Traffic Impact Assessment

The purpose of this document is to provide a term of reference for the preparation of a Traffic Impact Assessment, which may be required as part of the submission of an application for Official Plan Amendment, Zoning By-law Amendment/Community Planning Permit, Draft Plan of Subdivision/Condominium, Site Plan, Consent and Minor Variance.

The purpose of a Traffic Impact Assessment for the District of Muskoka, regardless of scope, is to examine and document the potential impact of traffic generated by a proposed development on District Roads, and to identify any mitigating measures/improvements that may be required to accommodate the additional traffic volumes. Depending on the required scope, the assessment may be limited to the proposed access, or expanded to include impacts at nearby intersections, interchanges and adjacent road sections. The type of Traffic Impact Assessment required, be it a Traffic Impact Brief or Traffic Impact Study, and content to be included shall be determined based on the thresholds noted below and in consultation with the District's Engineering and Public Works Department.

Required by Legislation

District of Muskoka Official Plan, Area Municipal Official Plans, the District of Muskoka Design Criteria and Standards Manual and Ministry of Transportation of Ontario (MTO).

Who should prepare this assessment?

A Traffic Impact Assessment must be completed by a qualified transportation engineer. All reports and drawings must be stamped, signed and dated by a qualified professional, licensed in the Province of Ontario.

Why do we need this assessment?

The study is required to evaluate the effects of a development or re-development on the transportation system and to suggest any transportation improvements that are necessary to accommodate the travel demands and impacts generated by the development.

How should this study or brief be prepared?

A Traffic Impact Assessment should at a minimum contain:

Introduction

- Address of the subject property
- General site location of the subject property
- Project Name (if applicable)

- Applicant and owner's contact information
- Author name, title, qualifications, company name and appropriate seal
- Brief description of the proposal
- Overview of the study area
- Purpose of the study
- Location and context map

Proposal Description and Context

- A description of the proposal, development stats (such as number of units, site area) type of development proposed, height, parking areas, access points, location of amenity areas, specified receptor location(s), proposed phasing
- A description of the existing transportation system including existing roads, number of lanes, on-street bike lanes, posted speed limits, sidewalk locations, pedestrian crossings, lane configurations and control of the key intersections/roundabouts to be considered in the study, the provision of on-street parking in the vicinity of the development site and the potential for this to impact key intersections being analyzed, other traffic controls and transportation facilities and other features of interest such as designated trails, walkways, etc.
- A site plan, concept plan, draft plan, or similar as applicable, is to be included in the Traffic Impact Study document. If the proposed development is to be constructed in phases, each phase shall be described along with the proposed implementation timing

Investigation/Evaluation

- Study Area
- Horizon Years & Periods of Analysis
- Existing Traffic Volumes
- Future Road Network & Background Volumes
- Proposed Development
- Site Traffic - Trip Generation
- Site Traffic - Trip Distribution & Assignment
- Future Total Traffic Volumes

Traffic Impact Study

- Description of key signalized and unsignalized intersections within the study area for all relevant peak periods for the existing and future planning horizons (both with and without the subject development traffic) is required and summaries are to be provided in a tabular format (e.g. level of service, volume to capacity ratio and delay).
- The intersection capacity/operational analysis should be completed using Synchro/Sim Traffic Simulation Software or the like. The objective should be to ensure that no new problem movements are created by the proposed development and that existing problem movements are not worsened to an unacceptable level with the addition of site generated traffic. Where intersections are closely located,

queueing assessments should be included with respect to appropriate storage, queue encroachment, back to back left turns, etc.

- Site Access Assessment: The site access should be reviewed in consideration of the volume and type of vehicles to be generated by the site, and the proposed access location and configuration. The site access assessment should consider the District's standards as outlined in The District Municipality of Muskoka Policy and Procedures for Access onto District Roads. Access points should be evaluated in terms of capacity, safety and adequacy of queue storage capacity
- Sight Line Assessment: At each access point, the sight distance requirements should be determined based on appropriate standards (MTO or TAC, as noted in the District's Policy and Procedures for Access onto District Roads), and the availability of appropriate sight lines determined from actual field measurements or engineering plans
- Site Plan Review: On-site circulation should be reviewed in context of the volume and type of vehicles to be served (including emergency vehicles, garbage collection or other appropriate design vehicles) and the ability of the site to accommodate site traffic without impact to the adjacent road system. Circulation of pedestrians and cyclists should also be considered as well the potential The District Municipality of Muskoka – TIA Guidelines impact the development may have on existing pedestrian/cycling facilities. Queueing assessments may be required for land uses that induce on-site queues (i.e. restaurants with drive thru facilities, gas stations, drive-thru bank machines, car washes, etc.) The intent of a queueing assessment is to ensure that on-site queues can be accommodated wholly within the site without causing disruption to the operations of the adjacent road system (i.e. queue lengths that block access points or on-site parking or circulation, or spill back onto the adjacent road).
- The report must be stamped, dated, and signed by a Professional Engineer

Impacts and Mitigation Measures

- Should operational issues result, means of mitigation and the related operations are to be presented (e.g. introduction of traffic signals, additional through lanes, turn lanes, etc.) Appropriate warrants for improvements and associated operational review worksheets should be appended to the report.

Recommendations

- Summary and conclusions of the supporting studies and how they support the development and any special considerations or conditions that should be imposed
- Any recommendations, or conditions that should form part of a decision on the matter

Drawings and Supporting Information

- The structure and format of the Traffic Impact Study should follow the guidelines outlined in this document as applicable. This format will facilitate review, discussion and communication. Relevant maps, graphs, tables and figures should be provided.

What else should we know?

The scope of the study should be discussed with the district and/or area municipal planning staff and or other staff or agencies as part of the consultation process.

Traffic Impact Brief:

For developments expected to generate less than 100 vehicle trips during the peak hours (total of inbound and outbound trips), a Traffic Impact Brief may be considered, provided that the site or study area characteristics are not such that would indicate traffic or other transportation issues/concerns are likely to arise given the proposed development.

Traffic Impact Study:

For developments expected to generate 100 or more vehicle trips during the peak hours (total of inbound and outbound trips), a Traffic Impact Study is required for review and approval by the District. A Traffic Impact Study may also be required for a development that will generate less than 100 vehicle trips during the peak hour, if the site or study area characteristics are such that traffic or other transportation issues or concerns may have to be addressed to accommodate the development.

MTO and/or Municipal Requirements:

Should a development have frontage and/or access to a Provincial highway or municipal road or be considered a major traffic generator in close proximity to a Provincial highway, consultation with the Ministry of Transportation of Ontario and/or appropriate municipality is recommended to confirm their requirements with respect to a Traffic Impact Assessment. While the District's Traffic Impact Assessment Guidelines have been developed in consideration of the requirements of MTO, the applicant must confirm the requirement of all relevant road authorities. Regardless, it is expected that developments impacting District roads will submit a Traffic Impact Assessment that, at a minimum, satisfies the requirements of the District's own guidelines.

A Traffic Impact Study or Brief should be based on the applicable guidelines established by the Association of Professional Engineers of Ontario, District of Muskoka, District Engineering Design Standards and Municipal By-laws and Ministry of Transportation of Ontario (MTO).

Additional Terms

To be identified by the District and/or Area Municipality where proposed development is located.

Study Submission Instructions

To be identified by the District and/or Area Municipality where proposed development is located.

What other resources are there?

Professional Engineers of Ontario
District Municipality of Muskoka Design Criteria and Standards Manual
Ontario Professional Planners Institute (OPPI) – Hire an RPP
Ontario Planning Act, R.S.O. 1990
Provincial Planning Statement 2024 (PPS)
Muskoka Official Plan (MOP)
Applicable Area Municipal Official Plans:
Town of Huntsville Official Plan
Town of Bracebridge Official Plan
Town of Gravenhurst Official Plan
Township of Lake of Bays Official Plan
Township of Muskoka Lakes Official Plan
Township of Georgian Bay Official Plan

About these Terms of Reference

The need and scope for this study will be decided by the District and/or Area Municipality during initial pre-consultation process with input from partner agencies. This pre-consultation process may include:

- Determination if this study is applicable
- Confirmation of criteria within these Terms of Reference that are appropriate for your development project
- Identification of specific technical components that need to be addressed
- Identification of detailed standards to be met

Notes:

If the proposed development is revised, the study/report shall reflect the revisions by an updated report or letter from the author indicating the changes and whether or not the recommendations and conclusions are the same (Note: this is subject to the extent of the revisions).

A peer review may be required. The cost of the peer review will be borne by the applicant.

If the submitted study is incomplete, is authored by an unqualified individual or does not contain adequate analysis, the applications will be considered incomplete and returned to the applicant.