

Traffic Impact Study

Expert Traffic Impact Study by Professional Engineers

Typically Traffic Impact Study is required whenever a proposed development would generate more than 75 additional peak hour trips to or from the site.

Traffic Impact Study would demonstrate how the transportation impacts of a proposed development or redevelopment can be mitigated and addressed in a manner that is consistent with the objectives of public agencies including Municipalities including Toronto (City of Toronto), Hamilton (City of Hamilton), Oshawa (City of Oshawa), Pickering (City of Pickering), Clarington (Municipality of Clarington), Ajax (Town of Ajax), Whitby (Town of Whitby), Brock (Township of Brock), Scugog (Township of Scugog), Uxbridge (Township of Uxbridge), Burlington (City of Burlington), Halton Hills (Town of Halton Hills), Milton (Town of Milton), Oakville (Town of Oakville), Brampton (City of Brampton), Mississauga (City of Mississauga), Caledon (Town of Caledon), Vaughan (City of Vaughan), Aurora (Town of Aurora), East Gwillimbury (Town of East Gwillimbury), Georgina (Town of Georgina), Markham (City of Markham), Newmarket (Town of Newmarket), Richmond Hill (Town of Richmond Hill), Whitchurch - Stouffville (Town of Whitchurch-Stouffville), King (Township of King) and Ministry of Transportation.

Traffic Impact Study utilizes assumptions consistent with the accepted methodologies and parameters and thus be comparable to other Traffic Impact Studies in the area.

A Traffic Impact Study may also be required when there are less than 75 additional peak hour trips under one or more of the following conditions:

- ✓ The development is located in an area of high roadway congestion and/or a high employment or population growth area.
- ✓ The development requires an amendment to the Official Plan, or Zoning By-Law.
- ✓ The development, its access(es) or type of operation is not consistent with land-use zoning or transportation plans.
- ✓ As part of the proposed development, a new traffic signal is proposed.
- ✓ The development has the potential to create unacceptable adverse traffic operational and/or safety impacts on the road network. The onus is on the applicant to demonstrate that a Traffic Impact Study is not required.
- ✓ Existing accesses are operating inefficiently or there are traffic safety concerns.

The goal of a Traffic Impact Study is to assess the potential impact of traffic generated by a proposed development or redevelopment and to identify the roadway improvements required to ensure that the road network will operate safely and efficiently upon completion of the development.

A Traffic Impact Study is an important part of the development review and approval process. A Traffic Impact Study assists public agencies in making land use decisions where the proposal may have a significant impact on traffic operations within the immediate area of the development and in some cases within the overall transportation network.

The Traffic Impact Study provides

- Decision makers with a basis on which to assess transportation implications of a proposed development applications;
- Rational basis on which to evaluate if the type and scale of the development is appropriate for a particular site and what improvements may be necessary, on and/or off of the site, to provide for safe and efficient traffic flow;
- Basis for assessing existing or future localized traffic system deficiencies which should be improved;
- Traffic related issues associated with development proposals that may be of concern to neighbouring residents, businesses and property owners; and
- Basis for negotiations for improvements and funding participation in conjunction with a development or zoning application.

A Traffic Impact Study may vary in scope and complexity depending on the type and size of the proposed development. Public agencies have prepared Traffic Impact Study Guidelines in order to streamline the approval process and provide a standardized framework to follow when submitting Traffic Impact Studies for review. Traffic Impact Study Guidelines provide a standard approach to be followed and reduce confusion and delay in processing development proposals. The steps outlined in Traffic Impact Study Guidelines enable to understand the process more effectively and aid in the timely review of Traffic Impact Studies. At all times, Traffic Impact Study should be complemented with good engineering judgment.

Since we have extensive experience with Traffic Impact Studies and with Traffic Impact Study Guidelines, we have an intimate understanding of how traffic operates and functions in and around a proposed development area and have a solid understanding of the requirements of Traffic Impact Study. The methodology for Traffic Impact Study is consistent with standard traffic engineering practices.

Typical scope of work for a Traffic Impact Study as follows:

- Confirm the scope of the required Traffic Impact Study and assumptions.
- Data Collection for Traffic Impact Study - Request available traffic counts, background growth rates, previous trip generation studies, and any other information about the Traffic Impact Study area pertinent to the Traffic Impact Study including other development applications and/or future road improvements in the vicinity of the Traffic Impact Study area.
- Collect the traffic data required to complete the Traffic Impact Study (TIS) if the traffic data information is not available, outdated or insufficient.
- Typically 6 hour turning movement counts (7 to 10 AM and 3 to 6 PM) will be gathered at intersections where required.
- Assess the traffic impacts of the proposed development on the intersections as requested by the authorities.
- Conduct a site visit to view and assess current traffic and road conditions in the study area, as well as to confirm local development patterns.

Traffic Forecasting

Confirm the opening year for the proposed development before forecasting traffic volumes.

Generate traffic volumes for opening year or in five years (whichever is the maximum), as follows:

- Existing - Develop base year morning and afternoon peak hour traffic volumes from vehicle turning movement counts. Vehicle counts collected prior to the base year will be factored to the base year based on historical growth rates, previous studies and/or factors provided by the authorities.
- Future Background - Estimate opening year or in five years morning and afternoon peak hour background traffic volumes by applying the aforementioned growth rates to the base year volumes. Anticipated trips from nearby development applications will also be added to the base year traffic volumes to estimate Future Background conditions.
- Future Total - Forecast morning and afternoon peak hour site-related traffic volumes for full build-out in the opening year or five years from now based on trip generation data contained in the Institute of Transportation Engineers publication entitled Trip Generation and/or other available information. The site generated traffic volumes will be assigned to the road network and added to Future Background estimates to produce Future Total traffic volumes.
- Operational Analyses - Evaluate the operation of the intersections and the site driveway during the morning and afternoon peak hours for the three traffic forecast scenarios. Assess traffic volume-to-capacity (v/c) ratios, Level of Service (LOS) and traffic queuing conditions. Based on the traffic analysis results, identify the need for any auxiliary lanes, changes to traffic control and/or other operational improvements required to accommodate forecast site traffic for the different scenarios.

Report and Recommendations:

Prepare and submit draft Traffic Impact Study (one version) and a final Traffic Impact Study with recommendations regarding the proposed development from a transportation perspective. The final version of the Traffic Impact Study will include appendices containing the base data and detailed traffic analyses.

Based on the results of the traffic analysis, the Traffic Impact Study would,

Identify any operational deficiencies

- Review the site's internal circulation system's ability to accommodate the maneuverability of passenger cars and expected service / delivery / emergency vehicles
- commentary on the required parking requirements as per the applicable Zoning By-law.

and recommend

- mitigating measures, if necessary, to improve future predevelopment traffic operations at the Traffic Impact Study area
- improvements to the study area roadway system and traffic controls if/as necessary, to accommodate projected future
- traffic volumes triggered by background and/or site related trips.
- Lane configurations of proposed access.

Typical fee to complete a Traffic Impact Study is \$4,950^{+HST} and disbursements. Any costs incurred to collect new traffic counts are charged as a disbursement. Typical cost per intersection need to be counted is \$500.

If requested, we can prepare conceptual, functional and detailed transportation design drawings for the proposed accesses. The geometry of the future driveways will be determined based on the outcome of our traffic investigation.

Design tasks can be undertaken as a separate work package and budget. If required signage and pavement marking plan may cost extra.

Traffic Impact Study Experts

BUILDING EXPERTS CANADA

**Professional Engineers Ontario - Certificate of Authorization
100205934**

5215 Finch Avenue East Toronto ON M1S 0C2 (416) 332 1743

www.buildingexpertscanada.com

Email: buildingexpertscanada@yahoo.com

Text Message: 416 727 8336

We offer Traffic Impact Study in Ontario including Toronto (City of Toronto), Hamilton (City of Hamilton), Oshawa (City of Oshawa), Pickering (City of Pickering), Clarington (Municipality of Clarington), Ajax (Town of Ajax), Whitby (Town of Whitby), Brock (Township of Brock), Scugog (Township of Scugog), Uxbridge (Township of Uxbridge), Burlington (City of Burlington), Halton Hills (Town of Halton Hills), Milton (Town of Milton), Oakville (Town of Oakville), Brampton (City of Brampton), Mississauga (City of Mississauga), Caledon (Town of Caledon), Vaughan (City of Vaughan), Aurora (Town of Aurora), East Gwillimbury (Town of East Gwillimbury), Georgina (Town of Georgina), Markham (City of Markham), Newmarket (Town of Newmarket), Richmond Hill (Town of Richmond Hill), Whitchurch - Stouffville (Town of Whitchurch-Stouffville), King (Township of King)