

ORDINANCE NO. 21-1732

AN ORDINANCE OF THE CITY OF HAINES CITY, FLORIDA; AMENDING THE LAND DEVELOPMENT REGULATIONS OF THE CITY OF HAINES CITY, FLORIDA, ADOPTING TEXT CHANGES TO THE LAND DEVELOPMENT REGULATIONS OF THE CITY BY ADOPTING REVISIONS TO CHAPTER 4 – DEFINITIONS, CHAPTER 6 – SPECIAL PROVISIONS; CHAPTER 13 – SUBDIVISIONS, AND CHAPTER 6 OF THE ADMINISTRATIVE AND PROCEDURES MANUAL; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Chapter 163, Florida Statutes, empowers the City Commission of the City of Haines City, Florida to prepare and enforce Land Development Regulations for the implementation of the adopted Haines City Comprehensive Plan; and

WHEREAS, the City Commission adopted Ordinance No. 796, Land Development Regulations to implement the adopted Haines City Comprehensive Plan; and

WHEREAS, the Haines City Planning Commission, at an advertised public hearing as required by Chapter 21 of the Land Development Regulations, has reviewed, heard public input and recommended that the City Commission adopt specific changes in the Land Development Regulations and the Administrative and Procedures Manual; and

WHEREAS, the City Commission of the City of Haines City, Florida considered all oral and written comments received during advertised public hearings, and the recommendations of the Haines City Planning Commission; and

WHEREAS, in exercise of its authority, the City Commission of the City of Haines City, Florida has determined it necessary and desirable to adopt specific changes in the Land Development Regulations by restating the entire Land Development Regulations consistent with the public interest within Haines City, Florida.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COMMISSION OF THE CITY OF HAINES CITY, FLORIDA, AS FOLLOWS:

Section 1. Amendment to Chapter 5 of the Land Development Regulations of Haines City, Florida. The City Commission hereby amends portions of Chapter 4 – Definitions, Chapter 6 – Special Provisions, and Chapter 13 – Subdivisions of the Land Development Regulations, and Chapter 6 of the Administrative and Procedures Manual of Haines City, Florida, as follows by strike through for removal and underline for additions format:

SEE ATTACHED EXHIBIT “A”

Section 2. Severability. The provisions of this Ordinance are severable; and, if any section, sentence, clause, or phrase is for one reason held to be unconstitutional, invalid or ineffective, this holding shall not affect the validity of the remaining portions of this Ordinance, it being expressly declared to be the City Commission's intent that it would have passed the valid portions of this Ordinance without inclusion of any invalid portion or portions.

Section 3. Codification. The Ordinance shall be codified and made a part of the official Code of Ordinances, Land Development Regulations, or Charter of the City of Haines City.

Section 4. Repeal of Ordinance in Conflict. All other ordinances of the City of Haines City, Florida, or portions thereof which conflict with this or any part of this Ordinance are hereby repealed.

Section 5. Effective Date. This Ordinance shall take effect immediately upon it being read in two meetings of the City Commission of the City of Haines City, its approval, and adoption.

INTRODUCED AND PASSED on first reading in regular session of the City Commission of the City of Haines City, this 15th day of April, 2021.

ATTEST:

APPROVED:

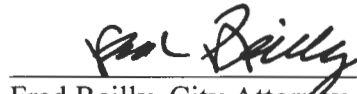


Erica Anderson, CMC
City Clerk



Morris L. West, Mayor-Commissioner

APPROVED AS TO FORM AND CORRECTNESS:

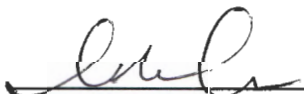


Fred Reilly, City Attorney

PASSED on second and final reading by the City Commission of the City of Haines City, Florida, at regular session this 17th day of June, 2021.

ATTEST:

APPROVED:




Erica Anderson, CMC,
City Clerk



Morris L. West, Mayor-Commissioner

APPROVED AS TO FORM AND CORRECTNESS:



Fred Reilly, City Attorney



EXHIBIT "A"
05-06-2021 LDR Text Amendments

ALL AMENDMENTS AS STATED BELOW SHALL BECOME EFFECTIVE IMMEDIATELY UPON APPROVAL.

Chapter 6 – Special Provisions.

Sec. 6.1.1.D.4. – PUD districts – Where permitted. (SHALL BECOME EFFECTIVE MAY 1, 2021.

4. Minimum Residential Planned Unit Development (RPUD) standards as follows:

a. Minimum RPUD Standards and Policy

During the zoning phase of any proposed development, should the Developer request lot sizes less than 60' in width and 110' in depth, the following standards shall be required:

RPUD - MINIMUM DEVELOPMENT STANDARDS

FOR 42' WIDE LOTS*

LOT WIDTH - 42'

DEPTH - 115'

FRONT YARD – 15'

GARAGE – 20'

SIDE YARD - 6'

FRONT SIDE YARD -15'

REAR YARD - 15'

NEIGHBORHOOD STREETS – 50'

(Without Parking)

NEIGHBORHOOD STREETS -60'

(With Parking)

FOR 52' WIDE LOTS*

LOT WIDTH - 52'

LOT DEPTH – 115'

FRONT YARD – 15'

GARAGE – 20'

SIDE YARD – 6'

FRONT SIDE YARD - 15'

REAR YARD -15'

NEIGHBORHOOD STREETS – 50'

(Without Parking)

NEIGHBORHOOD STREETS - 60'

(With Parking)

b. Development Policy:

- i. All new Residential Development shall install reuse water lines or dry reuse lines until reuse water is available.
- ii. A variety of lot sizes are required. **(The maximum ratio of 42' lots to 52' lots shall NOT exceed a 60%-52' : 40%-42' ratio.**

Chapter 4 – DEFINITIONS.

Sec. 4.2.1. TERMS.

IMPROVEMENTS. The installation of street pavement or resurfacing, curbs, gutters, sidewalks, water lines, sewer lines, storm drains, street lights, flood control and drainage facilities, **park amenities**, utility lines, landscaping, **screening (plant material, fence, masonry wall, etc.)**, any man-made alteration of the natural vegetation or land contour and other related matters normally associated with the development of land for buildings and/or sites for the sale of lots.

Chapter 13 – Subdivisions.

Sec. 13.5.5. PLATS AND DATA FOR FINAL APPROVAL

C. A certificate by the City (consulting) engineer certifying that the developer has complied with the following:

1. All improvements **(See Chapter 4 Definitions)** have been installed in accord with the requirements of these regulations and with the action of the City Commission giving conditional approval of the preliminary plat; or
2. In the event that all improvements **(See Chapter 4 Definitions)** have not been installed, a surety bond or letter of credit executed by a corporation authorized to do business in the State that is satisfactory to the City, or a certified check has been posted, which is available to the City, in an amount of 120% of the estimated completed construction cost as determined by the City (consulting) engineer. This estimate shall be based upon recent construction costs to assure such completion of all required improvements. A construction beginning and completion time period shall be required by the City Commission and expressed in bond agreement to secure to the public the actual construction and installation of improvements as required by these regulations.

Administrative and Procedures Manual Chapter 6 – Impact Statements **and Studies**

Sec. 6.1.7. – Traffic Impact Study

INTENT. To require all new development including but not limited to residential, commercial and industrial developments to comply with the following Traffic Impact Study criteria. Traffic Impact Studies will be required prior to the approval of Preliminary Plats for subdivision and Site Plan approval for commercial and/or industrial projects.

A. Traffic Impact Study Guidelines.

City of Haines City, Florida

Traffic Impact Study Guidelines and Requirements

A. Purpose

The purpose of the traffic impact study is to identify the potential impacts of new development on the *City of Haines City* transportation network and to provide information which will allow a concurrency determination and any required mitigation for impacts to be made on each impacted segment. The traffic impact study will identify development traffic volumes on each impacted segment and intersection within a defined area, identify if any those roadway segments and intersections on which the adopted Level of Service cannot be maintained, include link and intersection analysis, and recommend potential solutions and/or mitigation for those segments and intersections on which the adopted Level of Service is not being met, and the associated improvements necessary to regain concurrency.

B. Intent

The intent of this document is to define the requirements, procedures and methodology for the preparation and submission of a traffic impact study (TIS) in the *City of Haines City* and to provide an equitable, consistent and systematic means of determining the future impact of proposed developments while maintaining the adopted service levels on all roadways. Nothing contained in this document shall waive any requirement contained elsewhere in the *Haines City* Land Development Code. Certain data must be obtained prior to conducting the study to verify the analysis will meet the current standards. For example, if the adopted level of service standards might have changed, if the City might have adopted a transportation concurrency exception area (TCEA), any information on other developments in the study area that are approved but their traffic is not part of existing volume.

C. Applicability

The requirements, procedures and methodology for a traffic impact study contained in this section shall apply to all development approvals in incorporated *Haines City*. In all cases, it will be the responsibility of the applicant to demonstrate to *Haines City* Community Development and the Polk TPO, and potentially the Florida Department of Transportation (FDOT) that a proposed development will not unduly impact the road system.

D. Requirements

As identified in Table 1: Traffic Study Requirements, there are three (3) levels of traffic studies that could be required. The study requirements and depth of analyses are defined for the three (3) study "tiers" in Table 1 and the subsequent sections.

Table 1: Traffic Study Requirements

	Tier 1 – Traffic Review	Tier 2 – "Minor Traffic Study"	Tier 3 – "Major Traffic Study"
Maximum AM or PM Peak Hour Two Way Net New Trips	≤ 50	51 to 99	> 99
See Section 1 for additional details.			
Methodology			
Methodology Letter/ Statement	Not Required	Required. See Section 2 for requirements.	
Methodology Meeting	Not Required	Not Required	Required. A methodology letter shall be provided prior to the meeting for City review.
Study Area			
Study Segments	If the development accesses directly onto a segment identified on the Concurrency Determination Network, this segment shall be evaluated. If the directly accessed segment on the Concurrency Determination Network does not meet the adopted standard, backlogged, constrained or otherwise, the City may require study of additional segments and intersections. If the development does not directly access a segment on the Concurrency Determination Network, no segment evaluation will be required.	Directly accessed segments on the Concurrency Determination Network and all roadway segments where peak hour project generated trips are estimated to consume 5% or more of the peak hour directional service volume, based on service volumes documented in the latest version of the Polk County TPO Roadway Network Database.	
Study Intersections	Driveway Access Points	Driveway access points and all signalized intersections and major unsignalized intersections for which an approach leg is a study segment.	
Technical/Evaluation Requirements			
Data Collection	Intersection turning movement and roadway segment volume traffic data used in analysis shall be less than 12 months old (from the date that the methodology receives approval from the City) and shall be collected during periods of normal traffic conditions. Traffic volumes shall be adjusted to peak season using appropriate correction factors.		
Background Traffic	Background traffic shall be based on historical growth rates, calculated from historic average annual daily traffic (AADT) data at nearby FDOT count stations, or other historic AADT data, if available. Include any vested trips documented within the buildout year, if directed by City or designee. In some cases, for a Tier 3 Study, additional planned development traffic may need to be incorporated if the combined level exceeds the historic growth factor in the study area roadway segments.		
Committed Improvements	Projects identified for construction in the first three years of an adopted Work Program (WP), Transportation Improvement Program (TIP), or Capital Improvement Program (CIP), so long as the improvement is funded for construction consistent with the proposed buildout year.		

Table 1: Traffic Study Requirements

	Tier 1 – Traffic Review	Tier 2 – "Minor Traffic Study"	Tier 3 – "Major Traffic Study"
Trip Generation	The latest edition of the ITE Trip Generation Manual shall be used for calculation of project trips. If authorized by the City or designee, trip generation data from other sources may be used in the analysis. The latest edition of the ITE Trip Generation Handbook shall be used to estimate pass-by trip reductions for non-residential developments. Internal capture estimates for mixed-use developments shall be based the methodology outlined in NCHRP 684.		
Trip Distribution/ Assignment	Distribution and assignment may be based on existing traffic patterns.		Distribution and assignment shall be based on traffic modeling using the currently approved and calibrated District One Regional Planning Model (D1RPM) unless an exemption is provided by the City or designee.
Analysis Scenarios	Segment and Intersection analysis will be required for the following scenarios: Existing Scenario, Future No Build, and Future Build. If mitigation is needed to achieve adopted standards in the Future No Build or Future Build scenarios, additional scenarios, including the mitigation improvements, will be required. For multiphase developments, analysis of future No Build and Build scenarios will be required for each development phase. See Section 4 for additional details.		
Segment Analysis	Peak hour, directional Level of Service (LOS) analysis shall be conducted for study segments under AM and PM peak hour conditions. See Section 5 for additional details. In certain cases, if the proposed project does not include residential uses, the requirement for AM peak hour analysis may be waived by the City.		
Intersection Analysis	Peak hour LOS analyses shall be conducted for study intersections under AM and PM peak hour conditions. See Section 6 for additional details. In certain cases, if the proposed project does not include residential uses, the requirement for AM peak hour analysis may be waived by the City.		
Turn Lane/Access Analysis	The need for turn lanes at proposed driveway access points shall be determined using the methods of NCHRP 457 for left-turn and right-turn lanes. This analysis should be conducted for the worst-case peak hour to determine the need for turn lanes.		
Traffic Study Requirements			
Content	Trip Generation (Daily, AM and PM Peak Hour), Segment Analysis, and Driveway Peak Hour Analysis, and Turn Lane/Access Analysis. If the directly accessed segment on the Concurrency Determination Network does not meet the adopted standard, backlogged, constrained or otherwise, the City may require study and documentation of additional segments and intersections.	Traffic study requirements are outlined in Section 8.	
Signed/Sealed by a Florida PE	Not Required	Yes	Yes
Review			
FDOT Review	Not Required unless right-of-way permit is needed	Yes, if the project trips are >5% on a state roadway and more than 3% on SIS or if right-of-way permit needed	

1. Traffic Study Tiers/Net External Trip Thresholds

The requirement for traffic studies are based on the net external AM or PM peak hour trips for the project, whichever is greatest, as determined by Table 1. For multi-phase developments, the trip thresholds are based on project buildout, not by phase. In cases of redevelopment, net external trips shall be based upon the new or proposed land use as compared to the land use existing at the time of redevelopment. Credit for prior use must be utilized in connection with a redevelopment of the site within one (1) year following the demolition of the existing structure or termination of the existing use or business, whichever first occurs.

2. Methodology Letter

A methodology letter is required for Tier 2 and Tier 3 traffic studies. An example methodology letter is included in the appendix to these guidelines. The applicant must submit the written methodology letter to the City and obtain written concurrence on the proposed methodology. It is suggested that the methodology letter be submitted to the City as a draft prior to the pre-application meeting. Failure to prepare and obtain approval for the study methodology may result in disapproval of the traffic impact study (TIS) or a request for additional information and the requirement for a revised TIS. The methodology letter shall include the following information:

- ☐ Project description.
- ☐ Anticipated buildout year for single phase developments and planned development phasing for multi-phase developments.
- ☐ Tier of traffic study being proposed.
- ☐ Site Location map.
- ☐ Site plan of the proposed development that shows the proposed access locations.
- ☐ Programmed improvements
- ☐ Map of the area of influence/study area.
- ☐ Table of proposed trip generation including pass-by trips and internal trip capture including land use description, ITE codes, trip rates or formulas and data used in the calculations from the latest edition of the ITE Trip Generation Manual and ITE Trip Generation Handbook. If authorized by the City or designee, trip generation data from other sources may be used in the analysis. If proposing an alternative source for trip generation data, attach study documentation, if already completed, or document the proposed methodology, consistent with guidance in the ITE Trip Generation Handbook, if an alternative trip generation rate is to be calculated based on observations of other sites, a minimum of two sites are required unless prior approval is received from the City.
- ☐ Proposed trip distribution in influence/study area.
- ☐ List of roadways and intersections that fall within the area of influence/study area.
- ☐ Identify any critical issues related to the project such as unacceptable roadway conditions, access constraints, public easements, etc.
- ☐ Proposed growth rate for calculation of background growth.
- ☐ List of projects contributing to the total traffic that are approved but not yet adding traffic to the network (vested trips).
- ☐ Date of any traffic counts used in the analysis. Note: traffic counts more than one (1) year old cannot be used in the study unless approved by the City.

- Multimodal Assessment: evaluation of transit, bicycle and pedestrian accommodations as outlined in Section 3.

3. Multimodal Assessment

The multimodal assessment shall include an evaluation of existing and programmed bicycle, pedestrian, and transit mobility options. This assessment shall also discuss how the site plan encourages walking, bicycling and transit ridership through one or more of the following:

- Safe adequately lighting and well-maintained pathways and/or sidewalks
- Bicycle facilities and parking
- Identifiable crosswalks
- Transit bus stops & transit stop amenities (i.e., bench, bus shelter, etc.)
- Removal of natural and/or built barriers that discourage walking
- Compliance with American's with Disabilities Act (ADA) requirements
- Buffering between vehicular areas and sidewalks
- Linkage to existing or future walkway and/or bikeway network and transit route

4. Analysis Scenarios

Segment and intersection analysis will be required for the following scenarios. For multiphase developments include analysis of future No Build and Build scenarios for development phases.

a. Existing Scenario

AM (if required) and PM peak hour analysis of existing traffic on the existing transportation network. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

b. Future No Build Scenario

AM (if required) and PM peak hour analysis of existing traffic, plus background traffic (derived from growth rates, vested trips, or combination of both), placed on the existing network, plus all improvements funded for construction within the first three years of the state, county or local jurisdiction's adopted work program, capital improvement plan (CIP) and/or adopted transportation improvement plan (TIP). If a non-residential use, the requirement for an AM analysis may be waived with City approval.

c. Future Build Scenario

AM (if required) and PM peak hour analysis of existing traffic, plus background traffic (derived from growth rates, vested trips, or combination of both), plus the project's traffic placed on the existing network, plus all improvements funded for construction within the first three years of an adopted work program, CIP and/or TIP, and proposed project driveways/access improvements. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

d. Future No Build Scenario with Mitigation (if necessary)

AM (if required) and PM peak hour analysis of the Future No Build Scenario with the inclusion of any other improvements that are required for mitigation. This analysis scenario will be required only if mitigation is required to obtain the adopted Level of Service as the result of the Future No Build Scenario analysis. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

e. Future Build Scenario with Mitigation (if necessary)

AM (if required) and PM peak hour analysis of the Future Build Scenario with the inclusion of any other improvements that are required for mitigation. This analysis scenario will be required only if mitigation is required to obtain the adopted Level of Service as the result of the Future Build Scenario analysis. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

5. Segment Analysis

AM (if required) and PM peak hour, directional Level of Service (LOS) analysis shall be conducted for study area segments based on currently accepted traffic engineering principles. Segment analysis should compare roadway volumes to the service volumes published in the latest edition of the Polk County TPO Roadway Network Database, if available, or the FDOT Generalized Service Volume Tables. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

Methods that incorporate and apply appropriate techniques from the latest edition of the Highway Capacity Manual (HCM) are also acceptable. These methods may include the use of the latest available versions of the Highway Capacity Software (HCS), Synchro, or LOSPLAN, as approved by the City.

a. LOS Standards

The calculated LOS shall be compared to the adopted LOS standards used for concurrency determination and shall be consistent with the Transportation Element of the Haines City Comprehensive Plan.

b. Roadway Volumes

Existing roadway volumes may be established from the latest edition of the Polk County TPO Roadway Network Database (if available), counts from the Florida Department of Transportation (if available), or collected segment volumes (which may be derived from collected peak hour turning movement counts used for the subject TIS).

c. Roadway Service Volumes

Roadway service volumes will be provided in the Polk TPO Concurrency Network Database. In the event the information is not available, FDOT generalized level-of-service standards/tables may be used upon confirmation by the City or designee. Roadway improvements programmed within the first three years of an adopted work program, TIP, or CIP may be utilized as long as the improvement is funded for construction consistent with the proposed buildout year for the development, but no more than three years from the date of the study.

6. Intersection Analysis

AM (if required) and/or PM peak hour LOS analyses shall be conducted for all study intersections based on currently accepted traffic engineering principles. Methods that incorporate and apply appropriate techniques from the latest edition of the Highway Capacity Manual (HCM) are acceptable. These methods may include the use of the latest available versions of the Highway Capacity Software (HCS) or Synchro. Microsimulation software may also be used but is not required.

a. LOS Standards

The existing LOS shall be compared to the adopted LOS standards used for concurrency determination and shall be consistent with the Transportation Element of the Haines City Comprehensive Plan. The LOS standards for an intersection analysis shall be the conservative adopted roadway LOS standard of the intersecting roadways.

b. Signalization

If signalization is proposed as a mitigation measure, a signal warrant analysis (including FDOT signal warrant summary worksheets) and a Stage 1 Intersection Control Evaluation (ICE) shall be provided for the location(s) proposed for signalization.

7. Turn Lane/Access Analysis

The need for turn lanes at proposed project access shall be determined using the methods of NCHRP 457 for left-turn and right-turn lanes. This analysis should be conducted for the worst-case peak hour to determine the need for turn lanes.

8. Traffic Study Requirements

Tier 2 and 3 traffic studies shall include the following elements.

- **Table of Contents, List of Figures, List of Tables**
- **Introduction:** project description, site location, site plan, study area/area of influence map, planned and programmed improvements and committed developments.
- **Existing Roadway & Intersection Conditions:** existing roadway segment geometry, existing intersection geometry, existing traffic volumes and existing segment and intersection LOS results. If a segment or intersection with a history of high crash occurrence exists within a study area, at the discretion of the City an evaluation of potential mitigating measures can be required.
- **Future Roadway & Intersection Conditions:** future roadway segment geometry and future intersection geometry.
- **Future Traffic Conditions:** background traffic, trip generation, trip distribution and assignment and future traffic volumes.
- **Transportation Assessment:** segment analysis, intersection analysis, and turn lane/access analysis for future conditions.
- **Multimodal Assessment:** evaluation of transit, bicycle, and pedestrian accommodations.
- **Mitigation Strategies:** recommended improvements and proportionate share calculations.
- **Summary/Conclusions:** brief discussion to highlight the reason for the traffic study tier classification, methodology followed, general results of the analysis and action requested (e.g., approval of mitigation strategy).
- **Appendix:** approved methodology, traffic count data, site plan, vested project traffic data, capacity analysis summary sheets for existing conditions and future conditions, trip distribution plot from the travel demand model, and all other pertinent data to support the traffic study. For a Tier 2 or 3 study, the electronic operational analysis files (Synchro, HCS, etc.) shall be submitted with the report.

E. APPENDIX

1. Example TIS Methodology Statement
2. TIS Methodology Template/Pre-Application Meeting Checklist

B. Traffic Impact Study Methodology Statement – Example

EXAMPLE TRAFFIC IMPACT STUDY METHODOLOGY STATEMENT

Haines City, Florida

Introduction

The purpose of this memorandum is to provide the City of Haines City with the proposed methodology to evaluate the transportation impacts associated with the planned development known as Describe. According to the City's Traffic Impact Study Guidelines and Requirements, this project qualifies for a Tier _____ Traffic Study.

Project Description

The proposed development program for the site includes Describe. The development will be constructed in # phase(s) that is/are anticipated to be completed in year/years.

Site Location & Site Plan

Describe (surrounding street network/fronting street description and attach copy of concept/preliminary site plan.

Area of Influence / Study Area Intersections

At a minimum, all major site access driveways will be evaluated in addition to any upstream or downstream intersections identified by the City of Haines City. At a minimum, the roadways and all ending segment intersections that are signalized and where the project traffic will constitute 5% or more of the roadway service volume capacity at the adopted level of service will be analyzed.

Planned and Programmed Improvements

The study will assume the construction of all transportation improvement projects listed in the first three years of the adopted work programs for the FDOT, Polk County or the City of Haines City. _____ Describe _____ site access improvements are proposed in conjunction with the project development program.

Trip Generation

To estimate the trip-generating characteristics for the proposed development, traffic projections were derived from trip generation regression equation published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual*, Note current edition used. A summary of the trip generation for the project is included in Table 1. Given the land uses, No/Some trip reductions were taken for internal capture and/or pass-by trips. The study will/will not include the use of localized trip generation from the Polk County TPO or documented trip generation studies from similar land uses. The City will be provided the results and the opportunity to approve the use of alternative trip generation estimates in advance of any study submittal.

Table 1: Trip Generation Summary

Land Use	ITE Code	Intensity	Daily Trip Ends	AM Peak Period					PM Peak Period				
				In		Out		Total	In		Out		Total
				%	Trips	%	Trips		%	Trips	%	Trips	
XXXXXX	XXX	XXXXXX	XXXX	XX%	XX	XX%	XX	XXX	XX%	XX	XX%	XX	XXX

Source: _____

EXAMPLE TRAFFIC IMPACT STUDY METHODOLOGY STATEMENT

Haines City, Florida

Trip Distribution and Assignment

The project traffic distribution pattern will be developed Describe Approach. The project distribution, when produced, will be provided to the City of Haines City for review before developing future traffic projections. The future traffic volumes will be discussed in the report and represented graphically.

Traffic Impact Assessment

To assess the traffic impacts associated with the proposed development, traffic counts will be required. Firm will collect peak hour turning movement counts on a typical weekday during the morning and afternoon peak-hour periods for all study area intersections. Appropriate peak season correction factors will be applied to the raw counts. Future background volumes will be derived after reviewing historic growth rates, using the last 5 years of available AADT data. Any negative growth will be identified and a minimum of 2% per year growth applied. As part of this study, analysis for the following conditions will be completed:

- Existing Year conditions (during AM and PM peak hour periods)
- Future Year conditions, without project (during AM and PM peak hour periods)
- Future Year conditions, with project (during AM and PM peak hour periods)
- Turn lanes assessment at the site access driveways for future conditions

The traffic assessment will be conducted for all intersections using methodologies from the Highway Capacity Manual. Synchro is the preferred software for intersections and corridor analysis, if appropriate.

Multimodal Assessment

Discussion of existing and programmed bicycle, pedestrian, and transit mobility options and an assessment of how the site plan encourages walking, bicycling and transit ridership.

Traffic Report

Firm Name will prepare a Traffic Impact Study Report summarizing the study methodology, existing and future conditions, project impacts, and potential mitigation measures.

If you have any questions, please do not hesitate to contact us.

Submitted by:

Name
Registration
Firm
Email
Contact Phone

Methodology accepted and approved by:

(Signature)
(Print Name)
(Title, Agency)
(Date)

C. Traffic Impact Study Methodology Checklist Template

INITIAL MEETING CHECKLIST

Haines City, Florida

Suggestion: Use this Appendix as a worksheet to ensure that no important elements are overlooked. Cross out the items that do not apply.

Date: _____ Time: _____

Location: _____

People Attending:

Name, Organization, and Telephone Numbers

1) _____

2) _____

3) _____

4) _____

5) _____

Study Preparer:

Preparer's Name and Title: _____

Organization: _____

Address & Telephone Number: _____

Reviewer(s):

Reviewer's Name & Title: _____

Haines City Community Development Department

Reviewer's Name & Title: _____

Organization & Telephone Number: _____

Applicant:

Applicant's Name: _____

Address: _____

Telephone Number: _____

Proposed Development:

Name: _____

Location: _____

Land Use Type: _____

ITE Code #: _____

Proposed number of development units: _____

Other: _____

Description:

INITIAL MEETING CHECKLIST
Haines City, Florida

Zoning

Existing: _____

Comprehensive plan recommendation: _____

Requested: _____

Findings of the Preliminary Study:

Study Type:

Tier 1 Traffic Study _____

☐

Tier 2 "Minor Traffic Study" _____

☐

Tier 3 Major Traffic Study _____

☐

Study Area:

Boundaries: _____

Additional intersections to be analyzed: _____

Horizon Year(s): _____

Analysis Time Period(s): _____

Future Off-Site Developments: _____

Source of Trip Generation Rates: _____

Reductions in Trip Generation Rates:

None: _____

Pass-by trips: _____

Internal trips (PUD): _____

Transit use: _____

Other: _____

Horizon Year Roadway Network Improvements:

Methodology & Assumptions:

Non-site traffic estimates: _____

Site-trip generation: _____

Trip distribution method: _____

Traffic assignment method: _____

Traffic growth rate: _____

INITIAL MEETING CHECKLIST
Haines City, Florida

Special Features: (from preliminary study or prior experience)

Accidents locations: _____
Sight distance: _____
Queuing: _____
Access location & configuration: _____
Traffic control: _____
Signal system location & progression needs: _____
On-site parking needs: _____
Data Sources: _____
Base maps: _____
Prior study reports: _____
Access policy and jurisdiction: _____
Review process: _____
Requirements: _____
Miscellaneous: _____

=====

SIGNATURES

Study Preparer

P.E. Registration Number

Reviewers

Applicant

Date

TRAFFIC IMPACT STUDY GUIDELINES AND REQUIREMENTS



City of Haines City, Florida

March 17, 2021

City of Haines City, Florida

Traffic Impact Study Guidelines and Requirements

A. Purpose

The purpose of the traffic impact study is to identify the potential impacts of new development on the *City of Haines City* transportation network and to provide information which will allow a concurrency determination and any required mitigation for impacts to be made on each impacted segment. The traffic impact study will identify development traffic volumes on each impacted segment and intersection within a defined area, identify if any those roadway segments and intersections on which the adopted Level of Service cannot be maintained, include link and intersection analysis, and recommend potential solutions and/or mitigation for those segments and intersections on which the adopted Level of Service is not being met, and the associated improvements necessary to regain concurrency.

B. Intent

The intent of this document is to define the requirements, procedures and methodology for the preparation and submission of a traffic impact study (TIS) in the *City of Haines City* and to provide an equitable, consistent and systematic means of determining the future impact of proposed developments while maintaining the adopted service levels on all roadways. Nothing contained in this document shall waive any requirement contained elsewhere in the *Haines City* Land Development Code. Certain data must be obtained prior to conducting the study to verify the analysis will meet the current standards. For example, if the adopted level of service standards might have changed, if the City might have adopted a transportation concurrency exception area (TCEA), any information on other developments in the study area that are approved but their traffic is not part of existing volume.

C. Applicability

The requirements, procedures and methodology for a traffic impact study contained in this section shall apply to all development approvals in incorporated *Haines City*. In all cases, it will be the responsibility of the applicant to demonstrate to *Haines City* Community Development and the Polk TPO, and potentially the Florida Department of Transportation (FDOT) that a proposed development will not unduly impact the road system.

D. Requirements

As identified in **Table 1: Traffic Study Requirements**, there are three (3) levels of traffic studies that could be required. The study requirements and depth of analyses are defined for the three (3) study “tiers” in **Table 1** and the subsequent sections.

Table 1: Traffic Study Requirements

	Tier 1 – Traffic Review	Tier 2 – "Minor Traffic Study"	Tier 3 – "Major Traffic Study"
Maximum AM or PM Peak Hour Two Way Net New Trips	≤ 50	51 to 99	> 99
	See Section 1 for additional details.		
Methodology			
Methodology Letter/ Statement	Not Required	Required. See Section 2 for requirements.	
Methodology Meeting	Not Required	Not Required	Required. A methodology letter shall be provided prior to the meeting for City review.
Study Area			
Study Segments	If the development accesses directly onto a segment identified on the Concurrency Determination Network, this segment shall be evaluated. If the directly accessed segment on the Concurrency Determination Network does not meet the adopted standard, backlogged, constrained or otherwise, the City may require study of additional segments and intersections. If the development does not directly access a segment on the Concurrency Determination Network, no segment evaluation will be required.	Directly accessed segments on the Concurrency Determination Network and all roadway segments where peak hour project generated trips are estimated to consume 5% or more of the peak hour directional service volume, based on service volumes documented in the latest version of the Polk County TPO Roadway Network Database.	
Study Intersections	Driveway Access Points	Driveway access points and all signalized intersections and major unsignalized intersections for which an approach leg is a study segment.	
Technical/Evaluation Requirements			
Data Collection	Intersection turning movement and roadway segment volume traffic data used in analysis shall be less than 12 months old (from the date that the methodology receives approval from the City) and shall be collected during periods of normal traffic conditions. Traffic volumes shall be adjusted to peak season using appropriate correction factors.		
Background Traffic	Background traffic shall be based on historical growth rates, calculated from historic average annual daily traffic (AADT) data at nearby FDOT count stations, or other historic AADT data, if available. Include any vested trips documented within the buildout year, if directed by City or designee. In some cases, for a Tier 3 Study, additional planned development traffic may need to be incorporated if the combined level exceeds the historic growth factor in the study area roadway segments.		
Committed Improvements	Projects identified for construction in the first three years of an adopted Work Program (WP), Transportation Improvement Program (TIP), or Capital Improvement Program (CIP), so long as the improvement is funded for construction consistent with the proposed buildout year.		

Table 1: Traffic Study Requirements

	Tier 1 – Traffic Review	Tier 2 – "Minor Traffic Study"	Tier 3 – "Major Traffic Study"
Trip Generation	The latest edition of the ITE Trip Generation Manual shall be used for calculation of project trips. If authorized by the City or designee, trip generation data from other sources may be used in the analysis. The latest edition of the ITE Trip Generation Handbook shall be used to estimate pass-by trip reductions for non-residential developments. Internal capture estimates for mixed-use developments shall be based the methodology outlined in NCHRP 684.		
Trip Distribution/ Assignment	Distribution and assignment may be based on existing traffic patterns.		Distribution and assignment shall be based on traffic modeling using the currently approved and calibrated District One Regional Planning Model (D1RPM) unless an exemption is provided by the City or designee.
Analysis Scenarios	Segment and intersection analysis will be required for the following scenarios: Existing Scenario, Future No Build, and Future Build. If mitigation is needed to achieve adopted standards in the Future No Build or Future Build scenarios, additional scenarios, including the mitigation improvements, will be required. For multiphase developments, analysis of future No Build and Build scenarios will be required for each development phase. See Section 4 for additional details.		
Segment Analysis	Peak hour, directional Level of Service (LOS) analysis shall be conducted for study segments under AM and PM peak hour conditions. See Section 5 for additional details. In certain cases, if the proposed project does not include residential uses, the requirement for AM peak hour analysis may be waived by the City.		
Intersection Analysis	Peak hour LOS analyses shall be conducted for study intersections under AM and PM peak hour conditions. See Section 6 for additional details. In certain cases, if the proposed project does not include residential uses, the requirement for AM peak hour analysis may be waived by the City.		
Turn Lane/Access Analysis	The need for turn lanes at proposed driveway access points shall be determined using the methods of NCHRP 457 for left-turn and right-turn lanes. This analysis should be conducted for the worst-case peak hour to determine the need for turn lanes.		
Traffic Study Requirements			
Content	Trip Generation (Daily, AM and PM Peak Hour), Segment Analysis, and Driveway Peak Hour Analysis, and Turn Lane/Access Analysis. If the directly accessed segment on the Concurrency Determination Network does not meet the adopted standard, backlogged, constrained or otherwise, the City may require study and documentation of additional segments and intersections.	Traffic study requirements are outlined in Section 8.	
Signed/Sealed by a Florida PE	Not Required	Yes	Yes
Review			
FDOT Review	Not Required unless right-of-way permit is needed	Yes, if the project trips are >5% on a state roadway and more than 3% on SIS or if right-of-way permit needed	

1. Traffic Study Tiers/Net External Trip Thresholds

The requirement for traffic studies are based on the net external AM or PM peak hour trips for the project, whichever is greatest, as determined by **Table 1**. For multi-phase developments, the trip thresholds are based on project buildout, not by phase. In cases of redevelopment, net external trips shall be based upon the new or proposed land use as compared to the land use existing at the time of redevelopment. Credit for prior use must be utilized in connection with a redevelopment of the site within one (1) year following the demolition of the existing structure or termination of the existing use or business, whichever first occurs.

2. Methodology Letter

A methodology letter is required for Tier 2 and Tier 3 traffic studies. An example methodology letter is included in the appendix to these guidelines. The applicant must submit the written methodology letter to the City and obtain written concurrence on the proposed methodology. It is suggested that the methodology letter be submitted to the City as a draft prior to the pre-application meeting. Failure to prepare and obtain approval for the study methodology may result in disapproval of the traffic impact study (TIS) or a request for additional information and the requirement for a revised TIS. The methodology letter shall include the following information:

- ☐ Project description.
- ☐ Anticipated buildout year for single phase developments and planned development phasing for multi-phase developments.
- ☐ Tier of traffic study being proposed.
- ☐ Site Location map.
- ☐ Site plan of the proposed development that shows the proposed access locations.
- ☐ Programmed improvements
- ☐ Map of the area of influence/study area.
- ☐ Table of proposed trip generation including pass-by trips and internal trip capture including land use description, ITE codes, trip rates or formulas and data used in the calculations from the latest edition of the ITE Trip Generation Manual and ITE Trip Generation Handbook. If authorized by the City or designee, trip generation data from other sources may be used in the analysis. If proposing an alternative source for trip generation data, attach study documentation, if already completed, or document the proposed methodology, consistent with guidance in the ITE Trip Generation Handbook, if an alternative trip generation rate is to be calculated based on observations of other sites, a minimum of two sites are required unless prior approval is received from the City.
- ☐ Proposed trip distribution in influence/study area.
- ☐ List of roadways and intersections that fall within the area of influence/study area.
- ☐ Identify any critical issues related to the project such as unacceptable roadway conditions, access constraints, public easements, etc.
- ☐ Proposed growth rate for calculation of background growth.
- ☐ List of projects contributing to the total traffic that are approved but not yet adding traffic to the network (vested trips).
- ☐ Date of any traffic counts used in the analysis. Note: traffic counts more than one (1) year old cannot be used in the study unless approved by the City.

- Multimodal Assessment: evaluation of transit, bicycle and pedestrian accommodations as outlined in Section 3.

3. Multimodal Assessment

The multimodal assessment shall include an evaluation of existing and programmed bicycle, pedestrian, and transit mobility options. This assessment shall also discuss how the site plan encourages walking, bicycling and transit ridership through one or more of the following:

- Safe adequately lighting and well-maintained pathways and/or sidewalks
- Bicycle facilities and parking
- Identifiable crosswalks
- Transit bus stops & transit stop amenities (i.e., bench, bus shelter, etc.)
- Removal of natural and/or built barriers that discourage walking
- Compliance with American's with Disabilities Act (ADA) requirements
- Buffering between vehicular areas and sidewalks
- Linkage to existing or future walkway and/or bikeway network and transit route

4. Analysis Scenarios

Segment and intersection analysis will be required for the following scenarios. For multiphase developments include analysis of future No Build and Build scenarios for development phases.

a. Existing Scenario

AM (if required) and PM peak hour analysis of existing traffic on the existing transportation network. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

b. Future No Build Scenario

AM (if required) and PM peak hour analysis of existing traffic, plus background traffic (derived from growth rates, vested trips, or combination of both), placed on the existing network, plus all improvements funded for construction within the first three years of the state, county or local jurisdiction's adopted work program, capital improvement plan (CIP) and/or adopted transportation improvement plan (TIP). If a non-residential use, the requirement for an AM analysis may be waived with City approval.

c. Future Build Scenario

AM (if required) and PM peak hour analysis of existing traffic, plus background traffic (derived from growth rates, vested trips, or combination of both), plus the project's traffic placed on the existing network, plus all improvements funded for construction within the first three years of an adopted work program, CIP and/or TIP, and proposed project driveways/access improvements. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

d. Future No Build Scenario with Mitigation (if necessary)

AM (if required) and PM peak hour analysis of the Future No Build Scenario with the inclusion of any other improvements that are required for mitigation. This analysis scenario will be required only if mitigation is required to obtain the adopted Level of Service as the result of the Future No Build Scenario analysis. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

e. **Future Build Scenario with Mitigation (if necessary)**

AM (if required) and PM peak hour analysis of the Future Build Scenario with the inclusion of any other improvements that are required for mitigation. This analysis scenario will be required only if mitigation is required to obtain the adopted Level of Service as the result of the Future Build Scenario analysis. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

5. Segment Analysis

AM (if required) and PM peak hour, directional Level of Service (LOS) analysis shall be conducted for study area segments based on currently accepted traffic engineering principles. Segment analysis should compare roadway volumes to the service volumes published in the latest edition of the Polk County TPO Roadway Network Database, if available, or the FDOT Generalized Service Volume Tables. If a non-residential use, the requirement for an AM analysis may be waived with City approval.

Methods that incorporate and apply appropriate techniques from the latest edition of the Highway Capacity Manual (HCM) are also acceptable. These methods may include the use of the latest available versions of the Highway Capacity Software (HCS), Synchro, or LOSPLAN, as approved by the City.

a. **LOS Standards**

The calculated LOS shall be compared to the adopted LOS standards used for concurrency determination and shall be consistent with the Transportation Element of the Haines City Comprehensive Plan.

b. **Roadway Volumes**

Existing roadway volumes may be established from the latest edition of the Polk County TPO Roadway Network Database (if available), counts from the Florida Department of Transportation (if available), or collected segment volumes (which may be derived from collected peak hour turning movement counts used for the subject TIS).

c. **Roadway Service Volumes**

Roadway service volumes will be provided in the Polk TPO Concurrency Network Database. In the event the information is not available, FDOT generalized level-of-service standards/tables may be used upon confirmation by the City or designee. Roadway improvements programmed within the first three years of an adopted work program, TIP, or CIP may be utilized as long as the improvement is funded for construction consistent with the proposed buildout year for the development, but no more than three years from the date of the study.

6. Intersection Analysis

AM (if required) and/or PM peak hour LOS analyses shall be conducted for all study intersections based on currently accepted traffic engineering principles. Methods that incorporate and apply appropriate techniques from the latest edition of the Highway Capacity Manual (HCM) are acceptable. These methods may include the use of the latest available versions of the Highway Capacity Software (HCS) or Synchro. Microsimulation software may also be used but is not required.

a. **LOS Standards**

The existing LOS shall be compared to the adopted LOS standards used for concurrency determination and shall be consistent with the Transportation Element of the Haines City Comprehensive Plan. The LOS standards for an intersection analysis shall be the conservative adopted roadway LOS standard of the intersecting roadways.

b. **Signalization**

If signalization is proposed as a mitigation measure, a signal warrant analysis (including FDOT signal warrant summary worksheets) and a Stage 1 Intersection Control Evaluation (ICE) shall be provided for the location(s) proposed for signalization.

7. Turn Lane/Access Analysis

The need for turn lanes at proposed project access shall be determined using the methods of NCHRP 457 for left-turn and right-turn lanes. This analysis should be conducted for the worst-case peak hour to determine the need for turn lanes.

8. Traffic Study Requirements

Tier 2 and 3 traffic studies shall include the following elements.

- ☐ **Table of Contents, List of Figures, List of Tables**
- ☐ **Introduction:** project description, site location, site plan, study area/area of influence map, planned and programmed improvements and committed developments.
- ☐ **Existing Roadway & Intersection Conditions:** existing roadway segment geometry, existing intersection geometry, existing traffic volumes and existing segment and intersection LOS results. If a segment or intersection with a history of high crash occurrence exists within a study area, at the discretion of the City an evaluation of potential mitigating measures can be required.
- ☐ **Future Roadway & Intersection Conditions:** future roadway segment geometry and future intersection geometry.
- ☐ **Future Traffic Conditions:** background traffic, trip generation, trip distribution and assignment and future traffic volumes.
- ☐ **Transportation Assessment:** segment analysis, intersection analysis, and turn lane/access analysis for future conditions.
- ☐ **Multimodal Assessment:** evaluation of transit, bicycle, and pedestrian accommodations.
- ☐ **Mitigation Strategies:** recommended improvements and proportionate share calculations.
- ☐ **Summary/Conclusions:** brief discussion to highlight the reason for the traffic study tier classification, methodology followed, general results of the analysis and action requested (e.g., approval of mitigation strategy).
- ☐ **Appendix:** approved methodology, traffic count data, site plan, vested project traffic data, capacity analysis summary sheets for existing conditions and future conditions, trip distribution plot from the travel demand model, and all other pertinent data to support the traffic study. For a Tier 2 or 3 study, the electronic operational analysis files (Synchro, HCS, etc.) shall be submitted with the report.

E. APPENDIX

1. Example TIS Methodology Statement
2. TIS Methodology Template/Pre-Application Meeting Checklist

Appendix 1

Example TIS Methodology Statement

Appendix 2

TIS Methodology Template/Pre-Application Meeting Checklist

Haines City, Florida

The purpose of this memorandum is to provide the City of Haines City with the proposed methodology to evaluate the transportation impacts associated with the planned development known as Describe. According to the City's Traffic Impact Study Guidelines and Requirements, this project qualifies for a Tier Traffic Study.

Source: _____

EXAMPLE TRAFFIC IMPACT STUDY METHODOLOGY STATEMENT

Haines City, Florida

Trip Distribution and Assignment

The project traffic distribution pattern will be developed Describe Approach. The project distribution, when produced, will be provided to the City of Haines City for review before developing future traffic projections. The future traffic volumes will be discussed in the report and represented graphically.

Traffic Impact Assessment

To assess the traffic impacts associated with the proposed development, traffic counts will be required.

Firm will collect peak hour turning movement counts on a typical weekday during the morning and afternoon peak-hour periods for all study area intersections. Appropriate peak season correction factors will be applied to the raw counts. Future background volumes will be derived after reviewing historic growth rates, using the last 5 years of available AADT data. Any negative growth will be identified and a minimum of 2% per year growth applied. As part of this study, analysis for the following conditions will be completed:

- Existing Year conditions (during AM and PM peak hour periods)
- Future Year conditions, without project (during AM and PM peak hour periods)
- Future Year conditions, with project (during AM and PM peak hour periods)
- Turn lanes assessment at the site access driveways for future conditions

The traffic assessment will be conducted for all intersections using methodologies from the Highway Capacity Manual. Synchro is the preferred software for intersections and corridor analysis, if appropriate.

Multimodal Assessment

Discussion of existing and programmed bicycle, pedestrian, and transit mobility options and an assessment of how the site plan encourages walking, bicycling and transit ridership.

Traffic Report

Firm Name will prepare a Traffic Impact Study Report summarizing the study methodology, existing and future conditions, project impacts, and potential mitigation measures.

If you have any questions, please do not hesitate to contact us.

Submitted by:

Name
Registration
Firm
Email
Contact Phone

Methodology accepted and approved by:

(Signature)

(Print Name)

(Title, Agency)

(Date)

INITIAL MEETING CHECKLIST

Haines City, Florida

Suggestion: Use this Appendix as a worksheet to ensure that no important elements are overlooked. Cross out the items that do not apply.

Date: _____ Time: _____

Location: _____

People Attending:

Name, Organization, and Telephone Numbers

1) _____

2) _____

3) _____

4) _____

5) _____

Study Preparer:

Preparer's Name and Title: _____

Organization: _____

Address & Telephone Number: _____

Reviewer(s):

Reviewer's Name & Title: _____

Haines City Community Development Department

Reviewer's Name & Title: _____

Organization & Telephone Number: _____

Applicant:

Applicant's Name: _____

Address: _____

Telephone Number: _____

Proposed Development:

Name: _____

Location: _____

Land Use Type: _____

ITE Code #: _____

Proposed number of development units: _____

Other: _____

Description:

INITIAL MEETING CHECKLIST

Haines City, Florida

Zoning

Existing: _____

Comprehensive plan recommendation: _____

Requested: _____

Findings of the Preliminary Study:

Study Type:

Tier 1 Traffic Study _____

☐

Tier 2 "Minor Traffic Study" _____

☐

Tier 3 Major Traffic Study _____

☐

Study Area:

Boundaries: _____

Additional intersections to be analyzed: _____

Horizon Year(s): _____

Analysis Time Period(s): _____

Future Off-Site Developments: _____

Source of Trip Generation Rates: _____

Reductions in Trip Generation Rates:

None: _____

Pass-by trips: _____

Internal trips (PUD): _____

Transit use: _____

Other: _____

Horizon Year Roadway Network Improvements:

Methodology & Assumptions:

Non-site traffic estimates: _____

Site-trip generation: _____

Trip distribution method: _____

Traffic assignment method: _____

Traffic growth rate: _____

INITIAL MEETING CHECKLIST

Haines City, Florida

Special Features: (from preliminary study or prior experience)

Accidents locations: _____

Sight distance: _____

Queuing: _____

Access location & configuration: _____

Traffic control: _____

Signal system location & progression needs: _____

On-site parking needs: _____

Data Sources: _____

Base maps: _____

Prior study reports: _____

Access policy and jurisdiction: _____

Review process: _____

Requirements: _____

Miscellaneous:

=====

SIGNATURES

Study Preparer

P.E. Registration Number

Reviewers

Applicant

Date

