



Terms of Reference: Traffic Impact Study

Town of Milton
January 2023

Disclaimer: Terms of Reference documents will be reviewed and updated as necessary to reflect current policies, practices and accepted standards.

It is important to recognize that the policies, guidelines and requirements outlined in this document are relevant at the time of printing. This terms of reference will be reviewed and updated as necessary to reflect current policies, practices and accepted standards. The applicant or consultant should contact the Town of Milton (Town) Traffic Division if any major modifications have been implemented to this document since its completion date.

For additional information or for clarification of any material contained in this document, please contact the following department at the Town:

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The following document outlines general guidelines for the preparation of transportation impact studies in the Town. The Town recognizes that some of the following guidelines and assumptions may not be applicable to certain locations or projects. The purpose of this terms of reference document is to provide a general framework for the preparation of transportation impact studies and it should be completed using good engineering judgement.

Table of Contents

Section A: Traffic Impact Study Guidelines	3
1. Introduction.....	3
1.1 Transportation Impact Study	3
1.2 Purpose	3
1.3 Guidelines.....	4
2. General Requirements	4
2.1 When is a Transportation Impact Study Required?.....	4
2.2 Staff Pre-Consultation and Scoping	4
2.3 Levels of Transportation Analysis	5
2.4 Assessment Content.....	6
2.5 Submission Requirements	6
3. Format and Process	7
3.1 Introduction and Overview	7
3.2 Section Details.....	7
3.2.1 Introduction	7
3.2.2 Site Context.....	8
3.2.3 Existing Conditions	10
3.2.4 Time Periods of Analysis	10
3.2.5 Future Background Conditions	10
3.2.6 Site Generated Traffic.....	12
3.2.7 Future Total Conditions	14
3.2.8 Transportation Capacity Analysis	14
3.2.9 Safety Review.....	16
3.2.10 Transportation Demand Management.....	17
3.2.11 Conclusions and Recommendations	18
3.2.12 Appendices	18
Section B: Parking Justification Study Guidelines	19
Appendix A: Recommended Documentation and Reporting	20

Section A: Traffic Impact Study Guidelines

1. Introduction

1.1 Transportation Impact Study

These Transportation Impact Study (TIS) Guidelines are intended to assist landowners, developers, and qualified transportation consultants who produce TIS reports within the Town. Requested studies may include a Transportation Impact Study, a Parking Study, and a Transportation Demand Management Plan.

While the following sections provide general guidance, analyses required in support of each development proposal may vary. Certain sections may or may not be required for each specific site, or additional analysis may be required. The Town may request additional analysis or information on a case-by-case basis to support development.

The Town of Milton recognizes the importance of all modes of transportation to its citizens and businesses and to their ability to move around and through the Town. It is important to ensure that new developments and redevelopments are planned with these objectives in mind as well. With the adoption of this Guideline Document, the Town now requires that benefits and impacts for all modes of transportation generated by, or attracted to, a new development or redevelopment be assessed in a Transportation Impact Study (TIS). Rather than focusing on the travelled lanes between the curbs, the TIS shall look at all means and modes of transportation. “Traffic” shall be interpreted as all modes of transportation that moves through the right-of-way.

These guidelines establish the scope, form, and analysis required to properly assess the impacts of a proposed development on existing transportation infrastructure, determine the required mitigation measures, and document the results.

1.2 Purpose

The goal of a TIS is to develop a safe, accessible, well-maintained, and well-connected multimodal transportation network for residents within the Town of Milton. The TIS Guidelines provide an outline of the information required to determine how proposed development will impact the existing transportation network and to identify roadway and access improvements to ensure acceptable service levels of the roadway system.

1.3 Guidelines

Development applicants and transportation consultants shall follow the procedures and standards set forth in this document when preparing and submitting a TIS to ensure a timely review by the Town.

2. General Requirements

2.1 When is a Transportation Impact Study Required?

The following examples, but not limited to, outline a few development characteristics which would require the completion of a TIS:

- Subdivision Plans;
- When higher density/intensity is proposed in an existing developed area;
- When land is redesigned from residential to commercial, or when a commercial component is added to a residential development (rezoning);
- When the proposed land use or development does not align with an existing plan (such as Secondary Plan, Master Plan, Official Plan, etc.), or where no such plans currently exist;
- When the intensity of a site use increases substantially from a previously submitted TIS;
- When high trip-generating uses are proposed (i.e., Walmart, Superstore, Tim Horton's, etc.);
- For special land use scenarios such as concert venues, sporting event centers, entertainment and recreation centers;
- When the proposed development surrounds an existing built out community and the potential development will be adding additional traffic in the local community; and
- Minor variance applications (i.e., new buildings or additions to existing buildings, new accessory buildings, parking spaces for new or expanded businesses, etc.) that may create or result in impacts outlined above.

The Town reserves the right to require the submission of a TIS notwithstanding the criteria listed above.

2.2 Staff Pre-Consultation and Scoping

It is highly recommended that all applicants contact Town staff prior to commencing a TIS in order to review the level of detail and confirm the Terms of Reference (ToR) for the TIS, as well as to collect the necessary background information and data that may

be available from the Town. In addition, developments that may impact the regional or provincial road network may require additional information or analysis. The applicant should contact these road authorities, where applicable, to determine these requirements.

To initiate discussions, the proposed ToR information should include the following, but not limited to:

- Location of the site and municipal address;
- Current land use for the site (existing zoning, accesses, uses, size, and buildings);
- Proposed development (proposed zoning, uses, size, number of buildings and units);
- Proposed number of parking spaces, number and type of loading spaces, number and type of bike parking spaces;
- Proposed access locations and configurations (full turns, right-in/right-out, other turning restrictions, etc.);
- Proposed trip generation rates and sources for the development;
- Existing transportation infrastructure;
- Estimated date of occupancy;
- Development time periods and phasing; and,
- Horizon years for traffic (include reference to phased development).

2.3 Levels of Transportation Analysis

The general parameters for determining the appropriate transportation impact review process for a development proposal are as follows:

- A Traffic Brief Letter is typically required to support a development comparing proposed site generated traffic to current traffic volumes. The intent of this letter is to understand the net change in traffic volumes and determine whether further study is required.
- A Transportation Technical Memorandum may be submitted in replacement of the TIS when the development is expected to add “minimal” peak hour vehicular trips, subject to approval from Town staff.
- A Transportation Impact Study (TIS), is required to support the development proposals. Transportation studies aim to predict and analyze the circulation and congestion impacts generated by Development Projects and identify feasible mitigation measures to offset any impacts.

The criteria, guidelines, objectives, and standards described herein shall be used by the public, private consultants, and Town staff in the preparation and review of a TIS in the

Town of Milton. The provided information above are the typical scenarios; all case-by-case scenarios must submit the highest level of transportation analysis being a TIS. Should the consultant wish to scope down the transportation analysis report, they must provide a detailed ToR with their reasoning to support the requested scoped TIS. Any variation from the TIS must be approved by Town staff.

2.4 Assessment Content

In general, each of the above Transportation Impact Assessment (TIA) reports will need to cover the basic information as indicated in Section 3.2 below. A detailed sample of a table of contents is provided in Appendix A. It should be noted that these lists are not exhaustive; additional content may be required on a site-specific basis to deal with unique conditions at each location. The applicant will be required to determine the TIA elements required for each site analysis based on context and should discuss requirements with Town staff prior to undertaking analysis.

Furthermore, the level of detail for each section differs between the documents based on the complexity of the analysis. That is, a Transportation Impact Study report will contain more detail in each section than required for a Traffic Brief Letter completed for a development application.

2.5 Submission Requirements

The preparation of a TIS must refer to these guidelines, as described herein, and it is the applicant's responsibility to retain a qualified transportation engineering consultant experienced in traffic engineering and transportation planning. Transportation impact studies must be prepared under the supervision of a qualified, experienced and registered Professional Engineer in the Province of Ontario with specific training in traffic and transportation engineering and several years of experience related to preparing traffic studies for existing or proposed developments.

Two paper copies and one electronic copy of the TIS report along with one electronic copy of all computer analyses on CD or DVD must be submitted to the Town for review. Additional copies, with supporting documentation, must be provided to the other relevant reviewing agencies as determined at the pre-consultation stage.

The Town reserves the right to require a peer review of any TIS, if required, to be completed at the proponent's expense.

3. Format and Process

3.1 Introduction and Overview

This part of the guidelines identifies the information that should be included in each section of levels of transportation analysis deliverables. In general, a full TIS must include the following sections:

1. Executive Summary
2. Introduction
3. Site Context
4. Existing Conditions
5. Future Background Conditions
6. Site Generated Traffic
7. Future Total Conditions
8. Transportation Capacity Analysis
9. Parking Assessment
10. Safety Analysis
11. Transportation Demand Management
12. Conclusions and Recommendations
13. Appendices
14. Electronic and Paper Files

The details in this guideline are not exhaustive and are meant to present the common elements required in various levels of transportation assessments submitted to the Town. Not every section is required for all TIA reports.

Similarly, additional sections may be required to discuss site-specific considerations and constraints. As noted, discussions should be held with Town staff to define the ToR of the study and level of transportation analysis. The transportation assessment deliverables should consist of a main document, supplemented by technical appendices containing detailed analyses as required.

A detailed summary of the sample of a table of contents is provided in Appendix A.

3.2 Section Details

3.2.1 Introduction

The introduction provides the Town the necessary background information on the proposed development, including any historical/previous applications (including the

report and revision number, if applicable) and analysis, and should be in the following sub-sections:

a) Background:

Provides a history and information including the applicant, landowner, type of application the analysis is supporting for Planning Act applications and a brief summary of the sites history.

b) Study Scope / Goals:

Provides an overview of the scope of work, including:

- Study rationale - why the study is being conducted;
- Goals of the study - what are the end results of the study; and,
- Scope of the study - what does the analysis include.

3.2.2 Site Context

The site context section includes information regarding the location of the site, adjacent land uses and adjacent transportation infrastructure, and should include the following sub-sections:

a) Existing Site Location:

The study must provide a description and a map of the study area, but not limited to, the site location, land use type(s) of the surrounding and subject development lands. The map should show all local, regional and provincial roads, intersections, interchanges, transit services, pedestrian and cycling facilities, etc. that will be affected by the proposed development.

b) Study Area:

The study area should extend far enough to capture all the surrounding roadways and highways (local, regional and provincial), major driveways, intersections interchanges, trails, bikeways/paths, sidewalks, and transit services that will be immediately affected by the traffic generated by the proposed development.

A description of the existing transportation system in the study area, using a combination of maps and other documentation should identify relevant information, such as, but not limited to, the following:

- All adjacent and nearby roads, indicating the number of lanes, and posted speed;

- All adjacent/across and affected intersections/accesses, indicating type of control, access type, lane configurations, lane widths, and any turning or similar restrictions;
- If appropriate, on-street parking spaces/standing/stopping restrictions in the vicinity of the development site and those which would affect the operation of key intersections being analyzed;
- Transit routes and stops;
- Heavy vehicle prohibitions and restrictions;
- All pedestrian and cyclist routes; and,
- Other transportation facilities as appropriate.

c) Site Plan:

This section should include relevant information towards the proposed development including, but not limited to:

- A drawing and a written description of the type of land uses proposed and a detailed site plan showing structures, parking, access, and site circulation for all modes of transportation;
- Identifies existing road edges, other entrances/accesses, pavement markings, and traffic control for roads adjacent to the proposed development, shown to scale, for both sides of existing roads;
- Describes the size of the proposed development, such as, property size (area), number of residential units, industrial gross floor area, number of employees, number of hotel rooms, commercial gross leasable floor area, parking spaces, active transportation facilities, transit stops, etc.;
- Identifies the phasing scheme of the development;
- Identifies the expected dates of full and partial completion/occupancy, estimated length of construction and opening dates, if available, for each phase; and,
- Identifies how phasing of the development (if proposed) will impact the transportation circulation and infrastructure requirements internal and external to the site.

d) Proposed Access Location and Configuration:

This section details the proposed access locations to large sites, such as multifamily, commercial, industrial, or institutional uses. Any direct accesses from individual sites to arterial roadways and major collector roadways should be identified. Proposed access strategies for adjacent sites should also be discussed to identify potential upgrades required to the base roadway network to support development. The Town will review access locations based on site context and traffic information.

3.2.3 Existing Conditions

The existing conditions section includes information regarding existing transportation network, transportation infrastructure jurisdictions, road classifications, speed limits, lane configurations, street names, type of intersection control, location of critical horizontal/vertical grades, location of railway crossings, heavy vehicle restrictions, sidewalks, bike paths/lanes, trails, transit routes and/or stops and their locations.

Traffic volumes should be based on the most recent traffic counts available from the Town. The transportation specialist should conduct additional counts where existing count data is more than two years old or where existing data appears to be anomalous or insufficient. Transit routes should be based on the peak points of the routes involved.

Additional current volume data (including transit, pedestrian and cyclist) should be collected to supplement the available data, as necessary. Such data should be collected through surveys consistent with procedures described in the current edition of the Manual of Traffic Engineering Studies published by the Institute of Transportation Engineers (ITE). The Town reserves the right to require more comprehensive data collection be undertaken by the proponent, if required (e.g. on a Saturday for retail development).

This information should be providing on detailed maps or diagrams.

3.2.4 Time Periods of Analysis

In general, the weekday morning and afternoon peak hours should be evaluated. The peak hours should be identified based on the "worst-case scenario" combination of site-generated trips plus background traffic/transit volumes across the study area. Other peak hours, such as weekday noon hour, Saturday/Sunday afternoons or Friday evenings for retail/ commercial uses, should be reviewed to see if they will result in a "worst-case scenario" situation.

3.2.5 Future Background Conditions

This section identifies the context of the study and outlines the development being analyzed, and should include the following sub-sections:

a) Study Horizon:

In general, the horizon year will be taken as 5 years from the anticipated build-out of the site. Depending on the size of the development a 10-year horizon may also be required in addition to the 5 year horizon.

Horizon years must also be identified for any interim phases of development where phasing, temporary access measures, and planned transportation system improvements are anticipated. Improvements required for each phase must also be identified.

b) Background Growth:

The background growth projects future traffic without the proposed development. It includes at a minimum, annual growth rates and future traffic from other approved or in-stream developments to be located within the vicinity of the site. The growth in traffic should be established in consultation with Town staff through one of the following methods:

- Regression analysis of historical traffic growth.
- A growth rate based on approved area transportation studies including Environment Assessments, master plans and neighbourhood studies.

In the absence of these methods, a growth rate of 2% compounded per annum should be used. The growth forecasting technique to be used for the TIS must be agreed upon with Town staff prior to commencing the report.

Growth rates are to be applied to all movements, except those at private driveways.

In some situations, alternative assumptions or methods, such as the application of development absorption rates may be appropriate. In the absence of these methods, rates provided by the municipality should be used.

An applicant will also be required to work in conjunction with other local municipalities, if applicable, the Region, Transit Authorities, as well as the Province.

c) Future Background Developments:

This section identifies all significant approved developments under construction, or in the approval process within the study area and are likely to occur by the specific horizon years, that should be identified and recognized in the study.

The land-use type and magnitude of the probable future developments in the horizon years should be identified through consultation with Town, Regional and Provincial staff. In some cases, the traffic impact of other area developments will need to be explicitly considered in the analysis of the traffic impact of the proposed development.

d) Background Traffic Volumes:

This section determines the background traffic volumes that will be used in the analysis of the proposed development. Future background traffic volumes should be sourced according to the horizon year being used for analysis and the level of assessment.

The approved peak hours background traffic volumes, typically AM and PM, should be summarized on figures showing the future roadway network. For major commercial centers, Saturday peak hour traffic should also be analyzed and shown.

e) Future Road Network Improvements:

This section identifies changes to the roadway network that are anticipated to occur between the present day and study horizon year, as well as ultimate roadway configurations in the longer-term.

This should include any upgrades to the roadway infrastructure that is expected to occur (such as widening or grade separation), as well as any changes to the roadway network (such as roadway realignment or the addition of new roadways) and any future transit infrastructure (such as transit centres).

3.2.6 Site Generated Traffic

This section details the assumptions, sources, and methodology used to estimate and assign trips to the roadway network, and should include the following subsections:

a) Future Modal Split:

This section details the recommended proportion (as a percentage) of trip reduction (if any) applied to gross trips to account for transit or alternate modes and identifies land uses subject to modal split. Justification and rationale for the trip reductions should also be discussed. Any modal split assumption must be reviewed and approved by Town staff prior to applying the reduction to the trip generation.

b) Site Trip Generation:

Site generated traffic volumes expected to be generated by the proposed development shall be forecasted using the following methods, in order of preference, and include:

- Proxy trip generation surveys from similar developments in the GTA which have
- similar operating characteristics as the proposed development;
- The latest edition of the ITE Trip Generation Manual; and,

- “First Principles” assumptions of anticipated trips to and from the site.

For each land use, identify the trip generation rate selected and the source of data. Additional discussion may be required to justify trip generation rates. The trip generation rates used for analysis should be presented in tabular format at the end of the discussion.

Where appropriate, it may be justified to reduce the base trip generation rates of the proposed development to account for:

- Pass-by Trips - Trips that represent intermediate stops on a trip already on the road network, i.e. a motorist stopping into a service station on their route to/from work. These trips are also called “Synergy” trips. It is important to note that the trip generation rates at the accesses themselves will not be affected by pass-by trips. Only the estimated number of new trips on the surrounding road network will be affected.
- Modal Split - Reductions in automobile travel to the site to account for non single occupancy vehicle travel to/from the site, such as transit, active transportation, and carpooling trips. As the majority of sites surveyed in the ITE Trip Generation Manual typically have a modal split included within their rates, in many cases, no modal split reduction should be applied. Transportation planning projections/goals shall be considered; however, shall not replace good engineering judgment and actual modal split data, current and historic.
- Internal Synergy or Captive Market Effects - Trips which are shared between two or more uses on the same site; i.e. a motorist visiting a retail store and a grocery store on the same site.
- Redundant Land Use - Trips which are generated by existing land use activity and reflected in current traffic volumes and will be replaced by the proposed development. Unless otherwise accounted for, these trips will normally be subtracted from the trip generation estimates.

All trip generation assumptions and adjustments assumed in the calculation of “new” vehicle trips should be supported and well documented. Sensitivity analysis should be undertaken where trip generation parameters have the potential to vary considerably and most probable values cannot be readily identified.

A table should be provided in the study report identifying the categories and quantities of land uses, with the corresponding trip generation rates or equations and the resulting number of trips.

c) Site Distribution and Assignment:

All trip distribution assumptions must be documented and justified. Consideration should also be given to potential differences in trip distribution patterns associated with different time periods, days of the week, and development land-use types.

Engineering judgement should be utilized to determine the most applicable of the above methodologies for each particular application. Town staff may have data available that assists in determining appropriate trip distribution.

Site trip assignments should consider logical routings, available and projected roadway capacities, and travel times. Assumptions for trip distribution should be supported by one or more of the following:

- Transportation Tomorrow Survey (TTS) data;
- Origin-destination Surveys;
- Comprehensive Travel Surveys;
- Planning models;
- Market studies; or
- Other recognized trip distribution methodology.

Assumptions for route assignment should be supported by:

- Existing travel patterns; and,
- Expected future travel patterns.

3.2.7 Future Total Conditions

This section evaluates the future total traffic volumes conditions under the approved peak hours. The total traffic volumes for the approved peaks should be summarized on separate figures, one for AM and PM peak.

Traffic volumes should be illustrated on the proposed ultimate/future roadway network to be analyzed (as a single line drawing), with peak hour volumes shown by movement at each intersection.

3.2.8 Transportation Capacity Analysis

This section identifies assumptions and methodology used in the transportation analysis. Details should include the software utilized to complete the analysis (including version number), as well as the methodology used. Depending upon the study area and

proposed land or building uses, there may be a need to consider specific seasons, days of week, or non-typical peak periods.

The peak hour analysis should be undertaken for existing, background and full development (as well as for interim and ultimate stages if applicable) with and without the relevant transportation improvements.

The evaluation of signalized and unsignalized intersections affected by site generated traffic volumes is required for all relevant time periods and scenarios and summaries are to be provided in a tabular format. The objective should be to maintain existing levels of service.

Documentation in the TIS appendix is required to detail all assumptions used in the analysis concerning lane configuration/use, pedestrian/cyclist activity, saturation flows, traffic signal cycle length, phasing and timing, utilization of the inter-green phase, and other relevant parameters. Existing signal timings must be used for existing intersections and signal timing modifications may be considered as a measure to address capacity or level of service deficiencies.

On site field visits or analyses may be needed to assess saturation flows, gap availability, projected queue lengths, and possible blocking queues.

The summary should include the level-of-service including average vehicle delay and volume to capacity (V/C) ratios for overall intersection operations and individual critical movements, for all analysis periods and time horizons. Full documentation of the results of all level of service analyses should be provided in an appendix. The Town of Milton prefers analysis using a software program which utilizes the methodology of the 2010 Highway Capacity Manual for signalized and stop controlled intersections. Town prefers that the latest version of Synchro/SimTraffic but accept analysis in older versions of Synchro. For roundabouts the use of the latest version of ARCADY is recommended.

A number of intersection analysis methodologies and software packages assume that a suitable peak hour factor (PHF) is being utilized. The PHF accounts for volume fluctuations within the one-hour analysis period, i.e., the peak 15-minute period, and generally range between 0.85 and 0.95. Actual PHFs should be assumed for all intersection (existing) analysis. A PHF of 1.0 should be assumed for all proposed/future unsignalized and signalized intersection analysis. Higher PHFs may be utilized if supported by defensible and documented surveys/data.

The analysis should include the identification and required modifications and improvements of signalized intersections where the addition of background growth or background growth plus site-generated traffic/transit volumes, create the following:

- Volume/Capacity (V/C) ratios for overall intersection operations, through movements or shared through/turning movements increased to 0.85 or above;
- V/C ratios for exclusive movements increased to 0.95 or above; or,
- Queues for an individual movement are projected to exceed available turning lane storage.

Identification and required modifications at unsignalized intersections where the addition of background growth or background growth plus site-generated traffic/transit volumes causes the following:

- Level of Service (LOS), based on average delay per vehicle, on individual movements, exceeds LOS “D”; or,
- The estimated 95th queue length for an individual movement exceeds the available queue storage.

All exclusive turning lanes used by site-generated traffic shall be examined to ensure adequate storage space. All proposed new traffic signals shall be evaluated regarding signal warrants, distance from other intersections, effects on existing signal coordination, likely timing of implementation, and sightlines.

All proposed adjustments to the traffic signal timing, phasing, and cycle lengths must clearly be identified and clear of any changes made to the existing signal timing plan. Any traffic signal operational deficiencies that have been identified in the Transportation Impact Study must be addressed and solutions provided that are feasible to implement. All warrants must be supported by an Ontario Traffic Manual (OTM) Book 12 traffic control signals warrant to determine when a traffic signal or provision for signals are warranted, each one required to be included in the appendix of the TIS.

A preliminary cost estimate must be provided for all identified infrastructure improvements.

3.2.9 Safety Review

The safety review section identifies the potential of safety or operational issues associated with the following, as applicable:

- Weaving;

- Merging;
- Collision history;
- Corner clearances;
- Sight distances;
- Vehicle-pedestrian conflicts;
- School crossings;
- Traffic infiltration;
- Access conflicts;
- Cyclist movements;
- Heavy truck movement conflicts; and,
- Any other issue identified by Town staff or the consultant.

The Safety Review must include all modes of transportation that might access or travel through, and in the proximity of, the proposed development.

In addition, a detailed review of the roadway geometry related to MTO/TAC guidelines for:

- Sight distances (stopping distance, intersection sight triangles, departure sight distance, decision sight distance) utilizing MTO guidelines for approach and departure sight distances for all existing roadways to be impacted directly by the development, accesses, entrances, new roadways, etc.;
- Roadway curves (vertical and horizontal) standards;
- Roadway cross-sections & lane widths;
- Clear zone;
- Conflicting vehicle movements within and adjacent to the development; and,
- On-site vehicle swept path analysis (AutoTurn) utilizing the proper design vehicles (buses, fire trucks, garbage trucks, etc., as appropriate).

3.2.10 Transportation Demand Management

If Transportation Demand Management (TDM) reductions are being applied to trip generation, a TDM plan should be prepared that identifies existing and future (proposed) sustainable forms of transportation, routes, and infrastructure within the study area.

Plan should describe and evaluate the potential impacts and changes to pedestrian, cycling, and transit modal split associated with the development/redevelopment.

3.2.11 Conclusions and Recommendations

This section summarizes the findings and key recommendations of the TIS. It should serve as a quick reference for the future to determine specific conditions which will be attached to a particular development. The conclusions and recommendations section of the analysis document should include the following sub-sections:

a) Synopsis:

For comprehensive analysis, this section provides an overview of the work that was completed. It should include a summary of the proposed development, including location, land uses, populations, and an overview of the analysis and key findings.

b) Conclusions:

This section provides a conclusion of the analysis and operations, including identifying whether intersections operate within the Town's TIS Guidelines and whether any intersections or links will operate under congested conditions.

c) Recommendations:

This section summarizes the recommended improvements. This should include, but not limited to, type of access, entrance design, roadway improvement including right/left turn lanes, tapers, visibility triangles, signalization and signage, bike lanes, sidewalks, transit improvements, trails, etc.

3.2.12 Appendices

The report should include appendices of all relevant reference documents. These appendices should include all supporting information which was used in completing the report, analysis, and assumptions.

Section B: Parking Justification Study Guidelines

Any consideration to a reduction of parking as per the existing Zoning By-law would be considered under the approval of a comprehensive Parking Justification Study. The Terms of Reference (ToR) for the Parking Study must be circulated to Town staff and be approved by the Town before commencing with the study. The parking justification study should include, but not limited to, the following methodology and approaches:

- Review and calculate the parking supply required under the applicable Town of Milton Zoning By-law. The proposed parking supply will be compared against these requirements.
- Review relevant policies, studies and references, such as, but not limited to, the Town's Transportation Master Plan, Trails and Cycling Master Plan, Secondary Plans, Transportation Association of Canada (TAC) Guidelines, Ontario Traffic Manual, etc.
- The parking reduction review should be supported by the following practices:
 - Develop a proposed parking rate by reviewing previous parking utilization survey data acquired of a similar site development that has uses similar to that being sought at the proposed site and develop a parking rate. The study must outline the similarities between the proxy site and the proposed site and why they will generate a similar parking demand. The proxy site must be located in the Town of Milton. Raw survey data must be appended to the report.
 - Review of automobile ownership data utilizing the Transportation Tomorrow Survey in the study area.
 - Forecast the peak parking demand and determine whether the parking supply is sufficient to meet the calculated demand, using the Institute of Transportation Engineers Parking Generation 5th Edition.
- Include a comprehensive Transportation Demand Management Plan (TDM) utilizing TDM parking reduction worksheets from other Ontario municipalities (i.e. the City of Kitchener).
- Provide a detailed conclusion section that outlines all findings and recommendations in the Parking Justification Study.

While the following sections provide general guidance, analyses required in support of each development proposal may vary. Certain sections may or may not be required for each specific site, or additional review may be required. The Town may request additional analysis or information on a case-by-case basis to support development.

Appendix A: Recommended Documentation and Reporting

1. Introduction
 - 1.1. Background
 - 1.2. Study Scope / Goals
 - 1.3. Study Methodology

2. Site Context
 - 2.1. Existing Site Location
 - 2.2. Study Area
 - 2.3. Site Plan
 - 2.4. Proposed Access Location & Configuration

3. Existing Conditions
 - 3.1. Existing and Adjacent Land Uses
 - 3.2. Existing Roadway Network
 - 3.3. Existing Railway/Transit Network
 - 3.4. Existing Active Transportation Network
 - 3.5. Existing Traffic Volumes

4. Future Background Conditions
 - 4.1. Study Horizon
 - 4.2. Background Growth
 - 4.3. Future Background Developments
 - 4.4. Future Background Traffic Volumes
 - 4.5. Future Road Network Improvements
 - 4.6. Future Railway/Transit Network

5. Site Generated Traffic
 - 5.1. Future Modal Split
 - 5.2. Site Trip Generation
 - 5.3. Site Distribution
 - 5.4. Site Assignment

6. Future Total Conditions
 - 6.1. Future Total Traffic Volumes

7. Transportation Capacity Analysis
 - 7.1. Intersection “A” at Intersection “B”
 - 7.2. Intersection “B” at Intersection “C”
 - 7.3. Intersection “C” at Intersection “D”

8. Safety Analysis

9. Transportation Demand Management

10. Conclusions and Recommendations

10.1. Synopsis

10.2. Conclusions

10.3. Recommendations

The above format will facilitate review, discussion and communication. Relevant maps, graphs and tables should be placed adjacent to the relevant text.