



City of  
**ALACHUA**

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY

Case #: \_\_\_\_\_  
Application Fee: \$ \_\_\_\_\_  
Filing Date: \_\_\_\_\_  
Acceptance Date: \_\_\_\_\_  
Review Type: P&Z; CC

# Special Exception Permit Application

Reference City of Alachua Land Development Regulations Article 2.4.4

**A. PROJECT**

1. Project Name: Walmart #3873-00
2. Address of Subject Property: SE quadrant of the Intersection of US 441 & I-75
3. Parcel ID Number(s): 03869-013-000
4. Existing Use of Property: Vacant
5. Future Land Use Map Designation: COMM
6. Zoning Designation: Commercial Intensive
7. Acreage: 37.94

**B. APPLICANT**

1. Applicant's Status ☒ Owner (title holder) ☐ Agent
2. Name of Applicant(s) or Contact Person(s): Michael Thomas Title: Director, Proj. Design & Mang.  
Company (if applicable): Walmart Stores East, LP  
Mailing address: 2001 SE 10th Street  
City: Bentonville State: Arkansas ZIP: 72716-5510  
Telephone: ( ) 479-204-2186 FAX: ( ) 479-273-8380 e-mail: Michael.Thomas1@wal-mart.com
3. If the applicant is agent for the property owner\*:  
Name of Owner (title holder): N/A  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

\* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

**C. ADDITIONAL INFORMATION**

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ☒ No  
If yes, list names of all parties involved: \_\_\_\_\_  
If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

**D. ATTACHMENTS**

1. Statement of proposed special exception including the identification of the provision of the Land Development Regulations under which the special exception permit is sought, and stating the grounds on which it is requested.
2. Analysis of compliance with the Standards for a Special Exception, as defined in Section 2.4.4 of the Land Development Regulations (LDRs), and listed below:
  - a. Complies with Use Specific Regulations
  - b. Compatibility
  - c. Design Minimizes Adverse Impact
  - d. Design Minimizes Environmental Impact
  - e. Roads and Other Public Facilities
  - f. Not Injure Neighboring Land or Property Values
  - g. Site Plan
  - h. Complies will All Other Relevant Laws and Ordinances
3. Materials which demonstrate that the special exception permit would promote the public health, safety, morals, order, comfort, convenience, appearance, prosperity or the general welfare, which shall include (at a minimum):

City of Alachua ♦ Planning and Community Development Department  
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121

Revised 4/1/2012

- a. A site plan showing the proposed placement of structures on the property; provisions for ingress and egress, off-street parking and off-street loading areas, and refuse and service areas; and required yards and other open spaces;
  - b. Access and points of connection to utilities (electric, potable water, sanitary sewer, gas, etc.)
  - c. Plans for screening and buffering with reference to type, character and dimensions;
  - d. Proposed landscaping, signs and lighting, including type, dimensions and character;
  - e. Any specific requirements of the zoning district.
4. Two (2) sets of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits. (Obtain from the Alachua County Property Appraiser).
  5. Neighborhood Meeting Materials, including:
    - i. Copy of the required published notice (advertisement) – must be published a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
    - ii. Copy of written notice (letter) sent to all property owners within 400 feet, and mailing labels or list of those who received written notice
    - iii. Written summary of meeting – must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
  6. Map of the subject property and surrounding area with zoning.
  7. Legal description with tax parcel number.
  8. Proof of ownership.
  9. Proof of payment of taxes.
  10. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

**All 10 attachments are required for a complete application. A completeness review of the application will be conducted within 5 business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.**

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Michael Thomas

Signature of Applicant

Signature of Co-applicant

Michael Thomas, Director Proj. Design & Mang.

Typed or printed name and title of applicant

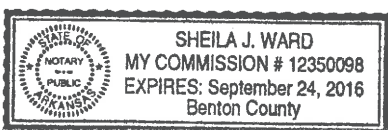
Typed or printed name of co-applicant

State of Arkansas County of Benton

The foregoing application is acknowledged before me this 9<sup>th</sup> day of March, 2016 by Michael

Thomas, who is/are personally known to me, or who has/have produced N/A as identification.

Sheila J. Ward  
Signature of Notary Public, State of Arkansas



IN PAYMENT  
OF INVOICES TOWAL-MART STORES, INC.  
702 SW 8th Street  
Bentonville, Arkansas 72716

CHECK DATE	CHECK NUMBER
02/26/16	9510284

PAGE#  
1/1

INVOICE DATE	INVOICE NUMBER	STORE NO.	DOCUMENT	TYPE	GROSS AMOUNT	DISCOUNTS	NET AMOUNT
02/24/16	224163	05-9000	48292818		2,225.00	0.00	2,225.00
340356989/9999999989 Emergency Requests One Time V					TOTALS	2,225.00	0.00
							2,225.00

THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW

WAL-MART STORES, INC.  
702 SW 8th Street  
Bentonville, Arkansas 72716

66-156  
531

VENDOR NUMBER	CHECK DATE	CHECK NUMBER
340356989	02/26/16	9510284

PAY: TWO THOUSAND TWO HUNDRED TWENTY-FIVE DOLLARS AND NO CENTS

NET AMOUNT
\$*****2,225.00

TO THE ORDER OF City of Alachua  
15100 NW 142 Terrace  
Alachua FL 32616

WAL-MART STORES, INC.

  
EVP and Treasurer

9510284 053101561 2079900136854

## **Attachment 1 – Statement of Proposed Special Exception**

A special exception is sought for an Automobile repair and servicing use type in accordance with the procedures and standards of Section 2.4.4, Special exception permit, as allowed by the use-specific standards for the specific zone district (CI – Commercial Intensive) set forth in Table 4.1-1.



**Walmart #3873-00**

**COMPLIANCE with Standards for a Special Exception  
Automobile Repair and Servicing**

**JUSTIFICATION / RESPONSES**

**Presented to:**

**City of Alachua  
Planning & Community Development  
PO Box 9  
Alachua, Florida 32616**

**Prepared by:**

**CPH, Inc.  
5200 Belfort Road  
Suite 200  
Jacksonville, FL 32256**

**November 17, 2016**



**Walmart #3873-00**  
**COMPLIANCE with Standards for a Special Exception**  
**Automobile Repair and Servicing**

As required by Section 2.4.4(D) of the City of Alachua's Land Development Regulations ("LDRs"), an applicant must demonstrate that the following standards have been satisfied prior to approval of a special exception permit:

- (1) *Complies with use specific regulations.* The proposed Special Exception complies with all relevant standards in Section 4.3, Use specific standards.

**RESPONSE:**

**Refer to Attachment A.**

- (2) *Compatibility.* The proposed special exception is appropriate for its location and is compatible with the character of surrounding lands and the uses permitted in the zoning district.

**RESPONSE:**

Pursuant to Section 163.3164(9), *Florida Statutes*, "compatibility" is defined as "a condition in which land uses or conditions can coexist in relative proximity to each other in a stable fashion over time such that no use or condition is unduly negatively impacted directly or indirectly by another use or condition." For the following reasons, the proposed Walmart Supercenter will be compatible with the uses on adjacent and nearby properties.

The subject site has a Future Land Use Designation of COMM: Commercial. According to the City of Alachua's Comprehensive Plan Future Land Use Element, the "*Commercial land use category is established to provide for general commercial uses, as well as more intense commercial and highway commercial uses. This is the land use category in which large-scale, regional commercial uses may locate.*" Retail sales and services are allowed within the Commercial future land use category.

The subject site is zoned CI: Commercial Intensive. According to the City of Alachua's Land Development Regulations, the "*CI district is established and intended to provide lands and facilitate highway-oriented development opportunities within the City, for uses that require high public visibility and an accessible location. The CI district should be located along major arterials or highways and at the US 441/Interstate-75 interchange.*" The proposed Tire and Lube Express (Automobile Repair and Servicing) is

allowed within the Commercial Intensive zoning district upon approval of a Special Exception Permit.

The Future Land Use designations and zoning districts for the subject and adjacent properties are as follows:

	USE	FUTURE LAND USE DESIGNATION	ZONING
<b>SUBJECT SITE</b>	WALMART (PROPOSED)	Commercial	Commercial Intensive
<b>NORTH</b>	McDonalds / BP Gas Station / Quality Inn Hotel	Commercial	Commercial Intensive
<b>EAST</b>	Vacant	Commercial	Commercial Intensive
<b>SOUTH</b>	Vacant	Commercial	Commercial Intensive
<b>WEST</b>	Interstate 75	N/A	N/A

The site is surrounded on three (3) sides by properties with the same Future Land Use designation and zoning. Existing uses on the adjacent properties to the north include a McDonalds, a BP gas station, and a Quality Inn motel.

The proposed use for the subject property is a Walmart Supercenter with a building area of approximately 160,000 square feet. The building will provide a front setback of +/- 707 feet, a rear setback of +/- 223 feet, an east side setback of +/- 265 feet, and a west side setback of +/- 181 feet. The building coverage and floor area ratio are approximately twelve percent (12%).

Other nearby properties also have similar floor area ratios (F.A.R.) when compared to the proposed Walmart Supercenter:

SITE	LOCATION	F.A.R.
WALMART (PROPOSED)	SUBJECT SITE	0.12
ECONO LODGE	15920 NW US HWY 441, ALACHUA, FL 32615	0.39
QUALITY INN	15960 NW US HWY 441 ALACHUA, FL 32615	0.36
SCULTURA HOME DÉCOR	15981 NW 129 <sup>TH</sup> TERR., ALACHUA, FL 32615	0.24

The proposed Walmart Supercenter will continue the pattern and character of existing surrounding development. Future development to the east and south will be governed by the same City design and performance standards as the subject site.

The proposed Walmart Supercenter is appropriately located southeast of the intersection of two (2) significant roadways (Interstate 75 and US Highway 441) in an area designated for a mixture of general, intense, and highway commercial uses. The Tire and Lube Express is strategically located on the west side of the building, adjacent to Interstate 75, separated by a landscape buffer in excess of forty (40) feet wide. This is the optimal location for the Tire and Lube Express with respect to compatibility with existing and future uses on the north, east, and south sides of the building.

- (3) *Design minimizes adverse impact.* The design of the proposed special exception minimizes adverse effects, including visual impacts of the proposed use on adjacent lands; furthermore, the proposed special exception avoids significant adverse impact on surround lands regarding service delivery, parking and loading, odors, noise, glare, and vibration, and does not create a nuisance.

#### **RESPONSE:**

**Adverse impact of the Tire and Lube Express on surrounding properties is avoided as follows:**

##### **Visual Impact**

**Architecture** – Proposed building materials include architectural masonry and integral color split face Concrete Masonry Unit (CMU) in earth tone colors. Architectural accents include Exterior Insulation and Finish System (EIFS) cornices and metal awnings. The building design and selected materials create a visually appealing structure.

**Buffers** – The Tire and Lube Express is strategically located on the west side of the building, adjacent to Interstate 75. The use is separated from Interstate 75 by a landscaped buffer in excess of forty (40) feet wide and parking. The use will not be visible from the adjacent north, east, and south properties.

##### **Service Delivery / Loading**

**Not Applicable.**

##### **Parking**

Parking is located adjacent to the Tire and Lube Express. Parking is designed in accordance with City standards, to include interior

parking lot landscaping. The parking lot landscaping, in addition to landscape buffers provided at the periphery of the site, will eliminate any adverse impacts on the surrounding properties.

#### **Odors**

No odors are associated with the Tire and Lube Express.

#### **Noise**

The location of the Tire and Lube Express is along the west side of the building facing Interstate 75. This roadway is elevated +/- ten (10) feet above the Finished Floor Elevation of the Tire and Lube Express. The berm that is created by this change in elevation will be heavily landscaped. Also, due to the proposed topography, the rear (*i.e.*, south side) of the Tire and Lube Express and the Walmart Building will have a heavily landscaped earth berm that is elevated +/- twenty (20) feet above the finished floor elevation of the Tire and Lube Express. The Tire and Lube Express is oriented towards Interstate 75 and faces away from neighboring properties. Therefore, this use is not anticipated to produce noise that will be audible from adjacent properties.

#### **Glare**

Lighting is designed in accordance with City standards (Section 6.4 of the City's LDRs – Exterior Lighting Standards). See Lighting Plan Sheet LP-1 prepared by CESO, Inc., for the Walmart site and Sheets E-9, E-10, E-11, and E-12 prepared by William T. Stormant, P.E., for the service roads.

The lighting design for the proposed Walmart site proposes to use poles thirty-nine (39) feet in height mounted on a three (3) foot base; below the maximum of forty-five (45) feet mandated by the City's LDRs.

The light fixtures being used to illuminate the Walmart building will be in accordance with Section 6.4.4(B) of the City's LDRs.

Total proposed lumens are less than total allowable lumens.

#### **Vibration**

Vibration and/or vibration-inducing activities are not anticipated.

#### **Nuisance**

The proposed use is appropriately located within an area specifically designated for a mixture of general, intense, and highway commercial uses. Consideration was taken to appropriately locate the proposed Tire and Lube Express on the western side of the

**Walmart building which abuts Interstate 75, where it will not create a nuisance to surrounding properties.**

- (4) *Design minimizes environmental impact.* The proposed special exception minimizes environmental impacts and does not cause significant deterioration of light, water and air resources, wildlife habitat, stormwater management, scenic resources, and other natural resources.

**RESPONSE:**

**The site is not located in a flood prone area and no wetlands, lakes, ponds, canals, or other waters or waterways were identified on the property. There are no unique features or resources which constrain site development or warrant special design considerations. The site does not contain known habitat for listed species.**

**Surface drainage impacts will be minimized by installing fore bays at each of the two (2) stormwater pipe inflow locations and monthly visual inspections of the stormwater pond will be mandated in the operation and maintenance requirements of the store. Pervious pavement will be installed in no less than 25% of the parking spaces and an approximately 5,000-gallon cistern will be installed and maintained to collect rainwater from the rooftop for use in irrigation.**

**To further minimize impacts, a detailed surface water pollution prevention plan will be prepared prior to the start of construction. If sinkholes are observed on-site, an inspection by a qualified Geotechnical Engineer will be performed and the City of Alachua, Alachua County, and the Suwannee River Water Management District will be notified within two (2) business days.**

**The City's LDRs require that at least ten percent (10%) of the gross site area be designated open space. The proposed project will provide approximately fifty percent (50%) open space. The "Florida-friendly best management practices for protection of water resources by the green industries" will be incorporated in all new landscaping. All fertilizers and/or potentially hazardous substances will be kept under roof.**

**The site has been designed to meet both the City's and the Suwannee River Water Management District's stormwater criteria. Full details of the stormwater design are included in the stormwater report submitted to the City. The site is not located in a flood prone area and no wetlands are present on the property.**

**The Tire and Lube Express is not a full service auto center. There are only a couple of items stored inside the Tire and Lube Express. Used motor oil**

removed during oil changes is stored in a Waste Oil Tank that is of double-wall construction and located in a containment well to collect oil in case of a spill. The other item is Windshield Washer Fluid which has a pump and containment system as well. All tires, used or new, are stored outside in an open air, screened area. Any oil brought to the store from customers that change their own oil is stored in a separate outdoor screened area, along with batteries that are brought to the store as well. All tanks and piping for this area are installed and properly tested in accordance with all codes and manufacturers' specifications. Floor drains will collect and discharge to a proposed oil and water separator prior to discharging to the building's sanitary sewer system. The Tire and Lube Express is fully sprinkled and meets all EPA standards and regulations. Walmart has an EPA Department that reviews, regulates, and oversees all issues making sure all EPA standards and regulations are fully adhered to.

- (5) *Roads and other public facilities.* There is adequate public facility capacity available to serve the proposed special exception, and the proposed special exception use is designed to ensure safe ingress and egress onto the site and safe road conditions around the site.

**RESPONSE:**

The Tire and Lube Express is located within a proposed Walmart Supercenter. These uses were analyzed in the Traffic Impact Analysis prepared by Traffic & Mobility Consultants (TMC), included with this submittal. All intersections and roadway segments will operate at an acceptable LOS under the proposed conditions. Ingress and egress onto the site and on-site circulation patterns have been designed to ensure the safety of patron, employee, and delivery vehicles.

A Concurrency Impact Analysis of potable water, wastewater, transportation, stormwater, and solid waste for the proposed Walmart Supercenter is included with this submittal. The analysis demonstrates that the proposed use will not adversely impact the adopted Level of Service for the City of Alachua's public facilities.

- (6) *Not injure neighboring land or property values.* The proposed special exception will not substantially injure the use of neighboring land for those uses that are permitted in the zone district, or reduce land values.

**RESPONSE:**

The Walmart site is surrounded on three (3) sides by properties that have the same Commercial Future Land Use designation and the same Commercial Intensive zoning. The Commercial Future Land Use designation and the Commercial Intensive zoning allow for a mixture of

general, intense, and highway commercial uses. The proposed Tire and Lube Express is located on the west side of the building, adjacent to Interstate 75. The use is separated from Interstate 75 by a landscaped buffer in excess of forty (40) feet wide and parking. Compatibility with surrounding properties is established through the appropriate location of the use, setbacks, buffers, landscaping, architectural design, and site design. Approval of the special exception will not result in detriment to adjacent land, the character of the zone district, or a reduction of land values.

- (7) *Site Plan.* A site plan (Subsection 2.4.9 of this section) has been prepared that demonstrates how the proposed special exception use complies with the other standards of this subsection.

**RESPONSE:**

The Site Plan has been prepared in accordance with Section 2.4.9 of the City's LDRs and complies with both the Automobile Repair and Servicing Standards of Section 4.3.4(J)(3) of the City's LDRs (ATTACHMENT A) and Article 6: Development Standards of the City's LDRs.

The proposed use for this property is a Walmart Supercenter with an overall building area of approximately 160,000 square feet. The Oil and Lube Express is located on the west side of the Walmart building and consists of approximately 3,915 square feet. The overall building will provide a front setback of +/- 707 feet, a rear setback of +/- 223 feet, an east side setback of +/- 265 feet, and a west side setback of +/- 181 feet. The building coverage and floor area ratio are approximately twelve percent (12%). Accordingly, the proposed use is consistent with the approved zoning.

The proposed Walmart Supercenter is required to provide parking at a ratio of one (1) space per 305 square feet of floor area with a maximum not to exceed 125 percent of this ratio. A minimum of 520 spaces would be required with a maximum of 650 allowed. The proposed Site Plan contains 622 spaces.

Bicycle parking is required at one (1) space per ten (10) required parking spaces. 112 bicycle spaces are being provided, which exceeds the required 52 spaces.

The proposed Site Plan protects trees where possible and provides for mitigation of any removed trees in accordance with the City's LDRs.



- (8) *Complies with all other relevant laws and ordinances.* The proposed special exception use complies with all other relevant City laws and ordinances, State and Federal laws, and regulations.

**RESPONSE:**

**The proposed special exception use complies with all other relevant and applicable City laws and ordinances, state and federal laws, and regulations not specifically addressed in this report.**

**ATTACHMENT A**  
**Analysis of Compliance with Section 4.3.4.(J)(3)**  
**of the City of Alachua's Land Development Regulations**

4.3.4. Business uses.

(J) Vehicle Sales and Services.

- (3) Automobile repair and servicing. Automotive repair and servicing shall comply with the following standards:

- (a) Minimum separation. Lots shall be located at least 250 feet from schools, day care centers, residential uses, or vacant land in residential zone districts.

**RESPONSE: The Lot is located more than 250 feet from schools, day care centers, residential uses, and vacant land within residential zone districts as depicted on the proposed Site Plan and the City of Alachua's Zoning Maps.**

- (b) Lot dimensions and area.

- (i) If located on a corner lot, have a minimum of 150 feet of frontage on each street side, and a minimum area of 20,000 square feet.

**RESPONSE: The project is not located on a corner lot.**

- (ii) In all other instances, have a minimum width of 150 feet and a minimum area of 15,000 square feet.

**RESPONSE: The width of the Lot and the area of the Lot are depicted on the Site Plan included with the application and are in excess of the required minimums. The lot width is approximately 952.11 feet and the lot area is approximately 1,315,076 square feet.**

- (c) On-site circulation. Be designed to ensure proper functioning of the site as related to vehicle stacking, circulation and turning movements.

**RESPONSE: The site is designed with linear drive aisles on the interior and perimeter of the parking field to provide ample vehicle stacking and ease of circulation through the site. For customer traffic, three (3) foot typical radii are proposed at landscape islands for turning movements into parking stalls. Ten (10) foot typical radii are proposed at entrance/exit radii for customer drive aisles. For delivery trucks, a minimum of fifty (50) foot radii are proposed**

**along the proposed delivery truck path of travel. The proposed allowances for turning movements are adequate and typical for a commercial parking lot.**

(d) Ingress/egress.

- (i) Have no more than two driveways or other methods of ingress or egress located at least 150 feet apart.

**RESPONSE: As depicted on the Site Plan, a main entrance road provides access to the subject site and surrounding properties from US Highway 441. Two (2) internal roadways provide access to the Walmart site from the main entrance road. The distance between these roads exceeds the minimum 150-foot requirement.**

- (ii) Methods of ingress/egress shall:
  - a. Not exceed 40 feet in width, exclusive of transitions.
  - b. Not be located closer than 15 feet to any right-of-way lines of any intersection.
  - c. Not be located closer than 15 feet to any other property line.

**RESPONSE: As depicted on the Site Plan, the proposed entrances and exits are approximately twenty-five (25) feet in width, which is less than the maximum allowed. The entrances and exits are setback greater than fifteen (15) feet from right-of-way lines of intersections, and are not located closer than fifteen (15) feet from any other property lines.**

- (e) Enclosure. Repair and store all vehicles within an enclosed building. Temporary vehicle storage may be allowed in an outdoor storage area that shall be no larger than 25 percent of the total lot area. Such areas shall be located to the rear of the principal structure and be screened from off-site views. The height of materials and equipment stored shall not exceed the height of the screening fence or wall.

**RESPONSE: Vehicle storage is not proposed as part of the project. The Tire and Lube Express typically performs minor vehicle servicing including oil changes, oil and lube services, battery services, and other minor services (such as light bulb and windshield wiper replacement). These services are typically completed within one (1) to two (2) hours and, therefore, vehicle**

**storage isn't necessary and vehicles being serviced are not required to remain overnight.**

- (f) Public address systems. Have no outdoor speaker or public address system which is audible from single-family lands.

**RESPONSE: The proposed use will not have an outdoor speaker that is audible from single-family properties.**

- (g) Trash storage. Provide adequate, enclosed trash storage facilities on the site.

**RESPONSE: Adequate trash storage is provided on the south side of the Walmart building. The proposed trash compactor will be screened from view with a masonry wall. The proposed bale and pallet storage area will be screened from view with a masonry wall. These items are depicted on the Site Plan as keynotes #23 and #10.**

- (h) Testing. Not test vehicles on residential streets.

**RESPONSE: Vehicle testing is not proposed as a part of this project.**

- (i) Parked vehicles. Not park or store a vehicle as a source of parts, or park or store a vehicle for the purpose of sale or lease/rent.

**RESPONSE: No parking or storage of vehicles as a source of parts or for sale or lease is proposed as a part of this project.**

- (j) Vehicle storage. Not store or park a vehicle that has been repaired and is awaiting removal for more than 30 consecutive days. In cases where a vehicle has been abandoned by its lawful owner prior to or during the repair process, the vehicle may remain on site as long as is necessary after the 30 day period, provided the owner or operator of the establishment can demonstrate steps have been taken to remove the vehicle from the premises using the appropriate legal means.

**RESPONSE: No parking or storage of vehicles that have been repaired that are awaiting removal is proposed for more than thirty (30) consecutive days.**

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WAL-MART STORES EAST, LP

CERTIFICATE OF ASSISTANT SECRETARY

The undersigned, Amber Graham, an Assistant Secretary of WSE Management, LLC, a Delaware limited liability company, the General Partner of Wal-Mart Stores East, LP, a Delaware limited partnership (collectively, "Walmart"), hereby certifies that he has been elected, qualified, and is acting in such capacity and that he is familiar with the facts certified herein and is duly authorized to certify the same, and thus, he hereby certifies the following:

1. Exhibit A contains a true and correct copy of Article 3, Section 3.3 of the Operating Agreement of WSE Management, LLC as amended.
2. **John P. Suarez** currently serves as Senior Vice President for Walmart. Under the above referenced section, John P. Suarez is authorized to execute documents on behalf of Walmart and delegate the ability to execute documents on behalf of Walmart, and she has delegated such ability to those positions shown on the attached Exhibit B.
3. **Volker Heimeshoff** currently serves as Vice President for Walmart. Under the above referenced section, and pursuant to the delegation attached on Exhibit B, Volker Heimeshoff is authorized to delegate the signing of documents on behalf of Walmart to the manager level for his team and has delegated such ability to those positions shown on the attached Exhibit C.
4. **Michael Thomas** currently serves as Director of Project Design & Management and pursuant to the delegation attached on Exhibit C, Michael Thomas is authorized to execute documents on behalf of Walmart which includes, among other things, permit applications.

In witness thereof, I have executed this document as of this 11th day of April 2016.

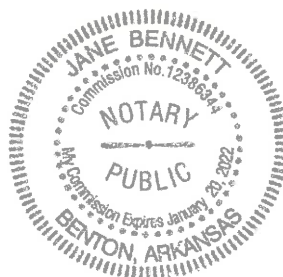


Amber Graham  
Assistant Secretary

Subscribed and sworn before me this 11 day of april, 2016

  
Notary Public  
[Notary Seal]

My commission expires: 1-20-2022



## EXHIBIT A

### WSE Management, LLC

**Article 3, Section 3.3. Management rights of Assistant Managers.** The Assistant Managers shall be entitled to exercise all of the rights, authority and powers of the Manager under the LLC Act and under this Agreement if and to the extent that the Manager fails to provide otherwise in writing.

## EXHIBIT B

### Delegation of Signature Authority

I, John P. Suarez, as Senior Vice President of Wal-Mart Real Estate Business Trust; Wal-Mart TRS, LLC; Wal-Mart Realty Company; Wal-Mart Property Co.; Sam's Real Estate Business Trust; Sam's TRS, LLC; Sam's Property Co.; Benchmark Realty Advisors, Inc.; North Arkansas Wholesale Co., Inc.; Sam's PW, Inc.; Wal-Mart Stores, Inc.; Wal-Mart Stores Arkansas, LLC; Wal-Mart Stores Texas, LLC; Wal-Mart Stores East, LP; Wal-Mart Louisiana, LLC; WSE Management, LLC; Wal-Mart Stores East, LLC; Sam's East, Inc.; Sam's West, Inc.; Wal-Mart.com USA, LLC; and Wal-Mart Puerto Rico, Inc. (hereinafter collectively referred to as "the Company", hereby delegate to:

Vice President, Sam's Real Estate and Facility Support  
Vice President, Real Estate  
Vice President, Real Estate West  
Vice President, Real Estate East  
Vice President, Construction  
Vice President, Prototype and New Format Development  
Vice President, Facilities Management and Environmental Services  
Vice President, Real Estate Strategy & Analytics  
Vice President, Store Planning  
Vice President, Energy  
Vice President, Realty Procurement Services  
Vice President, Remodels and Special Projects

the authority to sign documents and to delegate the signing of documents on behalf of the Company to their respective teams, down to manager level, in compliance with Walmart US Governance and Operating Standards and Walmart Realty Division Corporate Governance.

Additionally, the authority to sign financial guarantees on behalf of the Company is hereby delegated those positions above.

This delegation shall supersede and revoke the signature authority I previously granted in the Delegation of Signature Authority signed on November 3, 2015 as of the date below. All acts and transactions of individuals in the positions above which were taken or made in good faith and prior to the formal delegation of authority to such position that are consistent with this delegation are hereby ratified and approved.

  
John P. Suarez  
Senior Vice President, Walmart Realty

Subscribed and sworn before me on this 19<sup>th</sup> day of November, 2015

  
Notary Public

Notary Seal



# EXHIBIT C

## DELEGATION OF SIGNATURE AUTHORITY

I, **Volker Heimeshoff**, being a Vice President of Wal-Mart Stores, Inc.; Wal-Mart Real Estate Business Trust; Wal-Mart TRS, LLC; Wal-Mart Realty Company; Wal-Mart Property Company; Wal-Mart Stores Arkansas, LLC; Wal-Mart Stores, Texas, LLC; Wal-Mart Stores East, L.P.; Wal-Mart Louisiana, LLC; WSE Management, LLC; Sam's Real Estate Business Trust; Sam's TRS, LLC; Sam's East, Inc.; Sam's West, Inc.; Sam's PW, Inc.; Sam's Property Company; Wal-Mart.com USA, LLC; and Wal-Mart Puerto Rico, Inc. (hereinafter collectively referred to as "the Company"), do hereby delegate to:

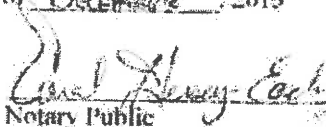
**Sr. Director of Project Design & Management**  
**Sr. Director of Engineering & Estimating**  
**Sr. Director of Architecture & Design**  
**Director of Project Design & Management**  
**Director Special Projects and Design**  
**Senior Manager of Project Design and Management (remodel team)**

authority to execute, implement, maintain, amend or renew the following documents, in connection with the design and construction of new stores, site relocations, expansions, remodels and takeovers, including but not limited to civil engineering agreements; architectural agreements; easements, deeds, municipal maintenance agreements, municipal improvement/development agreements, plats and any permit, application or other document required by various jurisdictions, as long as such contracts are for amounts less than \$750,000.00, and in compliance with Walmart Realty Division Corporate Governance ("Governance"), on behalf of the Company, in their respective capacity for the Company. Notwithstanding the foregoing, the Senior Managers of Project Design and Management on the remodel team may only sign such items related to remodel projects.

All signing authority contained herein must be done in compliance with Governance and agreements signed may not commit the Company to amounts in excess of the individual's invoice approval authority as maintained by the VP of Real Estate Finance. All acts and transactions of individuals in the positions above which were taken or made in good faith and prior to the formal delegation of authority to such position that are consistent with this delegation are hereby ratified and approved.

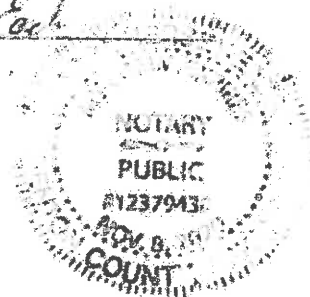
  
**Volker Heimeshoff**  
Vice President

Subscribed and sworn before me this 21<sup>st</sup> day of December, 2015

  
Notary Public

My commission expires: Nov 8, 2020

[Notary Seal]



## AGENT AUTHORIZATION

**Wal-Mart Store #3873-00 Alachua, FL**

**Located at the SE quadrant of the intersection of I-75 & Hwy 441  
Alachua, FL**

On behalf of Wal-Mart Stores East, LP ("Wal-Mart"), I hereby authorize CPH, Inc., to serve as Wal-Mart's authorized agent for the purpose of seeking all requisite permits and approvals related to the proposed development of the above-referenced site.

This authorization is expressly limited to (1) signing and delivering applications for permits and approvals that are related to the development of the above-referenced site, and (2) advancing the requisite funds on behalf of Wal-Mart to file such applications. Further, this authorization does not empower CPH, Inc. to either negotiate on Wal-Mart's behalf or otherwise obligate Wal-Mart in any manner whatsoever, including any attempt to obligate Wal-Mart to pay for or construct improvements in connection with its development of the site.

Should you need additional information or have any questions regarding this authorization, please do not hesitate to contact Wal-Mart's design manager.

Respectfully,

WAL-MART STORES EAST, LP,  
a Delaware limited partnership

By: WSE Management, LLC,  
a Delaware limited liability company and  
general partner

Michael Thomas  
Signature

Michael Thomas, Director  
Printed Name, Title

STATE OF Arkansas

COUNTY OF Benton

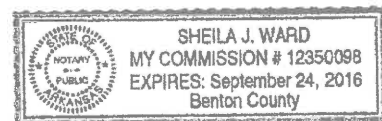
BEFORE ME, the undersigned Notary Public in and for said County and State, appeared

Michael Thomas, who is personally known to me or who has produced  
personally known as identification, and who executed the foregoing instrument.

Given under my hand and seal this 12<sup>th</sup> day of April, 2016.

Sheila J. Ward  
Signed Name of Notary Public

Sheila J. WARD  
Printed Name of Notary Public



{Seal}

**Legal Description: (Parcel 03869-013-000 – Walmart Parcel)**

A TRACT OF LAND SITUATED IN FRACTIONAL SECTIONS 9, 10, 15, AND 16, TOWNSHIP 8 SOUTH, RANGE 18 EAST, AND THE WILLIAM GARVIN GRANT, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE AFOREMENTIONED FRACTIONAL SECTION 9, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN S.00°51'49"E., A DISTANCE OF 3.91 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED SEABOARD COASTLINE RAILROAD (200 FOOT RIGHT OF WAY); THENCE RUN N.88°37'47"W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 790.35 FEET TO THE INTERSECTION OF SAID SOUTHERLY RIGHT OF WAY LINE WITH THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY) AND THE TRUE POINT OF BEGINNING; THENCE RUN N.04°30'53"E., ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 49.91 FEET; THENCE RUN S.88°32'46"E., A DISTANCE OF 49.98 FEET; THENCE RUN N.04°58'37"E., A DISTANCE OF 50.15 FEET TO THE CENTERLINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD; THENCE RUN S.88°36'33"E., ALONG SAID CENTERLINE, A DISTANCE OF 379.41 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORD BOOK 1620, PAGE 1020 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID PARCEL OF LAND BEING HEREINAFTER REFERRED TO AS PARCEL "A"; THENCE RUN N.04°14'21"E., A DISTANCE OF 179.48 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "A"; THENCE RUN S.79°38'59"E., ALONG THE NORTH LINE OF SAID PARCEL "A", A DISTANCE OF 505.22 FEET TO THE NORTHEAST CORNER OF SAID PARCEL "A"; THENCE RUN S.88°35'59"E., ALONG THE NORTH RIGHT OF WAY LINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD, A DISTANCE OF 19.74 FEET; THENCE DEPARTING SAID RIGHT OF WAY LINE RUN S.04°11'43"W., A DISTANCE OF 1431.98 FEET; THENCE RUN N.85°48'17"W., FOR A DISTANCE OF 952.11 FEET TO THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY); THENCE RUN N.04°11'43"E., ALONG SAID EASTERLY RIGHT OF WAY LINE, FOR A DISTANCE OF 1184.62 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED TRACT OF LAND CONTAINS 30.19 ACRES MORE OR LESS

117122

**RETURN TO:**

**First American Title Ins. Co.**

**25400 US 19 N, Suite 135**

**Clearwater, FL 33763**

DB/JS

Prepared by and when

recorded return to:

David J. Edwards

Edwards Cohen

6 East Bay Street, Suite 500

Jacksonville, Florida 32202

7016.47

RECORDED IN OFFICIAL RECORDS

INSTRUMENT # 2268212 5 PGS

2006 AUG 17 04:23 PM BK 3444 PG 300

J. K. "BUDDY" IRBY

CLERK OF CIRCUIT COURT

ALACHUA COUNTY, FLORIDA

CLERK13 Receipt#296766

Doc Stamp-Deed: 9,848.30

RE Parcel ID Nos. 03869-000-00



2268212

**GENERAL WARRANTY DEED**

**THIS INDENTURE**, made as of this 14<sup>th</sup> day of August, 2006, between **FIRST STREET GROUP, L.C.**, a Florida limited liability company, whose address is P. O. Box 1990, Alachua, FL 32616 (the "Grantor"), and **WAL-MART STORES EAST, LP**, a Delaware limited partnership, with offices located at Property Tax Dept. 8013, 1301 S.E. 10<sup>th</sup> Street, Store No. 1205-01, Bentonville, Arkansas 72716-8013 (the "Grantee").

**WITNESSETH:**

That the said Grantor, for and in consideration of the sum of Ten Dollars and other good and valuable consideration, to it in hand paid by the said Grantee, the receipt and adequacy of which is hereby acknowledged, has granted, bargained and sold to the said Grantee, its successors and assigns forever, the following described land located in Alachua County, Florida, to wit:

See Exhibit A attached.

TOGETHER WITH all the tenements, hereditaments, easements and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said lands in fee simple; that the Grantor has good right and lawful authority to sell and convey the lands; Grantor does hereby fully warrant title to said land, and will defend the same against the lawful claims of all persons whomsoever. This conveyance of the Property is made subject only to those matters listed on Exhibit B attached hereto and made a part hereof.

Alachua, Florida


Wal-Mart Store No. 3873-00


5pgs 44.00 Doc / 9,848.30

IN WITNESS WHEREOF, Grantor has executed this Deed as of the day and year first above written.

*Signed, sealed and delivered in the presence of:*

**FIRST STREET GROUP, L.C., a Florida  
limited liability company**

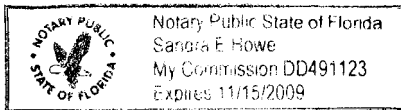
  
Name printed: DARRYL J. TOMPKINS

By:   
James W. Shaw  
Vice President and Manager

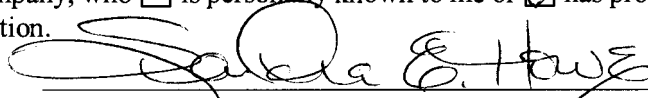
  
Name printed: Sandra E. Howe

STATE OF FLORIDA  
COUNTY OF Alachua

The foregoing instrument was acknowledged before me on August 11, 2006, by James W. Shaw, as Vice President and Manager of the **FIRST STREET GROUP, L.C.**, a Florida limited liability company, on behalf of the limited liability company, who ☐ is personally known to me or ☒ has produced Florida drivers license as identification.



[NOTARIAL SEAL]

  
Notary Public, State and County Aforesaid  
Name printed: Sandra E. Howe  
My Commission Expires: 11/15/2009  
Commission No.: DD491123

**EXHIBIT A**

**WAL MART STORE TRACT**

A TRACT OF LAND SITUATED IN FRACTIONAL SECTIONS 9, 10, 15, AND 16, TOWNSHIP 8 SOUTH, RANGE 18 EAST, AND THE WILLIAM GARVIN GRANT, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE AFOREMENTIONED FRACTIONAL SECTION 9, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN S.00°51'49"E., A DISTANCE OF 3.91 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF THE ABANDONED SEABOARD COASTLINE RAILROAD (200 FOOT RIGHT OF WAY); THENCE RUN N.88°37'47"W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 790.35 FEET TO THE INTERSECTION OF SAID SOUTHERLY RIGHT OF WAY LINE WITH THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY) AND THE TRUE POINT OF BEGINNING; THENCE RUN N.04°30'53"E., ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 49.91 FEET; THENCE RUN S.88°32'46"E., A DISTANCE OF 49.98 FEET; THENCE RUN N.04°58'37"E., A DISTANCE OF 50.15 FEET TO THE CENTERLINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD; THENCE RUN S.88°36'33"E., ALONG SAID CENTERLINE, A DISTANCE OF 379.41 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORD BOOK 1620, PAGE 1020 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID PARCEL OF LAND BEING HEREINAFTER REFERRED TO AS PARCEL "A"; THENCE RUN N.04°14'21"E., A DISTANCE OF 179.48 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "A"; THENCE RUN S.79°38'59"E., ALONG THE NORTH LINE OF SAID PARCEL "A", A DISTANCE OF 505.22 FEET TO THE NORTHEAST CORNER OF SAID PARCEL "A"; THENCE RUN S.88°35'59"E., ALONG THE NORTH RIGHT OF WAY LINE OF THE AFOREMENTIONED ABANDONED SEABOARD COASTLINE RAILROAD, A DISTANCE OF 19.74 FEET; THENCE DEPARTING SAID RIGHT OF WAY LINE RUN S.04°11'43"W., A DISTANCE OF 1431.98 FEET; THENCE RUN N.85°48'17"W., FOR A DISTANCE OF 952.11 FEET TO THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 75 (300 FOOT LIMITED ACCESS RIGHT OF WAY); THENCE RUN N.04°11'43"E., ALONG SAID EASTERLY RIGHT OF WAY LINE, FOR A DISTANCE OF 1184.62 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH:

**WAL MART OUTPARCEL TRACT**

A TRACT OF LAND SITUATED IN FRACTIONAL SECTIONS 9, 10, 15, AND 16, TOWNSHIP 8 SOUTH, RANGE 18 EAST, AND THE WILLIAM GARVIN GRANT, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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**EXHIBIT B**

**PERMITTED ENCUMBRANCES**

INSTRUMENT # 2268212  
5 PGS

1. Taxes for the year 2006 and subsequent years, which are not yet due and payable.
2. Those matters which a correct survey would disclose and which are not shown by the public records.



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ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
03869 013 000		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

UNKNOWN

WAL-MART STORES EAST LP  
PROPERTY TAX DEPT 8013  
1301 SE 10TH ST  
STORE NO 1205-01  
BENTONVILLE, AR 72716-8013

COM SE COR FRAC SEC 9-8-18 S 00 DEG  
51 MIN 49 SEC E 3.91 FT N 88 DEG  
See Additional Legal on Tax Roll

**AD VALOREM TAXES**

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.7950	1,330,300	0	1,330,300	11,699.99
BOCC CNTY DEBT LL	0.1595	1,330,300	0	1,330,300	212.18
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY BONDS	0.0900	1,330,300	0	1,330,300	119.73
LIBRARY GENERAL	1.3638	1,330,300	0	1,330,300	1,814.26
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP31 PROJECT (S01)	1.5000	1,330,300	0	1,330,300	1,995.45
SCHL DISCRNRY & CN (S01)	0.7480	1,330,300	0	1,330,300	995.06
SCHL GENERAL	5.0940	1,330,300	0	1,330,300	6,776.55
SCHOOL VOTED (S01)	1.0000	1,330,300	0	1,330,300	1,330.30
SUWANNEE RIVER WATER MGT DIST	0.4104	1,330,300	0	1,330,300	545.96
17 CITY OF ALACHUA	5.9900	1,330,300	0	1,330,300	7,968.50

**TOTAL MILLAGE** 25.1507

**AD VALOREM TAXES**

\$33,457.98

**WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT [www.AlachuaCollector.com](http://www.AlachuaCollector.com) AND SIGN UP FOR E-BILLS!**

**PAY ONLINE WITH E-CHECK**



**SCAN TO PAY**

**PAY ONLY ONE AMOUNT.**

**NON-AD VALOREM ASSESSMENTS**

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
<b>NON-AD VALOREM ASSESSMENTS</b>			<b>\$0.00</b>

**COMBINED TAXES AND ASSESSMENTS** \$33,457.98

**If Paid By**  
**Please Pay** **Nov 30, 2015**  
\$0.00

**JOHN POWER, CFC**  
ALACHUA COUNTY TAX COLLECTOR

2015 PAID REAL ESTATE  
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1013894

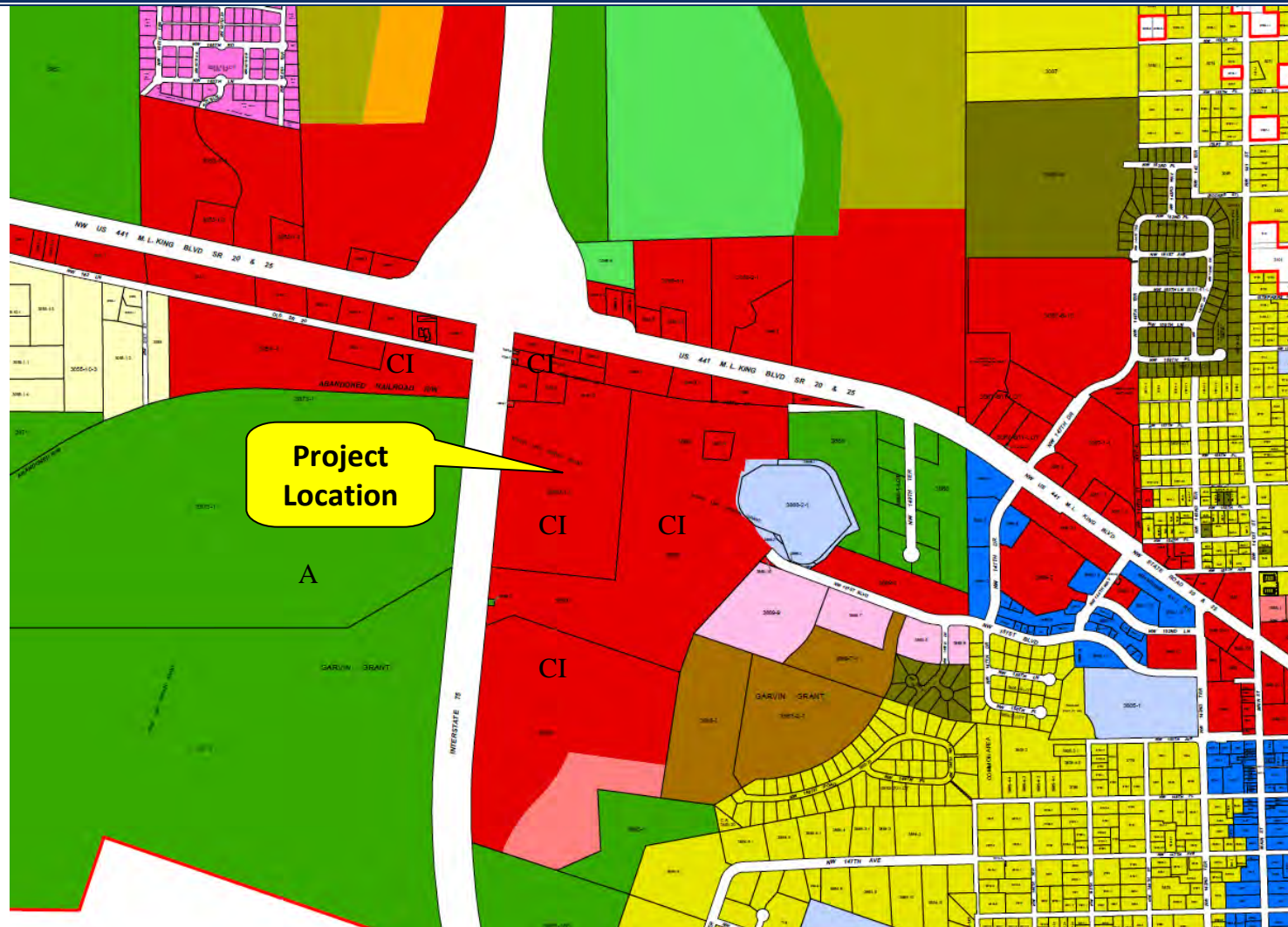
**PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • PO BOX 142340 • GAINESVILLE, FL 32614-2340**

ACCOUNT NUMBER	SITUS	MESSAGE
03869 013 000	UNKNOWN	

WAL-MART STORES EAST LP  
PROPERTY TAX DEPT 8013  
1301 SE 10TH ST  
STORE NO 1205-01  
BENTONVILLE, AR 72716-8013

**IF PAID BY PLEASE PAY**

<input type="checkbox"/>	<b>Nov 30, 2015</b>	\$0.00
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		



Walmart 3873-00  
Parcel ID #03869-013-000  
**ZONING MAP**



Engineers  
Planners  
Landscape Architects  
Surveyors  
Construction Management  
Design/Build  
[www.cphengineers.com](http://www.cphengineers.com)

## NEIGHBORHOOD MEETING

A Neighborhood meeting will be held to discuss the proposed Walmart Supercenter #3873 on 43.73 acres at Southeast Quadrant of US 441 & I-75, Alachua, FL.

Date: March 15, 2016

Time: 5:30 P.M. to 7:30 P.M.

Place: The Swick House, 15010 NW 142 Terrace, Alachua, FL 32615

Contact: Brian Cassidy 904-332-0999

Mr. Cassidy will be holding a meeting to discuss the Special Exception Permits that are required for the project. This is not a public hearing. The required Special Exception Permits are as follows:

1. Special Exception Permit for a Repair Establishment to allow for the proposed Tire and Lube Express Automotive Repair Establishment that is a component of the proposed Walmart Supercenter #3873 Building.
2. Special Exception Permit for Large Scale Retail Establishment greater than or equal to 80,000 square feet.

The meeting will be held Tuesday, March 15, 2016, at 5:30 pm at The Swick House, 15010 NW 142 Terrace, Alachua, FL 32615.

Contact Person: Brian Cassidy bcassidy@cphcorp.com 904-332-0999.

## Credits parents for life successes

**SUPER BOWL:**  
Continued from page A1

He said Nattiel's mother, who was sitting next to her son on stage, wasn't too keen on the idea of her son becoming quarterback at first.

"But we convinced him to do it," Baths said. "He was reluctant to begin with, but Ricky was always up for a new challenge... and really the rest of it is history."

Baths then commended Nattiel's dedication to being a good student as

well as an athlete.

"His mama made sure of that because she would come up here and make sure Ricky was in line," he said. "And that's the kind of parents we need in the school system here today."

Nattiel thanked the faculty and acknowledged the efforts of his mother and late father, who passed away last year, for his success.

"Most importantly, God has blessed me with

good people, including this young lady right here, my mom," he said.

Nattiel shared advice with the students, encouraging them to work hard even when no one is watching and give full effort in everything they do so they don't have regrets later in life.

"Get in the classroom and [listen] to the teachers [and] to the principals," he said. "If those teachers see you get your butt in that classroom [and] you're engaged [when] class is over, you stay five minutes late. I promise you, they notice. Every little thing, guys, people watch."

# # #

Email Korrego@alachuatoday.com

**"Get in the classroom and [listen] to the teachers [and] to the principals..."**

■ Ricky Nattiel



KRISTINA ORRIGO/Alachua County Today

## Alachua County residents get free tire disposal

Special to  
Alachua County Today

ALACHUA COUNTY – Alachua County residents can bring tires to Albert "Ray" Massey (Westside) Park, 1001 NW 34th Street in Gainesville from 8 a.m. until noon on Saturday, March 12.

As part of the Great American Cleanup, residents can dispose of passenger vehicle tires at no charge. There is a limit of four tires per person and tires with rims will not be accepted. No commercial vehicle tires will be accepted and tires from businesses will not be accepted.

In Alachua County, approximately 750 tons of tires are collected and recycled each year. Recycled tires are made into rubber mulch, which can be used for playgrounds and gardens and asphalt additives for road paving and landfill liners.

As a 501 (c)(3) nonprofit organization, Keep Alachua County Beautiful, an affiliate of Keep America Beautiful, conducts annual tire collections at no charge to allow residents to dispose of tires that may have been illegally dumped on their property. Improperly disposed and stored tires are hazards to our health. Tires fill with rainwater and become a breeding ground for thousands of mosquitoes, which can carry life-threatening diseases.

If you would like to register to volunteer for the Great American Cleanup, please fill out the form on our website: [www.kacb.org/event-registration](http://www.kacb.org/event-registration). For more information, contact Keep Alachua County Beautiful at 352-371-9444 or [greatamericancleanup.kacb@gmail.com](mailto:greatamericancleanup.kacb@gmail.com).

# # #  
Email editor@alachuatoday.com

## Exit 399 overnight I-75 ramp closures at U.S. 441 Sunday-Thursday

STAFF REPORT  
Alachua County Today

ALACHUA – Interstate 75 on- and off-ramp closures at U.S. 441 (Exit 399) in Alachua are scheduled to begin at 11 p.m. Sunday, March 6 and continue each evening through Thursday, March 10, for paving, weather permitting.

Ramps will be closed one at a time from 11 p.m. to 5 a.m. each night. Closed ramps must be reopened by 5 a.m. each day. The new southbound on-ramp from U.S. 441 South will

remain open at all times.

Traffic will detour five miles north to the County Road 236 (Exit 404) interchange to access I-75 during the closures.

**Ramp closures schedule:**

- Sunday night – Northbound off-ramp to U.S. 441
- Monday-Tuesday nights – Northbound on-ramp to I-75 from U.S. 441 North
- Wednesday-Thursday nights – Southbound on-ramp from U.S. 441 North

Ramps can be reopened early

if the work is completed ahead of schedule or remain closed longer due to unforeseen circumstances or inclement weather.

The paving is part of the \$23 million project to resurface 12 miles of I-75 from NW 39th Avenue to U.S. 441 and improve the NW 39th Avenue and U.S. 441 interchanges in Alachua County. The project is scheduled for completion this fall.

# # #  
Email editor@alachuatoday.com

### PUBLIC NOTICE

A Neighborhood meeting will be held to discuss the proposed Walmart Supercenter #3873 on 43.23 acres at the Southwest Quadrant of U.S. 441 & I-75. This is not a public hearing. The purpose of the meeting is to inform neighboring property owners of the Special Exception Permits that are required for the project and to seek their comments. The required Special Exception Permits are as follows:  
1. Special Exception Permit for a Repair Establishment to allow for the proposed Tire and Lube Express Automotive Repair Establishment that is a component of the proposed Walmart Supercenter #3873 Building.  
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Contact Person: Brian Cassidy [bcassidy@epcorp.com](mailto:bcassidy@epcorp.com) 904-332-0999.

(Published: Alachua County Today - March 3, 2016)

### EARLY VOTING

March 4th through March 12th  
9 AM – 5 PM  
Except Thursday, March 10th  
Thursday from 10 AM – 6 PM

- Supervisor of Elections Office  
515 North Main Street (new)
- Millhopper Branch Library  
3145 NW 43rd Street
- Tower Road Branch Library  
3020 SW 75th Street

**PRESIDENTIAL PREFERENCE PRIMARY  
GAINESVILLE CITY ELECTION  
March 15, 2016**

**Pam Carpenter**  
Alachua County  
Supervisor of Elections  
[www.VoteAlachua.com](http://www.VoteAlachua.com)  
352/374-5252



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NEWS

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facebook

**GREAT AMERICAN CLEANUP FLORIDA**  
Come help us clean up and beautify Alachua County!

For more information visit [www.kacb.org](http://www.kacb.org)

**KEEP ALACHUA COUNTY Beautiful**

Where: Saturday, March 12, 2016  
10am-12noon  
Where: Albert "Ray" Massey Park  
(1001 NW 34th St)  
What: Any and Everyones!  
What: Join us to pick up litter, planting trees and cleaning up our community. We will also be collecting office paper, tires and hazardous waste. Raffle and prizes at noon.  
RSVP: [www.kacb.org](http://www.kacb.org) to reserve your spot.

*Prosperous Family Traditions Start at SunState*

**Just a few coins here and there  
can really add up!**

**Start saving today**

**SUNSTATE  
FEDERAL CREDIT UNION**  
[www.SunStateFCU.org](http://www.SunStateFCU.org)





**SIGN IN**

FULL NAME

EMAIL ADDRESS

MAILING ADDRESS

CITY, STATE, ZIP

[illegible]

## Neighborhood Meeting Summary

Proposed Walmart Supercenter #3873-00

Meeting Date: March 15, 2016

Meeting Time: 5:30pm

Meeting Location: The Swick House

Please see attached Sign-In sheet. Only one citizen attended the meeting and she declined to provide her contact information for the sign in sheet.

The Applicant's representatives at the meeting included:

Larry Wray, CPH, Inc.

Brian Cassidy, CPH, Inc.

Brent Spain, Theriaque and Spain Law Firm

The neighborhood meeting was set-up as individual stations, each addressing a specific aspect of the proposed project. The stations included: General / Site and Architecture & Special Exceptions (for buildings greater than 80,000sf & for Auto Servicing Use. The Applicants representatives were available at each station to answer citizen questions. This allowed one-on-one attention for each attendee and schedule flexibility for those arriving at different times.

Those in attendance at the neighborhood meeting expressed the following:

- 1.) How big is the Tire and Lube Express?
- 2.) Where is the Tire and Lube Express located?
- 3.) What is the 80,000 square foot building?

TOMOKA HILLS FARMS INC  
1301 DIXIANA DOMINO RD  
LEXINGTON, KY 40511  
PARCELS 03873-000-000 & 03873-001-000

A S SHEILA PATEL  
15920 NW US HIGHWAY 441  
ALACHUA, FL 32615  
PARCEL 03066-008-001

REBECCA H AND KENNETH J FICKETT  
3001 NE 20<sup>TH</sup> WAY  
GAINESVILLE, FL 32606  
PARCEL 03054-001-000

FIRST STREET GROUP L C  
PO BOX 1990  
ALACHUA, FL 32616-1990  
PARCELS 03066-000-000 & 03869-000-000

MCDONALD'S CORP (009/0551)  
16018 NW US HIGHWAY 441  
ALACHUA, FL 32615  
PARCELS 03059-001-000 & 03059-005-000

CHRISTOPHER ALLAN KOROSIC  
15710 NW US HIGHWAY 441  
ALACHUA, FL 32615  
PARCEL 03868-000-000

AMERICAN PETROLEUM INVESTMENTS  
380 COMMERCE PARKWAY  
ROCKLEDGE, FL 32955  
PARCEL 03066-007-000

10.47 LLC  
14110 NW 21<sup>ST</sup> LANE  
GAINESVILLE, FL 32606  
PARCEL 03868-002-000

MOHAN-LERRA FAMILY PARTNERSHIP  
16715 NW 129<sup>TH</sup> TERRACE  
ALACHUA, FL 32615  
PARCEL 03066-006-000

CITY OF ALACHUA  
PO BOX 9  
ALACHUA, FL 32616  
PARCEL 03868-002-001

TEMPLE HILL INC  
11149 CONISTON WAY  
WINDERMERE, FL 34786-5410  
PARCELS 03066-008-002 & 03066-008-000

TLC PROPERTIES INC  
2065 NW 57<sup>TH</sup> STREET  
OCALA, FL 34475  
PARCEL 03869-001-000

JP & KP LLC  
11149 CONISTON WAY  
WINDERMERE, FL 34786  
PARCELS 03054-000-000 & 03054-002-000

JAMES E JR & RENEE HARKINS  
PO BOX 6307  
MARIANNA, FL 32447-6307  
PARCEL 03869-002-000



ALACHUA HOLDINGS LTD  
PO BOX 1990  
ALACHUA, FL 32616  
PARCEL 03863-000-000

MEGAHEE ENTERPRISES LTD.,LLLP  
2632 NW 43RD ST # 2138  
GAINESVILLE, FL 32606  
PARCELS 03067-001-000, 03066-006-002, 03066-004-000

ALACHUA BBQ LAND LLC  
PO BOX 2495  
OCALA, FL 34478  
PARCEL 03066-004-002

ANTOINETTE ENDELICATO  
5562 NW 93<sup>RD</sup> AVENUE  
GAINESVILLE, FL 32653

R & J MCCAULEY LLC  
15260 NW 147<sup>TH</sup> DRIVE  
ALACHUA, FL 32615  
PARCEL 03863-002-000

DAN RHINE  
288 TURKEY CREEK  
ALACHUA, FL 32615

THOMAS STALBAUM  
4526 SW 63<sup>RD</sup> BLVD  
GAINESVILLE, FL 32608-3879  
PARCEL 03066-001-000

TOM GORMAN  
9210 NW 59<sup>TH</sup> STREET  
ALACHUA, FL 32653

PINE ACRES LLC  
2632 NW 43<sup>RD</sup> ST #2138  
GAINESVILLE, FL 32606  
PARCEL 03066-004-001

RICHARD GORMAN  
5716 NW 93<sup>RD</sup> AVENUE  
ALACHUA, FL 32653

NATIONAL SPELEOLOGICAL  
SOCIETY INC  
6001 TULASKI PIKE NW  
HUNTSVILLE, AL 35810-1122  
PARCEL 03066-002-001

PEGGY ARNOLD  
410 TURKEY CREEK  
ALACHUA, FL 32615

LUTHER ACQUISITIONS LLC  
2632 NW 43RD ST UNIT# 2138  
GAINESVILLE, FL 32606  
PARCEL 03066-002-000

DAVID FOREST  
23 TURKEY CREEK  
ALACHUA, FL 32615

JOHN TINGUE  
333 TURKEY CREEK  
ALACHUA, FL 32615

TAMARA ROBBINS  
PO BOX 2317  
ALACHUA, FL 32616

TCMOA  
1000 TURKEY CREEK  
ALACHUA, FL 32615

DR. LEE A. NIBLOCK, COUNTY MGR  
ALACHUA COUNTY  
12 SE 1<sup>ST</sup> STREET  
GAINESVILLE, FL 32601

LINDA DIXON  
AICP  
PO BOX 115050  
GAINESVILLE, FL 32611

CRAIG PARENTEAU  
FDEP  
4801 CAMP RANCH ROAD  
GAINESVILLE, FL 32641

JEANNETTE HINSDALE  
PO BOX 1156  
ALACHUA, FL 32616

LYNN COULLIAS  
7406 NW 126<sup>TH</sup> AVENUE  
ALACHUA, FL 32615

LYNDA COON  
7216 NW 126 AVENUE  
ALACHUA, FL 32615

GE  
Lighting

# Evolve™ LED Area Light

Scalable Area Light (EASC)



imagination at work

## Product Features

The next evolution of the GE Evolve™ LED Area Light continues to deliver outstanding features, while adding greater flexibility, style and scalability. This latest design offers higher lumen outputs and provides photometric combinations with high efficacy, providing the ability to meet even a wider range of area lighting needs. Additionally, the new EASC Evolve Luminaire comes with a specially designed auto dealership optic for exceptional illuminance on the dealership's front row. Optional programmable motion sensing for Title 24 compliance is available.

### Applications

- Site, area, and general lighting applications utilizing advanced LED optical system providing high uniformity, excellent vertical light distribution, reduced offsite visibility, reduced on-site glare and effective security light levels.
- Ideal for small to large retailers, commercial to medical properties, and big box retailers.

### Housing

- Die-cast aluminum housing.
- Slim architectural design incorporates an integral heat sink and light engine, ensuring maximum heat transfer, long LED life, and a reduced Effective Projected Area (EPA).
- Meets 3G vibration standards per ANSI C136.31-2010 for Slipfitter and Mounting Arm configurations. Meets 1.5G vibration standards for Knuckle Slipfitter Mounting.

### LED & Optical Assembly




- Structured LED arrays for optimized area light photometric distribution.
- Evolve light engine with directional reflectors designed to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 4000K and 5000K typical.

### Lumen Maintenance

Lumen Maintenance (25°C Ambient)				
Optical Code	Calculated		Calculated Hours	
	50,000 hr	100,000 hr	L70	L90
L5, V5, L4, L3, L2	0.98	0.95	>100,000	>100,000
LA	0.90	0.81	>100,000	49,000
All others	0.99	0.97	>100,000	>100,000

Lumen Maintenance per IES TM-21.

### Ratings

-  listed, suitable for wet locations.
-  listed with option code "J" SKUs.
- IP65 rated optical enclosure per ANSI C136.25-2009.
- Temperature rated at -40° to 50°C (-40° to 35°C for fixtures over 390 watts).
- Upward Light Output Ratio (ULOR) = 0.
- Title 24 compliant with "H" motion sensor option.
- Compliant with the material restriction requirements of RoHS.
-  DLC Listed

Please refer to the DLC QPL website for the latest and most complete information.  
[www.designlights.org/QPL](http://www.designlights.org/QPL)

### Mounting

#### Option A

- 10-inch (254mm) mounting arm for square pole prewired with 24-inch (610mm) leads.

#### Option B

- 10-inch (254mm) mounting arm for round pole prewired with 24-inch (610mm) leads.

#### Option C

- Slipfitter mounting for 2 3/8-inch (60mm) O.D. pipe prewired with 24-inch (610mm) leads.

#### Option D

- 10-inch (254mm) mounting arm for round or square pole prewired with 24-inch (610mm) leads.

#### Option S

- Knuckle Slipfitter mounting for 2.3-3" O.D. pipe, pre-wired with 24-inch (610mm) leads.

### Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Black & Dark Bronze.
- RAL & custom colors available.

### Electrical

- 120-277 volt and 347-480 volt available.
- System power factor is >90% and THD <20%.\*
- Class "A" sound rating.
- Photo electric sensors (PE) available for all voltages.
- ANSI C136.41 dimmable PE receptacle is available making the unit "adaptive controls ready."
- Surge Protection Options:  
For 120-277VAC and 347-480VAC per IEEE/ANSI C136.2-2015.
  - 6kV/3kA "Basic" surge protection, standard.
  - 10kV/5kA "Enhanced" surge protection available with R option.

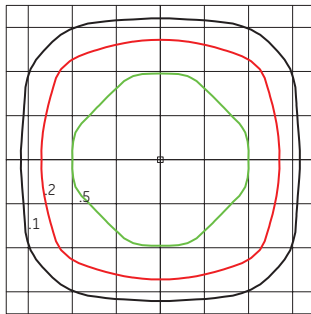
\* System power factor and THD is tested and specified at 120V input and maximum load conditions.

C

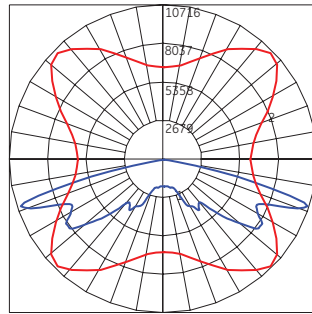
\*Rating values for B and G are based on rated lumens and may vary due to flux tolerances.

# Photometrics

**EASC Type V - Symmetric Medium (K5)**  
30,000 Lumens, 5000K (EASC\_K5N550\_\_ies)

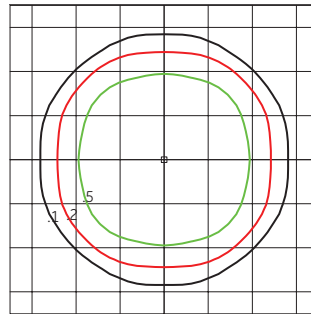


Grid Distance in Units of Mounting Height at 40' Initial Footcandle Values at Grade

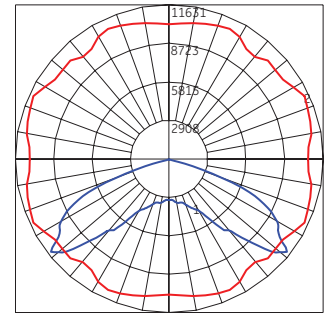


— Vertical plane through horizontal angle of maximum candlepower at 45°  
— Vertical plane through horizontal angle of 72°

**EASC Type V - Symmetric Short (U5)**  
33,000 Lumens, 5000K (EASC\_U5N550\_\_ies)

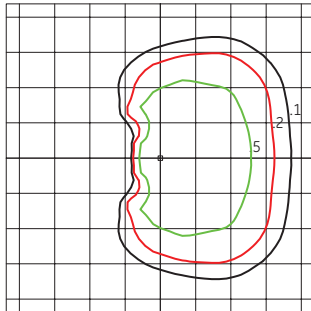


Grid Distance in Units of Mounting Height at 40' Initial Footcandle Values at Grade

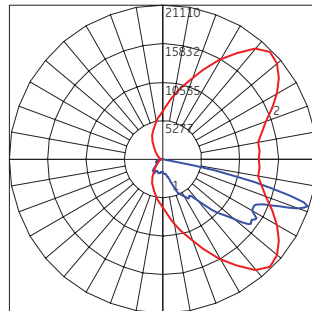


— Vertical plane through horizontal angle of maximum candlepower at 20°  
— Vertical plane through horizontal angle of 52°

**EASC Type IV - Asymmetric Forward (K4)**  
30,000 Lumens, 5000K (EASC\_K4F550\_\_ies)

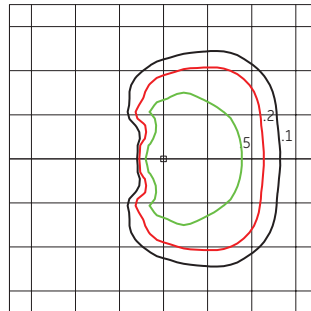


Grid Distance in Units of Mounting Height at 40' Initial Footcandle Values at Grade

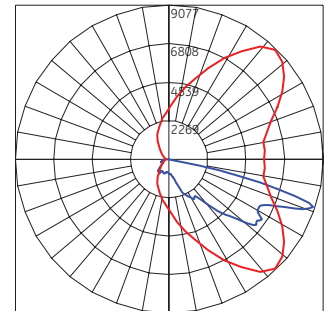


— Vertical plane through horizontal angle of maximum candlepower at 45°  
— Vertical plane through horizontal angle of 72°

**EASC Type IV - Asymmetric Forward (E4)**  
12,900 Lumens, 5000K (EASC\_E4F550\_\_ies)

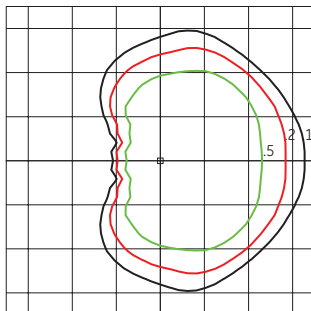


Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade

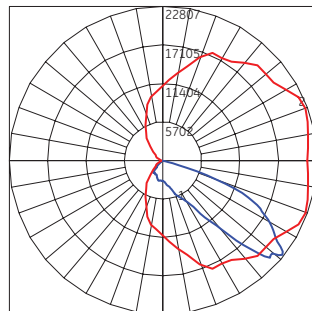


— Vertical plane through horizontal angle of maximum candlepower at 45°  
— Vertical plane through horizontal angle of 72°

**EASC Type III - Asymmetric Wide (K3)**  
33,000 Lumens, 5000K (EASC\_K3F550\_\_ies)

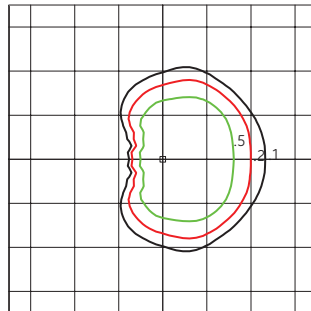


Grid Distance in Units of Mounting Height at 40' Initial Footcandle Values at Grade

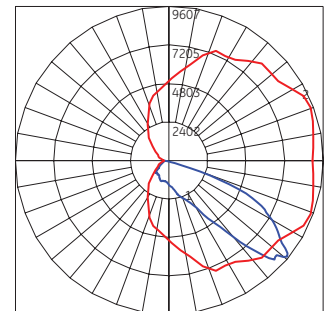


— Vertical plane through horizontal angle of maximum candlepower at 20°  
— Vertical plane through horizontal angle of 52°

**EASC Type III - Asymmetric Wide (E3)**  
13,900 Lumens, 5000K (EASC\_E3F550\_\_ies)

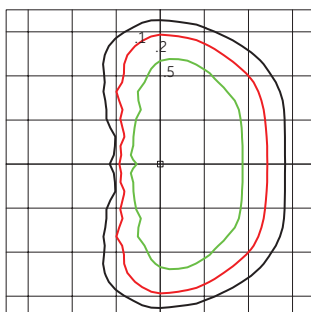


Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade

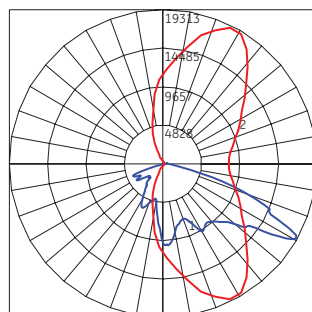


— Vertical plane through horizontal angle of maximum candlepower at 20°  
— Vertical plane through horizontal angle of 52°

**EASC Type II - Asymmetric Narrow (K2)**  
31,900 Lumens, 5000K (EASC\_K2F550\_\_ies)

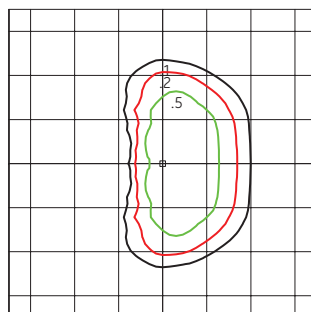


Grid Distance in Units of Mounting Height at 40' Initial Footcandle Values at Grade

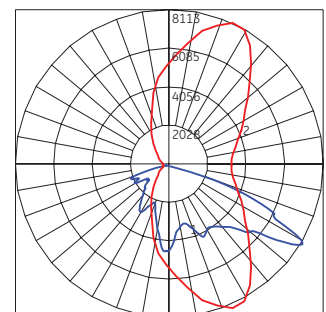


— Vertical plane through horizontal angle of maximum candlepower at 65°  
— Vertical plane through horizontal angle of 60°

**EASC Type II - Asymmetric Narrow (E2)**  
13,400 Lumens, 5000K (EASC\_E2F550\_\_ies)



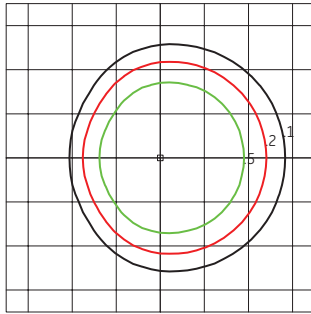
Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



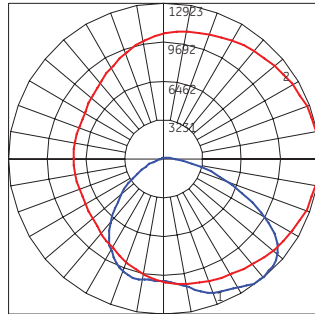
— Vertical plane through horizontal angle of maximum candlepower at 65°  
— Vertical plane through horizontal angle of 60°

## Photometrics

EASC Type II - Asymmetric Auto (KA)  
35,400 Lumens, 5000K (EASC\_KAF550\_\_.ies)

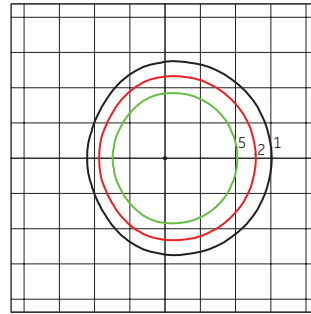


Grid Distance in Units  
of Mounting Height at 40' Initial  
Footcandle Values at Grade

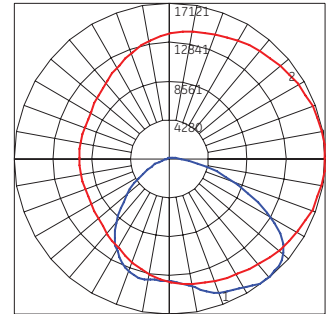


— Vertical plane through horizontal angle  
of maximum candlepower at 0°  
— Vertical plane through horizontal angle of 37°

EASC Type II - Asymmetric Auto (LA)  
46,900 Lumens, 5000K (EASC\_LAF750\_\_.ies)



Grid Distance in Units  
of Mounting Height at 40' Initial  
Footcandle Values at Grade

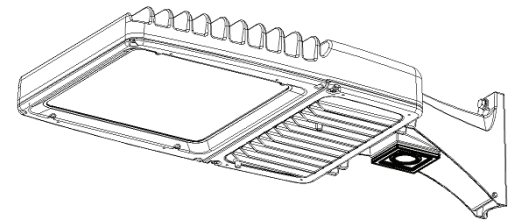


— Vertical plane through horizontal angle  
of maximum candlepower at 0°  
— Vertical plane through horizontal angle of 37°

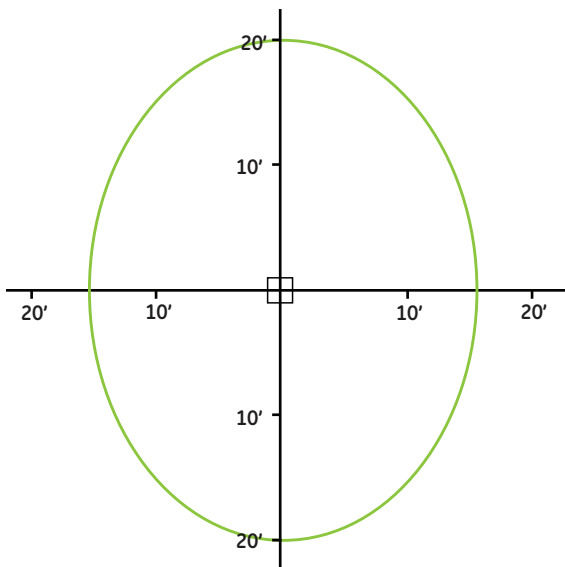
## H-Motion Sensing Option:

- Intended for high mounting applications, between 15-30ft (4.57-9.14m). For mounting heights exceeding 30ft, pole mounted sensors are recommended.
- Provides a coverage area radius for walking motion of 15-20ft (4.57-6.10m).
- Provides 270° of coverage (~90° is blocked by the pole).
- Comes standard with 50% dimmed light output with no occupancy, and full power at occupancy.
- Comes standard with photocell function. Note: It is not necessary to also purchase PE receptacle or control.
- Comes standard with a 5 minute occupancy time delay and a 5 minute ramp-down to the 50% dimmed level.
- Must order with decorative mounting arm options "A" or "B".
- Fixture power increase of 1W expected with sensor use.

Note: Standard options may be reprogrammed in the field. Reprogramming instructions included in product shipment.



## Sensor Pattern:



Sensing Pattern Area Fixture  
Up to 30 ft.



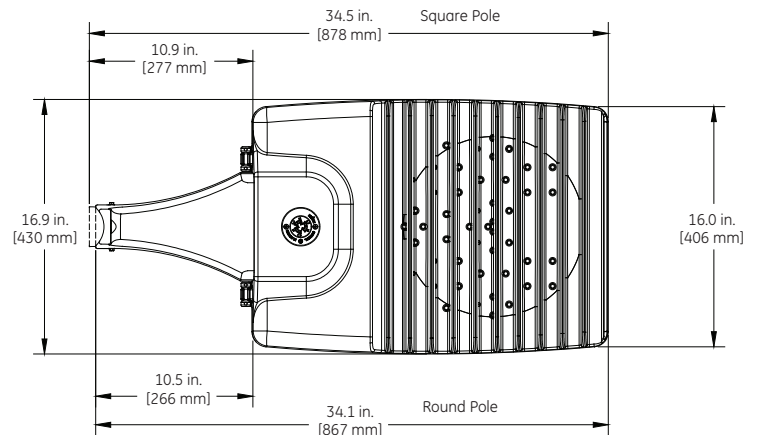
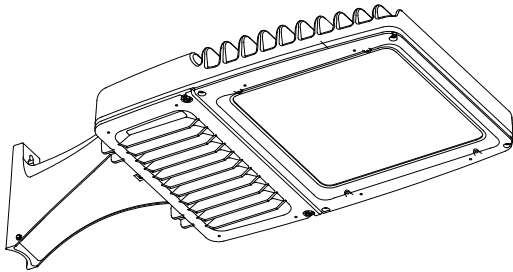
## Product Dimensions

(Option A) 10" Arm for Square Pole Mount

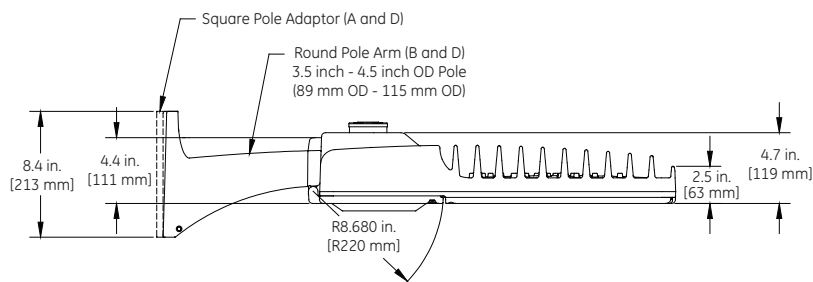
(Option B) 10" Arm for Round Pole Mount

(Option D) 10" Arm for Square Pole Mount or Round Pole Mount

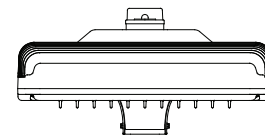
*Option D includes all mounting hardware in Option A and Option B*



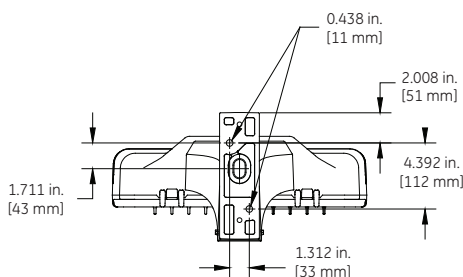
TOP VIEW



SIDE VIEW

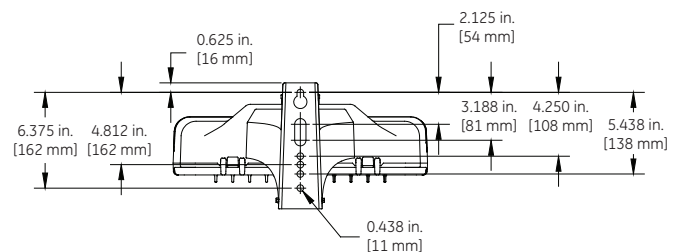


FRONT VIEW



BACK VIEW

Option A and D Square Pole  
3.5 inch - 4.5 inch Pole  
(89 mm - 115 mm)



BACK VIEW

Option B and D Round Pole  
3.5 inch - 4.5 inch OD Pole  
(89 mm OD - 115 mm OD)

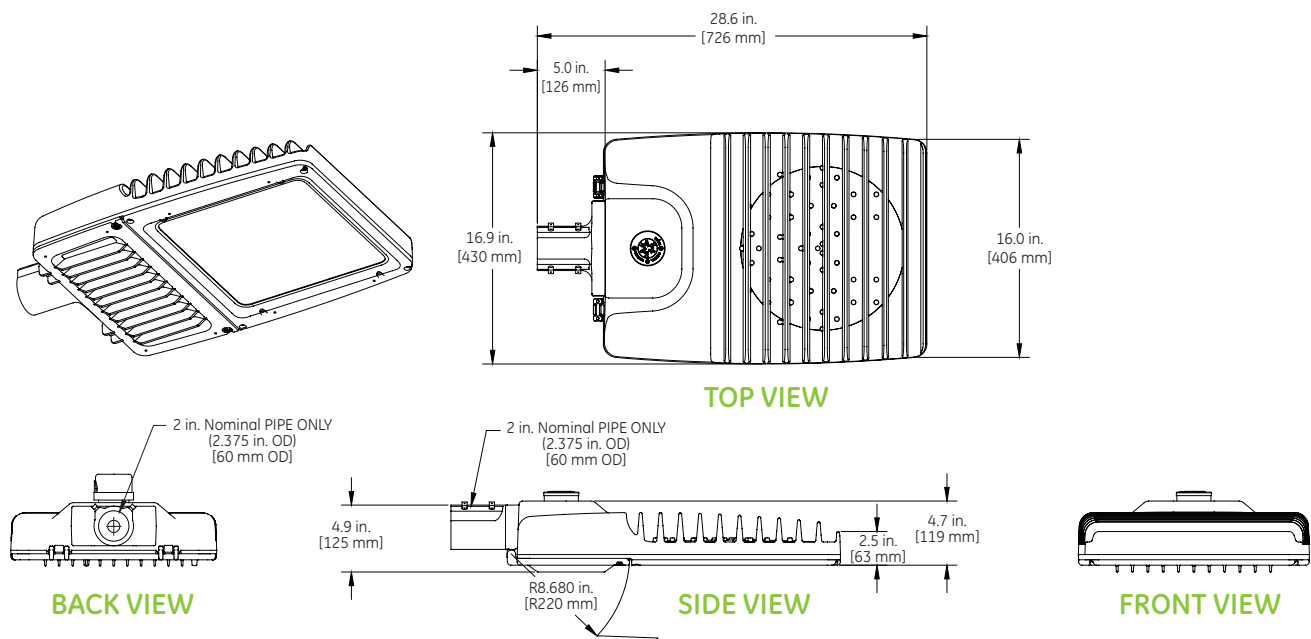
### DATA

- Approximate net weight: 43-47 lbs (19.50 - 21.32 kgs)  
Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with 10" Mounting Arm: 0.97 sq ft max (0.09 sq m)



# Product Dimensions

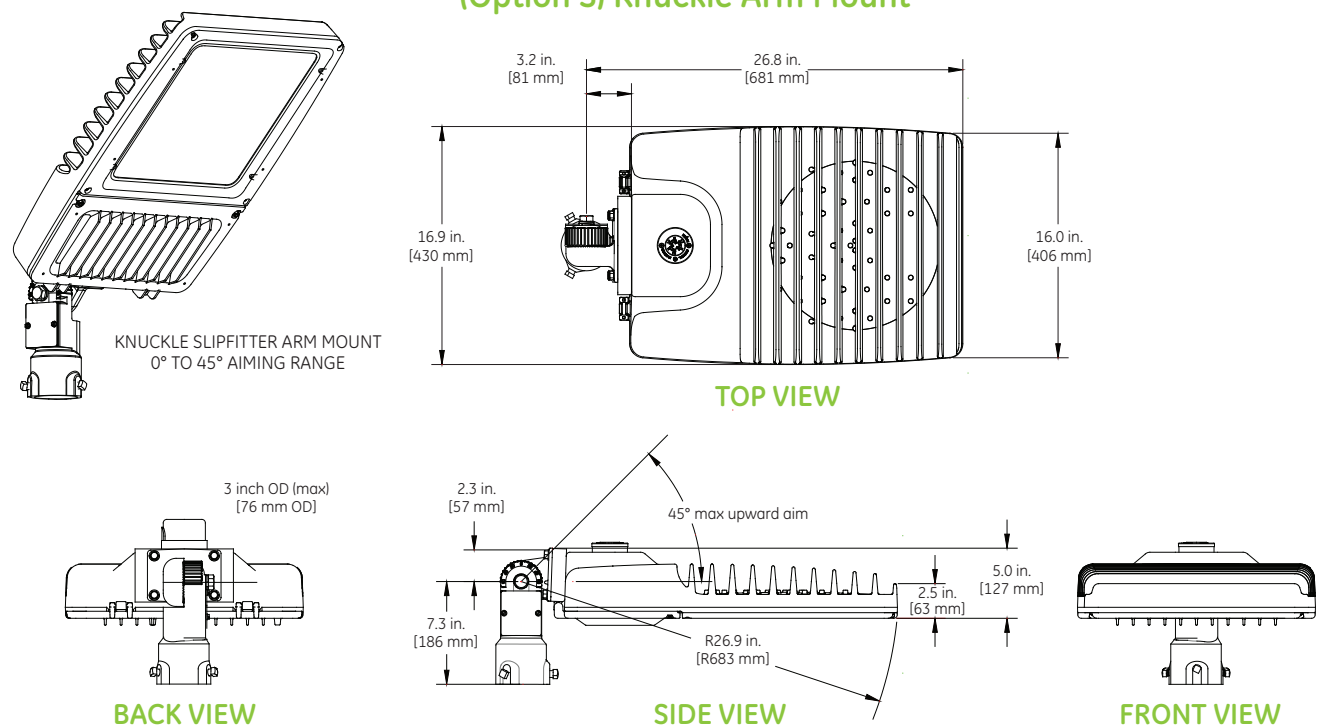
## (Option C) Slipfitter Arm Mount



### DATA

- Approximate net weight: 41-45 lbs (18.60 - 20.41 kgs)  
Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with Slipfitter: 0.47 sq ft max (0.04 sq m)

## (Option S) Knuckle Arm Mount



### DATA

- Approximate net weight: 41-45 lbs (18.60 - 20.41 kgs)  
Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with fixture mounted at 45° upward: 1.97 sq ft max

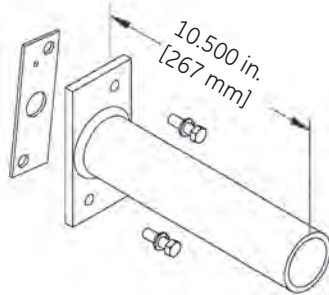
## Mounting Information

### Mounting Arms for Slipfitter

Order separately with Mounting Option C (External Slipfitter)

#### SQUARE POLE MOUNTING ARM

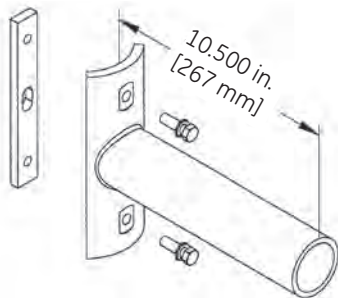
3.5 TO 4.5-inch (89 to 114mm) SQUARE  
(WILL ALLOW 4 FIXTURES PER POLE @ 90 DEGREES.)



ORDER SEPARATELY FROM FIXTURE AS CATALOG NUMBER  
**SPA-EAMT10BLCK "Black"**  
**SPA-EAMT10DKBZ "Dark Bronze"**

#### ROUND POLE MOUNTING ARM

3.5 TO 4.5-inch (89 to 114mm) OD  
(WILL ALLOW 4 FIXTURES PER POLE @ 90 DEGREES.)



ORDER SEPARATELY FROM FIXTURE AS CATALOG NUMBER  
**RPA-EAMT10BLCK "Black"**  
**RPA-EAMT10DKBZ "Dark Bronze"**

### Wall Mounting Bracket Adapter Plate

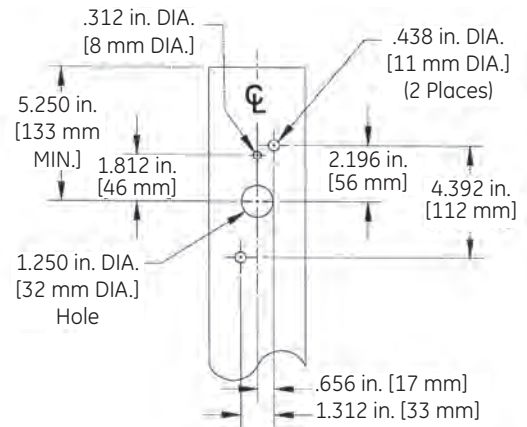
ORDER SEPARATELY FROM FIXTURE AS CATALOG NUMBER  
**WMB-EAMT06**

**\*NOTE:** For Wall Mounting, order luminaire with mounting arm: C = EXT Slip-fitter 2" Pipe (2.378 in. OD) supplied with leads.

Other mounting patterns are available for retrofit installations.  
Contact manufacturing for other available mounting patterns.

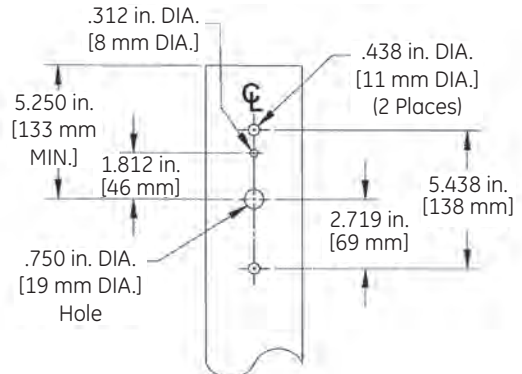
### Drilling Templates for Slipfitter Arms & Arm Mount

#### SQUARE POLE MOUNTING



#### ROUND POLE MOUNTING

3.5 TO 4.5-inch (89 to 114mm) OD  
round pole mounting arm



[www.gelighting.com](http://www.gelighting.com)

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OLP3090 (Rev 03/24/16)

# ESTIMATED COSTS OF INFRASTRUCTURE AND UTILITIES

## OFF-SITE IMPROVEMENTS

### Highway\_Entrance Roads\_ improvements:

a) Demo of existing roadway	400	SY	\$8.00	\$3,200
b) Earthwork Cut / Fill / Grading	1	LUMP SUM	\$1,000,000.00	\$1,000,000
c) Sub base and paving _____"	16199	SY	\$43.00	\$696,557
d) Markings striping and signs	1	LUMP SUM	\$12,000.00	\$12,000
e) Curbs and Gutters	8062	LF	\$14.00	\$112,868
f) Off site water lines				\$0
g) Off site San. Sewer lines				\$0
h) Misc highway items not listed above				\$0
Creek Relocation/wetlands creation				\$0
Off-Site Fences				\$0
Entrance Drive Improvements at parking lot				\$0
Mobilization	1	LUMP SUM	\$69,000.00	\$69,000
Site prep., clearing, grubbing, soil removal	57.15	AC	\$6,500.00	\$371,475
15 inch dia. __RCP__ Pipe	2181	LF	\$12.40	\$27,044
18 inch dia. __RCP__ Pipe	1264	LF	\$13.90	\$17,570
24 inch dia. __RCP__ Pipe	1427	LF	\$19.40	\$27,684
30 inch dia. __RCP__ Pipe	3343	LF	\$31.22	\$104,368
36 inch dia. __RCP__ Pipe				\$0
14 x 23 inch __ERC__ Pipe				\$0
19 x 30 inch __ERC__ Pipe				\$0
24 x 38 inch __ERC__ Pipe				\$0
34 x 53 inch __ERC__ Pipe				\$0
Underdrain System				\$0
Manhole	11	EACH	\$2,875.00	\$31,625
Area Inlet Small (4 x 4 x 4 depth)	5	EACH	\$2,300.00	\$11,500
Area Inlet Med (5 x 5 x 8 depth)	14	EACH	\$2,800.00	\$39,200
Curb Inlet Small (4 x 4 x 4 depth)	21	EACH	\$3,775.00	\$79,275
Flared end sections for 24" - 48" pipe	5	EACH	\$3,325.00	\$16,625
Cable-Block System	1	Lump Sum	\$5,000.00	\$5,000
Basin Outlet	1	EACH	\$5,025.00	\$5,025
Landscaping (Sod, seed, mulch)	1	Lump Sum	\$75,000.00	\$75,000
Survey Stake Out, As-Built Survey	57.15	Acre	\$4,500.00	\$257,175
Silt-fence	3000	LF	\$6.00	\$18,000
Gateway Brick Wall	648	SF	\$50.00	\$32,400
Holophane Lights	7	EACH	\$3,500.00	\$24,500
Predator Flood Lights	13	EACH	\$2,000.00	\$26,000
8" Water Line	2842	LF	\$18.00	\$51,156
12" Water Line	1657	LF	\$26.75	\$44,325
16" Water Line	1678	LF	\$38.65	\$64,855
Bends	9	EACH	\$750.00	\$6,750
Tees	14	EACH	\$825.00	\$11,550

Reducers/Increases	3	EACH	\$450.00	\$1,350
Blow Offs	5	EACH	\$790.00	\$3,950
8" Gate Valve	6	EACH	\$1,426.00	\$8,556
12" Gate Valve	6	EACH	\$1,865.00	\$11,190
16" Gate Valve	7	EACH	\$2,740.00	\$19,180
Hydrant (including main-line tee, pipe/fitting)	5	EACH	\$3,160.00	\$15,800
Water Main Connection	2	EACH	\$3,250.00	\$6,500
6" San. Sewer PVC	400	LF	\$12.00	\$4,800
San. Sewer Manhole	15	EACH	\$5,350.00	\$80,250
Clean Out	13	EACH	\$450.00	\$5,850
Fittings	1	Lump Sum	\$5,700.00	\$5,700
Monument Sign	1	EACH	\$50,000.00	\$50,000
Sidewalk	3075	SY	\$37.00	\$113,775
Guard Rail - P&R		LF		\$0
Retaining wall - P&R		SF		\$0
Erosion Control	1	Lump Sum	\$27,600.00	\$27,600
Irrigation	1	Lump Sum	\$30,000.00	\$30,000
Pedestrian Walkway - 10ft asphalt		Lump Sum		\$0
Electric Service	1950	LF	\$20.00	\$39,000
Telephone/Data Service	1950	LF	\$15.00	\$29,250
Informational Kiosk	1	EACH	\$10,000.00	\$10,000
Cut (not done with scraper)		SY	\$2.50	
Fill (not done with scraper)		SY	\$2.00	
Off-Site Disposal Unsuitable Soils		CY	\$8.00	
Import Select Fill		CY	\$12.34	
Utility Trench Undercut	21,450	CY	\$18.00	\$386,100
Other-Offsite improvements				\$0
Sub-total				\$4,090,578

Traffic signal - 3-way [ ] 4 way [ ] qty of intersection _____		\$0
Traffic signal - 3-way [ ] 4 way [ ] qty of intersection _____		\$0
Other-Traffic signal		\$0
Sub-total		\$0

<b>Highway 441_ improvements</b>				
a) Demo of existing roadway	1800	SY	\$9.00	\$16,200
b) Earthwork Cut / Fill / Grading	470	CY	\$12.00	\$5,640
c) Sub base and paving _____"	3500	SY	\$76.00	\$266,000
d) Markings striping and signs	1	lot	\$7,600.00	\$7,600
e) Curbs and Gutters	80	LF	\$16.00	\$1,280
f) Off site water lines		LF		\$0
g) Off site San. Sewer lines		LF		\$0
h) Misc highway items not listed above		lot		\$0
Creek Relocation/wetlands creation		Lump Sum		\$0

Off-Site Fences		SF		\$0
Entrance Drive Improvements at parking lot		SY		\$0
added off site improvements				\$0
Remove Existing Storm Structures	1	Lump Sum	\$9,600.00	\$9,600
FDOT Type "A" Ditch Bottom Inlet	1	EACH	\$5,670.00	\$5,670
Erosion Control	1	Lump Sum	\$7,600.00	\$7,600
Landscaping	1	Lump Sum	\$25,000.00	\$25,000
M.O.T.	1	Lump Sum	\$19,800.00	\$19,800
Pavement Milling	8573	SY	\$1.75	\$15,003
Concrete Sidewalk	260	SY	\$40.50	\$10,530
24x38 ERCP Storm Pipe	101	LF	\$78.90	\$7,969
24x38 MES	4	EACH	\$3,325.00	\$13,300
16" Water Line	2600	LF	\$42.70	\$111,020
Water Line Connection	1	EACH	\$4,366.00	\$4,366
Water Line Fittings	1	Lump Sum	\$6,500.00	\$6,500
Jack and Bore - Water Line	220	LF	\$345.00	\$75,900
Fiber Optic Signal Coordination	2.1	mile	\$15,000.00	\$31,500
Replace existing Railroad tie retaining wall	500	SF	\$5.00	\$2,500
Demo Existing Sidewalk	230	SY	\$3.00	\$690
Cut (not done with scraper)		SY	\$2.50	
Fill ( not done with scraper)		SY	\$2.00	
Off-Site Disposal Unsuitable Soils		CY	\$8.00	
Import Select Fill		CY	\$12.34	
Other				\$0
Sub-total				\$643,668

Traffic signal - 3-way [ ] 4 way [ ] qty of intersection _____				\$0
Traffic signal - 3-way [ ] 4 way [ ] qty of intersection _____				\$0
Other-Traffic signal	1	Lump Sum	\$225,000.00	\$225,000
Sub-total				\$225,000

<--- Click the "Road" button here to display the input cells for additional roads (if

<b>Highway_151st Blvd. Improvements: __ wide __ # Lanes __ approx LF (ROAD 4: DUPLICATE FOR EACH ROAD TO BE IMPROVED-DO NOT COMBINE)</b>				
a) Demo of existing roadway	1	SY	\$7.00	\$7
b) Earthwork Cut / Fill / Grading	1	CY	\$3.00	\$3
c) Sub base and paving ____"	116	SY	\$54.00	\$6,264
d) Markings striping and signs	1	lot	\$12,500.00	\$12,500
e) Curbs and Gutters	851	LF	\$14.00	\$11,914
f) Off site water lines		LF		\$0
g) Off site San. Sewer lines		LF		\$0
h) Misc highway items not listed above		lot		\$0
Creek Relocation/wetlands creation		Lump Sum		\$0
Off-Site Fences		SF		\$0

Entrance Drive Improvements at parking lot		SY		\$0
15" Storm pipe	23	LF	\$20.50	\$472
18" Storm pipe	173	LF	\$24.00	\$4,152
54" Storm pipe	185	LF	\$135.00	\$24,975
Type 5 Curb Inlet	4	EA	\$4,600.00	\$18,400
Type E Inlet	1	EA	\$5,025.00	\$5,025
Flared End Section	1	EA	\$8,300.00	\$8,300
Cable Block System	1	Lump Sum	\$10,000.00	\$10,000
Sidewalk	210	SY	\$40.50	\$8,505
2-Inch Water Line (PVC)	85	LF	\$6.75	\$574
Cut (not done with scraper)		SY	\$2.50	
Fill ( not done with scraper)		SY	\$2.00	
Off-Site Disposal Unsuitable Soils		CY	\$8.00	
Import Select Fill		CY	\$12.34	
				\$0
Other-Offsite improvements	1	Lump Sum		\$0
Sub-total				\$111,090

Traffic signal - 3-way [ ] 4 way [ ] qty of intersection _____				\$0
Traffic signal - 3-way [ ] 4 way [ ] qty of intersection Qty signals				\$0
Other-Traffic signal				\$0
Sub-total				\$0

Total Off site costs				\$4,845,336
Deduct Incremental OFF SITE costs due to fuel station (from Fuel OPC)				\$0
Total Traffic Signal Costs				\$225,000
Deduct Incremental TRAFFIC SIGNAL costs due to fuel station (from Fuel OPC)				\$0
<b>OFF-SITE ESTIMATED COST</b>				<b>\$5,070,336</b>

**Walmart #3873-00**

**COMPLIANCE with Standards for Gateway Overlay District**

**JUSTIFICATION / RESPONSES**

**Presented to:**

**City of Alachua  
Planning & Community Development  
P.O. Box 9  
Alachua, Florida 32616**

**Prepared by:**

**CPH, Inc.  
5200 Belfort Road  
Suite 220  
Jacksonville, FL 32256**

**January 30, 2017**



**Walmart #3873-00**  
**COMPLIANCE with Standards for**  
**Gateway Overlay District**

As required by Section 3.7.2(C)(5) – Gateway Overlay District of the City of Alachua’s Land Development Regulations (“LDRs”), an applicant must demonstrate that the following standards have been satisfied prior to approval of a zoning permit:

**(A) Building Design & Orientation**

- (i)** Architectural elevation plans, drawn to scale, shall be required for all projects involving exterior renovation or new construction.

**RESPONSE: All architectural plans, elevations, and details for this project will be drawn to scale.**

- (ii)** Except for roofs, metal shall not be used as a finish building material.

**RESPONSE: Metal has not been used as a finish building material for anything except the roof on this project.**

- (iii)** When two or more buildings are proposed on a single lot of record, the primary building shall be oriented to face the public right-of-way.

**RESPONSE: There is only one building proposed for this single lot of record. Thus, this requirement is not applicable to this project.**

- (iv)** All accessory structures shall be of comparable design and building materials to the principal structure.

**RESPONSE: The pick-up canopy will be of similar design and building materials to the principal structure.**

- (v)** Glazing shall constitute a minimum of 35 percent of the ground floor area when a building faces and is substantially visible from U.S. 441 or I-75.

**RESPONSE: This project does not front U.S. 441 and is only visible on the west side of the property adjacent to I-75. Based on Section 6.8.3(A)(2)(a)(iv) of the City’s LDRs, glazing may be reduced to a minimum of 20% when the façade incorporates certain architectural elements. Such elements include the use of natural brick product or stone for at least 20% of the façade, window shutters, and customer entrances which include no less than six (6) design features as provided in Section 6.8.3(C)(2) of the City’s LDRs. The customer entrances on the Front Building Elevation and East Building Elevation comply with the requirement of six (6) design**



features per Section 6.8.3(C)(2) of the City's LDRs. The six (6) design features incorporated into the customer entrances are as follows:

- (a) Canopies above the entrance
- (b) Roof overhangs above the entrance
- (c) Entry Recesses
- (e) Raised Cornice Parapets
- (i) Architectural details/tile work
- (j) Integral planters

(vi) Exterior building walls facing a public right-of-way shall incorporate no fewer than three architectural elements comparable to those listed below. Architectural elements contributing to this requirement shall have sufficient visual impact to be noticeable from the public right-of-way, and may include, but not be limited to:

a. Accent materials.

**RESPONSE: A tile accent material will be used at the customer entrances on the North and East Building Elevations to help define those spaces.**

b. Public art

**RESPONSE: Public art is not proposed for this project.**

c. Architectural details, such as tile work and molding integrate into the building facade.

**RESPONSE: Architectural details (tile work) is included as called for by Section 6.8.3(C) of the City's LDRs on both the North and East Building Elevations.**

d. Recesses and/or projections.

**RESPONSE: The building design incorporates recesses and projections across the entire façade which help to bring focus to the customer entrance areas. Pilasters are provided on the East Building Elevation giving some variation to the building façade.**

e. Roof overhang, which shall vary according to building width, as follows: one-foot overhang for buildings less than 50 feet in width, two-foot overhang for buildings 50 to 100 feet in width, and three-foot overhang for buildings greater than 100 feet in width.

**RESPONSE:** The roof overhangs at all three (3) customer entrances are three (3) feet in width.

- f. Varied roof lines.

**RESPONSE:** The raised parapets around the entire length of the building façade incorporate varied roof lines. The raised parapets on the east façade change height four (4) times.

- g. Articulated cornice lines.

**RESPONSE:** Articulated cornices, which are at least eight (8) inches in depth, are located on all raised parapets around the entire length of the building façade, including the east side of the building.

- h. Canopies, awnings, and/or porticos.

**RESPONSE:** Canopies are used at the main building entrances located on the Front and East Elevations of this project. There is also one (1) canopy on the east side of the building.

- i. Use of brick in at least 30 percent of the facade.

**RESPONSE:** As part of the glazing alternative requirement, at least 20% of the façade will use a natural brick product, including the east side of the building.

- j. Window shutters.

**RESPONSE:** A plantation-style shutter is used at all windows located on the Front Elevation of this project. Window shutters are provided on 10% of the overall length of the east façade.

- k. Change in building materials.

**RESPONSE:** The building is designed with three (3) major materials for the façade: “Promenade Blend” Quik Brick, integrally colored split face masonry and EIFS (man-made stucco) including the East Building Elevation.

- I. Prominent public entrances defined by substantive architectural features.

**RESPONSE:** Public entrances on the Front and East Elevations are defined by substantive architectural features as called for by Section 6.8.3(C) of the City's LDRs. The customer entrances on the Front Elevation and East Elevation comply with the requirement of six (6) design features per Section 6.8.3(C)(2) of the City's LDRs. The six (6) design features incorporated into the customer entrances are as follows:

- (a) Canopies above the entrance
- (b) Roof overhangs above the entrance
- (c) Entry Recesses
- (e) Raised Cornice Parapets
- (i) Architectural details/tile work
- (j) Integral planters

- m. Fountain or other water feature.

**RESPONSE:** A fountain/water feature is not proposed for this project.

**(B) Fencing**

- (i) With the exception of ornamental fencing, fences erected after the effective date of these regulations for property with frontage along U.S. 441 shall be installed in the side or rear yard only. Ornamental fencing may be erected inside the front yard.

**RESPONSE:** The property does not have frontage along U.S. 441. Therefore, this requirement is not applicable to this project.

**(C) Outside Storage Areas**

- (i) All accessory outdoor storage areas shall be screened in accordance with Section 4.4.4(E). Such screening requirements shall apply to the parking of all vehicles used for commercial purposes.

**RESPONSE:** Pursuant to Section 4.4.4(E)(4) of the City's LDRs, a landscaped earth berm is being proposed to address screening requirements for the west and south sides of the building. See Landscape Plans, Site Grading Plan, and Cross Sections Sheets contained within the Construction Plans. Due to the proposed finished topography, a landscaped earth berm will provide additional screening along the west and south sides of the property.

- (ii) Areas for outdoor storage, trash collection, and loading shall be incorporated into the primary building design. Construction materials for such areas shall be of comparable quality and appearance as the primary building.

**RESPONSE: The outdoor storage, trash collection, and loading dock areas are incorporated into the building design and use the same construction materials as those of the primary building.**

**(D) Street Buffer**

- (i) Buffering for properties with frontage along I-75 and U.S. 441 shall meet the requirements of Section 6.2.3(E).

**RESPONSE: The project does not have frontage along U.S. 441. The west side of the property is adjacent to I-75. The Landscape Plans propose a series of canopy and understory trees, shrubs, and ground cover along the west buffer. Additionally, due to the existing and proposed topography, a berm along the west side of the property will be created, thereby providing additional screening.**

- (ii) The minimum landscaped buffer width shall be 15 feet. No existing, dedicated, or reserved public or private right-of-way shall be included in the calculation of the buffer width.

**RESPONSE: The proposed landscape buffer exceeds this requirement. See proposed Landscape Plans.**

- (iii) The planting requirements contained in Appendix 6.2.2(A) shall apply. Live Oak shall be used as the required canopy tree. Applicants shall use the following plant materials, in order to create a consistent and uniform planting program for the Gateway Overlay District:

- a. American Holly.
- b. Crape Myrtle.
- c. Drake Elm.
- d. Ligustrum.
- e. Red Maple.
- f. Southern Magnolia.
- g. Southern Red Cedar.
- h. Oak.
- i. Bradford Pear.

**RESPONSE: The proposed landscaping complies with this requirement. See proposed Landscape Plans.**

**(E) Parking Areas**

- (i)** All parking areas shall be designed to avoid the appearance of a large expanse of pavement, and shall be conducive to safe pedestrian access and circulation.

**RESPONSE:** The proposed Site Plans provide safe pedestrian access through the use of ten (10) foot wide crosswalks, sidewalks every fourth row of parking, sidewalks on both sides of the access road, and appropriate signage and pavement markings to direct pedestrians. Large expanse of pavement is avoided. The site is designed to allow for safe and efficient operations of the delivery trucks, pedestrians, vehicles using pharmacy drive thru, etc.

- (ii)** No more than 25 percent of required parking shall be located in the front of the principal structure, for properties with frontage along U.S. 441. The percentage may be adjusted by the LDR Administrator if the applicant provides written information demonstrating that the property's characteristics, such as size and/or site topography, prevent the applicant from meeting this requirement. Under no circumstances shall the percentage of required parking located in front of the principal structure exceed 50 percent, and shall be the minimum necessary.

**RESPONSE:** Although the property does not have frontage along U.S. 441, less than 25 percent of the required parking is located in front of the principal structure. See proposed Site Plans.

- (iii)** Parking spaces shall not be located within a public right-of-way.

**RESPONSE:** No parking is proposed to be located within a public right-of-way.

**(F) Loading Areas**

- (i)** Loading areas shall not face a public right-of-way and shall be located at the rear of the principal structure when feasible.

**RESPONSE:** Loading areas are proposed at the rear of the building and do not face a public right-of-way. See proposed Site Plans and Building Elevations.

**(G) Access**

- (i)** Any parcel or assembly of parcels having frontage along U.S. 441 shall be permitted only one direct access. New development shall be designed for cross access to adjacent parcels.

**RESPONSE: The property does not have frontage along U.S. 441. The proposed service roads are designed to provide access to adjacent parcels.**

**(H) Signage**

**(i) Prohibited Signs**

- a. Billboards.
- b. Signs that display video or images or changeable copy.
- c. Balloons, streamers, and air- or gas-filled figures.
- d. Promotional beacons, searchlights, and/or laser lights/images.
- e. Signs that emit audible sounds, smoke, vapor, particles, or odor.
- f. Signs on utility poles or trees.
- g. Signs or advertising devices attached to any vehicle or trailer so as to be visible from public right-of-way, including vehicles with for sale signs and excluding vehicles used for daily transportation, deliveries, or parked while business is being conducted on-site.
- h. Neon tubing used to line the windows, highlight architectural features on the building, or used as part of a sign, excluding incidental signs as provided for in Section 2.4.11.

**RESPONSE: This project does not incorporate any of the prohibited signs listed above.**

**(ii) Freestanding Signs**

Monument signs shall be permitted within the Gateway Overlay District.

- a. A monument sign, including its structure, shall not exceed 16 feet in height.
- b. A sign and its structure shall be composed of materials identical to or similar in appearance, color, and texture to the materials used for the building to which the sign is accessory.
- c. A sign and its structure shall not exceed 100 square feet per side. Changeable copy signs shall only be allowed to comprise up to 50 percent of the total sign area.
- d. Properties with buildings containing multiple tenants or shopping centers shall be limited to one freestanding sign for any one premises, except that a parcel with more than 400 feet of frontage on one or more roads may have two freestanding signs, which must be separated from each other by at least 150 feet of road frontage. A sign and its structure shall not exceed 150 square feet per side. Changeable copy signs shall only be allowed to comprise up to 30 percent of the total sign area.

**RESPONSE: Acknowledged. The proposed monument sign will comply with these requirements.**

**(iii) Window Signs**

- a. Window signs shall be incorporated into the overall sign area allowed for wall signage as per Section 6.5.4(C)(2).
- b. Signage on any individual window shall not comprise more than 25 percent of the window area.

**RESPONSE: Window signs will not be incorporated in the design of this project and will not be included as part of the overall sign area allowed for wall signage.**

**(iv) Landscaping and buffering**

- a. All freestanding signs shall provide a landscaped area around base of the sign meeting the following standards:
  - i. Installation of a three-foot landscaped buffer around the base of the sign.
  - ii. Such buffer must be landscaped with a mixture of shrubs, flowers, and/or other plantings native to the area.
  - iii. Xeriscaping shall be utilized to the fullest extent possible to promote sustainable landscaping.
- iv. Provisions shall be made for irrigation if xeriscaping is not utilized.

**RESPONSE: The base of the monument sign is proposed to have a three (3) foot buffer landscaped with native plantings. Irrigation will be provided as reflected on the proposed Irrigation Plans. See proposed Landscape Plans.**

**(v) Nonconforming signs**

- a. Nonconforming signs shall be subject to the nonconforming standards as established in Article 8.

**RESPONSE: There are not any non-conforming signs proposed for this project.**



5200 Belfort Road  
Suite 220  
Jacksonville, FL 32256  
Phone: 904.332.0999  
Fax: 904.332.0997

January 30, 2017

Ms. Kathy Winburn, AICP  
City of Alachua  
Planning & Community Development Director  
15100 NW 142<sup>nd</sup> Terrace  
Alachua, Florida 32615  
(386) 418-6121

**RE: Concurrency Impact Analysis (Site Plan Application)  
Walmart #3873-00, Alachua, FL  
CPH Project No. W13392**

Dear Ms. Winburn:

The Concurrency Impact Analysis calculations have been performed for the proposed 161,397 SF Walmart Supercenter. Public facility capacities are based on the January 2017 Monitoring Report supplied by the City's Planning and Zoning staff.

The proposed Walmart Supercenter will not adversely impact the adopted Level of Service ("LOS") for the City of Alachua's public facilities. In accordance with Section 2.4.14 of the City of Alachua Land Development Regulations ("LDRs"), the following summary addresses the proposed infrastructure impacts based on available information.

The proposed Walmart Supercenter is projected to generate 5,898 new daily trips, of which 506 trips occur during the PM peak hour. Trip generation calculations are provided in Table 1A.

**Table 1A: Trip Generation Calculations**

ITE Land Use <sup>1</sup>	Units (1,000 s.f.)	Daily		Peak Hour	
		Rate*	Trips	Rate*	Trips
Discount Superstore (ITE 813)	161.40	50.75	8,191	4.35	702
<i>Pass-by Trips for Superstore (28%)</i>			2,293		196
<b>Total</b>			<b>5,898</b>	-	<b>506</b>

*\*Source: ITE Trip Generation 9<sup>th</sup> Edition and ITE Trip Generation Manual, 3<sup>rd</sup> Edition*

Per Section 2.4.14(H)(2)(b) of the City's LDRs, the affected roadways for developments generating more than 1,000 external average daily trips are as follows:

- Those on which the development's impacts are five percent (5%) or greater of the maximum service volume of the roadway; and
- All roadway segments located partially or wholly within one-half (1/2) mile of the development's ingress / egress, or to the nearest major intersection, whichever is greater.

The following conditions and assumptions were utilized to estimate impacts to roadway segments tracked in the City of Alachua Concurrency Monitoring Report. These assumptions are also reflected on the Transportation Concurrency Map provided as Appendix A to this report.



**Table 1B: Significance Test**

Roadway	Segment	Lanes	Project		Segment Capacity	Project Significance
			Distrib	Trips		
US 441	NW 188th St to CR 235A	4	20%	101	3,200	3.2%
	CR 235A to I-75	4	37%	187	3,200	<b>5.8%</b>
	I-75 to NW 147th Dr	4	52%	263	3,200	<b>8.2%</b>
	NW 147th Dr to SR 235	4	34%	172	3,200	<b>5.4%</b>
	SR 235 to Rachael Blvd	4	19%	96	3,200	3.0%
CR 235A	NW 138th Ave to US 441	2	5%	25	1,050	2.4%
	US 441 to I-75	2	7%	35	1,050	3.3%
SR 235	Peggy Rd to US 441	2	8%	41	960	4.3%
	US 441 to NW 140th St	2	6%	30	960	3.1%

*\*Significance is defined as an impact of 5% or more of the segment's capacity; data obtained from the Traffic Impact Analysis prepared by Traffic and Mobility Consultants dated September 2016.*

- The roadway segment along US 441 from CR 235A to I-75 is within the ½-mile radius of the project's ingress / egress point.
- The roadway segment along US 441 from I-75 to NW 147<sup>th</sup> Drive is within the ½-mile radius of the project's ingress / egress point.
- The roadway segment along US 441 from NW 147<sup>th</sup> Drive to SR 235 is within the ½-mile radius of the project's ingress / egress point.
- The affected roadway segments are only those accessible within the ½-mile radius of the project's ingress / egress point: US Hwy 441.
- The roadway segments along US 441 from CR 235A to I-75, along US 441 from I-75 to NW 147<sup>th</sup> Drive, and along US 441 from NW 147<sup>th</sup> Drive to SR 235 also qualify as affected roadways because the proposed Walmart Supercenter's impacts will be five percent (5%) or greater of the maximum service volume of such roadway segments.

**Table 1C: Impacted Roadway Segments**

Segment Description	Comp Plan MSV*	Existing Traffic*	Reserved Trips*	Available Capacity*
US Hwy 441 (SR235 to NCL of Alachua)	35,500 AADT 3,200 PHr	24,411 AADT 2,319 PHr	2,260 AADT 214 PHr	8,829 AADT 667 PHr

*\*Source: City of Alachua January 2017 Development Monitoring Report*

**Table 1D: Roadway Capacity**

Segment Description	Available Capacity	Additional Trips	Residual Capacity
US Hwy 441 (SR235 to NCL of Alachua)	8,829 AADT 667 PHr	5,898 AADT 506 PHr	2,931 AADT 161 PHr

**Conclusion:** As evident by the available capacities identified in Tables 1C and 1D, the trips generated by the proposed Walmart Supercenter will not exceed the adopted LOS standards. Capacity exists to handle the additional trips resulting from the proposed Walmart Supercenter.

**Table 2: Potable Water Impact**

System Category	Gallons Per Day
Current Permitted Capacity*	2,300,000
Less Actual Potable Water Flow*	1,190,000
Reserved Capacity*	135,912
Residual Capacity*	974,088
<b>Residual Capacity with Walmart Supercenter</b> <b>469 fixture units x 7.136 GPD** = 3,347 GPD</b>	<b>970,741</b>
<b>Percentage of Permitted Design Capacity Utilized</b>	<b>58%</b>

\*Source: City of Alachua January 2017 Development Monitoring Report.

\*\*Source: Wal-Mart Proto Utility Loads, Appendix B

*Conclusion:* The demand generated by the proposed Walmart Supercenter will not exceed the adopted LOS standard for potable water. Capacity exists to handle the additional demand resulting from the proposed Walmart Supercenter.

**Table 3: Sanitary Sewer Impact**

System Category	Gallons Per Day
Current Permitted Capacity*	1,500,000
Less Actual Treatment Plant Flows*	615,000
Reserved Capacity*	96,322
Residual Capacity*	788,678
<b>Residual Capacity with Walmart Supercenter</b> <b>469 fixture units x 6.422 GPD** = 3,012 GPD</b>	<b>785,666</b>
<b>Percentage of Permitted Design Capacity Utilized</b>	<b>48%</b>

\*Source: City of Alachua January 2017 Development Monitoring Report.

\*\*Source: Ch. 64E-6.008, F.A.C.

*Conclusion:* The demand generated by the proposed Walmart Supercenter will not exceed the adopted LOS standard for sanitary sewer. Capacity exists to handle the additional demand resulting from the proposed Walmart Supercenter.

**Table 4: Solid Waste Impact**

System Category	Tons Per Year
12 tons per month*	144
Existing Demand**	7,221.16
Reserved Capacity**	1,162.75
<b>Total Average Solid Waste Disposal for the Facility**</b>	<b>50-Year Capacity</b>

\*Source: Based on Historical Data of Store Operations, provided by Doug Sanders, Store Innovations and Sustainability Division for Walmart, Appendix B.

\*\*Source: City of Alachua January 2017 Development Monitoring Report

*Conclusion:* The demand generated by the proposed Walmart Supercenter will not exceed the adopted LOS standard for solid waste. Capacity exists to handle the additional demand resulting from the proposed Walmart Supercenter.



## Recreational Impacts

*Conclusion:* The subject project is commercial and will not generate any recreational impacts.

**Table 5: Stormwater Impacts**

<i>Attenuation</i>		
Storm Event (YR/HR)	Discharge Rate Pre/Post (CFS)	Discharge Volume Pre/Post (AC-FT)
100/24	85.05/4.18	14.4/3.3
100/72	66.58/5.13	21.1/12.1
100/168	42.27/6.34	26.7/19.1
100/240	35.7/10.82	31.8/25.9

<i>Water Quality</i>	
Required Treatment Volume (AC-FT)	Provided Treatment Volume (AC-FT)
7.13	21.35

*Conclusion:* The post-development discharge rate and volume are less than the pre-development discharge rate and volume at the US Hwy 441 boundary for the critical 100-year storm events. Additionally, water quality treatment volume is provided on-site.

The above information establishes that the proposed Walmart Supercenter will not have any adverse impacts to the City of Alachua's adopted Level of Service for public facilities.

We appreciate your consideration of Walmart's application for its proposed Supercenter. Please do not hesitate to contact me if you have any questions or need further information.

Sincerely,  
**CPH, INC.**

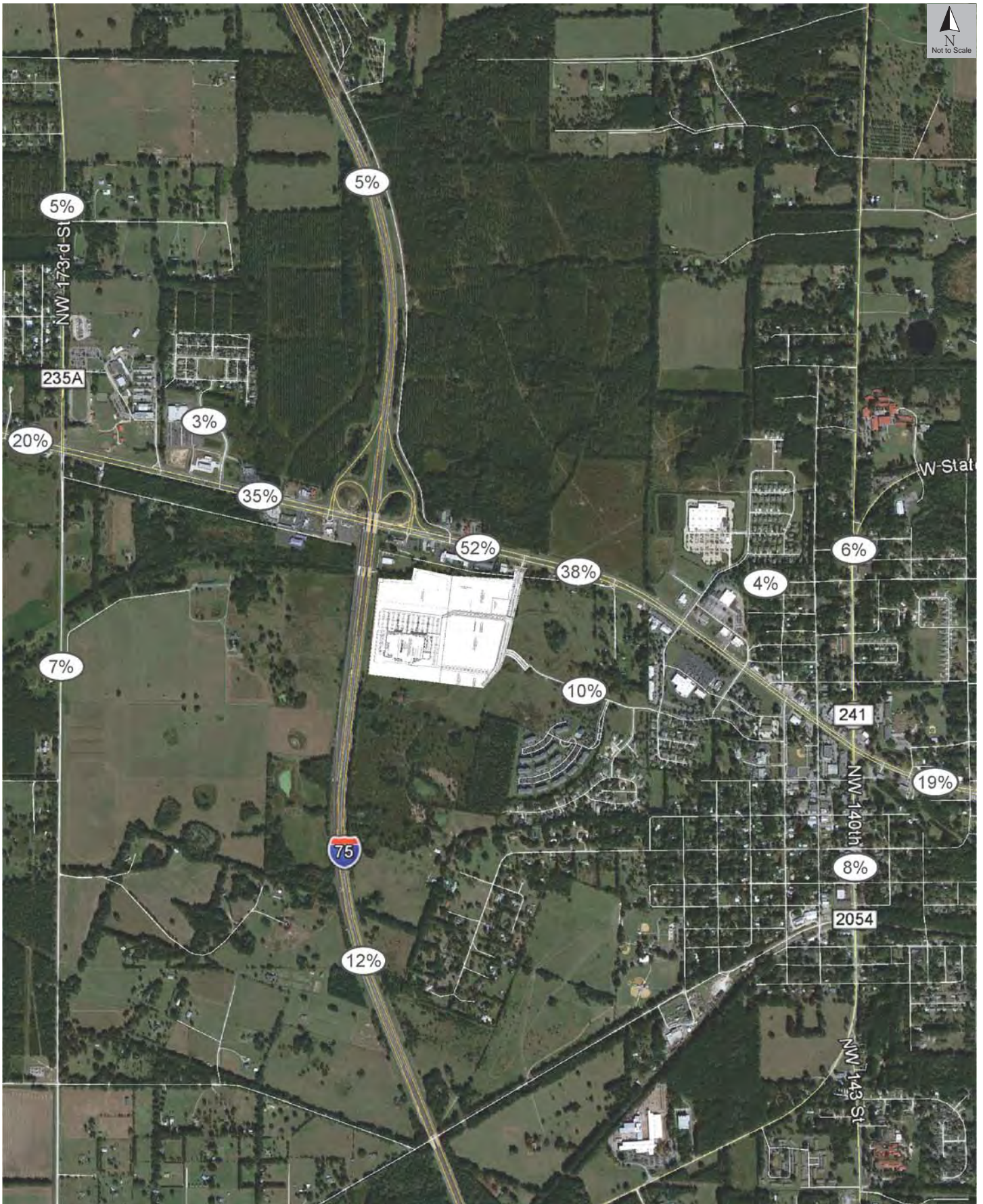
Brian Cassidy, P.E.

cc: file  
David Theriaque, ESQ

# APPENDIX A

## PROJECT DISTRIBUTION MAP (a.k.a. TRANSPORTATION CONCURRENCY MAP)





# APPENDIX B

## WALMART PROTOTYPICAL UTILITY LOADS

# WAL-MART PROTOTYPICAL UTILITY LOADS

Prototype & Size	Water Fixture Units	Domestic Wtr Instantaneous Peak Flow (GPM)	Average Sewer Load ~90% Dom (GPD)	Average Domestic Water Demand (GPD)	Average Irrigation Water Demand (GPD)	Minimum Residual Press. FRONT ENTRY (PSI)	Minimum Residual Press. REAR ENTRY (PSI)	Connected Gas Load (MBH)	Actual Avg Zone 3 Peak Gas Load (MBH)	Actual Avg Zone 4 Peak Gas Load (MBH)	Actual Avg Zone 5 Peak Gas Load (MBH)	Connected Electric Load (kVA)	Diversified Electric Load (kVA)	Actual Avg Zone 3 Peak Electric Load (kVA)	Actual Avg Zone 4 Peak Electric Load (kVA)	Actual Avg Zone 5 Peak Electric Load (kVA)
Sam's 136	399	130	2,813	3,125	4,400	N/A psi	45 psi	10,409	1,381	1,750	2,289	1,829	1,893	758	754	729
Supercenter 70	148	79	1,323	1,470	No Utility Bills Available for 70	N/A psi	45 psi	3,824	530	831	938	1,157	1,108	310	312	292
Supercenter 102	364	119	2,020	2,244	3,490	N/A psi	45 psi	7,729	763	1,256	1,560	1,649	1,586	629	629	576
Supercenter 122	429	117	2,274	2,526	4,653	N/A psi	44 psi	8,609	907	1,319	1,685	1,923	1,860	717	541	541
Supercenter 151	469	125	3,012	3,347	5,379	N/A psi	45 psi	13,079	1,368	1,817	2,118	2,385	2,253	777	739	659
Supercenter 182	458	125	4,513	5,015	8,693	N/A psi	45 psi	11,359	1,554	1,877	2,322	2,577	2,448	844	834	767
WNM 41	171	81	1,109	1,232	4,400	N/A psi	37 psi	2,669	644	820	993	978	937	334	319	319
XPS	30	23	184	205	No Utility Bills Available for XPS	N/A psi	37 psi	517	73	129	129	328	334	116	110	110
Sams Fuel Station	12	16	36	40	N/A	N/A psi	45 psi	N/A	N/A	N/A	N/A	34	34	14	14	14
SUP8-740 Fuel Station	27	40	225	250	N/A	N/A psi	45 psi	N/A	N/A	N/A	N/A	96	90	35	35	35
SUP8-1440 Fuel Station	39	47	270	300	N/A	N/A psi	45 psi	N/A	N/A	N/A	N/A	126	119	46	46	46
WNM-740 Fuel Station	27	40	225	250	N/A	N/A psi	45 psi	N/A	N/A	N/A	N/A	91	84	38	38	38
WNM-192 Fuel Station	12	16	36	40	N/A	N/A psi	45 psi	N/A	N/A	N/A	N/A	40	41	14	14	14

<b>Comparison of GPD flow ratios for all the Prototypes</b>					
Comparing Gallons Per day / Water Fixture Unit Ratio and Gallons Per day / Square Feet area					
SF	WFU	GPD	GPD/SF Ratio	GPD/WF U Ratio	Notes
41	171	1,232	30	7	
102	364	2,244	22	6	1,2
122	429	2,526	21	6	
136	399	3,125	23	8	
151	469	3,347	22	7	
182	458	5,015	28	11	

- 1) The 102 prototype had only 12 sample stores data and the GPD appears to be low.
- 2) The GPD for the 102 prototype was determined by using a 22 GPD/ SF ratio of 22 and prorating.



## 151 Prototype

# of Stores Data Demand (85th Percentile)	33
Average Water Demand (All Stores) (All Data)	3,407
Low 1 STD (All Data)	2,151
High 1 STD (All Data)	4,662

Average Water Demand (Average of Stores within plus or minus one standard deviation. (Prorated per area for current proto)	3,347
--	-------

4395 01-4395	POST FALLS	ID	SUPERCENTEI	150	49,000	2012,12
4695 01-4695	GODFREY	IL	SUPERCENTEI	150	47,875	2012,12
876 01-0876	MANY	LA	SUPERCENTEI	150	74,000	2012,12
2143 01-2143	SKOWHEGAN	ME	SUPERCENTEI	150	198,982	2012,10
1753 01-1753	DERRY	NH	SUPERCENTEI	150	226,936	2012,11
2543 01-2543	PITTSSTON	PA	SUPERCENTEI	150	69,600	2012,12
4404 01-4404	ETTERS	PA	SUPERCENTEI	150	85,000	2012,12
4403 01-4403	QUEENSBURY	NY	SUPERCENTEI	150	195,000	2012,10
5748 01-5748	GRIMES	IA	SUPERCENTEI	150	88,000	2012,12
4276 01-4276	TAYLOR	PA	SUPERCENTEI	150	104,500	2012,12
1666 01-1666	CHARLOTTE	NC	SUPERCENTEI	150	0	2012,12
5779 01-5779	KING GEORGE	VA	SUPERCENTEI	150	152,100	2012,12
1329 01-1329	LOGANSPOUT	IN	SUPERCENTEI	150	85,500	2012,12
1404 01-1404	LAKE ZURICH	IL	SUPERCENTEI	150	98,000	2012,12
4509 01-4509	BENBROOK	TX	SUPERCENTEI	150	98,743	2012,12
5705 01-5705	GARDEN CITY	SC	SUPERCENTEI	150	86,100	2012,12
1780 01-1780	CHARLOTTESVILLE	VA	SUPERCENTEI	150	113,500	2012,12
1394 01-1394	GREENFIELD	WI	SUPERCENTEI	150	169,060	2012,12
829 01-0829	SANTA FE	NM	WAL-MART	150	153,000	2012,12
2936 01-2936	MILWAUKEE	WI	SUPERCENTEI	150	205,714	2012,11
2081 01-2081	CLEARWATER	FL	SUPERCENTEI	150	124,900	2012,12
1694 01-1694	MARION	NC	SUPERCENTEI	150	113,000	2012,12
2469 01-2469	LONGVIEW	WA	SUPERCENTEI	150	114,452	2012,12
2438 01-2438	STAFFORD	VA	SUPERCENTEI	150	121,000	2012,12
2141 01-2141	PHILADELPHIA	PA	SUPERCENTEI	150	112,208	2012,12
3573 01-3573	MANASSAS (S)	VA	SUPERCENTEI	150	138,000	2012,12
5786 01-5786	JASPER	GA	SUPERCENTEI	150	500	2012,12
2147 01-2147	MISSOULA	MT	SUPERCENTEI	150	136,893	2012,12
1079 01-1079	NEW SMYRNA BEAFL	FL	SUPERCENTEI	150	138,000	2012,12
5845 01-5845	NICEVILLE	FL	SUPERCENTEI	150	76,400	2012,12
2960 01-2960	LOS ANGELES	CA	WAL-MART	150	136,145	2012,12
2070 01-2070	ANCHORAGE	AK	WAL-MART	150	173,000	2012,12
1068 01-1068	SEBASTIAN	FL	SUPERCENTEI	150	214,000	2012,12

313 01-0313	HOUSE SPRINGS	MO	SUPERCENTEI	150	79,000	2012,12
5068 01-5068	MASSAPEQUA (LI)	NY	WAL-MART	150	4,713	2012,12
2247 01-2247	CARY	NC	SUPERCENTEI	150	77,807	2012,12
4677 01-4677	MUSKEGO	WI	SUPERCENTEI	150	155,000	2012,12
2272 01-2272	CAMBRIDGE	MD	SUPERCENTEI	150	88,000	2012,12
5787 01-5787	RAEFORD	NC	SUPERCENTEI	150	115,120	2012,12
3780 01-3780	FALLSTON	MD	SUPERCENTEI	150	444,000	2012,11
5709 01-5709	LOCUST GROVE	GA	SUPERCENTEI	150	68,000	2012,12
4600 01-4600	GRETNA	NE	SUPERCENTEI	150	82,286	2012,12
1970 01-1970	HUDSON	MA	SUPERCENTEI	150	230,175	2012,10
1897 01-1897	ELK GROVE VILLA(I	IL	SUPERCENTEI	150	152,000	2012,11
465 01-0465	FLORESVILLE	TX	SUPERCENTEI	150	21,300	2012,12
1658 01-1658	THOMSON	GA	SUPERCENTEI	150	72,000	2012,12
1403 01-1403	CORNELIA	GA	SUPERCENTEI	150	18,700	2012,12
5761 01-5761	CANTON	MI	SUPERCENTEI	150	305,000	2012,11
3423 01-3423	SANTA FE	NM	SUPERCENTEI	150	89,900	2012,12
2187 01-2187	WENATCHEE	WA	SUPERCENTEI	150	0	2012,12
2545 01-2545	MARINETTE	WI	SUPERCENTEI	150	104,000	2012,12
1688 01-1688	VIRGINIA BEACH	VA	SUPERCENTEI	150	1,615,792	2012,12
5947 01-5947	EL PASO	TX	SUPERCENTEI	150	339,616	2012,12
1870 01-1870	PULLMAN	WA	SUPERCENTEI	150	77,797	2012,12

## 150 Prototype

1 STD Average	3,325
Average	3,407
Low 1 STD	2,151
High 1 STD	4,662

One Standard Deviation 1,255

Two Standard Deviation 2,510

GPD from 2011  
Utility load  
Schedule  
for 150 Proto

3134

#N/A	919000	1,259	low but cor
#N/A	1,057,745.39	1,449	low but cor
#N/A	2189000	1,999	low but pre
#N/A	2211241.416	2,047	low but pre
#N/A	2503689.294	2,286	1 sdt dev low but pre
#N/A	2667400	2,436	1 sdt dev low but pre
#N/A	1644000	2,574	1 sdt dev low but pre
#N/A	950000	2,603	1 sdt dev low but pre
#N/A	1940000	2,658	1 sdt dev low but pre
#N/A	973500	2,704	1 sdt dev low but pre
#N/A	3032602.403	2,769	1 sdt dev Pretty cons
#N/A	1024100	2,806	1 sdt dev Pretty cons
#N/A	3205300	2,927	1 sdt dev Pretty cons
#N/A	3245000	2,963	1 sdt dev Pretty cons
#N/A	2186553.073	2,995	1 sdt dev Pretty cons
#N/A	2194900	3,007	1 sdt dev Pretty cons
#N/A	3580653	3,270	1 sdt dev Pretty cons
#N/A	3583916.653	3,273	1 sdt dev Pretty cons
#N/A	3830200	3,498	1 sdt dev consistent
#N/A	2630490.773	3,603	1 sdt dev consistent
#N/A	2603800	3,616	1 sdt dev Used last 2
#N/A	3969988.293	3,626	1 sdt dev consistent
#N/A	4107646.584	3,751	1 sdt dev ok
#N/A	2,840,000	3,944	1 sdt dev Used last 2
#N/A	4337952.968	3,962	1 sdt dev ok
#N/A	2880000	4,000	1 sdt dev Used last 2
#N/A	2962400	4,058	1 sdt dev ok sort of?
#N/A	3064020.582	4,256	1 sdt dev Used last 2
#N/A	1535000	4,264	1 sdt dev Used last 1
#N/A	3353000	4,593	1 sdt dev ok
#N/A	6412300.887	5,856	ok
#N/A	7146000	6,526	ok
#N/A	7487000	6,837	stable and
#N/A	1253000	1,144	erratic
#N/A	1179826.118	1,616	erratic
#N/A	2041595	1,864	1 sdt dev erratic
#N/A	1600000	2,192	1 sdt dev erratic
#N/A	2549000	2,328	1 sdt dev erratic
#N/A	1764450	2,417	1 sdt dev erratic
#N/A	1923000	2,634	1 sdt dev erratic
#N/A	1450000	2,648	1 sdt dev erratic
#N/A	1992062.21	2,729	1 sdt dev erratic
#N/A	3045839.257	2,782	1 sdt dev erratic
#N/A	3246000	2,964	1 sdt dev erratic
#N/A	3316200	3,028	1 sdt dev erratic
#N/A	3528484	3,222	1 sdt dev erratic
#N/A	3757200	3,431	1 sdt dev erratic
#N/A	4162000	5,701	1 sdt dev very erratic
#N/A	2773601.22	6,079	very erratic
#N/A	8241600	7,527	very erratic
#N/A	10159000	9,278	erratic
#N/A	13711043.28	12,522	erratic
Cooling Towers HE store	14533194.54	19,908	
	5135396.71	4,690	1 sdt dev

**Walmart Supercenter  
Alachua, Florida  
Market and Impact Study**

**Prepared For:  
THERIAQUE & SPAIN  
433 North Magnolia Drive  
Tallahassee, FL 32308**

**Prepared by**



**March, 2016**

## **Table of Contents**

1.0	<u>Study Introduction and Outline</u>	1
2.0	<u>Overview of Area Economic Conditions</u>	
2.1	The Regional Marketplace	3
2.2	Alachua County Introductory Profile	4
2.3	Growth Patterns in Alachua County, 1980 – 2015	4
2.4	Growth Forecasts for Alachua County, 2015 – 2040	10
3.0	<u>Market Conditions for Retail Shopping</u>	
3.1	Defining the Retail Shopping Center: Primary Center Characteristics	15
3.2	Retail Shopping Center Trade Areas	16
3.3	Defining the Walmart Supercenter Primary Retail Trade Area	18
3.4	Economic and Demographic Trends in the Walmart Supercenter Primary Retail Trade Area	19
3.5	Average Daily Traffic Volumes	20
3.6	Primary Trade Area Retail Purchasing Potential and Net Demand Estimation	21
3.7	Other Market Demand Considerations	22
3.8	Market Demand Conclusions	23
4.0	<u>Analysis of Project Local Benefits: Economic and Fiscal Impacts to the City of Alachua from the Walmart Supercenter</u>	
4.1	Assumptions Used to Estimate Direct Economic and Fiscal Impacts	24
4.2	Local Benefits from Walmart's Presence	27
4.3	Summary of Economic and Fiscal Impacts to the City of Alachua from the Walmart Supercenter	28
	Appendix: Market Area Commercial/Retail Inventory	29

## 1.0: Study Introduction and Outline

Florida Economic Advisors was retained to conduct an economic analysis that investigates the market supportability and fiscal impacts of a proposed Walmart Supercenter in the City of Alachua, Florida (Alachua County). The proposed Supercenter would be constructed on a site located immediately southeast of the Interstate 75 - US Highway 441 interchange.

### Proposed Walmart Supercenter Site



The principal objective of this study is to address the following issues:

1. The market supportability of the proposed Walmart Supercenter, given local area demographics and existing commercial businesses within the Walmart Supercenter's principal trade area of influence.
2. Local economic and fiscal impacts to the City of Alachua from ongoing operation of the proposed Walmart Supercenter. These impacts include property tax revenue, employment generation, earnings, and annual business output (sales).

This report includes 4 sections with an associated appendix. Section 2 defines the regional area of economic influence for the subject property, and provides an overview of historical and projected economic conditions influencing development in the region. Section 3 discusses demand and supply factors contributing to market support for the Walmart Supercenter. Finally, Section 4 presents a summary of economic and fiscal analysis impacts to the City of Alachua from project development.

Section 4.3.4(G)(7)(b)(iii) of the City of Alachua Land Development Regulations ("LDRs") establishes the requirements for a market and impact study. This report satisfies impact study requirements a., b., g., and h.

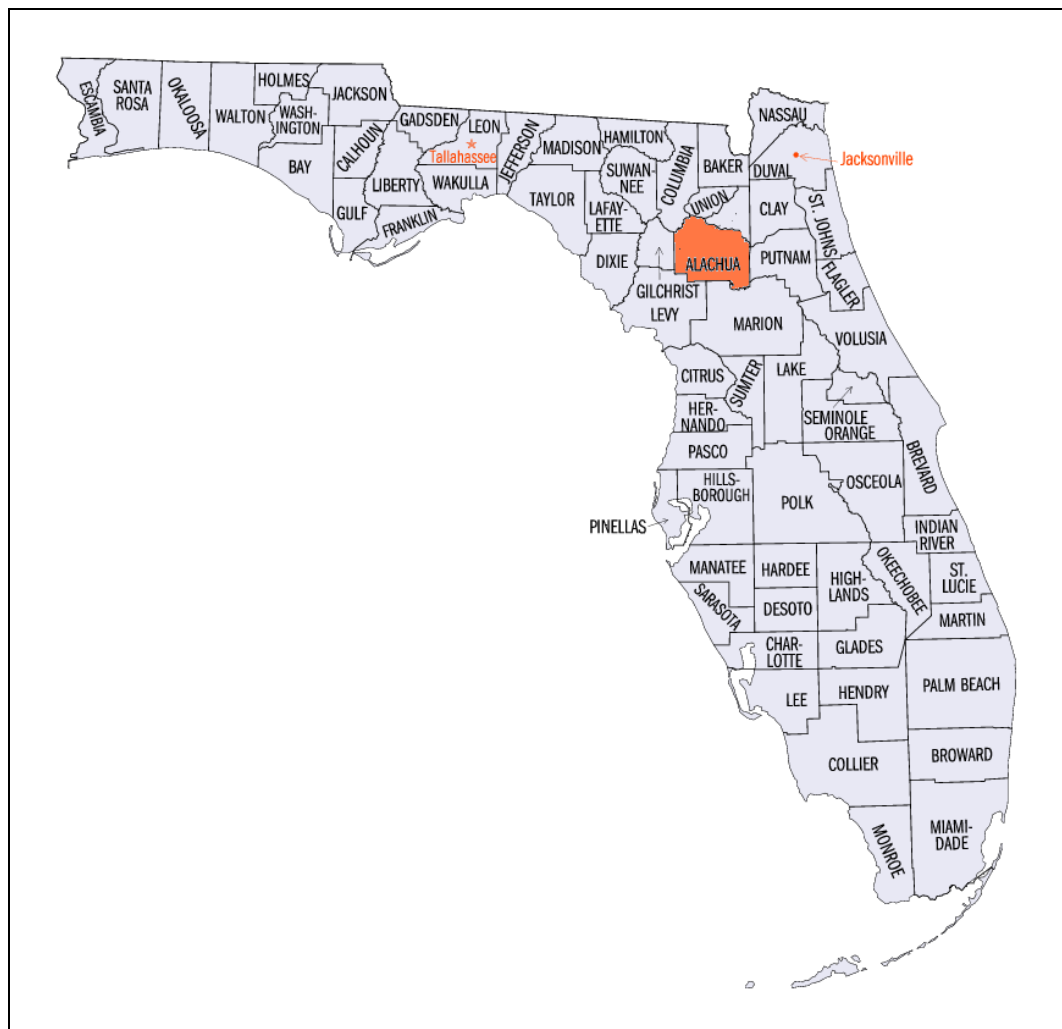
- a. Inventory of local retail base  
(Presented in appendix and discussed in Sections 3.6 through 3.8)
- b. Assessment of market areas and market impacts  
(Presented in Table 3.1 and discussed in Sections 3.3 through 3.8)
- c. Services and capital expenditures  
(Presented in work products submitted by team planners/engineers)
- d. Traffic and other service impacts  
(Presented in work products submitted by team planners/engineers)
- e. Cost of associated economic development incentives  
(The Applicant is not seeking any incentives or tax credits)
- f. Impact of redevelopment zone tax-increment financing  
(The project does not meet qualification criteria for this program)
- g. Inventory locations of competing retailers  
(Presented in appendix and discussed in Sections 3.6 through 3.8)
- h. Assessment of impact on existing local retailers  
(Discussed in Sections 3.6 through 3.8)

This report provides additional economic and fiscal assessments beyond those required by the LDRs, but which are important in evaluating the economic and fiscal impacts of the proposed Walmart Supercenter.

## 2.0: Overview of Area Economic Conditions

### 2.1 The Regional Marketplace

A market area is defined in the Dictionary of Real Estate Terms, 4th Edition, as “a geographic region from which one can expect primary demand for a specific product or service provided at a fixed location.” For purposes of this report, the regional area of economic influence for the subject property is Alachua County, although the specific trade area is smaller in size (discussed in Section 3 of the report).



This regional market area was established with the recognition of the subject property's geographic location and access to major thoroughfares that serve the entirety of the County. The trade area

draw of the proposed Walmart Supercenter will extend beyond the municipal boundaries of the City of Alachua, into the County domain. Based on these factors, and standard practices for evaluating long-range economic trends at the county level of geography, economic history and projections presented in this section focus on the larger local geography of Alachua County.

## **2.2 Alachua County Introductory Profile**

Home to the University of Florida and 3 of northern Florida's premier medical centers, Alachua County is an area whose economy relies heavily on the industry sectors of education and healthcare services. These industries, which are less sensitive to changes in the state and national economy, have provided Alachua County with a degree of long-term economic stability that other Florida counties have not enjoyed. Conversely, the County has not realized the development surge experienced by other Florida markets with a rapidly-urbanizing population base, such as Miami, Orlando, Tampa, or Jacksonville. Economic growth in Alachua County is best characterized as modest and steady, with the potential for some expansion of the real estate market as urban markets to the south reach buildout levels.

Current estimates place the population of Alachua County at 258,780, with an attendant employment base of 162,440. The County's largest employers include the University of Florida, UF Health, the Alachua County School Board, the VA Medical Center, the City of Gainesville, Walmart, Alachua County Government, Publix Supermarkets, Gator Dining Services, RTI Surgical, Dollar General, North Florida Regional Medical Center, and Nationwide Insurance. These organizations employ 58,112 persons, or 36 percent of the total County workforce.

## **2.3 Growth Patterns in Alachua County, 1980 to 2015**

Future development potential in Alachua County is closely tied to the continued demand for additional housing. Population growth is the major determinant of the long-range trend for housing demand in the area.

The shaded portion of Table 2.1 provides the base historical economic conditions for this market.



**Table 2.1: Alachua County Economic Profile****Growth 1980-2015**

	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2015</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>
<b>Total Population (Thousands)</b>	152.23	182.72	218.61	258.78	273.58	304.98	335.55
Age Under 5 Years	9.79	12.51	11.11	14.49	14.86	16.13	17.06
5 to 9 Years	9.29	12.13	12.01	12.97	14.19	15.96	17.17
10 to 14 Years	9.70	10.50	12.97	11.47	12.59	15.62	16.67
15 to 19 Years	18.12	18.06	22.51	20.03	19.44	20.61	21.46
20 to 24 Years	28.82	27.92	36.40	44.85	43.18	41.98	44.60
25 to 29 Years	17.55	17.05	17.55	22.48	25.23	18.62	22.96
30 to 34 Years	12.86	15.51	13.75	17.83	21.70	17.31	19.77
35 to 39 Years	8.48	14.04	14.22	14.06	17.00	24.04	17.18
40 to 44 Years	6.24	11.82	14.72	12.54	13.50	22.28	17.45
45 to 49 Years	5.45	8.46	14.36	12.27	12.29	17.86	25.15
50 to 54 Years	5.36	6.33	12.51	13.77	11.96	14.43	23.46
55 to 59 Years	5.32	5.66	8.80	14.78	13.43	13.04	18.69
60 to 64 Years	4.36	5.79	6.67	14.27	14.29	12.51	14.91
65 to 69 Years	3.93	5.70	5.66	11.75	13.67	13.74	13.11
70 to 74 Years	2.95	4.31	5.24	7.75	10.41	13.43	11.50
75 to 79 Years	2.01	3.22	4.52	5.24	6.77	11.85	11.66
80 to 84 Years	1.15	2.10	3.09	3.76	4.27	8.38	10.66
85 Years and Over	0.85	1.62	2.52	4.45	4.80	7.18	12.10
Median Age of Population	25.10	27.92	29.03	30.82	31.53	36.55	37.34
Caucasian Population	n.a.	136.42	153.87	165.01	169.90	187.79	205.86
African-American Population	n.a.	34.54	42.82	53.94	58.68	69.15	79.65
Native American Population	n.a.	0.33	0.56	0.68	0.70	0.74	0.71
Asian and Pacific Islander Population	n.a.	4.55	8.57	15.96	18.30	20.88	23.27
Hispanic Population	4.72	6.88	12.80	23.20	26.00	26.41	26.05
<b>Total Employment (Thousands)</b>	79.97	113.57	144.63	162.44	175.72	201.41	224.96
Farm	1.62	1.47	1.87	2.15	2.25	2.42	2.55
Forestry, Fishing, & Other	0.29	0.53	0.60	0.65	0.68	0.72	0.77
Mining	0.04	0.04	0.05	0.42	0.45	0.52	0.60
Utilities	0.11	0.13	0.12	0.48	0.55	0.71	0.88
Construction	4.54	5.44	5.96	5.82	6.42	7.23	7.60
Manufacturing	3.30	3.70	4.46	4.84	4.97	5.11	5.06
Wholesale Trade	1.82	2.04	2.34	2.89	3.10	3.47	3.75
Retail Trade	8.96	12.88	16.40	15.62	16.90	18.97	21.20
Transportation & Warehousing	0.76	0.89	1.34	2.69	2.96	3.59	4.25
Information	1.15	1.94	2.82	1.55	1.64	1.82	2.03
Finance & Insurance	3.33	4.46	5.54	6.57	7.17	8.35	9.13
Real Estate, Rental & Lease	2.69	3.60	4.47	5.97	6.53	7.81	9.33
Professional & Tech Services	2.86	5.42	7.99	9.63	10.25	11.65	13.26
Management & Enterprises	0.05	0.10	0.17	1.46	1.71	2.33	3.14
Administrative & Waste Services	1.71	3.11	7.29	7.34	7.85	8.79	9.42
Educational Services	0.67	1.27	2.04	2.77	2.99	3.37	3.66
Health Care & Social Assistance	7.37	13.95	19.23	24.19	26.71	32.46	38.40
Arts, Entertainment & Recreation	1.17	1.98	2.82	3.40	3.64	4.08	4.43
Accommodation & Food Services	5.50	9.28	10.81	12.88	13.95	16.03	17.72
Other Services	2.64	4.98	6.29	7.46	8.16	9.75	11.58
Federal Civilian Government	2.49	3.08	3.05	4.51	4.76	5.28	5.85
Federal Military Government	0.49	0.66	0.54	0.56	0.56	0.56	0.56
State and Local Government	26.43	32.62	38.43	37.33	41.52	46.38	49.77
<b>Total Earnings (Millions 2009\$)</b>	2,306.08	3,777.25	5,417.90	7,272.79	8,298.87	10,209.50	12,384.52
Per Capita Income (2009\$)	18,414.00	25,914.00	30,267.00	36,608.00	39,314.00	44,734.00	49,015.00
Avg. Household Income (2009\$)	48,072.00	62,818.00	71,784.00	83,062.00	88,722.00	102,663.00	115,094.00
Per Capita Income (Current\$)	8,098.00	17,476.00	25,161.00	40,396.00	48,037.00	73,967.00	117,940.00
Avg. Household Income (Current\$)	21,141.00	42,364.00	59,675.00	91,657.00	108,409.00	169,750.00	276,941.00
Retail Sales Per Household (2009\$)	30,769.00	31,386.00	34,878.00	36,807.00	38,058.00	40,830.00	44,034.00
Number of Households (Thousands)	55.35	71.79	87.84	100.56	116.05	127.02	136.58
Persons Per Household	2.58	2.39	2.34	2.26	2.23	2.27	2.32
<b>Households With Money Income (Thousands)</b>	55.35	71.79	87.84	100.56	116.05	127.02	136.58
Less than \$10,000 (2009\$)	n.a.	10.59	12.34	14.81	15.38	13.92	12.35
\$10,000 - \$29,999	n.a.	20.72	23.17	26.16	25.89	23.43	20.79
\$30,000 - \$44,999	n.a.	10.48	12.49	15.35	16.26	14.72	13.06
\$45,000 - \$59,999	n.a.	8.92	10.35	10.93	15.30	17.53	16.00
\$60,000 - \$74,999	n.a.	5.91	7.02	8.79	10.68	14.18	17.82
\$75,000 - \$99,999	n.a.	6.92	8.44	8.92	12.14	16.13	21.10
\$100,000 - \$124,999	n.a.	4.10	5.74	5.84	7.58	10.07	13.17
\$125,000 - \$149,999	n.a.	1.44	2.93	3.46	4.67	6.21	8.12
\$150,000 - \$199,999	n.a.	1.65	2.56	3.01	3.90	5.19	6.78
\$200,000 or more	n.a.	1.05	2.80	3.30	4.24	5.64	7.37

Data Sources: Woods &amp; Poole Economics, Inc.



2015 estimates indicate Alachua County has a population of 258,780<sup>1</sup> persons and 162,440 attendant employees. These totals comprise 1.3 percent of the state's population, and 1.5 percent of the state's employment base. From 1980 through 2015, population growth within the market area accounted for 1.04 percent of state growth, or 106,550 persons. This equates to average annual population growth of 3,044 persons per year.

During this period, 82,470 net new jobs were created in Alachua County, resulting in 1.3 percent of Florida's employment growth. The annualized rate of employment growth from 1980 – 2015 was 2,356 jobs.

Figure 1 presents a graphic summary of population growth by age within the County. It is quite interesting to note that the growth in Alachua County's population was quite balanced among these age groups. Few counties in Florida experienced such balanced population change over this time period.

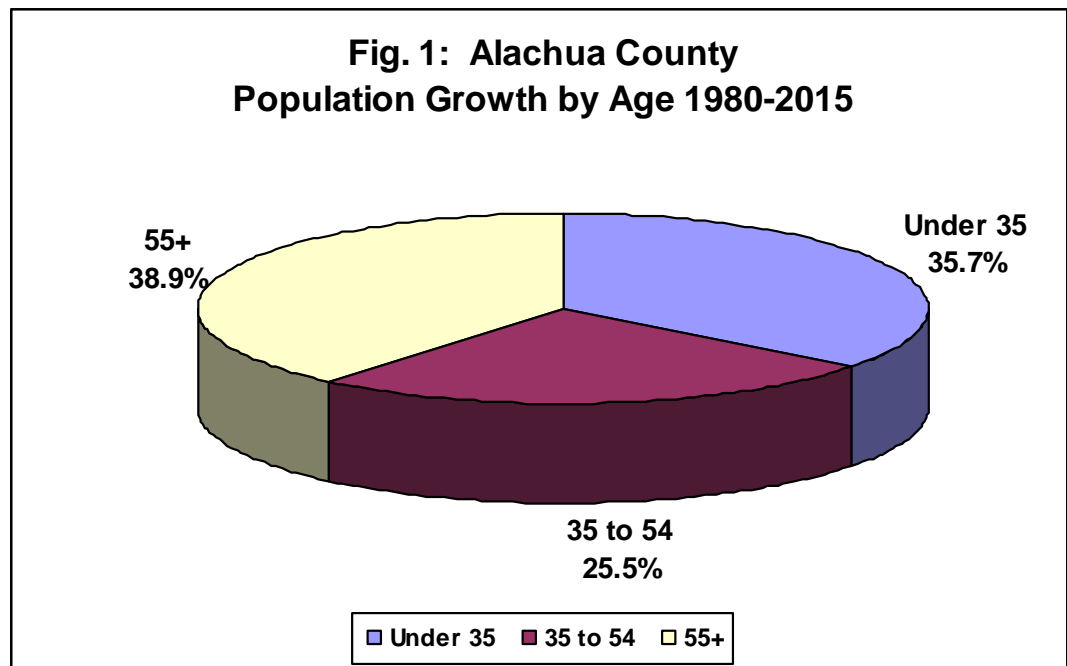
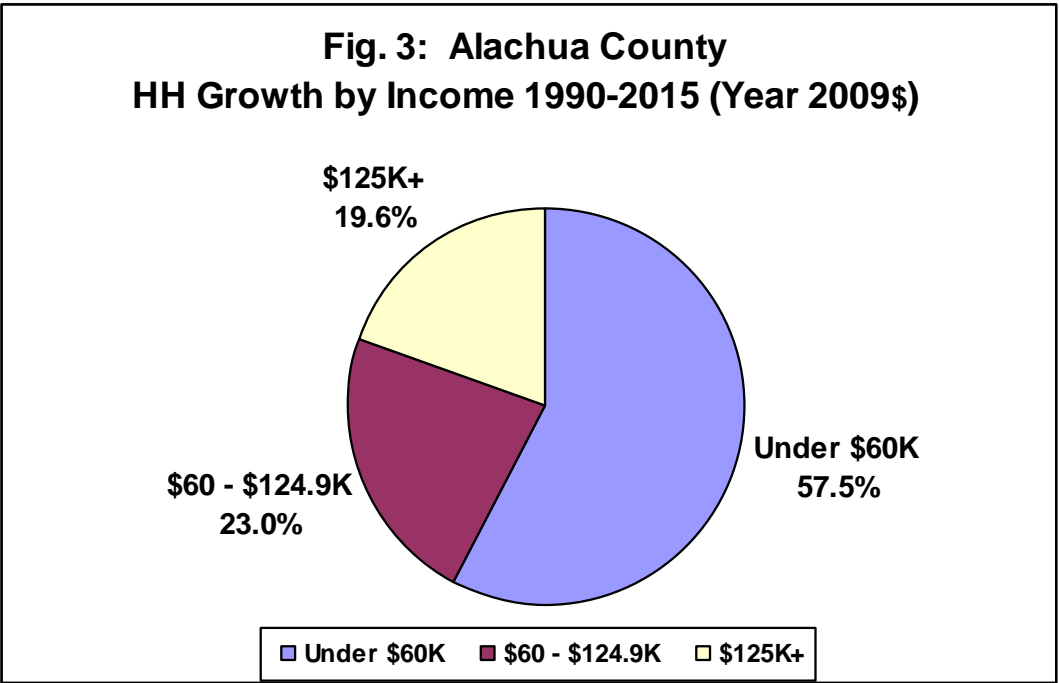
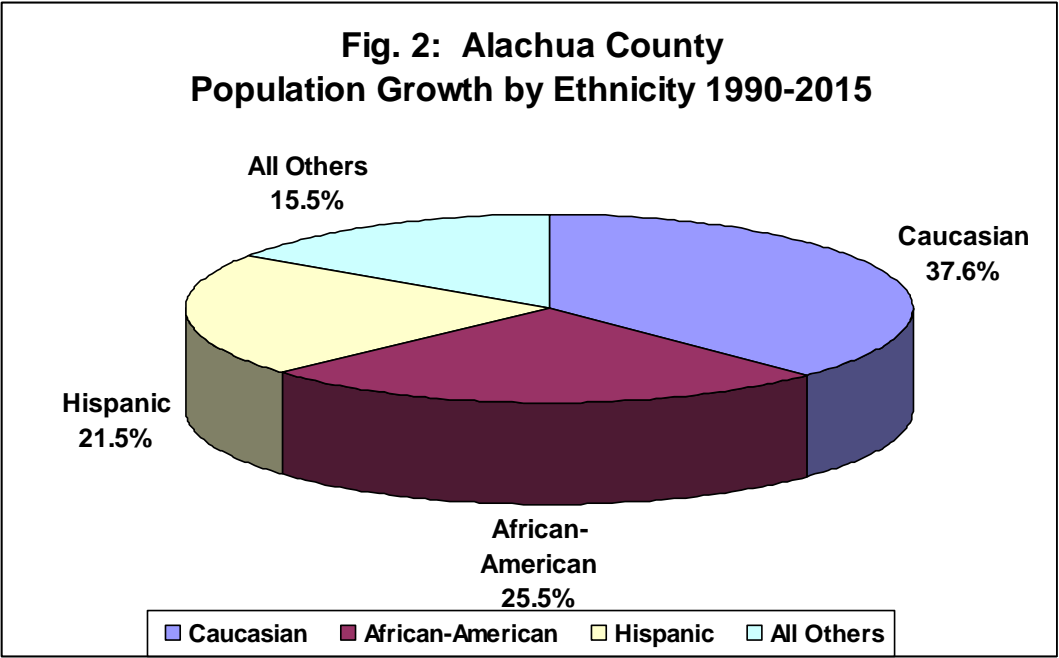


Figure 2 presents the profile of area population growth by race/ethnic status. Caucasian residents accounted for the largest share of population growth during the 1990-2015 period, at 37.6 percent. African-Americans accounted for 25.5 percent of

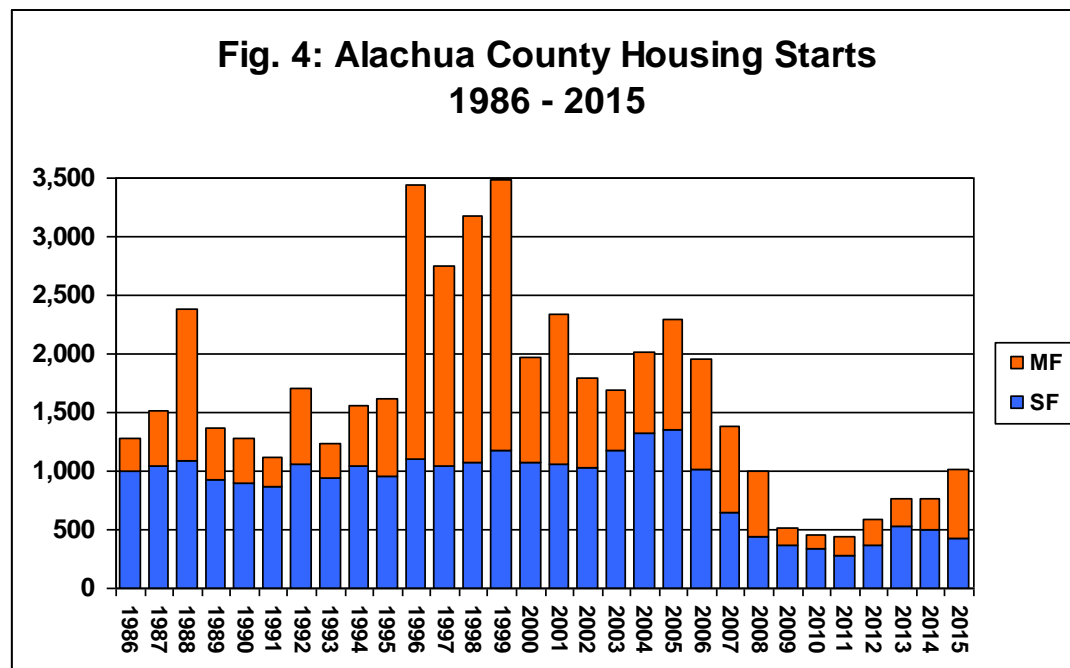
<sup>1</sup> Source: Woods & Poole Economics. 2015 estimate as reported the University of Florida Bureau of Economic and Business Research: 254,893

population growth over the previous 25 years, and Hispanics accounted for 21.5 percent of the population growth during this period. This growth trend differs from many urban locales in Central and South Florida, where Hispanic cohorts comprise considerably larger shares of county population growth.



The profile of household growth by income status is presented in Figure 3. From 1990 through 2015, the proportion of household growth with inflation-adjusted incomes<sup>2</sup> of under \$60,000 per year accounted for 57.5 percent of Alachua County's household growth. Middle to upper-middle income households, those in the \$60,000 to \$124,999 annual income range, held a noticeable but smaller share of growth at 23.0 percent. Upper income households (those with annual incomes of \$125,000 or more) made up 19.6 percent of the County's household formation during this 25-year period. In inflation-adjusted dollars, the average household income has increased by 72.8 percent since 1980. 2015 estimates show that the average household income within the region is \$91,657.

With a considerable population of non-family households, Alachua County's household size has historically been lower than other areas within the state. In fact, the persons-per-household estimate has declined from 2.58 in 1980 to 2.26 in 2015.



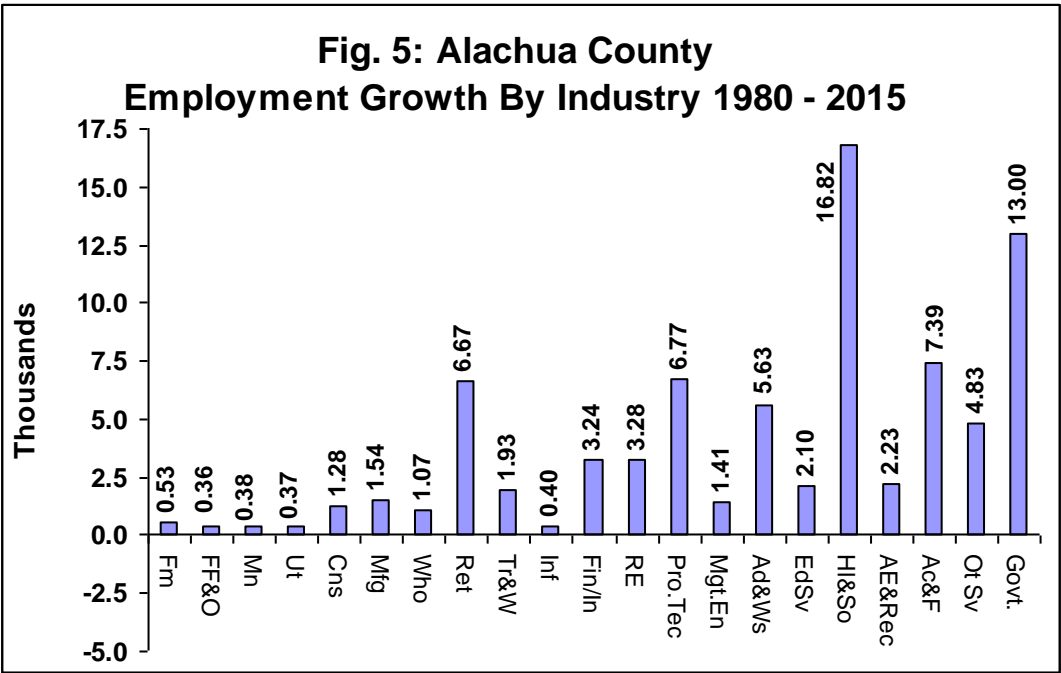
Prior to the mid-1990s, Alachua County typically<sup>3</sup> achieved between 1,000 and 1,500 housing starts annually. Substantial inventories of multifamily units were delivered in the latter half of the 1990s, effectively doubling the rate of new residential construction within the County. Alachua was not immune to the effects of the

<sup>2</sup> In Year 2009 dollars. Source: Woods and Poole Economics, Inc.

<sup>3</sup> In 1988, there were 2,300 housing starts in the County.

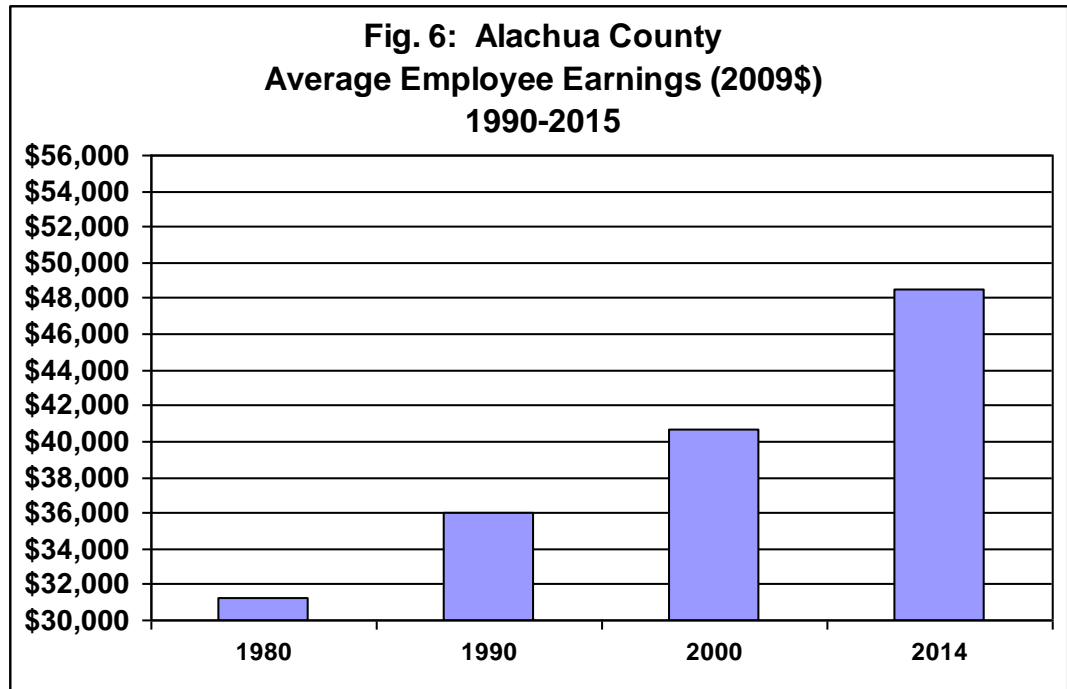
national housing market collapse and subsequent recession. By 2010 residential construction activity had fallen off by nearly 75 percent from the first half of the decade. A modest recovery began in 2012; over the past three years, annual starts have approached the 1,000-unit mark.

Of the 73,680 new jobs created during the 1980 – 2015 period, industry sectors with the largest growth included health care & social services (16,820) and government (13,000). These 2 sectors have accounted for 36.2 percent of Alachua County's employment growth since 1980.



**Fig. 5(a)  
Industry Sector Abbreviations**

Fm = Farm	RE = Real Estate, Rental & Lease
FF&O = Forestry, Fishing, & Other	Pro.Tec = Professional & Tech Services
Mn = Mining	Mgt.En = Management & Enterprises
Ut = Utilities	Ad&Ws = Administrative & Waste Services
Cns = Construction	EdSv = Educational Services
Mfg = Manufacturing	HI&So = Health Care & Social Assistance
Who = Wholesale Trade	AE&Rec = Arts, Entertainment & Recreation
Ret = Retail Trade	Ac&F = Accomodation & Food Services
Tr&W = Transportation & Warehousing	Ot Sv = Other Services
Inf = Information	Govt = Government
Fin/In = Finance & Insurance	



The average wage in Alachua County, when adjusted for inflation, has risen by 57.9 percent since 1980. The 2015 average wage in Alachua County was \$49,049, approximately 2 percent higher than the statewide average.

## 2.4 Growth Forecasts for Alachua County, 2015 to 2040

The long-range forecasts presented for Alachua County reflect a market whose economic base will continue to grow steadily relative to the levels realized during the 1980-2015 period. Annual population and employment growth from 2015 to 2040 will generally maintain the pace of 1980–2015 historic growth. Population change will be influenced slightly more by increases in the 35 - 54 and 55+ age groups. Middle income households will account for more than two-thirds of resident expansion over the next quarter century. Finally, the ethnic composition of new residents is expected to reflect the county's historic trend of diverse growth.

Over the 2015–2040 period, population growth within Alachua County will account for 1.01 percent of state growth, or 76,770 persons. The area will see 62,520 net new jobs created by 2040, which will equate to 1.24 percent of Florida's projected employment growth. The shaded portion of Table 2.2 provides the statistical detail of these economic forecasts.

**Table 2.2: Alachua County Economic Profile**

<b>Growth 2015-2040</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2015</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>
<b>Total Population (Thousands)</b>	152.23	182.72	218.61	258.78	273.58	304.98	335.55
Age Under 5 Years	9.79	12.51	11.11	14.49	14.86	16.13	17.06
5 to 9 Years	9.29	12.13	12.01	12.97	14.19	15.96	17.17
10 to 14 Years	9.70	10.50	12.97	11.47	12.59	15.62	16.67
15 to 19 Years	18.12	18.06	22.51	20.03	19.44	20.61	21.46
20 to 24 Years	28.82	27.92	36.40	44.85	43.18	41.98	44.60
25 to 29 Years	17.55	17.05	17.55	22.48	25.23	18.62	22.96
30 to 34 Years	12.86	15.51	13.75	17.83	21.70	17.31	19.77
35 to 39 Years	8.48	14.04	14.22	14.06	17.00	24.04	17.18
40 to 44 Years	6.24	11.82	14.72	12.54	13.50	22.28	17.45
45 to 49 Years	5.45	8.46	14.36	12.27	12.29	17.86	25.15
50 to 54 Years	5.36	6.33	12.51	13.77	11.96	14.43	23.46
55 to 59 Years	5.32	5.66	8.80	14.78	13.43	13.04	18.69
60 to 64 Years	4.36	5.79	6.67	14.27	14.29	12.51	14.91
65 to 69 Years	3.93	5.70	5.66	11.75	13.67	13.74	13.11
70 to 74 Years	2.95	4.31	5.24	7.75	10.41	13.43	11.50
75 to 79 Years	2.01	3.22	4.52	5.24	6.77	11.85	11.66
80 to 84 Years	1.15	2.10	3.09	3.76	4.27	8.38	10.66
85 Years and Over	0.85	1.62	2.52	4.45	4.80	7.18	12.10
Median Age of Population	25.10	27.92	29.03	30.82	31.53	36.55	37.34
Caucasian Population	n.a.	136.42	153.87	165.01	169.90	187.79	205.86
African-American Population	n.a.	34.54	42.82	53.94	58.68	69.15	79.65
Native American Population	n.a.	0.33	0.56	0.68	0.70	0.74	0.71
Asian and Pacific Islander Population	n.a.	4.55	8.57	15.96	18.30	20.88	23.27
Hispanic Population	4.72	6.88	12.80	23.20	26.00	26.41	26.05
<b>Total Employment (Thousands)</b>	79.97	113.57	144.63	162.44	175.72	201.41	224.96
Farm	1.62	1.47	1.87	2.15	2.25	2.42	2.55
Forestry, Fishing, & Other	0.29	0.53	0.60	0.65	0.68	0.72	0.77
Mining	0.04	0.04	0.05	0.42	0.45	0.52	0.60
Utilities	0.11	0.13	0.12	0.48	0.55	0.71	0.88
Construction	4.54	5.44	5.96	5.82	6.42	7.23	7.60
Manufacturing	3.30	3.70	4.46	4.84	4.97	5.11	5.06
Wholesale Trade	1.82	2.04	2.34	2.89	3.10	3.47	3.75
Retail Trade	8.96	12.88	16.40	15.62	16.90	18.97	21.20
Transportation & Warehousing	0.76	0.89	1.34	2.69	2.96	3.59	4.25
Information	1.15	1.94	2.82	1.55	1.64	1.82	2.03
Finance & Insurance	3.33	4.46	5.54	6.57	7.17	8.35	9.13
Real Estate, Rental & Lease	2.69	3.60	4.47	5.97	6.53	7.81	9.33
Professional & Tech Services	2.86	5.42	7.99	9.63	10.25	11.65	13.26
Management & Enterprises	0.05	0.10	0.17	1.46	1.71	2.33	3.14
Administrative & Waste Services	1.71	3.11	7.29	7.34	7.85	8.79	9.42
Educational Services	0.67	1.27	2.04	2.77	2.99	3.37	3.66
Health Care & Social Assistance	7.37	13.95	19.23	24.19	26.71	32.46	38.40
Arts, Entertainment & Recreation	1.17	1.98	2.82	3.40	3.64	4.08	4.43
Accommodation & Food Services	5.50	9.28	10.81	12.88	13.95	16.03	17.72
Other Services	2.64	4.98	6.29	7.46	8.16	9.75	11.58
Federal Civilian Government	2.49	3.08	3.05	4.51	4.76	5.28	5.85
Federal Military Government	0.49	0.66	0.54	0.56	0.56	0.56	0.56
State and Local Government	26.43	32.62	38.43	37.33	41.52	46.38	49.77
<b>Total Earnings (Millions 2009\$)</b>	2,306.08	3,777.25	5,417.90	7,272.79	8,298.87	10,209.50	12,384.52
Per Capita Income (2009\$)	18,414.00	25,914.00	30,267.00	36,608.00	39,314.00	44,734.00	49,015.00
Avg. Household Income (2009\$)	48,072.00	62,818.00	71,784.00	83,062.00	88,722.00	102,663.00	115,094.00
Per Capita Income (Current\$)	8,098.00	17,476.00	25,161.00	40,396.00	48,037.00	73,967.00	117,940.00
Avg. Household Income (Current\$)	21,141.00	42,364.00	59,675.00	91,657.00	108,409.00	169,750.00	276,941.00
Retail Sales Per Household (2009\$)	30,769.00	31,386.00	34,878.00	36,807.00	38,058.00	40,830.00	44,034.00
Number of Households (Thousands)	55.35	71.79	87.84	100.56	116.05	127.02	136.58
Persons Per Household	2.58	2.39	2.34	2.26	2.23	2.27	2.32
<b>Households With Money Income (Thousands)</b>	55.35	71.79	87.84	100.56	116.05	127.02	136.58
Less than \$10,000 (2009\$)	n.a.	10.59	12.34	14.81	15.38	13.92	12.35
\$10,000 - \$29,999	n.a.	20.72	23.17	26.16	25.89	23.43	20.79
\$30,000 - \$44,999	n.a.	10.48	12.49	15.35	16.26	14.72	13.06
\$45,000 - \$59,999	n.a.	8.92	10.35	10.93	15.30	17.53	16.00
\$60,000 - \$74,999	n.a.	5.91	7.02	8.79	10.68	14.18	17.82
\$75,000 - \$99,999	n.a.	6.92	8.44	8.92	12.14	16.13	21.10
\$100,000 - \$124,999	n.a.	4.10	5.74	5.84	7.58	10.07	13.17
\$125,000 - \$149,999	n.a.	1.44	2.93	3.46	4.67	6.21	8.12
\$150,000 - \$199,999	n.a.	1.65	2.56	3.01	3.90	5.19	6.78
\$200,000 or more	n.a.	1.05	2.80	3.30	4.24	5.64	7.37

Data Sources: Woods &amp; Poole Economics, Inc.

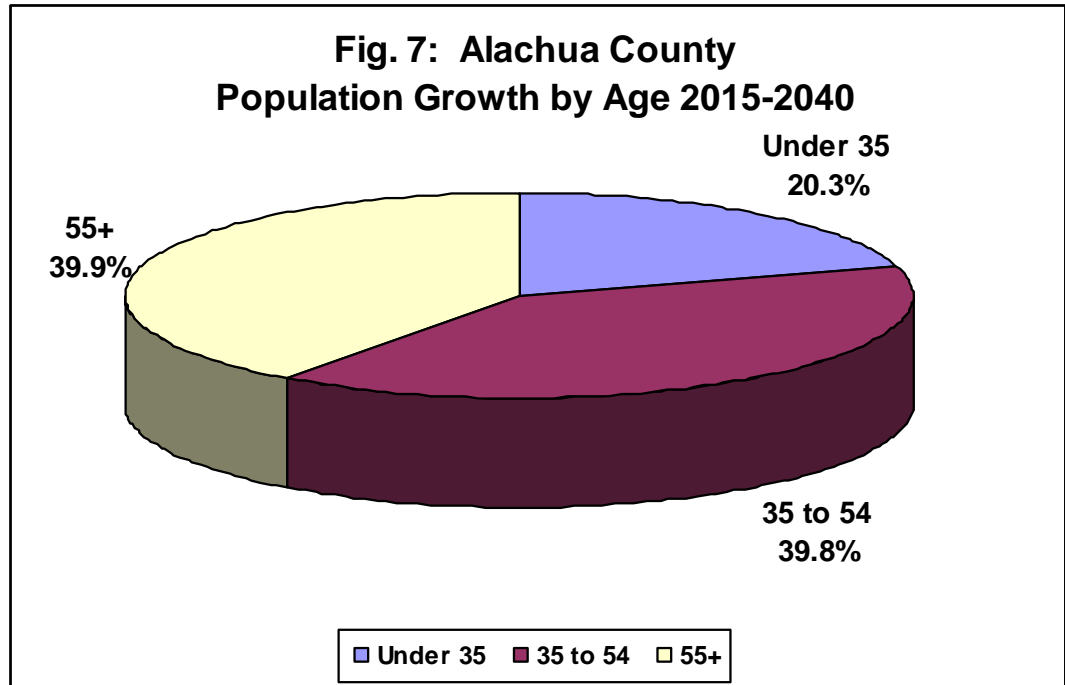
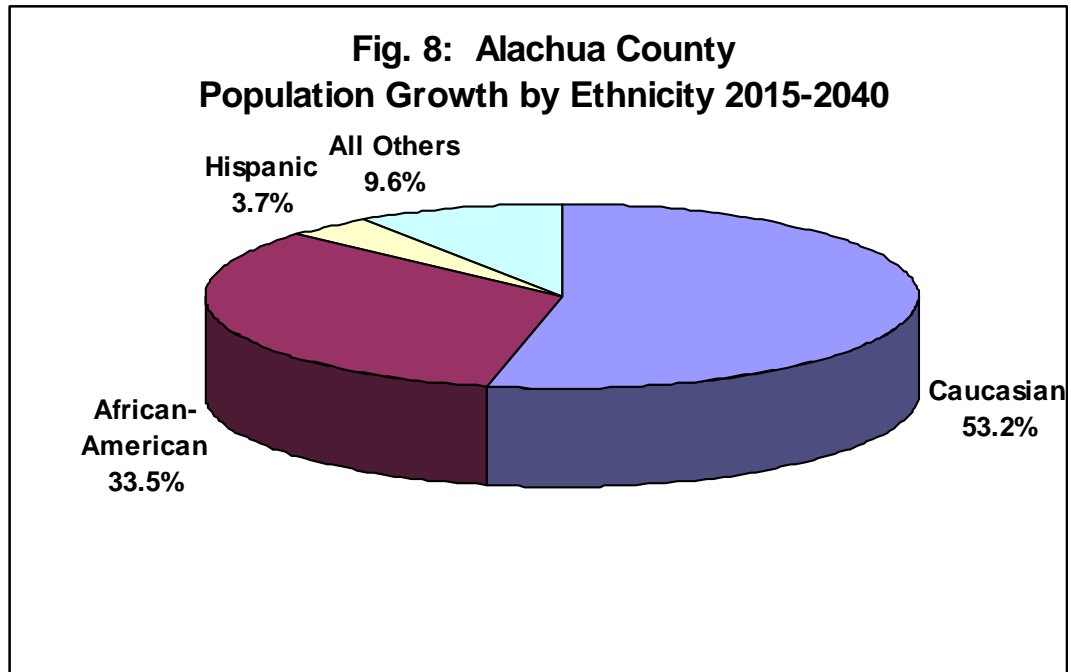
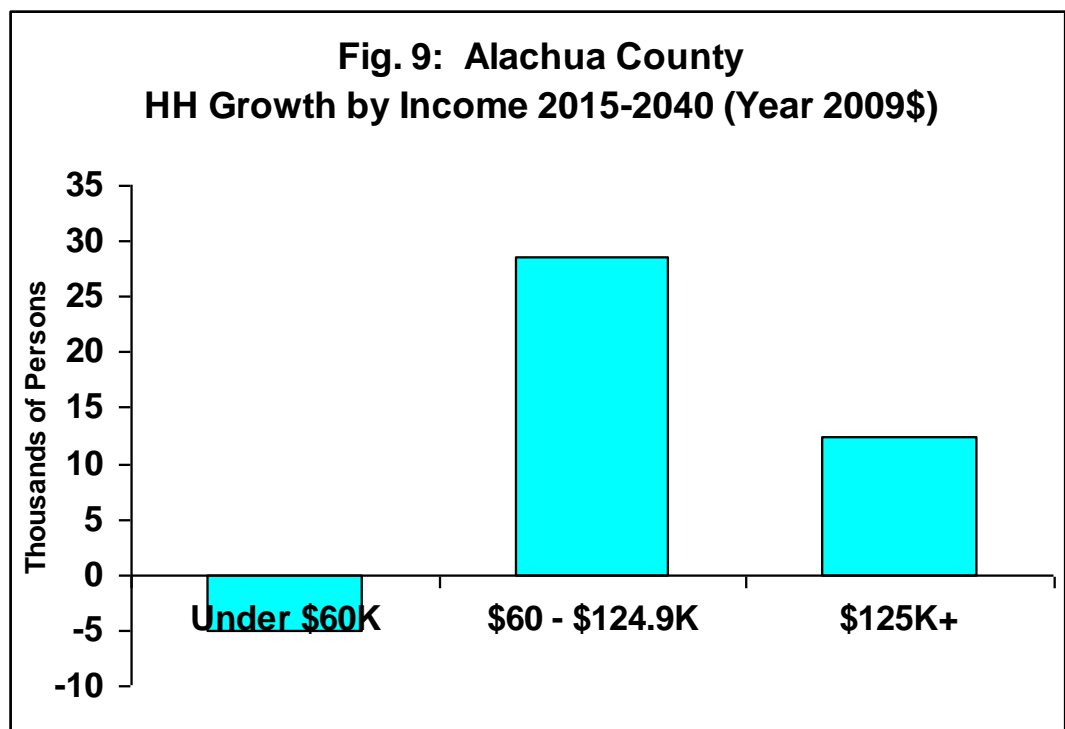


Figure 7 indicates an anticipated shift in the distribution of population growth by age. Alachua County will see a slightly larger share of growth in the 55+ age group over the forecast horizon, relative to the historic trend. 39.9 percent of forecasted population growth will occur in the 55+ age range. This growth will come from a combination of in-migration from older households and aging of the local population base. In addition, residents of the “working adult” age cohort (35-54) will account for 39.8 percent of the projected resident increase, which reflects an 14.3 percent increase in forecasted growth share relative to the historic period.

Figure 8 suggests that the future demographic profile of area residents will be more diverse than ever. During the 2015-2040 period, minority ethnic and racial segments will comprise 46.8 percent of Alachua County's population growth. This is an impressive statistic, considering the 1990 population of Alachua County was 75 percent Caucasian. Minority growth shares will increase across the board, including the African-American, Hispanic, and Asian ethnic cohorts.



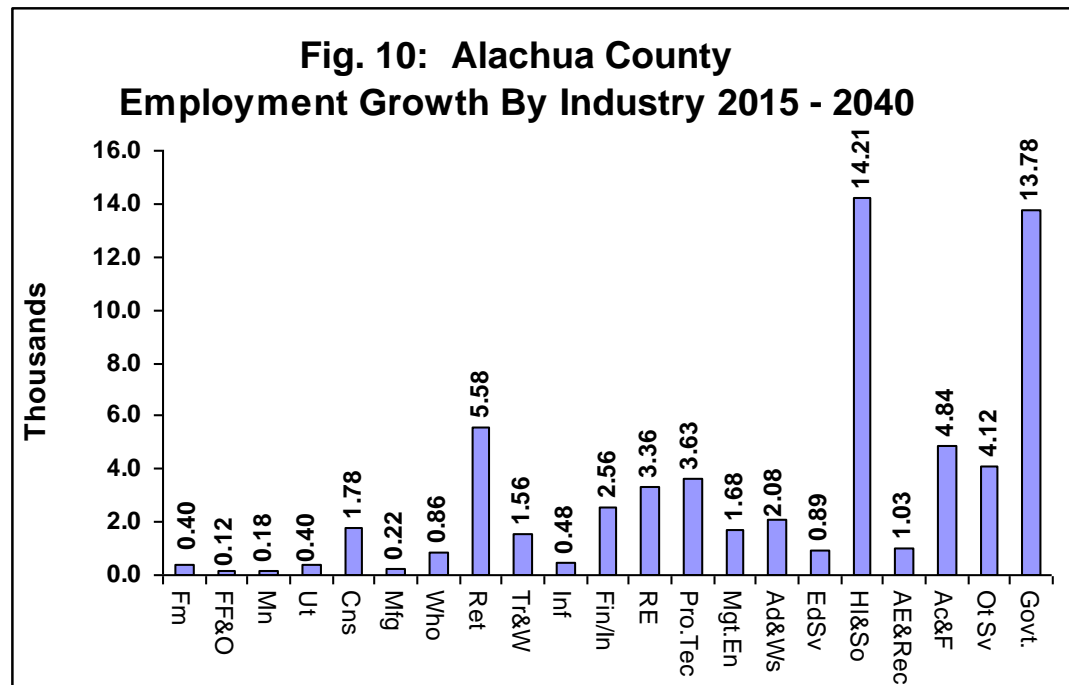
Forecasts of household growth by income suggest that Alachua County's wealth will be expanding considerably, as virtually all residential growth is expected to occur in households with incomes in excess of \$60,000 per year.





The under \$60,000 income segment, accounting for nearly half of 1990-2014 household growth, is projected to decline over the next 24 years.

The historic trend of annual housing starts reflects an average construction pace of 1,630 units per year. The 2015-2040 forecasts of household formation suggest growth of 1,441 occupied units per year. A forecasted long-range annual average of 1,536 starts per year for Alachua County would be consistent with these trends, although we would expect to see cycles of rapid construction (as was been the case during the late 1990s) and below average construction rates (as witnessed recently) during the forecast period.



53.7 percent of forecasted job growth (33,570 jobs by 2040) is expected to occur in the following sectors: retail (5,580), health & social services (14,210), and government (13,780). Alachua County's economy is expected to expand its base of industries, serving a growing and demographically evolving population. In total, service and government occupations will account for 74 percent of County jobs created between 2015 and 2040.

## 3.0: Market Conditions for Retail Shopping

### 3.1 Defining the Retail Shopping Center: Primary Center Characteristics

The Urban Land Institute, in its “Dollars and Cents of Shopping Centers” publication, provides category-based classifications of modern shopping centers, outlining center size and store mix characteristics that define a center’s type and function. These classifications and associated characteristics are outlined in this section.

As the shopping center evolved, **5 basic types** emerged, each distinctive in its own function: the **convenience**, the **neighborhood**, the **community**, the **regional**, and the **super regional**. In all cases, a shopping center’s type and function are determined by its major tenant or tenants and the size of the trade area; they are never based solely on the area of the site or the square footage of the structure.

A **convenience center** provides for the sale of personal services and convenience goods similar to those of a neighborhood center. It contains a minimum of 3 stores, with a gross leasable area (“GLA”) of up to 30,000 square feet. Instead of being anchored by a supermarket, a convenience center usually is anchored by some other type of personal/convenience service such as a minimarket.

A **neighborhood center** provides for the sale of convenience goods (foods, drugs, and sundries) and personal services (laundry and dry cleaning, barbering, shoe repairing, etc.) for the day-to-day living needs of the immediate neighborhood. It is built around the supermarket as the principal tenant and typically contains a GLA of about 60,000 square feet. In practice, it may range in size from 30,000 to 100,000 square feet.

In addition to the convenience goods and personal services offered by the neighborhood center, a **community center** provides a wider range of soft lines (wearing apparel for men, women, and children), and hard lines (hardware and appliances). The community center makes merchandise available in a greater variety of sizes, styles, colors, and prices. Many centers are built around a junior department store, variety store, super drugstore, or discount department store as the major tenant, in addition to a supermarket. Although a community center does not have a full

line department store, it may have a strong specialty store or stores. Its typical size is about 150,000 square feet, but in practice, it may range from 100,000 to 500,000 or more square feet. Centers that fit the general profile of a community center but contain more than 250,000 square feet are classified as **super community centers**. In some cases, these centers contain more than 1 million square feet. As a result, the community center is the most difficult to estimate for size and pulling power.

A **power center** is a type of super community center. It contains category-specific, off-price anchors of 20,000 or more square feet. These anchors typically emphasize hard goods such as consumer electronics, sporting goods, office supplies, home furnishings, home improvement goods, bulk foods, drugs, health and beauty aids, toys, and personal computer hardware/software. They tend to have narrowly focused but deeply merchandised category offerings together with more broadly merchandised, price oriented warehouse club and discount department stores. Anchors in power centers typically occupy 85 percent or more of the total GLA. A center such as Walmart could be best represented within this category classification.

A **regional center** provides general merchandise, apparel, furniture, and home furnishings in depth and variety, as well as a range of services and recreational facilities. It is built around 1 or 2 full line department stores of generally not less than 50,000 square feet. Its typical size is about 500,000 square feet of GLA; in practice, it may range from 250,000 to more than 900,000 square feet. The regional center provides services typical of a business district yet not as extensive as those of the super regional center.

A **super regional center** offers extensive variety in general merchandise, apparel, furniture, and home furnishings, as well as a variety of services and recreation facilities. It is built around 3 or more full-line department stores generally of not less than 75,000 square feet each. The typical size of a super regional center is about 1 million square feet of GLA. In practice, the size ranges from about 500,000 to more than 1.5 million square feet.

### 3.2 Retail Shopping Center Trade Areas

The ULI “Shopping Center Development Handbook” contains a detailed discussion of shopping center trade area analysis that outlines the complexities involved in the assessment of appropriate

retail trade areas. The following paragraphs from Page 46 of the handbook include excerpts of this text discussion.

"The character of a prospective retail trade area and the nature of the competition in it shape the character of a shopping center, including type, quality, and tone. The trade area traditionally is the geographic area that provides the majority of the steady customers necessary to support a shopping center.

As new shopping centers do not create buying power, they must attract existing customers from their trade areas and capture a portion of the new buying power as those areas grow. Hence, the extent of the area from which a new center can be expected to draw the most significant number of its customers - whether residents, workers, tourists, or business travelers - must first be established. Within a shopping center's trade area, customers closest to the site affect the center most strongly, with their influence diminishing gradually as the distance increases. Trade areas are usually divided into 3 categories or zones of influence, although the following general guidelines describing these categories vary depending on the type of center and other factors."

A center's *primary trade area* is the geographical area from which the center derives its largest share of repeat sales. This area typically extends to 1.5 miles for neighborhood centers, 3 to 5 miles for community and super community centers, and 8 to 12 miles for regional malls. Driving time within the primary trade area ranges correspondingly from 5 to 30 minutes, and 70 to 80 percent of the center's regular customers are drawn from this area.

The *secondary trade area* generates 15 to 20 percent of the total sales of an average shopping center. The extent of the secondary trade area is heavily influenced by the existence of similar centers nearby, and, as a result, the extent of secondary trade areas varies widely, depending on the center's type and size, and the competition. For the largest centers, it may extend 3 to 7 miles beyond the primary trade area.

The *tertiary* or fringe trade area is the broadest area from which consumers may be drawn. A small but sometimes significant share of a center's customers - particularly for large specialty centers,

downtown centers, off-price centers, and entertainment centers, may be drawn from tourists and other travelers who do not live in the market at all. Although customers who live in the tertiary trade area must travel greater distances, they may be attracted to a center because it is more accessible or it offers unusual goods, greater parking, more stores, better value, or higher quality merchandise than closer centers. For the largest centers, driving time from the tertiary market area to the site can be an hour or more, extending 15 miles beyond the primary trade area in major metropolitan markets. In much smaller markets, however, it may extend 50 miles or more.

### **3.3 Defining the Walmart Supercenter Primary Retail Trade Area**

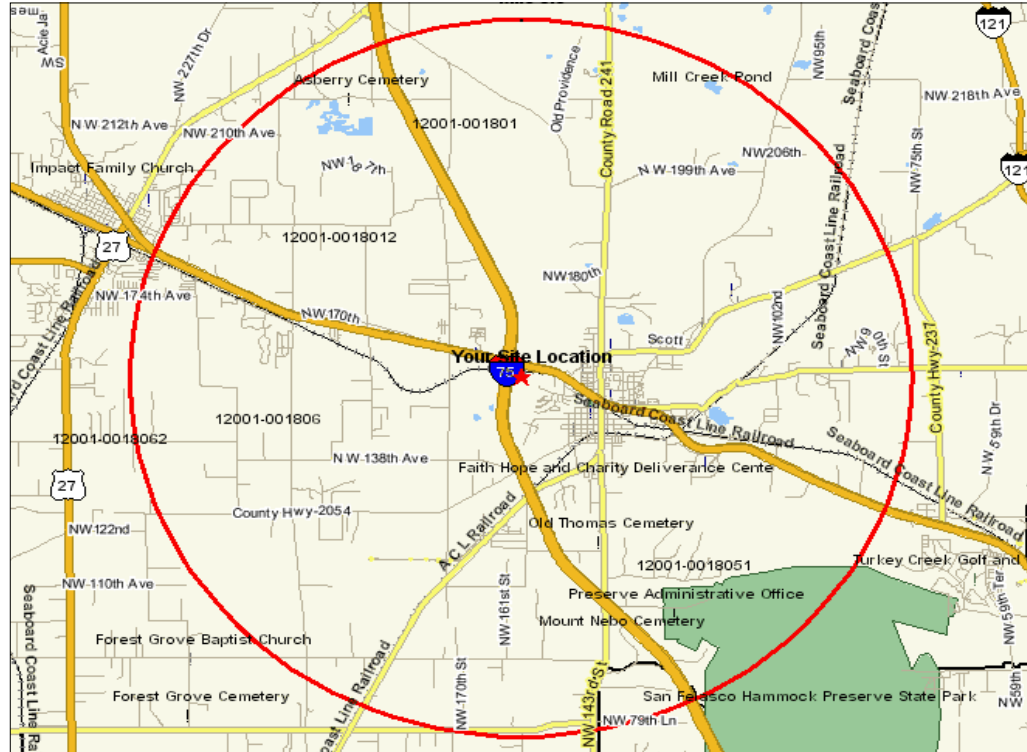
Defining geographic markets or economic trade areas is, at best, an imprecise science. Advanced spatial theory in the study of urban and regional economics provides us with some foundation for this exercise. Distinct economic markets generally exist in geographic areas with largely homogenous demographic, political, and transportation elements.

In the case of the proposed Walmart Supercenter, the above factors are considered in establishing the trade area boundary, but they are not the "limiting factors" in determining the extent of the market's influence on this property (and vice versa).

As a guide for the development of these trade area boundaries, we again turn to the ULI as an authoritative data source. In its series of development handbooks for commercial uses, the ULI has stated that the primary trade area for super community retail centers extends a distance from 3 to 5 miles outward from the site. For purposes of this analysis, we consider demographic, expenditure, and sales patterns within a 5-mile radius of the proposed Supercenter site in order to evaluate the state of the retail market as it applies to this shopping location.

### 3.4 Economic and Demographic Trends in the Walmart Supercenter Primary Retail Trade Area

**Table 3.1: Walmart Supercenter Primary Trade Area**  
Economic Trends and Estimates of Retail Shopping Demand and Supply



	<u>2000</u>	<u>2010</u>	<u>2015 (est.)</u>	<u>2020 (proj.)</u>
Population	9,140	11,138	11,666	12,315
Households	3,448	4,336	4,596	4,886
Families	2,580	3,094	3,275	3,483
Housing Units	3,653	4,830	5,092	5,382
Median HH Income	\$38,955	n/a	\$54,892	\$56,123
Average HH Income	\$51,419	n/a	\$67,187	\$69,350
Median Owner-Occupied Housing Unit Value	\$78,844	n/a	\$182,917	\$189,805
Total No. Of Employees			6,622	
Estimated Annual Employee Earnings (\$millions)			\$267.5	
Aggregate Consumer Expenditures			\$234,122,574	
Consumer Retail Expenditures, Plus Eating & Drinking Places			192,253,448	
Estimated Store Sales Per Square Foot			\$300	
Estimated Sq. Footage Demand for Retail Space			640,845	
Estimated Supply of Retail Sq. Footage			513,949	
<b>EXISTING PRIMARY TRADE AREA UNMET DEMAND</b>			<b>126,896 sq. feet</b>	

From 2000 through 2015, the population of the 5-mile primary trade area increased by 27.6 percent. 2015 estimates place the permanent population of this area at 11,666, residing in 4,596 households. As Table 3.1 illustrates, the rate of growth in this trade area has been noticeable over the last 15 years, and it should remain steady for the foreseeable future.

Year 2020 forecasts project the 5-mile primary trade area at a population of 12,315 persons, with 4,886 households, and 5,382 housing units. These forecasts indicate that, over the next 5 years, the trade area will grow by 649 persons, 290 households, and 290 housing units. 2015 estimates indicate that households within the 5-mile primary trade area have an average annual income of \$67,187. Five-year forecasts suggest that average annual income of households within this trade area will approach \$69,350 by 2020.

The U.S. Bureau of the Census Censstats business database indicates that businesses within the 5-mile primary trade area employ 6,622 persons in a variety of industries. These businesses generate \$267.5 million annually in employee earnings.

### **3.5 Average Daily Traffic Volumes**

In the process of retail site selection, the assessment of traffic flow in front of a candidate parcel is an important element in the determination of a site's viability. Strong pass-by traffic volumes can support, or in some cases even supplant, trade area population as the most important criterion for a development location decision. In the case of the proposed project, the site's superior frontage and visibility along I-75 at the US 441 interchange is a major factor influencing development opportunities for a Walmart Supercenter.

The Florida Department of Transportation's 2014 Annual Average Daily Traffic report<sup>2</sup> indicates an average daily traffic volume of 55,500 vehicles at the I-75 reporting station closest to the subject property (FDOT Counter 0454). On US 441, the counter closest to the subject property has an average daily traffic count of 20,000 (FDOT Counter 5106). This volume of traffic is substantial, and more than adequate to meet basic site selection thresholds for the considered uses.

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<sup>2</sup> Source: FDOT website <http://www2.dot.state.fl.us/FloridaTrafficOnline>. Represents most recent data available.



### **3.6 Primary Trade Area Retail Purchasing Potential and Net Demand Estimation**

According to estimates generated by Nielsen Claritas, the 4,596 households within the 5-mile primary retail trade area spent \$192.3 million in 2015 on purchases at retail stores and eating/drinking establishments. This is represented in Table 3.1. The “typical” household within the trade area spent \$41,830 in 2015 at these venues.

This \$192.3 million volume of consumer expenditures, at a store sales volume of \$300 per square foot, translates to gross retail trade area demand of 640,845 square feet.

In order to account for dollars spent in local businesses that may offer competitive or complimentary services, FEA obtained an inventory of local commercial establishments engaging in retail sales and dining activities from the Alachua County property appraiser database. This database search identified a total of 70 businesses, with an aggregate space inventory of 513,949 square feet. The inventory of these retail uses is presented in Appendix A of this report.

To arrive at a current day “net demand” estimate for the primary trade area, the local retail supply of 513,949 square feet was subtracted from the gross retail demand estimate of 640,845 square feet. This yields a current-day unmet demand for 126,896 square feet of retail shopping within the primary trade area. The Walmart Supercenter is planned for 158,562 square feet, plus 2,835 square feet for the garden center. The analysis indicates that the unmet shopping demand (126,896 sq. feet) within the primary trade area would support 79 percent of retail activity at the proposed Walmart Supercenter. Referring to the ULI retail center trade area guidelines (previously referenced in Section 3.2 of this report), a primary trade area should support 70 to 80 percent of the total shopping activity at a retail center.

The unmet trade area demand previously noted exceeds the requirements necessary to successfully support shopping for the Walmart Supercenter at its proposed size. The quantitative conclusion reached by this analysis is that local demand for the proposed Walmart is legitimate, with sufficient local shopper dollars remaining to support existing area businesses, thus eliminating tangible competitive concerns.



### 3.7 Other Market Demand Considerations

In addition to the primary trade area demand supporting the proposed Walmart site, an important consideration involves the variety of retail product lines the proposed Supercenter will offer, that are currently in very limited supply or non-existent within the local marketplace. Examples of these product lines include:

- Home and Office Electronics
- Business/Office Supplies and Stationery
- Sporting Goods
- Toys and Children's Games
- Full lines of women's, men's, and children's apparel

The local Walmart will fill these under-served market segments, as local residents presently must drive as far as Gainesville to find stores that offer full lines of the aforementioned merchandise.

The access and visibility that will be enjoyed by the Walmart location generates the potential to draw consumers from outside of the trade area. A majority of these "out-of-market" consumers would be interstate auto travelers, including many tourists, who are coming to or from other Florida destinations (e.g., Orlando, Tampa, Miami, Ft. Myers). Interstate traveler demand will help to provide additional support for the Walmart Supercenter, beyond the primary trade area net demand of 126,896 square feet.

The recently opened Lowe's home and building supply store (Lowe's) near the subject property does not present a competitive issue for Walmart or its primary trade area, based on 2 important factors. Home and building supply stores serve a very specific and narrow portion of the retail consumer market. Data from the U.S. Consumer Expenditure Survey indicates that less than 5 percent of a typical household's annual retail spending is for items found in these stores. As a result, the primary geographic trade area for a large building supply store is much larger than the primary trade area outlined for Walmart in this study, often extending outward to 10 miles or more. Notwithstanding these considerations, the 129,734 square foot Lowe's store is still included in the competitive supply analysis, for purposes of conservatism. If this store is eliminated from the competitive inventory, the unmet retail demand within the 5-mile trade area would increase from 126,896 to 256,630 square feet.

### 3.8 Market Demand Conclusions

The conclusions drawn by this analysis include the following:

- Sufficient unmet demand currently exists within the 5-mile primary retail trade area to develop a Walmart Supercenter on the subject property.
- Businesses within this primary trade area have been factored into the demand estimation, and sufficient shopper dollars exist to support the Walmart Supercenter, as well as the existing local businesses. Simply put, market area support for the Walmart Supercenter *includes* the continued successful operation of local area businesses.
- Notwithstanding the abundance of local purchasing power, the 40+/- businesses located along Main Street are mostly non-competitive with the proposed Walmart Supercenter due to the nature of their consumer offerings. These include specialty retail, restaurants, personal services, and civic services.
- The location of the Walmart Supercenter is advantageous to capture “out-of-market” interstate traveler commerce, which will create additional support above and beyond that generated from primary trade area households.
- The Walmart Supercenter will offer full retail product lines for local shoppers that are not readily available within the local market, and that area residents presently have to travel as far as Gainesville to obtain.
- Uses such as home and building supply stores, which serve a narrow retail market segment, with larger primary trade areas, are not directly competitive with the proposed Walmart Supercenter.
- Future population and household growth will occur within the 5-mile primary trade area, providing further support for the Walmart Supercenter and other local businesses.
- Market demand is only one business consideration affecting the sustainability of local area businesses. Other factors that significantly impact store success, not directly attributable to trade area demand, include effective merchandise mix, store management practices, and responsive business plans.
- Based on these factors, the proposed Walmart Supercenter poses no direct competitive threat to existing businesses within the local market, and could actually increase business volume, based on positive traffic generation and capture.

## 4.0: Analysis of Project Local Benefits: Economic and Fiscal Impacts to the City of Alachua from the Walmart Supercenter

### 4.1 Assumptions Used to Estimate Direct Economic and Fiscal Impacts

Table 4.1 below provides a summary of the various assumptions utilized in the formulation of the summary of economic and fiscal impacts for the proposed Walmart Supercenter.

**Table 4.1: Walmart Economic and Fiscal Analysis  
Background Information and Assumptions**

Proposed Walmart Supercenter Size	
Store	158,562 sq. feet
Garden Center	2,835 sq. feet
Total	161,397 sq. feet
Square feet of Store Space per Full-Time Equivalent Employee	400
Store Sales Per Square Foot	\$300.00
Avg. Wage, Alachua Co, Retail/Gen Mdse. (Source: Agency for Workforce Innov., Q2 15)	\$23,956
City of Alachua Operating Millage, General Fund (Source: City of Alachua FY 15-16 Budget)	5.9900
RIMS-II Economic Impact Multipliers	
Output	1.4598
Earnings	0.3917
Employment	13.8786
(Source: U.S. Department of Commerce, Bureau of Economic Analysis)	
Average Taxable Value Per Building Sq. Foot	\$77.68

The total economic impacts to Alachua County from the proposed Walmart supercenter were estimated using the RIMS-II economic impact model methodology. RIMS II multipliers can be estimated for any region composed of one or more counties and for any industry, or group of industries, in the national I-O table. These multipliers are best suited for estimating the impacts of small changes on a regional economy. To effectively use the multipliers

for impact analysis, users must provide geographically and industrially detailed information on the initial changes in output, earnings, or employment that are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings, and employment.

Systematic analysis of economic impacts must account for the inter-industry relationships within regions because these relationships largely determine how regional economies are likely to respond to project and program changes. Thus, regional input-output (I-O) multipliers, which account for inter-industry relationships within regions, are useful tools for conducting economic impact analysis.

RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the industrial distribution of inputs purchased and outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: The U.S. Bureau of Economic Analysis (BEA) national I-O table, which shows the input and output structure of nearly 500 U.S. industries, and BEA's regional economic accounts, which are used to adjust the national I-O table to show a region's industrial structure and trading patterns.

The national I-O table, which shows the input and output structure for approximately 500 industries. Since a particular region may not contain all the industries found at the national level, some direct input requirements cannot be supplied by that region's industries. Input requirements that are not produced in a study region are identified using BEA's regional economic accounts.

The RIMS II method for estimating regional I-O multipliers can be viewed as a three-step process. In the first step, the producer portion of the national I-O table is made region-specific by using four-digit SIC location quotients. In the second-step, the household column from the national I-O table is made region-specific. In the last step, the Leontief inversion approach is used to estimate multipliers. This inversion approach produces output, earnings, and employment multipliers, which can be used to trace the impacts of changes in final demand on the directly and indirectly affected industries.

Empirical tests indicate that RIMS II yields multipliers that are not substantially different in magnitude from those generated by regional I-O models based on highly specified and expensive

surveys. For example, a comparison of 224 industry-specific multipliers from survey-based tables for Texas, Washington, and West Virginia indicates that RIMS II average multipliers overstate the average multipliers from the survey-based tables by approximately 5 percent. For the majority of individual industry-specific multipliers, the difference between RIMS II and survey-based multipliers is less than 10 percent. In addition, RIMS II and survey multipliers show statistically similar distributions of affected industries.

Industry Category	Spending has to be classified by spending category consistent with the industry classification used by RIMS (see section below on spending categories).
Year of Expenditure	The time of expenditure needs to be specified in order to determine the time period of the economic consequences and in order to adjust the spending to current dollars for use in the estimation of jobs. The RIMS models were calibrated on current dollars and the estimate of jobs requires spending inputs in terms of current dollars.
Location	The spending location also needs to be specified so that the multipliers for the appropriate region can be applied.

In order to apply RIMS II multipliers, direct economic data for the project in question is required. The results of a RIMS II analysis are expressed in terms of three measures of economic activity: Earnings (sometimes expressed as wages and salaries), Output (sometimes referred to as economic activity, or sales), and Jobs.

Earnings	Earnings refers to a measure, expressed in millions of dollars, of the change in the value earnings that are received by households from the production of regional goods and services for the time period covered by the cost estimate.
Output	This is a measure of the economic activity created by the spending. It refers to the change in the dollar value of production in all sectors of the economy to satisfy the new demands resulting from spending. Each time a dollar changes hands for products or services it increases the measure of output. By including products as well as labor, the output measure is inclusive of and typically significantly larger than the measure of earnings. Economic output is typically referred to as the Gross Domestic Product (GDP) at the national level.

Jobs	This measure refers to the employment or jobs expressed as full time person years of employment. The measure refers to person years of employment, regardless of the term over which spending is aggregated in the input. Jobs are estimated by adjusting the year of spending to calibration year dollars. The jobs multiplier is expressed in terms of jobs per million dollars of spending.
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## 4.2 Local Benefits from Walmart's Presence

A 2005 study published by Global Insight Advisory Services concluded that Walmart's U.S. presence over the 1985-2004 period resulted in consumer savings in excess of \$263 billion. These savings resulted in a 9.1 percent decline in food-at-home prices, a 4.2 percent decline in commodities prices, and a 3.1 percent overall decline in inflation, as measured by the Consumer Price Index. Walmart's U.S. presence is estimated to have increased aggregate real disposable income by 0.9 percent. This study also estimated that each direct job at Walmart generates an additional 0.39 to 0.55 jobs in the local economy, and creates overall consumer cost savings of approximately 4.0 percent in the local economy. In addition, another 2005 study published jointly by MIT and the U.S. Department of Agriculture Economic Research Service concluded that discount general merchandise retailers such as Walmart create significant benefits to consumers, particularly those with lower and moderate incomes. Taking a direct quote from the final sentence of the MIT/USDA study, *"a significant decrease in consumer surplus arises from zoning regulations and pressure group tactics that restrict the entry and expansion of supercenters into particular geographic markets"*<sup>3</sup>.

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<sup>3</sup> "Consumer Benefits from the Increased Competition in Shopping Outlets: Measuring the Effect of Wal-Mart". Hausman, J. and Leibtag, E. October, 2005.

### 4.3 Summary of Economic and Fiscal Impacts to the City of Alachua from the Walmart Supercenter

It is estimated that Walmart would employ approximately 403 employees with total annual earnings of \$9.7 million. Direct business output, measured in store sales, should exceed \$48.4 million annually. Indirect economic impacts include an additional 268 jobs, \$9.3 million in annual earnings, and \$22.3 million in annual output, from area businesses supported by Walmart's presence. Although the indirect impacts would occur throughout the metro area, some component of this spinoff impact would occur within the City of Alachua. With an estimated taxable property value of \$12.5 million, the Walmart Supercenter is expected to generate more than \$75,000 per year in ad valorem revenue to the City of Alachua. These impacts are presented in Table 4.2 below.

**Table 4.2**  
**Walmart Economic and Fiscal Summary**

#### Direct Economic Impacts

Employment	403
Annual Earnings	\$9,666,066
Annual Business Output (Sales)	\$48,419,100

#### Indirect (Spin-off) Economic Impacts

Employment (@ 0.47 multiplier)	268
Annual Earnings	\$9,299,695
Annual Business Output (Sales)	\$22,263,102

#### Fiscal Impacts to City of Alachua

Annual Ad Valorem Revenue, City of Alachua	\$75,101
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*All Estimates are in 2015-16 Dollars*

**APPENDIX:**

**MARKET AREA COMMERCIAL/RETAIL INVENTORY  
SOURCE: ALACHUA COUNTY PROPERTY APPRAISER**



<u>Parcel ID Number</u>	<u>DOR</u> <u>Use Code</u>	<u>Total</u> <u>Building Area</u>	<u>Property Owner Name</u>	<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Physical Address</u>
00318 013 000	11	1,389	ANDERSEN, LARS & PATRICIA	08S	17E	2	18238 NW US HIGHWAY 441
00449 001 000	11	2,595	610 NE 1ST AVE LLC	08S	17E	2	610 NE 1ST AVE
00473 000 000	11	980	ROBERT P DILBONE LLC	08S	17E	2	415 NE SANTA FE BLVD
03049 002 000	11	6,836	MILLIKEN, ROBERT P	08S	18E	9	16091 NW US HIGHWAY 441
03053 001 003	11	6,225	RACETRAC PETROLEUM INC	08S	18E	9	16171 NW US HIGHWAY 441
03061 010 002	11	3,633	LE STORE LLC	08S	18E	9	16070 NW US HIGHWAY 441
03066 006 000	11	5,509	MOHAN-LERRA FAMILY PARTNERSHIP	08S	18E	10	15981 NW US HIGHWAY 441
03066 007 000	11	1,992	AMERICAN PETROLEUM INVESTMENTS	08S	18E	9	15980 NW US HIGHWAY 441
03067 003 000	11	6,606	ADVANCE AUTO PARTS INC	08S	18E	15	15579 NW US HIGHWAY 441
03067 006 010	11	129,734	LOWES HOME CENTERS INC	08S	18E	10	15910 NW 144TH TER
03210 006 000	11	2,610	THE PANTRY INC	08S	18E	14	14411 NW US HIGHWAY 441
03210 007 000	11	4,795	ALACHUA COUNTY FARM BUREAU	08S	18E	14	14435 NW US HIGHWAY 441
03226 001 000	11	6,880	LOUIS L HUNTLEY ENTERPRISES	08S	18E	14	15089 NW US HIGHWAY 441
03388 005 000	11	3,993	BBTI HOLDING LLC	08S	18E	14	13921 NW 146TH AVE
03534 000 000	11	1,899	FUNKHOUSER, D R	08S	18E	15	15121 NW US HIGHWAY 441
03583 000 000	11	4,494	WALKER, FREDERICK JAMESLINDA M	08S	18E	15	15419 NW US HIGHWAY 441
03583 001 000	11	1,338	WALKER, FREDERICK JAMESLINDA M	08S	18E	15	15405 NW US HIGHWAY 441
03584 001 000	11	1,676	ALACHUA CORNER INC	08S	18E	15	14212 NW 154TH AVE
03591 000 000	11	15,519	WALGREEN CO	08S	18E	15	15155 NW US HIGHWAY 441
03595 020 001	11	13,073	HITCHCOCK & SONS INC	08S	18E	15	15174 US HIGHWAY 441
03595 200 000	11	2,094	WIRELESS WIZARD INC	08S	18E	15	15210 NW US HIGHWAY 441
03595 200 001	11	10,332	DOLGENCORP LLC	08S	18E	15	15250 NW US HIGHWAY 441
03606 001 000	11	1,462	LANGE, SCOTT R & ANNETTE A	08S	18E	15	14933 MAIN ST
03610 000 000	11	1,737	LANGE, SCOTT R & ANNETTE A	08S	18E	15	14925 MAIN ST
03617 000 000	11	624	ESKRIDGE, MARTY & DIANE	08S	18E	15	14952 MAIN ST
03617 001 000	11	1,572	ROBERTSON, RICKY L	08S	18E	15	14920 MAIN ST
03617 002 000	11	858	ROBERTSON, RICKY L & DONNA J	08S	18E	15	14940 MAIN ST
03617 004 000	11	624	LEE, GUSSIE M	08S	18E	15	14954 MAIN ST
03630 000 000	11	2,133	DEL ROSAL, THOMAS & BONNIE	08S	18E	15	14874 MAIN ST
03631 000 000	11	2,219	HEUSS, MICHAEL & CONSTANCE	08S	18E	15	14862 MAIN ST
03632 000 000	11	1,438	GAUSE, THOMAS P & PATRICIA M	08S	18E	15	14856 MAIN ST
03633 000 000	11	1,506	MALPHURS, SARA DEESE TRUSTEE	08S	18E	15	14850 MAIN ST
03644 000 000	11	3,190	ESKRIDGE, MARTY	08S	18E	15	14107 NW 148TH PL
03645 000 000	11	3,269	BERGDOLL, W BRUCE TRUSTEE	08S	18E	15	14838 MAIN ST
03646 000 000	11	5,783	KOHL, RICHARD G & JOANN	08S	18E	15	14822 MAIN ST

<u>Parcel ID Number</u>	<u>DOR</u> <u>Use Code</u>	<u>Total</u> <u>Building Area</u>	<u>Property Owner Name</u>	<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Physical Address</u>
03647 001 000	11	1,867	D W ASHTON CATERY INC	08S	18E	15	14816 MAIN ST
03656 000 000	11	2,968	AMIRA, STUART L & COLLEEN G	08S	18E	15	14055 NW 148TH PL
03657 000 000	11	1,941	BINGAMAN, LAWRENCE	08S	18E	15	14827 MAIN ST
03658 000 000	11	1,351	RIDGE, THOMAS S IV & KAREN L	08S	18E	15	11 S MAIN ST
03674 000 000	11	1,445	KIRKWOOD, KEVIN R & ELAINE P	08S	18E	15	14706 MAIN ST
03694 000 000	11	5,931	TANNER, WAYNE	08S	18E	15	14507 MAIN ST
03695 000 000	11	1,483	PURVIS, W R & DAISY	08S	18E	15	14515 MAIN ST
03696 000 000	11	2,106	RED SILK INC	08S	18E	15	14545 MAIN ST
03697 000 000	11	1,421	COMPUTERDOCTOR OF ALACHUA, COR	08S	18E	15	14555 MAIN ST
03697 001 000	11	1,421	MACDOUGALL & MACDOUGALL & MAC	08S	18E	15	14521 MAIN ST
03710 000 000	11	10,476	ALACHUA FARM & LUMBER INC	08S	18E	15	14101 NW 145TH AVE
03727 000 000	11	1,647	ALACHUA FARM & LUMBER INC	08S	18E	15	14310 MAIN ST
03736 000 000	11	3,466	MCDANIEL, CLIFTON RAY JR	08S	18E	15	14400 NW 140TH ST
03910 002 001	11	3,713	SOUTHWEST GEORGIA OIL COMPANY	08S	18E	22	13820 NW 140TH ST
03061 004 001	16	10,675	THE PANTRY INC	08S	18E	9	16130 NW US HIGHWAY 441
03067 001 001	16	34,106	OAKHILL PLAZA ASSOCIATES LP	08S	18E	15	15551 NW US HIGHWAY 441
03210 007 001	16	4,704	BROWN, ROBERT E	08S	18E	14	14423 NW US HIGHWAY 441
03211 002 000	16	5,389	SNELGROVE, CHARLES W & DIANA H	08S	18E	14	14557 NW US HIGHWAY 441
03370 000 000	16	7,102	CENTRAL MOTOR SUPPLY OF, ALACH	08S	18E	14	14923 NW US HIGHWAY 441
03613 001 000	16	7,846	ROBERTSON, RICKY L & DONNA J	08S	18E	15	14911 MAIN ST
03869 003 000	16	51,119	HITCHCOCK & SONS INC	08S	18E	15	15530 NW US HIGHWAY 441
03869 012 000	16	27,537	ALACHUA PROFESSIONAL PLAZA LLC	08S	18E	15	15234 NW 147TH DR
03053 001 002	21	7,570	TALAL PROPERTIES LTD & TAREK	08S	18E	9	16135 NW US HIGHWAY 441
03066 004 002	21	5,163	ALACHUA BBQ LAND LLC	08S	18E	10	15931 NW US HIGHWAY 441
03066 006 001	21	1,545	SFASSIE FAMILY II LTD, PARTNER	08S	18E	10	15979 NW US HIGHWAY 441
03612 000 000	21	4,313	ROBERTSON, RICKY L & DONNA J	08S	18E	15	14841 MAIN ST
03617 003 000	21	2,876	KEARNEY, MICHAEL A & JUDITH A	08S	18E	15	14956 MAIN ST
03618 000 000	21	3,024	ROBERTSON, R L	08S	18E	15	14920 MAIN ST
03670 000 000	21	5,750	IVY HOUSE LLC THE	08S	18E	15	14603 MAIN ST
05970 001 002	11	5,757	GILSON, GLEN W III	08S	19E	19	13701 NW US HIGHWAY 441
05964 002 001	16	8,419	UPLAND PROPERTIES OF NCF LLC	08S	19E	19	13570 NW 101ST DR
17045 000 000	11	5,948	M & R UNITED INC	08S	21E	14	15295 NE US HIGHWAY 301
17064 001 000	11	3,929	WALDO PETRO MART LLC	08S	21E	14	15035 NE US HIGHWAY 301
17070 001 001	11	7,392	ALACHUA COUNTY LIBRARY, DISTRI	08S	21E	14	15150 NE US HIGHWAY 301
17074 004 000	11	1,932	WALDO ROAD INC	08S	21E	14	14820 NE US HIGHWAY 301

**WALMART #3873 –ALACHUA**

Project № 16-016 (v1.2)

November 2016

**TRAFFIC IMPACT ANALYSIS  
CITY OF ALACHUA  
FLORIDA**

*Prepared by:*



**Traffic & Mobility Consultants**

3101 Maguire Boulevard, Suite 265

Orlando, Florida 32803

[www.trafficmobility.com](http://www.trafficmobility.com)

(407) 531-5332

*Prepared for:*

CPH Engineers Inc.

500 W Fulton Street

Sanford, FL 32771

## EXECUTIVE SUMMARY

This traffic impact study was conducted to assess the traffic impacts for the proposed Walmart Supercenter in the City of Alachua, Florida. The results of the study documented herein are summarized below:

### Trip Generation

- The proposed 161,397 square foot Walmart Supercenter is projected to generate 5,898 new daily trips and 506 new PM peak hour trips.

### Roadways

- All roadway segments analyzed currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out (2018).

### Intersections

- All study intersections currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out.

### Access

- The proposed site driveway on US 441 is projected to operate at an acceptable level of service with the proposed signal control.
- The recommended configuration for the intersection includes dual westbound left-turn lanes and an eastbound right-turn lane serving traffic entering the site. Traffic exiting onto US 441 is served by dual northbound left-turn lanes and dual northbound right-turn lanes.
- The site driveway on US 441 was reviewed to determine the recommended turn lane lengths for each approach. The following turn lane lengths are recommended:

<u>Turn Lane</u>	<u>Length</u>
EB Right	330 ft
WB Left	330 ft
NB Left	265 ft
NB Right	185 ft

***The proposed Walmart Superstore in the City of Alachua will not adversely impact the transportation network, which is adequate to support the development.***

## PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants, LLC, a corporation authorized to operate as an engineering business, EB-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

**PROJECT:** Walmart Store #3873 Alachua

**LOCATION:** City of Alachua, Florida

**CLIENT:** CPH Engineers Inc.

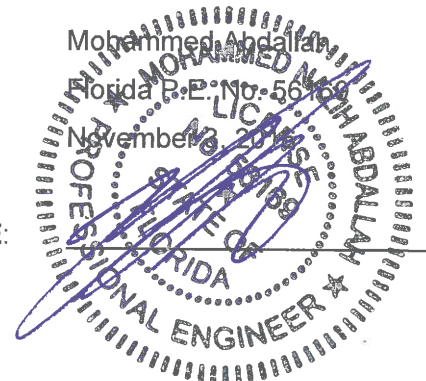
I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

**NAME:**

**P.E. No.:**

**DATE:**

**SIGNATURE:**



## TABLE OF CONTENTS

	Page
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Study Area.....	3
<b>2.0 EXISTING ROADWAY ANALYSIS .....</b>	<b>4</b>
2.1 Existing Traffic Volumes .....	4
2.2 Roadway Segment Analysis .....	4
2.3 Intersection Analysis.....	6
<b>3.0 PROJECT TRAFFIC.....</b>	<b>7</b>
3.1 Trip Generation.....	7
3.2 Trip Distribution/Assignment.....	7
<b>4.0 PROJECTED TRAFFIC CONDITIONS .....</b>	<b>9</b>
4.1 Background Traffic Growth .....	9
4.2 Roadway Segment Analysis .....	9
4.3 Intersection Analysis.....	10
4.4 Turn Lane Length Analysis .....	12
<b>5.0 STUDY CONCLUSIONS .....</b>	<b>13</b>
<b>APPENDICES.....</b>	<b>14</b>
Appendix A Responses to Comments	
Appendix B Proposed Site Plan	
Appendix C Existing Intersection Counts, Seasonal Factors, and Service Volumes	
Appendix D Existing Intersection Analysis	
Appendix E ITE Trip Generation Information	
Appendix F Trip Distribution Plot	
Appendix G Growth Rate Calculations	
Appendix H Projected Intersection Volumes	
Appendix I Projected Intersection Conditions	

## LIST OF TABLES

Table 1	Significance Test.....	3
Table 2	Existing Roadway Conditions .....	4
Table 3	Existing Intersection Conditions.....	6
Table 4	Trip Generation Analysis.....	7
Table 5	Projected Roadway Conditions.....	9
Table 6	Projected Intersection Conditions .....	10
Table 7	Recommended Turn Lane Dimensions .....	12

## LIST OF FIGURES

Figure 1	Site Location Map .....	2
Figure 2	Existing Intersection Volumes.....	5
Figure 3	Project Trip Distribution .....	8
Figure 4	Projected PM Peak Hour Intersection Volumes.....	11

## 1.0 INTRODUCTION

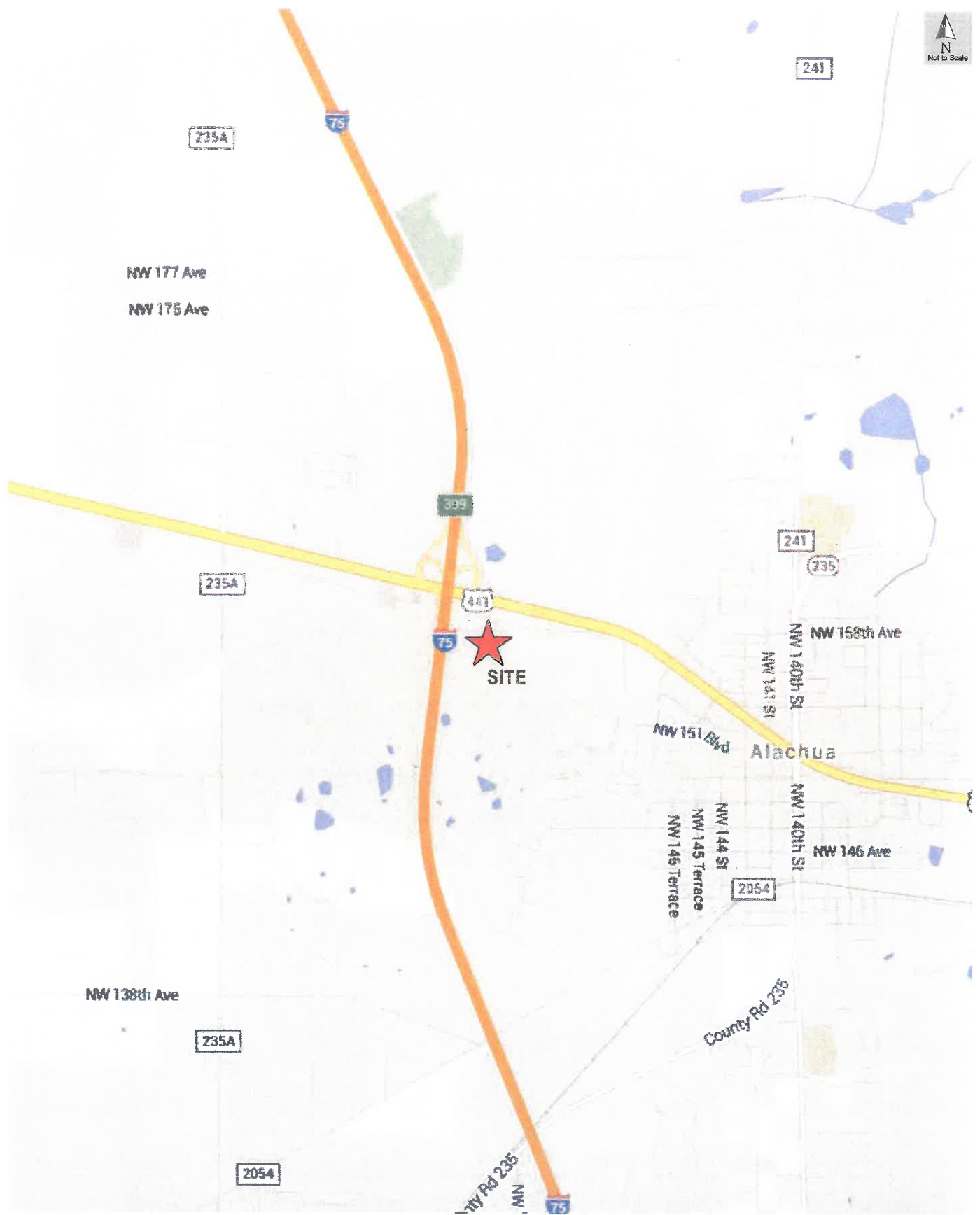
This Traffic Impact Analysis was prepared to evaluate the transportation impact of the proposed Walmart Supercenter in the City of Alachua, Florida. The analysis was revised and updated in response to comments received from the City of Alachua and the Florida Department of Transportation. The comments and responses are included in **Appendix A**.

The proposed development is a 158,562 square foot Walmart Supercenter building with a 2,835 square foot seasonal garden center. Therefore, the total gross floor area of the Walmart Supercenter is 161,397 square feet.

The site is located in the southeast quadrant of the I-75/US 441 interchange. Site access will be provided via US 441, which is anticipated to have signal control to serve the development. In addition, secondary access will be provided via the extension of NW 151st Boulevard. The build-out date is anticipated to occur by 2017. However, for purposes of the traffic analysis, the buildout year was conservatively established as the year 2018. Site location and the surrounding roadway network are illustrated in **Figure 1**. The proposed site plan is included in **Appendix B**.

The analysis was conducted generally in accordance with the initial study methodology approved for the project, the City of Alachua's requirements, and standard engineering practice. Information used in the analysis includes traffic volumes collected by Traffic & Mobility Consultants, LLC (TMC), and data obtained from the City of Alachua (City), Alachua County (County), and/or the Florida Department of Transportation (FDOT).





## 1.1 Study Area

Based on the City of Alachua's Land Development Code, the primary influence area of the proposed development includes all primary roadway segments within ½ mile of the site access and any segment where project traffic exceeds 5% of the segment's capacity. **Table 1** summarizes the significance test performed for the study area.

**Table 1**  
**Significance Test**

Roadway	Segment	Lanes	Project		Segment Capacity	Project Significance
			Distrib	Trips		
US 441	NW 188th St to CR 235A	4	20%	101	3,200	3.2%
	CR 235A to I-75	4	37%	187	3,200	<b>5.8%</b>
	I-75 to NW 147th Dr	4	52%	263	3,200	<b>8.2%</b>
	NW 147th Dr to SR 235	4	34%	172	3,200	<b>5.4%</b>
	SR 235 to Rachael Blvd	4	19%	96	3,200	3.0%
CR 235A	NW 138th Ave to US 441	2	5%	25	1,050	2.4%
	US 441 to I-75	2	7%	35	1,050	3.3%
SR 235	Peggy Rd to US 441	2	8%	41	960	4.3%
	US 441 to NW 140th St	2	6%	30	960	3.1%

*\*Significance is defined as an impact of 5% or more of the segment's capacity*

The study includes the following roadway segments and intersections in the vicinity of the site:

### *Roadways/Limits*

US 441 – CR 235A to SR 235

### *Intersections*

US 441 & CR 235A (Signalized)  
US 441 & NW 167<sup>th</sup> Boulevard (Signalized)  
US 441 & I-75 SB Ramps (Signalized)  
US 441 & I-75 NB Ramps (Signalized)  
US 441 & NW 147th Drive (Signalized)  
US 441 & Main Street (Signalized)  
US 441 & NW 140<sup>th</sup> Street (Signalized)  
US 441 & Site Access (Proposed Signal)

## 2.0 EXISTING ROADWAY ANALYSIS

### 2.1 Existing Traffic Volumes

Existing traffic volumes at the study intersections were collected by TMC for use in this analysis. Intersection turning movement counts were performed on Tuesday, March 8, 2016. A supplemental count was performed at the intersection of US 441 & NW 167<sup>th</sup> Boulevard on August 17, 2016. A review of the FDOT peak season factors indicates that the traffic counts were made during the peak season. Therefore, no seasonal adjustment was applied to the field volumes.

The PM peak hour intersection volumes are illustrated in **Figure 2**. For the most part, the peak hour was observed to occur at 5:00 pm to 6:00 pm, except for the intersection of I-75 northbound ramp and US 441 which peaked at 4:45 pm to 5:45 pm. For purposes of this analysis, the peak hour was considered to be 5:00 pm to 6:00 pm.

Segment traffic volumes were calculated from the existing intersection approach and departure volumes. The existing turning movement counts, seasonal factor data, and the Q/LOS service volume table are provided in **Appendix C**.

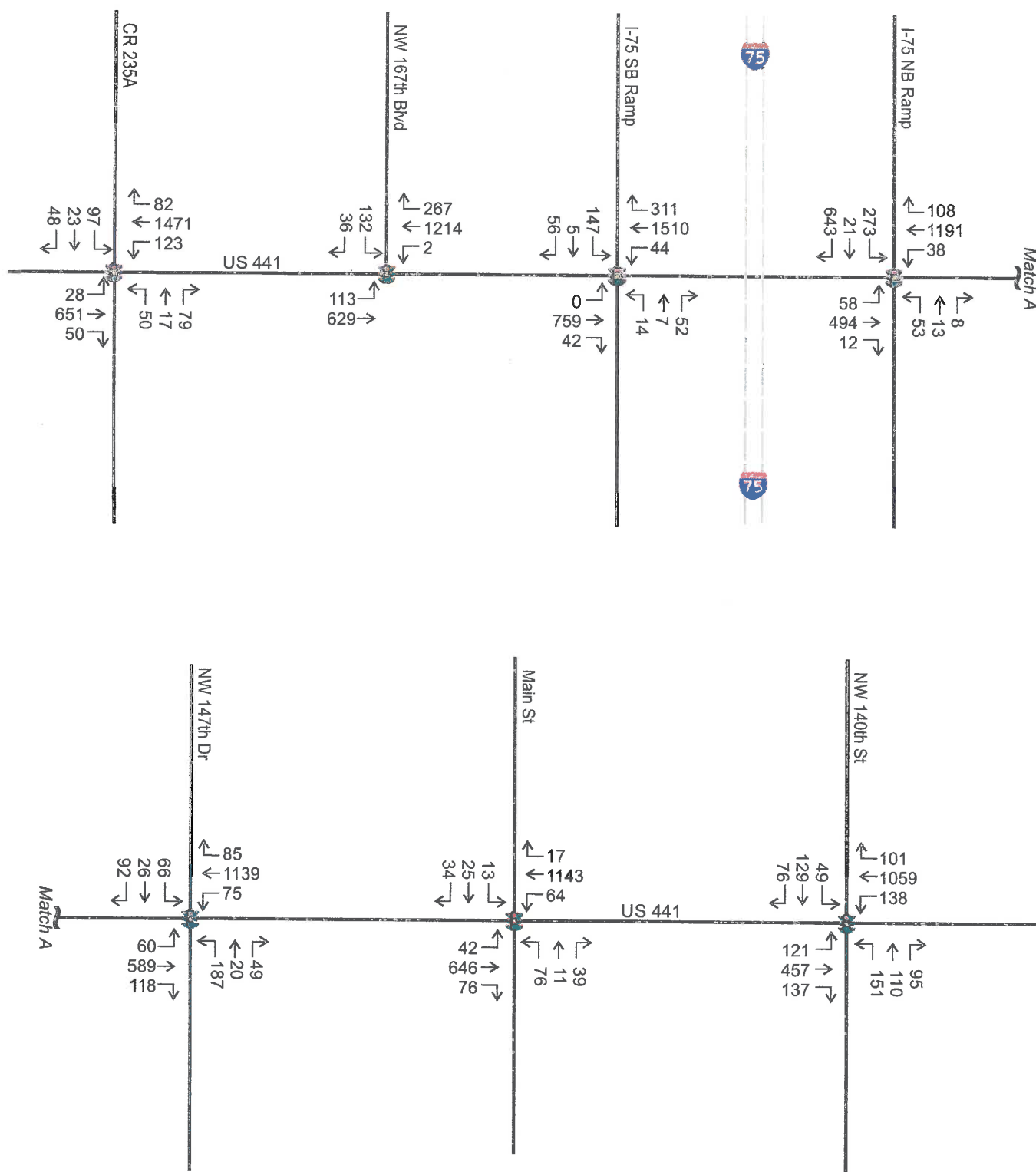
### 2.2 Roadway Segment Analysis

The existing roadway conditions analysis was performed for the PM peak hour from 5:00 pm to 6:00 pm. The roadway capacity volumes for the study roadway segments were obtained from FDOT's 2013 Generalized Service Volume Tables. The results of the existing PM peak hour roadway analysis are shown in **Table 2**, which indicates that all roadway segments analyzed are currently operating at an acceptable LOS.

**Table 2**  
**Existing Roadway Conditions**

Roadway	Segment	Lanes	Existing Volume	LOS Std	Adopted Capacity	Existing LOS
US 441	CR 235A to I-75	4	2,381	D	3,200	C
	I-75 to NW 147 <sup>th</sup> Dr	4	2,111	D	3,200	C
	NW 147 <sup>th</sup> Dr to SR 235	4	2,185	D	3,200	C

*Peak hour volumes obtained from existing intersection counts*



Existing PM Peak Hour Volume (5:00 pm to 6:00 pm, except I-75NB Ramp - 4:45 pm to 5:45 pm)



## Existing PM Peak Hour Intersection Volumes

Walmart #3873 - Alachua  
16-016

Figure

2

### 2.3 Intersection Analysis

The study intersections were analyzed in accordance with the procedures of the 2000 Highway Capacity Manual with the use of the Synchro Software (version 9.0). The analysis was conducted using existing PM peak hour volumes and intersection geometry. The results of this analysis, as summarized in **Table 3**, show that all study intersections currently operate at an acceptable LOS. The Synchro output sheets are included in **Appendix D**.

**Table 3**  
**Existing Intersection Conditions**

Intersection	Control	LOS STD	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 441 & CR 235A	Signal	D	15.5	B	21.0	C	45.8	D	45.6	D	22.0	C
US 441 & NW 167th Blvd	Signal	D	4.6	A	2.1	A	--	--	42.8	D	5.8	A
US 441 & I-75 SB Ramp	Signal	D	30.2	C	4.8	A	46.6	D	53.0	D	16.7	B
US 441 & I-75 NB Ramp	Signal	D	6.8	A	31.7	C	68.6	E	51.6	D	29.1	C
US 441 & NW 147th Dr	Signal	D	19.8	B	4.7	A	40.6	D	48.1	D	16.2	B
US 441 & Main St	Signal	D	1.4	A	2.7	A	38.5	D	38.2	D	5.2	A
US 441 & NW 140th St	Signal	D	9.2	A	32.4	C	42.0	D	49.9	D	29.0	C

*All average delay values are in seconds/vehicle*

### 3.0 PROJECT TRAFFIC

#### 3.1 Trip Generation

The proposed development is a 161,397 square foot Walmart Supercenter. The Institute of Transportation Engineers' *Trip Generation Manual, 9<sup>th</sup> Edition* was used to calculate the Daily and PM peak hour trip generation of the proposed development. Since the analysis was conducted for a single land use, it is not necessary or appropriate to calculate internal captured trips. The results of the Daily and PM peak hour trip generation for the project are presented in Table 4.

**Table 4**  
**Trip Generation Analysis**

Description	LU Code	Quantity	Daily		PM Peak Hour Trips			
			Rate	Trips	Rate	Enter	Exit	Total
Discount Superstore	813	161,397 SF	50.75	8,191	4.35	344	358	702
<i>Pass-by Trips for Superstore (28%)</i>				2,293		98	98	196
<b>Net New Trips</b>				<b>5,898</b>		<b>246</b>	<b>260</b>	<b>506</b>

*ITE Trip Generation, 9<sup>th</sup> Edition and ITE Trip Generation Manual, 3<sup>rd</sup> Edition*

The proposed Walmart Supercenter is projected to generate 5,898 new daily trips, of which 506 trips occur during the PM peak hour. The detailed trip generation information sheets are included in Appendix E.

#### 3.2 Trip Distribution/Assignment

The trip distribution pattern was developed using the Alachua County Transportation Demand Model and the Florida Standard Urban Transportation Model Structure (FSUTMS). The adopted model structure was modified to include a project specific Traffic Analysis Zone (TAZ). A Select Zone Analysis (SZA) was performed for the project specific TAZ to determine the distribution and assignment of project trips on the transportation network.

**Figure 3** illustrates the resulting trip distribution pattern and the model generated trip distribution plot is provided in Appendix F.





## 4.0 PROJECTED TRAFFIC CONDITIONS

The critical intersections and roadway segments were analyzed based on the existing roadway geometry to determine potential impacts and to investigate mitigation possibilities, if necessary. The total projected traffic volumes, which consist of future background traffic and project trips, were assigned to the roadway network.

### 4.1 Background Traffic Growth

In order to estimate background traffic in the build-out year 2018, historical growth rates were calculated based on a review of historical traffic volumes on US 441. Based on historical traffic volumes, a 3% annual growth rate was applied to all existing traffic volumes in order to obtain the projected 2018 background traffic. Additionally, vested trips provided by the City of Alachua were checked against the 3% annual growth rate. If the vested trips on the study segment were determined to be greater than the 3% annual growth rate, then the growth from vested trips was applied to ensure that the maximum potential growth is assumed in the analysis without double counting trips. The volumes projected using the growth rate were determined to be higher than vested trips, therefore, projected 2018 background traffic was based on a 3% annual growth rate. The growth trend analysis worksheets and the vested trips table are included in **Appendix G**.

### 4.2 Roadway Segment Analysis

Projected conditions on the roadway segments within the study area were determined by comparing the total projected volume to the segment's service volumes and adopted capacity. **Table 5** summarizes the analysis and the projected level of service per roadway segment. All study segments are projected to operate at an acceptable level of service at the build-out year 2018.

**Table 5**  
**Projected Roadway Conditions**

Roadway	Segment	Lns	Existing Volume	3% AGR	Vested Trips	2018 Volume*	LOS Std	Adopted Capacity	Trip Distrib	Project Trips	Total Traffic	2018 LOS
US 441	CR 235A to I-75	4	2,381	143	67	2,524	D	3,200	37%	187	2,711	C
	I-75 to Access	4	2,111	127	67	2,238	D	3,200	52%	263	2,501	C
	Access to NW 147th Dr	4	2,185	131	67	2,238	D	3,200	38%	192	2,430	C
	NW 147th Dr to SR 235	4	1,899	114	67	2,316	D	3,200	34%	172	2,488	C

\* 2018 Volume projected using maximum growth - 3% annual growth rate



### 4.3 Intersection Analysis

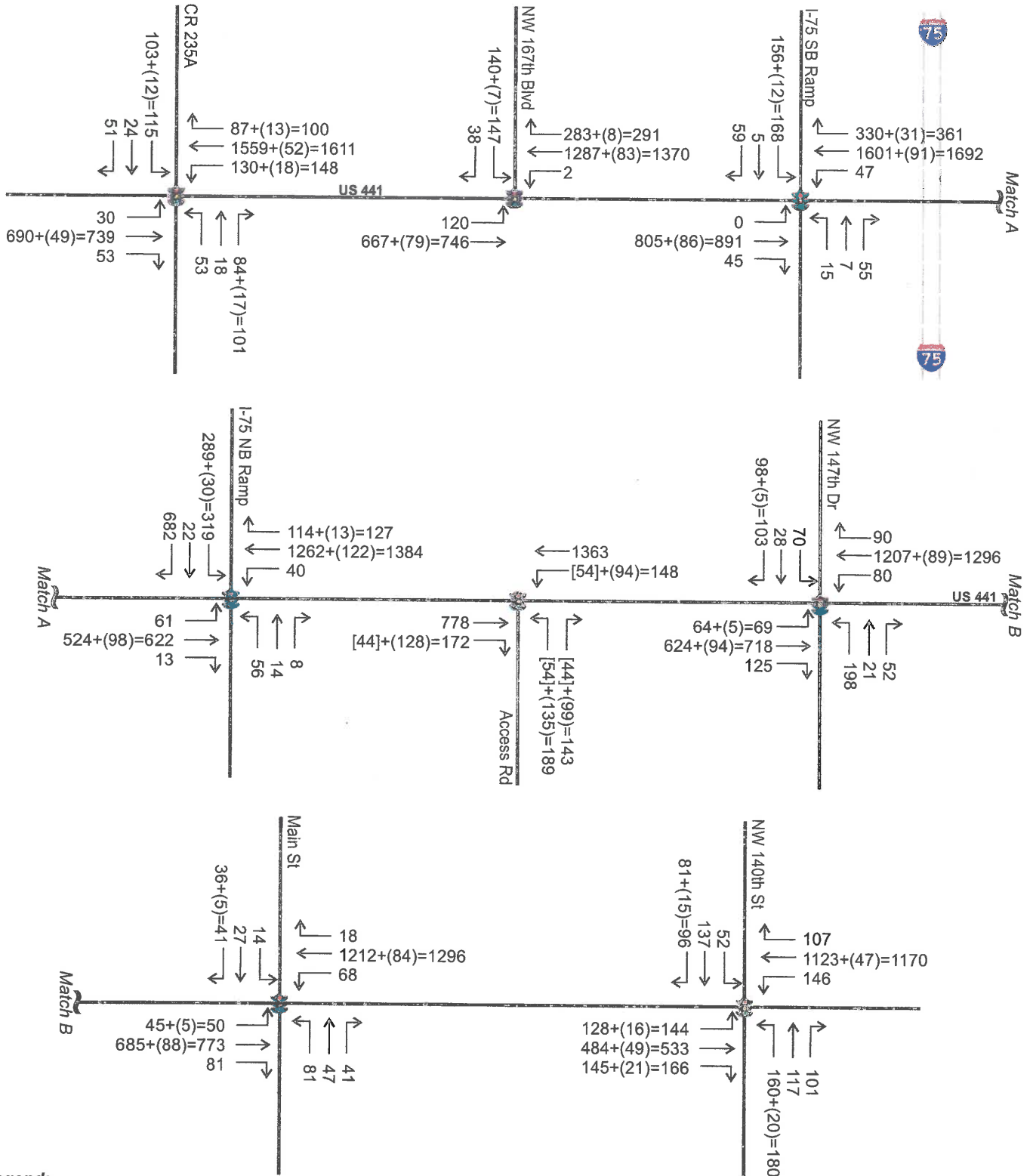
The study intersections, including the proposed signal at the site access on US 441, were analyzed to determine whether improvements would be required to accommodate the projected traffic volumes at project build-out. Future intersection turning movement volumes were determined by projecting the existing PM peak hour volume to the buildout year 2018 using the 3% annual growth rate. The projected turning movement volumes are illustrated in **Figure 4** and the detailed projected traffic volume calculations are included in **Appendix H**.

The operating conditions at the intersections were analyzed using the Synchro Software and the methods of the *Highway Capacity Manual (2010)*. **Table 6** summarizes the results of the projected intersection conditions at project buildout. The analysis reveals that all study intersections are projected to operate at adequate overall LOS in the year 2018. The detailed Synchro output sheets are provided in **Appendix I**.

**Table 6**  
**Projected Intersection Conditions**

Intersection	Control	LOS STD	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 441 & CR 235A	Signal	D	16.2	B	23.7	C	47.7	D	46.5	D	24.1	C
US 441 & NW 167th Blvd	Signal	D	4.5	A	16.0	B	--	--	43.4	D	14.2	B
US 441 & I-75 SB Ramp	Signal	D	12.1	B	8.3	A	46.7	D	56.1	E	13.5	B
US 441 & I-75 NB Ramp	Signal	D	6.7	A	14.4	B	70.5	E	60.4	E	20.1	C
US 441 & Access	Signal	D	24.3	C	4.8	A	36.9	D	--	--	14.3	B
US 441 & NW 147th Dr	Signal	D	3.8	A	21.3	C	41.2	D	49.1	D	19.5	B
US 441 & Main St	Signal	D	1.7	A	3.6	A	39.2	D	38.6	D	6.1	A
US 441 & NW 140th St	Signal	D	10.9	B	36.9	D	45.9	D	53.8	D	32.2	C

All average delay values are in seconds/vehicle



**Legend:**  
**Background + [Pass-by] + (Project) = Total**



## Projected PM Peak Hour Intersection Volumes

Walmart #3873 - Alachua  
 16-016

Figure

4

#### 4.4 Turn Lane Length Analysis

The site access intersection at US 441 was reviewed to determine the required left turn lane lengths. The recommended and proposed configuration for the intersection is dual westbound left-turn lanes and an eastbound right-turn lane on the US 441 approaches. On the access drive, the approach is recommended with dual northbound left-turn lanes and dual northbound right-turn lanes. Turn lane dimensions were calculated to accommodate queue storage and deceleration distance.

The recommended queue storage was based on the 95<sup>th</sup> percentile queue from the signal analysis. Deceleration length requirements were obtained from Index 301 of the FDOT Design Standards. The results of the calculations are summarized in **Table 7**.

**Table 7**  
**Recommended Turn Lane Dimensions**

Intersection	Movement	Peak Hour Volume	95th %ile Queue	Queue Length <sup>1</sup>	Design Speed	Decel Distance <sup>2</sup>	Total Lane Length <sup>3</sup>
US 441 & Site Access	EB Right	172	3.7 veh	90 ft	50 mph	240 ft	330 ft
	WB Left	148	3.6 veh	90 ft	50 mph	240 ft	330 ft
	NB Left	189	4.9 veh	120 ft	35 mph	145 ft	265 ft
	NB Right	143	1.6 veh	40 ft	35 mph	145 ft	185 ft

1. Queue lengths based on signal operations analysis

2. Deceleration length based on FDOT Design Standards, Index 301

3. Turn lane dimensions include taper lengths

It should be noted that all lane lengths listed above include standard 50-foot tapers for single lanes and 100-foot tapers for dual lanes. The lane lengths calculated above present minimum required lengths. All applicable FDOT design standards must be adhered to in the design of the project's deceleration lanes.

## 5.0 STUDY CONCLUSIONS

This traffic impact study was conducted to assess the traffic impacts for the proposed Walmart Supercenter in the City of Alachua, Florida. The results of the study documented herein are summarized below:

### Trip Generation

- The proposed 161,397 square foot Walmart Supercenter is projected to generate 5,898 new daily trips and 506 new PM peak hour trips.

### Roadways

- All roadway segments analyzed currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out (2018).

### Intersections

- All study intersections currently operate at acceptable levels of service during the peak hour and are expected to continue to do so at project build-out.

### Access

- The proposed site driveway on US 441 is projected to operate at an acceptable level of service with the proposed signal control.
- The recommended configuration for the intersection includes dual westbound left-turn lanes and an eastbound right-turn lane serving traffic entering the site. Traffic exiting onto US 441 is served by dual northbound left-turn lanes and dual northbound right-turn lanes.
- The site driveway on US 441 was reviewed to determine the recommended turn lane lengths for each approach. The following turn lane lengths are recommended:

<u>Turn Lane</u>	<u>Length</u>
EB Right	330 ft
WB Left	330 ft
NB Left	265 ft
NB Right	185 ft

***The proposed Walmart Superstore in the City of Alachua will not adversely impact the transportation network, which is adequate to support the development.***

## APPENDICES

**Appendix A**  
Responses to Comments



November 3, 2016

Ms. Ameerah Sayeed, Growth Management  
Mr. Tom Cavin, Traffic Operations  
FDOT – District 2  
2198 Edison Avenue  
Jacksonville, Florida 32204

Re: Traffic Impact Study Review for Walmart Store 3873-00, Alachua (US 441 East of I-75)  
TMC Project No 16-016, FDOT Section No. 26020  
City of Alachua, Florida

Dear Ms. Sayeed and Mr. Cavin,

Please find below the response to the comments from the FDOT review memorandum dated August 19, 2016, regarding the above-referenced Traffic Impact Analysis prepared by Traffic & Mobility Consultants (TMC) dated March, 2016. The FDOT comments are listed in **bold** typeface and the TMC responses follow in *normal* typeface.

#### **TRAFFIC OPERATIONS COMMENTS**

**Comment 48:** The figures should be labeled as Figure 1: not just 1.

TMC Response: *The figures in the revised report were labeled.*

**Comment 49:** Most of the study uses the pm volumes for impacts/improvements; however, many times throughout the study there is no reference to the volumes being pm volumes. Please describe them as such. And, label them as pm in the tables and figures.

TMC Response: *The revised report labels the peak hour trips as PM peak hour trips.*

**Comment 50:** Table 5 should reference project trips as Net New Trips.

TMC Response: *Table 5 has been updated to reflect "Net New Trips."*

**Comment 51:** Figure 4 needs to reference as to what the □ and () volumes are.

TMC Response: *Figure 4 has been revised to include a legend of trips.*

**Comment 52:** The trips shown in Table 4 along with the trip distribution %'s shown in Figure 3 do not seem to match the turning movements in Figure 4.

TMC Response: *The trips were checked and were found to match.*

**Comment 53:** WalMart is just a small portion of the total development. Will this intersection handle the future developments along this connection?

TMC Response: *This study considers only the proposed Walmart development. There are currently no known development plans for the other parcels, which are not owned by Walmart. When development is proposed for those parcels, the intersection should be revaluated with those plans.*

#### **GROWTH MANAGEMENT COMMENTS**

**Comment 54:** The land uses and trips calculated are only reported and analyzed for the Walmart. There are two other parcels that should be included in the analysis and total trips added into the analysis.

TMC Response: *This study considers only the proposed Walmart development. There are currently no known development plans for the other parcels, which are not owned by Walmart. When development is proposed for those parcels, the intersection should be revaluated with those plans.*

**Comment 55:** What year of the model was used?

TMC Response: The Alachua County Model adjusted for the year 2020 was used.

**Comment 56:** Walmart has build-out of 2018 but the out parcels and build out date is not accounted for in the TIA.

TMC Response: *This study considers the only the proposed Walmart development. There are currently no known development plans for the other parcels, which are not owned by Walmart. When development is proposed for those parcels, the intersection should be revaluated with those plans.*

**Comment 57:** Please provide the model and Synchro files.

TMC Response: *The files will be provided by ftp link.*

**Comment 58:** The pass by capture rates are not reasonable and are far too high, given the area, and the travel patterns and especially since the analysis only accounted for the



**Walmart and not the out parcels.**

*TMC Response: The pass-by rates were agreed with the City and are based on ITE information for similar stores. Pass-by trips are included in the analysis of the primary intersection's movements.*

**Comment 59:** The site plans shows a double left and a right and the analyses is based on this – we may need to revisit this once the out parcels and the Walmart trips are calculated and analyses re-calculated.

*TMC Response: Noted. The adjacent parcels, which are not owned by Walmart, will be required to perform a traffic analysis and address any additional capacity or operational needs at the intersection.*

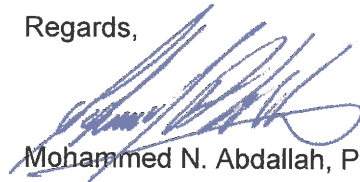
**Comment 60:** Two areas of concern at the interchange of I75 and US441. The numbers may change and as well as the analysis after the comments above are addressed. The two turns are the I 75 southbound left turn and the I75 NN ramp – SB left turn at the signal. I believe there maybe 1,250 approximately from the interchange to the proposed access point and proposed signalization.

*TMC Response: The I-75 ramp intersections were analyzed and they are projected to operate adequately at buildout.*

**END OF COMMENTS**

We trust these responses adequately address the review comments. A revised analysis has been provided under separate cover. We remain available to discuss this matter further or to answer any questions.

Regards,



Mohammed N. Abdallah, P.E.



November 3, 2016

Mr. Brian D. Kanely, P.E.  
Volkert, Inc.  
3501 South Main Street, Suite 2  
Gainesville, Florida 32601

Re: Traffic Impact Study Review for Walmart Store 3873-00, Alachua  
TMC Project № 16-016  
City of Alachua, Florida

Dear Mr. Kanely,

Please find below the response to the comments from the Volkert, Inc. review memorandum dated May 31, 2016, regarding the above-referenced Traffic Impact Analysis prepared by Traffic & Mobility Consultants (TMC) dated March, 2016. The Volkert, Inc. comments are listed in **bold** typeface and the TMC responses follow in *normal* typeface.

#### **SECTION 1.1 -STUDY AREA/SIGNIFICANCE TEST**

This section of the report describes the study area for the traffic impact analysis. The study area for the project is based on the City's Land Development Code and includes:

- **Primary roadway segments within 0.5 miles of the site.**
- **Any roadway segment where the percent of the project traffic exceeds 5% of the roadway segment's capacity based on the approved level of service standard (LOS D for US 441).**

The calculation of the number of trips assigned (distributed) to each roadway segment is based on the trip distribution plot, which is derived from the Alachua County Transportation Demand Model and the Florida Standard Urban Transportation Model Structure (FSUTMS). A review of the trip generation data and the trip distribution plot demonstrated that the project trips were correctly distributed and assigned to the roadway network. The three roadway segments that require analysis were correctly identified (significance test). Once the limits of the roadway segments for analysis were identified, any existing and proposed traffic signals in those roadway segments must also be analyzed.

The report identifies seven traffic signals that are within the project limits (significant roadway segments) that need to be reviewed/analyzed. However, the report did not include the new traffic signal at the Publix just west of I-75 (US 441 & NW 167th Blvd). This signal was operational on the day the intersection turning movement counts were obtained (March 8, 2016) and should have been included in the intersections to be analyzed.

The analysis of the roadway segments and intersections (traffic signals) is based on the PM peak hour volumes. The reference to the PM peak hour was omitted from this section of the report (this information is provided in Section 2.2) and should be included in this section for informational purposes.

**Report Deficiencies & Recommended Action:**

**1. Omitted traffic signal for analysis:**

- a. The existing traffic signal at US 441 & NW 157th Blvd (Publix) was omitted from the list of intersections to be analyzed.
- b. Add the intersection of US 441 & NW 157th Blvd to the list of intersections to be analyzed.

TMC Response: *The revised analysis includes the intersection of US 441 & NW 167<sup>th</sup> Blvd.*

**2. PM peak hour analysis period not stated:**

- a. This section does not state that the analysis period is the PM peak hour.
- b. Include in this section that the analysis period is the PM peak hour and state the time period (5:00 - 6:00 PM, for example).

TMC Response: *The revised analysis states that the PM peak hour on the network generally occurs between the hours of 5:00 pm to 6:00 pm.*

**SECTION 2.1 - EXISTING TRAFFIC VOLUMES**

This section of the report describes and documents the existing traffic volumes that are used in the traffic impact analysis and whether or not a seasonal adjustment factor needs to be applied to the traffic volumes. This information is correctly stated.

This section should also state that the analysis period is the PM peak hour and state what that hour is. The PM peak hour information should also be documented on Figure 2 which shows the existing intersection volumes. Also, the traffic signal at US 441 & NW 157th Blvd needs to be included in the analysis.

**Report Deficiencies & Recommended Action:**

**1. PM peak hour analysis period not stated**

- a. This section does not state that the analysis period is the PM peak hour.

- b. Include in this section that the analysis period is the PM peak hour and state the time period (5:00 - 6:00 PM, for example).**

TMC Response: *The revised analysis states that the PM peak hour on the network generally occurs between the hours of 5:00 pm to 6:00 pm.*

- 2. Include the peak hour information in Figure 2.**

TMC Response: *The revised analysis states on Figure 2 that the PM peak hour on the network generally occurs between the hours of 5:00 pm to 6:00 pm.*

- 3. Omitted traffic signal for analysis:**

- a. The existing traffic signal at US 441 & NW 157th Blvd (Publix) was omitted from the list of intersections to be analyzed.**
  - b. Add the intersection of US 441 & NW 157th Blvd to the list of intersections to be analyzed and add the traffic volume information for this intersection to Figure 2.**

TMC Response: *The revised analysis includes the intersection of US 441 & NW 167<sup>th</sup> Blvd.*

## **SECTION 2.2 - ROADWAY SEGMENT ANALYSIS**

This section of the report describes and documents whether or not the roadway segments meet the level of service (LOS) criteria for US 441. This information is correctly stated on Table 2. The actual time period for the PM peak hour should be stated.

### **Report Deficiencies & Recommended Action:**

- 1. PM peak hour analysis period:**
  - a. This section does not state the actual PM peak hour analysis period.**
  - b. Include in this section the actual PM peak hour time period (5:00 - 6:00 PM, for example).**

TMC Response: *The revised analysis states that the PM peak hour on the network generally occurs between the hours of 5:00 pm to 6:00 pm.*

## **SECTION 2.3 - INTERSECTION ANALYSIS**

This section of the report describes and documents whether or not the intersections (traffic signals) meet the LOS criteria for US 441. This information is correctly stated in Table 3. However, the traffic signal at US 441 & NW 167th Blvd (Publix) was not included in the analysis and needs to be added to Table 3.

**Table 3 shows the existing intersection conditions. For informational purposes, a column should be added to Table 3 that shows the level of service standard for the intersections is LOS D.**

**Report Deficiencies & Recommended Action:**

**1. Omitted traffic signal for analysis:**

- a. The existing traffic signal at US 441 & NW 167th Blvd (Publix) was omitted from the list of intersections to be analyzed.
- b. Add the intersection of US 441 & NW 157th Blvd to the list of intersections to be analyzed.

TMC Response: *The revised analysis includes the intersection of US 441 & NW 167<sup>th</sup> Blvd.*

**2. LOS standard not shown:**

- a. The intersection LOS standard is not shown on Table 3.
- b. Add the LOS standard (LOS D) to Table 3 for informational purposes.

TMC Response: The LOS Standard has been added to Table 3.

**SECTION 3.1 TRIP GENERATION**

This section of the report describes and documents the trip generation for the Project. The total and PM peak hour trips are correctly calculated per the ITE Trip Generation Manual, 9th Edition. The report correctly states that the pass-by trip percentage is 28%, per the Trip Generation Manual, and correctly calculates the trip reductions for the pass-by trips that are shown on Table 4 (Pass-by trips are trips that are already on the roadway and passing by the project, and enter/exit the project for convenience rather than make a separate trip to the project at another time.) The only issue with the pass-by trip percentage is whether or not the approving agency arbitrarily places a limit on the pass-by trip percentage. The City of Alachua staff advised they utilize the ITE pass-by trip percentage. After the reduction for pass-by trips, the project will generate a total of 5,898 new net daily trips (506 new PM peak hour trips).

TMC Response: *Noted.*

**SECTION 3.2 - TRIP DISTRIBUTION/ ASSIGNMENT**

This section of the report describes and documents the Project trip distribution and assignment. This information is derived from the Alachua County Transportation Demand Model (long range transportation planning model) and the FSUTMS. The trip distribution is correctly obtained from the trip distribution plot and shown on Figure 3.

The trip distribution shows that 52% of the trips have an origin/destination (O/D) from west of the new site access road (toward High Springs and I-75) and 48% of the trips have an

O/D from east of the new site access road (toward Alachua). Also, of the 52% of the trips that have an O/D west of the Project, one-third (33%) of those trips have an O/D on/off I-75.

TMC Response: *Noted.*

#### **SECTION 4.1 - BACKGROUND TRAFFIC GROWTH**

This section of the report describes and documents the background traffic growth on US 441. Background traffic growth is the increase in traffic volumes that occur on a roadway due to population increases and travel patterns in the area that are not related to the Project. The report uses FOOT traffic counts on US 441 to determine the annual increase in background traffic. A growth rate of 3% was calculated and correctly applied to the future traffic projections.

TMC Response: *Noted.*

#### **SECTION 4.2 - ROADWAY SEGMENT ANALYSIS**

This section of the report describes and documents the future traffic volumes for the buildout year and calculates the LOS for the roadway segments. The 2018 traffic volumes on the roadway segments (US441) for the buildout year have been correctly calculated (existing traffic volume plus background traffic growth). The total traffic (2018 traffic plus project trips) have been correctly calculated and the 2018 LOS has been correctly determined for 2018.

TMC Response: *Noted.*

#### **OTHER ISSUES/COMMENTS ON THE ROADWAY SEGMENT ANALYSIS**

The methodology in the report that is used to calculate the future traffic at project buildout (future traffic on US 441 plus project traffic) does not address the following issues:

1. **Reserved Trips:** The City of Alachua maintains a list of reserved trips on the roadway network. A reserved trip is a trip from a future project that has not yet been built but the trips for that project are already assigned to the roadway network. If the project has not been built by its stated buildout year, the project trips are then removed from the roadway network. The City periodically updates the approved reserved trips on the roadway network in the City. The Report does not include any reserved trips on the impacted roadway segments (US 441). The approved reserved trips should be added to the roadway segments listed in Table 1(Significance Test) to determine the following:
  - a. If any additional roadway segments meet the 5% test.
  - b. Update the LOS for the three roadway segments in Table 1.
  - c. Update the LOS for the eight signalized intersections being reviewed.

*TMC Response: As agreed in the follow up discussions, the reserved trips were considered and compared to the growth rate applied. In order not to double count and overestimate growth, the higher of either the 3% annual growth rate or the reserved trips was applied in the revised analysis.*

2. **Internal Capture Trips:** The Report has no discussion of internal capture trips. When a large site has multiple land uses within its boundary (shopping, eating establishments, motor vehicle services, etc.), customers do not have to leave the site boundaries to conduct business at multiple sites; they drive from one establishment to another without using the external public road system. These internal trips are called internal capture trips. The number of internal capture trips may or may not impact the total number of project trips at the build out year. The Report should have a short discussion on whether or not internal capture trips were required to be calculated for the Walmart site and the adjacent parcels to the Walmart site.

*TMC Response: While ultimately it is anticipated that some internalization of traffic will occur with additional development of the site, this analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. Therefore, it is not appropriate to address internally captured trips at this juncture.*

3. **Traffic from Adjacent Land Uses:** On the project site plan there are parcels adjacent to the Walmart site that are called "Proposed Seller Retained Property". These parcels are locations for future businesses {retail/professional business offices/etc.) that will generate future trips that will primarily impact US 441 and the signalized intersection at US 441 & the new site access road. Per the City, the seller retained parcels adjacent to the Walmart site will be required to produce their own traffic impact statement as they are developed. The issue with a parcel by parcel approach is the geometry of the site access road approaches and the left/right turn lane approaches on US 441 at the new traffic signal are being determined based on only the traffic from the proposed Walmart, not all the traffic from the Walmart and adjacent future development. Once the new site access road, the roadway modifications on US 441 and the new traffic signal is constructed, it would be very difficult to make future roadway and traffic signal modifications at this location due to physical and/or right of way constraints. Although the traffic from the adjacent land uses is not technically an issue for the Walmart project, it is discussed in this independent review because requiring the future adjacent developments to make roadway and/or traffic signal modifications to the site access road and/or the new traffic signal at US 441 may not be practical. Therefore, the design of the site access road and the associated traffic signalization should be designed to provide as much future capacity as possible, even though the design may initially exceed the design requirements for just the Walmart project. The design of the traffic signal and roadway modifications on US 441 should be closely coordinated with the Florida Department of Transportation (FDOT).

*TMC Response: This analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. The design of the signal is being coordinated with FDOT.*

#### **Report Deficiencies & Recommended Action:**

**1. Reserved trips not included in the Report:**

- a. The City approved reserved trips were not included in the Report.
- b. Include the reserved trips in the calculation of future (2018) traffic.

*TMC Response: As agreed in the follow up discussions, the reserved trips were considered and compared to the growth rate applied. In order not to double count and overestimate growth, the higher of either the 3% annual growth rate or the reserved trips was applied in the revised analysis.*

**2. Internal capture trips not included in the Report:**

- a. Internal capture trips were not discussed in the Report.
- b. Add a short discussion stating internal capture trips were not required to be a component of the Report.

*TMC Response: A statement has been added to the revised report explaining that internal capture trips are not a component of this analysis.*

**3. Traffic from adjacent land uses:**

- a. There is no discussion in the Report about the traffic impact from the adjacent land uses.
- b. Add a discussion in the report about the traffic impact from the development of the adjacent land uses and the need to maximize the turn lane approaches at the new traffic signal at US 441 & the site access road.

*TMC Response: This analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. The design of the signal is being coordinated with FDOT.*

#### **SECTION 4.3 - INTERSECTION ANALYSIS**

This section of the report describes and documents the future traffic volumes for the buildout year and calculates the LOS for the intersections (traffic signals). The methodology utilized to calculate the future intersection LOS was correctly applied. The traffic signal at the new Publix (US 441 & NW 167th Blvd) and a column stating the intersection LOS standard should be added to Table 6. The approved reserved trips need to be added to the intersection analysis.



**Report Deficiencies & Recommended Action:**

**1. Omitted traffic signal for analysis:**

- a. The existing traffic signal at US 441 & NW 157th Blvd (Publix) was omitted from the list of intersections to be analyzed.
- b. Add the intersection of US 441 & NW 157th Blvd to the list of intersections to be analyzed and to Figure 4.

TMC Response: *The revised analysis includes the intersection of US 441 & NW 167<sup>th</sup> Blvd.*

**2. LOS standard not shown:**

- a. The intersection LOS standard is not shown on' Table 6.
- b. Add the LOS standard (LOS D) to Table 6 for informational purposes.

TMC Response: The LOS Standard has been added to Table 6.

**3. Reserved trips omitted from the intersection analysis:**

- a. The reserved trips were omitted from the intersection analysis.
- b. Add the approved reserved trips to the intersection analysis for the 2018 buildout year traffic.

TMC Response: *As agreed in the follow up discussions, the reserved trips were considered and compared to the growth rate applied. In order not to double count and overestimate growth, the higher of either the 3% annual growth rate or the reserved trips was applied in the revised analysis.*

**SECTION 4.4 - TURN LANE LENGTH ANALYSIS**

This section of the Report describes and documents the calculation of the turn lanes for the new traffic signal at US 441 & the site access road. The methodology utilized to calculate the turn lane lengths was correctly applied.

The issue with the turn lane lengths is the future traffic volumes at project build out are calculated for only the Walmart development (see discussion in Section 4.2). A discussion on the appropriate lengths for the turn lanes at this location needs to occur with the City and the FDOT that will anticipate future traffic from the parcels adjacent to the Walmart project that will be developed in future years.

TMC Response: *This analysis is only for the development of the Walmart Site. There is no information about anticipated development on the adjacent parcels. Those developments may be required to evaluate and modify the turn lanes in the future. The design of the signal is being coordinated with FDOT.*

## **SECTION 5.0 - STUDY CONCLUSIONS AND EXECUTIVE SUMMARY**

The Study Conclusions and the Executive Summary need to be modified to reflect the recommended changes discussed in this independent review.

TMC Response: *The Conclusions and Executive Summary have been updated to reflect the updated analysis.*

## **OTHER COMMENTS**

### **METHODOLOGY LETTER**

The City of Alachua did not require a methodology letter for the traffic impact analysis for the Walmart project. Although not required, a methodology letter is beneficial for large development projects because it address up front the components the traffic impact analysis must address. This includes trip generation, reserved trips, internal capture trips, acceptable software for data computations, other agencies involved in the project, etc. By knowing the study requirements and components before the study is started, it makes the job easier for all involved parties. The

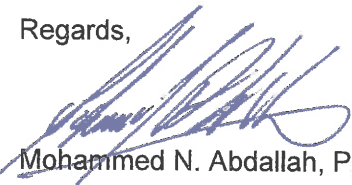
City should be encouraged to address the methodology letter issue for large development projects like the Walmart project.

TMC Response: *Noted.*

## **END OF COMMENTS**

We trust these responses adequately address the review comments. A revised analysis has been provided under separate cover. We remain available to discuss this matter further or to answer any questions.

Regards,



Mohammed N. Abdallah, P.E.

Cc: Mr. Justin Tabor, AICP, City of Alachua

**Appendix B**  
Proposed Site Plan



## OVERALL SITE PLAN

1300 Street N., Suite 220 Anacostia, D.C. 22206 Tel: 202-775-2200 Fax: 202-775-2201 E-mail: <a href="mailto:info@americanlaborer.org">info@americanlaborer.org</a> Web: <a href="http://www.americanlaborer.org">www.americanlaborer.org</a>	Filter Prepared By: <input type="text"/> Job No.: W13392.1 Date: 2/17/15 Scale: <input type="text"/> Approved by: B.P.C. Checked by: H.L.W. Drawn by: P.W.R. Designed by: B.P.C.	No. <input type="text"/> Date <input type="text"/> Revision <input type="text"/> By <input type="text"/>
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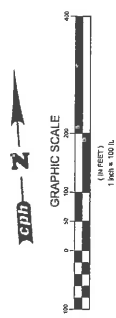
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## SITE DATA

TAX PARCEL ID #102	PROJECT USE: PROJECT DESCRIPTION	2009-02 INFORMATION
03080-01-000 (WALMART PARCELS) 03080-000-000 (FIRST STREET GROUP) 03080-000-000 (FIRST STREET GROUP) 03080-01-000 (PARKWAY ACREMENT)	WALMART RETAIL STORE CONSTRUCTION OF WALMART RETAIL STORE MECHANISED DRIVE THROUGH PHARMACY WATER TREATMENT PLANT INFRASTRUCTURE CONSTRUCTION OF PDS INFRASTRUCTURE.	

[illegible]

LAND COVERAGE SUMMARY		SITE AREA	
WAL-MART TRACT:	1.3159A-L4	8.2 A	(20.19 AC)
PARENT ROSECRANS:	#6.00B	8.2 A	(1.07 AC)
POSS ACROSS ROAD PROP:	#7.217B	5.2 A	(0.89 AC)
SUB TOTAL:	1.839A-02.07B	8.2 A	(17.54 AC)
48-FSITE PROPOSED ROW	13.000A5	8.2 A	(1.26 AC)
TOTAL:	1.852A.031A	8.2 A	(17.81 AC)

BUILDING REFERENCE:		PROPOSED:		PROPOSED WALK-ABOUT SUPERCENTER BUILDING AREA	
ACRES/BLK	29	FACET	107.38	WALK-ABOUT SUPERCENTER	158.822
4000 GROSS SQ	0	GARS (EAM) K	200.00	WALK-ABOUT CENTER	15.350
BLDG (NETS) T	0	SIDE (WGETY)	11.01	WALK-ABOUT BUILDING	6.12
PLAGE	19	PLAGE	221.37	WALK BUILDING HEIGHT	36'-0"

**CITY OF ALBUQUERQUE PLANNING REQUIREMENTS**

1 SPACE PER 100 S.F. OF TOTAL GROSS FLOOR AREA	
<b>WAL-MART:</b> 150 SPACES / 2,300 S.F. = 500 SPACES REQUIRED	
<b>CITY OF ALBUQUERQUE PLANNING ALLOWED (FISH LOU):</b> 25% INCREASE: 520 SPACES REQUIRED	
<b>WAL-MART:</b> 520 SPACES REQUIRED / 1.38 = 449 SPACES MAX	
<b>OFF STREET PARKING LOCATION (NO MORE THAN 100' LOCATED BETWEEN BUILDING AND TRAILER FROM MAIN)</b>	
<b>REQUIRED PARKING = 500 SPACES</b>	
<b>50% REQUIRED PARKING = 250 SPACES</b>	
<b>PROPOSED FRONT PARKING = 170 SPACES</b>	
<b>PROPOSED PARKING PROVIDED:</b>	
<b>WAL-MART:</b> 420 SP. (32 SP. FOR CARTS EXCLUDED)	

WALMAST PARKING RATIO = 3.51 SPACES PER 1,000 S.F.  
(OF 3,140 CARPORTS = 3,140,000)  
TOTAL PARKING SPACES REQUIRED = 11,741 SPACES  
BASED ON GROSS FLOOR AREA OF 156,502 S.F.

CITY OF ALACHUA JOB NUMBER:  
REQUIRED:  
30 TO 1,000 SPACES PROVIDED = 2% OF TOTAL  
PROVIDED:  
60 SPACES X 2% = 1.2 SPACES REQUIRED  
WALMAST REQUIREMENTS: 11,741 SPACES OF REGULAR PARKING PROVIDED  
FOR MESSAGE LESS THAN 40 YEARS.  
MESSAGE AGE 20+ YEARS

**PROVIDED: 21 SPACES**

**BIKE PARKING REQUIRED:**  
1. BUILDINGS GREATER THAN 10,000 SF  
2. AVAILABLE RETURN & SERVICE

**PROVIDED: 119 SF, ON-STREET**

**SPECIAL EXCEPTIONS REQUESTED:**  
1. BUILDINGS GREATER THAN 10,000 SF  
2. AVAILABLE RETURN & SERVICE

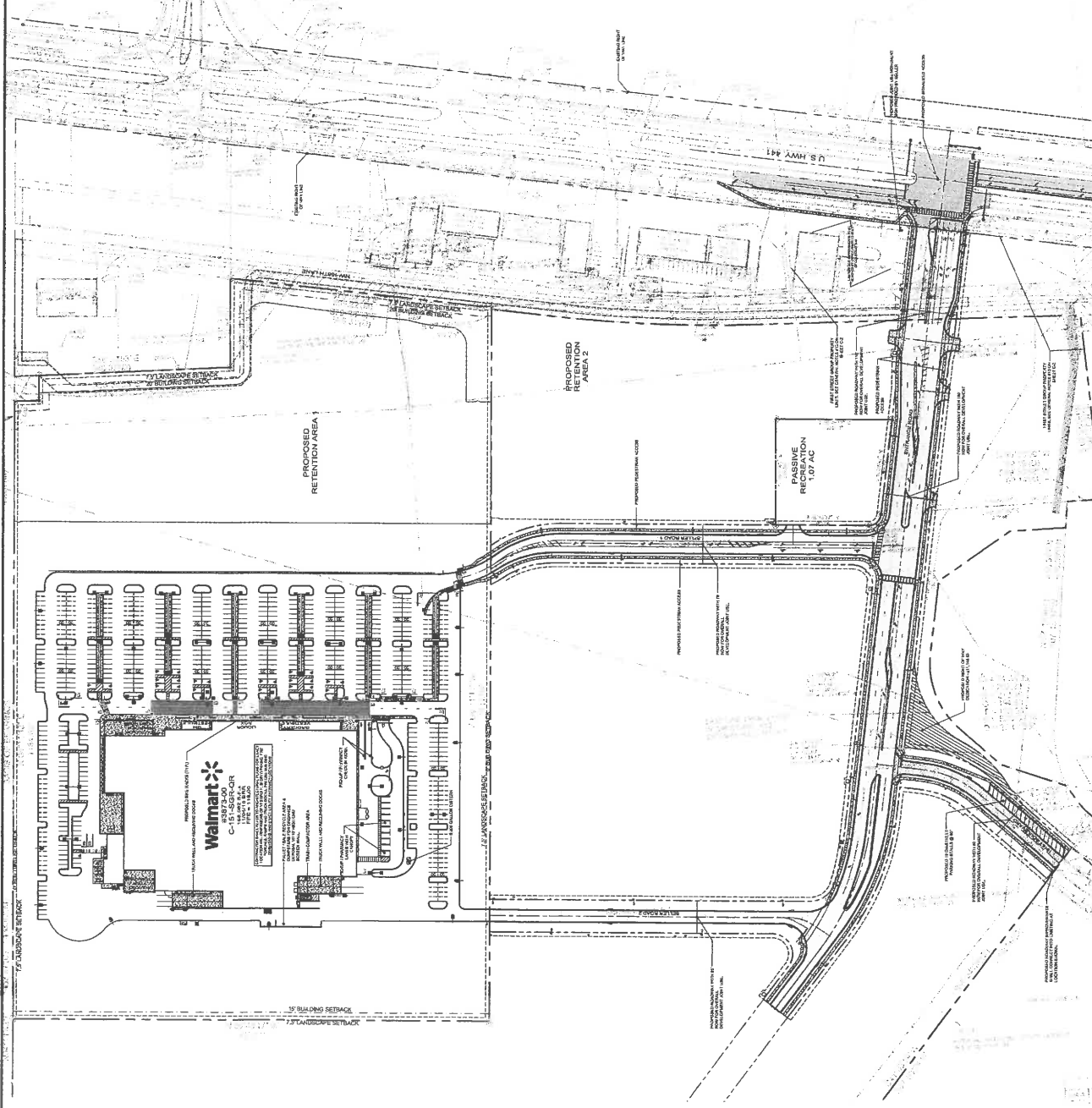
**LEGEND**

**PAVEMENT LEGEND**

	*HEAVY DUTY CONCRETE (HEAVY-DUTY CURB/TSI C&V)		*HEAVY DUTY ASPHALT OR HEAVY DUTY CONCRETE (HEAVY-DUTY CURB/TSI C&V)		*LIGHT DUTY ASPHALT OR LIGHT DUTY CONCRETE (C&V)
	*MEDIUM DUTY CONCRETE (MEDIUM-DUTY CURB/TSI C&V)		*MEDIUM DUTY ASPHALT OR MEDIUM DUTY CONCRETE (MEDIUM-DUTY CURB/TSI C&V)		*LIGHT DUTY ASPHALT OR LIGHT DUTY CONCRETE (C&V)
	*HEAVY DUTY ASPHALT OR HEAVY DUTY CONCRETE (HEAVY-DUTY CURB/TSI C&V)		*HEAVY DUTY ASPHALT OR HEAVY DUTY CONCRETE (HEAVY-DUTY CURB/TSI C&V)		*LIGHT DUTY ASPHALT OR LIGHT DUTY CONCRETE (C&V)

CONCRETE: PG 4.5 MIN. 8" (PG 4.5 MIN.)  
ASPHALT: PG 4.5 MIN. 8" (PG 4.5 MIN.)

100



**Appendix C**  
Existing Intersection Counts, Seasonal Factors, and Service Volumes

# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: CR 235A & US 441

COUNTY: Alachua Co

## CR 235A

## CR 235A

## US 441

## US 441

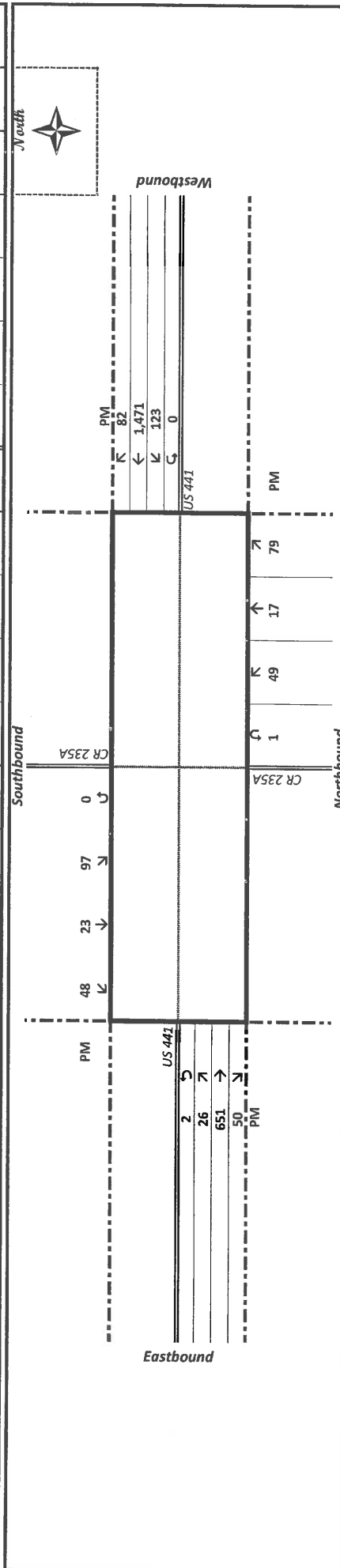
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
04:00 PM	12	3	3	0	18	9	2	8	0	19	37	2	186	6	0	194	17	300	20	0	337	531	568
04:15 PM	11	4	1	0	16	14	4	12	0	30	46	13	104	10	1	128	22	324	31	1	378	504	550
04:30 PM	10	4	6	0	20	15	3	4	0	22	42	6	175	8	1	190	17	302	21	0	340	529	571
04:45 PM	13	5	9	0	27	18	4	4	0	26	53	9	144	9	0	162	21	297	28	0	346	508	561
<b>TOTAL</b>	46	16	19	0	81	56	13	28	0	97	178	30	609	33	2	674	77	1,223	100	1	1,401	2,072	2,250
05:00 PM	12	2	21	0	35	23	6	10	0	39	74	9	167	17	0	193	25	340	18	0	383	576	650
05:15 PM	10	5	18	0	33	20	7	10	0	37	70	7	161	5	1	174	23	421	25	0	469	642	712
05:30 PM	16	7	22	1	45	25	7	14	0	46	92	6	147	13	1	167	40	401	18	0	459	625	717
05:45 PM	11	3	18	0	32	29	3	14	0	46	78	4	176	15	0	195	35	309	21	0	365	560	638
<b>TOTAL</b>	49	17	79	1	145	97	23	48	0	168	314	26	651	50	2	729	123	1,471	82	0	1,676	2,403	2,717

### PM Peak

05:00 PM to 06:00 PM

Peak Hour Factor: 0.947

49	17	79	1	145	97	23	48	0	168	314	26	651	50	2	729	123	1,471	82	0	1,676	2,403	2,717
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# 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: CR 235A & US 441

COUNTY: Alachua Co

## CR 235A

## CR 235A

## US 441

## US 441

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S		EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL		
	L		T		R	U-turn		TOTAL	L		T		R	U-turn		TOTAL	L		T		R	U-turn			TOTAL	
	L	T	L	T		L	T		L	T	L	T		L	T		L	T	L	T						
04:00 PM	2	2	1	0	0	5	0	0	0	0	5	1	0	0	0	1	5	4	1	0	0	10	11	16		
04:15 PM	1	0	2	0	0	3	0	0	0	0	3	1	4	0	0	5	8	3	1	0	0	12	17	20		
04:30 PM	0	1	2	0	0	3	0	0	0	0	3	3	2	0	0	5	2	5	2	0	0	9	14	17		
04:45 PM	1	0	3	0	0	4	0	0	0	0	4	0	1	0	0	1	6	2	1	0	0	9	10	14		
TOTAL	4	3	8	0	0	15	0	0	0	0	15	5	7	0	0	12	21	14	5	0	0	40	52	67		
05:00 PM	0	0	4	0	0	4	0	0	0	0	4	0	4	0	0	4	5	3	0	0	0	8	12	16		
05:15 PM	0	1	2	0	0	3	0	0	1	0	4	0	0	0	0	0	7	1	3	0	0	11	11	15		
05:30 PM	1	0	1	0	0	2	0	0	1	0	3	3	3	0	0	6	12	1	0	0	0	13	19	22		
05:45 PM	1	0	3	0	0	4	0	0	0	0	4	1	2	0	0	3	6	4	2	0	0	12	15	19		
TOTAL	2	1	10	0	0	13	0	0	2	0	2	4	9	0	0	13	30	9	5	0	0	44	57	72		

### PM Peak

05:00 PM to 06:00 PM	2	1	10	0	13	0	0	2	0	2	15	4	9	0	0	30	9	5	0	44	57	72
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# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: August 17, 2016 (Wednesday)

CITY: Alachua

LATITUDE: 0

LOCATION: NW 167th Bv & US 441

COUNTY: Alachua County

LONGITUDE: 0

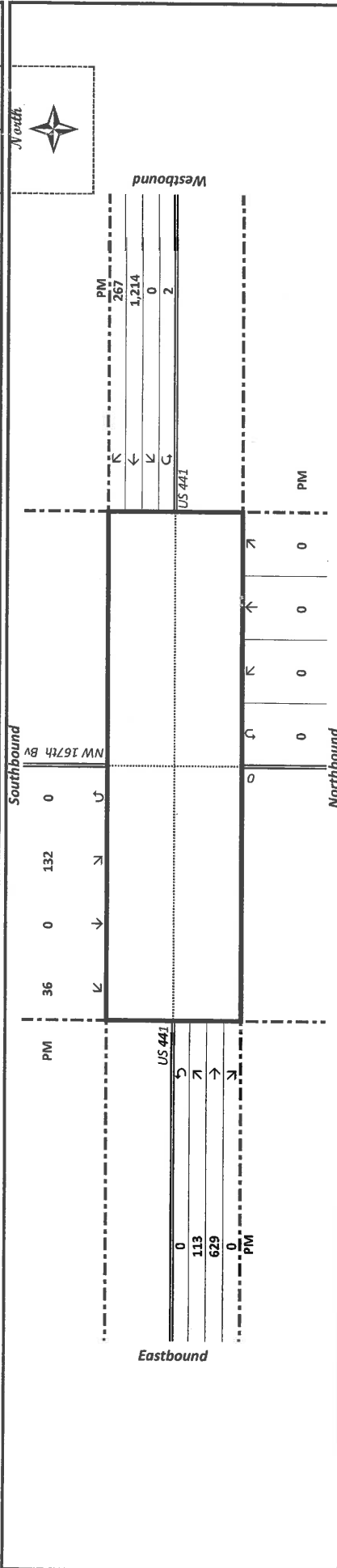
NW 167th Bv

US 441

US 441

TIME BEGIN	NORTHBOUND			SOUTHBOUND			N/S		EASTBOUND			WESTBOUND			E/W	
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	GRAND TOTAL
04:15 PM	0	0	0	0	0	35	0	8	0	43	22	192	0	0	214	560
04:30 PM	0	0	0	0	0	28	0	9	0	37	31	174	0	0	205	561
04:45 PM	0	0	0	0	0	14	0	4	0	18	20	150	0	0	170	518
TOTAL	0	0	0	0	0	77	0	21	0	98	73	516	0	0	589	1,639
05:00 PM	0	0	0	0	0	32	0	6	0	38	31	184	0	0	215	607
05:15 PM	0	0	0	0	0	34	0	13	0	47	33	178	0	0	211	667
05:30 PM	0	0	0	0	0	37	0	7	0	44	25	107	0	0	132	537
05:45 PM	0	0	0	0	0	29	0	10	0	39	24	160	0	0	184	582
TOTAL	0	0	0	0	0	132	0	36	0	168	113	629	0	0	742	2,393

PM Peak																Peak Hour Factor: 0.897
05:00 PM to 05:00 PM	0	0	0	0	0	132	0	36	0	168	113	629	0	0	742	2,393





## 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: August 17, 2016 (Wednesday)

CITY: Alachua

LATITUDE: 0

LOCATION: NW 167th Bv &amp; US 441

COUNTY: Alachua County

LONGITUDE: 0

0

NW 167th Bv

US 441

US 441

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL	
	L		T	R	U-turn	TOTAL	L		T	R		U-turn	TOTAL	L		T	R	U-turn	TOTAL					
04:15 PM	0	0	0	0	0	1	1	0	0	0	0	1	2	4	0	0	0	0	12	0	0	12	18	19
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	0	12	0	0	12	19	19
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	7	0	0	0	0	7	0	0	7	17	17
TOTAL	0	0	0	0	0	1	1	0	0	0	0	1	8	15	0	0	0	0	31	0	0	31	54	55
05:00 PM	0	0	0	0	0	4	4	0	1	0	0	4	0	3	0	0	0	0	14	0	0	14	17	21
05:15 PM	0	0	0	0	0	2	2	0	0	0	0	6	0	6	0	0	0	0	10	0	0	10	16	18
05:30 PM	0	0	0	0	0	1	1	1	0	0	0	3	0	3	0	0	2	0	7	2	0	9	12	13
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	15	0	0	15	27	27	
TOTAL	0	0	0	0	0	7	7	0	1	0	0	24	0	24	0	0	2	46	2	0	48	72	79	

P/M Peak																					
05:00 PM to	0	0	0	0	0	6	0	1	0	7	7	0	0	24	0	46	2	0	48	72	79
06:00 PM)																					

# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LATITUDE:

LOCATION: I 75 SB & US 441

COUNTY: Alachua Co

LONGITUDE:

I 75 SB

I 75 SB

US 441

US 441

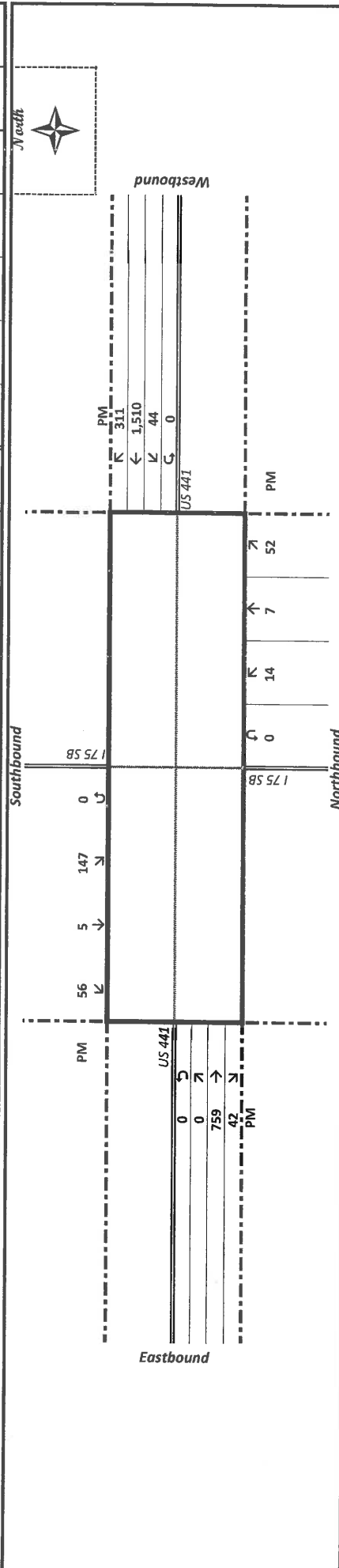
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
04:00 PM	2	0	12	0	14	30	3	9	0	42	56	0	201	30	0	231	5	239	57	1	302	532	588
04:15 PM	4	0	18	0	22	39	5	4	0	48	70	0	154	12	0	166	7	234	56	0	297	463	533
04:30 PM	2	0	16	0	18	27	1	14	0	42	60	0	126	15	0	141	17	347	41	1	406	546	606
04:45 PM	4	0	10	0	14	45	2	5	0	52	66	0	145	16	0	161	6	322	50	0	378	539	605
<b>TOTAL</b>	<b>12</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>68</b>	<b>141</b>	<b>11</b>	<b>32</b>	<b>0</b>	<b>184</b>	<b>252</b>	<b>0</b>	<b>626</b>	<b>73</b>	<b>0</b>	<b>699</b>	<b>35</b>	<b>1,142</b>	<b>204</b>	<b>2</b>	<b>1,383</b>	<b>2,080</b>	<b>2,332</b>
05:00 PM	3	0	9	0	12	36	2	13	0	51	63	0	193	8	0	201	8	369	62	0	439	640	703
05:15 PM	1	7	13	0	21	38	2	8	0	48	69	0	166	10	0	176	7	328	124	0	459	635	704
05:30 PM	5	0	9	0	14	47	0	17	0	64	78	0	204	15	0	219	16	453	67	0	536	755	833
05:45 PM	5	0	21	0	26	26	1	18	0	45	71	0	196	9	0	205	13	360	58	0	431	636	707
<b>TOTAL</b>	<b>14</b>	<b>7</b>	<b>52</b>	<b>0</b>	<b>73</b>	<b>147</b>	<b>5</b>	<b>56</b>	<b>0</b>	<b>208</b>	<b>281</b>	<b>0</b>	<b>759</b>	<b>42</b>	<b>0</b>	<b>801</b>	<b>44</b>	<b>1,510</b>	<b>311</b>	<b>0</b>	<b>1,865</b>	<b>2,666</b>	<b>2,947</b>

PM Peak

05:00 PM to 06:00 PM

Peak Hour Factor: 0.884

14	7	52	0	73	147	5	56	0	208	281	0	759	42	0	801	44	1,510	311	0	1,865	2,666	2,947
----	---	----	---	----	-----	---	----	---	-----	-----	---	-----	----	---	-----	----	-------	-----	---	-------	-------	-------



# 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LATITUDE:

LOCATION: I 75 SB & US 441

COUNTY: Alachua Co

LONGITUDE:

I 75 SB										US 441										US 441									
TIME BEGIN	NORTHBOUND					TOTAL	SOUTHBOUND					N/S		EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL				
	L	T	R	U-turn			L	T	R	U-turn	TOTAL	L	TOTAL	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL						
04:00 PM	0	0	0	0	0	0	0	2	0	2	2	0	12	12	0	24	0	8	2	0	10	34	36						
04:15 PM	0	0	0	0	0	4	0	3	0	7	7	0	6	4	0	10	0	14	0	0	14	24	31						
04:30 PM	0	0	0	0	0	3	0	8	0	11	11	0	5	0	0	5	0	7	0	0	7	12	23						
04:45 PM	0	0	0	0	0	0	0	5	0	5	5	0	6	0	0	6	0	10	1	0	11	17	22						
TOTAL	0	0	0	0	0	7	0	18	0	25	25	0	29	16	0	45	0	39	3	0	42	87	112						
05:00 PM	0	0	0	0	0	0	0	4	0	4	4	1	3	0	0	4	0	10	1	0	11	15	19						
05:15 PM	0	0	0	0	0	2	0	3	0	5	5	0	6	0	0	6	0	8	1	0	9	15	20						
05:30 PM	0	0	0	0	0	3	0	3	0	6	6	0	9	0	0	9	0	4	1	0	5	14	20						
05:45 PM	0	0	0	0	0	1	0	8	0	9	9	0	10	0	0	10	0	2	0	0	2	12	21						
TOTAL	1	0	0	0	0	6	0	18	0	24	24	1	28	0	0	29	0	24	3	0	27	56	80						
PM Peak																													
05:00 PM to 06:00 PM																													
0	0	0	0	0	0	6	0	18	0	24	24	1	28	0	0	29	0	24	3	0	27	56	80						

**(BANK 2 Only)**

**LONGITUDE:**

US 441

TIME BEGIN	NORTHBOUND				SOUTHBOUND				N/S TOTAL	EASTBOUND				WESTBOUND				E/W TOTAL	GRAND TOTAL
	L		R		L		R			L		R		L		R			
	T	U-turn	T	U-turn	T	U-turn	T	U-turn		T	U-turn	T	U-turn	T	U-turn	T	U-turn		
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	43	43	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	49	49	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0	40	40	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	36	36	
TOTAL	0	0	0	0	0	0	0	0	0	0	0	168	0	0	0	0	168	168	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	45	45	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	59	59	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	50	50	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	69	0	0	0	0	69	69	
TOTAL	0	0	0	0	0	0	0	0	0	0	0	223	0	0	0	0	223	223	

# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: I 75 NB & US 441

COUNTY: Alachua Co

I 75 NB

I 75 NB

US 441

US 441

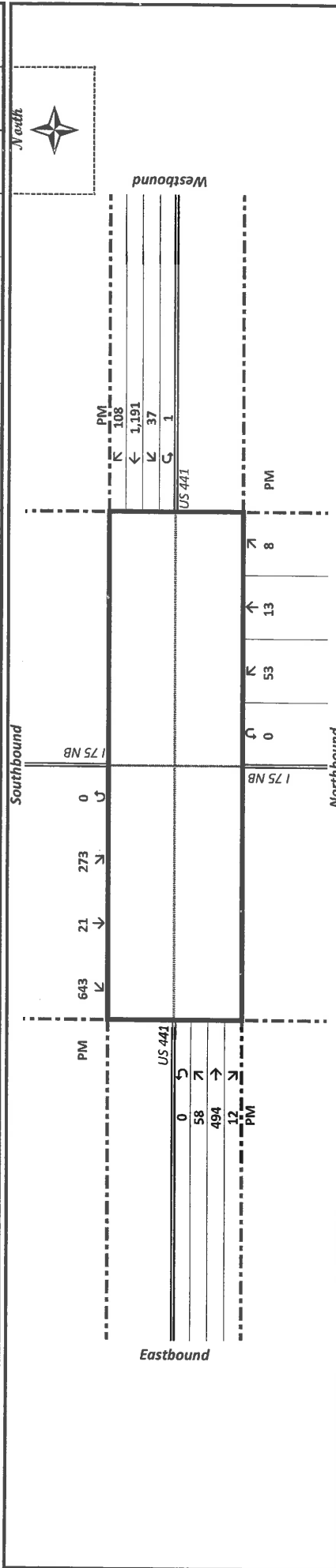
TIME BEGIN	NORTHBOUND				SOUTHBOUND				N/S		EASTBOUND				WESTBOUND				E/W		GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	
04:00 PM	15	1	4	1	20	35	3	93	0	131	22	166	5	3	196	8	158	40	1	207	551
04:15 PM	16	1	2	0	19	56	5	151	0	212	17	114	4	0	135	14	141	28	1	184	549
04:30 PM	9	1	2	0	12	45	0	99	0	144	10	179	2	0	191	18	303	33	0	354	701
04:45 PM	21	3	0	0	24	57	3	163	0	223	13	112	2	0	127	10	188	36	1	235	608
<b>TOTAL</b>					<b>75</b>					<b>710</b>					<b>649</b>					<b>980</b>	<b>2,409</b>
05:00 PM	7	4	4	0	15	62	5	101	0	168	13	94	4	0	111	10	260	36	0	306	600
05:15 PM	10	2	3	0	15	91	12	218	0	321	19	123	2	0	144	10	231	18	0	259	739
05:30 PM	15	4	1	0	20	63	1	161	0	225	13	165	4	0	182	7	512	18	0	537	964
05:45 PM	12	1	1	0	14	48	5	113	1	167	5	138	10	1	154	6	224	18	0	248	582
<b>TOTAL</b>	<b>44</b>	<b>11</b>	<b>9</b>	<b>0</b>	<b>64</b>	<b>264</b>	<b>23</b>	<b>593</b>	<b>1</b>	<b>881</b>	<b>50</b>	<b>520</b>	<b>20</b>	<b>1</b>	<b>591</b>	<b>33</b>	<b>1,227</b>	<b>90</b>	<b>0</b>	<b>1,350</b>	<b>2,885</b>

PM Peak

04:45 PM to 05:45 PM

53	13	8	0	74	273	21	643	0	937	1,011	58	494	12	0	564	37	1,191	108	1	1,337	2,911
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Peak Hour Factor: 0.755



## 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: I 75 NB &amp; US 441

COUNTY: Alachua Co

I 75 NB

I 75 NB

US 441

US 441

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S		EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL		
	L		T		R	U-turn		TOTAL	L		T		R	U-turn		TOTAL	L		T		R	U-turn			TOTAL	
	L	T	L	T		L	T		L	T	L	T		L	T		L	T	L	T						
04:00 PM	0	0	0	0	0	1	0	0	7	0	8	6	2	0	0	8	0	5	2	0	7	15	23			
04:15 PM	0	0	0	0	0	2	0	4	0	6	6	3	7	0	0	10	1	5	3	0	9	19	25			
04:30 PM	0	1	0	0	1	0	0	5	0	5	6	3	4	0	0	7	0	3	2	0	5	12	18			
04:45 PM	0	0	0	0	0	1	0	4	0	5	5	5	2	0	0	7	0	5	2	0	7	14	19			
TOTAL	0	1	0	0	1	4	0	20	0	24	25	17	15	0	0	32	1	18	9	0	28	60	85			
05:00 PM	0	0	0	0	0	1	0	3	0	4	4	0	1	0	0	1	0	7	0	0	7	8	12			
05:15 PM	0	0	0	0	0	1	0	15	0	16	16	3	2	0	0	5	0	1	0	0	1	6	22			
05:30 PM	0	0	0	0	0	0	0	3	0	3	3	3	5	0	0	8	0	2	1	0	3	11	14			
05:45 PM	0	0	0	0	0	0	0	6	0	6	6	1	4	0	0	5	0	1	1	0	2	7	13			
TOTAL	1	0	0	0	0	2	0	27	0	29	29	7	12	0	0	19	0	11	2	0	13	32	61			

## PM Peak

04:45 PM to  
05:45 PM

0	0	0	0	0	0	3	0	0	25	0	28	28	11	10	0	0	15	3	0	18	39	67
---	---	---	---	---	---	---	---	---	----	---	----	----	----	----	---	---	----	---	---	----	----	----

# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: March 8, 2016 (Tuesday)

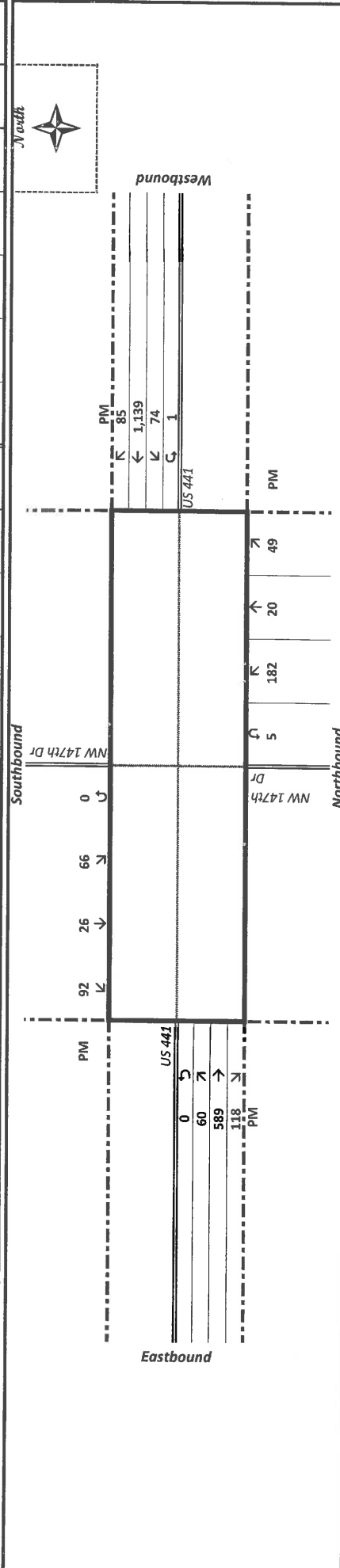
CITY: Alachua

LOCATION: NW 147th Dr & US 441

COUNTY: Alachua Co

NW 147th Dr										US 441										US 441									
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL						
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL								
04:00 PM	28	7	24	0	59	26	4	20	0	50	109	20	141	35	0	196	12	281	16	0	309	505	614						
04:15 PM	41	5	22	0	68	15	5	14	0	34	102	16	140	28	0	184	11	162	21	1	195	378	480						
04:30 PM	42	6	11	0	59	22	5	21	0	48	107	24	167	28	1	220	16	193	34	0	243	462	569						
04:45 PM	54	1	8	0	63	22	5	24	1	52	115	22	142	32	1	197	19	211	22	0	252	448	563						
TOTAL					249					184	433					797					999	1,793	2,226						
05:00 PM	48	3	14	0	65	18	7	29	0	54	119	15	135	36	0	186	15	262	29	0	306	492	611						
05:15 PM	35	9	9	0	53	11	8	30	0	49	102	11	117	29	0	157	17	289	15	0	321	478	580						
05:30 PM	62	4	11	3	77	21	9	21	0	51	131	18	120	22	0	160	20	389	11	0	420	580	711						
05:45 PM	37	4	15	2	56	16	2	12	0	30	88	16	217	31	0	264	22	199	30	1	252	515	603						
TOTAL	182	20	49	5	251	66	26	92	0	184	440	60	589	118	0	767	74	1,139	85	1	1,299	2,065	2,505						

<b>PM Peak</b>		<b>05:00 PM to 06:00 PM</b>		<b>Peak Hour Factor: 0.881</b>	
182	20	49	5	251	66
92	26	92	0	184	440
60	589	118	0	767	74
1	1,139	85	1	1,299	2,065
1,299	2,065	1	1	2,505	2,505



# 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: NW 147th Dr & US 441

COUNTY: Alachua Co

NW 147th Dr

NW 147th Dr

US 441

US 441

TIME BEGIN	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL	TOTAL		
04:00 PM	1	0	1	0	2	0	0	0	0	0	1	3	0	0	4	0	8	12
04:15 PM	3	0	0	0	3	0	1	0	0	1	0	10	0	0	10	1	19	30
04:30 PM	0	0	1	0	1	0	0	0	0	0	0	7	0	0	7	0	3	10
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	5	9
TOTAL	4	0	2	0	6	0	1	0	0	1	1	24	0	0	25	1	35	61
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	7	8
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	0	4	7
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	6
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3
TOTAL	2	0	0	0	1	0	0	0	0	0	0	11	0	0	11	0	13	24

## PM Peak

05:00 PM to 06:00 PM

1	0	0	0	0	1	0	0	0	0	0	1	11	0	0	13	0	13	24	25
---	---	---	---	---	---	---	---	---	---	---	---	----	---	---	----	---	----	----	----



# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: March 8, 2016 (Tuesday)

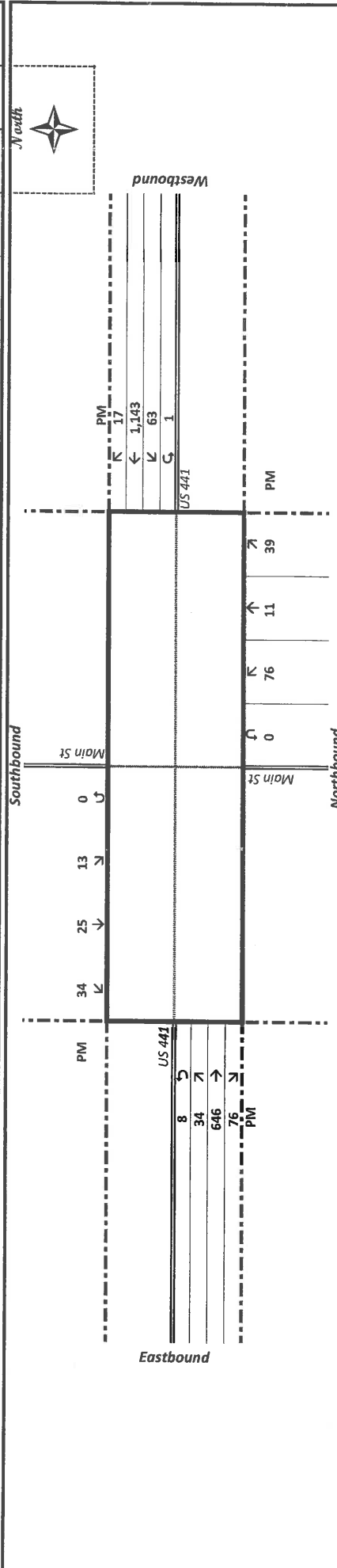
CITY: Alachua

LOCATION: Main St & US 441

COUNTY: Alachua Co

Main St										US 441										US 441									
TIME BEGIN		NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL					
		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL							
04:00 PM		11	2	19	0	32	2	2	19	0	23	55	9	209	17	5	240	5	243	1	0	249	484	539					
04:15 PM		11	1	12	0	24	0	3	10	0	13	37	15	201	14	0	230	14	260	2	0	276	506	543					
04:30 PM		9	4	4	0	17	3	4	12	0	19	36	11	136	14	2	163	14	348	7	0	369	530	566					
04:45 PM		18	4	11	0	33	3	0	8	0	11	44	10	127	32	0	169	13	218	5	0	236	405	449					
TOTAL						106					66	172					802					1,130	1,925	2,097					
05:00 PM		18	1	10	0	29	0	5	12	0	17	46	5	187	11	5	208	12	291	2	0	305	508	554					
05:15 PM		27	1	11	0	39	4	7	4	0	15	54	9	161	20	0	190	10	243	2	1	256	445	499					
05:30 PM		14	8	6	0	28	6	7	8	0	21	49	8	157	25	3	193	22	366	4	0	392	582	631					
05:45 PM		17	1	12	0	30	3	6	10	0	19	49	12	141	20	0	173	19	243	9	0	271	444	493					
TOTAL		76	11	39	0	126	13	25	34	0	72	198	34	646	76	8	764	63	1,143	17	1	1,224	1,979	2,177					

PM Peak														Peak Hour Factor: 0.863																						
05:00 PM to 06:00 PM														76	11	39	0	126	13	25	34	0	72	198	34	646	76	8	764	63	1,143	17	1	1,224	1,979	2,177



# 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: Main St & US 441

COUNTY: Alachua Co

Main St										US 441										US 441									
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL						
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL								
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	6	0	0	6	8	8						
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	12	0	0	12	19	19						
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	4	0	0	4	12	12						
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	5	0	0	5	12	12						
TOTAL	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	24	0	27	0	0	27	51	51						
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	7	7						
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	3	0	0	3	7	7						
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4	4						
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	0	0	0	5	5						
TOTAL	1	0	0	0	0	0	0	0	0	0	0	1	12	0	0	13	0	10	0	0	10	23	23						
PM Peak																													
05:00 PM to																													
06:00 PM																													

# 15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

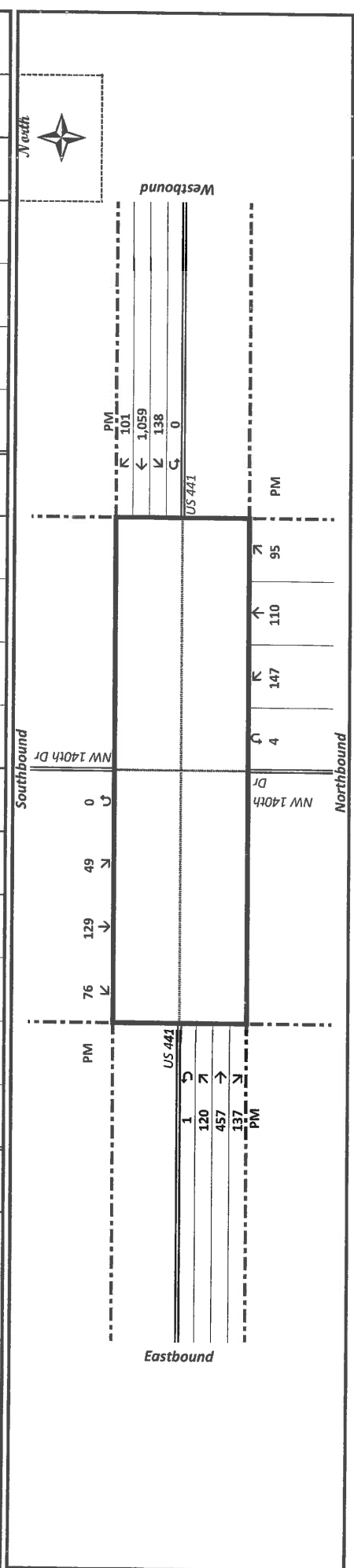
LOCATION: NW 140th Dr & US 441

COUNTY: Alachua Co

NW 140th Dr										US 441										US 441									
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL						
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL								
04:00 PM	35	35	21	0	91	14	18	13	0	45	136	20	110	25	1	156	29	192	11	0	232	387	523						
04:15 PM	24	32	20	0	76	9	28	13	0	50	126	19	167	30	1	217	23	168	20	0	211	427	553						
04:30 PM	42	37	20	0	99	13	36	14	0	63	162	26	159	25	0	210	50	198	17	0	265	475	637						
04:45 PM	52	34	23	0	109	21	24	28	0	73	182	25	132	26	0	183	43	159	26	0	228	411	593						
TOTAL					375					231	606					766					936	1,700	2,306						
05:00 PM	53	29	22	4	104	11	20	15	0	46	154	20	98	26	0	144	29	291	28	0	348	492	646						
05:15 PM	45	30	21	0	96	11	32	22	0	65	161	32	112	41	0	185	32	249	22	0	303	488	649						
05:30 PM	29	28	24	0	81	15	24	24	0	63	144	27	130	39	0	196	32	287	11	0	330	526	670						
05:45 PM	20	23	28	0	71	12	53	15	0	80	151	41	117	31	1	190	45	232	40	0	317	506	657						
TOTAL	147	110	95	4	352	49	129	76	0	254	610	120	457	137	1	715	138	1,059	101	0	1,298	2,012	2,622						

PM Peak

05:00 PM to 06:00 PM	147	110	95	4	352	49	129	76	0	254	610	120	457	137	1	715	138	1,059	101	0	1,298	2,012	2,622
Peak Hour Factor: 0.978																							



# 15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: March 8, 2016 (Tuesday)

CITY: Alachua

LOCATION: NW 140th Dr & US 441

COUNTY: Alachua Co

NW 140th Dr

NW 140th Dr

US 441

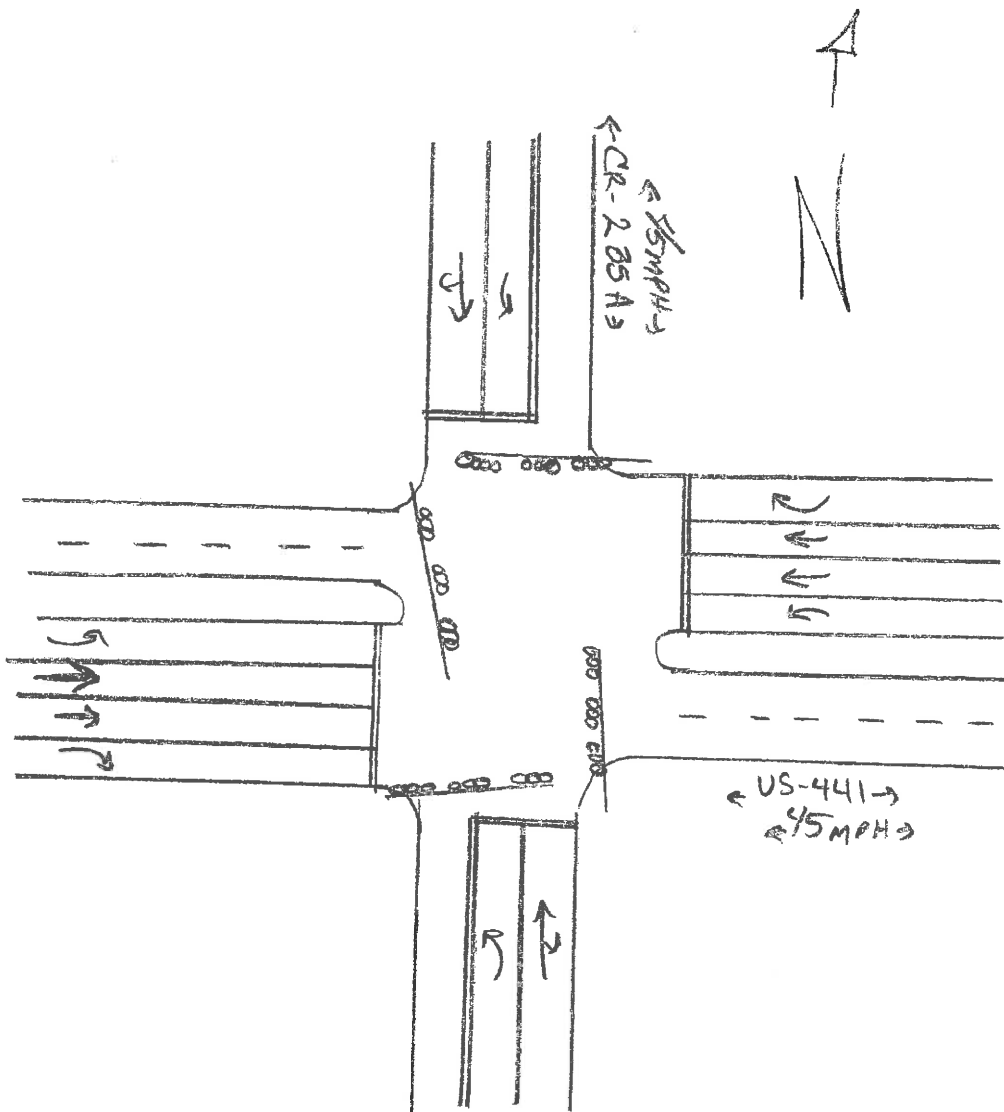
US 441

TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		
04:00 PM	1	1	1	0	3	1	0	0	0	1	4	0	2	0	0	2	2	6	0	0	8	10	14
04:15 PM	3	0	1	0	4	1	1	0	0	2	6	0	7	0	0	7	2	8	1	0	11	18	24
04:30 PM	0	1	8	0	9	1	3	1	0	5	14	1	3	0	0	4	2	2	1	0	5	9	23
04:45 PM	2	4	0	0	6	1	1	1	0	3	9	2	2	0	0	4	2	5	1	0	8	12	21
TOTAL	6	6	10	0	22	4	5	2	0	11	33	3	14	0	0	17	8	21	3	0	32	49	82
05:00 PM	0	0	5	0	5	0	3	0	0	3	8	1	0	0	0	1	0	3	0	0	3	4	12
05:15 PM	0	0	2	0	2	0	2	0	0	2	4	0	7	0	0	7	3	3	0	0	6	13	17
05:30 PM	1	1	1	0	3	0	1	0	0	1	4	0	3	0	0	3	0	2	1	0	3	6	10
05:45 PM	0	1	0	0	1	0	1	0	0	1	2	0	4	0	0	4	0	3	1	0	4	8	10
TOTAL	1	2	8	0	11	0	7	0	0	7	18	1	14	0	0	15	3	11	2	0	16	31	49

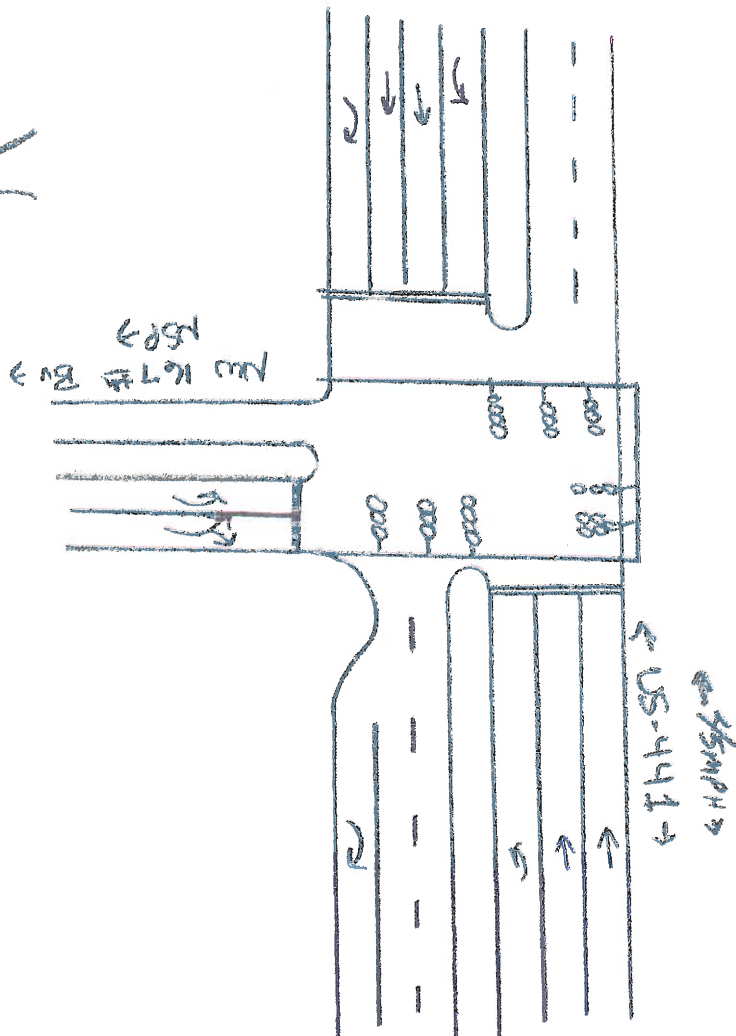
PM Peak

05:00 PM to 06:00 PM

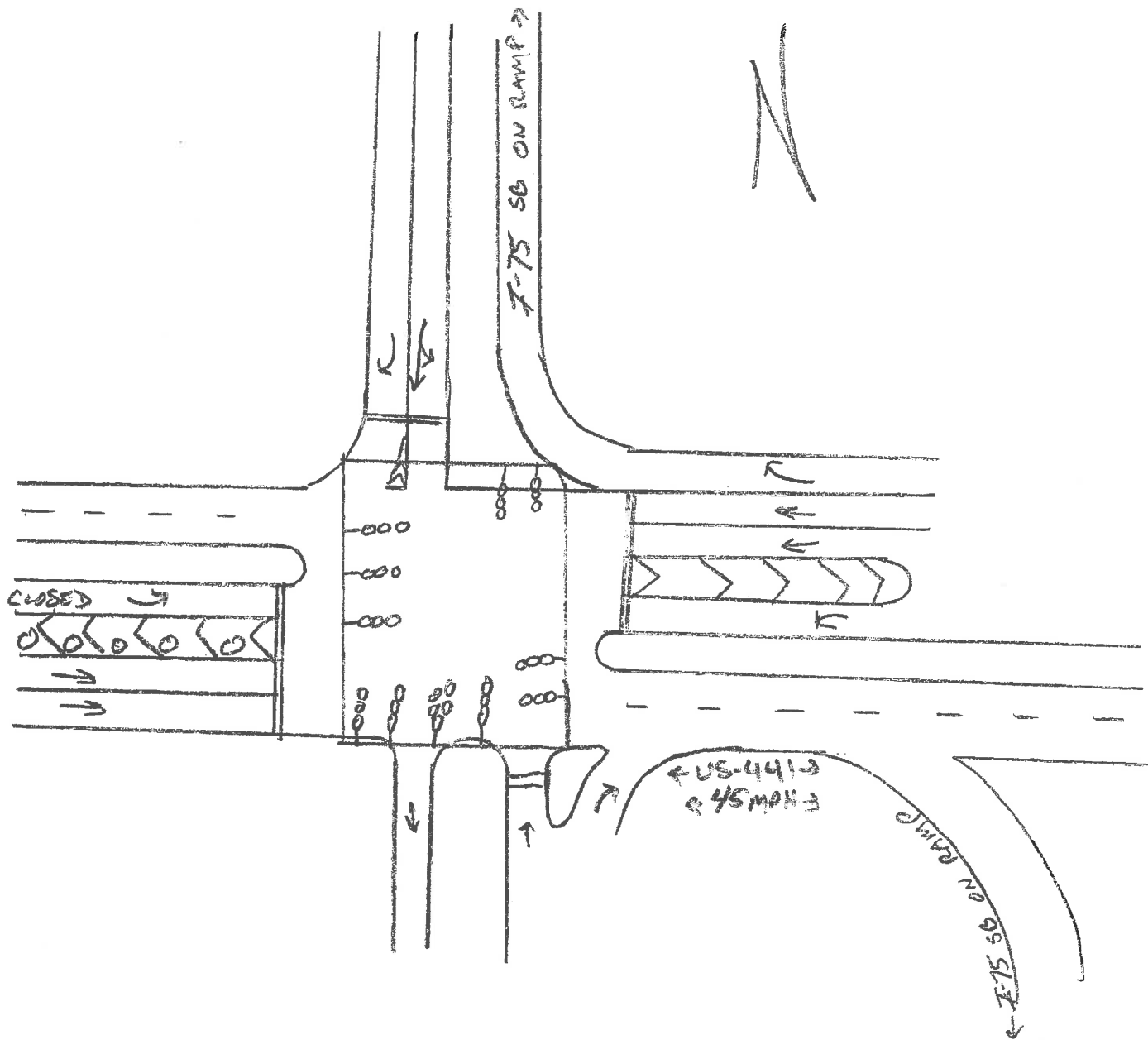
1	2	8	0	11	0	7	0	0	7	18	1	14	0	0	15	3	11	2	0	16	31	49
---	---	---	---	----	---	---	---	---	---	----	---	----	---	---	----	---	----	---	---	----	----	----

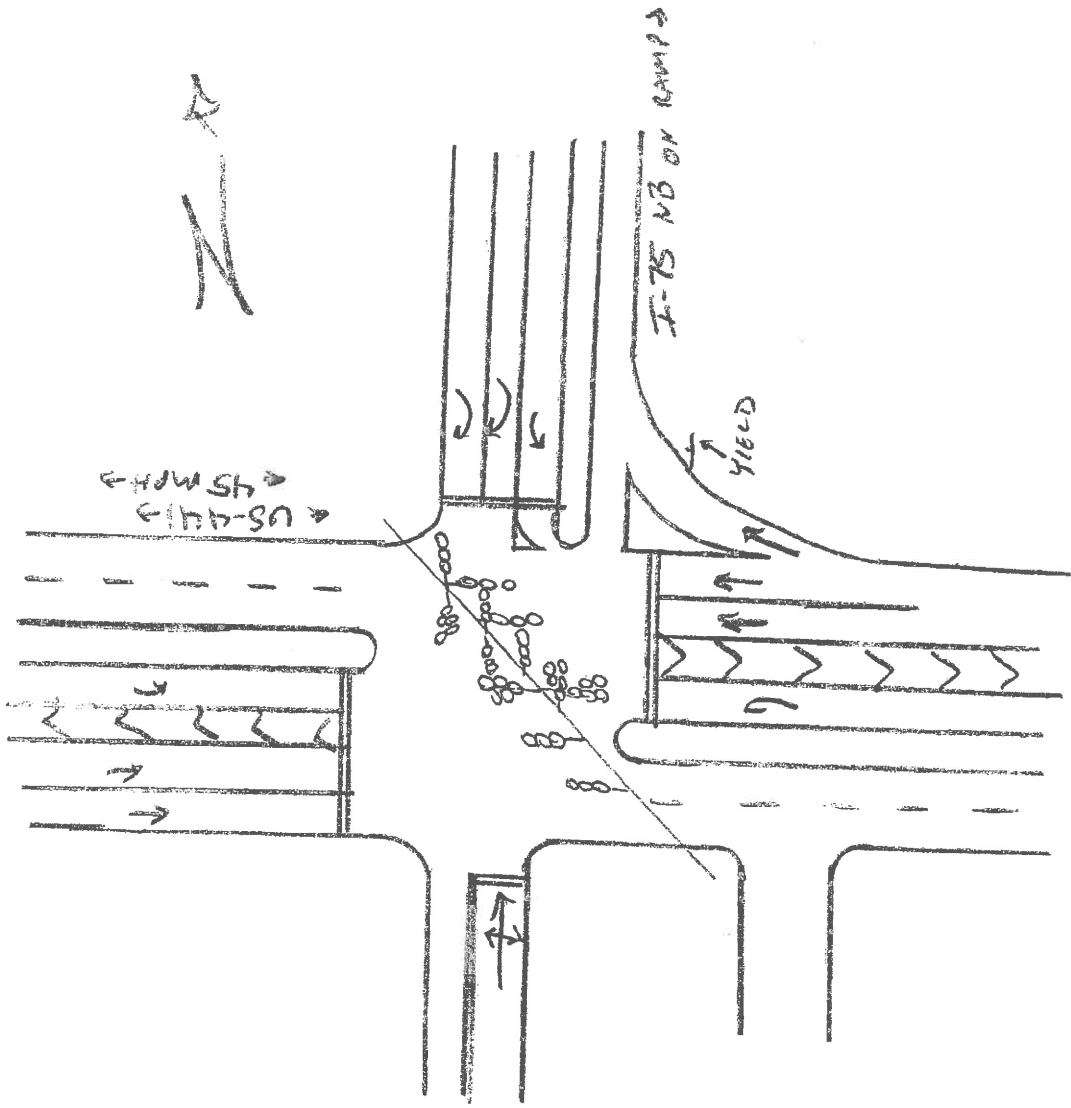


A - N



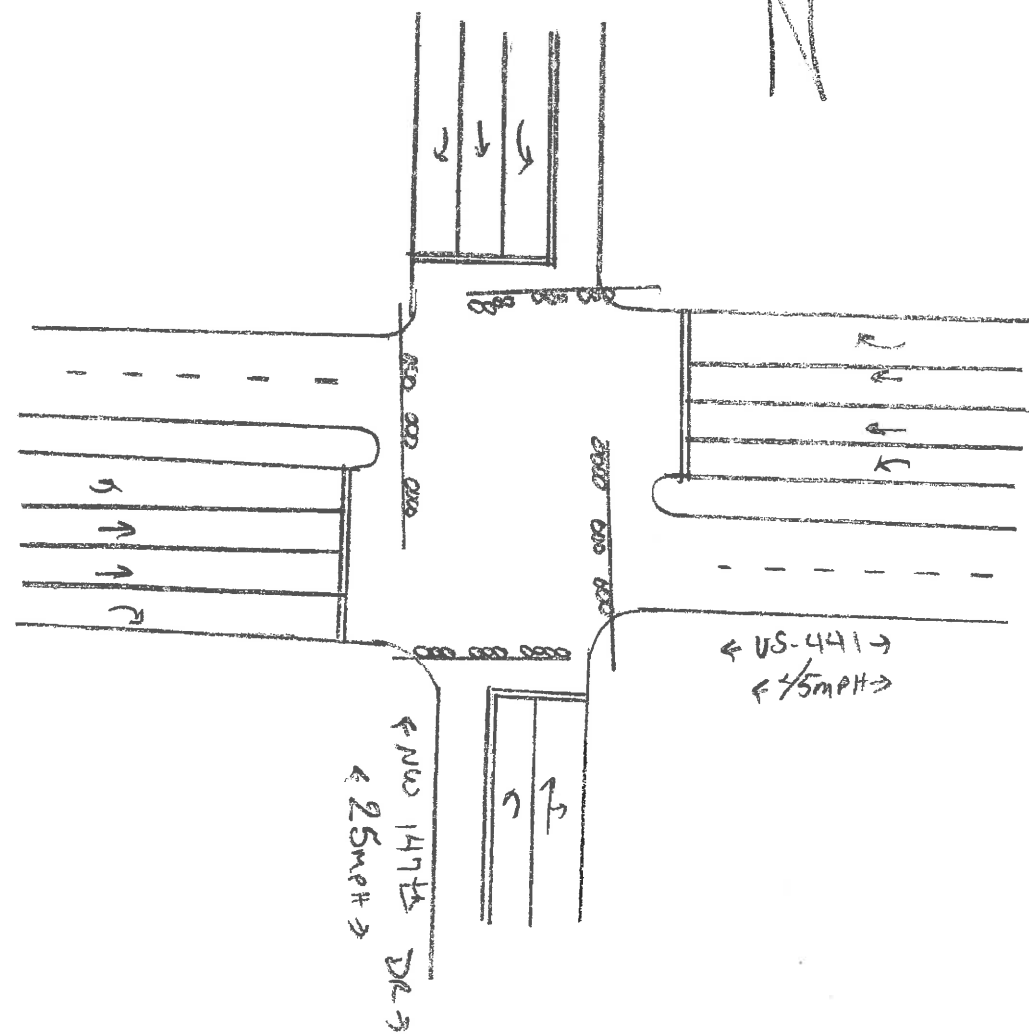
A  
N





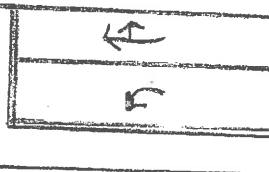
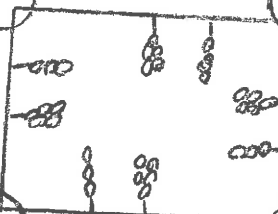
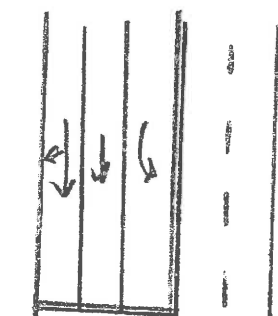
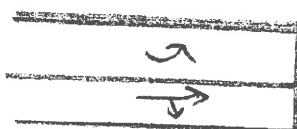


N

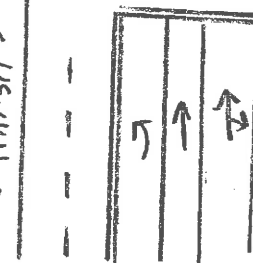


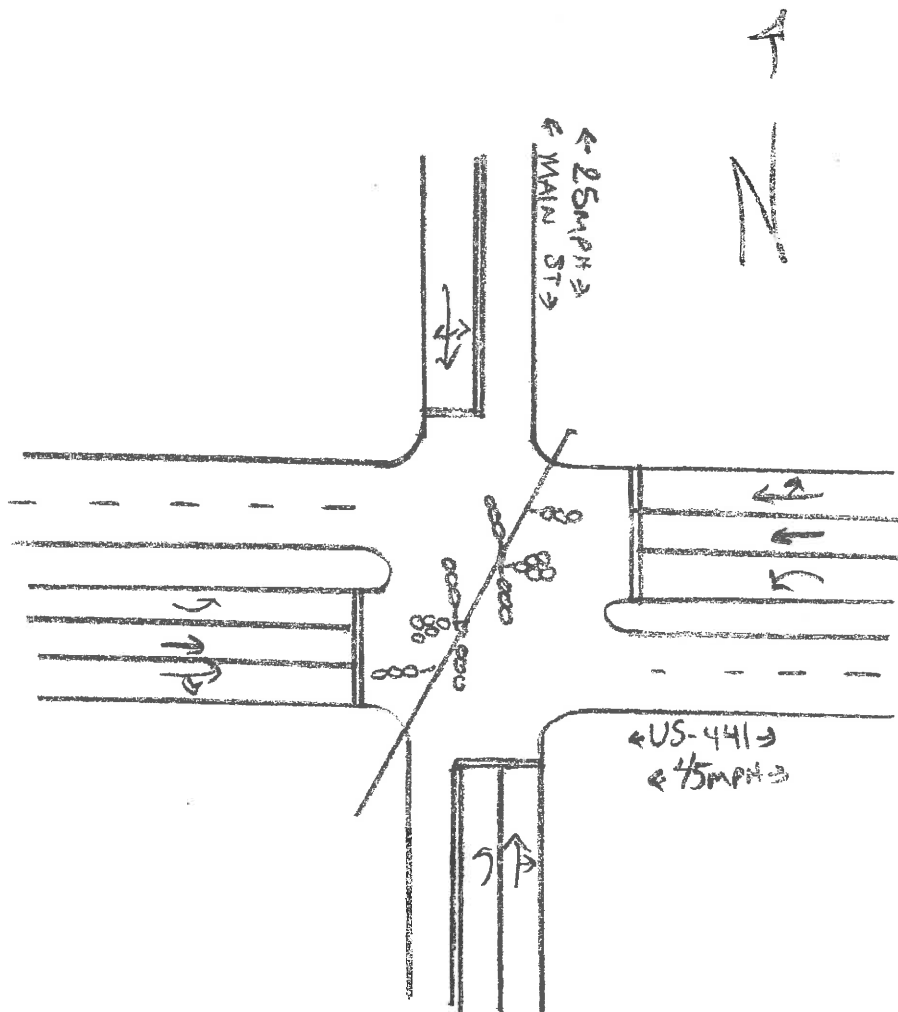


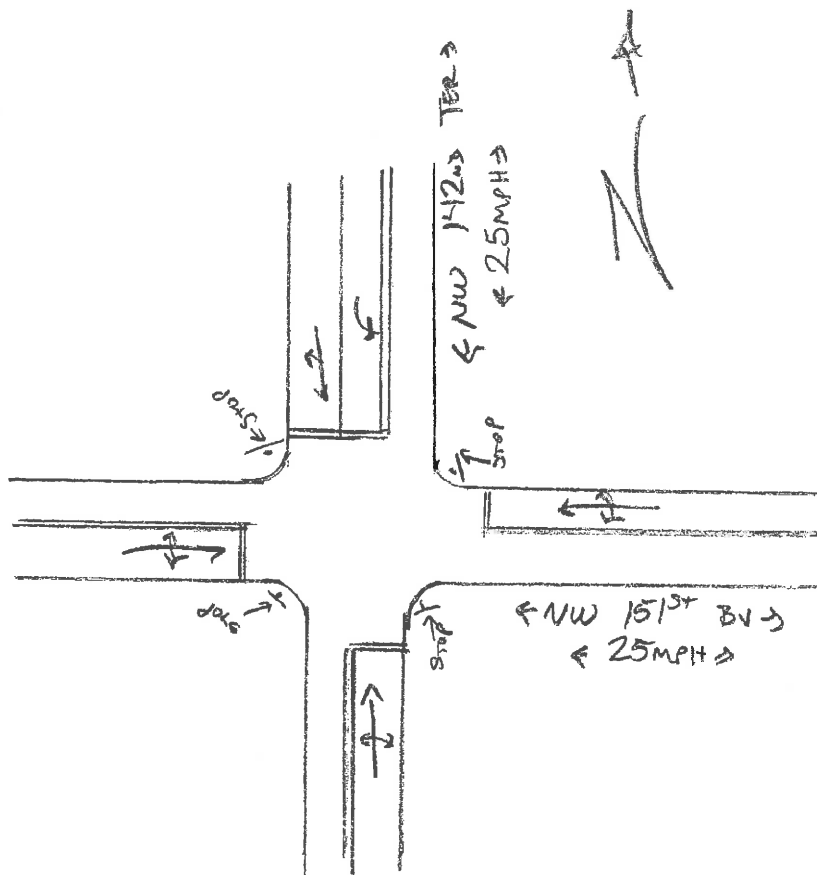
← NW 140th ST →  
← 50 MPH →



← US 44 →  
← 45 MPH →







2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 2600 ALACHUA COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2014 - 01/04/2014	1.01	1.03
2	01/05/2014 - 01/11/2014	1.04	1.06
3	01/12/2014 - 01/18/2014	1.07	1.09
4	01/19/2014 - 01/25/2014	1.05	1.07
5	01/26/2014 - 02/01/2014	1.04	1.06
6	02/02/2014 - 02/08/2014	1.02	1.04
7	02/09/2014 - 02/15/2014	1.01	1.03
* 8	02/16/2014 - 02/22/2014	0.99	1.01
* 9	02/23/2014 - 03/01/2014	0.99	1.01
*10	03/02/2014 - 03/08/2014	0.98	1.00
*11	03/09/2014 - 03/15/2014	0.98	1.00
*12	03/16/2014 - 03/22/2014	0.97	0.99
*13	03/23/2014 - 03/29/2014	0.97	0.99
*14	03/30/2014 - 04/05/2014	0.96	0.98
*15	04/06/2014 - 04/12/2014	0.96	0.98
*16	04/13/2014 - 04/19/2014	0.95	0.97
*17	04/20/2014 - 04/26/2014	0.97	0.99
*18	04/27/2014 - 05/03/2014	0.98	1.00
*19	05/04/2014 - 05/10/2014	0.99	1.01
*20	05/11/2014 - 05/17/2014	1.00	1.02
21	05/18/2014 - 05/24/2014	1.01	1.03
22	05/25/2014 - 05/31/2014	1.01	1.03
23	06/01/2014 - 06/07/2014	1.01	1.03
24	06/08/2014 - 06/14/2014	1.02	1.04
25	06/15/2014 - 06/21/2014	1.02	1.04
26	06/22/2014 - 06/28/2014	1.03	1.05
27	06/29/2014 - 07/05/2014	1.03	1.05
28	07/06/2014 - 07/12/2014	1.04	1.06
29	07/13/2014 - 07/19/2014	1.05	1.07
30	07/20/2014 - 07/26/2014	1.04	1.06
31	07/27/2014 - 08/02/2014	1.03	1.05
32	08/03/2014 - 08/09/2014	1.02	1.04
33	08/10/2014 - 08/16/2014	1.01	1.03
34	08/17/2014 - 08/23/2014	1.00	1.02
35	08/24/2014 - 08/30/2014	1.01	1.03
36	08/31/2014 - 09/06/2014	1.01	1.03
37	09/07/2014 - 09/13/2014	1.01	1.03
38	09/14/2014 - 09/20/2014	1.01	1.03
39	09/21/2014 - 09/27/2014	1.00	1.02
40	09/28/2014 - 10/04/2014	0.99	1.01
41	10/05/2014 - 10/11/2014	0.97	0.99
42	10/12/2014 - 10/18/2014	0.96	0.98
43	10/19/2014 - 10/25/2014	0.97	0.99
44	10/26/2014 - 11/01/2014	0.98	1.00
45	11/02/2014 - 11/08/2014	0.98	1.00
46	11/09/2014 - 11/15/2014	0.99	1.01
47	11/16/2014 - 11/22/2014	1.00	1.02
48	11/23/2014 - 11/29/2014	1.00	1.02
49	11/30/2014 - 12/06/2014	1.01	1.03
50	12/07/2014 - 12/13/2014	1.01	1.03
51	12/14/2014 - 12/20/2014	1.01	1.03
52	12/21/2014 - 12/27/2014	1.04	1.06
53	12/28/2014 - 12/31/2014	1.07	1.09

\* PEAK SEASON

09-MAR-2015 16:07:50

























830UPD

2\_2600\_PKSEASON.TXT

















**Appendix D**  
Existing Intersection Analysis

# HCM 2010 Signalized Intersection Summary 3: CR 235A & US441





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	651	50	123	1471	82	50	17	79	97	23	48
Future Volume (veh/h)	28	651	50	123	1471	82	50	17	79	97	23	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1583	1863	1863	1863	1863	1583	1863	1863	1900
Adj Flow Rate, veh/h	29	685	37	129	1548	49	53	18	36	102	24	46
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	20	2	2	2	2	20	2	2	2
Cap, veh/h	197	1947	871	421	2035	910	283	248	179	331	86	165
Arrive On Green	0.03	0.55	0.55	0.06	0.57	0.57	0.04	0.13	0.13	0.06	0.15	0.15
Sat Flow, veh/h	1774	3539	1583	1508	3539	1583	1774	1863	1346	1774	572	1097
Grp Volume(v), veh/h	29	685	37	129	1548	49	53	18	36	102	0	70
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1508	1770	1583	1774	1863	1346	1774	0	1669
Q Serve(g_s), s	0.8	13.0	1.3	4.4	39.6	1.6	3.0	1.0	2.9	5.9	0.0	4.5
Cycle Q Clear(g_c), s	0.8	13.0	1.3	4.4	39.6	1.6	3.0	1.0	2.9	5.9	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	197	1947	871	421	2035	910	283	248	179	331	0	250
V/C Ratio(X)	0.15	0.35	0.04	0.31	0.76	0.05	0.19	0.07	0.20	0.31	0.00	0.28
Avail Cap(c_a), veh/h	197	1947	871	421	2035	910	283	248	179	331	0	250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	15.1	12.4	10.9	19.3	11.2	42.1	45.5	46.3	41.6	0.0	45.2
Incr Delay (d2), s/veh	1.6	0.5	0.1	1.9	2.7	0.1	1.5	0.6	2.5	2.4	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	10.6	1.1	3.6	27.2	1.3	2.9	1.0	2.1	5.5	0.0	4.1
LnGrp Delay(d),s/veh	18.3	15.6	12.5	12.8	22.0	11.3	43.6	46.1	48.8	44.0	0.0	48.0
LnGrp LOS	B	B	B	B	C	B	D	D	D	D		D
Approach Vol, veh/h		751			1726			107			172	
Approach Delay, s/veh		15.5			21.0			45.8			45.6	
Approach LOS		B			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	22.0	13.0	72.0	11.0	24.0	10.0	75.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	16.0	7.0	66.0	5.0	18.0	4.0	69.0				
Max Q Clear Time (g_c+l1), s	7.9	4.9	6.4	15.0	5.0	6.5	2.8	41.6				
Green Ext Time (p_c), s	0.0	0.4	0.0	27.4	0.0	0.4	0.0	18.8				
Intersection Summary												
HCM 2010 Ctrl Delay			22.0									
HCM 2010 LOS			C									























# HCM 2010 Signalized Intersection Summary 12: US441 & NW 167th Blvd

								
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR	
Lane Configurations								
Traffic Volume (veh/h)	113	629	2	1214	267	132	36	
Future Volume (veh/h)	113	629	2	1214	267	132	36	
Number	7	4		8	18	1	16	
Initial Q (Qb), veh	0	0		0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863		1863	1863	1863	1900	
Adj Flow Rate, veh/h	126	699		1349	297	94	97	
Adj No. of Lanes	1	2		2	1	1	1	
Peak Hour Factor	0.90	0.90		0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	2	2		2	2	2	0	
Cap, veh/h	307	2477		1888	844	355	323	
Arrive On Green	0.23	1.00		1.00	1.00	0.20	0.20	
Sat Flow, veh/h	1774	3632		3632	1583	1774	1615	
Grp Volume(v), veh/h	126	699		1349	297	94	97	
Grp Sat Flow(s),veh/h/ln	1774	1770		1770	1583	1774	1615	
Q Serve(g_s), s	1.6	0.0		0.0	0.0	5.4	6.1	
Cycle Q Clear(g_c), s	1.6	0.0		0.0	0.0	5.4	6.1	
Prop In Lane	1.00				1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	307	2477		1888	844	355	323	
V/C Ratio(X)	0.41	0.28		0.71	0.35	0.26	0.30	
Avail Cap(c_a), veh/h	307	2477		1888	844	355	323	
HCM Platoon Ratio	2.00	2.00		2.00	2.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	24.8	0.0		0.0	0.0	40.5	40.9	
Incr Delay (d2), s/veh	4.0	0.3		2.3	1.2	1.8	2.4	
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0	
%ile BackOfQ(95%),veh/ln	5.2	0.2		1.1	0.5	5.1	10.0	
LnGrp Delay(d),s/veh	28.8	0.3		2.3	1.2	42.4	43.2	
LnGrp LOS	C	A		A	A	D	D	
Approach Vol, veh/h		825		1646		191		
Approach Delay, s/veh		4.6		2.1		42.8		
Approach LOS		A		A		D		
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				90.0		30.0	20.0	70.0
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				74.0		24.0	14.0	64.0
Max Q Clear Time (g_c+l1), s				2.0		8.1	3.6	2.0
Green Ext Time (p_c), s				29.3		0.5	0.2	27.8
Intersection Summary								
HCM 2010 Ctrl Delay			5.8					
HCM 2010 LOS			A					
Notes								

# HCM 2010 Signalized Intersection Summary 6: US441 & I-75 SB Ramp

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	759	42	44	1510	311	14	7	52	147	5	56
Future Volume (veh/h)	0	759	42	44	1510	311	14	7	52	147	5	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	0	799	23	46	1589	0	15	7	23	155	5	33
Adj No. of Lanes	0	2	0	1	2	1	0	1	1	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1435	41	177	1976	884	164	76	211	273	9	251
Arrive On Green	0.00	0.82	0.82	0.20	1.00	0.00	0.13	0.13	0.13	0.16	0.16	0.16
Sat Flow, veh/h	0	3607	101	1774	3539	1583	1228	573	1583	1721	56	1583
Grp Volume(v), veh/h	0	402	420	46	1589	0	22	0	23	160	0	33
Grp Sat Flow(s),veh/h/ln	0	1770	1845	1774	1770	1583	1801	0	1583	1777	0	1583
Q Serve(g_s), s	0.0	9.2	9.2	2.6	0.0	0.0	1.3	0.0	1.5	10.0	0.0	2.1
Cycle Q Clear(g_c), s	0.0	9.2	9.2	2.6	0.0	0.0	1.3	0.0	1.5	10.0	0.0	2.1
Prop In Lane	0.00		0.05	1.00		1.00	0.68		1.00	0.97		1.00
Lane Grp Cap(c), veh/h	0	723	753	177	1976	884	240	0	211	281	0	251
V/C Ratio(X)	0.00	0.56	0.56	0.26	0.80	0.00	0.09	0.00	0.11	0.57	0.00	0.13
Avail Cap(c_a), veh/h	0	723	753	177	1976	884	240	0	211	281	0	251
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.3	7.3	44.3	0.0	0.0	45.6	0.0	45.7	46.7	0.0	43.4
Incr Delay (d2), s/veh	0.0	3.1	3.0	3.5	3.6	0.0	0.8	0.0	1.0	8.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.5	8.7	2.6	1.8	0.0	1.2	0.0	1.3	9.4	0.0	1.8
LnGrp Delay(d),s/veh	0.0	10.4	10.3	47.8	3.6	0.0	46.4	0.0	46.8	54.8	0.0	44.5
LnGrp LOS		B	B	D	A		D		D	D		D
Approach Vol, veh/h		822			1635			45			193	
Approach Delay, s/veh		10.4			4.8			46.6			53.0	
Approach LOS		B			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		22.0	18.0	55.0		25.0		73.0				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0		6.0				
Max Green Setting (Gmax), s		16.0	12.0	49.0		19.0		67.0				
Max Q Clear Time (g_c+I1), s		3.5	4.6	11.2		12.0		2.0				
Green Ext Time (p_c), s		0.1	0.0	24.1		0.5		32.2				
Intersection Summary												
HCM 2010 Ctrl Delay			10.7									
HCM 2010 LOS			B									
Notes												

# HCM 2010 Signalized Intersection Summary 9: US441 & I-75 NB Ramp




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	494	12	38	1191	108	53	13	8	273	21	643
Future Volume (veh/h)	58	494	12	38	1191	108	53	13	8	273	21	643
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	61	520	4	40	1254	0	56	14	3	287	22	0
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	1620	12	495	1593	712	102	26	5	400	31	673
Arrive On Green	0.07	0.90	0.90	0.03	0.45	0.00	0.08	0.08	0.08	0.24	0.24	0.00
Sat Flow, veh/h	1774	3600	28	1774	3539	1583	1367	342	73	1653	127	2787
Grp Volume(v), veh/h	61	256	268	40	1254	0	73	0	0	309	0	0
Grp Sat Flow(s), veh/h/ln	1774	1770	1858	1774	1770	1583	1781	0	0	1780	0	1393
Q Serve(g_s), s	2.2	2.4	2.4	1.4	36.2	0.0	4.7	0.0	0.0	19.1	0.0	0.0
Cycle Q Clear(g_c), s	2.2	2.4	2.4	1.4	36.2	0.0	4.7	0.0	0.0	19.1	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.77		0.04	0.93		1.00
Lane Grp Cap(c), veh/h	184	796	836	495	1593	712	134	0	0	430	0	673
V/C Ratio(X)	0.33	0.32	0.32	0.08	0.79	0.00	0.55	0.00	0.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	184	796	836	495	1593	712	134	0	0	430	0	673
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.1	3.4	3.4	16.4	28.1	0.0	53.5	0.0	0.0	41.8	0.0	0.0
Incr Delay (d2), s/veh	4.7	1.1	1.0	0.3	4.0	0.0	15.1	0.0	0.0	9.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	2.5	2.6	1.3	25.5	0.0	5.2	0.0	0.0	15.9	0.0	0.0
LnGrp Delay(d),s/veh	26.9	4.5	4.4	16.7	32.1	0.0	68.6	0.0	0.0	51.6	0.0	0.0
LnGrp LOS	C	A	A	B	C		E			D		
Approach Vol, veh/h		585			1294			73			309	
Approach Delay, s/veh		6.8			31.7			68.6			51.6	
Approach LOS		A			C			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	10.0	60.0		35.0	10.0	60.0				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		9.0	4.0	54.0		29.0	4.0	54.0				
Max Q Clear Time (g_c+I1), s		6.7	3.4	4.4		21.1	4.2	38.2				
Green Ext Time (p_c), s		0.0	0.0	17.3		1.1	0.0	9.9				
Intersection Summary												
HCM 2010 Ctrl Delay			29.1									
HCM 2010 LOS			C									























# HCM 2010 Signalized Intersection Summary 13: NW 147th St & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	589	118	75	1139	85	187	20	49	66	26	92
Future Volume (veh/h)	60	589	118	75	1139	85	187	20	49	66	26	92
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	63	620	124	79	1199	89	197	21	52	69	27	97
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	1681	752	452	1681	752	415	95	236	336	264	224
Arrive On Green	0.08	0.47	0.47	0.15	0.95	0.95	0.11	0.20	0.20	0.05	0.14	0.14
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	476	1179	1774	1863	1583
Grp Volume(v), veh/h	63	620	124	79	1199	89	197	0	73	69	27	97
Grp Sat Flow(s), veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1655	1774	1863	1583
Q Serve(g_s), s	2.0	13.4	5.4	2.4	6.3	0.4	11.0	0.0	4.4	3.9	1.5	6.7
Cycle Q Clear(g_c), s	2.0	13.4	5.4	2.4	6.3	0.4	11.0	0.0	4.4	3.9	1.5	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	373	1681	752	452	1681	752	415	0	331	336	264	224
V/C Ratio(X)	0.17	0.37	0.16	0.17	0.71	0.12	0.47	0.00	0.22	0.21	0.10	0.43
Avail Cap(c_a), veh/h	373	1681	752	452	1681	752	415	0	331	336	264	224
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	20.0	17.9	12.4	1.7	1.6	36.4	0.0	40.2	40.8	44.9	47.1
Incr Delay (d2), s/veh	1.0	0.6	0.5	0.8	2.6	0.3	3.9	0.0	1.5	1.4	0.8	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	10.9	4.4	2.3	5.3	0.4	9.7	0.0	3.9	3.6	1.5	6.0
LnGrp Delay(d),s/veh	13.8	20.7	18.4	13.3	4.3	1.9	40.2	0.0	41.7	42.2	45.6	53.1
LnGrp LOS	B	C	B	B	A	A	D		D	D	D	D
Approach Vol, veh/h		807			1367			270			193	
Approach Delay, s/veh		19.8			4.7			40.6			48.1	
Approach LOS		B			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.0	15.0	63.0	19.0	23.0	15.0	63.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	6.0	24.0	9.0	57.0	13.0	17.0	9.0	57.0				
Max Q Clear Time (g_c+1), s	5.9	6.4	4.4	15.4	13.0	8.7	4.0	8.3				
Green Ext Time (p_c), s	0.0	0.8	0.1	19.0	0.0	0.5	0.0	20.2				
Intersection Summary												
HCM 2010 Ctrl Delay			16.2									
HCM 2010 LOS			B									

# HCM 2010 Signalized Intersection Summary 17: Main St & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	646	76	64	1143	17	76	11	39	13	25	34
Future Volume (veh/h)	42	646	76	64	1143	17	76	11	39	13	25	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	44	680	61	67	1203	14	80	12	29	14	26	23
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	1917	172	545	2060	24	376	109	264	98	176	136
Arrive On Green	0.10	1.00	1.00	0.08	1.00	1.00	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3286	295	1774	3583	42	1351	485	1171	271	781	605
Grp Volume(v), veh/h	44	366	375	67	594	623	80	0	41	63	0	0
Grp Sat Flow(s), veh/h/ln	1774	1770	1811	1774	1770	1855	1351	0	1656	1656	0	0
Q Serve(g_s), s	1.1	0.0	0.0	1.8	0.0	0.0	1.2	0.0	2.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	1.8	0.0	0.0	4.7	0.0	2.4	3.5	0.0	0.0
Prop In Lane	1.00		0.16	1.00		0.02	1.00		0.71	0.22		0.37
Lane Grp Cap(c), veh/h	411	1032	1056	545	1018	1067	376	0	373	409	0	0
V/C Ratio(X)	0.11	0.35	0.36	0.12	0.58	0.58	0.21	0.00	0.11	0.15	0.00	0.00
Avail Cap(c_a), veh/h	411	1032	1056	545	1018	1067	376	0	373	409	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	0.0	8.8	0.0	0.0	37.8	0.0	37.0	37.4	0.0	0.0
Incr Delay (d2), s/veh	0.5	1.0	0.9	0.5	2.4	2.3	1.3	0.0	0.6	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.5	0.5	1.6	1.2	1.2	4.1	0.0	2.1	3.2	0.0	0.0
LnGrp Delay(d),s/veh	8.7	1.0	0.9	9.2	2.4	2.3	39.1	0.0	37.5	38.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		
Approach Vol, veh/h	785			1284			121			63		
Approach Delay, s/veh	1.4			2.7			38.5			38.2		
Approach LOS	A			A			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.0	11.0	76.0		33.0	12.0	75.0				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		27.0	5.0	70.0		27.0	6.0	69.0				
Max Q Clear Time (g_c+I1), s		6.7	3.8	2.0		5.5	3.1	2.0				
Green Ext Time (p_c), s		0.7	0.0	19.5		0.8	0.0	19.5				
Intersection Summary												
HCM 2010 Ctrl Delay	5.2											
HCM 2010 LOS	A											

# HCM 2010 Signalized Intersection Summary 20: NW 140th St & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NET	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	457	137	138	1059	101	151	110	95	49	129	76
Future Volume (veh/h)	121	457	137	138	1059	101	151	110	95	49	129	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	127	481	102	145	1115	77	159	116	68	52	136	57
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	1261	266	569	1484	102	307	257	151	290	229	96
Arrive On Green	0.18	0.87	0.87	0.10	0.44	0.44	0.08	0.23	0.23	0.03	0.18	0.18
Sat Flow, veh/h	1774	2910	614	1774	3360	232	1774	1102	646	1774	1248	523
Grp Volume(v), veh/h	127	291	292	145	587	605	159	0	184	52	0	193
Grp Sat Flow(s),veh/h/ln	1774	1770	1754	1774	1770	1822	1774	0	1749	1774	0	1770
Q Serve(g_s), s	4.3	3.9	4.0	5.0	33.3	33.3	8.5	0.0	10.8	2.8	0.0	12.0
Cycle Q Clear(g_c), s	4.3	3.9	4.0	5.0	33.3	33.3	8.5	0.0	10.8	2.8	0.0	12.0
Prop In Lane	1.00		0.35	1.00		0.13	1.00		0.37	1.00		0.30
Lane Grp Cap(c), veh/h	299	767	760	569	782	805	307	0	408	290	0	325
V/C Ratio(X)	0.42	0.38	0.38	0.25	0.75	0.75	0.52	0.00	0.45	0.18	0.00	0.59
Avail Cap(c_a), veh/h	299	767	760	569	782	805	307	0	408	290	0	325
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	4.8	4.8	14.3	28.0	28.0	34.8	0.0	39.4	38.0	0.0	44.9
Incr Delay (d2), s/veh	4.4	1.4	1.5	1.1	6.6	6.4	6.1	0.0	3.6	1.3	0.0	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	3.8	3.8	4.6	24.4	25.0	8.2	0.0	9.5	2.7	0.0	10.7
LnGrp Delay(d),s/veh	22.6	6.2	6.3	15.4	34.6	34.4	40.9	0.0	43.0	39.4	0.0	52.7
LnGrp LOS	C	A	A	B	C	C	D		D	D		D
Approach Vol, veh/h	710			1337			343			245		
Approach Delay, s/veh	9.2			32.4			42.0			49.9		
Approach LOS	A			C			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	34.0	18.0	58.0	16.0	28.0	17.0	59.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	4.0	28.0	12.0	52.0	10.0	22.0	11.0	53.0				
Max Q Clear Time (g_c+I1), s	4.8	12.8	7.0	6.0	10.5	14.0	6.3	35.3				
Green Ext Time (p_c), s	0.0	2.0	0.1	15.4	0.0	1.4	0.1	10.1				
Intersection Summary												
HCM 2010 Ctrl Delay	29.0											
HCM 2010 LOS	C											

**Appendix E**  
ITE Trip Generation Information



## Land Use: 813

### Free-Standing Discount Superstore

#### Description

The discount superstores in this category are similar to the free-standing discount stores described in Land Use 815 with the exception that they also contain a full service grocery department under the same roof that shares entrances and exits with the discount store area. The stores usually offer a variety of customer services, centralized cashiering and a wide range of products. They typically maintain long store hours 7 days a week. The stores included in this land use are often the only ones on the site, but they can also be found in mutual operation with a related or unrelated garden center and/or service station, or as a part of a shopping center, with or without their own dedicated parking area. Free-standing discount store (Land Use 815) is a related use.

#### Additional Data

Peak hours of the generator—

The weekday A.M. peak hour was generally between 10:00 a.m. and 11:00 a.m. The weekday P.M. peak hour varied between 12:00 p.m. and 5:00 p.m. The Saturday and Sunday peak hours varied between 12:00 p.m. and 5:00 p.m.

The weighted average truck trip generation rates from approximately 30 sites surveyed for this land use are summarized in the table below. The average gross floor area of these facilities is 206,000 square feet.

Day/Time Period	Weighted Average Truck Trip Generation Rate (trip ends per 1,000 square feet)
Weekday	0.87
Weekday A.M. Peak Hour of Adjacent Street Traffic	0.05
Weekday P.M. Peak Hour of Adjacent Street Traffic	0.03
Weekday A.M. Peak Hour of Generator	0.06
Weekday P.M. Peak Hour of Generator	0.04
Saturday	0.59
Saturday Peak Hour of Generator	0.04
Sunday	0.43
Sunday Peak Hour of Generator	0.02

One source provided information on trip generation rates for what the study defined as "typical" and "peak" seasons. These data indicated that weekday trip generation rates were similar in both seasons. However, trip generation rates on Saturdays during peak season were 13 to 20 percent higher than a typical season; Sunday rates were found to be 6 to 10 percent higher. For the purposes of this analysis, "peak" season was defined as the period between the week after



Thanksgiving and the week prior to Christmas. "typical" season was defined as September through mid-November when transactions are close to average. The seasonal trip generation information provided was based on a sample of five sites.

Information on approximate hourly variation in free-standing discount superstore traffic is shown in the table below. It should be noted, however, that the information contained in this table is based on a limited sample size. Therefore, caution should be exercised when applying the data. Also, some information provided in the table may conflict with the results obtained by applying the average rate or regression equations. When this occurs, it is suggested that the results from the average rate or regression equations be used, as they are based on a larger number of studies.

**Hourly Variation in Free-Standing Discount Superstore Traffic**

Time	Average Weekday <sup>a</sup>		Average Saturday <sup>b</sup>		Average Sunday <sup>c</sup>	
	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic
6 a.m.-7 a.m.	1.5	1.2	1.0	1.1	0.9	1.3
7 a.m.-8 a.m.	2.6	2.4	2.2	2.1	2.0	2.3
8 a.m.-9 a.m.	4.1	3.3	3.8	3.2	3.4	3.4
9 a.m.-10 a.m.	6.0	4.6	5.7	4.6	5.4	5.1
10 a.m.-11 a.m.	7.3	6.0	7.0	6.2	7.2	5.8
11 a.m.-12 p.m.	7.5	7.3	8.4	7.4	8.6	7.5
12 p.m.-1 p.m.	8.3	7.7	9.0	8.0	9.4	8.0
1 p.m.-2 p.m.	7.8	7.7	8.9	8.6	9.5	9.2
2 p.m.-3 p.m.	8.0	7.7	8.4	7.9	8.3	8.6
3 p.m.-4 p.m.	7.7	7.7	7.6	7.9	8.4	8.7
4 p.m.-5 p.m.	7.8	8.0	7.4	7.7	7.9	7.8
5 p.m.-6 p.m.	7.1	7.3	7.0	7.5	6.9	7.2
6 p.m.-7 p.m.	6.7	6.7	6.3	6.8	6.4	6.7
7 p.m.-8 p.m.	5.7	6.1	5.4	5.9	5.0	5.1
8 p.m.-9 p.m.	4.4	5.2	4.4	5.0	4.0	3.6
9 p.m.-10 p.m.	3.0	4.0	3.5	3.7	2.9	2.9
10 p.m.-6 a.m.	4.5	7.2	3.9	6.4	3.8	6.8

Sites ranged in size from 123,000 to 224,000 square feet gross floor area.

<sup>a</sup> Source numbers - 354, 595 and 618, based on 11 studies.

<sup>b</sup> Source numbers - 354 and 618, based on nine studies.

<sup>c</sup> Source number - 354, based on eight studies.

Garden centers contained within the principal outside faces of the exterior building walls were included in the gross square floor areas reported. Outdoor or fenced-in areas outside the principal

faces of the exterior walls were excluded. Please refer to Volume 1, User's Guide, for a more detailed definition of gross floor area.

Several sites included in this land use indicated the presence of fenced/covered space.

The sites were surveyed between the 1990s and the 2000s throughout the United States.

To assist in the future analysis of this land use, it is important to collect and include information on the presence and size of garden centers, outdoor fenced-in space and service stations in trip generation data submissions.

#### **Source Numbers**

354, 522, 577, 595, 607, 609, 612, 618, 625, 630, 636, 651, 652, 661, 700, 731, 735

# Free-Standing Discount Superstore (813)

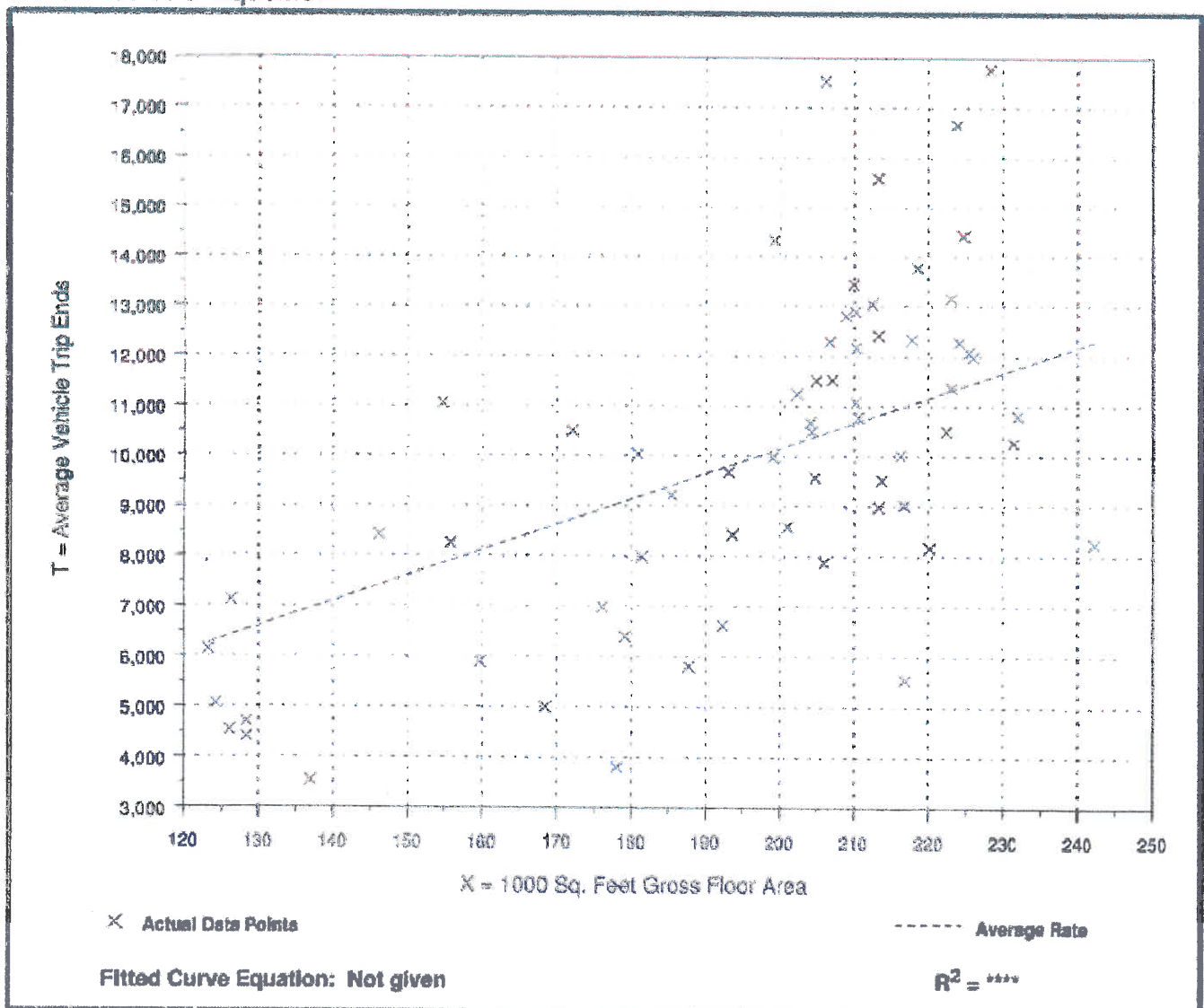
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday

Number of Studies: 65  
Average 1000 Sq. Feet GFA: 196  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
50.75	21.39 - 85.01	14.73

## Data Plot and Equation



# Free-Standing Discount Superstore (813)

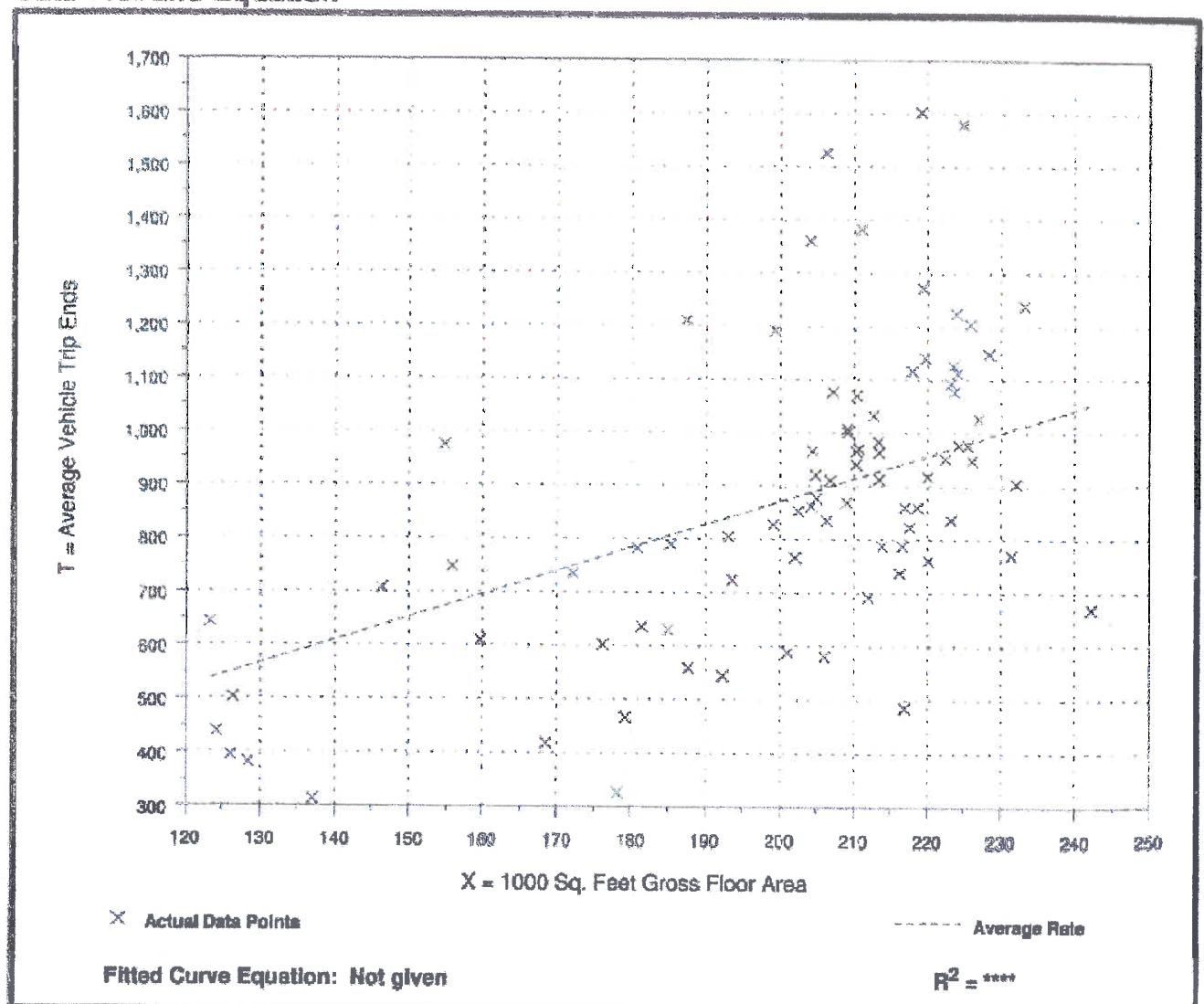
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

Number of Studies: 86  
 Average 1000 Sq. Feet GFA: 200  
 Directional Distribution: 49% entering, 51% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
4.35	1.83 - 7.40	2.36

## Data Plot and Equation

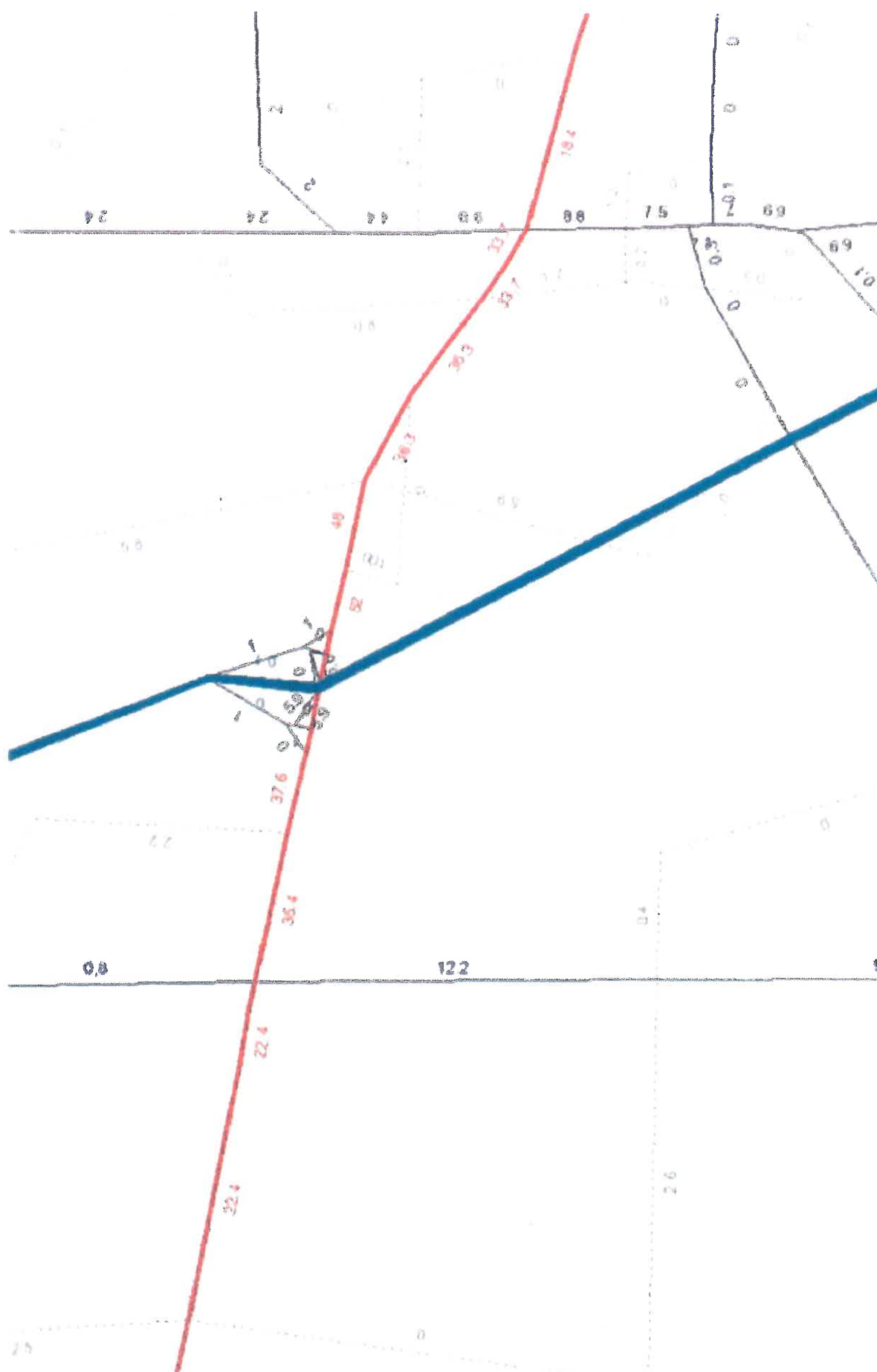




**Table 5.2**  
**Pass-By Trips and Diverted Linked Trips**  
**Weekday, p.m. Peak Period**  
**Land Use 813—Free-Standing Discount Superstore**

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PRIMARY TRIP (%)	NON-PASS- BY TRIP (%)	DIVERTED LINKED TRIP (%)	PASS-BY TRIP (%)	SOURCE
146	North Olmstead, OH	Sept. 1996	210	2:45–6:45 p.m.	—	69	—	31	Mid-Ohio Regional Planning Commission
130	Ashtabula, OH	Sept. 1996	204	2:45–6:45 p.m.	—	75	—	25	Mid-Ohio Regional Planning Commission
102	Bryan, OH	Nov. 1996	100	2:45–6:45 p.m.	—	60	—	40	Mid-Ohio Regional Planning Commission
102	Oxford, OH	Oct. 1996	137	2:45–6:45 p.m.	—	72	—	28	Mid-Ohio Regional Planning Commission
218	Euclid, OH	Sept. 1996	185	2:45–6:45 p.m.	—	77	—	23	Mid-Ohio Regional Planning Commission
173	Mansfield, OH	Oct. 1996	158	2:45–6:45 p.m.	—	76	—	24	Mid-Ohio Regional Planning Commission
167	Hillsboro, OH	Oct. 1996	172	2:45–6:45 p.m.	—	70	—	30	Mid-Ohio Regional Planning Commission
167	Mentor, OH	Sept. 1996	205	2:45–6:45 p.m.	—	75	—	25	Mid-Ohio Regional Planning Commission
Average Pass-By Trip Percentage: 28									

**Appendix F**  
Trip Distribution Plot



**Appendix G**  
Growth Rate Calculations



FLORIDA DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION STATISTICS OFFICE  
2014 HISTORICAL AADT REPORT

COUNTY: 26 - ALACHUA

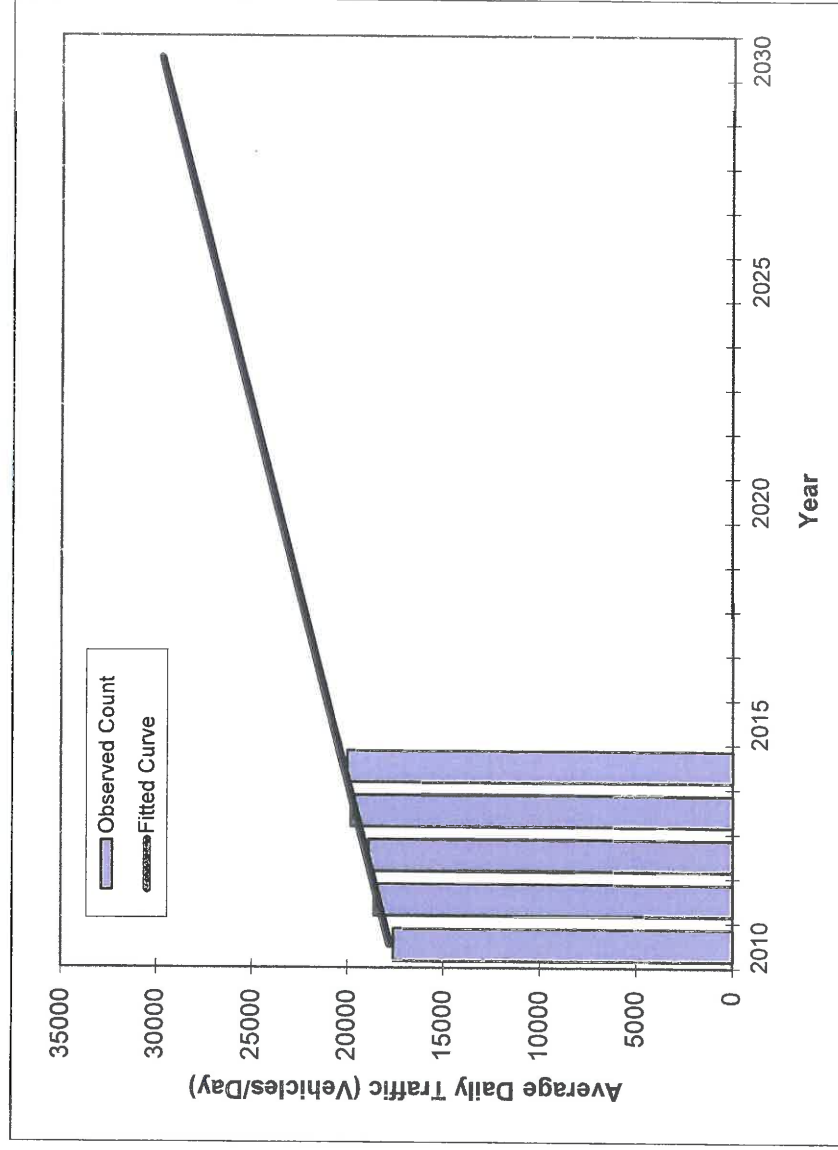
SITE: 5106 - SR 20 .4 MI. NW OF SR 235

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2014	20000	C	N 10000	9.50	57.40	5.40
2013	19800	C	N 9800	9.50	57.80	5.00
2012	18900	C	N 9600	9.50	58.40	4.90
2011	18600	C	N 9200	9.50	58.80	5.50
2010	17600	C	N 8700	10.13	59.87	5.10
2009	19600	C	N 9600	10.04	57.81	6.20
2008	19400	C	N 9800	10.17	57.73	7.30
2007	20000	C	N 10000	10.22	58.44	5.70
2006	20500	C	N 10000	9.98	59.05	6.70
2005	20000	C	N 10000	10.10	58.20	19.60
2004	19900	C	N 10000	10.20	62.30	9.10
2003	21000	C	N 10500	10.20	59.50	12.10
2002	19200	C	N 9800	10.00	56.10	11.80
2001	19400	C	N 9700	10.50	61.30	8.70
2000	18400	C	N 9200	10.30	61.40	7.50
1999	18100	C	N 8700	10.70	59.50	6.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE  
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN  
\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

# **TRAFFIC TRENDS** US 441 -- 0.4 MI NW of SR 235

County:	Alachua
Station #:	5106
Highway:	US 441



<b>** Annual Trend Increase:</b>	600
<b>Trend R-squared:</b>	95.5%
<b>Trend Annual Historic Growth Rate:</b>	3.37%
<b>Trend Growth Rate (2014 to Design Year):</b>	2.97%
<b>Printed:</b>	25-Mar-16
<b>Straight Line Growth Option</b>	

Year	Traffic (ADT/AADT)	
	Count*	Trend**
2010	17600	17800
2011	18600	18400
2012	18900	19000
2013	19800	19600
2014	20000	20200
2017 Opening Year Trend		
2017	N/A	22000
2018 Mid-Year Trend		
2018	N/A	22600
2019 Design Year Trend		
2019	N/A	23200
TRANPLAN Forecasts/Trends		

\*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION STATISTICS OFFICE  
2014 HISTORICAL AADT REPORT

COUNTY: 26 - ALACHUA

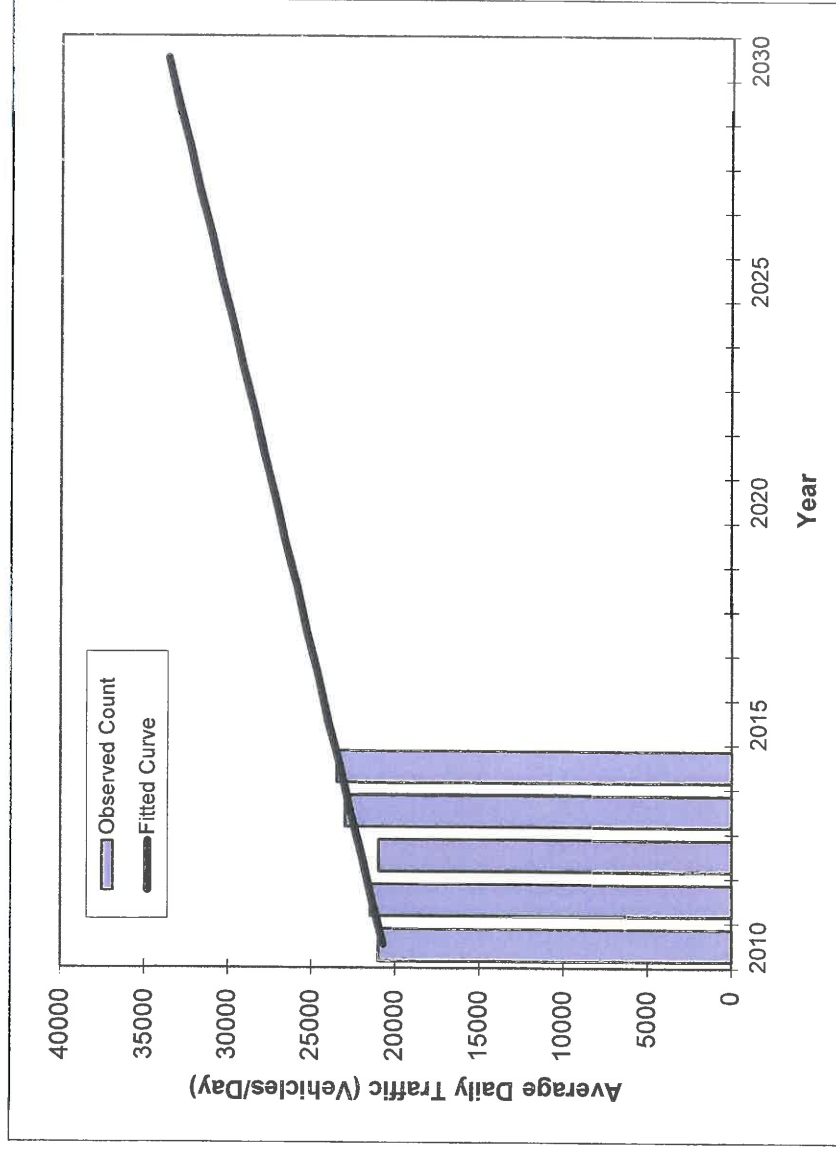
SITE: 0461 - SR 20 .2 MI. NW OF SR 93

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----
2014	23500 C	N 11500	S 12000	9.50	57.40	5.40
2013	23000 C	N 11500	S 11500	9.50	57.80	5.00
2012	21000 C	N 10500	S 10500	9.50	58.40	4.90
2011	21500 C	N 10500	S 11000	9.50	58.80	5.50
2010	21000 C	N 10500	S 10500	10.13	59.87	5.10
2009	24000 C	N 12000	S 12000	10.04	57.81	6.20
2008	22500 C	N 11000	S 11500	10.17	57.73	7.30
2007	26000 C	N 13000	S 13000	10.22	58.44	5.70
2006	24500 C	N 12000	S 12500	9.98	59.05	6.70
2005	21000 C	N 10500	S 10500	10.10	58.20	19.60
2004	22500 C	N 11500	S 11000	10.20	62.30	9.10
2003	21000 C	N 10500	S 10500	10.20	59.50	12.10
2002	21000 C	N 10500	S 10500	10.00	56.10	11.80
2001	19300 C	N 9700	S 9600	10.50	61.30	8.70
2000	17700 C	N 8900	S 8800	10.30	61.40	7.50
1999	16900 C	N 8000	S 8900	10.70	59.50	6.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE  
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN  
\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

# **TRAFFIC TRENDS** US 441 -- 0.2 MI NW of SR 93

County:	Alachua
Station #:	461
Highway:	US 441



<b>** Annual Trend Increase:</b>	650
<b>Trend R-squared:</b>	76.8%
<b>Trend Annual Historic Growth Rate:</b>	3.14%
<b>Trend Growth Rate (2014 to Design Year):</b>	2.83%
<b>Printed:</b>	25-Mar-16
<b>Straight Line Growth Option</b>	

Year	Traffic (ADT/AA DT)	
	Count*	Trend**
2010	21000	20700
2011	21500	21400
2012	21000	22000
2013	23000	22700
2014	23500	23300
2017 Opening Year Trend		
2017	N/A	25300
2018 Mid-Year Trend		
2018	N/A	25900
2019 Design Year Trend		
2019	N/A	26600
TRANPLAN Forecasts/Trends		

\*Axle-Adjusted

**Table 1. Final Development Orders with Valid Concurrency Reservations**

Current Through July 12, 2016 Planning & Zoning Department

Project	Development Order Granted	Project Status	Building Permit Issuance Date	CO Issued?	CO Issuance Date	Water (GPD)	Sewer (GPD)	Traffic (AADT)*	Solid Waste (lbs/day)	Drainage	Parks (Acres)
<b>Final Projects</b>						<b>112,897</b>	<b>73,207</b>		<b>485,511</b>		<b>0.52</b>
Alachua Partners SP	September 11, 2007	Extension granted through May 15, 2016	5/1/2016	No	N/A	12,150	150	327 (34)	32	OK	No Impact
NanoTherapeutics SP	September 23, 2013	Certificate of Occupancy Issued (1 of 3 Permits)	12/10/2013	Yes (1 of 3 Permits)	4/13/2016	70,000	44,500	332 (CR 2054 E)	1,950	OK	No Impact
Upland Industrial Park, Lot 6 SP	September 9, 2014	Certificate of Occupancy Issued	5/26/2015	Yes	12/2/2015	1,000	1,000	38 (34)	120	OK	No Impact
Alachua Market Place SP	November 18, 2014	Certificate of Occupancy Issued	12/7/2014	Yes	9/17/2015	4,295	4,295	77 (1), 613 (2), 2,261 (5), 77 (CR 235A)	672	OK	No Impact
Family Dollar/GoZons SP	November 18, 2014	Certificate of Occupancy Issued	5/27/2015	Yes	8/27/2015	1,912	1,912	N/A (CR 235A S)	304.28	OK	No Impact
Alachua Research Park SP	December 9, 2014	Certificate of Occupancy Issued	5/19/2015	Yes	12/17/2015	6,375	6,375	181 (34), 259 (34), 86 (CR 2054 E)	510	OK	No Impact
PePi-Dogs SP	July 14, 2015	Building Permit Application Submitted	N/A	No	N/A	950	0	41 (34), 13 (CR 2054 E)	79.2	OK	No Impact
Public Services Operations Center SP	December 8, 2015	No Action	N/A	No	N/A	2,655	2,655	586 (34)	214.85	OK	No Impact
Legacy Park, Phase 1 SP	March 7, 2016	Building Permit Application Submitted	N/A	No	N/A	520	520	1,338 (CR 2054 W)	474.68	OK	No Impact
Heritage Oaks Phase II Final Plat	June 13, 2016	Final Plat Recorded Infrastructure Under Construction	N/A	N/A	N/A	12,100	11,000	106 (1), 133 (2), 419 (5), 102 (CR 235A)	417	OK	0.52
Emmick Pediatric Office SP	July 12, 2016	No Action	N/A	N/A	N/A	870	870	51, 75 (CR 235A N)	52	OK	No Impact

Source: City of Alachua Final Development Orders (Project Staff Reports)

\*City Comp Plan Segments and other roads shown in parenthesis (see Tables 5a and 5b for aggregate impacts by segment)

**Table 8. Traffic Impacts Segment by Segment**

Segment Name/Number Roadway	Segment 5 US 441	
	From SR 235 to NCL of Alachua	Peak Hour
Total Development Impact	AADT 3769	362
Alachua Partners SP	0	0
Nanotherapeutics SP	0	0
Upland Industrial Park, Lot 6 SP	0	0
Alachua Market Place SP	2261	204
Family Dollar/AutoZone SP	903	91
Alachua Research Park SP	0	0
PePeDogs SP	0	0
Public Services Operations Center SP	0	0
Legacy Park, Phase 1 SP	0	0
Heritage Oaks Phase II Final Plat	419	45
Emerick Pediatric Office SP	186	22

Notes: Peak Hour trip distribution was not provided for all projects prior to November 2008. Any  
This table is not automatically updated; please add trips to the appropriate segments as

NOTE: OF THE 3,769 DAILY AND 362 PEAK HOUR VESTED TRIPS, 3,164 DAILY AND  
295 PEAK HOUR TRIPS ARE ASSOCIATED WITH DEVELOPMENT THAT HAS BEEN  
COMPLETED AND IS INCLUDED IN THE EXISTING TRAFFIC COUNTS

REMAINING VESTED TRIPS

3,769 - 3,164 = 605 DAILY TRIPS

362 - 295 = 67 PEAK HOUR TRIPS

**Appendix H**  
Projected Intersection Volumes

Period	PLM Peak	Pass By	GR	Years
Town	In/Out	246	98	2
			98	

Interaction		US 441 & QR 235A										
Approach		Mmt	Existing	Factor	Backed	Enter	Exit	Project	PB Elm	PB Ex	Passby	Total
NB	L	50	1.06	53				0			0	53
	T	17	1.06	18				0			0	18
SB	R	79	1.06	84	7%			17			0	101
	L	97	1.06	103	5%			12			0	115
EB	T	23	1.06	24				0			0	24
	R	48	1.06	51				0			0	51
WB	L	28	1.08	30				0			0	30
	T	651	1.06	690	20%			49			0	739
WB	R	50	1.06	53				0			0	53
	L	123	1.06	130			7%	18			0	148
WB	T	1,471	1.06	1559	20%			52			0	1611
	R	82	1.06	87	5%			13			0	100

Intersection		US 441 & NW 157th Blvd										
Approach		Mvmt	Existing	Factor	Backgd	Enter	Exit	Project	PB Ent.	PB Ex	Passby	Total
NB	L	T		1.06	0			0			0	0
	R	T		1.06	0			0			0	0
								0			0	0
SB	L	T	132	1.06	140	3%		7			0	147
	R	T		1.06	0			0			0	0
								0			0	38
EB	L	T	113	1.06	120			0			0	120
	R	T	629	1.06	667	32%		79			0	746
								0			0	0
WB	L	T	2	1.06	2			0			0	2
	R	T	1,214	1.06	1287		32%	83			0	1370
			267	1.06	283	3%		8			0	291

Information		US 441 & 175 SB Ramp									
Approach Mvmt		Existing	Factor	Backgd	Enter	Exit	Project	PB Ent	PB Ex	Passby	Total
NB	L	14	1.06	15			0			0	15
	T	7	1.02	7			0		7	0	7
SB	R	52	1.06	55			0			0	55
	L	147	1.06	156	5%		12			0	168
WB	T	5	1.06	5			0			0	5
	R	56	1.06	59			0			0	59
EB	L		1.06	0			0			0	0
	T	759	1.06	805	35%		86			0	891
WB	R	42	1.06	45			0			0	45
	L	44	1.06	47			0			0	47
WB	T	1,510	1.06	1601		35%	91			0	1692
	R	311	1.06	330		2%	31			0	361

Intersection		US 441 & I75 NB Ramp										
Approach		Wmt	Existing	Factor	Backgd	Enter	Exit	Project	PB Ent	PB Ex	Passby	Total
NB	L	53	1.06	56				0			0	56
	T	13	1.06	14				0		14	0	14
SB	R	8	1.06	8				0			8	0
	L	273	1.06	289		12%		30			0	319
SB	T	21	1.06	22				0		22	0	22
	R	643	1.06	682				0			0	682
EB	L	58	1.06	61				0			61	0
	T	494	1.06	524		40%		98			0	622
NB	R	12	1.06	13				0			0	13
	L	38	1.06	40				0			0	40
NB	T	1,191	1.06	1282				122			0	1384
	R	108	1.06	114		47%		13			0	127

Intersection		US 441 & Access									
Approach	Mvmt	Existing	Factor	Backgd	Enter	Exit	Project	PB Ent	PB Ex	Passby	Total
NB	L		1.06	0			135	52%	55%	54	189
	T		1.06	0			0	0	0	0	0
R	L		1.06	0		35%	99	45%	45%	44	143
	T		1.06	0			0	0	0	0	0
SB	L		1.06	0			0	0	0	0	0
	T		1.06	0			0	0	0	0	0
R	L		1.06	0			0	0	0	0	0
	T		1.06	0			0	0	0	0	0
EB	L		1.06	0			0	0	0	0	0
	T	775	1.06	822			0	-45%	-44	778	
R	L		1.06	0	52%		128	45%	44	172	
	T		1.06	0			94	55%	54	148	
WB	L		1.06	0	38%		0	-55%	-54	1363	
	T	1,337	1.06	1417			0		0	0	
R	L		1.06	0			0		0	0	0
	T		1.06	0			0		0	0	0

Intersection of US 441 & NW 147th Dr												
Approach		Mvmt	Existing	Factor	Backgd	Enter	Exit	Project	PB Ent	PB Ex	Passby	Total
NB	L	L	187	1.06	198			0			0	198
	T	T	20	1.06	21			0			0	21
	R	R	49	1.06	52			0			0	52
SB	L	L	86	1.06	70			0			0	70
	T	T	26	1.06	28			0			0	28
	R	R	92	1.06	98	2%		5			103	103
EB	L	L	60	1.06	64		2%	5			0	69
	T	T	589	1.06	624		35%	94			0	718
	R	R	118	1.06	125			0			0	125
WB	L	L	75	1.06	80						0	80
	T	T	1,139	1.06	1,207	35%		89			0	1,296
	R	R	85	1.06	90						0	90

Intersection		US 411 & Main St					Intersection				
Approach	Mvmt	Existing	Factor	Backgd	Enter	Exit	Project	PB Ent	PB Ex	Passby	Total
NB	L	76	1.06	81			0			0	81
	T	44	1.06	47			0			0	47
	R	39	1.05	41			0			0	41
SB	L	13	1.05	14			0			0	14
	T	25	1.06	27			0			0	27
	R	34	1.00	36	2%		5			0	41
EB	L	42	1.06	45		2%	5			0	50
	T	646	1.06	685		34%	88			0	773
	R	76	1.05	81						0	81
WB	L	64	1.06	68			0			0	68
	T	1,143	1.06	1212	34%		84			0	1296
	R	17	1.06	18			0			0	18

























Intersection		US 411 & NW 140th St									
Approach	Mvmt	Existing	Factor	Backgd	Enter	Exit	Project	PB Ent	PB Ex	Passby	Total
NB	L	151	1.05	160	8%		20			0	180
	T	110	1.05	117				0		0	117
	R	95	1.06	101			0			0	101
SB	L	49	1.05	52			0			0	52
	T	129	1.06	137			0			0	137
	R	76	1.05	81	6%	15				0	96
EB	L	121	1.09	128		6%	16			0	144
	T	457	1.06	484	19%	49				0	533
	R	137	1.06	145		6%	21			0	166
WB	L	138	1.06	146			0			0	146
	T	1,059	1.06	1123	19%	47				0	1170
	R	101	1.05	107						0	107



**Appendix I**  
Projected Intersection Conditions

# HCM 2010 Signalized Intersection Summary















## 3: CR 235A & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	739	53	148	1611	100	53	18	101	115	24	51
Future Volume (veh/h)	30	739	53	148	1611	100	53	18	101	115	24	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1583	1863	1863	1863	1863	1583	1863	1863	1900
Adj Flow Rate, veh/h	32	778	40	156	1696	68	56	19	59	121	25	49
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	20	2	2	2	2	20	2	2	2
Cap, veh/h	169	1947	871	387	2035	910	280	248	179	327	85	166
Arrive On Green	0.03	0.55	0.55	0.06	0.57	0.57	0.04	0.13	0.13	0.06	0.15	0.15
Sat Flow, veh/h	1774	3539	1583	1508	3539	1583	1774	1863	1346	1774	563	1104
Grp Volume(v), veh/h	32	778	40	156	1696	68	56	19	59	121	0	74
Grp Sat Flow(s), veh/h/ln	1774	1770	1583	1508	1770	1583	1774	1863	1346	1774	0	1668
Q Serve(g_s), s	0.9	15.2	1.4	5.4	46.9	2.3	3.2	1.1	4.8	7.0	0.0	4.7
Cycle Q Clear(g_c), s	0.9	15.2	1.4	5.4	46.9	2.3	3.2	1.1	4.8	7.0	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	169	1947	871	387	2035	910	280	248	179	327	0	250
V/C Ratio(X)	0.19	0.40	0.05	0.40	0.83	0.07	0.20	0.08	0.33	0.37	0.00	0.30
Avail Cap(c_a), veh/h	169	1947	871	387	2035	910	280	248	179	327	0	250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	15.6	12.5	11.6	20.8	11.3	42.2	45.5	47.1	42.1	0.0	45.4
Incr Delay (d2), s/veh	2.5	0.6	0.1	3.1	4.2	0.2	1.6	0.6	4.8	3.2	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	12.0	1.1	4.6	32.1	1.9	3.1	1.1	3.6	0.7	0.0	4.3
LnGrp Delay(d),s/veh	22.2	16.2	12.6	14.7	25.0	11.5	43.8	46.1	52.0	45.3	0.0	48.4
LnGrp LOS	C	B	B	B	C	B	D	D	D	D		D
Approach Vol, veh/h		850			1920			134			195	
Approach Delay, s/veh		16.2			23.7			47.7			46.5	
Approach LOS		B			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	22.0	13.0	72.0	11.0	24.0	10.0	75.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	16.0	7.0	66.0	5.0	18.0	4.0	69.0				
Max Q Clear Time (g_c+I1), s	9.0	6.8	7.4	17.2	5.2	6.7	2.9	48.9				
Green Ext Time (p_c), s	0.0	0.4	0.0	31.2	0.0	0.5	0.0	16.2				





















### Intersection Summary

HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

# HCM 2010 Signalized Intersection Summary 23: US441 & NW 167th Blvd





















								
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR	
Lane Configurations								
Traffic Volume (veh/h)	120	746	2	1370	291	147	39	
Future Volume (veh/h)	120	746	2	1370	291	147	39	
Number	7	4		8	18	1	16	
Initial Q (Qb), veh	0	0		0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863		1863	1863	1863	1900	
Adj Flow Rate, veh/h	133	829		1522	323	103	107	
Adj No. of Lanes	1	2		2	1	1	1	
Peak Hour Factor	0.90	0.90		0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	2	2		2	2	2	0	
Cap, veh/h	300	2477		1888	844	355	323	
Arrive On Green	0.23	1.00		0.71	0.71	0.20	0.20	
Sat Flow, veh/h	1774	3632		3632	1583	1774	1615	
Grp Volume(v), veh/h	133	829		1522	323	103	107	
Grp Sat Flow(s),veh/h/ln	1774	1770		1770	1583	1774	1615	
Q Serve(g_s), s	1.7	0.0		35.0	9.8	5.9	6.8	
Cycle Q Clear(g_c), s	1.7	0.0		35.0	9.8	5.9	6.8	
Prop In Lane	1.00				1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	300	2477		1888	844	355	323	
V/C Ratio(X)	0.44	0.33		0.81	0.38	0.29	0.33	
Avail Cap(c_a), veh/h	300	2477		1888	844	355	323	
HCM Platoon Ratio	2.00	2.00		1.33	1.33	1.00	1.00	
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	25.4	0.0		13.2	9.6	40.8	41.1	
Incr Delay (d2), s/veh	4.7	0.4		3.8	1.3	2.1	2.7	
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0	
%ile BackOfQ(95%),veh/ln	5.6	0.2		24.5	8.0	5.6	10.9	
LnGrp Delay(d),s/veh	30.1	0.4		17.0	10.9	42.8	43.9	
LnGrp LOS	C	A		B	B	D	D	
Approach Vol, veh/h		962		1845		210		
Approach Delay, s/veh		4.5		16.0		43.4		
Approach LOS		A		B		D		
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				90.0		30.0	20.0	70.0
Change Period (Y+Rc), s				6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s				74.0		24.0	14.0	64.0
Max Q Clear Time (g_c+I1), s				2.0		8.8	3.7	37.0
Green Ext Time (p_c), s				37.8		0.5	0.2	20.3
Intersection Summary								
HCM 2010 Ctrl Delay			14.2					
HCM 2010 LOS			B					
Notes								

# HCM 2010 Signalized Intersection Summary 6: US441 & I-75 SB Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	891	45	47	1692	361	15	7	55	168	5	59
Future Volume (veh/h)	0	891	45	47	1692	361	15	7	55	168	5	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	0	938	26	49	1781	0	16	7	26	177	5	36
Adj No. of Lanes	0	2	0	1	2	1	0	1	1	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1436	40	177	1976	884	167	73	211	274	8	251
Arrive On Green	0.00	0.82	0.82	0.20	1.00	0.00	0.13	0.13	0.13	0.16	0.16	0.16
Sat Flow, veh/h	0	3611	98	1774	3539	1583	1252	548	1583	1728	49	1583
Grp Volume(v), veh/h	0	472	492	49	1781	0	23	0	26	182	0	36
Grp Sat Flow(s), veh/h/ln	0	1770	1846	1774	1770	1583	1800	0	1583	1776	0	1583
Q Serve(g_s), s	0.0	12.6	12.6	2.8	0.0	0.0	1.3	0.0	1.7	11.5	0.0	2.3
Cycle Q Clear(g_c), s	0.0	12.6	12.6	2.8	0.0	0.0	1.3	0.0	1.7	11.5	0.0	2.3
Prop In Lane	0.00		0.05	1.00		1.00	0.70		1.00	0.97		1.00
Lane Grp Cap(c), veh/h	0	723	754	177	1976	884	240	0	211	281	0	251
V/C Ratio(X)	0.00	0.65	0.65	0.28	0.90	0.00	0.10	0.00	0.12	0.65	0.00	0.14
Avail Cap(c_a), veh/h	0	723	754	177	1976	884	240	0	211	281	0	251
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.7	7.7	44.3	0.0	0.0	45.7	0.0	45.8	47.4	0.0	43.5
Incr Delay (d2), s/veh	0.0	4.6	4.4	3.8	7.2	0.0	0.8	0.0	1.2	11.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.9	11.2	2.8	3.5	0.0	1.3	0.0	1.5	10.7	0.0	2.0
LnGrp Delay(d),s/veh	0.0	12.2	12.0	48.1	7.2	0.0	46.4	0.0	47.0	58.3	0.0	44.7
LnGrp LOS		B	B	D	A		D		D	E		D
Approach Vol, veh/h		964			1830			49			218	
Approach Delay, s/veh		12.1			8.3			46.7			56.1	
Approach LOS		B			A			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		22.0	18.0	55.0		25.0		73.0				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0		6.0				
Max Green Setting (Gmax), s		16.0	12.0	49.0		19.0		67.0				
Max Q Clear Time (g_c+I1), s		3.7	4.8	14.6		13.5		2.0				
Green Ext Time (p_c), s		0.1	0.0	26.1		0.5		40.3				
Intersection Summary												
HCM 2010 Ctrl Delay			13.5									
HCM 2010 LOS			B									
Notes												



























# HCM 2010 Signalized Intersection Summary 9: US441 & I-75 NB Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	622	13	40	1384	127	56	14	8	319	22	682
Future Volume (veh/h)	61	622	13	40	1384	127	56	14	8	319	22	682
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	64	655	5	42	1457	0	59	15	3	336	23	0
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1620	12	444	1593	712	102	26	5	402	28	673
Arrive On Green	0.07	0.90	0.90	0.07	0.90	0.00	0.08	0.08	0.08	0.24	0.24	0.00
Sat Flow, veh/h	1774	3600	27	1774	3539	1583	1366	347	69	1665	114	2787
Grp Volume(v), veh/h	64	322	338	42	1457	0	77	0	0	359	0	0
Grp Sat Flow(s), veh/h/ln	1774	1770	1858	1774	1770	1583	1782	0	0	1779	0	1393
Q Serve(g_s), s	2.3	3.4	3.4	1.5	28.0	0.0	5.0	0.0	0.0	23.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	3.4	3.4	1.5	28.0	0.0	5.0	0.0	0.0	23.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.77		0.04	0.94		1.00
Lane Grp Cap(c), veh/h	198	796	836	444	1593	712	134	0	0	430	0	673
V/C Ratio(X)	0.32	0.40	0.40	0.09	0.91	0.00	0.58	0.00	0.00	0.83	0.00	0.00
Avail Cap(c_a), veh/h	198	796	836	444	1593	712	134	0	0	430	0	673
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.8	3.5	3.5	15.9	4.7	0.0	53.7	0.0	0.0	43.2	0.0	0.0
Incr Delay (d2), s/veh	4.3	1.5	1.5	0.4	9.7	0.0	16.8	0.0	0.0	17.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	3.2	3.3	1.4	20.0	0.0	5.6	0.0	0.0	19.3	0.0	0.0
LnGrp Delay(d),s/veh	24.1	5.0	4.9	16.3	14.4	0.0	70.5	0.0	0.0	60.4	0.0	0.0
LnGrp LOS	C	A	A	B	B		E			E		
Approach Vol, veh/h		724			1499			77			359	
Approach Delay, s/veh		6.7			14.4			70.5			60.4	
Approach LOS		A			B			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	10.0	60.0		35.0	10.0	60.0				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		9.0	4.0	54.0		29.0	4.0	54.0				
Max Q Clear Time (g_c+I1), s		7.0	3.5	5.4		25.0	4.3	30.0				
Green Ext Time (p_c), s		0.0	0.0	22.9		0.8	0.0	15.5				
Intersection Summary												
HCM 2010 Ctrl Delay			20.1									
HCM 2010 LOS			C									

# HCM 2010 Signalized Intersection Summary 12: Site Access & US441




















	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↖↗	↑↑	↖↗	↖↗		
Traffic Volume (veh/h)	778	172	148	1363	189	143		
Future Volume (veh/h)	778	172	148	1363	189	143		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863		
Adj Flow Rate, veh/h	819	102	156	1435	199	67		
Adj No. of Lanes	2	1	2	2	2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1593	712	545	2330	832	673		
Arrive On Green	0.45	0.45	0.32	1.00	0.24	0.24		
Sat Flow, veh/h	3632	1583	3442	3632	3442	2787		
Grp Volume(v), veh/h	819	102	156	1435	199	67		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1770	1721	1393		
Q Serve(g_s), s	19.9	4.5	4.1	0.0	5.6	2.2		
Cycle Q Clear(g_c), s	19.9	4.5	4.1	0.0	5.6	2.2		
Prop In Lane		1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1593	712	545	2330	832	673		
V/C Ratio(X)	0.51	0.14	0.29	0.62	0.24	0.10		
Avail Cap(c_a), veh/h	1593	712	545	2330	832	673		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	23.6	19.4	35.9	0.0	36.6	35.4		
Incr Delay (d2), s/veh	1.2	0.4	1.3	1.2	0.7	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	15.1	3.7	3.6	0.7	4.9	1.6		
LnGrp Delay(d),s/veh	24.8	19.8	37.2	1.2	37.3	35.6		
LnGrp LOS	C	B	D	A	D	D		
Approach Vol, veh/h	921			1591	266			
Approach Delay, s/veh	24.3			4.8	36.9			
Approach LOS	C			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		35.0	25.0	60.0				85.0
Change Period (Y+Rc), s		6.0	6.0	6.0				6.0
Max Green Setting (Gmax), s		29.0	19.0	54.0				79.0
Max Q Clear Time (g_c+I1), s		7.6	6.1	21.9				2.0
Green Ext Time (p_c), s		0.9	0.4	21.0				32.7
Intersection Summary								
HCM 2010 Ctrl Delay			14.3					
HCM 2010 LOS			B					

# HCM 2010 Signalized Intersection Summary 13: NW 147th St & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SEL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	718	125	80	1296	90	198	21	52	70	28	103
Future Volume (veh/h)	69	718	125	80	1296	90	198	21	52	70	28	103
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	73	756	132	84	1364	95	208	22	55	74	29	108
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	1681	752	478	1681	752	412	95	236	335	264	224
Arrive On Green	0.15	0.95	0.95	0.10	0.63	0.63	0.11	0.20	0.20	0.05	0.14	0.14
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	473	1182	1774	1863	1583
Grp Volume(v), veh/h	73	756	132	84	1364	95	208	0	77	74	29	108
Grp Sat Flow(s), veh/h/ln	1774	1770	1583	1774	1770	1583	1774	0	1654	1774	1863	1583
Q Serve(g_s), s	2.2	2.2	0.6	2.7	34.9	2.9	11.7	0.0	4.7	4.2	1.6	7.5
Cycle Q Clear(g_c), s	2.2	2.2	0.6	2.7	34.9	2.9	11.7	0.0	4.7	4.2	1.6	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	260	1681	752	478	1681	752	412	0	331	335	264	224
V/C Ratio(X)	0.28	0.45	0.18	0.18	0.81	0.13	0.50	0.00	0.23	0.22	0.11	0.48
Avail Cap(c_a), veh/h	260	1681	752	478	1681	752	412	0	331	335	264	224
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	1.6	1.6	12.4	18.0	12.1	36.6	0.0	40.3	40.9	44.9	47.4
Incr Delay (d2), s/veh	2.7	0.9	0.5	0.8	4.4	0.3	4.4	0.0	1.6	1.5	0.8	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	1.9	0.6	2.5	24.6	2.4	10.2	0.0	4.1	4.0	1.6	6.8
LnGrp Delay(d),s/veh	20.0	2.5	2.1	13.2	22.4	12.5	41.0	0.0	41.9	42.4	45.7	54.7
LnGrp LOS	C	A	A	B	C	B	D		D	D	D	D
Approach Vol, veh/h		961			1543			285			211	
Approach Delay, s/veh		3.8			21.3			41.2			49.1	
Approach LOS		A			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.0	15.0	63.0	19.0	23.0	15.0	63.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	6.0	24.0	9.0	57.0	13.0	17.0	9.0	57.0				
Max Q Clear Time (g_c+I1), s	6.2	6.7	4.7	4.2	13.7	9.5	4.2	36.9				
Green Ext Time (p_c), s	0.0	0.8	0.1	26.6	0.0	0.5	0.0	14.6				
Intersection Summary												
HCM 2010 Ctrl Delay			19.5									
HCM 2010 LOS			B									























# HCM 2010 Signalized Intersection Summary 17: Main St & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	773	81	68	1296	18	81	47	41	14	27	41
Future Volume (veh/h)	50	773	81	68	1296	18	81	47	41	14	27	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	53	814	66	72	1364	15	85	49	31	15	28	30
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	1934	157	495	2062	23	373	240	152	90	164	152
Arrive On Green	0.10	1.00	1.00	0.08	1.00	1.00	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3316	269	1774	3586	39	1340	1068	676	240	728	675
Grp Volume(v), veh/h	53	434	446	72	673	706	85	0	80	73	0	0
Grp Sat Flow(s), veh/h/ln	1774	1770	1815	1774	1770	1856	1340	0	1744	1643	0	0
Q Serve(g_s), s	1.4	0.0	0.0	1.9	0.0	0.0	1.2	0.0	4.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	1.9	0.0	0.0	5.2	0.0	4.5	4.1	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.02	1.00		0.39	0.21		0.41
Lane Grp Cap(c), veh/h	374	1032	1059	495	1018	1067	373	0	392	406	0	0
V/C Ratio(X)	0.14	0.42	0.42	0.15	0.66	0.66	0.23	0.00	0.20	0.18	0.00	0.00
Avail Cap(c_a), veh/h	374	1032	1059	495	1018	1067	373	0	392	406	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	0.0	8.8	0.0	0.0	38.0	0.0	37.8	37.6	0.0	0.0
Incr Delay (d2), s/veh	0.8	1.3	1.2	0.6	3.4	3.2	1.4	0.0	1.2	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.7	0.7	1.8	1.7	1.7	4.4	0.0	4.1	3.7	0.0	0.0
LnGrp Delay(d),s/veh	9.0	1.3	1.2	9.4	3.4	3.2	39.4	0.0	38.9	38.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		
Approach Vol, veh/h		933			1451			165			73	
Approach Delay, s/veh		1.7			3.6			39.2			38.6	
Approach LOS		A			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.0	11.0	76.0		33.0	12.0	75.0				
Change Period (Y+Rc), s		6.0	6.0	6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		27.0	5.0	70.0		27.0	6.0	69.0				
Max Q Clear Time (g_c+I1), s		7.2	3.9	2.0		6.1	3.4	2.0				
Green Ext Time (p_c), s		1.0	0.0	26.2		1.1	0.0	26.0				
Intersection Summary												
HCM 2010 Ctrl Delay			6.1									
HCM 2010 LOS			A									



# HCM 2010 Signalized Intersection Summary 20: NW 140th St & US441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	533	166	146	1170	107	180	117	101	52	137	96
Future Volume (veh/h)	144	533	166	146	1170	107	180	117	101	52	137	96
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	561	133	154	1232	84	189	123	74	55	144	78
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	1232	291	529	1485	101	283	255	153	280	209	113
Arrive On Green	0.18	0.87	0.87	0.10	0.44	0.44	0.08	0.23	0.23	0.03	0.18	0.18
Sat Flow, veh/h	1774	2842	672	1774	3363	229	1774	1091	656	1774	1138	616
Grp Volume(v), veh/h	152	349	345	154	647	669	189	0	197	55	0	222
Grp Sat Flow(s), veh/h/ln	1774	1770	1744	1774	1770	1822	1774	0	1747	1774	0	1754
Q Serve(g_s), s	5.3	5.2	5.2	5.3	38.7	38.8	10.0	0.0	11.7	3.0	0.0	14.2
Cycle Q Clear(g_c), s	5.3	5.2	5.2	5.3	38.7	38.8	10.0	0.0	11.7	3.0	0.0	14.2
Prop In Lane	1.00		0.39	1.00		0.13	1.00		0.38	1.00		0.35
Lane Grp Cap(c), veh/h	272	767	756	529	782	805	283	0	408	280	0	322
V/C Ratio(X)	0.56	0.45	0.46	0.29	0.83	0.83	0.67	0.00	0.48	0.20	0.00	0.69
Avail Cap(c_a), veh/h	272	767	756	529	782	805	283	0	408	280	0	322
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	4.9	4.9	14.5	29.5	29.5	36.1	0.0	39.7	38.1	0.0	45.8
Incr Delay (d2), s/veh	8.1	1.9	2.0	1.4	9.9	9.7	11.9	0.0	4.1	1.6	0.0	11.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	4.9	4.9	5.0	28.5	29.3	9.8	0.0	10.1	2.8	0.0	12.6
LnGrp Delay(d),s/veh	29.2	6.8	6.9	15.8	39.4	39.3	48.0	0.0	43.8	39.7	0.0	57.3
LnGrp LOS	C	A	A	B	D	D	D		D	D		E
Approach Vol, veh/h		846			1470			386			277	
Approach Delay, s/veh		10.9			36.9			45.9			53.8	
Approach LOS		B			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	34.0	18.0	58.0	16.0	28.0	17.0	59.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	4.0	28.0	12.0	52.0	10.0	22.0	11.0	53.0				
Max Q Clear Time (g_c+I1), s	5.0	13.7	7.3	7.2	12.0	16.2	7.3	40.8				
Green Ext Time (p_c), s	0.0	2.2	0.1	18.8	0.0	1.2	0.1	8.7				
Intersection Summary												
HCM 2010 Ctrl Delay			32.2									
HCM 2010 LOS			C									