

# TRANSPORTATION DEMAND MANAGEMENT

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## DRAFT POLICY GUIDE



Prepared for  
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Mayor's Office of Strategic Planning  
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# Table of Contents

<b>1.0 TDM Overview .....</b>	<b>1</b>
1.1 Intent and Purpose .....	1
1.2 TDM Policy Guide Overview .....	2
<b>2.0 General.....</b>	<b>3</b>
2.1 Applicability.....	3
2.2 Exemptions .....	3
2.3 Compliance.....	3
2.4 Responsibility.....	3
2.5 Rules of Interpretation.....	3
<b>3.0 TDM Plan Requirements.....</b>	<b>4</b>
3.1 Overview.....	4
3.2 Project Information.....	5
3.3 Site Inventory.....	5
3.4 Travel Demand Estimate .....	6
3.5 TDM Strategies and Objectives .....	12
3.6 Travel Demand Accommodations .....	18
3.7 Implementation Requirements .....	19
3.8 Commitment Statement .....	20
3.9 Verification Statement.....	20
<b>4.0 Approval Procedure.....</b>	<b>21</b>
4.1 Procedure .....	21
4.2 TDM Performance Standards .....	21
4.3 Approval Standards .....	21
<b>5.0 Reporting.....</b>	<b>22</b>
5.1 Reporting Requirement.....	22
5.2 Implementation Status Report .....	22
5.3 Brief Status Report .....	22
5.4 Comprehensive Status Report.....	22
5.5 TDM Plan Updates .....	23
<b>6.0 Glossary of Terms .....</b>	<b>24</b>

# 1.0 TDM Overview

## 1.1 Intent and Purpose

Transportation Demand Management, or TDM, refers to a set of strategies that are designed to increase overall transportation system efficiency by encouraging a shift from single-occupancy vehicle (SOV) trips to non-SOV modes, or shifting auto trips out of peak periods.

The concept of TDM is consistent with the City of Buffalo Comprehensive Plan, *Queen City in the 21<sup>st</sup> Century*, and *One Region Forward: A New Way to Plan for Buffalo Niagara*, particularly with regard to principles of smart growth and sustainability. The Buffalo Green Code Land Use Plan and Unified Development Ordinance (UDO) build upon these principles by encouraging compact mixed-use development, which promotes walking, biking, and transit; conserves energy; and reduces pollution.

One of the primary goals of the Green Code Land Use Plan and UDO is to reinforce Buffalo's traditional mixed-use neighborhoods. In consideration of this goal, it is important to recognize the critical relationship between transportation and land use. Developing a more sustainable transportation system will help support and reinforce the City's walkable mixed-use neighborhoods.

The *Queen City in the 21<sup>st</sup> Century* Comprehensive Plan and the Buffalo Green Code provide a vision for the City to reverse its population decline of the past several decades and to grow sustainably in the 21<sup>st</sup> century. To grow sustainably, our transportation system must align with the smart growth development regulations codified in the UDO. A sustainable transportation system facilitates multiple modes of transportation, increases occupancy per vehicle, reduces vehicle miles traveled (VMT) and resulting pollution, and provides for a safer, healthier, and more livable community. Sustainable transportation also involves managing congestion through TDM strategies and complementary public improvements, rather than through the conventional practice of increasing capacity for vehicles, which ultimately is much more costly, requires more parking, increases VMT and pollution, and impairs the fabric of the built environment and livability of traditional mixed-use neighborhoods.

Supporting a variety of modes of transportation is also important to ensure that the City is accessible for all of its residents. Buffalo has a high poverty rate (31 percent) and approximately 30 percent of

households in the City do not have access to a personal vehicle. Implementing TDM strategies will help make Buffalo more affordable, accessible, and livable for all of its residents.

Buffalo enjoys a well-developed transit system, including the Metro Rail along Main Street and bus routes that align with many of the UDO's designated mixed-use neighborhood zones. Implementing TDM strategies for development projects will complement the UDO's standards by promoting alternative modes of transportation and reducing SOV trips. These strategies and other provisions within the UDO will ensure that the estimated travel demand for a proposed project does not create an unreasonable burden upon public transportation infrastructure within the adjacent neighborhood, including transit facilities and on-street parking.

In recent years, the City has taken steps toward building a more sustainable transportation system and promoting alternative modes of transportation.

- In 2008, Buffalo became the first city in New York State to adopt a complete streets policy, which ensures that public rights-of-way are designed to be safe, comfortable, and convenient for persons of all ages and abilities, using a variety of modes.
- In 2016, the City, in partnership with Go Bike Buffalo, released the City of Buffalo Bicycle Master Plan. In addition, the City set a goal of adding 10 miles of bicycle facilities per year, and to reach 150 miles by 2018, which would propel Buffalo from a Bronze- to a Silver-level bicycle-friendly community designation by the League of American Bicyclists.
- In 2017, the UDO was signed into law, a Citywide form-based zoning code that emphasizes walkability, mixed uses, transit-supportive development, and public realm standards.

As Buffalo continues to advance in the 21<sup>st</sup> century, these progressive transportation policies facilitate TDM strategies that support a more sustainable city and transportation system.

## 1.2 TDM Policy Guide Overview

In accordance with section 8.4.2 (A) (1) of the UDO, the methods and requirements contained within this Policy Guide are intended to ensure appropriate compliance with the TDM Plan requirements within Section 8.4 of the UDO. Each TDM Plan drafted by a development project must be consistent with this Policy Guide and the requirements of the UDO.

This Policy Guide contains methods and policies for estimating travel demand, choosing and applying TDM strategies, providing accommodations for travel demand, implementation timeframes for TDM strategies, and guidance on reporting the progress of a site's TDM Plan. This Policy Guide has been organized in to the following sections:

**1.0 TDM Overview:** Provides an overview that describes the intent and purpose of the TDM Policy Guide as it relates to the Green Code, the UDO, and the Comprehensive Plan.

**2.0 General:** Policies detailing general requirements for TDM plans completed by the applicant. These policies include applicability and exemptions from the UDO, compliance requirements, responsibility requirements, and rules of interpretation.

**3.0 TDM Plan Requirements:** This section includes specific requirements for each TDM Plan, including how applicants must estimate travel demand, choose and apply TDM strategies, and provide accommodations for estimated travel demand.

**4.0 Approval Procedure:** Overview of the approval process for an applicant's TDM plan as it relates to Major Site Plan Review and the Approval Standards for City Planning Board.

**5.0 Reporting:** This section includes requirements for reporting, including implementation status, strategy utilization, level of success, and any strategy adjustments.

**6.0 Glossary of Terms:** For the purpose of this Policy Guide, terms found throughout the Guide have been defined.

## 2.0 General

### 2.1 Applicability

In accordance with Section 8.4 of the UDO, a TDM plan must be prepared for certain development projects as follows:

- A. A TDM plan is required for new construction of a principal building in excess of 5,000 square feet.
- B. A TDM plan is required for substantial renovation of a principal building with a gross floor area of at least 50,000 square feet and involving a change of use.

### 2.2 Exemptions

A TDM plan is not required for single-unit dwellings, double-unit dwellings, or any project in a D-C, D-IL, or D-IH zone, irrespective of the applicability requirements above.

### 2.3 Compliance

The applicant must comply with the requirements of this Policy Guide, the UDO, and any other applicable federal, state, or local regulations. In addition, the applicant must comply with any conditions imposed by the Planning Board to meet the requirements and approval standards of this Policy Guide and the UDO.

- A. **Major Site Plan.** A TDM plan must be reviewed and approved, approved with modifications, or disapproved by the City Planning Board as part of major site plan review per Section 11.3.7 of the UDO. No building permit or certificate of occupancy may be granted prior to TDM plan approval.
- B. **Qualified Professional.** A TDM plan must be prepared by a qualified professional with demonstrated experience in transportation planning, traffic engineering, or comparable field.
- C. **UDO Standards.** The TDM plan must meet all performance standards as outlined in Section 8.4.2(C) of the UDO and be prepared in accordance with this Policy Guide.
- D. **ADA Compliance.** Notwithstanding the applicable provisions of the UDO and this Policy Guide, a TDM plan must comply with the requirements of the Americans with Disability Act (ADA). ADA parking requirements will be determined based on the result of the adjusted parking estimates for single-use and mixed-use projects found in Section 3.4 of this Policy Guide.

### 2.4 Responsibility

- A. **Burden of Proof.** The applicant must include within the TDM Plan all necessary information to demonstrate that the standards and requirements of the UDO and this Policy Guide have been met.
- B. **Financial Burden.** The responsibility and cost associated with the creation, implementation, maintenance and operation of a TDM plan will be the responsibility of the applicant or property owner associated with the proposed project.
- C. **Subsequent site modification.** A subsequent site modification involves a change of use, increase in square footage, change to available parking, or other site modification that occurs after approval of a TDM plan, per Section 8.4 of the UDO.
  - 1. For any subsequent site modification, a TDM plan must be adjusted to meet the standards of Section 8.4 of the UDO and requirements of this Policy Guide. The site modification and TDM plan adjustment(s) must be reflected in the required TDM reporting (see Section 5.0 of this Policy Guide).
- D. **Change in Ownership.** An approved TDM plan will remain in effect and will become the responsibility of the new owner, upon transfer of the property. The applicant or property owner will notify the Zoning Administrator within 30 days prior to any change in ownership.

### 2.5 Rules of Interpretation

In instances where the standards and requirements of the UDO and this Policy Guide cannot be clearly applied to a TDM plan or any aspect of such TDM plan, the Zoning Administrator will have the authority to make an interpretation. The interpretation authority given to the Zoning Administrator is not intended to add or change the essential content of the standards and requirements of the UDO or this Policy Guide, but only to allow authoritative application of that content to specific cases.

## 3.0 TDM Plan Requirements

### 3.1 Overview

A TDM plan must be prepared in accordance with this section and include the following provisions which are described in Sections 3.2 through 3.9 below:

- A. Project Information (3.2)
- B. Site Inventory (3.3)
- C. Travel Demand Estimate (3.4)
- D. TDM Strategies and Objectives (3.5)
- E. Travel Demand Accommodations (3.6)
- F. Implementation Timeframe (3.7)
- G. Commitment Statement (3.8)
- H. Verification Statement (3.9)



### 3.2 Project Information

The following project-related information must be included in this section of the TDM Plan:

- A. Project name, address
- B. Owner name, address, contact
- C. Preparer name, address, contact
- D. General project description

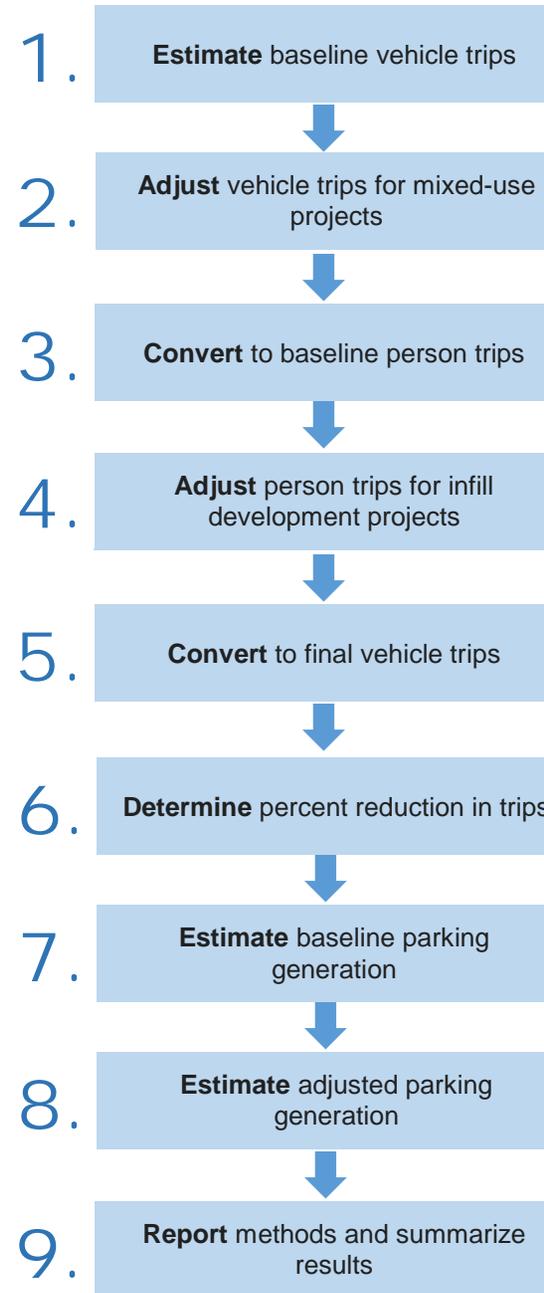
### 3.3 Site Inventory

The site inventory describes the land use, zoning, and local transportation accommodations for the proposed project, including maps and other information, as appropriate, presented in a clear and legible format, including information sources and dates. The following sections must be included in this section of the TDM plan.

- A. **Land use.** Existing and proposed land use (e.g., residential, commercial, industrial, etc.) and gross square footage and number and type of residential units (i.e. studio, one-bedroom, two-bedroom, three-bedroom, etc.) associated with on-site buildings.
- B. **Users.** Existing and proposed number of employees, residents, visitors, etc. associated with the proposed project.
- C. **Zoning.** Current zoning of the site.
- D. **Local Transportation Accommodations.** Maps and tables showing the following within 1/4 mile (1,320 feet) of the proposed project.
  - 1. Location of transit routes, stops, and stations.
  - 2. Location of bicycle infrastructure, including current and planned bicycle lanes/sharrows, bicycle-share locations and number of bicycles, and publicly available bicycle parking facilities.
  - 3. Location of any car-sharing programs and number of cars at each location.
  - 4. Location and quantity of on-street and off-street public parking (if the project will seek to use these facilities to accommodate estimated demand). The maps/tables must include any associated time-limits or user-limits (parking permits).

### 3.4 Travel Demand Estimate

- A. **Purpose.** In accordance with Section 8.4 of the UDO, a TDM plan must include a determination of anticipated travel demand for the proposed project. Travel demand includes vehicular, transit, and non-vehicular modes. To meet this requirement, this section of the Policy Guide also details methods for estimating parking demand.
- B. **Methods.** The methods included within this Policy Guide were chosen based on a review of trip generation (travel demand) and parking generation (parking demand) methods from publications issued by the Institute of Transportation Engineers (ITE) and from research conducted by the National Cooperative Highway Research Program. For projects that propose shared parking, parking demand methods were chosen based on the Urban Land Institute (ULI) Shared Parking Analysis.
- C. **Substitutions.** The methods and data sources included in this section of the Policy Guide represent the preferred methodology and must be followed by the applicant with consideration to the following data substitutions:
  - 1. **Proxy Sites.** To offer greater flexibility and accuracy, this Policy Guide allows for applicants to use data from proxy sites. Proxy site data collection must follow the recommended steps and procedures found within the latest editions of the ITE *Trip Generation Handbook* and ITE *Trip Generation Manual*. Proxy site data that was not collected for the purposes of the proposed project's TDM plan can also be used by the applicant if the data is appropriate to the proposed project and follows the recommended steps and procedures from the latest editions of the ITE *Trip Generation Handbook* and ITE *Trip Generation Manual*. All proxy site data used for the TDM plan must be included with the TDM plan.
  - 2. **Census Data.** If the proposed project includes residential land use, the TDM plan can utilize census data for converting that portion of baseline vehicle trips to baseline person trips (see step 3 below). Census data is available from the American Community Survey Program and can be downloaded from the American FactFinder website. The data available is specific to census tracts and specific to the means of transportation to work. The application of this census data to any non-residential land use is not appropriate for the purposes of this Policy Guide and cannot be included in the TDM plan.



3. **Other Data/Information.** Other data and/or information may be used for the purposes of estimating travel demand if sufficient justification is provided to the Office of Strategic Planning and it determines that the data and/or information is appropriate for the proposed project. This determination of appropriateness must be made before the TDM plan is prepared for staff review and submitted to the City Planning Board.

**D. Justification.** The qualified professional preparing the TDM plan must use his/her professional experience and judgement in applying the preferred methodology. If a substitution allowed under section 3.4.C of this Policy Guide is used to estimate travel demand, the TDM plan must include a sufficient justification to determine if the substitution is appropriate for the proposed project.

**E. Preferred Methodology.** For the purposes of this Policy Guide, the following steps are the preferred methodology for estimating travel demand:

**Step 1: Estimate Baseline Vehicle Trips**

The comprehensive datasets available in ITE *Trip Generation Manual* (latest edition) offer a breadth of data to estimate travel demand. These datasets, however, are often based on vehicle trips from primarily suburban locations. While the subsequent steps in this Policy Guide adjust this number to account for the multi-modal options available in compact urban areas, this first step is necessary to create a baseline for these future adjustments. Using the latest edition of ITE *Trip Generation Manual*, estimate the baseline number of vehicle-trips associated with the proposed project. The estimated number of vehicle-trips for the proposed project is determined by summing the peak hour vehicle trip generation associated with each land use as reported by ITE (Equation 1). ITE *Trip Generation Manual* and the ITE *Trip Generation Handbook* contain guidance for estimating the number of baseline vehicle-trips.

**Equation 1: Baseline Vehicle-Trips**

$$VehicleTrips_{BASELINE} = (VehicleTrips_{LANDUSE1} + VehicleTrips_{LANDUSE2} + \dots)$$

Where:

$VehicleTrips_{BASELINE}$  = Sum of the peak vehicle trip generation for each land use of the proposed project.

$VehicleTrips_{LANDUSE1}$  = Peak vehicle trip generation for the first land use associated with the project.

$VehicleTrips_{LANDUSE2}$  = Peak vehicle trip generation for the second land use associated with the project (if applicable).

### Step 2: If the Proposed Project is Mixed-use, Adjust Baseline Vehicle Trips

If the project is not mixed-use, skip to Step 3. Otherwise, mixed-use projects have a proportion of trips that originate from one internal use to another internal use (e.g., from on-site residential to on-site commercial). To adjust for these internal trips, baseline vehicle trips from Step 1 must be reduced. Using Equation 2, baseline vehicle trips are adjusted by subtracting the estimated number of internal trips. The steps and procedures required to make this adjustment for mixed-use projects is provided in Chapter 6 of the ITE *Trip Generation Handbook* (3<sup>rd</sup> Edition).

### Step 3: Convert Vehicle Trips to Baseline Person Trips

To estimate the total number of trips associated with the proposed project, including those associated with transit, walking, and biking, vehicle-trips must be converted to person-trips. Using Equation 3, vehicle-trips are converted to person-trips by using baseline mode share and a vehicle occupancy factor plus transit trips and non-vehicle trips. The steps and procedures required to make this conversion are provided in Chapter 5 of the ITE *Trip Generation Handbook* (3<sup>rd</sup> Edition).

#### Equation 2: Adjusted Baseline Vehicle Trips (Mixed-use projects only)

$$VehicleTrips_{ADJUSTED} = VehicleTrips_{BASELINE} - Trips_{INTERNAL}$$

Where:

$VehicleTrips_{ADJUSTED}$  = Number of vehicle trips after internal trips have been discounted.

$VehicleTrips_{BASELINE}$  = Number of baseline vehicle trips from step 1.

$Trips_{INTERNAL}$  = Number of person trips that occur internal to the site. See ITE *Trip Generation Handbook* for guidance.

#### Equation 3: Baseline Person-Trips

$$PersonTrips_{BASELINE} = [VehicleTrips \times VehicleOccupancy] + TransitTrips + NonVehicleTrips$$

Where:

$PersonTrips_{BASELINE}$  = Baseline vehicle-trip generation from Step 1, converted to baseline person-trips by all modes of travel.

$VehicleTrips$  = Either baseline vehicle trips from step 1 or adjusted vehicle trips from step 2.

$VehicleOccupancy$  = 1.4 (2009 National Household Travel Survey)

$TransitTrips$  = See ITE *Trip Generation Handbook* for guidance.

$NonVehicleTrips$  = See ITE *Trip Generation Handbook* for guidance.

#### Step 4: If the proposed project is “Infill Development,” Adjust Person Trips

Some proposed projects may require an adjustment if they are located in compact urban areas with a greater number of pedestrians, transit riders, bicyclists, or a high rate of vehicle occupancy. These projects are often called urban infill development sites. ITE defines thresholds for a typical infill development site in Chapter 7 of the *ITE Trip Generation Handbook* (3<sup>rd</sup> Edition). If the project does not meet at least one of those thresholds, skip to step 5. Using Equation 4, baseline person trips are adjusted. The steps and procedures required to make this adjustment for infill development sites is provided in Chapter 7 of the *ITE Trip Generation Handbook* (3<sup>rd</sup> Edition).

#### Step 5: Convert Person Trips to Final Vehicle Trips

To estimate the final number of vehicle trips associated with the proposed project, use Equation 5 to convert person-trips to final vehicle-trips by using the mode share estimate for person trips and the vehicle occupancy factor. The steps and procedures required to make this conversion to final vehicle trips is provided in Chapter 5 of the *ITE Trip Generation Handbook* (3<sup>rd</sup> Edition).

#### Step 6: Determine Percent Reduction in Vehicle Trips

The percent difference between the baseline vehicles trips from step 1 and final vehicle trips from step 5 represents the difference between suburban and urban travel demand. Using Equation 6, estimate the percent reduction in vehicle trips. This percent reduction will be used to adjust the estimated baseline parking generation in step 7 to a parking generation that takes into account the multi-modal options available in compact urban areas.

#### Equation 4: Adjusted Person Trips (Infill Development projects only)

$$PersonTrips_{ADJUSTED} = PersonTrips_{BASELINE} +/- PersonTrips_{INFILL}$$

Where:

$PersonTrips_{ADJUSTED}$  = Number of adjusted person trips.

$PersonTrips_{BASELINE}$  = Either baseline person trips from step 2 or adjusted person trips from step 3.

$PersonTrips_{INFILL}$  = See Chapter 7 of the *ITE Trip Generation Handbook* for guidance.

#### Equation 5: Final Vehicle Trips

$$VehicleTrips_{FINAL} = \frac{[PersonTrips \times (Percent\ Person\ Trips\ in\ Vehicles)]}{VehicleOccupancy}$$

Where:

$VehicleTrips_{FINAL}$  = Number of person trips taken by vehicle. Vehicle person trips takes into account auto occupancy.

$PersonTrips$  = Either baseline person trips from step 3 or adjusted person trips from step 4.

$Percent\ Person\ Trips\ in\ Vehicles$  = The percent of person trips associated with vehicles from step 3 or step 4.

$VehicleOccupancy$  = 1.4 (2009 National Household Travel Survey)

#### Equation 6: Percent Reduction in Vehicle Trips

$$\%ReductionTrips = \frac{VehicleTrips_{BASELINE} - VehicleTrips_{FINAL}}{VehicleTrips_{BASELINE}}$$

Where:

$\%ReductionTrips$  = The estimated percent reduction that can be expected based upon the use of alternative modes of transportation.

$VehicleTrips_{BASELINE}$  = Number of baseline vehicle trips from step 1.

$VehicleTrips_{FINAL}$  = Number of final vehicle trips from step 5.

### Step 7: Estimate Baseline Parking Generation

Each TDM plan must detail the travel demand accommodations for the proposed project. As vehicular travel demand results in parking demand, steps 7 and 8 detail the methods for estimating parking demand in order to determine the appropriate amount of accommodations needed for the proposed project. The methods within step 7 estimate the baseline parking generation which is adjusted in step 8.

**Single-use Projects:** Using the ITE *Parking Generation* (4<sup>th</sup> Edition), estimate the baseline number of parking spaces associated with the proposed project (Equation 7). The land use for the proposed project should be matched with the same or similar land use contained within ITE *Parking Generation*. The TDM plan must indicate which ITE land use category was used and provide a justification for using that category.

**Mixed-use Projects:** For proposed projects with more than one proposed land use, a shared parking analysis is required. Shared parking is the use of a parking facility to serve two or more individual land uses without conflict. Use the ULI Shared Parking guide, which takes into account the hourly variation of parking required for each land use, to estimate the number of parking spaces required for each proposed land use by hour of day. Using Equation 8, sum the parking demand for each land use for the hour which has the highest total parking demand.

#### Equation 7: Baseline Parking for Single-use Projects

$$ParkSingleUse_{BASELINE} = (Parking_{LANDUSE1})$$

Where:

$ParkSingleUse_{BASELINE}$  = Peak parking demand for the land use of the proposed project.

$Park_{LANDUSE1}$  = “Average Peak Period Parking Demand” for the land use multiplied by the independent variable (acres, gross floor area, employees, dwelling units, etc) as reported in ITE *Parking Generation*.

#### Equation 8: Baseline Parking for Mixed-use Projects

$$ParkMixedUse_{BASELINE} = (Park_{LANDUSE1} + Park_{LANDUSE2} + \dots)$$

Where:

$ParkMixedUse_{BASELINE}$  = Sum of the “Average Peak Parking Demand” for each land use of the proposed project.

$Park_{LANDUSE1}$  = “Average Peak Period Parking Demand” for the first land use multiplied by the independent variable as reported in ITE *Parking Generation*.

$Park_{LANDUSE2}$  = “Average Peak Period Parking Demand” for the second land use multiplied by the independent variable as reported in ITE *Parking Generation*.

### Step 8: Estimate Adjusted Parking Generation

As previously mentioned in Step 1, most of the data collected within ITE *Trip Generation Manual* was from suburban locations. The same is true for most of the data within ITE *Parking Generation* (4<sup>th</sup> Edition). To adjust this data to a more urban environment, the percent reduction in vehicle trips from Step 6 is used as the factor for adjusting the ITE *Parking Generation* data to a more urban environment.

**For Single-use Projects:** Using Equation 9, estimate adjusted parking generation for single-use projects using the baseline parking from step 7 and the estimated percent reduction in vehicle trips from step 6.

**For Mixed-use Projects:** Using Equation 10, estimate the adjusted parking generation for a mixed-use project by using the baseline parking estimate from step 6 and the estimated percent reduction in vehicle trips from step 6.

### Step 9: Report methods and summarize results

The TDM plan must include any necessary information and calculations to demonstrate that each of the above steps have been correctly followed to provide an estimate of travel demand by mode. In addition, each TDM plan must provide a summary table showing the following:

1. Estimate of baseline vehicle trips (step 1) compared to the estimate of final vehicle trips (step 5); include the percent reduction (step 6). If proxy site data was used, compare baseline vehicle trips (step 1) to the proxy site data.
2. Estimate of person trips (step 3) or adjusted person trips (step 4) with detail showing person trips by mode.
3. Estimate of baseline parking demand (step 7) compared to the estimate of adjusted parking demand (step 8). If proxy site data is used, compare baseline parking generation to the proxy site data.

#### Equation 9: Adjusted Parking for Single-use Projects

$$ParkSingleUse_{ADJUSTED} = ParkSingleUse_{BASELINE} - (ParkSingleUse_{BASELINE} \times \%ReductionTrips)$$

Where:

$ParkSingleUse_{ADJUSTED}$  = Adjusted parking generation for single-use projects.

$ParkSingleUse_{BASELINE}$  = From Equation 7, baseline parking for single-use projects.

$\%ReductionTrips$  = From Equation 6, percent reduction in vehicle trips.

#### Equation 10: Adjusted Parking for Mixed-use Projects

$$ParkMixedUse_{ADJUSTED} = ParkMixedUse_{BASELINE} - (ParkMixedUse_{BASELINE} \times \%ReductionTrips)$$

Where:

$ParkMixedUse_{ADJUSTED}$  = Adjusted parking generation for a mixed-use projects.

$ParkMixedUse_{BASELINE}$  = From Equation 8, baseline parking for mixed-use projects.

$\%ReductionTrips$  = From Equation 6, the percent reduction in vehicle trips.

### 3.5 TDM Strategies and Objectives

In accordance with Section 8.4 of the UDO, a TDM plan must include strategies that are employed to reduce single-occupancy vehicle trips, reduce vehicle miles traveled by site users, and promote transportation alternatives such as walking, cycling, ridesharing, and transit.

- A. Strategies.** TDM Strategies listed in the UDO are detailed in Table 1 and include specific implementation requirements and credits. Strategies not included in Table 1 may be considered if sufficient information is included in the TDM plan to determine the effect/impact on the estimated final vehicular travel demand and adjusted parking demand.
- B. Target.** To meet the purpose and intent of Section 8.4 of the UDO, each TDM plan must, at a minimum, include TDM strategies that demonstrate a reduction in the estimated final vehicular travel demand and adjusted parking demand.
  - 1. Proposed projects within the N-1D, N-1C, C-M zone, or within ¼ mile (1,320 feet) of a Metro Rail Station must reduce by 20%.
  - 2. Proposed projects for all other zones, respective of the above, must reduce by 10%.
- C. Credits.** The credits in Table 1 represent the estimated reduction each strategy will have on the estimated final vehicular travel demand and adjusted parking demand. These credits are based on a review of published literature, a survey of TDM policies and ordinances, and guidance published by professional transportation experts.
  - 1. For the purposes of this Policy Guide it is assumed that the credits included in Table 1 equally reduce both the estimated final vehicular travel demand (step 5 of the Policy Guide) and adjusted parking demand (step 8 of the Policy Guide). If the TDM plan estimated travel demand and/or parking demand using the alternative methods, the credits are applied to the result of those methods.
  - 2. Where a credit in Table 1 is listed as a range or a limit, the amount of credit that can be applied is dependent on the degree of implementation and the geographic transportation context of the proposed project. This determination will be at the discretion of the City Planning Board based on the information provided in the TDM plan.

- 3. Each TDM Plan may propose to use a different credit than the credit associated with each TDM strategy in Table 1. The TDM plan must provide a justification for the proposed credit which including information or data validating the estimated impact on travel demand and/or parking demand.

- D. Modal Share Objectives.** Based on the chosen TDM strategies to reduce the estimated final vehicular travel demand and adjusted parking demand, the TDM plan must detail the modal share objectives for the proposed project. The modal share objective is the result of the credits associated with each TDM strategy on the estimated final vehicular travel demand (step 5 of the Policy Guide)**Error! Reference source not found.** and adjusted parking demand (step 8 of the Policy Guide). Alternatively, if the TDM plan estimated travel demand and/or parking demand using the alternative methods, the modal share objective is the result of the credits on those methods.
- E. Requirements.** To evaluate the level of effect/impact of TDM strategies on the estimated final vehicular travel demand and adjusted parking demand, the following is required to be included in the TDM plan:
  - 1. The strategy or strategies chosen to reduce the estimated final vehicular travel demand and adjusted parking demand.
  - 2. The degree of implementation for each strategy. The plan must include sufficient information to determine how the strategy adheres to the requirements listed in Table 1.
  - 3. The amount of credit the applicant determined is appropriate for the degree of implementation of each chosen strategy.
  - 4. The anticipated implementation timeframe for each chosen strategy.
  - 5. The result of each credit on the estimated final vehicular travel demand and adjusted parking demand.

**Table 1: TDM Strategy Options**

Category	Strategy	Requirements	Credit
Share Programs	<b>1. Car-share</b> Car-sharing is an automobile rental service that can be used as a substitute to private car ownership. Generally, car-sharing programs have more of an impact when associated with residential projects.	<b>Stations.</b> Car-share stations must be located on the same zone lot of the proposed project site. Consider partnering with existing car-share service providers in Buffalo.	<b>2 trips</b> for each <b>1 car-share space</b>
		<b>Membership.</b> Employee, tenant, or resident memberships to existing car-share service providers located within ¼ mile (1,320 feet).	<b>1 trip</b> for each <b>1 car-share membership</b>
	<b>2. Bike-share</b> Bike-sharing is a bicycle rental service for short convenient trips and is often associated with popular destinations/neighborhoods, major bicycle transit corridors, or transportation centers. Bike-share strategies include providing direct access through a bike-share station or through a bike-share membership to an existing local service.	<b>Stations.</b> Bike-share stations must be located in the same building, on the same proposed project site, or in the public right-of-way abutting the site. Consider partnering with existing bike-share service providers in Buffalo.	<b>1 trip</b> for each <b>5 bike-share spaces</b>
		<b>Membership.</b> Employee, tenant, or resident memberships to existing bike-share service providers located within ¼ mile (1,320 feet).	<b>1 trip</b> for each <b>5 bike-share memberships</b>
Promotion and Outreach	<b>3. Promotion and Education</b> Providing direct information regarding TDM opportunities and incentives to increase awareness and participation.	Promotion and education material must be tailored to the TDM opportunities and incentives available at the project site and include all available information associated with those opportunities and incentives. This information must be kept up-to-date, be made available in a highly visible location, and be provided directly to any new employee, resident, or tenant.	<b>Up to 2%</b>
Employee Incentives and Programs	<b>4. Alternative/flexible work schedules</b> Alternative/flexible work schedules aids the distribution of travel demand from peak periods. They are often referred to as flextime, compressed work week, or staggered shifts. Telecommuting is also considered as part of this strategy.	Information regarding the availability of these options must be made available in a highly visible location and provided directly to any new employee.	<b>Up to 2%</b>

Category	Strategy	Requirements	Credit
Employee Incentives and Programs (continued)	<p><b>5. Transit Pass</b> Subsidies offer free or reduced price transit passes to employees of the project site and provide a direct incentive to use an alternative mode.</p>	<p>A transit pass subsidy can be for a 7-day pass, 30-day pass, monthly pass, or Paratransit Access Line (PAL) pass. Passes must be renewed monthly. Use of the pass is at the discretion of the employee.</p>	<p><b>Number of trips =</b> number of passes multiplied by % of subsidy  (Example: 5 passes @ 20% subsidy = 1 trip)</p>
	<p><b>6. “Live near your work” programs</b> “Live near your work” programs consist of financial incentives for an employee to buy or rent a home close to their place of work.</p>	<p>Incentives and benefits offered to employees must consist of financial assistance for closing costs, moving expenses, or an adjustment in base compensation. Any home or rental unit within 1 mile of the employee’s place of work qualifies for a “live near your work” program.</p>	<p><b>1 trip</b> for each employee that utilizes program</p>
	<p><b>7. Guaranteed ride home (GRH)</b> A guaranteed ride home (GRH) program provides the opportunity for an employee to travel home after working unexpectedly late or due to a family emergency.</p>	<p>The guaranteed ride home program can be implemented through car-share membership, taxi service, or on-demand ride-share. The program is intended to be used by employees that already use an alternative mode but need a guarantee for a ride home. The program must be free-of-charge to any employee, but can be capped per employee at 5 times/uses per year.</p>	<p><b>Up to 2%</b></p>
Enhanced Design Amenities	<p><b>8. Roadway Improvements</b> Roadway improvements adjacent to the site that help encourage transportation alternatives. Improvements include additional streetscape elements or infrastructure improvements within the public right-of-way that would increase the safety, accessibility, convenience, or attractiveness for a person walking.</p>	<p>Roadway improvements must comply with UDO Article 10, Transportation Network, and any other applicable standards in the UDO and other local, state, and federal regulations. These improvements must be for encouraging transportation alternatives for transit riders, pedestrians, and bicyclists.</p>	<p><b>Up to 4%</b></p>

Category	Strategy	Requirements	Credit
Enhanced Design Amenities (continued)	<b>9. Bicycle Facilities and Services</b> Providing bicycle facilities and services increases the convenience, security, and appeal of bicycle use. Strategies for bicycle facilities and services should be considered together to enhance their effectiveness and should be consistent with the UDO and Buffalo Bicycle Master Plan.	<b>Parking.</b> Only bicycle parking spaces in excess of the minimum required Section 8.2 of the UDO qualify for the TDM Credit.	<b>1 trip</b> for each <b>5 bike spaces</b>
		<b>Shower facilities and lockers.</b> Shower facilities and lockers must be conveniently located to bicycle parking facilities.	<b>Up to 4%</b>
		<b>Repair station.</b> A bicycle repair station must be located in a designated and secure location with bicycle maintenance tools and supplies that could be used for emergency repair or maintenance. These tools and supplies include a bicycle tire pump, wrenches, chain tool, lubricants, hex keys, Allen wrenches, torx keys, screwdrivers, spoke wrenches, etc.	<b>1%</b>
	<b>10. Transit Facilities</b> Enhanced transit facilities can increase the comfort, convenience, accessibility, or safety of transit riders. These improvements increase the appeal of using transit and should be considered in conjunction with bicycle parking strategies.	Enhanced transit facilities can consist of bus shelters, seating, lighting, or other improvements. Transit facility improvements must be coordinated with the NFTA and may require appropriate right-of-way approvals found in Section 11.4 of the UDO.	<b>Up to 4%</b>
High Occupancy	<b>11. Shuttles (Buspool)</b> Transit-to-work shuttles provide the project site's residents, tenants, and/or employees transit service to local residential areas, commercial centers, or transit hubs.	Shuttles must be provided free-of-charge, not replicate any NFTA transit route, operate during peak travel times from 7AM-9AM and 4PM-6PM with a 15-minute headways, and during off-peak times until at least 8PM with a 30-minute headways. Shuttle routes, stop locations, and schedules must be posted in highly visible locations. A shuttle program would require a designated TDM Coordinator. The amount of credit to be applied to the site's estimated travel demand is based on the frequency and quality of service provided.	<b>Up to 10%</b>
	<b>12. Vanpool</b> A vanpool program provides employees of the project site with direct service from the site to their place of residence.	Vanpool service may not replicate any NFTA transit route and requires a designated TDM Coordinator (specified below).	<b>Up to 5%</b>

Category	Strategy	Requirements	Credit	
High Occupancy (continued)	<b>13. Carpool</b> Carpool programs generally operate using employees own cars to pick up fellow employees while traveling to work. These programs offer ease of implementation but can incur direct costs to employees.	Employee vehicles associated with a carpool program should be given preferred parking located close to the main entrance of the principal building and/or be offered parking discounts if the site has unbundled parking. Information regarding the availability of carpool must be made available in a highly visible location and provided directly to any new employee. The financial cost of the carpool is the responsibility of the employees in the carpool. A carpool program would require a designated TDM Coordinator (specified below).	2%	
	Parking Management	<b>14. Shared-Parking</b> Shared parking facilities are used by multiple users, destinations, and/or land uses.	Shared parking facilities must be located within ¼ mile (1,320 feet). Other requirements for shared-parking arrangements are included in section 3.6.1 of this Policy Guide.	Up to 10%
		<b>15. Parking Cash-out</b> Parking cash-out programs offer cash alternatives to subsidized parking for employees.	Any employer that subsidizes for its employee's parking space shall provide the employee the option of forgoing the subsidy for a cash payment equivalent to the cost associated with the parking space. The cash-out value associated with the parking space can be up to one-year in duration.	Up to 10%
<b>16. Unbundled Parking</b> Parking sold or rented separately from building space for the life of the property.		Unbundled spaces would be required to be sold or rented separately from the building space at market-rate. The rental or purchase of a parking space would be at the discretion and direct cost of the employee, tenant, or resident.	Up to 10%	

Category	Strategy	Requirements	Credit
TDM Management	<p><b>17. TDM Coordinator</b> The TDM Coordinator has the responsibility of coordinating and implementing the strategies within the TDM plan.</p>	The coordinator may be an employee or a contracted third-party (transportation brokerage service).	2%
	<p><b>18. Membership in a Transportation Management Association (TMA)</b> Transportation Management Associations (TMAs) are non-profit, member-controlled organizations that provide transportation services in a particular area, such as a commercial district, mall, medical center or industrial park. They are often public-private partnerships and generally consist of area businesses, organizations, and government agencies.</p>	Requirements of the TMA would be determined by the public-private partnership and should include the institutional structure to implement various TDM strategies. To receive credits, active participation in the TMA and coordination with TMA partners in pursuing TDM strategies for the area and the project site, is required.	2%

### 3.6 Travel Demand Accommodations

In accordance with Section 8.4 of the UDO, a TDM plan must detail how the anticipated travel demand for the proposed project will be met. In addition, the TDM plan must demonstrate how travel demand will be met without placing an unreasonable burden on public infrastructure and the surrounding neighborhood.

#### 3.6.1 Vehicle Parking Accommodations

- A. Vehicle Parking Demand.** The amount of vehicle parking the proposed project must accommodate is based on the modal share objectives described in section 3.5.D of this Policy Guide.
- B. Accommodations.** The TDM plan must detail how the parking for the proposed project will be met on-site and/or off-site, including the number of on-street spaces, off-street spaces, shared parking arrangements, and ADA accessible spaces.
- C. Public Parking Facilities.** Any applicant that proposes to utilize on-street and/or off-street public parking facilities to meet their modal share objective must conduct a parking utilization count. The utilization count determines the amount of public parking that could be utilized without placing an unreasonable burden on the neighborhood. The parking utilization count must be included with the TDM plan and meet the following requirements:
  - 1. **Study Area.** The maximum area that can be considered for the utilization count is defined as ¼ mile (1,320 feet) from the proposed project site.
  - 2. **Parking Infrastructure.** Data collected must include the location and quantity of any public parking space that is being considered for accommodating the site's modal share objective. Data collected must include documentation of any regulatory parking signage and/or parking fees.
  - 3. **Utilization Counts.** Utilization counts must be completed during the peak hour(s) and days associated with each land use of the proposed project. Peak hours associated with various land uses are provided in ITE *Trip Generation Manual* (latest edition). Utilization counts must be completed for at least two counting periods per land use.
  - 4. **Threshold.** Parking facilities could be considered for accommodating the project's modal share objective if the facility's utilization counts are below 75% for the corresponding peak hours associated with each land use of the proposed project.

- 5. **Limit.** A TDM plan can propose to use public parking facilities up to 85% utilization for the corresponding peak hours associated with each land use of the proposed project.

- D. Shared Parking.** If shared parking is utilized to meet the modal share objectives for the proposed project in whole or in part, the TDM plan must include documentation that provides evidence of compliance with the estimates calculated in accordance with this Policy Guide. Evidence provided with the TDM plan may include but is not limited to, executed agreements with, or correspondence from, a third party parking provider or other documentation deemed appropriate by the City Planning Board. Evidence must also specify the number of parking spaces being provided to meet the estimated parking demand.
- E. Over-providing.** If the proposed project seeks to provide at least 10% more vehicular parking spaces than the modal share objective, the TDM plan must include a written justification based on at least one of the following criteria:
  - 1. Additional parking will be available for unrestricted-use by the general public. The TDM plan must include evidence supporting the need for public parking.
  - 2. Additional parking will be utilized as part of a shared-parking agreement associated with another location. The TDM plan must include documentation of the shared parking agreement.
  - 3. Additional parking will be utilized to accommodate parking for another location owned by the applicant. Evidence must be provided that shows the other location has a parking deficiency (beyond 85% utilization).
  - 4. Additional parking is deemed necessary due to the unique characteristics of the users or the activity of the site. Justification must describe the unique characteristic(s) and provide sufficient evidence to justify the proposed additional parking.
  - 5. Additional parking is deemed necessary based on the applicant's previous experience with developing the same or similar use. Sufficient evidence must be provided to justify the additional parking.

- F. **Under-providing.** If the proposed project seeks to provide at least 10% fewer vehicular parking spaces than the modal share objective, the TDM plan must include a written justification based on at least one of the following criteria.
  1. The number of vehicular parking spaces estimated is deemed unnecessary due to the unique characteristics of the users or the activity of the site. Justification must describe the unique characteristic(s) and include sufficient evidence to justify the reduced parking.
  2. Fewer parking spaces will be needed based on the applicant's previous experience with developing the same or similar use. Sufficient evidence must be provided to justify the reduced parking.
  3. The project site is constrained and the provision of additional parking would substantially hinder the potential for reasonable development. In such cases, the applicant must demonstrate that considerable efforts have been made to minimize vehicular travel through TDM strategies and how the under-provision of parking will not create an unreasonable burden on public infrastructure and the surrounding neighborhood.

### 3.6.2 Bicycle Parking Accommodations

- A. **Minimum Bicycle Parking Requirements.** The TDM plan must meet the bicycle parking standards and requirements of Section 8.2 of the UDO and detail how those bicycle parking spaces will be accommodated by the proposed project. This includes describing provisions for short-term and long-term bicycle parking spaces.
- B. **Additional Bicycle Parking Accommodations.** If a TDM plan includes TDM strategy #9 (Bicycle Parking and Facilities), the plan must detail the accommodations for short-term and long-term spaces that will be provided above the minimum standards. Where appropriate, these accommodations must be included on the site plans submitted for the proposed project. These spaces, in excess of the minimum bicycle parking requirements, must meet the standards and requirements of Section 8.2 of the UDO.

### 3.6.3 Transit and Pedestrian Accommodations

- A. **Pedestrian Access.** The TDM plan must meet the pedestrian access standards and requirements of Section 8.1 of the UDO.

- B. **Accommodations.** The TDM plan must detail the accommodations for pedestrians and transit-riders. These accommodations must take into consideration the intent and purpose of the UDO, this Policy Guide, and recommended practices of the National Association of City Transportation Officials (NACTO) or other similar transportation planning organizations.

## 3.7 Implementation Requirements

- A. **TDM Strategies.** The TDM plan must detail the implementation timeframe for each TDM strategy included for the proposed project.
  1. If the TDM plan includes strategies 8, 9, or 10 (Enhanced Design Amenities), these strategies must be available for use by employees, residents, customers, visitors, etc. at the time the certificate of occupancy is issued by the Department of Permit and Inspection Services for the proposed project.
  2. Any other TDM strategy not described above, but included within the TDM plan, must be implemented by the applicant or property owner within six (6) months of the issuance of the certificate of occupancy by the Department of Permit and Inspection Services for the proposed project.
- B. **Travel Demand Accommodations.** The accommodations for travel demand as detailed within the TDM plan must be available for use by employees, residents, customers, visitors, etc. at the time the certificate of occupancy is issued by the Department of Permit and Inspection Services for the proposed project.

### **3.8 Commitment Statement**

The TDM plan must include a signed commitment statement from the property owner acknowledging the following:

- A.** Responsibility and cost associated with the TDM plan's implementation and maintenance will be the responsibility of the property owner.
- B.** The property owner will ensure the implementation of all of the elements included within the TDM plan as approved by the City Planning Board within the defined timeframe described in this Policy Guide.
- C.** The property owner will maintain records associated with the implementation and maintenance of the TDM plan.
- D.** The property owner will allow the City to inspect TDM facilities included in the approved TDM plan and to audit any TDM implementation and maintenance records.
- E.** The property owner will notify the Zoning Administrator within 30 days prior to any change in ownership of the property subject to the approved TDM plan.
- F.** The property owner will adjust the TDM plan, as appropriate, for any subsequent site modification (per Section 2.4.C of this Policy Guide) and will reflect such subsequent site modification and TDM plan adjustments in the required TDM reporting (per Section 5.0 of this Policy Guide).

### **3.9 Verification Statement**

The TDM plan must include a verification statement signed by the preparer that includes the following:

- A.** A brief description of the preparer's credentials and experience related to transportation planning, transportation engineering, or comparable field.
- B.** Verification that the TDM plan was prepared in compliance with the UDO and this Policy Guide.

## 4.0 Approval Procedure

### 4.1 Procedure

The TDM plan must be submitted as part of a major site plan review application. Section 11.3.7 of the UDO outlines the review and approval procedure for major site plan review.

### 4.2 TDM Performance Standards

As described in section 8.4 of the UDO, in making its decision, the City Planning Board must make written findings of fact on the following matters:

- A. The project includes performance objectives to minimize single-occupancy vehicle trips and maximize the utilization of transportation alternatives to the extent practicable, taking into account the opportunities and constraints of the site and the nature of the development.
- B. The project must meet the anticipated transportation demand without placing an unreasonable burden on public infrastructure, such as transit and on-street parking facilities, and the surrounding neighborhood.

### 4.3 Approval Standards

The City Planning Board must make written findings of fact based on the approval standards for major site plan review, per Section 11.3.7.G of the UDO, which includes the following criterion:

The project will be located, designed, and/or managed to meet its anticipated travel demand, and will include reasonable efforts to minimize single-occupancy vehicle trips, reduce vehicle miles travelled, and promote transportation alternatives. If required by this Ordinance, a TDM plan must be approved by the City Planning Board as evidence of the project meeting this criterion.



## 5.0 Reporting

### 5.1 Reporting Requirement

- A. The property owner responsible for development and implementation of a TDM plan will be required to ensure compliance with the reporting requirements of this section.
- B. Upon approval of the TDM plan and issuance of a certificate of occupancy by the Department of Permit and Inspection Services, the property owner will be required to file status reports with the Zoning Administrator to demonstrate compliance with the TDM requirements of Section 8.4 of the UDO and this Policy Guide.

### 5.2 Implementation Status Report

- A. **Applicability.** All projects with an approved TDM plan.
- B. **Timeframe.** Within 30 calendar days of the six (6) month anniversary of issuance of the certificate of occupancy by the Department of Permit and Inspection Services.
- C. **Requirement.** The applicant or property owner must submit a report to the Zoning Administrator documenting the implementation status of all TDM strategies included in the approved TDM plan. The report must include the following:
  - 1. Brief summary (preferably in tabular format) of each TDM strategy included in the TDM plan and the implementation status of each strategy.
  - 2. Verification statement verifying that all TDM strategies have been implemented. For any strategy that has not been fully implemented, an explanation detailing the reason(s) why the strategy has not been fully implemented and the expected implementation timeframe are required.
  - 3. Supplemental documentation demonstrating compliance with implementation, as appropriate.

### 5.3 Brief Status Report

- A. **Applicability.** Projects involving less than 50,000 square feet of gross floor area of new construction of a principal building.
- B. **Timeframe.** Within 30 calendar days of the two (2) year anniversary of issuance of the certificate of occupancy by the Department of Permit and Inspection Services and on a bi-annual basis thereafter.

- 1. Upon the 10 year anniversary of the issuance of the certificate of occupancy, if the owner of the site has consistently complied with the standards of Section 8.4 of the UDO and the requirements of this Policy Guide, the Zoning Administrator may waive the requirement for future TDM plan reports for the site.
- C. **Requirement.** The applicant or property owner must submit a report to the Zoning Administrator which includes the following:
  - 1. Utilization and performance summary of all TDM strategies included in the approved TDM plan. Include any supplemental documentation demonstrating compliance with the TDM plan and the utilization of TDM strategies, as appropriate.
  - 2. Based on the utilization and performance summary, the status report must determine if any TDM strategies need adjustment or if additional TDM strategies are necessary to maximize the utilization of alternative modes. If any adjustments or additions are identified, the status report must include a description and implementation timeframe.

### 5.4 Comprehensive Status Report

- A. **Applicability.** Projects with a gross floor area of at least 50,000 square feet, including new construction and renovation.
- B. **Timeframe.** Within 30 calendar days of the two (2) year anniversary of issuance of the certificate of occupancy by the Department of Permit and Inspection Services and on a bi-annual basis thereafter.
  - 1. Upon the 10 year anniversary of the issuance of the certificate of occupancy, if the owner of the site has consistently complied with the standards of Section 8.4 of the UDO and the requirements of this Policy Guide, the Zoning Administrator may waive the requirement for future TDM plan reports for the site.
- C. **Requirement.** The applicant or property owner must submit a report to the Zoning Administrator which includes the following:
  - 1. Utilization and performance summary of all TDM strategies included in the approved TDM plan. Include any

supplemental documentation demonstrating compliance with the TDM plan and the utilization of TDM strategies, as appropriate.

2. Based on the utilization and performance summary, the status report must determine if any TDM strategies need adjustment or if additional TDM strategies are necessary to maximize the utilization of alternative modes. If any adjustments or additions are identified, the status report must include a description and implementation timeframe.
3. A comparison of estimated travel demand from the TDM plan with actual travel demand. Each comprehensive status report must include a summary of bi-annually collected data for the actual travel demand by mode for the project. The method used to determine actual travel demand by mode must follow the recommended steps and procedures in ITE *Trip Generation Handbook* (3<sup>rd</sup> Edition).
4. Based on the comparison of estimated versus actual travel demand, the status report must determine if the modal share objectives from the TDM plan have been met. If the modal share objectives have not been met, the status report must include TDM strategy adjustments or additions, including implementation timeframes, that will be implemented to meet modal share objectives.

#### 5.5 TDM Plan Updates

### 5.5 TDM Plan Updates

As indicated in section 2.4 of this Policy Guide, Subsequent Site Modification, an owner must update the TDM plan to reflect current conditions. For any subsequent site modification, the TDM plan must be appropriately updated to comply with the standards and requirements of the UDO and this Policy Guide, as follows:

- A. For any subsequent site modification, a TDM plan must be adjusted to meet the standards and requirements of Section 8.4 of the UDO and the requirements of this Policy Guide. The site modification and TDM plan adjustment(s) must be reflected in the required bi-annual TDM status report (see Section 5.3 of this Policy Guide).

## 6.0 Glossary of Terms

**Alternative Transportation:** The use of modes of transportation other than the single passenger motor vehicle including but not limited to carpools, vanpools, buspools, public transit, walking, and bicycling.

**Applicant:** A property owner, a person holding an option or contract to purchase a property, or any other person authorized in writing to act for such persons, who submits an application under the provisions of the UDO.

**Bicycle Parking, Long-Term:** Long-term bicycle parking accommodates employees, students, residents, commuters, and other persons who intend to leave their bicycle parked for more than two hours. Fixtures include lockers and bicycle racks in secured areas, and are always sheltered or enclosed.

**Bicycle Parking, Short-Term:** Short-term bicycle parking accommodates visitors, customers, messengers, and other persons who intend to depart within two hours or less. Fixtures include bicycle racks, which may be unsheltered.

**Bicycle repair station:** A facility located in a designated and secure location with bicycle maintenance tools and supplies that could be used for emergency repair or maintenance. These tools and supplies include a bicycle tire pump, wrenches, chain tool, lubricants, hex keys, Allen wrenches, torx keys, screwdrivers, spoke wrenches, etc.

**Bike-Share:** A bicycle rental service for short convenient trips and are often associated with popular destinations/neighborhoods, major bicycle transit corridors, or transportation centers. Bike-share strategies include providing direct access through a bike-share station or through a bike-share membership to an existing local service.

**Carpool:** A vehicle carrying two (2) to six (6) persons commuting together to and from work on a regular basis.

**Car-Share Service:** A mobility enhancement service that provides an integrated citywide network of neighborhood-based motor vehicles available only to members by reservation on an hourly basis, or in smaller intervals, and at variable rates. Car-share vehicles must be located at unstaffed, self-service locations (other than any incidental garage valet service), and generally be available for pick-up by members 24 hours per day.

**Change of Use:** A change of gross floor area from one category of use to another category of use listed in the UDO use table for the zoning district of the subject lot.

**Commitment Statement:** A signed statement included in the TDM plan pursuant to Section 3.8 of this Policy Guide indicating an applicant's or property owner's acknowledgment that he/she will be responsible for costs associated with the plan's cost for implementation and maintenance, adherence to implementation timeframes, recordkeeping, access for inspections, and change in ownership notification.

**Development Project or Project:** New construction of a principal building in excess of 5,000 square feet or substantial renovation of a principal building with a gross floor area of at least 50,000 square feet and involving a change of use.

**Enhanced transit facilities:** Bus shelters, seating, lighting, or other improvements to enhance transit user experience.

**Guaranteed ride home (GRH):** A program that can be implemented through car-share membership, taxi service, or on-demand ride-share and that is intended to be used by employees that already use an alternative mode but need a guarantee for a ride home. The program must be free-of-charge to any employee, but can be capped per employee at 5 times/uses per year.

**Infill Development:** A development site located in a fully developed urbanized area, often with different interactive land uses and with good pedestrian and vehicular connectivity, and served by convenient/frequent transit and/or designated bicycle facilities.

**Live near your work program:** Financial incentives provided to an employee to buy or rent a home close to their place of work.

**Major Site Plan Review:** The discretionary review of the site configuration and architectural design of projects which, due to their magnitude, are more likely to have significant impacts on their surroundings. Major site plan review is required for

**Mixed-Use Project/Development:** An integrated development (usually master planned) consisting of at least two complimentary and interactive land uses designed to foster synergy among activities generated by the land uses. Some trips are between on-site land uses and do not travel on off-site streets. A mixed-use development may also be referred to as a multi-use development.

**Modal Share Objective:** The result of the TDM credits associated with each TDM strategy on the estimated final vehicular travel demand (step 5 of the Policy Guide) **Error! Reference source not found.** and adjusted parking demand (step 9 or 10 of the Policy Guide). Alternatively, if the TDM plan estimated travel demand and/or parking demand using the alternative methods, the model share objective is the result of the credits on those methods.

**Parking Cash-out:** A program offered to employees that include cash alternatives to subsidized parking.

**Parking Utilization Counts:** A process involving counting on-street and/or off-street public parking facilities to determine the amount of public parking that could be utilized without placing an unreasonable burden on the neighborhood.

**Person Trip:** A trip made by any mode of travel by an individual person from an origin to a destination. Every trip made anywhere by a person is a person trip. If three people leave a development site in a single vehicle, this is counted as three person trips.

**Property Owner:** See “Applicant” definition.

**Proxy Sites:** A development site with the same land use characteristics, similar size (in terms of the independent variable), and comparable setting (area type, density, compactness or land coverage, parking availability, access to land use diversity, transit service or availability, or apparent vitality) as the study site.

**Public Parking Facility:** A publicly-owned lot, street, garage, building or structure or combination or portion thereof, on or in which motor vehicles are parked.

**Qualified Professional:** A person with demonstrated experience in transportation planning, traffic engineering, or comparable field.

**Roadway Improvements:** Improvements adjacent to a development project site that help encourage transportation alternatives. Improvements may include additional streetscape elements or infrastructure improvements within the public right-of-way that would increase the safety, accessibility, convenience, or attractiveness for a person walking.

**Shared Parking:** The use of a parking facility to serve two or more individual land uses without conflict. Shared parking arrangements utilize the available parking spaces by multiple uses within the proposed project.

**Shuttles (Buspool):** A vehicle carrying 16 or more passengers commuting on a regular basis to and from work with a fixed route, according to a fixed schedule.

**Single-Occupancy Vehicle (SOV):** A privately operated vehicle used primarily for personal travel, daily commuting and for running errands and whose only occupant is the driver. The definition excludes human-powered vehicles such as bicycles.

**Single-Use Project:** A development project that involves a single land use (e.g., residential, commercial, industrial).

**Status Report, Brief:** A status report prepared pursuant to Section 5.3 of this Policy Guide for projects involving a gross floor area of less than 50,000 square feet of new construction of a principal building.

**Status Report, Comprehensive:** A status report prepared pursuant to Section 5.4 of this Policy Guide for projects involving a gross floor area of at least 50,000 square feet of new construction of a principal building.

**Subsequent site modification:** A change of use, increase in square footage, change to available parking, or other site modification that occurs after approval of a TDM plan by the City Planning Board.

**TDM Coordinator:** A person having the responsibility of coordinating and implementing the TDM strategies included within the TDM plan.

**TDM Credits:** The estimated reduction each strategy would have on the estimated final vehicular travel demand and adjusted parking demand.

**TDM Plan:** A plan prepared pursuant to Section 8.4.2 of the UDO and this Policy Guide that details a development project, its site inventory, estimated travel demand, TDM strategies, travel demand accommodations, implementation requirements, and reporting requirements.

**TDM Strategies:** Strategies that are employed to reduce single-occupancy vehicle trips, reduce vehicle miles traveled by site users, and promote transportation alternatives such as walking, cycling, ridesharing, and transit.

**Transit Pass:** A pass that provides riders with unlimited use of the local transit system. This is typically provided to employees of a development project and provides a direct incentive to use an alternative mode of travel.

**Transportation Demand Management (TDM):** The alteration of travel behavior - usually on the part of commuters - through programs of incentives, services, and policies. TDM addresses alternatives to single-occupancy vehicles such as carpooling and vanpooling, and changes in work schedules that move trips out of the peak period or eliminate them altogether (as is the case in telecommuting or compressed work weeks).

**Transportation Management Association (TMA):** An organized group, often legally constituted with a financial dues structure, applying carefully selected approaches to achieving mobility and air quality goals within a designated area.

**Unbundled Parking:** Parking sold or rented separately from building space for the life of the property.

**Vanpool:** A vehicle carrying seven (7) or more persons commuting together to and from work on a regular basis, usually in a vehicle with a seating arrangement designed to carry seven (7) to 15 adult passengers, and on a prepaid subscription basis.

**Vehicle Miles Traveled:** A measure of the amount and distance that a Development Project causes people to drive.

**Vehicle Trip:** An inbound or outbound person trip that crosses the site cordon line in a personal passenger vehicle or truck, or that crosses the site cordon line as a pedestrian to or from a personal passenger vehicle or truck. If, for example, a person drives a personal passenger vehicle from home, parks off-site, and walks from parking facility to an office building, the trip (at both ends) is considered a vehicle trip.

**Vehicle Trip, Baseline:** Vehicle trips estimated with the aid of *Trip Generation Handbook* methodologies to represent the estimated vehicle trips at baseline sites. These baseline trips are converted to baseline person trips and then adjusted using study site vehicle occupancy and mode share assumptions in order to estimate vehicle trip generation at a multimodal study site.

**Verification Statement:** A signed statement included in the TDM plan pursuant to Section 3.9 of this Policy Guide indicating the TDM plan preparer's acknowledgment that he/she is a qualified professional with demonstrated experience in transportation planning, traffic engineering, or a comparable field, and that the TDM plan was prepared in compliance with the UDO and this Policy Guide.

**Written Findings of Fact:** A written narrative that documents whether a TDM plan meets the City Planning Board's TDM performance standards and Major Site Plan Review approval standards of sections 8.4.2.C. and 11.3.7.G.6 of the UDO, respectively.