

Parking Study

Introduction

The purpose of a parking study is to estimate the expected parking demand for a development if the proposed parking supply does not meet local government bylaws. A parking study may include Transportation Demand Management (TDM) measures if the expected parking demand exceeds the proposed supply.

What does a Transportation Consultant do for parking?

A Transportation Consultant evaluates and analyzes the parking needs of a development to ensure adequate parking provision. This involves assessing parking demand, proposing TDM measures, and ensuring that the development complies with parking regulations.

The main tasks that a Parking Study professional addresses include:

- **Parking Demand Analysis:** Estimating the parking needs for different user groups (residents, employees, visitors).
- **Data Collection and Surveying:** Conducting parking surveys and collecting data on existing parking conditions.
- **Parking Supply Assessment:** Evaluating the proposed parking supply and its compliance with zoning bylaws.
- **TDM Strategies:** Developing strategies to reduce parking demand through alternative transportation options.
- **Reporting:** Preparing detailed reports that outline findings, analyses, and recommendations.

Why is it requested?

- To model the probable parking demand and compare it to the developer's proposed supply and local government requirements.
- To ensure parking requirements are adequate for each development phase.
- To identify alternative strategies for meeting parking needs.
- To provide recommendations justifying any deviation from the applicable Zoning Bylaw.

Scope of Work

Development Proposal Overview

- Project Information: Type of application, type, and size of each land use.
- Site Description and Parking Review:
 - Site description: Location, surrounding land uses, transportation context.
 - Property description: Building size, GFA, land use summary, tenant info, hours of operation, phasing.

- o Parking description: Existing and proposed parking supply, off-site parking agreements, on-street parking, public parking, bylaw parking standards, access driveways, surrounding infrastructure.
- o Previous amendments to parking requirements.

Preliminary Inquiry and Desktop Assessment

Purpose: To identify potential parking issues through desktop research and preliminary site visits.

When Needed: Early in the project planning stage to assist with due diligence and feasibility assessments.

Components:

- Review of existing parking data and studies.
- Preliminary site visit to assess existing parking infrastructure.
- Identification of key parking issues and constraints.
- Preparation of a preliminary report summarizing findings and recommendations.

Parking Demand Assessment

Purpose: To estimate the parking demand for a proposed development.

When Needed: When the proposed parking supply does not meet local government requirements.

Components:

- Analysis of parking demand based on land use and development size.
- Comparison with local parking bylaws and requirements.
- Evaluation of existing parking supply and demand in the surrounding area.
- Recommendations for meeting parking demand, including potential for shared parking and TDM measures.

Transportation Demand Management (TDM)

Purpose: To reduce vehicle trips and manage parking demand through alternative transportation options.

When Needed: When TDM measures are proposed to offset parking supply reductions.

Components:

- Increased bicycle parking and end-of-trip facilities.
- Transit passes and information for occupants.
- Shared car and bike programs.
- Welcome packages with incentives for using non-automobile modes of transportation.

- Evaluation of the impact of TDM measures on parking demand.

When to Move to Next Step: After implementing TDM measures, proceed to Impact Assessment and Mitigation Strategy.

Impact Assessment and Mitigation Strategy

Purpose: To evaluate the impact of proposed developments on parking and recommend mitigation strategies. This is typically included in a full parking study.

When Needed: Required for all proposed developments to assess and mitigate potential parking impacts.

Components:

- Analysis of parking supply and demand post-development.
- Recommendations for mitigating potential parking issues.
- Integration of TDM measures into the overall parking strategy.
- Preparation of a detailed report with findings and recommendations.

When to Move to Next Step: After construction, proceed to Post-Construction Monitoring and Maintenance.

Post-Construction Monitoring and Maintenance

Purpose: To implement monitoring and maintenance plans post-construction to determine levels of impact and what additional measures / parking supply may be needed in subsequent phases of a project.

When Needed: If a multiphase project is experimenting with very low parking supply but can add additional supply in later phases if needed.

Components:

- Monitoring of parking demand and supply over time.
- Preparation of reports documenting monitoring results and any necessary adjustments.

Parking Survey (brief short description)

- Survey Methodology: Describe survey methodology, including days, times, intervals, and weather conditions. Include on-street parking counts for residential applications.
- Data and Results: Present survey data in a table format, noting peak parking demand for each land use.

Parking Survey (in-depth description)

Purpose: To provide a detailed assessment of existing parking conditions and identify potential parking issues.

Components:

- Survey Methodology: Describe survey methodology, including days, times, intervals, and weather conditions. Include on-street parking counts for residential applications.
 - Survey Design: Define the geographic area and time frame for the survey. Select representative days and times to capture peak and off-peak parking usage.
 - Data Collection: Conduct field observations to record the number of parked vehicles, duration of parking, turnover rates, and occupancy rates. Use technology such as license plate recognition or manual counting methods.
 - Parking Counts: Include counts of on-street and off-street parking spaces. Note any restrictions or time limits that may affect parking behavior.
- Data and Results: Present survey data in a table format, noting peak parking demand for each land use. Include graphical representations such as charts or maps to visualize parking patterns.
 - Peak Demand Analysis: Identify periods of peak parking demand and compare with the available supply. Determine the adequacy of existing parking facilities.
 - Utilization Rates: Calculate utilization rates for different parking areas to identify underused or overused spaces. Highlight areas with high demand and potential shortages.
 - Turnover Rates: Assess turnover rates to understand how frequently parking spaces are vacated and occupied. High turnover rates may indicate efficient use of parking resources.
- Survey Findings: Summarize key findings from the survey, highlighting significant trends and issues. Provide recommendations based on the analysis.

What is generally required at each stage in the development process?

Due diligence / securing land	<ul style="list-style-type: none">• Memo on estimated probable conceptual parking / TDM required based on the proposed project characteristics, to inform the design / financial feasibility analysis.
Concept Development	<ul style="list-style-type: none">• Development Proposal Overview• Review / update conceptual parking / TDM / Mitigation concept.
Preliminary Inquiry	<ul style="list-style-type: none">• Preliminary Inquiry and Desktop Assessment

Pre-Application	<ul style="list-style-type: none"> • Terms of Reference confirmation for studies. • Possibly complete parking demand assessment / TDM strategy.
Rezoning	<ul style="list-style-type: none"> • Parking Demand Assessment • Transportation Demand Assessment • TDM / Mitigation strategy
Development Permit	<ul style="list-style-type: none"> • Parking Demand Assessment • Transportation Demand Assessment • Impact Assessment and Mitigation Strategy
Subdivision	<ul style="list-style-type: none"> • Parking Survey – brief or in-depth
Building Permit	<ul style="list-style-type: none"> • Review of architectural plans to ensure they conform with parking requirements as needed.