TIA shall recommend mitigating improvements to address the development's impacts. If recommended improvements are approved by the Town, it will be the responsibility of the developer to implement the recommendations in the TIA at the developer's sole expense.

The study area shall be determined by Town staff, who shall consider the following when determining the parameters of the study area:

- [1] Study Area. The typical study area for a TIA shall consist of a minimum area encompassed by a radius of one quarter mile from the site to be developed and shall include collector or higher-functioning classification road intersections from all approaches to the site as specified in the Town of Bel Air Comprehensive Plan. This area may include intersections which are subject to the jurisdiction of the Maryland State Highway Administration or Harford County. Coordination with these government agencies may be required.
- [2] Design Year. The design year shall be the projected date of completion of the project, which will be discussed at the preliminary conference. If the projected date of completion is changed significantly, the preliminary plan may be subject to a new TIA, to be determined by the Town.
- [3] Traffic Data Requirements. Existing traffic counts shall be conducted within a twelve-month period of the submittal date of the TIA. Traffic counts should be taken on a Tuesday, Wednesday or Thursday, not following a holiday unless approved by the Town. If the proposed project is residential or a school is located within the TIA study limits, then traffic counts must be taken while school is in session.

Trip generation for each land use shall be obtained by utilizing the ITE Trip Generation Manual, current edition. The land use code in the manual shall be indicated for each category. Where a land use is not recognized within the ITE Manual or where local conditions indicate fewer trips than projected by the ITE standard for a particular land use, local trip rates may be developed; however, the data must be submitted to the Town with supporting documentation prior to approval of the rates.

For commercial uses or other uses generating peak trip numbers on weekends, the Town may require the TIA to include traffic counts on either Saturday or Sunday (depending upon which day best reflects the proposed land use's peak operation), and the TIA shall include a traffic report for a single peak hour. Operational analyses may be required as well. Pass-by and diverted trip reduction factors may be considered for certain uses if Town staff permits.

[4] Trip distribution and Assignment. Any of the following methodologies shall be acceptable for the purpose of determining trip distribution:

- Gravity model. This technique may require calibration prior to its use if utilizing an old gravity model for the study area.
- Utilization of demographic data.
- Current directional distribution. (NOTE: This may be unacceptable if the directional distribution will change before the design year to future changes in the land use or transportation system improvements.)

In any of the above methodologies, Town staff approval is required for use in the study.

[5] Capacity Analysis. Capacity analyses shall be performed for all intersections, roadways, ramps, weaving sections, internal circulation and access points. The analysis shall be in accordance with the latest published version of the Highway Capacity Manual (HCM). Other types of capacity analysis may be requested, such as critical lane, depending on requirements of other jurisdictions with road systems within the Town of Bel Air. It may also be necessary to complete traffic progression analysis, utilizing such programs as HCM (Highway Capacity Manual) or Synchro. Queuing analyses may be required to determine both on- and off-site situations where queuing could impact the roadway/internal site operation. The Maryland State Highway Administration has established acceptable cycle lengths. See below. However, actual field-documented cycle lengths may be used if approved by staff.

Level of Service	2 Phases	3 to 5 Phases	6 to 8 Phases
A	90	100	120
B	90	100	120
C	100	120	135
D	120	135	150
E	135	150	165
F	150	165	180

Unsignalized intersections not meeting the adopted level of service may be required to complete a traffic signal warrant analysis. Unsignalized intersections will be evaluated based on the level of service on the minor approaches to the intersection. Accident history of the intersection may be considered as well.

When analyzing background and future conditions, only capital projects with one-hundred-percent funding may be utilized. Other road improvements associated with other developments that have approved plans and an executed public works agreement or state highway access permit may be utilized as well.

[6] Peak-Hour Observations. Of particular interest to the Town is the current operation of its roadway system. The Town may require peak-hour observations be performed by a qualified traffic engineer. The observation shall be conducted at the direction of the Town to address specific operational issues. The specific traffic concerns of the Town will be presented at the preliminary plan meeting. Documentation of the observations shall be included in the transportation impact analysis, along with recommendations to address traffic deficiencies.

[7] Recommendations. The TIA shall include recommendations if traffic impacts and conditions so warrant. The improvements shall be described in the TIA and should include a basic concept plan that illustrates the recommended improvements. The recommended improvements should be achievable utilizing the latest AASHTO, Maryland State Highway Administration or Harford County guidelines. A TIA without specific recommendations to mitigate negative impacts shall not be considered complete.