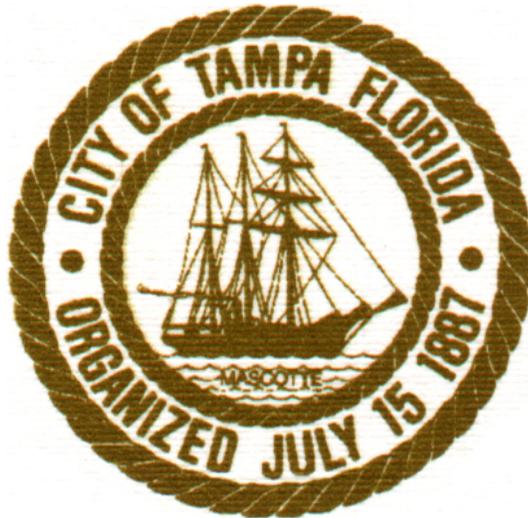


Transportation Impact Analysis and Mitigation Plan Procedures Manual



February 2011

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1. Overview

The City of Tampa Comprehensive Plan establishes policies which require development to mitigate roadway system impacts. As specified in the Comprehensive Plan, development may mitigate these impacts solely through payment of the City's transportation impact fee provided that the development is located within the City's Downtown Revitalization Transportation Concurrency Exception Area (TCEA) District.

Development which is not within the Downtown Revitalization TCEA may be required to evaluate, document, and mitigate their specific roadway system impacts through equal mitigation, in-kind contribution, or proportionate share contribution. Depending on specific circumstances and as provided for within Chapter 25, City of Tampa Code of Ordinances ("Tampa Code"), mitigation requirements established pursuant to a Traffic Impact Analysis may off-set all or part of the developments' Transportation Impact Fee obligations. However, required off-site mitigation is independent from and does not alleviate or offset site traffic impact requirements or site design requirements as established in the City's land development code.

This procedures manual

- establishes criteria for determining whether a specific development project is required to provide, Traffic Impact Assessment (TIA) and Mitigation Plan which is signed and sealed by a traffic engineer licensed to practice in the State of Florida.
- establishes technical requirements for the performance of a TIA, and
- outlines acceptable mitigation methods based on the nature of the development's traffic impacts.

The TIA technical requirements establish four (4) "Study Types" based on the traffic generation of the proposed development and the capacity and performance of the impacted roadway network. These study types, ranging from least to most comprehensive are listed below:

- De minimis Determination
 - Adjacent Critical Link and Intersection Analysis
 - Network Impact Analysis
 - Enhanced Network Impact Analysis
-

Throughout this procedures manual, terms which are not defined in the text are underlined and are explained in Appendix 1 - *Definitions* section at the end of the document. These terms are underlined only upon their first appearance within each major section of the document. Persons not practiced in the application of these procedures are encouraged to review the *Definitions* section prior to proceeding. If there is a conflict between any Definition in this Manual and Definitions within Chapter 5, 17.5, 23, 25, and 27 Tampa Code, the definition within Chapter 5, 17.5, 23, 25, and 27 shall prevail.

Regardless of whether a development is required to analyze and mitigate roadway system impacts, all development shall provide for acceptable treatment of site access as determined by the Transportation Manager consistent with the City's Land Development Code.

2. Applicability of Traffic Impact Analysis and Mitigation Requirements

2.1. General Applicability:

With the exception of development requests that are exempt from Transportation Impact Analysis and Mitigation pursuant to City of Tampa Code, Florida Statutes and this Manual, this requirement of Chapter 25, Division 2 and this Manual shall be applicable for property undergoing new construction, change of use or, major renovation, if property is located within an applicable overlay, form-based or other special district. Applicable developments must demonstrate compliance with Chapter 25, Division 2 City of Tampa Code and this Manual during the review of the following applications:

1. Site plan rezoning, see Chapter 27, City of Tampa Code;
2. Development Review and Compliance process, see Chapter 27, City of Tampa Code;
3. Preliminary Plat review, see Chapter 23, City of Tampa Code;
4. Construction Plan review, see Chapter 5 City of Tampa Code, or
5. Building permit review, see Chapter 4, City of Tampa Code.

Approval of the above applications shall be expressly conditioned upon compliance with an approved Traffic Impact Analysis and Mitigation Plan.

Although a formal TIA and Mitigation Plan is not required at the time of a request for a Euclidian rezoning petitions, petitioners are encouraged to consider whether a potential development or redevelopment would be subject to transportation mitigation requirements pursuant to this procedures manual. Approval of a Euclidian rezoning petition does not constitute approval of a Traffic Impact Analysis and Mitigation Plan or otherwise limit the City's requirements that developments analyze and mitigate traffic impacts.

2.2. "No Study" Threshold:

In order to expedite the review of developments which are likely to generate de minimis roadway system impacts, projects which generate fewer than one hundred (100) net new daily trip ends or driveway volume as determined by latest ITE Trip Generation Rate are exempt from further Traffic Impact Analysis and shall mitigate their transportation system impacts through payment of the City's Transportation Impact Fee. See Appendix 2.

2.3. Exemption from Traffic Impact Analysis and Mitigation Requirements:

A development which exceeds 100 net daily trip ends or driveway volume may elect to demonstrate that it meets criteria for exemption from transportation impact analysis and location-specific roadway mitigation requirements based on its location within the City's TCEA Districts or by demonstrating that it is served by a Primary Transit Facility. Developments shown to meet these requirements shall mitigate their transportation system impacts through payment of the City's Transportation Impact Fee.

- **TCEA Districts:** The City's Transportation Concurrency Exception Area includes the following sub-districts, which are described below:
 - Downtown Revitalization District
 - Urban Redevelopment District(s)
 - Urban Infill District(s)

The **Downtown Revitalization District** is defined as the combined area of the Downtown Community Redevelopment Areas (CRAs) and the Channel District CRA. Development within the Downtown Revitalization District is not required to provide a Traffic Impact Analysis and Mitigation Plan but must mitigate site-impacts and otherwise conform to the City's land development code and Comprehensive Plan.

The **Urban Redevelopment District(s)** are defined as the Westshore District, University of South Florida, and the following CRAs surrounding Downtown: The Heights, Central Park Village and Ybor City. Development within Urban Redevelopment Districts are required to provide a Traffic Impact Analysis and Mitigation Plan but is not required to conduct Enhanced Network Impact Analysis Determination as defined in Sections 3.1 and 4.4, but will complete the lesser Network Impact Analysis and Mitigation methodology.

The **Urban Infill District** comprises the remainder of the Tampa TCEA.

- **No Transportation Impact Fee Zones:** Development and areas exempt from payment of a transportation impact fee pursuant to Chapter 25-74(a), Tampa City Code are not required to provide a Traffic Impact and Analysis Plan, but must mitigate site-impacts and otherwise conform to the City's land development code and Comprehensive Plan.
-

The above condition must be demonstrated by the applicant using a scaled GIS map or map from the Hillsborough County Property Appraiser showing the Transit Facility type and appropriate distances.



3. Traffic Impact Analysis Study Type Determination and General Requirements

A development may be subject to four (4) "Study Types" based on the traffic generation of the proposed development and the capacity and performance of the impacted roadway network. These study types, ranging from least to most comprehensive, are listed below:

- De minimis Determination
- Adjacent Critical Link and Intersection Analysis
- Network Impact Analysis
- Enhanced Network Impact Analysis

3.1. Study Type Determination:

The determination of the TIA study type(s) shall be established on the basis of the development's net average weekday two-way volume generation with respect to the service capacity and operating condition of the adjacent major roadway network link(s).

De minimis Determination - The City defines "de minimis" development as any development for which the net average weekday two-way volume generated by the development consumes less than 100 trip ends or driveway volume on the adjacent roadway[s] LOS "D" daily service capacity as determined using a generalized (tables) capacity analysis per the latest adopted FDOT Quality/Level of Service Manual. **For De minimis Determination the City of Tampa, Transportation Division will make the determination.** However, a development may submit a memorandum, signed and sealed by a traffic engineer licensed to practice in the State of Florida, demonstrating that the proposed development meets the City's de minimis definition. The memorandum should, at a minimum, document the calculation of the development's net new average weekday two-way volume, major roadway network access point[s], and determination of adjacent major roadway peak hour service capacity[s]. If the development is shown to access more than one major roadway link and the average weekday two-way volume of the development exceeds 1% of any accessed major roadway link, then the memorandum must document the basis for dividing the trip ends between the links.

- **Adjacent Critical Link and Intersection Analysis Determination** – Analysis and mitigation of critical links and intersections adjacent to the development's major roadway network access point[s] is required when:
-

- The AADT of the adjacent major roadway link[s] is less than ninety-five percent (95%) of the LOS "D" daily service capacity of the link AND the subject development consumes more than two percent (2%) of the LOS "D" daily service capacity of the adjacent major roadway link[s] and capacity is available
 - OR
 - The AADT of the adjacent major roadway link[s] is greater than or equal to ninety-five percent (95%) of the LOS "D" daily service capacity of the link AND the subject development consumes more than one percent (1%) of the LOS "D" daily service capacity of the adjacent major roadway link[s] and capacity is not available.
- **Network Impact Analysis Determination** – Analysis of roadway network impacts is required when:
 - Non-Critical Adjacent Link(s): The AADT of the adjacent major roadway link[s] is less than ninety-five percent (95%) of the LOS "D" daily service capacity of the link AND the subject development consumes more than five percent (5%) of the LOS "D" daily service capacity of the adjacent major roadway link[s] OR
 - Critical Adjacent Link(s): The AADT of the adjacent major roadway link[s] is greater than or equal to ninety-five percent (95%) of the LOS "D" daily service capacity of the link AND the subject development consumes more than two percent (2%) of the LOS "D" daily service capacity of the adjacent major roadway link[s].
- **Enhanced Network Impact Analysis Determination** – Pursuant to a Network Impact Analysis, developments may be required to perform an operational analysis of severely congested facilities that are substantially impacted by the development and evaluate neighborhood traffic intrusion impacts incident to severe major roadway network congestion. Enhanced Network Impact Analyses are required when the AADT of a significantly impacted link (as identified in the Network Impact Analysis) operates at greater than one hundred and twenty percent (120%) of the LOS "D" daily service capacity of the link AND the subject development traffic consumes more than five percent (5%) of the LOS "D" daily service capacity of the link.

3.2. Methodology Letter:

Prior to conducting any study, a methodology meeting is required with the Transportation Division. As a result of the meeting, a methodology letter shall be

prepared by the applicant and submitted for review and approval by the City's Transportation Manager. The purpose of the methodology letter is to establish agreed upon methodologies and assumptions prior to the start of the study and, if appropriate, to provide substantiation that the development's impacts are de minimis and further traffic study and review is not required. The following elements of the methodology, as listed below, should be specifically addresses at a minimum:

- Description of land uses, site location, build-out schedule, and phasing, including any interim uses generating traffic
- Preliminary site plan
- Trip Generation including
 - Tabulation of existing and vested trips
 - New automobile trips
 - Internal and passer-by capture
- Background traffic growth assumptions
- Distribution and assignment (including significant impacts to local roads)
- Existing plus committed network

Unless otherwise agreed to in the methodology process, the technical procedures described in this document will be followed.

Following any required methodology meeting, a methodology letter shall be prepared using the guidelines provided in the following paragraphs. The methodology letter will be reviewed by the Transportation Division Manager/designee, and, if necessary, a follow-up methodology meeting will be held so that City staff and the applicant/applicant's representative can review/clarify the methodology. The applicant/representative will then revise the letter based upon either the City's written comments or outcome of the methodology meeting. The applicant/applicant's representative shall not prepare a traffic impact analysis and mitigation plan without a methodology approved by the City.

The approved methodology letter shall be valid to govern submittal of the TIA for a period of 60 days from the date of the approval.

3.3. Preparation and Submittal of Traffic Impact Analyses and Mitigation Plans:

Traffic Impact Analyses shall be performed under the supervision of and signed and sealed by a professional traffic engineer with a licenseto practice in the State of Florida. In addition to the Traffic Impact Analysis document, electronic

files including modeling of the signalized/non-signalized intersections shall be provided on CD/DVD with the final Traffic Impact Analysis and Mitigation Plan submittal.

Appendix 4 sets forth general standards for use during the preparation of the TIA, as may be further approved through the Methodology Letter process.

3.4. Approved Traffic Impact Analysis and Mitigation Plan:

An approved Traffic Impact Analysis and Mitigation Plan is valid only for the development of property in a manner consistent with the associated rezoning/permit. Upon expiration of the associated rezoning/permit, the approved Traffic Impact Analysis and Mitigation Plan shall also be deemed expired.

Per applicable City of Tampa Code provisions, a Traffic Impact Analysis and Mitigation approval will remain valid as follows:

- Rezoning site plan approval or DRC approval: In a manner consistent with the applicable provision of Chapter 27, City of Tampa Code of Ordinances.
 - Preliminary Plat: Once approved by the City of Tampa Transportation Division Manager/Designee, the Applicant shall have one (1) year from the date of approval to obtain a Final Plat. Once a Final Plat is obtained, the approved Traffic Impact Analysis and Mitigation Plan shall remain valid for the length of the Final Plat approval.
 - Commercial Site Plan, Construction Drawing and Building Permit : Once approved by the City of Tampa Transportation Division Manager/Designee, the Applicant shall have one (1) year from the date of approval to obtain appropriate permit. Once a permit is obtained, the approved Traffic Impact Analysis and Mitigation Plan shall remain valid for the length of the building permit or until the final certificate of occupancy is issued for the project whichever comes first.
 - Florida Quality Development or Development of Regional Impact: Once approved by the City of Tampa Transportation Division Manager/Designee, the approved Traffic Impact Analysis and Mitigation Plan shall remain valid for the length established in the DRI Development Order or Florida Quality Development approval.
-

If a approved Traffic Impact Analysis and Mitigation Plan or Traffic Impact Analysis and Mitigation Plan Exemption expires, the City may require the Applicant to update and re-submit their Traffic Impact Analysis and Mitigation Plan or Exemption criteria consistent with the current version of this Procedures manual and any other governing ordinances, comprehensive plan policies, costing data, CIE/CIP projects, or other relevant inputs.

4. Traffic Impact Analysis and Mitigation Requirements

This section describes the specific analysis and mitigation requirements pursuant to each study type. Generally, Traffic Impact Analysis and Mitigation Plan study types are additive as described in the Coordination of Mitigation Obligations sub-section herein.

4.1. **De minimis Determination and Mitigation:**

Developments which are shown to have de minimis roadway system impacts pursuant to the Study Type Determination criteria described above shall mitigate their transportation system impacts through payment of the City's adopted Transportation Impact Fee.

4.2. **Adjacent Critical Link and Intersection Analysis and Mitigation:**

In addition to payment of the City's transportation impact fee, a proposed development that impacts an adjacent critical link and intersection is required to analyze and mitigate impacts to that intersection. The following requirements shall apply to developments required to analyze and mitigate adjacent critical intersections:

- **Methodology Letter** – Prior to conducting an Adjacent Critical Link and Intersection Analysis the Applicant will prepare and submit a methodology letter for review and approval by the City Transportation Manager or Designee. Prior to preparing a Methodology letter, the Applicant shall request a methodology meeting to discuss study requirements and inputs.

In lieu of a Methodology Letter and Adjacent Critical Link and Intersection Analysis, the Applicant may elect to pay a Default Proportionate Share Contribution as described in the Mitigation Requirements subsection below.

- **Evaluate Intersection Operating Conditions** – Using traffic count data approved by or obtained from the City Transportation Division, the Applicant shall determine whether one or more critical movements at the subject intersection[s] fail to operate adequately for a duration exceeding sixty (60) minutes in the AM peak period and sixty (60) minutes in the PM peak period based on the following standards:
 - The delay for individual turning-movements and through-movements may not exceed the segment standard by one letter
-

grade, but not below LOS "D" provided that the volume/capacity (V/C) ratio for the subject movement remains less than or equal to one.

- Average control delays up to 100 seconds are acceptable for individual turning movement where the V/C ratio is equal or less than 0.8.
 - **Mitigation Requirements** – Should the subject intersection fail to meet the standards described above, the Applicant must elect to pursue one of the following mitigation options:
 - Coordinate with the City to construct improvements necessary to equally mitigate the development's impact on the subject intersection.
 - Calculate and Pay Proportionate Fair Share:
 - Coordinate with the City to identify conceptual improvements necessary to restore the deficient movements and estimate the design, right-of-way, and construction costs of such improvements.
 - Calculate the proportionate share cost of the development as $\text{Total Cost of the Improvement} \times \text{Project Traffic} / \text{Increase in Capacity Created by the Improvement}$,
 - Project Traffic is the development traffic in all movements of the subject intersection and
 - Increase in Capacity is the sum of the changes in physical capacity of all movements of the intersection
 - Calculate and Pay Default Proportionate Share:
 - Calculate the peak-hour development trip ends entering the intersection along the development's adjacent roadway link[s].
 - Multiply the adjacent link peak hour entering trip ends by the lesser of the adjacent link length or by 0.50 miles to calculate Entering Vehicle Miles of Travel (VMT)
 - The default proportionate share is the Entering VMT x the default cost per Vehicle Mile of Capacity (VMC) at LOS "D."
 - **Impact Fee Credit Eligibility** – If roadway capacity improvements to the subject intersection are included in the City's list of impact fee eligible projects (Chapter 25 Tampa Code), then the Applicant's construction of intersection improvements, proportionate fair share contribution, or
-

default proportionate share contribution will serve to off-set the development's impact fee assessment.

4.3. Network Impact Analysis and Mitigation:

In addition to payment of the City's Transportation Impact Fee and mitigation of impacts to adjacent critical intersections, a proposed development that consumes more than 5% of a non-critical adjacent roadway link daily service capacity or more than 2% of a critical adjacent roadway link daily service capacity is required to analyze and mitigate its overall impacts on the roadway network. The following requirements shall apply to developments required to analyze and mitigate roadway network impacts:

- **Methodology Letter** – Prior to conducting a Network Impact Analysis, the Applicant will prepare and submit a methodology letter for review and approval by the City Transportation Manager or Designee. Prior to preparing a Methodology letter, the Applicant shall request a methodology meeting to discuss study requirements and inputs. As part of the Methodology Letter review or pre-meeting, the City may inform the Applicant of any known severe congestion issues, neighborhood traffic intrusion issues, or local street traffic operational issues and recommend these be included in the Network Traffic Analysis. General methodology requirements are included in the *Methodology letter*, *Traffic Count Data*, and *Acceptable Software* sections of this document.

 - **Evaluate Network Traffic Impacts** - Consistent with the approved methodology letter, the Applicant shall identify the development's Significantly Impacted Network and Deficient Impacted Network as follows:
 - **Background Traffic Growth** – Pursuant to the methodology agreement, the development shall apply City-Approved growth rates and/or the cumulative impacts of approved, but not built development to the significantly impacted network consistent with the build-out year of the development phase subject to review.
 - **Significantly Impacted Network** – Major roadway segments where the projected development Average weekday two-way volume or trip ends consume more than two percent (2%) of the LOS "D" daily service capacity of the roadway link.
 - **Deficient Impacted Network** – Significantly Impacted Links where the existing traffic volume + subject development trip ends + background traffic growth exceeds the existing peak-hour
-

directional service capacity (i.e. LOS "D") + estimated capacity provided by committed improvements.

- **Mitigation Requirements** – Should the Network Impact Analysis identify Deficient Impacted Links, the Applicant must elect to pursue one of the following mitigation options:
 - Coordinate with the City to construct improvements and in a manner acceptable to the City and relevant roadway maintaining agencies necessary to mitigate the development's impacts on deficient roadway segments.
 - Calculate and pay Default Proportionate Share where Default Proportionate Share is the sum of development two-way peak-hour VMT on significantly impacted deficient links x the Default Cost per VMC added.

- **Impact Fee Credit Eligibility** – Default Proportionate Share contributions shall be applied to projects prioritized within the City's Adopted CIE/CIP and included in the City's list of impact fee eligible projects (City of Tampa Code of Ordinances, Chapter 25), and shall therefore off-set the development's impact fee assessment. Should the Applicant elect to make an in-kind contribution such as constructing an improvement or contributing right-of-way, that contribution shall only off-set the development's impact fee assessment if the subject improvement is included in the City's list of impact fee eligible projects (City of Tampa Code of Ordinances, Chapter 25),

4.4. Enhanced Network Impact Analysis:

Pursuant to the performance of a Network Traffic Impact Analysis, it may be established that a proposed development is likely to have substantial impacts on severely congested facilities. An Enhanced Network Impact Analysis shall be required when a proposed development:

- consumes more than 5% of the average weekday two-way LOS "D" daily service capacity of a roadway link and that link is shown to perform at greater than one-hundred and twenty percent (120%) of the roadway's LOS "D" daily service capacity. and
 - The proposed development is not located within either the Downtown Revitalization District or an Urban Redevelopment District.
-

Consistent with the Network Impact Analysis requirements, screening of potential substantial impacts to severely congested facilities should consider existing traffic, proposed development traffic, background traffic, existing capacity, and committed capacity projects either to the subject facility or to facilities which, based on acceptable traffic analysis methodologies, relieve the subject facility.

When a substantial impact to a severely deficient roadway is apparent, the Applicant shall generally be required to perform additional operational analyses and may be required to evaluate and assist in the mitigation of neighborhood traffic intrusion issues resulting from severe congestion on adjacent major roadways.

- **Methodology Letter** – Prior to submitting a Network Traffic Analysis and Mitigation Plan, the Applicant must identify whether the development will create substantial impacts on any severely deficient roadway links and either:
 - include a statement in their Traffic Analysis and Mitigation Plan stating that the development does not substantially impact severely congested links or
 - submit a revised Methodology Letter identifying:
 - Severely congested major roadway links and corresponding intersections.
 - Potentially impacted neighborhood areas
 - Other critical safety and operational issues

Prior to preparing a revised Methodology Letter, the Applicant shall request a second methodology meeting to discuss study requirements and inputs. In most circumstances a follow-up meeting will be conducted to review the proposed Methodology Letter.

- **Evaluate Impacts to Severely Congested Facilities** - Consistent with the approved methodology letter, the Applicant shall evaluate the following:
 - Evaluate Intersection Operating Conditions – Using traffic count data approved by or obtained from the City Transportation Division, the Applicant shall determine whether one or more critical movements at the subject intersection[s] fail to operate adequately for a duration exceeding sixty (60) minutes in the AM peak period and seventy-five (75) minutes in the PM peak period based on the following standards.
 - The delay for individual turning-movements and through-movements may not exceed the segment standard by one
-

letter grade, but not below LOS "D" provided that the volume/capacity (V/C) ratio for the subject movement remains less than or equal to one.

- Average control delays up to 100 seconds are acceptable for individual turning movement where the V/C ratio is equal or less than 0.8.
- Evaluate neighborhood Impacts:
 - If requested as part of the Enhanced Network Traffic Analysis methodology letter, the Applicant shall conduct neighborhood cut-through traffic (tag-match), local street volume, local street speed studies, and/or other neighborhood traffic studies for neighborhood areas where observed intersection performance issues are likely to result in neighborhood traffic intrusion.
 - Pending the result of neighborhood traffic intrusion studies, as may be required above, the Applicant shall recommend conceptual traffic calming, traffic management, and bicyclist and pedestrian safety improvements necessary to substantially address neighborhood traffic intrusion.
- **Mitigation Requirements** – Pursuant to an Enhanced Network Impact Analysis, the following mitigation shall be required:
 - In the event that development impacts will significantly worsen conditions at one or more severely congested intersections (as defined above), the developer shall be required to enter into a developer agreement with the City to implement improvements to equally mitigate these impacts as follows:
 1. If the subject improvements are fully funded within the 5-year CIP, then the developer shall pay the proportionate fair share cost of these improvements.
 2. If the subject improvements are not fully funded within the 5-year CIP, then the developer may elect to:
 - a. Reduce the scale of the proposed development such that the impacts to the subject intersection(s) do not exceed the thresholds established in the Procedures

The developer may request to contribute an amount equal to the proportionate fair share cost necessary to equally mitigate the

developer's impacts to the subject intersection. If the subject intersection is not included in the adopted list of impact fee eligible projects, then the developer's proportionate fair share contribution shall not off set the developer's impact fee contribution.

The City Transportation Division Manager (or designee) shall determine whether the developer's request is acceptable to the City based on whether the proportionate fair share contribution is sufficient to fully fund one or more projects which substantially benefit the impacted network.

If the developer's request is not acceptable to the City then the impacts of the subject development shall not be considered to be adequately mitigated and the subject development order may be denied consistent with City of Tampa Code.

If neighborhood traffic intrusion issues have been identified, the developer may request to enter into a developer agreement with the City whereby up to 50% of the developer's proportionate fair share cost (related to the subject intersection improvements) may be used by the City to implement the City's Neighborhood Traffic Calming program or Other Transportation Modes (ie Bike, Pedestrian or Transit).

- **Impact Fee Credit Eligibility:** Should the Applicant elect to construct an improvement, dedicate right-of-way, or make a proportionate fair share contribution to alleviate severe intersection congestion, that contribution shall only off-set impact fees if the subject project is included within the City's list of impact fee eligible projects (City of Tampa Code of Ordinances, Chapter 25). Proportionate share contributions allocated by the City towards safety projects or neighborhood mitigation projects shall not off-set the development's impact fee contribution unless they can be shown to enhance major roadway network capacity and are included in the City's list of impact fee eligible projects (City of Tampa Code of Ordinances, Chapter 25).

4.5. Coordination of Mitigation Obligations:

For developments required to perform multiple study types, the total mitigation obligation shall be the greater of the mitigation requirements of each study type. However, those components of mitigation obligations for each study type which

are not eligible to off-set impact fees shall be cumulative. As shown in the examples below, the formula for calculating total transportation system mitigation obligations shall be the greater of:

Total Traffic Study Mitigation Obligations

or

The Transportation Impact Fee Assessment + Non-impact fee creditable Traffic Study Mitigation Obligations



Appendix 1 - Definitions:

Adjacent Roadway Link(s)	Nearest major roadway link(s) either directly connected to the development or connected to the development by the local street system
Critical Link and Intersection	Link and Intersection for which any entering link operates at or below LOS "D" based on a generalized "tables" analysis
Default Proportionate Share	A method of calculating a development proportionate share contribution based on an average cost per vehicle miles of capacity multiplied by the sum of a development's vehicle miles of travel on significantly impacted deficient major roadway links.
Existing Plus Committed Network	The Existing Network plus transportation system improvements under construction or scheduled to begin construction in the current fiscal year of the adopted work programs of the City, the FDOT, or other agencies with authority and responsibility for providing transportation system capacity, or other improvements that are guaranteed by a security instrument acceptable to the City that ensures construction will begin in the current fiscal year of such work programs.
Final Development Permit	Any building permit issued or commercial site plan approved pursuant to Chapter 5 of this Code, any construction drawing or final plat approved pursuant to Chapter 23 of this Code, or any development order or an approved Florida Quality Development or amendment thereto issued pursuant to F.S. § 380.06 et seq
Major Intersection	Any signalized intersection along a collector or arterial street or the unsignalized intersection of any two collector or arterial streets

Major Roadway Link	In an interrupted flow facility, a roadway link is the piece of road from one traffic signal to the next traffic signal, and is usually considered to include the traffic signal at the "downstream" end of the segment.
Net New Daily Trips	The "new" trips generated by the proposed uses of land less the trips generated by any existing uses of land on a site.
New Trips	Total trips generated by a site less internal capture and passer-by capture
Percent New Trips	The percent of total trips accounted for by "New" trips
Prioritized Project List within the Adopted CIE/CIP	List of constructible capacity projects adopted in the CIE/CIP as funded and unfunded items for each impact fee benefit district. Proportionate Share contributions are directed towards the prioritized project list and are therefore applicable to off-set development impact fee obligations.
Service Capacity	Either the generalized "tables" service capacity as calculated using the latest version of the FDOT Q/LOS manual or the service capacity of the roadway provided by the City of Tampa as part of the Methodology Letter review process.
Significantly Impacted	Generally, a roadway link is significantly impacted if the proposed development traffic consumes more than 5% of the LOS "D" daily service capacity of a link adjacent to the development and more than 2% of any other major roadway network links.
Total Daily Trips	All trips generated by the proposed uses on a site
Traffic Engineer	Professional Engineer in good standing registered in the State of Florida
Transportation Impact	Currently the City has adopted a transportation

Fee	impact fee based on the consumption of major roadway capacity.
Trip	One origin and one destination, or two producer or two attraction or two trip ends.
Trip End	One origin or one destination or one producer or one attraction.

Appendix 2: “No Study” Look-Up Table

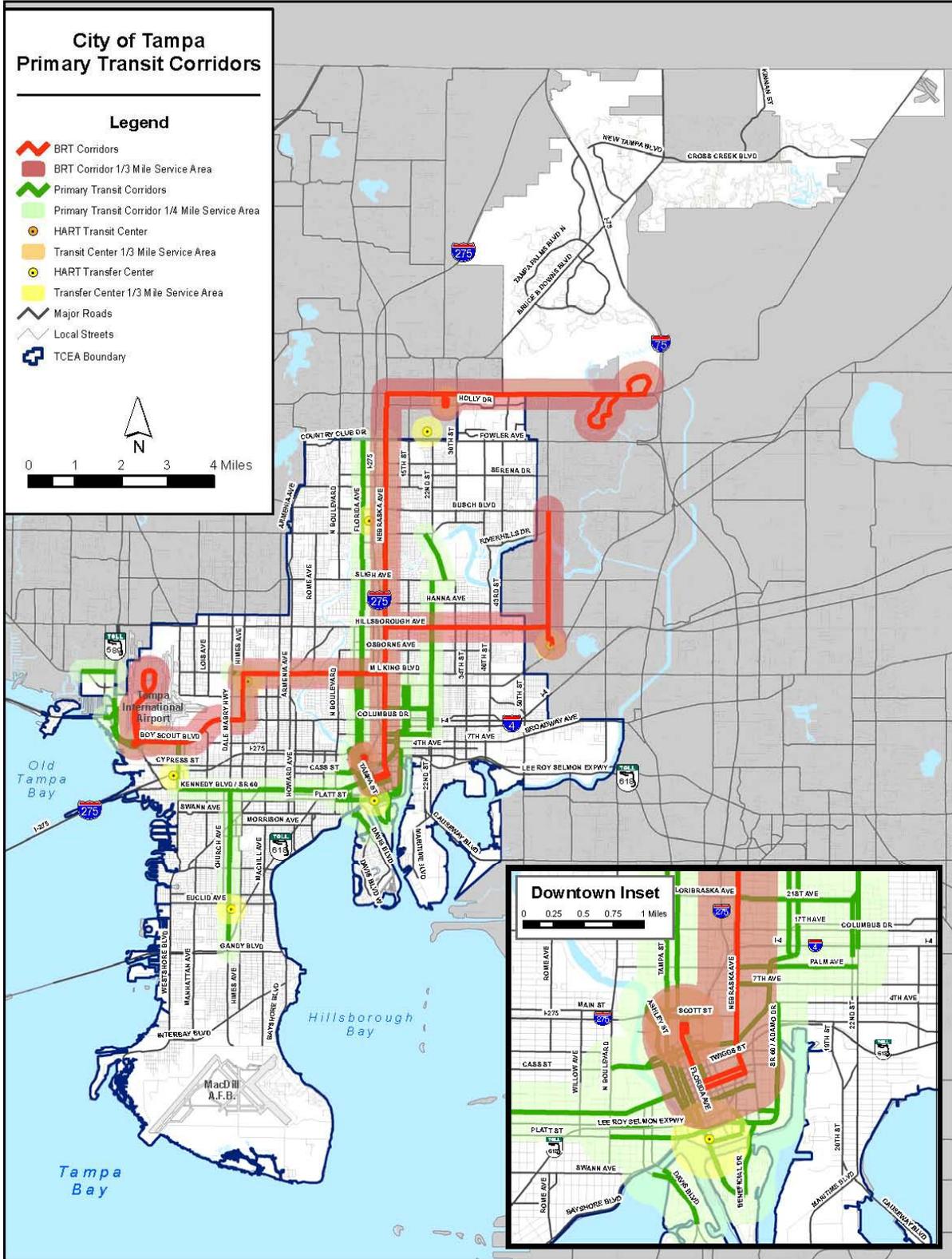
This Table, similar to the City’s impact fee rate table, which shows the (net new) daily trip ends for each impact fee land use category and the maximum quantity (units/square feet/etc.) for which the estimated daily trip generation is less than 100 daily trip ends. As with the City’s impact fee assessment process, the daily trip generation of existing development should be deducted from the daily trip generation of the proposed development in order to determine net daily trips. Because Appendix 1 is based on the City’s impact fee schedule, a percent new trip for each use category is already included in the calculation and should not be factored in separately.

Land Use	Units	ITE Trip Rate	Size of Development	Daily Trip Ends or Driveway Volume
Retail General Merchandise	1,000 sq. ft.	22.88	4,350 sq ft	100
General Office	1,000 sq. ft.	11.01	9,050 sq ft	100
Medical Office	1,000 sq. ft.	36.13	2,760 sq ft	100
Motel	Room	5.63	18 Rooms	100
Hotel	Room	8.17	13 Rooms	100
Quality Restaurant	1,000 sq. ft.	89.95	1,110 sq ft	100
High Turnover Restaurant	1,000 sq. ft.	127.15	790 sq ft	100
Fast Food w/ Drive-In	1,000 sq. ft.	496.12	210 sq ft	100
Supermarket	1,000 sq. ft.	102.24	1,000 sq ft	100
Convenience Store	1,000 sq. ft.	737.99	140 sq ft	100
Furniture Store	1,000 sq. ft.	5.06	19,700 sq ft	100
New Car Sales	1,000 sq. ft.	33.34	3,000 sq ft	100
Service Station	Pump	168.56	1 pump	100
Car Wash	Stall	108.00	1 stall	100
General Heavy Industrial	1,000 sq. ft.	1.50	66,500 sq ft	100
General Light Industrial	1,000 sq. ft.	6.97	14,300 sq ft	100
Mini-Warehouse	1,000 sq. ft.	2.50	39,800 sq ft	100
City Park	Acre	1.59	63 acres	100
Drive-in-Bank	sq. ft.	148.15	675 sq ft	100
Apartment Complex	dwelling unit	6.65	15 units	100
Condos/Townhouses	dwelling unit	5.81	18 units	100

ACLF	Bed	2.66	38 beds	100
Single Family Detached	dwelling unit	9.57	11 units	100

Daily Trip Ends = Trip Rate * Size / Units

Appendix 3: Primary Transit Corridors Map



Appendix 4 - Trip Generation and Distribution Standards:

The following guidance should be used in the determination of development trip generation and distribution (as necessary):

- **Trip Generation** - The trips from/to the site shall be estimated using the latest Institute of Transportation Engineers (ITE) Trip Generation Handbook, including separate trip generation estimates for interim uses. Other rates may be required by the City, or may be used if requested by the applicant and approved by the City. Use of other rates must be requested during the methodology step.
 - **Internal Capture** - Internal capture estimates shall be based on ITE acceptable methodologies and, where the ITE data is not applicable, professional judgment. However, in no case will an internal capture of more than 20 percent be acceptable, unless the City accepts a higher internal-capture percentage based on verifiable documentation (e.g. field studies of comparable sites).
 - **Passer-By Capture** - The total gross external trips of the project traffic may be reduced by a passer-by factor to account for the project traffic that is already traveling on the adjacent roadway. In no event shall the total passer-by trips entering and exiting a site exceed 10 percent of the total background traffic on the adjacent roadway. In analysis of the site-access intersections with major roads, the passer-by trips shall be included and separately identified. In cases where median controls limit left-in/left-out access to the site, traffic on the "far side" of the road can be considered in assessing the upper limit on captured trips; however, the effects of that traffic in the associated necessary U-turns and added flow at the upstream and downstream median openings or intersections should be identified as development traffic at those locations. The passer-by capture percentage shall be computed as the number of trips entering plus exiting the site land uses claimed as captured divided by the number of background trips passing by the site on major roads directly abutting or passing through the site.
 - **Vested Trips** – Vested trips should be deducted from the net trip generation estimate.
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- **Redevelopment** - In the case of redevelopment, vested trips shall be calculated based on the actual uses in place provided that those uses have maintained an active certificate of occupancy within the last five (5) years. Vested/existing trip generation shall be calculated using the latest Institute of Transportation Engineers (ITE) Trip Generation Handbook and shall consider internal capture and passer-by capture.
- **Prior Mitigation Agreements** - Vested trips may also include trip generation estimates prepared in support of a prior approved zoning amendment, commercial site plan, subdivision plat, or building permit for which a mitigation payment or advance payment of the City's transportation impact fee has been accepted by the City.
- **Changes in Use/Traffic Patterns** - When the redevelopment of a site will result in changes to the land use composition, as part of the Methodology Letter review and approval, the City may direct the Applicant to conduct a separate Distribution/Assignment for the existing use and calculate net trips as the differential of the impact on specific roadway links rather than as a function of overall trip generation.
- **Distribution/Assignment** - The latest, adopted, Tampa Bay Regional Planning Model (TBRPM) is acceptable in determining the trip distribution percentages and trip assignments. The results of the model will be reviewed by the City for reasonableness to ensure the existing and future travel patterns are correctly simulated. Manual trip distribution and assignment may also be acceptable as long as it is reviewed and accepted by the City and logically replicates the existing and future travel patterns.

Traffic Count Data:

All counts shall be conducted based on acceptable engineering standards. Prior to approval of the methodology letter, other peak-season adjustment factors or adjustment methodologies that may result in different peak-season adjustment factors may be requested at the discretion of the City.

Generally, for saturated intersections, the FDOT's methodology shall be followed to estimate the turning movement counts by multiplying the average annual daily traffic (AADT) tube count at appropriate locations by field verified "D" and minimum K100 factors and by applying the percentage turns obtained from the

field turning-movement counts. It is recognized that in some areas, actual peak hour travel demand (as opposed to capacity-constrained traffic volumes) does not match with the default K100 factors. As part of the methodology meeting, an alternative K factor may be allowed based on demonstrated differences in the actual travel demand characteristics of the subject roadway. In no event, however, shall the estimated, turning-movement counts be less than the existing field counts.

When conducting an Enhanced Network Impact Analysis, the FDOT methodology shall be used to establish whether the intersection operates adequately during the peak hour. To determine whether the intersection operates adequately during the time periods adjacent to the peak periods, turning movement volumes collected in the field shall be used in conjunction with seasonally adjusted 15-minute tube counts to establish operating conditions adjacent to the peak periods. Additionally, quantitative data related to queue length and qualitative observations of interactions with adjacent signalized intersections may be required as part of the Methodology Letter review and approval process.

Approved FDOT or City-maintained counts may be used if they are less than two years old or older, if approved by the Transportation Division. However, new counts may be requested if there are recent improvements to the transportation system that cause significant changes in traffic patterns. Counts more than one year old will not be acceptable unless otherwise approved by the City. Machine counts should start no earlier than 9:00 a.m. on Mondays and end no later than 3:00 p.m. on Fridays.

Acceptable Software:

Use of analysis software is allowed in accordance with the following:

- For unsignalized intersections, the latest version of Highway Capacity Software (HCS) or any software approved by the Transportation Division is the preferred software for analyzing delay and LOS.
 - For signalized intersections, the latest version of HCS or Synchro software or any software approved by the Transportation Division using the percentile delay methodology is required.
 - For interrupted flow road segment analysis, the preferred software is the latest version of Synchro or any software approved by the Transportation Division.
 - For uninterrupted flow roads (those with more than two-mile signal spacing) the latest version of the Florida DOT's Highplan software is
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acceptable. Not familiar with this software, so Synchro or any software approved by Transportation will be acceptable.

- The electronic copy of the analysis files shall be provided. The hard copy of the summary sheets shall be provided unless otherwise requested by the City.
- Other analysis software may be required by the City to address situations not addressed by the above provisions, or if requested by the applicant and approved by the City during the methodology step.

If any analysis software is used as an alternative to the Florida Department of Transportation's generalized tables, detailed LOS analysis of all major intersections within the facility is required. The input data to the software shall be field verified and provided in the report including, but not limited to:

- Geometry, including lane widths and turn-lane lengths
- Heavy vehicle factor
- (Directional factor (D Factor, not to be less than 0.52 for the future conditions analysis)
- Peak-hour factor (PHF, not to exceed 0.95 for the future conditions analysis)
- Values of the above parameters should be estimated in the future conditions analysis to reflect unconstrained demand conditions.

Existing signal timing and phasing can be obtained from the City Traffic Control Section. The existing signal timing, shall be used for the initial analysis of future conditions. Adjusting signal timings is not adequate mitigation.
