



# City of Deltona

**Mayor**  
John Masiarczyk

**Vice Mayor**  
Chris Nabicht  
**District 6**

**Commissioners:**

Mitch Honaker  
**District 1**

Diane Smith  
**District 2**

Heidi Herzberg  
**District 3**

Nancy Schleicher  
**District 4**

Brian Soukup  
**District 5**

**City Manager**  
Jane K. Shang

## **PUBLIC NOTICE**

**CITY OF DELTONA  
2345 Providence Blvd.  
Deltona, FL 32725**

**City Manager Agenda Review Meeting  
2<sup>nd</sup> Floor Conference Room  
Monday, October 17, 2016  
5:30 P.M.**

**NOTE:** If any person decides to appeal any decision made by the City Commission with respect to any matter considered at this meeting or hearing, he/she will need a record of the proceedings, and for such purpose he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based (F.S. 286.0105).

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk, Joyce Raftery 48 hours in advance of the meeting date and time at (386) 878-8500.



# City of Deltona

2345 Providence Blvd.  
Deltona, FL 32725

## Regular Commission Meeting

### City Commission

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Monday, October 17, 2016

6:30 PM

Deltona Commission Chambers

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#### 1. CALL TO ORDER:

#### 2. ROLL CALL – CITY CLERK:

#### 3. INVOCATION AND PLEDGE TO THE FLAG:

##### A. [Silent Invocation Presented by Mayor Masiarczyk.](#)

**Background:**

At the Regular City Commission Meeting on Monday, October 17, 2011, the City Commission approved to have each Commissioner by District schedule someone to present the invocation at each Regular City Commission meeting rotating each Commissioner by District starting with District #1, #2, #3, #4, #5, #6 and the Mayor.

#### 4. APPROVAL OF MINUTES & AGENDA:

##### A. [Approval of minutes - Regular Commission Meeting of October 3, 2016 and the Special Commission Meeting of October 5, 2016 - Joyce Raftery, City Clerk \(386\) 878-8502.](#)

**Background:**

N/A

**Attachments:**

[October 3, 2016 RCM Minutes](#)

[October 5, 2016 SCM Minutes](#)

#### 5. PRESENTATIONS/AWARDS/REPORTS:

##### A. [Presentation - Quarterly Reports of City Advisory Boards/Committees - Joyce Raftery, City Clerk \(386\) 878-8502.](#)

**Background:**

Quarterly Reports of City Advisory Boards/Committees:

1) Parks and Recreation Advisory Committee - (Written Report Only)

- Senior Advisory Sub-Committee
- Youth Advisory Sub-Committee
- Citizen Accessibility Advisory Sub-Committee

2) Affordable Housing Advisory Committee - (Written Report Only)

3) Ordinance Review Committee - (Written Report Only)

**Attachments:** [P&R 3rd Quarter Report 2016](#)  
[AHAC 3rd Quarter Report 2016](#)  
[ORC 3rd Quarter Report 2016](#)

B. [Proclamation - Florida City Government Week](#)

**Attachments:** [Florida City Government Week](#)

6. CITY COMMISSION SPECIAL REPORTS:

7. PUBLIC FORUM: - Citizen comments limited to items not on the agenda and comments on items listed on the agenda will take place after discussion of each item.

*Citizen comments for any items. (4 minute maximum length per speaker)*

**CONSENT AGENDA:** The consent agenda contains items that have been determined to be routine and non-controversial. If anyone in the audience wishes to address a particular item on the consent agenda, now is the opportunity for you to do so. Additionally, if staff or members of the City Commission wish to speak on a consent item, they have the same opportunity.

8. CONSENT AGENDA:

9. ORDINANCES AND PUBLIC HEARINGS:

A. [Public Hearing - Ordinance No. 26-2016, Deltona Free Standing Emergency Room BPUD \(RZ16-001\), at second and final reading - Chris Bowley, AICP, Planning and Development Services, \(386\) 878-8602.](#)

[Strategic Goal: Economic Development - Focus on Howland Blvd. as the gateway for commercial growth.](#)

**Background:**

Through Ordinance No. 26-2016, Central Florida Regional Hospital is proposing a free-standing emergency room/urgent care facility on a ±3.24-acre site within the Deltona Activity Center. The proposed ±3.24-acre site will be through the creation of a new lot within an overall ±28-acre tract. The ±28-acre tract received a BPUD zoning designation in a prior City rezoning action, known as the ICC BPUD. However, the Development Agreement for the ICC BPUD was never executed. The proposed Deltona Free Standing Emergency Room BPUD is separate from the ICC BPUD and will require its own Development Agreement and Master Development Plan.

As proposed, the applicant for the Deltona Free Standing Emergency Room BPUD desires to construct a ±10,839-SF facility limited to a 0.08 floor area ratio maximum (FAR), parking, driveways, and stormwater management pond. The applicant is requesting a single-use BPUD and any change to that development program or reuse of development in the future will require an amendment to the Deltona Free Standing Emergency Room BPUD.

The applicant is requesting access directly from Graves Avenue into the subject site. Initially, a full-directional movement was requested, then a right-in/right-out. Following the first reading of the ordinance, the land owner provided information that common ownership existed for the parcel directly north of the intersection of N. Normandy and Graves Ave. Thus, there are two access scenarios - the proposed right-in/right-out at the subject site and the potential full intersection movement at the existing N. Normandy and Graves Ave. intersection. The applicant provided a Transportation Impact Analysis (TIA) to support the right-in/right-out design and the City engaged a traffic consultant to review that TIA (see the attached TIA and peer review correspondence). The land owner also engaged transportation engineers to create conceptual designs of the intersection of N. Normandy and Graves Ave. for a "plus" intersection (see attached). As a result, the attached Development Agreement includes a provision that both access scenarios shall be provided, as underlined.

**Attachments:** [Ordinance No. 26-2016](#)  
[FSER Development Agreement](#)  
[FSER Staff Report](#)  
[Deltona FSER TIA Summary & Review Comments 101016](#)  
[Deltona FSER TIA Final](#)  
[Graves Normandy 2016 Sketch Concept](#)  
[Graves Normandy 2016 Sketch Model](#)

- B. [Request for approval of Resolution No. 2016-51, changing the covenants and restrictions as to the Community Center on Lake Monroe by repealing such covenants and restrictions - Becky Vose, Legal Department \(407\) 448-0111.](#)

[Strategic Goal: Economic Development](#)

**Background:** On November 12, 1976, the Deltona Corporation imposed certain covenants and restrictions as to the property located at 980 Lakeshore Drive, Deltona.

Such covenants and restrictions expired on November 1, 2006, with the provision that they would automatically be extended for

successive periods of ten (10) years, unless by vote of a majority of the then owner of the Property, it is agreed to change the covenants and restrictions in whole or in part.

The City of Deltona is currently the owner of the Property and the City finds it in the best interest of the City and its residents to repeal such covenants and restrictions.

**Attachments:** [Resolution No. 2016-51 w/Exhibit "A"](#)  
[Declaration of Restrictions](#)

- C. [Request for approval of Resolution No. 2016-53, a Resolution of the City Commission of the City of Deltona, Florida Waiving Building Permit Fees for Repair of Storm Related Damages until the end of 2016.- Jane K. Shang, City Manager \(386\) 878-8850.](#)

[Strategic Goals: Public Safety.](#)

**Background:** On October 3, 2016 the Honorable Rick Scott, Governor of the State of Florida, issued Executive Order Number 16-230 declaring a state of emergency in the State of Florida due to Hurricane Matthew. On October 5, 2016 the City of Deltona declared a state of local emergency in anticipation of Hurricane Matthew. Hurricane Matthew caused significant damage to properties within the City of Deltona. It is the recommendation of the City Manager that building permit fees for repair of storm related damages be waived until the end of 2016.

**Attachments:** [Resolution No. 2016-53](#)

- D. [Request for approval of Resolution No. 2016-54, a Resolution of the City Commission of the City of Deltona, Florida Ratifying Agreement for As Needed Emergency Debris Monitoring Services.- Jane K. Shang, City Manager \(386\) 878-8850.](#)

[Strategic Goals: Public Safety](#)

**Background:** On October 3, 2016 the Honorable Rick Scott, Governor of the State of Florida, issued Executive Order Number 16-230 declaring a state of emergency in the State of Florida due to Hurricane Matthew. On October 5, 2016 the City of Deltona declared a state of local emergency in anticipation of Hurricane Matthew. Hurricane Matthew caused significant damage to properties within the City of Deltona. On May 21, 2014, the City of Deltona entered into an Agreement between the City of Deltona, Florida and Leidos, Inc. for As Needed Emergency Debris Monitoring Services per RFP # PW 14-03 ("Agreement"). The Agreement provides that the Agreement may not be assigned or transferred in any manner. The assets division of Leidos, Inc. that provides the services set forth in the Agreement was

acquired by Tetra Tech, Inc. on August 23, 2014. In order to avoid any confusion or misunderstanding with regard to the ability of the City of Deltona to utilize the services provided for under the Agreement, and to avoid any issues regarding the reimbursement of expenses incurred under the Agreement by FEMA, it is deemed in the best interest of the City of Deltona to formally ratify the Agreement and to affirm that the services under the Agreement shall be performed by Tetra Tech as the successor of Leidos, Inc., and that payments under the Agreement shall be paid to Tetra Tech, as the successor of Leidos, Inc.

**Attachments:** [Resolution No. 2016-54](#)  
[Leidos, Inc Agreement](#)  
[Deltona, City of Pre-Acquisition Letter](#)  
[Deltona, City of Post-Acquisition Letter](#)  
[Leidos-TetraTech Agreement on Assets Redacted \(Opt\)](#)

#### 10. OLD BUSINESS:

- A. [Request for approval to award the health insurance to Cigna. - Richard Adams, Human Resources \(386\) 878-8752.](#)

[Strategic Goal: Fiscal Issues](#)

**Background:** Staff was asked to put out to bid the City's health insurance. The bids went out in August, 2016 for health insurance and the City received seven (7) bids for health insurance and nine (9) bids for dental insurance. The Selection Committee reviewed the bids and unanimously elected to go with Cigna. By going with Cigna it would save the City approximately \$600,000 +/-.

**Attachments:** [RFP 16014 Negotiation Summary REV](#)  
[Health Insurance Update for Commission 2017](#)  
[Cigna Rate Letter](#)

- B. [Consideration of Commissioner Schleicher's appointment to the Planning and Zoning Board for the remainder of a term to expire on March 15, 2017 - Joyce Raftery, City Clerk \(386\) 878-8502.](#)

[Strategic Goal: Internal and external communication.](#)

**Background:** At the Regular Commission Meeting on September 19, 2016 Commissioner Schleicher tabled her appointment to the board for 30 days. Mr. Noble Olasimbo, Commissioner Schleicher's appointment, resigned from the Planning and Zoning Board on August 31, 2016. Per Article XII. Planning and Zoning Board, Sec. 110-1200. Creation (b), "The vacancy shall be filled within 30 days from the time it

occurs." The appointment will serve for the remainder of a term to expire on March 15, 2017.

The City has run press releases, posted the opening on D-TV, the City's web page and bulletin boards. To date the City has received applications from the following individuals: Jose Irizarry, Smiley Thurston and Frank Whittock.

**Attachments:** [P&Z Member List](#)  
[Resignation - Olasimbo](#)  
[Application - Irizarry](#)  
[Application - Thurston](#)  
[Application - Whittock](#)

## 11. NEW BUSINESS:

- A. [Request for approval of the 2017 holiday meeting schedule - Joyce Raftery, City Clerk's Department \(386\) 878-8502.](#)

**Background:** In the past, the Commission has chosen to change the Commission meeting schedule in December due to the holiday season, i.e. combining the two (2) regular meetings in December to one (1) meeting in the middle of the month of December and to have no workshops during the month of December.

Attached for the Commission's approval is the proposed schedule for the calendar year 2017 City Commission meetings which includes one (1) regular City Commission meeting and no workshops for the month of December, 2017 and for the Commission's information the invocation schedule for 2017 is also included.

**Attachments:** [2017 Holiday Meeting Schedule](#)  
[2017 Invocation Meeting Schedule](#)

## 12. CITY ATTORNEY COMMENTS:

## 13. CITY MANAGER COMMENTS:

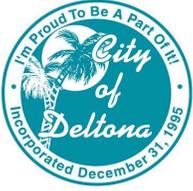
## 14. CITY COMMISSION COMMENTS:

## 15. ADJOURNMENT:

*NOTE: If any person decides to appeal any decision made by the City Commission with respect to any matter considered at this meeting or hearing, he/she will need a record of the proceedings, and for such purpose he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony*

*and evidence upon which the appeal is to be based (F.S. 286.0105).*

*Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk, Joyce Raftery 48 hours in advance of the meeting date and time at (386) 878-8500.*



## Agenda Memo

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**AGENDA ITEM:** A.

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 3 - A

**SUBJECT:**

Silent Invocation Presented by Mayor Masiarczyk.

**LOCATION:**

N/A

**BACKGROUND:**

At the Regular City Commission Meeting on Monday, October 17, 2011, the City Commission approved to have each Commissioner by District schedule someone to present the invocation at each Regular City Commission meeting rotating each Commissioner by District starting with District #1, #2, #3, #4, #5, #6 and the Mayor.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

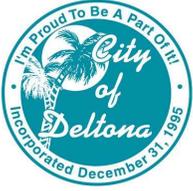
City Manager's Office

**STAFF RECOMMENDATION PRESENTED BY:**

N/A - Invocation Only.

**POTENTIAL MOTION:**

N/A - Invocation Only.



## Agenda Memo

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**AGENDA ITEM: A.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 4 - A

**SUBJECT:**

Approval of minutes - Regular Commission Meeting of October 3, 2016 and the Special Commission Meeting of October 5, 2016 - Joyce Raftery, City Clerk (386) 878-8502.

**LOCATION:**

N/A

**BACKGROUND:**

N/A

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

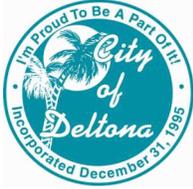
City Clerk's Office

**STAFF RECOMMENDATION PRESENTED BY:**

City Clerk Joyce Raftery - That the Commission approve the minutes of the Regular Commission Meeting of October 3, 2016 and the Special Commission Meeting of October 5, 2016.

**POTENTIAL MOTION:**

"I move to approve the minutes of the Regular Commission Meeting of October 3, 2016 and the Special Commission Meeting of October 5, 2016, as presented."



# City of Deltona

2345 Providence Blvd.  
Deltona, FL 32725

## Minutes

### City Commission

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Monday, October 3, 2016

6:30 PM

Deltona Commission Chambers

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#### REVISED AGENDA - SEPTEMBER 30, 2016

#### 1. CALL TO ORDER:

The meeting was called to order at 6:30 p.m. by Mayor Masiarczyk.

#### 2. ROLL CALL – CITY CLERK:

**Present:** 9 - Commissioner Herzberg  
Commissioner Honaker  
Commissioner Schleicher  
Commissioner Smith  
Commissioner Soukup  
Vice Mayor Nabicht  
Mayor Masiarczyk  
City Manager Shang  
City Attorney Vose

#### 3. INVOCATION AND PLEDGE TO THE FLAG:

##### A. Invocation Presented by Vice Mayor Nabicht

Vice Mayor Nabicht led everyone in a silent invocation, then the Deltona Honor Guard presented the colors and everyone said the pledge of allegiance.

The National Anthem was sung by Isabel Rios an 8th Grader from Galaxy Middle School.

#### 4. APPROVAL OF MINUTES & AGENDA:

##### A. Approval of minutes - Regular Commission Meeting of September 19, 2016 - Joyce Raftery, City Clerk (386) 878-8502.

**Motion by Commissioner Herzberg, seconded by Commissioner Schleicher, to approve the minutes of the Regular Commission Meeting of September 19, 2016, as presented. The motion carried by the following vote:**

**For:** 7 - Commissioner Herzberg, Commissioner Honaker, Commissioner Schleicher, Commissioner Smith, Commissioner Soukup, Vice Mayor Nabicht, and Mayor Masiarczyk

## **5. PRESENTATIONS/AWARDS/REPORTS:**

### **A. Super Star Student of the Month Certificates for September 2016**

Mayor Masiarczyk and the Commission presented Certificates of Recognition to the Super Star Students for the month of September, 2016.

### **B. Deltona School system update by Superintendent of Volusia County School District, Mr. Tom Russell**

Mr. Russell, Superintendent of Volusia County School District, provided an update on Deltona schools to include that he will be visiting all Volusia County cities, needing and creating positive relationships with the cities and the schools being made up of good students, parents, faculty and staff. He praised the City for having the Super Star Student Award Program which other municipalities do not have. He talked about three (3) guiding principles and he explained each, teaching the standards, needing to prevent students from being chronically absent or being out 10% of the school year, the STEM (Science, Technology, Engineering and Math) Program which helps with deficits in math and science, the 1% sales tax, school security, replacing Deltona Middle School, Deltona not needing new schools, and the age of the schools and maintenance needed on them.

Mayor Masiarczyk called a recess at 7:07 p.m. and reconvened at 7:11 p.m.

### **F. Proclamation - Fire Prevention Week October 9-15, 2016**

The Mayor and City Commission presented a Proclamation to the Deltona Fire Department for the 2016 Fire Prevention Week which takes place from October 9-15, 2016.

### **C. Presentation: Blue Springs Septic System Update - Matt Doan, Deputy Public Works Director, Public Works Department, (386) 878-8973**

#### **Strategic Goal: Internal and External Communication.**

Deputy Public Works Director Matt Doan gave a brief update regarding the recent Florida Department of Environmental Protection (FDEP) Basin Management Meeting which was held on Wednesday, September 28, 2016. The update included positive feedback from the meeting, that there were three (3) presentations given from the Department of Health, the Florida Onsite Waste Water Associate and FDEP and he provided a brief synopsis of each presentation given. He encouraged everyone to contact the FDEP and the legislature to voice their opinions regarding the proposed switch from septic to sewer.

**D. Presentation: Update on the Volusia Transit Connector Study - Chris Bowley, AICP, Planning and Development Services, (386) 878-8602.**

**Strategic Goal: Other Priority Objectives. Explore multi-modal transportation opportunities.**

Planning & Development Services Director Chris Bowley stated there is a team of people who are working on the ultra-long range plan for multimodal transportation in the county, the City is a recipient of the SunRail system and the team that is led by the Florida Department of Transportation (FDOT) and their consultants are present to provide a final presentation of their findings and analysis.

Joe Bitar, Project Manager with FDOT, introduced his team to include Ralph Bove with FDOT, Pat Northey with Ghyabi & Associates, and Alan Danaher with Parsons Brinkerhoff.

Ralph Bove provided a brief presentation which included the study process, refined alternatives analysis, bus rapid transit (BRT) route configuration, rail route configuration, capital cost estimates in millions, operation and maintenance (O&M) cost estimates in millions, ridership projections, new and small starts project evaluation and rating, Federal Transit Administration (FTA) project justification rating assessment, where do we go from here?, potential implementation strategy, two-component strategy, transit improvement strategy, land development strategies, transit and density relationship, mode applicability based on densities in study area, study area vs. SunRail stations, transit oriented development (TOD) assessment, and remaining schedule.

**E. Presentation: The Center at Deltona/New Community Center - Chris Bowley, AICP, Planning and Development Services, (386) 878-8602.**

**Strategic Goal: Fiscal Issues - New Community Center; Economic Development - Construct a Senior/Community Center.**

Planning & Development Director Chris Bowley provided a brief history of the project.

Tim McNicholas, Architect with CT Hsu, 820 Irma Avenue, Orlando, gave a brief overview of the project, being out to bid and receiving bids by mid-October and having "shovels in the ground" by the end of the year.

Rene Alvarez, Design Engineer with CT Hsu, gave a brief presentation to include the site plan, floor plan, exterior elevations, lobby and great hall, pre-function space, banquet room, the finish plan and the material and colors used for the interior.

Commissioner Soukup left the meeting at 8:15 p.m.

Commissioner Smith left the meeting at 8:23 p.m. and returned at 8:26 p.m.

Mayor Masiarczyk opened the public forum.

John Pierce, 2485 Alton Road, Deltona, spoke about the having a wood dance floor in the new community center because it is the best and easiest type of flooring on older Tim McNicholas, Architect with CT Hsu, 820 Irma Avenue, Orlando, gave a brief overview of the project, being out to bid and receiving bids by mid-October and having "shovels in the ground" by the end of the year.

Zoe Clement, 2485 Alton Road, Deltona, spoke about having a wood dance floor at the new community center, that eight (8) years ago she came before the Commission for the wood floor that currently exists at the Community Center, senior wanting to remain active and she encouraged the Commission to go look at the current wood dance floor.

Mayor Masiarczyk closed the public forum.

## **6. CITY COMMISSION SPECIAL REPORTS:**

Commissioner Honaker stated he attended on September 30th the Florida League of Cities Legislative Policy Committee Meetings, he is a member of the Finance and Taxation Personnel Committee, he provided key dates of the legislature and key contact program, that the committee looked at nine (9) different items and will narrow them down to two (2) topics to take to Tallahassee and he went over several of the topics that were considered.

Mayor Masiarczyk left the meeting at 8:38 p.m.

Commissioner Herzberg stated she also attended the Legislative Policy Meetings and she gave a brief explanation of the classes she took which included "Bringing Home the Bacon Part 3" which discussed how to lobby as an elected official. She stated she is on the policy committee for environmental energy called the Environmental and Natural Resources Policy Committee and the group did not narrow down the topics of discussion. At the next meeting the City of Cape Coral will be doing a presentation on class five (5) shallow recharge disposable injection wells, waste water discharge permits and Department of Environmental Protection (DEP) and South Florida Water Management District Permits and she gave a brief explanation of other topics for discussion. She stated there were no policy decisions made.

Vice Mayor Nabicht stated he attended the Transportation Planning Organization (TPO) meeting which was the longest meeting yet and did not get through the entire agenda because of the long discussion regarding the \$1.65 million request by Volusia County for an emergency repair to the Turnbull Bay Bridge and he gave a brief history of the bridge. He stated the county only received two (2) bids, FDOT found about half of the money, the TPO has never had this situation and the executive committee will be developing a procedure which will include what constitutes an emergency and how to deal with the debt because there is nothing in place. He stated there was a vote to approve the request and the funds came from several different locations and he gave a brief description of the breakdown.

Mayor Masiarczyk returned to the meeting at 8:48 p.m.

Vice Mayor Nabicht continued by stating that all of the projects on TPO's program list were all protected and completely funded, what was at risk was the Volusia County funded projects one of which was the widening of Howland Blvd. so it was a win, win for everybody. He stated dollars have been encumbered but, not transferred and creating that procedure to allow for the transfer of funds under a true emergency circumstance, that the bridge is crumbling to pieces, how difficult it is to move transportation projects through local, state and federal "hoops" and that the project only had two (2) bidders.

**7. PUBLIC FORUM: - Citizen comments limited to items not on the agenda and comments on items listed on the agenda will take place after discussion of each item.**

Mayor Masiarczyk opened the public forum.

Smiley Thurston, 608 Saxon Blvd., Deltona, spoke about the Interface Council meeting held on Thursday, the neighborhood administrative building and thrift store being started, building a homeless shelter to hold 30 people within two (2) rooms, the plan being presented to the County Council for approval, that Susan Clark was contracted to run the facility, the only City not present at the meeting was Debary, and Deltona's support for the project.

Brandy White, 2926 Chalmer Street, Deltona, spoke about a Commissioner being treated like a resident at the last Regular Commission Meeting, residents wanting answers to the Commissioner's questions, that the topic was not about the Fire Department, the union or the compensation study but, about two (2) Commissioners who found out details that left them feeling less than informed when making decisions, the City Manager stating that she had authority to make the decisions in question, that she is not targeting the City Manager but, the questions she asks fall on her responsibility, that it is unacceptable for a Commissioner to find out information after a vote has been taken and she asked that the Commission revisit the concern brought before the Commission and to find a resolution on how to better insure that the Commission are fully understanding and have all the information before making decisions that affect the tax payers.

John Viccaro, Union President Local 2913, spoke about the Union making a pact between the union, the City and the Commission to have a good working relationship, he read F.S. 112 regarding the code of ethics for public officers, what is being seen is a rebound affects to something that never should of happened, that the City Manager and the Commission should all have been informed of what was to be presented at the workshop, that the situation should be taken seriously and it undermines the Commission's trust.

Mayor Masiarczyk closed the public forum.

**CONSENT AGENDA:** The consent agenda contains items that have been determined to be routine and non-controversial. If anyone in the audience wishes to address a particular item on the consent agenda, now is the opportunity for you to do so. Additionally, if staff or members of the City Commission wish to speak on a consent item, they have the same opportunity.

**8. CONSENT AGENDA:**

None.

**9. ORDINANCES AND PUBLIC HEARINGS:**

- A. Public Hearing - Ordinance No. 14-2016, Amending Division 3, "Collection and Use", of Article III, "Stormwater Utility", of Chapter 54, "Special Assessments", of the Code of the City of Deltona, by adding a provisions for stormwater utility fee credits, at second and final reading - Becky Vose, Legal Department (407) 448-0111.**

**Strategic Goal: Infrastructure**

**Motion by Commissioner Herzberg, seconded by Commissioner Schleicher, to approve Ordinance No. 14-2016, at second and final reading.**

Mayor Masiarczyk opened and closed the public hearing as there were no public comments.

City Attorney Becky Vose read the title of Ordinance No. 14-2016 for the record.

AN ORDINANCE OF THE CITY OF DELTONA, FLORIDA, AMENDING DIVISION 3, "COLLECTION AND USE", OF ARTICLE III, "STORMWATER UTILITY", OF CHAPTER 54 "SPECIAL ASSESSMENTS", OF THE CODE OF THE CITY OF DELTONA, BY ADDING A PROVISION FOR STORMWATER UTILITY FEE CREDITS; AND PROVIDING FOR CONFLICTS, SEVERABILITY AND EFFECTIVE DATE.

**The motion carried by the following vote:**

**For:** 6 - Commissioner Herzberg, Commissioner Honaker, Commissioner Schleicher, Commissioner Smith, Vice Mayor Nabicht, and Mayor Masiarczyk

Ordinance No. 14-2016 was adopted at 9:02 p.m.

**10. OLD BUSINESS:**

- A. Contract: Proposed Cardinal Place Senior Apartments - Chris Bowley, AICP,**

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**Director, Planning and Development Services, (386) 878-8602.****Strategic Goal: Economic Development - Create more diversified and high-quality housing opportunities.**

John Dupont, 188 Sea Hammock Way, Jacksonville, spoke about being affordable housing developers, that the project was presented in detail last year, this being a Request for Proposal (RFP), he explained the Florida Housing Finance Corporation, qualifying for the threshold, the requirement of a local government contribution and the projects being entered into a lottery.

Mayor Masiarczyk opened and closed the public hearing as there were no public comments.

**Motion by Vice Mayor Nabicht, seconded by Commissioner Honaker, to approve the request to provide the executed Florida Housing Finance Corporation low income housing tax credit forms for the proposed Cardinal Place Senior Apartments project for the requested \$50,000.00. The motion carried by the following vote:**

**For:** 6 - Commissioner Herzberg, Commissioner Honaker, Commissioner Schleicher, Commissioner Smith, Vice Mayor Nabicht, and Mayor Masiarczyk

**11. NEW BUSINESS:**

None.

**12. CITY ATTORNEY COMMENTS:**

None.

**13. CITY MANAGER COMMENTS:**

None.

**14. CITY COMMISSION COMMENTS:**

Commissioner Herzberg stated she attended the Fire Department Open House on Sunday which was a great event and she suggested everyone watch and prepare for Hurricane Matthew.

Commissioner Honaker stated on September 21st he attended the House Next Store's 40th Year Celebration where Larry Kent was honored for his 25 years of service by providing a house for them to work out of. He stated he attended the Volusia League of Cities Dinner, the ground breaking for the Gold Choice Assistant Living facility, the Fire Department's Open House, and on October 5th Friendship Elementary will have a walk or bike to school day which he will be attending. He stated the next Relay For Life event will be a combination of Orange City, DeBary and Deltona. He asked if anyone wanted

to head up the Relay For Life team this year and the Commission agreed to let Commissioner Honaker do since he did such a great job last year. He stated during the City Manager's Agenda Review Meeting the Commission discussed procedures during meetings and he suggested to have all meetings in the Commission Chambers, put two (2) tables on the floor in front of the dais and leave them there unless there is an event.

**Motion by Commissioner Honaker, seconded by Commissioner Smith, to hold all Commission meetings in the City Hall Chambers to include workshops, excluding Executive Sessions.**

**For:** 6 - Commissioner Herzberg, Commissioner Honaker, Commissioner Schleicher, Commissioner Smith, Vice Mayor Nabicht, and Mayor Masiarczyk

City Manager Shang asked if the Commission wanted all of the meetings broadcast live which would be an additional cost of \$600 per meeting.

**After discussion, the Commission concurred to have all Commission meetings in the Commission Chambers starting in January, 2017 and to bring back to the Commission the cost to do this.**

Commissioner Schleicher stated the book give away was very successful and gave away 30,000 books and the remainder of the books were donated to local schools and she reminded everyone that it is Fire Prevention Week.

Vice Mayor Nabicht stated the City is in the process of hiring a new City engineer and one of the qualifications of the position he discussed with the City Manager was to seek someone that is already LAP (Local Agency Program) certified which will help the City get additional transportation dollars and he asked for an affirmation that nobody currently on the Commission intends to in the past or in the future do anything to force anyone onto sewer.

**Mayor Masiarczyk replied there is no intent collectively or individually by the Commission to force anyone onto sewer and the Commission concurred.**

Vice Mayor Nabicht stated the infrastructure alone is estimated at \$400 - \$500 million dollars, even if the City could get a bond or loan there is no way that could be accomplished and it does not include the \$15,000 - \$20,000 for each resident to hook into it, even if the state legislature mandated this they would have to find some type of funding and projects would need to be prioritized around the state, this is a very long term issue, the City has a responsibility to participate in discussions both at the political and technical level, the City is engaged and involved in the conversation, there is no financial resources to do it, there is a need to eventually get people hooked up to some kind of sewer system but, by the time the City would get to that point where it would be

financially feasible there will probably be a technology out there that nobody would have to do it. He stated septic tanks are a good safe system when they are operating properly, that he has received a lot of phone calls because information is out there that insinuates that either the City, the County or the state is trying to force residents onto sewer and that is not taking place. He stated responsible conversations are taking place to discuss the future of septic tanks and sewers and the City needing to be at the table which does not mean the Commission supports it.

Deputy Public Works Director Matt Doan stated the cost of \$15,000 - \$20,000 is a general estimate for collection distribution and on top of that would be the impact fee at \$3,800 for the capacity and the plant upgrade, that is 75% recovery and 100% recovery is about \$5,000. The cost to the homeowner would be the physical connection and demolishing the septic tank so it would not be the \$15,000 - \$20,000 and many times a lot of those costs can be covered by grants.

Commissioner Smith stated the special needs resource fair will be this Saturday, October 8th from 10:00 a.m. to 2:00 p.m. at Identity Church on Deltona Blvd., that with regards to the \$35,000 in Commission discretionary funds that staff start working on getting the criteria written and she thanked Commissioner Honaker for making the motion to have all Commission meetings in the chambers.

Mayor Masiarczyk reminded everyone that Post 255, American Legion is going to have a free lunch for all Veterans or active duty Veterans on November 12th and there will be the normal Veteran's Day event on November 11th, on Tuesday at 10:00 a.m. there will be a meet and greet with Representative Santiago and Congressman DeSantis for about a half an hour, on Thursday FDOT will be here to discuss the I4 Ultimate Project at 5:30 p.m. in the Commission Chambers, and on October 13th is the Veterans Navy Birthday event at 6:00 p.m. He asked the Commission to make sure that the color schemes for the new community center are what everyone wants and he is serious about having additional parking at the facility. He stated he wanted to make sure the Commission understands that what was presented is the color schemes for the new community center so if anyone has a dislike for it to voice their opinion with the City Manager and he was serious about the parking issue. He stated a couple of projects have come through the City and historically it is time for the Commission to look at the Master Development Plan because a lot of the projects do not have adequate parking, especially strip centers where businesses impact each other and he would like to look at that. He stated everyone seems pleased with the plans for the new community center but, he asked not to have it filled with plants that cannot be maintained and that trees are better.

Commissioner Smith suggested not to have mulch or something that is impossible to walk in heels on.

Mayor Masiarczyk stated the building does not allow a lot of close parking for the handicap and not a lot of places for the Commission to park for events and he suggested for staff to look at it.

**15. ADJOURNMENT:**

There being no further business, the meeting adjourned at 9:36 p.m.

\_\_\_\_\_  
John C. Masiarczyk, Sr., MAYOR

ATTEST:

\_\_\_\_\_  
Joyce Raftery, CMC, MMC, CITY CLERK



# City of Deltona

2345 Providence Blvd.  
Deltona, FL 32725

## Minutes

### Special City Commission Meeting

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Wednesday, October 5, 2016

6:30 PM

Deltona Commission Chambers

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#### HURRICANE PREPAREDNESS EMERGENCY BRIEFING

##### 1. CALL TO ORDER:

The meeting was called to order at 6:30 p.m. by Mayor Masiarczyk.

##### 2. ROLL CALL – CITY CLERK:

**Present:** 9 - Commissioner Herzberg  
Commissioner Honaker  
Commissioner Schleicher  
Commissioner Smith  
Commissioner Soukup  
Vice Mayor Nabicht  
Mayor Masiarczyk  
City Manager Shang  
City Attorney Vose

##### 3. PLEDGE TO THE FLAG:

Mayor Masiarczyk led everyone in the pledge to the flag.

##### 4. BUSINESS:

##### A. Briefing on the disaster preparedness plan. Update and current plans for Hurricane Matthew.

Mayor Masiarczyk turned the meeting over to City Manager Shang who provided a packet of information to each Commissioner which will be presented by Fire Chief Snyder and Chief Sievert.

Fire Chief Snyder and Chief Sievert gave a brief presentation to include the current track of Hurricane Matthew, the emergency response team organizational chart and duties, general information regarding things like sandbags, school closures, Waste Pro pick-up, etc., contact information, shelter information, news for immediate release, and Resolution No. 2016-52.

Mayor Masiarczyk announced the contact numbers for City of Deltona General Information - (386) 878-8100, Deltona Water - (386) 575-6800, Public Works - (386)

878-8950 and Volusia County General Information - (386) 345-0345.

**Motion by Vice Mayor Nabicht, seconded by Commissioner Schleicher, to enact the emergency Resolution No. 2015-52.**

Mayor Masiarczyk read the title of Resolution No. 2016-05 for the record.

AN EMERGENCY RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA DECLARING A STATE OF LOCAL EMERGENCY FOR HURRICANE MATTHEW.

Mayor Masiarczyk opened and closed the public hearing as there were no public comments.

**The motion carried by the following vote:**

**For:** 7 - Commissioner Herzberg, Commissioner Honaker, Commissioner Schleicher, Commissioner Smith, Commissioner Soukup, Vice Mayor Nabicht, and Mayor Masiarczyk

Resolution No. 2016-52 was adopted at 7:03 p.m.

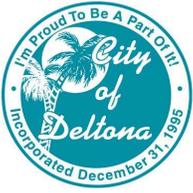
**5. ADJOURNMENT:**

There being no further business, the meeting adjourned at 7:12 p.m.

\_\_\_\_\_  
John C. Masiarczyk, Sr., MAYOR

ATTEST:

\_\_\_\_\_  
Joyce Raftery, CMC, MMC, CITY CLERK



## Agenda Memo

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**AGENDA ITEM: A.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 5 - A

**SUBJECT:**

Presentation - Quarterly Reports of City Advisory Boards/Committees - Joyce Raftery, City Clerk (386) 878-8502.

**LOCATION:**

N/A

**BACKGROUND:**

Quarterly Reports of City Advisory Boards/Committees:

1) Parks and Recreation Advisory Committee - (Written Report Only)

- Senior Advisory Sub-Committee
- Youth Advisory Sub-Committee
- Citizen Accessibility Advisory Sub-Committee

2) Affordable Housing Advisory Committee - (Written Report Only)

3) Ordinance Review Committee - (Written Report Only)

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

City Clerk's Department

**STAFF RECOMMENDATION PRESENTED BY:**

N/A - Presentation Only.

**POTENTIAL MOTION:**

N/A - Presentation Only.

**PARKS & RECREATION DEPARTMENT  
QUARTERLY REPORT  
JULY, AUGUST, SEPTEMBER 2016**

**Parks & Recreation Advisory Board**

**Third quarter:**

- This advisory board had no meeting in July and August.
- This advisory met in September. A new member was introduced and the Adopt-A Park program was discussed with reference to the park adopted by this board. The new member enjoys gardening and has volunteered her service when needed. Mr. Moore brought everyone up to date on park improvements and the upcoming holiday events planned for the City.

**Citizen Accessibility Advisory Sub-Committee**

**Third quarter:**

- This sub-committee met in July and learned about some planned enhancements to the Thornby Park, called the Thornby H.E.R.E. Project. Mr. Lee Lopez asked the members to provide some feedback on the types of surfaces that would support a wheelchair, other walking apparatus and people walking.
- Commissioner Schleicher attended the August meeting and addressed the group on the Thornby H.E.R.E. Project and the proposed improvements to the park. There was interaction with Commissioner Schleicher and the members of this sub committee regarding the planned improvements.

**Senior Advisory Sub-Committee**

**Third quarter:**

- This sub-committee met in July and did a wrap-up of the Senior Breakfast.
- This sub-committee met in August and began discussions for the upcoming Arts & Craft Festival coming up in November. Mr. Moore provided information on upcoming City events and the holiday lighting.

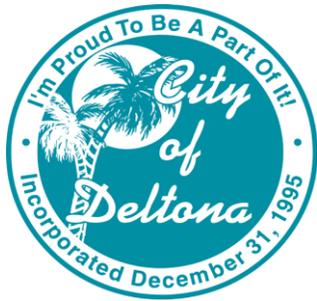
Respectfully submitted,  
Steve Moore, Director  
Parks and Recreation Department

## Affordable Housing Advisory Committee (AHAC) Quarterly Report – July, August and September, 2016

In July the AHAC had its first meeting with various public service providers as part of a continuation of the City social service summit events. The main topic of discussion was the Homeless Management Information System (HMIS). The merits of HMIS and how to participate in the HMIS process were explained by Mr. Jeff White of the Volusia/Flagler Continuum of Care. Also discussed was the United Way 211 system.

AHAC did not meet in August.

The AHAC in September discussed proposed changes to the Local Housing Assistance Plan (LHAP) associated with the City State Housing Initiatives Partnership (SHIP) program. The AHAC voted to recommend changes to the LHAP involving increasing first time homebuyer down payment assistance amounts and eliminating the requirement for homeowner's insurance for applicants seeking owner occupied rehabilitation help. Those changes to the LHAP will be sent to the City Commission for review under separate cover.



# City of Deltona

## THIRD QUARTER (3<sup>rd</sup>) 2016 ORDINANCE REVIEW COMMITTEE REPORT

### MEETING DATES:

An Ordinance Review Committee (Committee) meeting was held on July 7 and August 4, 2016. There was no meeting on September 1, 2016.

### ITEMS HEARD AT THE ORDINANCE REVIEW COMMITTEE MEETINGS:

ORDINANCES & ASSOCIATED RESEARCH REVIEWED	2
DISCUSSIONS/ORIENTATION/ELECTIONS	0

#### A. Ordinance No. 27-2016, Itinerant Merchants/Mobile Vending.

At the July 7<sup>th</sup> meeting, Planning & Development staff presented the topic to the Committee and discussion ensued concerning adding hours of operation, locations, ice cream truck sale provisions, requirement to have a trash receptacle on-site, and time restrictions for roving sales. The Committee voted to allow roving mobile vendors a time limit of 15-minutes in residential areas and 60-minutes in commercial areas. At the August 4<sup>th</sup> meeting, the Committee continued discussion on the item and staff conferred with the City Attorney to draft Ordinance No. 27-2016. Upon receipt of the draft ordinance, Planning & Development staff will provide it to the Committee for final review.

#### B. Ordinance No. 29-2016, Amending Chapter 70-30, Definitions, and Chapter 102, Signs, of the City's Land Development Code.

The Committee reviewed the proposed Sign Ordinance (Sign Code). Planning & Development staff presented the historical context of the Sign Code and past amendments to Sign Code rewrites. Discussion ensued about new national signage regulations for content neutrality and efforts leading to this Sign Code version with the Deltona Business Alliance. Members of Deltona Business Alliance and public were present and requests for additional opportunities to work on the draft were requested. The City Attorney was present to answer questions and additional work ensued with the Deltona Business Alliance and the City Attorney as a result of the meeting. The revised Sign Code will be brought to the Committee at the October 6<sup>th</sup> meeting. Also, definition of roof-mounted signs should be addressed in the new Sign Code.

**DISCUSSIONS/ORIENTATION/ELECTIONS:**

**A. By the Committee.**

None.

**B. By the City Attorney:**

None.

**C. By Planning & Development Services Staff:**

None.



## Agenda Memo

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**AGENDA ITEM: B.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane Shang, City Manager

**AGENDA ITEM:** 5 - B

**SUBJECT:**

Proclamation - Florida City Government Week

**LOCATION:**

N/A

**BACKGROUND:**

Florida City Government Week offers an important opportunity to convey to all the citizens of Florida that they can shape and influence government through their civic involvement and positively impact lives by volunteering.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

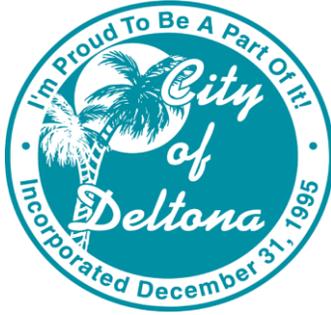
City Manager's Office

**STAFF RECOMMENDATION PRESENTED BY:**

N/A - Presentation Only

**POTENTIAL MOTION:**

N/A - Presentation Only



**WHEREAS**, city government is the government closest to most citizens, and the one with the most direct daily impact upon its residents; and

**WHEREAS**, city government is administered for and by its citizens, and is dependent upon public commitment to and understanding of its many responsibilities; and

**WHEREAS**, city government officials and employees share the responsibility to pass along their understanding of public services and their benefits; and

**WHEREAS**, Florida City Government Week is a very important time to recognize the important role played by city government in our lives; and

**WHEREAS**, this week offers an important opportunity to spread the word to all the citizens of Florida that they can shape and influence this branch of government which is closest to the people; and

**WHEREAS**, the Florida League of Cities and it's member, the City of Deltona, have joined together to encourage residents to share through photography what makes them proud of the City in which they live by hosting a photo contest; and

**WHEREAS**, our city wants to also use this week to emphasize that this is "our" city and that we are "proud of it"; and

**WHEREAS**, Florida City Government Week offers an important opportunity to convey to all the citizens of Florida that they can shape and influence government through their civic involvement and positively impact lives by volunteering.

**NOW, THEREFORE**, We, the Mayor and City Commission of Deltona, Florida, do hereby proclaim October 16-22, 2016, to be

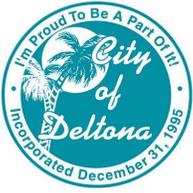
## ***"Florida City Government Week"***

We encourage all citizens, city government officials and employees to do everything possible to ensure that this week is recognized and celebrated accordingly.

**EXECUTED** this 17<sup>th</sup> day of October, 2016.

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*John Masiarczyk, Mayor*



**Agenda Memo**

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**AGENDA ITEM: A.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 9 - A

**SUBJECT:**

Public Hearing - Ordinance No. 26-2016, Deltona Free Standing Emergency Room BPUD (RZ16-001), at second and final reading - Chris Bowley, AICP, Planning and Development Services, (386) 878-8602.

Strategic Goal: Economic Development - Focus on Howland Blvd. as the gateway for commercial growth.

**LOCATION:**

North of Graves Ave. and south of Howland Blvd. within the Deltona Activity Center.

**BACKGROUND:**

Through Ordinance No. 26-2016, Central Florida Regional Hospital is proposing a free-standing emergency room/urgent care facility on a ±3.24-acre site within the Deltona Activity Center. The proposed ±3.24-acre site will be through the creation of a new lot within an overall ±28-acre tract. The ±28-acre tract received a BPUD zoning designation in a prior City rezoning action, known as the ICC BPUD. However, the Development Agreement for the ICC BPUD was never executed. The proposed Deltona Free Standing Emergency Room BPUD is separate from the ICC BPUD and will require its own Development Agreement and Master Development Plan.

As proposed, the applicant for the Deltona Free Standing Emergency Room BPUD desires to construct a ±10,839-SF facility limited to a 0.08 floor area ratio maximum (FAR), parking, driveways, and stormwater management pond. The applicant is requesting a single-use BPUD and any change to that development program or reuse of development in the future will require an amendment to the Deltona Free Standing Emergency Room BPUD.

The applicant is requesting access directly from Graves Avenue into the subject site. Initially, a full-directional movement was requested, then a right-in/right-out. Following the first reading of the ordinance, the land owner provided information that common ownership existed for the parcel directly north of the intersection of N. Normandy and Graves Ave. Thus, there are two access scenarios - the proposed right-in/right-out at the subject site and the potential full intersection movement at the existing N. Normandy and Graves Ave. intersection. The applicant provided a Transportation Impact Analysis (TIA) to support the right-in/right-out design and the City engaged a traffic consultant to review that TIA (see the attached TIA and peer review correspondence). The land owner also engaged transportation engineers to create conceptual designs of the intersection of N. Normandy and Graves Ave. for a "plus" intersection (see attached). As a result, the attached Development Agreement includes a provision that both access scenarios shall be provided, as underlined.

---

**AGENDA ITEM: A.**

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**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

Planning and Development Services

**STAFF RECOMMENDATION PRESENTED BY:**

Chris Bowley, AICP, Director, Planning and Development Services - Staff recommends that Ordinance No. 26-2016 be adopted by the City Commission, at second and final reading.

**POTENTIAL MOTION:**

"I hereby move to adopt Ordinance No. 26-2016, Deltona Free Standing Emergency Room BPUD (RZ16-001), at second and final reading."

**ORDINANCE NO. 26-2016**

**AN ORDINANCE OF THE CITY OF DELTONA AMENDING THE OFFICIAL ZONING MAP TO REZONE APPROXIMATELY 3.24 ACRES OF LAND LOCATED IN THE SOUTHWEST CORNER OF THE INTERSECTION OF HOWLAND BLVD. AND GRAVES AVENUE FROM CITY OF DELTONA BUSINESS PLANNED UNIT DEVELOPMENT TO A NEW CITY OF DELTONA BUSINESS PLANNED UNIT DEVELOPMENT; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

---

**WHEREAS**, the City of Deltona, Florida has received an application to rezone approximately 3.24 acres from City Business Planned Unit Development (BPUD) to City Business Planned Unit Development (BPUD); and

**WHEREAS**, the City of Deltona, Florida and its Land Planning Agency have complied with the requirements of the Municipal Home Rule Powers Act, sections 166.011 et. seq., Florida Statutes, in considering the proposed BPUD rezoning; and

**WHEREAS**, after said public hearing, the City Commission of the City of Deltona, Florida, has determined that the BPUD zoning is consistent with the Comprehensive Plan of the City of Deltona, Florida.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA, as follows:**

**Section 1.** Located in the City of Deltona, Florida the following property is hereby rezoned to BPUD:

COMMENCE AT THE SOUTHEAST CORNER OF LOT 70, YOURLANDO FARMS AND GROVES PLAT (PLAT BOOK 10, PAGES 227 AND 228 OF THE OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE ALONG THE EAST LINE OF PLATED LOT 70, NORTH 00°18'37" WEST A DISTANCE OF 10.10 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF GRAVES AVENUE AND THE POINT OF BEGINNING; THENCE ALONG SAID NORTHERLY RIGHT OF WAY LINE, NORTH 89°23'10" WEST A DISTANCE OF 292.39 FEET; THENCE LEAVING SAID NORTHERLY RIGHT OF WAY LINE, NORTH 00°37'08" EAST A DISTANCE OF 381.01 FEET; THENCE NORTH 89°22'52" WEST A

DISTANCE OF 50.00 FEET; THENCE NORTH 00°37'08" EAST A DISTANCE OF 150.00 FEET; THENCE NORTH 55°56'49" EAST A DISTANCE OF 114.36 FEET TO THE SOUTHWESTERLY RIGHT OF WAY LINE OF HOWLAND BLVD (S.R. 472); THENCE ALONG SAID SOUTHWESTERLY RIGHT OF WAY LINE ALONG A CURVE TO THE LEFT AND BEING CONCAVE NORTH EAST HAVING A RADIUS OF 1748.64 FEET, A CENTRAL ANGLE OF 12°32'22" AND AN ARC LENGTH OF 382.70 FEET, THE CHORD OF SAID CURVE BEARS SOUTH 38°58'46" EAST A DISTANCE OF 381.93 FEET TO THE AFOREMENTIONED EASTERLY LINE OF LOT 70; THENCE SOUTH 00° 18'37" EAST A DISTANCE OF 301.79 FEET TO THE POINT OF BEGINNING

**Section 2.** This Ordinance is adopted in conformity with and pursuant to the Comprehensive Plan of the City of Deltona, the Local Government Planning and Development Act, sections 163.161 et. seq., Florida Statutes, and the Municipal Home Rule Powers Act sections 166.011 et. seq., Florida Statutes.

**Section 3.** Conflicts. Any and all Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

**Section 4.** Severability. If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect any other provisions or applications of this Ordinance which can be given effect without the invalid provision or application.

**Section 5.** Effective Date. This Ordinance shall take effect upon the signing by the property owner of the Development Agreement associated with this Ordinance and the recording of such Development Agreement among the Public Records of Volusia County, and if such Development Agreement has not been signed and recorded within sixty (60) calendar days after the second reading of this Ordinance, this Ordinance shall be null and void and shall never become effective.

**PASSED AND ADOPTED BY THE CITY COMMISSION OF THE CITY OF  
DELTONA, FLORIDA THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2016.**

First Reading: \_\_\_\_\_

Advertised: \_\_\_\_\_

Second Reading: \_\_\_\_\_

BY: \_\_\_\_\_  
JOHN C. MASIARCZYK, SR., Mayor

ATTEST:

\_\_\_\_\_  
JOYCE RAFTERY, CMC, MMC City Clerk

Approved as to form and legality  
for use and reliance of the City of  
Deltona, Florida

\_\_\_\_\_  
GRETCHEN R. H. VOSE, ESQ, City Attorney

**THIS INSTRUMENT PREPARED BY  
AND AFTER RECORDING RETURN TO:**

Gretchen R. H. Vose, Esq.  
City Attorney  
City of Deltona  
2345 Providence Boulevard  
Deltona, Florida 32725

<p><b>For Recording Purposes Only</b></p> <p>Signature of Notary</p>
--

**Exhibit "A" to Ordinance No. 26-2016**

**DEVELOPMENT AGREEMENT**

for the project known as the Deltona Freestanding Emergency Room (FSER) Business Planned Unit Development (BPUD) located at the southwest corner of Graves Avenue and Howland Boulevard (hereinafter referred to as the "Subject Property").

THIS DEVELOPMENT AGREEMENT (hereinafter referred to as the "Agreement") is entered into and made as of the \_\_\_ day of \_\_\_\_\_, 2016, by and between the CITY OF DELTONA, a Florida municipal corporation, with a mailing address of 2345 Providence Boulevard, Deltona, Florida 32725, (hereinafter referred to as the "City"), and I-4 Howland Investments, LLC, (hereinafter referred to as the "Owner"), and Central Florida Regional Hospital, (hereinafter referred to as the "Developer.")

**WITNESSETH**

**WHEREAS**, the Owner warrants that it holds legal title to the lands located in Volusia County, Florida, and within the corporate limits of the City of Deltona, said lands being more particularly described in Exhibit "B", Legal Description for the Subject Property, attached hereto and by this reference made a part hereof; and that the holders of any and all liens and encumbrances affecting such property will subordinate their interests to this Agreement; and

**WHEREAS**, the Owner has clear title of the Subject Property or the Developer is currently under contract to purchase the Subject Property and intends to develop such property as a planned

commercial development; and

**WHEREAS**, the Owner or Developer desires to facilitate the orderly development of the Subject Property in compliance with the policies, laws and regulations of the City and of other governmental authorities, and the Owner or Developer desires to ensure that its development is compatible with other properties in the area and planned traffic patterns; and

**WHEREAS**, the development permitted or proposed under this Development Agreement is consistent with the City's Comprehensive Plan, concurrency management system, and all land development regulations and this Agreement does not replace, supersede, or grant variances to those regulations, except as otherwise set forth herein; and

**WHEREAS**, it is the purpose of this Agreement to clearly set forth the understanding and agreement of the parties concerning the matters contained herein; and

**WHEREAS**, the Owner and/or Developer have sought the City's approval to develop the Subject Property, and the City approved Ordinance No. 26-2106, through rezoning the Subject Property to a Business Planned Unit Development (BPUD), as defined under the City's Land Development Code on \_\_\_\_\_. The BPUD shall consist of this Agreement as the Written Agreement of the BPUD and an Exhibit "C", Master Development Plan (MDP), attached hereto and by this reference made a part hereof as the Preliminary Plan, subject to the covenants, restrictions, and easements offered by the Owner or Developer and contained herein, (hereinafter the "Master Development Plan"). Where more detailed criteria for City required submittals exceed the criteria required for a Master Development Plan, the more detailed criteria applies.

**NOW THEREFORE**, in consideration of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. **Recitals and Definitions.** The recitals herein contained are true and correct and are incorporated herein by reference. All capitalized terms not otherwise defined herein shall be as defined and described in the City's Land Development Code as it may be amended from time to time, unless otherwise indicated.

2. **Ownership.** The legal and equitable owner of the Subject Property is: I-4 Howland Investments, LLC.

3. **Title Opinion/Certification.** The Developer will provide to the City, in advance of the City's execution and recordation of this Agreement, a title opinion from a licensed attorney in the state of Florida, or a certification by an abstractor or title company authorized to do business in the state of Florida, verifying marketable title to the Subject Property to be in the name of the Owner and any and all liens, mortgages, and other encumbrances that are either satisfied or not satisfied or released of record.

4. **Subordination/Joinder.** Unless otherwise agreed to by the City and if applicable, all liens, mortgages, and other encumbrances not satisfied or released of record, must be subordinated to the terms of this Agreement or the Lienholder join in this Agreement. It shall be the responsibility of the Owner and/or Developer to promptly obtain the said subordination or joinder, in form and substance that is acceptable to the City Attorney, prior to the execution and recordation of this Agreement.

5. **Duration.** The duration of this Agreement is binding and runs with the land in perpetuity, unless amended.

6. **Development of the Subject Property.** Development of the Subject Property shall be subject to performance standards listed in this Agreement. Where a land use listed below differs from a defined use in the City of Deltona's Code of Ordinances, the use listed in this Agreement shall prevail.

A. Comprehensive Plan Policies specific to this Subject Property: None

B. Permitted principal uses allowable on the Subject Property shall be: Freestanding Emergency Room. A free standing emergency room is a standalone medical facility featuring emergency care services, imaging, laboratory activities, and related administrative uses.

C. Prohibited principal uses, if any: Any use besides a freestanding emergency room as described above.

D. Proposed minimum intensity: no minimum

E. Proposed maximum density or maximum intensity, if any: 0.08 FAR. The facility shall be limited to a maximum of 12 private care patient beds.

F. Impervious surface ratio is not to exceed 70% of the gross square footage for the Subject Property.

G. Maximum lot coverage 8%

H. Minimum landscaping and buffer yard requirements shall be consistent with Sec. 110-808 as it may be amended from time to time.

I. Minimum lot size area: 3.24 acres

J. Minimum lot width: 100 feet

K. Minimum yard setbacks:  
1. Front yard: 35 Feet

2. Side yard: 5 Feet
  3. Street side yard: 35 Feet
  4. Rear yard: 15 Feet
- L.** Maximum building height: 35 Feet
- M.** Minimum parking standards are per Sections. 110-828 and 110-829 of the City's Land Development Code as it may be amended from time to time.
- N.** Minimum lighting standards per the City's Land Development Code shall be included on a separate Illumination Plan to be provided at the time of site plan submittal.
- O.** Signs: Signs shall comply with Chapter 102 of the City Land Development Code as it may be amended from time to time.
- P.** Architectural controls and development on the Subject Property shall follow a common architectural theme and reflect a general appearance consistent with the City of Deltona Urban Design Pattern Book. The intent is to establish a high level of aesthetic within the Activity Center. For purposes herein, general appearance includes, but is not limited to, exterior wall finishes, construction materials, roof style, architectural details and ornamentation. The following requirements shall apply to development on the subject property:
1. The structure shall convey a sense of quality and permanence;
  2. Exterior walls facing public rights-of-way shall be constructed of finish materials such as stucco, natural brick or stone, finished concrete, or wood;
  3. All accessory structures, and signage shall be consistent with the overall theme of the principal use;
  4. Canopies shall be compatible with the architectural design of the principal structure and be designed consistent with other Fire Code and public safety oriented requirements; and
  5. All service areas and mechanical equipment visible from public rights-of-way (ground or roof) including, but not limited to, air conditioning condensers, heating units, electric meters, satellite dishes, irrigation pumps, and other mechanicals/utilities shall be screened using architectural features consistent with the structure or landscaping of sufficient density and maturity at planting to provide opaque screening.
- Q.** Utility provision and dedication: The Developer shall connect to Volusia County's central utility systems at their sole cost and expense. Utility fees shall be paid to Volusia County before any building permit is issued. Central utility systems are to be designed, permitted, and constructed to service provider specifications and dedicated to the service provider upon final inspection, clearance, and acceptance by the service provider.

- R. Stormwater:** The stormwater system shall not be dedicated to or become the responsibility of the City of Deltona. All environmental permitting, mitigation, and/or soil and erosion control for the property shall conform to all federal, state, and local permits/requirements; shall be the sole responsibility of the developer; and shall be maintained in good condition/standing with the applicable permitting authorities. Best Management Practices and conformance to National Pollutant Discharge Elimination System (NPDES) criteria are required.
- S. Transportation, site access, and traffic devices:** The Subject Property was included within the Traffic Impact Study (TIS) submitted to Volusia County (December 2009), which covered 804,000 square feet out of the 900,000 square feet in the Deltona Village BPUD and the Interstate Commerce Center (which was never recorded as a BPUD). A separate TIS was submitted to the City of Deltona (dated December 2009) which covered 96,000 square feet along the southern boundary of the Deltona Village BPUD. The subject property is geographically referenced in the TIS and therefore, it is the interpretation of the City of Deltona that the transportation provisions in the Development Agreement for the Deltona Village BPUD (Book 6482, Page 4234) apply to the Subject Property. The Subject Property is considered a sub-phase of the “County TIA Phase I” and will be responsible for proportionate share payments as outlined in sections 10 and 11 of the Development Agreement for the Deltona Village BPUD (Book 6482, Pages 4240-4245). The mitigation required includes payment towards making improvements to Graves Av. as outlined in the Deltona Village BPUD. Before a Certificate of Occupancy is issued for the project, the required mitigation must be accounted to the satisfaction of the County and City.

Based on a determination that a freestanding emergency room facility traffic generation rates are analogous to a hospital, it is projected (for the purpose of analyzing this BPUD) that the free standing emergency room use planned will generate 143 daily trips and no more than 10 peak hour trips. Therefore, a traffic impact analysis (TIA) consistent with the River to Sea Transportation Planning Organization (TPO) was not required for the project. Any change of use, increase in size or any other increase of intensity shall require a major amendment to this BPUD document and a TIA will be required to be prepared consistent with TPO guidelines.

Access to the Deltona FSER BPUD shall be provided as follows:

The Deltona FSER BPUD site shall be granted a direct access point to Graves Ave. between N. Normandy Blvd. and Howland Blvd., as depicted on the Master Development Plan provided in Exhibit “C” of this Agreement, with extension of the existing raised concrete median in Graves Ave. to the west past this access point opening. In addition, another access point at the signalized intersection of N. Normandy Blvd. and Graves Ave. shall be provided. This access point shall be designed and signalized as a full-movement consistent with the City and County standards, in light

of expected traffic. The FSER property shall be internally linked to the aforementioned access point at the N. Normandy Blvd. and Graves Ave. intersection. The full access point and its final extension and internal connections shall be constructed in conjunction with the development on the site and shall be completed prior to issuance of any Certificate of Occupancy for the site. The access points and internal roadway network shall be designed to facilitate access to other property in the area. Drainage for the access points and internal roadway network constructed on private land will be incorporated into the stormwater design for the Deltona Free Standing Emergency Room BPUD site or be situated on adjacent land. The final design of the access points to Graves Ave. shall be addressed at the Final Site Plan and County Use Permit processes with City and County staff. All traffic management improvements associated with the access plan shall be completed before a Certificate of Occupancy is issued for the property.

There shall be no access permitted to Howland Boulevard/SR 472. Other access points may be provided in the future in conjunction with development of nearby lands owned by Owner. As to any portions of the access roadway and other related improvements lying within dedicated right-of-way, such improvements shall be constructed to City and, if applicable, County specifications and standards. Access improvements outside dedicated right-of-way shall be as a minimum constructed to the specifications contained in section 96-40 of the City's Land Development Code. Any other access points to Graves Avenue serving the development will need to be addressed through a major amendment to this BPUD unless the new access points are associated with another BPUD rezoning request.

The internal circulation system, including driveway entrances on to the access road may need to be relocated and/or re-designed to accommodate development of nearby lands owned by Owner or to afford appropriate spacing and promote safe and functional traffic patterns. Therefore, while the MDP depicts certain driveway cuts and internal circulations, those traffic circulation features may need to be re-designed to comply with the aforementioned development needs or city land development code requirements.

**T.** There shall be no limit on the hours of operation of a Free Standing Emergency Room use.

7. **Public Facilities/Land Dedication.** Facilities or tracts that either are or may become public facilities/tracts that will serve the development and/or are on the Subject Property are, as follows: Roadways and utility infrastructure as described elsewhere in this Development Agreement.

8. **Development Permits/Fees.** The Developer is responsible for obtaining, permitting, and the payment of all fees for facilities and services for the Subject Property. Any site permits shall be kept current with the respective permitting agency and shall ensure the

protection of the public health, safety, and welfare of the community and the development. All impact fees are applicable and no impact fee credits shall be awarded through this Agreement.

9. **Obligations.** Should the Developer fail to undertake and complete its obligations as described in this Agreement to the City's specifications, then the City shall give the Developer thirty (30) days written notice to commence and ninety (90) days to complete said required obligation. If the Developer fails to complete the obligations within the ninety (90) day period, then the City, without further notice to the Developer, or its successors in interest, may, without prejudice to any other rights or remedies it may have, place liens and take enforcement action on the Subject Property. A lien of such assessments shall be superior to all others, and all existing lienholders and mortgagees, by their execution of the subordination or joinder documents, agree to subordinate their liens or mortgages to the City's said liens or assessments. Notice to the Developer and its successors in interest shall be deemed to have been given upon the mailing of notice to the address or addresses set forth in Paragraph (20) hereof.

10. **Site Plan/Plat Approval.** Exhibit "C", the Master Development Plan, is the Preliminary Plan of the PUD and this Agreement. The Master Development Plan shall not replace, supersede, or absolve the Developer from approvals for any site plan. Where more detailed criteria for City required submittals exceed the criteria required for a Master Development Plan, the more detailed criteria applies. As per the City Land Development Code any development on the property will be required to be processed through the Final Site Plan review process. No site plan application will be approved unless and until the lot has received plat approval by the City Commission, unless it is determined by the City to be exempt from formal platting requirements. At the request of the Owner or Developer, the City will process a Final Plat application at the same time as a Final Site Plan application, unless it is determined by the City to be exempt from formal platting requirements.

11. **Indemnification.** The Developer shall indemnify and hold the City harmless from any and against all claims, demands, disputes, damages, costs, expenses, (to include attorneys' fees whether or not litigation is necessary and if necessary, both at trial and on appeal), incurred by the City as a result, directly or indirectly, of the use or development of the Subject Property, except those claims or liabilities caused by or arising from the negligence or intentional acts of the City, or its employees or agents. It is specifically understood that the City is not guaranteeing the appropriateness, efficiency, quality or legality of the use or development of the Subject Property, including but not limited to, drainage or water/sewer plans, fire safety, or quality of construction, whether or not inspected, approved, or permitted by the City.

12. **Compliance.** The Developer agrees that it, and their successors and assigns, will abide by the provisions of this Agreement, the City's Comprehensive Plan and the City's Code of Ordinances, including but not limited to, the site plan regulations of the City as amended from time to time, which are incorporated herein by reference and such subsequent amendments hereto as may be applicable. Further, all required improvements, including landscaping, shall be continuously maintained by Developer, or their successors and assigns, in accordance with the City's Code of Ordinances. The City may, without prejudice to any other legal or equitable right

or remedy it may have, withhold permits, Certificates of Occupancy or plan/plat approvals to the Subject Property, should the Developer fail to comply with the terms of this Agreement. In the event of a conflict between this Development Agreement and the City's Land Development Code, the more restrictive regulations shall govern the development of the Subject Property.

13. **Obligations for Improvements.** Any surface improvement as described and required hereunder included, but not limited to such as signalization, walls, stormwater management facilities, medians, and utilities, or any other surface improvement shall be performed, prior to the issuance of the first Certificate of Occupancy on that portion of the Subject Property that the surface improvement(s) relates or is otherwise scheduled in this Agreement. Should the Developer fail to undertake and complete its obligations as described in this Agreement and to the City's specifications, then the City shall give the Developer thirty (30) days written notice to commence and ninety (90) days to complete said required obligation at the sole expense of the Developer. If the Developer fails to complete the obligations within the ninety (90) day period, then the City, without further notice to the Developer and their successors and assigns in interest, may but shall not be required to, perform such obligations at the expense of the Developer or their successors and assigns in interest, without prejudice to any other rights or remedies the City may have under this Agreement. Further, the City is hereby authorized to immediately recover the actual and verified cost of completing the obligations required under this Agreement and any legal fees from the Developer in an action at law for damages, as well as record a lien against the Subject Property in that amount. The lien of such assessments shall be superior to all others, and all existing lienholders and mortgagees, by their execution of the subordination or joinder documents, agree to subordinate their liens or mortgages to the City's said liens or assessments. Notice to the Developer and their successors and assigns in interest shall be deemed to have been given upon the mailing of notice as provided in paragraph (24) of this Agreement.

14. **Concurrency and Vested Rights.** The Developer acknowledges and agrees that prior to the issuance of any development orders for the Property, the Developer must have received and be in the possession of a valid unexpired certificate of capacity/concurrency management system approval consistent with the City's Land Development Code. The capacity certificate/approval verifies the availability of infrastructure and service capacity sufficient to permit the proposed development of the Subject Property without causing a reduction in the levels of service adopted in the City's Comprehensive Plan. The certificate of capacity/approval shall be effective for a term, as defined in the City's Code of Ordinances. Neither this Agreement nor the approved Master Development Plan shall create or result in a vested right or rights to develop the Subject Property, as cited in Section 86-34 of the City's Land Development Code.

15. **Environmental and Tree Preservation.** The property may contain habitat that is suitable for scrub jays and gopher tortoises. As part of the Final Site Plan process, the property shall be surveyed to determine the presence and/or population density of scrub jays or gopher tortoises. If gopher tortoises are found to inhabit the development area then on-site preservation and/or removal shall be required in lieu of a 'take'. If scrub jays are noted on the property then any modification of scrub jay habitat shall be permitted consistent with the requirements of the U.S. Fish and Wildlife Service. Tree protection shall be in accordance with Chapter 98 of the City Land

Development Code as it may be amended from time to time. Tree protection areas and habitat protection set aside land may coincide with buffer yards and other open space acreage. Irrigation shall comply with the requirements of the utility servicing the project and applicable permitting agencies. However, the use of potable water for irrigation shall be prohibited. The Developer shall install reuse infrastructure to support the irrigation and other non-potable water needs associated with the project. The Developer is responsible to obtain all site related permits and approval prior to any development activity on or for the Subject Property. This Agreement does not vest or exempt the Developer from any permitting and mitigation obligations needed to develop a Subject Property.

16. **Property Owners Association.** The charter and by-laws of any Property Owners Association (“POA”), if any, for the Subject Property and any deed restrictions related thereto shall be furnished to the City for review and comment by the City Attorney prior to the recording thereof in the Public Records of Volusia County, Florida. Such recording, if applicable, shall take place before a Certificate of Occupancy is issued for the first development project on land covered by this Agreement. The owner or developer (or both) may be responsible for establishing the POA, if applicable, and recording said information in the Public Records of Volusia County, Florida. The City is not responsible for the enforcement of any agreements or deed restrictions entered into between property owners or occupiers of the Subject Property. If maintenance for the Subject Property is not maintained following issuance of a Certificate of Occupancy, the City has Code Enforcement services.

17. **Enforcement.** Both parties may seek specific performance of this Agreement and/or bring an action for damages in a court within Volusia County, Florida, if this Agreement is breached by either party. In the event that enforcement of this Agreement by the City becomes necessary, and the City is successful in such enforcement, the Developer shall be responsible for the payment of all of the City’s costs and expenses, including attorney fees, whether or not litigation is necessary and, if necessary, both at trial and on appeal. Such costs, expenses and fees shall also be a lien upon the Subject Property superior to all others. Should this Agreement require the payment of any monies to the City, the recording of this Agreement shall constitute a lien upon the Subject Property for said monies, until said are paid, in addition to such other obligations as this Agreement may impose upon the Subject Property and the Developer. Interest on unpaid overdue sums shall accrue at the rate of the lesser of eighteen percent (18%) compounded annually or at the maximum rate allowed by law.

18. **Utility Easements.** For any utility easement to service the subject property or nearby lands owned by Owner, or both, which is not established on a plat for the Subject Property, the Owner or Developer shall provide to the City and/or County (as applicable) such utility easements and other legal documentation, in form mutually acceptable to the City Attorney and the Owner or Developer, as the City/County may deem reasonably necessary or appropriate for the installation and maintenance of the utility and other services, including but not limited to, sanitary sewer, potable water, and reclaimed water services, electric, cable, gas, fire protection and telecommunications.

19. **Periodic Review.** The City reserves the right to review the Subject Property in relation to this Agreement periodically to determine if there has been demonstrated good faith compliance with the terms of this Agreement. If the City finds that on the basis of substantial competent evidence that there has been a failure to comply with the terms of this Agreement, the City may not issue development orders or permits until compliance with this Agreement has been established.

20. **Notices.** Where notice is herein required to be given, it shall be by certified mail return receipt requested, hand delivery or nationally recognized courier, such as Federal Express or UPS. E-mail delivery of documents shall not replace or be in lieu of the aforementioned process. Said notice shall be sent to the following, as applicable:

**OWNER:**

I-4 Howland Investments, LLC  
939 Hollywood Blvd  
Deltona, FL 32725

With a copy to:

F.A. (Alex) Ford, Esq.  
Landis Graham French, P.A.  
145 E. Rich Avenue, Suite C  
Deland, FL 32724

**DEVELOPER'S REPRESENTATIVES:**

Central Florida Regional Hospital, Inc.  
One Park Plaza  
Nashville TN, 37203

With a copy to:

George Huddleston, PE  
Littlejohn Engineering Associates, Inc.  
1615 Edgewater Drive, Suite 200  
Orlando, FL 32804

**CITY'S REPRESENTATIVES:**

City Manager  
City of Deltona  
2345 Providence Boulevard  
Deltona, Florida 32725

With copy to:

Director  
Planning & Development Services  
City of Deltona  
2345 Providence Boulevard  
Deltona, Florida 32725

Should any party identified above change, it shall be said party's obligation to notify the remaining parties of the change in a fashion as is required for notices herein. It shall be the Owner or Developer obligation to identify its lender(s) to all parties in a fashion as is required for notices herein.

21. **Compliance with the Law.** The failure of this Agreement to address a particular permit, condition, term, or restriction shall not relieve the Owner or Developer of the Subject Property from the necessity of complying with the law governing said permitting requirements, conditions, terms, or restrictions.

22. **Captions.** The captions used herein are for convenience only and shall not be relied upon in construing this Agreement.

23. **Binding Effect.** This Agreement shall run with the land, shall be binding upon and inure to the benefit of the Owner or Developer and their successors and assigns in interest, and the City and their successor and assigns in interest. This Agreement shall become effective upon its execution and recordation with the Public Records of Volusia County, Florida. This Agreement does not, and is not intended to, prevent or impede the City from exercising its legislative authority as the same may affect the Subject Property.

24. **Subsequently Enacted State or Federal Law.** If either state or federal law is enacted after the effective date of this Agreement that is applicable to and precludes the parties' compliance with the terms of this Agreement, this Agreement and correlating zoning amendment shall be modified or revoked, as is necessary, to comply with the relevant state or federal law.

25. **Severability.** If any part of this Development Agreement is found invalid or unenforceable in any court, such invalidity or unenforceability shall not affect the other parts of this Development Agreement, if the rights and obligations of the parties contained herein are not materially prejudiced and if the intentions of the parties can be affected. To that end, this Development Agreement is declared severable.

26. **Covenant Running with the Land.** This Agreement shall run with the Subject Property and inure to and be for the benefit of the parties hereto and their respective successors and assigns and any person, firm, corporation, or entity who may become the successor in interest to the Subject Property or any portion thereof.

27. **Recordation of Agreement.** The parties hereto agree that an executed original of this Agreement shall be recorded by the City, at the Developer's expense, in the Public Records of Volusia County, Florida.

28. **Applicable Law/Venue.** This Agreement and the provisions contained herein shall be construed, controlled, and interpreted according to the laws of the State of Florida. Venue of any litigation relating to this Agreement shall be in the courts of Volusia County, Florida.

29. **Time of the Essence.** Time is hereby declared of the essence to the lawful performance of the duties and obligations contained in this Agreement. The Developer shall execute this Agreement within ten (10) business days of the effective date of No. 26-2016. Failure to execute this Agreement within ten (10) business days of the effective date of such ordinance may result in the City not issuing development orders or permits until execution and recordation of this Agreement has occurred. The Developer agrees to pay the cost of recording this document in the Public Records of Volusia County, Florida

30. **Condition Precedent; Effect of ICC BPUD:** As a condition precedent to this Agreement, the Developer shall have purchased the Subject Property from the Owner, as conclusively established by the recording of a deed or deeds from the Owner to the Developer in the Public Records of Volusia County, Florida. Upon the recording of this Agreement, the Interchange Commercial Center (ICC) BPUD shall have no further applicability to the Subject Property. If the foregoing condition precedent has not occurred by \_\_\_\_\_, 2016, any party hereto may terminate this Agreement if after \_\_\_ days' notice to the other parties the said condition has still not occurred.

31. **Agreement; Amendment.** This Agreement constitutes the entire agreement between the parties, and supersedes all previous discussions, understandings and agreements, with respect to the subject matter hereof; provided, however, that it is agreed that this Agreement is supplemental to the City's Comprehensive Plan and does not in any way rescind or modify any provisions of the City's Comprehensive Plan.

32. **Effective Date.** The Effective Date of this Agreement shall be the day this Agreement is recorded in the Public Records of Volusia County, Florida.

**IN WITNESS WHEREOF,** the Owner, the Developer and the City have executed this Agreement.

**OWNER/DEVELOPER**

**By:**

\_\_\_\_\_  
Signature of Witness # 1

\_\_\_\_\_  
Signature

\_\_\_\_\_

\_\_\_\_\_

Print or type name

Print or type name

\_\_\_\_\_  
Signature of Witness #2

**As:**

\_\_\_\_\_  
Print or type

\_\_\_\_\_  
Print or type name

**ATTEST:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print or Type Name

**As:**

\_\_\_\_\_  
Mailing Address: \_\_\_\_\_

**STATE OF FLORIDA**  
**COUNTY OF \_\_\_\_\_**

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_, by \_\_\_\_\_, and \_\_\_\_\_, of \_\_\_\_\_, who is/are personally known to me or who has/have produced \_\_\_\_\_ as identification and who did not (did) take an oath.

\_\_\_\_\_  
Signature of Notary

(NOTARY SEAL)

\_\_\_\_\_  
Print or type name

**DEVELOPER**

**By:**

\_\_\_\_\_  
Signature of Witness # 1

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print or type name

\_\_\_\_\_  
Print or type name

\_\_\_\_\_  
Signature of Witness #2

\_\_\_\_\_  
Print or type name

**As:**

\_\_\_\_\_  
Print or type

**ATTEST:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print or Type Name

**As:**

\_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**STATE OF FLORIDA**  
**COUNTY OF** \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_, by \_\_\_\_\_, and \_\_\_\_\_, of \_\_\_\_\_, who is/are personally known to me or who has/have produced \_\_\_\_\_ as identification and who did not (did) take an oath.

\_\_\_\_\_  
Signature of Notary

(NOTARY SEAL)

\_\_\_\_\_  
Print or type name

**CITY OF DELTONA:**

**By:**

\_\_\_\_\_

**Date:**

\_\_\_\_\_

**ATTEST:**

\_\_\_\_\_

**Date:** \_\_\_\_\_

Mailing Address:  
City of Deltona  
2345 Providence Boulevard  
Deltona, Florida 32725

**STATE OF FLORIDA**  
**COUNTY OF** \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 201\_\_, by \_\_\_\_\_, and \_\_\_\_\_, who are personally known to me and acknowledge executing the same freely and voluntarily under authority vested in them by the City of Deltona.

\_\_\_\_\_  
Signature of Notary

(NOTARY SEAL)

\_\_\_\_\_  
Print or type name

Approved as to form and legality for use and  
reliance by the City of Deltona, Florida

\_\_\_\_\_  
Gretchen R. H. Vose  
City Attorney

**EXHIBIT B**  
**LEGAL DESCRIPTION**

COMMENCE AT THE SOUTHEAST CORNER OF LOT 70, YOURLANDO FARMS AND GROVES PLAT (PLAT BOOK 10, PAGES 227 AND 228 OF THE OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA); THENCE ALONG THE EAST LINE OF PLATED LOT 70, NORTH 00°18'37" WEST A DISTANCE OF 10.10 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF GRAVES AVENUE AND THE POINT OF BEGINNING; THENCE ALONG SAID NORTHERLY RIGHT OF WAY LINE, NORTH 89°23'10" WEST A DISTANCE OF 292.39 FEET; THENCE LEAVING SAID NORTHERLY RIGHT OF WAY LINE, NORTH 00°37'08" EAST A DISTANCE OF 381.01 FEET; THENCE NORTH 89°22'52" WEST A DISTANCE OF 50.00 FEET; THENCE NORTH 00°37'08" EAST A DISTANCE OF 150.00 FEET; THENCE NORTH 55°56'49" EAST A DISTANCE OF 114.36 FEET TO THE SOUTHWESTERLY RIGHT OF WAY LINE OF HOWLAND BLVD (S.R. 472); THENCE ALONG SAID SOUTHWESTERLY RIGHT OF WAY LINE ALONG A CURVE TO THE LEFT AND BEING CONCAVE NORTH EAST HAVING A RADIUS OF 1748.64 FEET, A CENTRAL ANGLE OF 12°32'22" AND AN ARC LENGTH OF 382.70 FEET, THE CHORD OF SAID CURVE BEARS SOUTH 38°58'46" EAST A DISTANCE OF 381.93 FEET TO THE AFOREMENTIONED EASTERLY LINE OF LOT 70; THENCE SOUTH 00° 18'37" EAST A DISTANCE OF 301.79 FEET TO THE POINT OF BEGINNING.





# Staff Report

**To:** Planning and Zoning Board

**From:** Chris Bowley, AICP, Director Planning and Development Services

**Date:** May 26, 2016

**Re:** Ordinance No. 26-2016, Project No. RZ16-001, Deltona Free Standing Emergency Room, Business Planned Unit Development

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## A. Summary of Application:

**Applicant:** Matthew West, AICP, Littlejohn Engineering Assoc. Inc., representing Central Florida Regional Hospital.

**Request:**

**Tax Parcel No.:** a portion of 8106-04-00-0542

**Property Acreage:** ± 3.24 Acres

**Property Location:** The property is located in the southwestern corner of the intersection of Howland Blvd. and Graves Av. situated within the Deltona Activity Center.

**Legal Description:** COMMENCE AT THE SOUTHEAST CORNER OF LOT 70, YOURLANDO FARMS AND GROVES PLAT (PLAT BOOK 10, PAGES 227 AND 228 OF THE OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE ALONG THE EAST LINE OF PLATED LOT 70, NORTH 00°18'37" WEST A DISTANCE OF 10.10 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF GRAVES AVENUE AND THE POINT OF BEGINNING; THENCE ALONG SAID NORTHERLY RIGHT OF WAY LINE, NORTH 89°23'10" WEST A DISTANCE OF 292.39 FEET; THENCE LEAVING SAID NORTHERLY RIGHT OF WAY LINE, NORTH 00°37'08" EAST A DISTANCE OF 381.01 FEET; THENCE NORTH 89°22'52" WEST A DISTANCE OF 50.00 FEET; THENCE NORTH 00°37'08" EAST A DISTANCE OF 150.00 FEET; THENCE NORTH 55°56'49" EAST A DISTANCE OF 114.36 FEET TO THE SOUTHWESTERLY RIGHT OF WAY LINE OF HOWLAND BLVD (S.R. 472); THENCE ALONG SAID SOUTHWESTERLY RIGHT OF WAY

LINE ALONG A CURVE TO THE LEFT AND BEING CONCAVE NORTH EAST HAVING A RADIUS OF 1748.64 FEET, A CENTRAL ANGLE OF 12°32'22" AND AN ARC LENGTH OF 382.70 FEET, THE CHORD OF SAID CURVE BEARS SOUTH 38°58'46" EAST A DISTANCE OF 381.93 FEET TO THE AFOREMENTIONED EASTERLY LINE OF LOT 70; THENCE SOUTH 00° 18'37" EAST A DISTANCE OF 301.79 FEET TO THE POINT OF BEGINNING..

**B. Existing Zoning:** Interchange Commercial Center Business Planned Unit Development (BPUD)

**C. Background:** The ±3.24 acre property is a portion of a larger approximately 29 acre parent parcel. The 29 acre parent parcel was rezoned to Business Planned Unit Development (BPUD) in 2006 which was known as the Interchange Commercial Center. Even though the City adopted the rezoning Ordinance (Ordinance No. 22-2004), the BPUD Development Agreement was never executed. Recently, the City accepted an application to rezone ±3.24 acres of the Interchange Commercial Center BPUD. Essentially, the present BPUD request will replace the Interchange Commercial Center BPUD for the ±3.24 acres.

The use proposed is referred to as a freestanding emergency room. A freestanding emergency room is a relatively new medical land use and is a stand-alone facility where emergency medical care is provided. Other services include laboratories and imaging. The purpose of a freestanding emergency room is to provide fast and convenient emergency medical care. However, while freestanding emergency rooms may feature limited care beds, these facilities are not considered hospitals.

**D. Support Information Public Facilities:**

- a. Potable Water: to be supplied by Volusia County Utilities
- b. Sanitary Sewer: to be supplied by Volusia County Utilities
- c. Fire Protection: City of Deltona – Station 65
- d. Law Enforcement: Volusia County Sheriff's Office (VCSO)
- e. Electricity: Duke Energy

**E. Matters for Consideration:**

Section 110-1101, Code of City Ordinances, states that the City shall consider the following matters when reviewing applications for amendments to the Official Zoning Map:

- 1. Whether it is consistent with all adopted elements of the Comprehensive Plan.**

The property is located within a local planning area of the City referred to as the Deltona Activity Center. The Deltona Activity Center is strategically located at the SR 472/I-4 interchange and has the potential to provide needed economic development for the City of Deltona and southwest Volusia County. To realize the economic potential of the area, the Deltona Activity Center is associated with special planning and land use provisions.

***OBJECTIVE FLU2-1***

*Achieve an integrated and well-planned mixture of urban land uses within The Deltona Activity Center that encourages the creation of an employment center.*

The above objective illustrates the Deltona Activity Center is anticipated to be an employment center for the City. Medical uses typically are associated with higher wage skill sets oftentimes with benefits. Therefore, the rezoning would be consistent with this provision.

***Policy FLU2-1.7***

*Future development within the Deltona Activity Center shall require rezoning to a Planned Unit Development (PUD) or amendment to an existing PUD. Provided, however, that any development of an existing parcel that is 0.5 acres or less in size and which is permissible by the existing zoning classification assigned the parcel shall not require rezoning to PUD if the existing zoning classification is consistent with the Deltona Activity Center Plan future land use designation.*

The Business Planned Unit Development rezoning process for the property is required by this policy

***Policy FLU2-1.13***

*Individual developments within the Deltona Activity Center shall be designed consistent with the City of Deltona's Urban Design Pattern Book and Urban Design Master Plan as it may be updated from time to time to provide visual compatibility and functional continuity with other adjacent developments within the Deltona Activity Center.*

The project will be subject to the aesthetic requirements of this policy: Promote well designed and high quality development forms within the Deltona Activity Center.

The proposed development is also required to be consistent with the remaining Comprehensive Plan.

***Policy FLU1-1.11***

*The following public facilities and services shall be available for new development in all areas: roadways, solid waste collection, stormwater management, fire and police*

*protection, emergency medical services, potable water, sanitary sewer service, and public schools as defined in the Public School Facilities Element.*

The project will be served by adequate infrastructure including transportation. To address transportation improvements programed under a previously approved BPUD (Deltona Village), the project will be subject to traffic mitigation requirements to improve Graves Av.

***Policy FLU1-7.5***

*Subdivisions shall be designed so that all individual lots have access to the internal street system network with peripheral lots buffered from major roads and incompatible land uses.*

The BPUD rezoning does involve a subdivision and includes the beginning of an internal road system.

***Policy T1-1.4***

*The City of Deltona shall maintain land use regulations to facilitate safe and efficient transportation, which operates within the accepted levels of service as adopted by the City.*

Access off of Graves Av. will be limited to right in and right out movements. In addition, there is a requirement for the applicant to construct a raised median between the Graves Av. travel lanes. The intent of the raised median is to discourage left turns. The suggested improvements will promote safe ingress and egress to the facility and ensure appropriate traffic flow.

**2. Its impact upon the environment or natural resources.**

The property is associated with well drained, sandy soils. There are no wetlands on the property and none of the area proposed to be rezoned is located within the 100 year flood plain.

The property has been cleared in the past. The property can be described as a ruderal landscape comprised of scrub palmetto, oak saplings, dogfennel, broom grass, and various early successional weeds. While the property may have been cleared, the site may be suitable habitat for gopher tortoises and scrub jays. It is not unusual for mechanically manipulated areas to support populations of scrub jays and/or gopher tortoises. To determine if the property supports scrub jays or gopher tortoises, the applicant will be required to survey the property. If gopher tortoises are noted, then the tortoises will need to be relocated or preserved on site as per State permitting requirements. Scrub jays are a listed species protected under the Endangered Species

Act. Scrub jays and related habitat are regulated by the U.S. Fish and Wildlife Service and any impact to scrub jays or habitat will be subject to a Habitat Conservation Plan.

All listed species surveying and applicable permitting will be addressed during the site plan review process.

**3. Its impact upon the economy of any affected area.**

The proposed facility is a medical use and medical jobs typically feature relatively high wages, stable employment and oftentimes benefit packages. The facility will be staffed by approximately 30 personnel and will be open 24 hours a day. There is anticipation staff will operate in shifts. The project will bring in employment which has the potential to increase demand for retail service uses including restaurants.

**4. Notwithstanding the provisions of Article XIV of the Land Development Code, Ordinance No. 92-25 [Chapter 86, Code of Ordinances] as it may be amended from time to time, its impact upon necessary governmental services, such as schools, sewage disposal, potable water, drainage, fire and police protection, solid waste or transportation systems.**

- a. **Schools:** N/A. The project is not residential and would have no impact on school workstation space.
- b. **Sewage Disposal:** Volusia County utilities will serve the project with central sewer. Currently, the County has over 350,000 gallons per day of wastewater treatment capacity available. Therefore there is ample capacity to serve the project.
- c. **Potable Water:** Volusia County utilities will serve the project with potable water. The County is currently providing a high potable water level of service within the Deltona North service area. The County does have the capacity to serve the property with potable water.
- d. **Drainage:** Stormwater will be managed in accordance with the City Land Development Code and the St. Johns River Water Management District.
- e. **Transportation Systems:** A freestanding emergency room is a new medical land use. The use is intended to provide quick and convenient emergency medical service. Emergency room service has typically been ancillary to hospitals where a full range of medical services are provided within a large central facility. Traffic generation rates associated with hospitals have been well studied by the Institute of Traffic Engineers and others. The trip generation characteristics of hospitals tend to be somewhat unique based on shift changes, visitation hours, patient

admission/discharges, etc. These characteristics are driven, in part, because a hospital tends to be open seven days a week and 24 hours a day.

Conversely, traffic generation rates for a freestanding emergency room have not been well documented. Since the freestanding emergency room has some commonalities with a hospital – 24/7 operation, medical services, etc., the hospital traffic generation rates were applied to determine traffic impacts associated with the proposed freestanding emergency room use.

Utilizing the above referenced methodology revealed the almost 11,000 square foot freestanding emergency room use would generate 143 trips with a pm peak of 10 movements to and from the facility. The trip generation rate of the use is well below the typical 1,000 trip threshold to perform a traffic impact analysis (TIA). However, the project is located in a congested area of the City. While none of the immediate roadway segments are failing, Graves Av., SR 472, and Howland Blvd. near the project are close to capacity. Furthermore, the local roadway geometry, signalization and traffic patterns create a condition where safety is of paramount importance. Notwithstanding the local roadway network has the capacity to support the 143 trips, the project needs to be carefully managed with regard to intensity, access and off-site transportation mitigation.

A road providing access to Graves Av. from the facility is planned. The access movement for the road will be limited to right in and right out. The intent of limiting the movement is because of the local curvature of Graves Av. which limits the view of on coming traffic. In addition, to ensure the right in and right out access is respected by drivers, the applicant will be required to install a raised concrete median down the center of Graves Av. near the project. The dimensions of the median will be determined by the County through the County Use Permit process (Graves Av. is a County Road).

In 2010, the City approved the Deltona Village Business Planned Unit Development. The Deltona Village BPUD mostly addressed 130 acres located south of the freestanding emergency room property. The Deltona Village BPUD transportation mitigation section addressed not only the 130 acres located south of Graves Av. but the 29 acre site of which the ±3.24 acre property is a part. According to the Deltona Village BPUD, the ±3.24 acre area is situated in “County Phase 1”. The subject phase is programed to provide mitigation. The mitigation associated with the Deltona Village BPUD mostly includes improvements to Graves Av. including a new Graves Av. west bound travel lane. The scope and size of the project will not trip the threshold for immediate improvements included within the Deltona Village BPUD. However, the owner and/or successor(s) in title is/are

responsible, as identified in the Deltona Village Development Agreement, to finance and implement transportation improvements.

The above mentioned access road featuring the right in and right out movement is one of three access points originally proposed by the applicant. The other two access points involve extending roads across land not proposed to be bought by the applicant. One access point would intersect at a right angle with Normandy Blvd. at the Graves Ave./Normandy Blvd. intersection. The other proposed access point was located further west towards the Graves Av. I-4 overpass. Both of these access points have merit and may be more functional than the right in right out access point planned to serve the property. However, the other access points involve unknown dynamics including ownership characteristics and other variables not suited to being adequately addressed under the subject BPUD document. Therefore, if access does change or is modified, the revised access network will need to be addressed through a PUD amendment or perhaps a new PUD involving abutting or nearby land.

**5. Any changes in circumstances or conditions affecting the area.**

None.

**6. Any mistakes in the original classification.**

No known mistakes.

**7. Its effect upon the public health, welfare, safety, or morals.**

All Planned Unit Development zoning actions are associated with a written Development Agreement (DA). The DA establishes certain land uses, intensities and other development parameters intended to implement the mission of government – health, welfare, safety and morals. The DA is attached. The language of the DA suggested by City Staff is presented in an underline and strike through format. Highlights of the recommended changes to the DA include the following:

- a. Limitation on land use to a freestanding emergency room;
- b. Limitation on the intensity to reflect applicant proposal;
- c. Addition of aesthetic standards;
- d. Enumeration of various transportation conditions including access management;
- e. To recognize the ±3.24 acre area as a legal lot, the underlying plat needs to be vacated and the ±3.24 acre area platted; and

- f. The addition of language regarding scrub jay and gopher tortoise protection.

**CONCLUSION/STAFF RECOMMENDATION:**

The proposed freestanding emergency room use is consistent with the City vision for the Deltona Activity Center. The freestanding emergency room will create jobs with good wages and benefits. In addition, the rezoning seems to further a medical oriented land use trend for the Deltona Activity Center that started with the Halifax Hospital development located in the vicinity of the proposed freestanding emergency room. There is anticipation the initial medical uses in the Deltona Activity Center will promote ancillary medical development including doctor offices, etc. In addition, increased employment in the area will spur the development of services like restaurants. Finally, the proposed rezoning is consistent with the Comprehensive Plan and can be served by existing public services. Therefore, staff recommends the adoption of Ordinance No. 26-2016, rezoning the ±3.24 acres to Business Planned Unit Development.



Via email: ([RParadise@deltonafl.gov](mailto:RParadise@deltonafl.gov) )

Ref: 3949.03

October 10, 2016

Mr. Ron Paradise  
City of Deltona  
Planning and Development Services  
2345 Providence Blvd.  
Deltona, FL 32725

**Re: Traffic Impact Analysis Review – Deltona Free Standing Emergency Room**

Dear Mr. Paradise:

Lassiter Transportation Group, Inc. (LTG) had completed our review of the Traffic Impact Analysis submitted to the City of Deltona by Littlejohn Engineering and Associates (LEA) September 29, 2016. A separate comment letter has been prepared to document the items of concern for the traffic impact and access analysis as presented by the Developers Consultant. A summary of the review follows below.

The Free Standing Emergency Room facility (FSER) has been proposed at the northwest quadrant of SR 472/Howland Boulevard at E. Graves Avenue in Deltona Florida. SR 472 is a limited access facility and does not permit a connection prior to E. Graves Avenue. The proposed project parcel and the parent parcel front E. Graves Avenue from Interstate 4 to Howland Boulevard.

The current site plan accompanying the TIA has proposed a right- in/right-out driveway connection to E. Graves Avenue for access. The median along E. Graves Avenue is shown to be modified to remove eastbound left turns into the facility, as the westbound left turns at Normandy Boulevard are the predominant movement within this segment. Motorists choosing to turn left from the site or left into the site are required to make a U-turn maneuver at the intersections of E. Graves Avenue at Normandy Boulevard and Howland Boulevard.

U-turn maneuvers will require defining right of entry during the appropriate signal phase at the Howland Boulevard intersection. An eastbound U-turn will require a NO-Right on Red for the Southeast-bound Howland Boulevard. Additionally, pending the agreement of the design vehicle radii, a U-turn apron may also be required to maintain the maneuver on a paved surface.

The parent parcel has frontage to E. Graves Avenue and a fourth leg to the Normandy Boulevard intersection would create a full "Plus" intersection allowing full access and maneuverability into the project site. This option would be an optimal condition.

If you have questions or comments, feel free to call me at (386) 257-2571.

Sincerely,  
LASSITER TRANSPORTATION GROUP, INC.

*Andrew J. Ames, P.E.*

Andrew J. Ames, P.E.  
Senior Project Manager

Cc: R. Sans Lassiter, P.E.

Ref: 3949.03

October 10, 2016

Mr. Ron Paradise  
City of Deltona  
Planning and Development Services  
2345 Providence Blvd.  
Deltona, FL 32725

**Re: Traffic Impact Analysis (TIA) Review – Deltona FSER**

Dear Ron:

Lassiter Transportation Group, Inc. (LTG) had completed our review of the TIA methodology letter dated 9/19/2016 by Littlejohn an S&ME Company on behalf of the proposed Deltona Free-Standing Emergency Room (FSER) to be located on the north side of E. Graves Avenue between Interstate-4 and SR 472. The methodology has addressed all outstanding comments and was approved. The TIA for the project has been submitted September 29, 2016 and we offer the following review comments:

- 1.) Comment: Previous Comments from the 9-22-16 methodology letter have been incorporated into the revised methodology. **No further response to the methodology letter is required.**

**TIA REVIEW:**

- 2.) Revised - Comment: Original - Please provide clarity to the status of the parent tract of this area and how your parcel is stand alone in the TIA. Our understanding is that the parent tract has not completed the B-PUD documentation process with the City of Deltona and as such has not recorded a zoning change.
- Additional – A plan has recently been submitted to the City of Deltona for a full plus signalized intersection at Normandy at Graves. Please coordinate the connection of the site parcel to the new connection at the intersection as part of the recommendations.
- 3.) Comment: Please define the design vehicle and provide the template for the inside and outside turning radii for the AASHTO Design vehicle. Typically, a DL-23 (Fed-ex type) truck is used for urban design conditions. Utilize this vehicle or document the design vehicle information utilized for EVAC/Ambulance vehicles in the report and as part of the Appendix.
- 4.) Comment: Study Area – Volusia County Roads impacted will require a review of the Critical/Near Critical segments with Volusia County.
- 5.) Comment: Synchro – Input of U-turn vehicle volume and lane assignment are needed with the proposed conditions for review at the study intersections. Currently the volumes do not delineate the U-turn volume within the Synchro Inputs or outputs provided. An alternative

would be to clarify/define the factors adjusted in Synchro to address the U-turn volume impacts, if the Synchro Version used does not accommodate U-turn movements.

6.) Comment: HCS Outputs from Synchro. Please provide the 95%ile queues as part of the output for the intersection evaluations.

If you have questions or comments, feel free to call me at (386) 257-2571.

Sincerely,  
LASSITER TRANSPORTATION GROUP, INC.

*Andrew J. Ames, P.E.*

Andrew J. Ames, P.E.  
Senior Project Manager

Cc: R. Sans Lassiter, P.E.

# Deltona FSER Traffic Impact Analysis

Prepared For:

***Central Florida Regional Hospital***



Prepared By:

Littlejohn Project No. 20151249

Dated: September 2016

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Appendix C	Traffic Signal Timing Sheets
Appendix D	Synchro Results – Existing
Appendix E	Synchro Results – Build-Out: Right-In/Right-Out
Appendix F	Synchro Results – Build-Out: Full Intersection at Normandy

## **1.0 Introduction**

The Deltona FSER is a proposed 10,820 SF Free-Standing Emergency Room (FSER) on the western corner of the Howland Boulevard/Graves Avenue intersection, as shown on **Figure 1-1**. Based on the estimated daily and peak hour trip generation, it was determined that the proposed project does not meet the minimum criteria for a traffic study per the River to Sea Transportation Planning Organization (R2CTPO) guidelines. Additionally, development on this property was analyzed within the traffic study completed for the Deltona Village PUD. Concerns about the validity of the trip generation rates and the impact of the right-in/right-out access on Graves Avenue were raised during the August 15th City Commission meeting, which is the focus of this analysis.

### **1.1 Proposed Development**

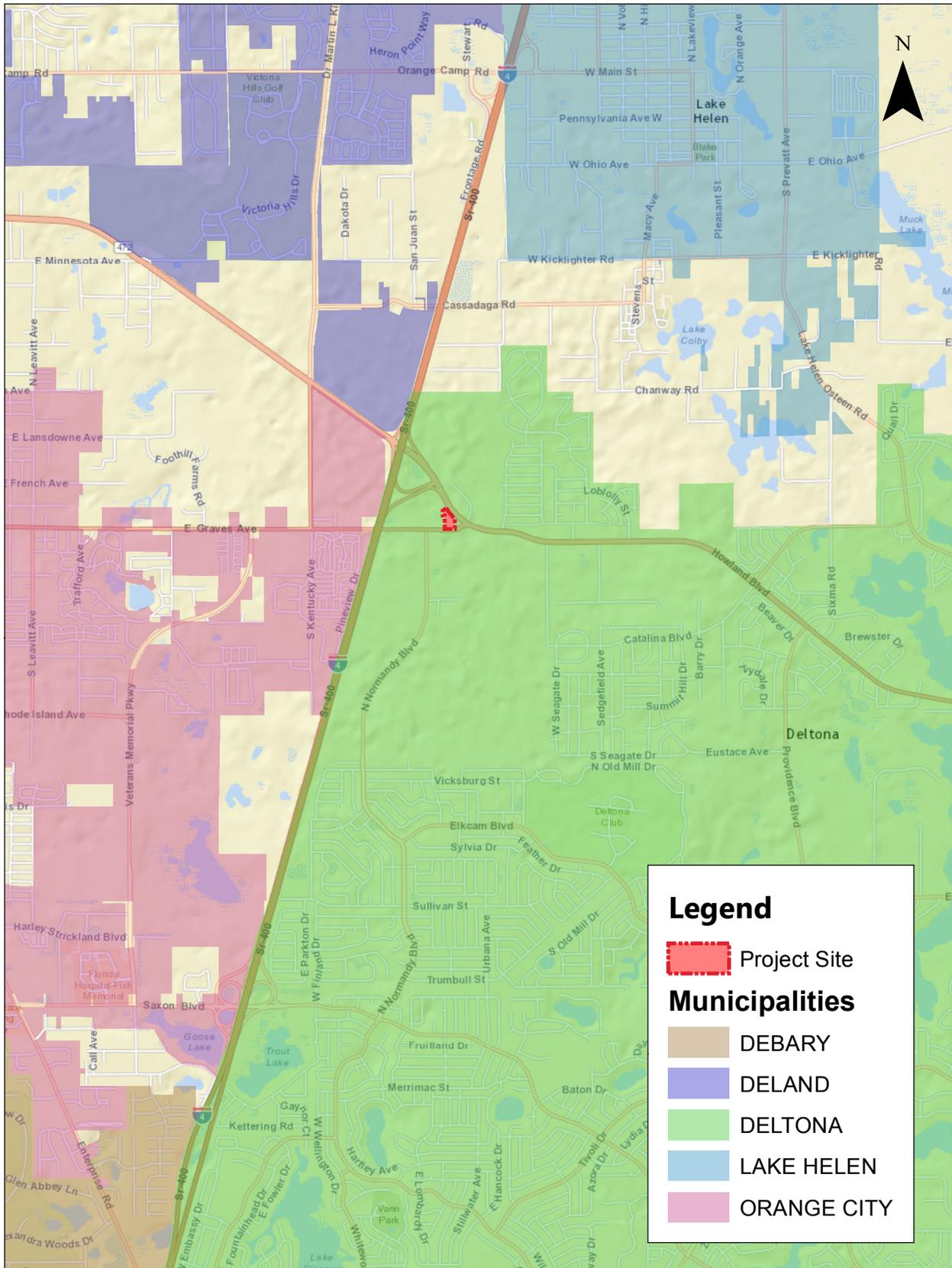
A Free-Standing Emergency Room (FSER) is a facility which provides identical services to a hospital emergency room, but is located remotely from a hospital facility. FSERs operate 24 hours per day, 7 days a week but do not have facilities or allow patients to stay more than 24 hours. FSERs can be served by ambulances, but in most circumstances, acute patients (those whose conditions are severe enough to most likely warrant additional hospitalization/hospital services) are routed to a hospital facility rather than an FSER. Thus, the vast majority of traffic to and from the FSER are private vehicles. FSERs differ from other Medical Clinics based on hours of operation, the lack of appointments, and types of patients served.

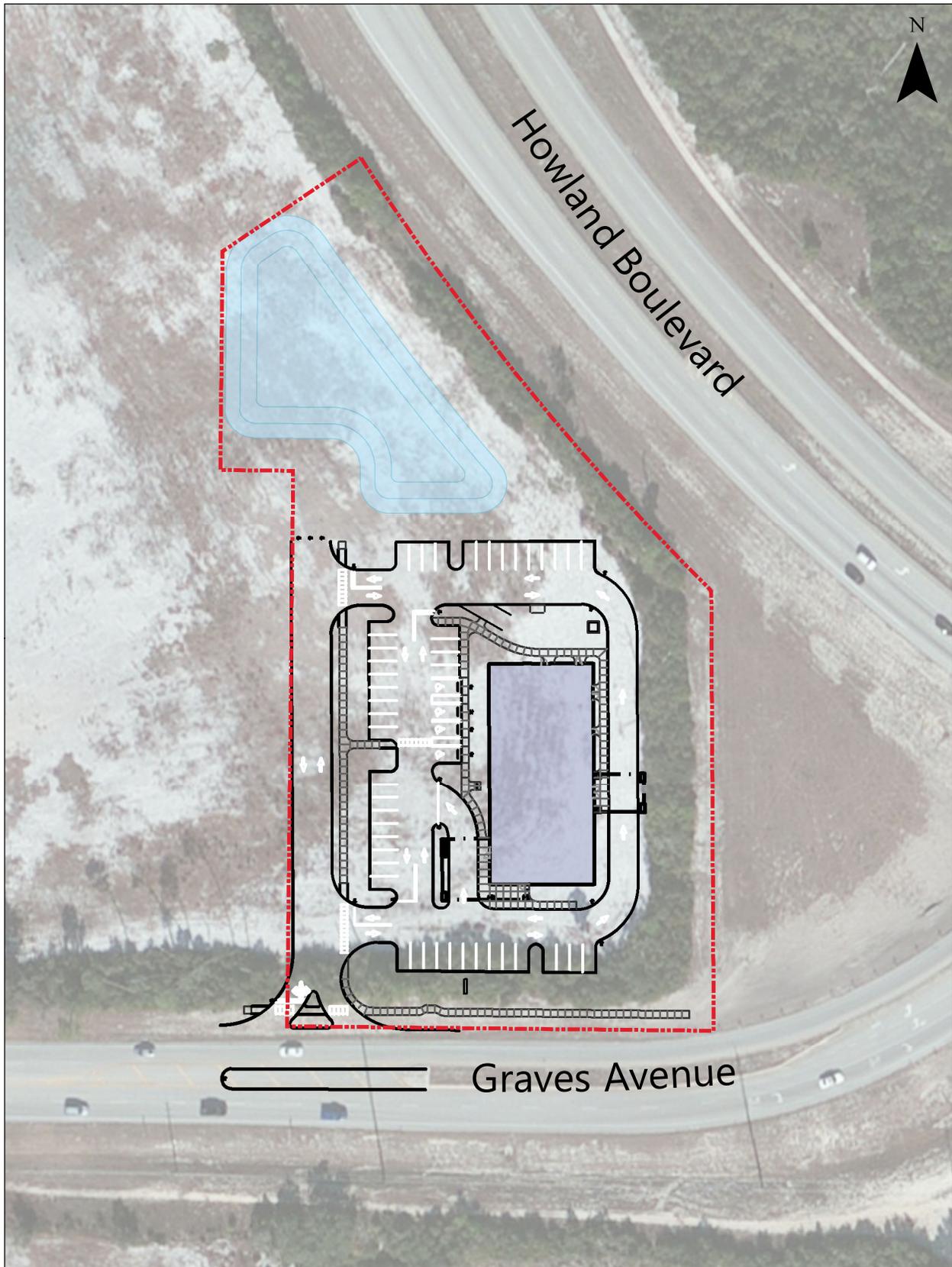
The proposed Deltona FSER has 11 examination rooms and basic diagnostic services, such as CT scan, General Radiology, and Laboratory Facilities.

### **1.2 Site Access & Circulation**

The proposed development is adjacent to both Howland Boulevard and Graves Avenue. The portion of Howland Boulevard adjacent to the site is a limited-access segment due to the I-4 ramps, and thus no access from the proposed development is allowed onto Howland Boulevard. Therefore, all access for the proposed development will be made from Graves Avenue. Based on discussions with Volusia County Traffic Engineering, any driveway between Normandy Boulevard and Howland Boulevard which serves this facility would be limited to a right-in/right-out driveway, due to the high volumes on Graves Avenue, the sight-distance issues caused by the horizontal alignment of the roadway, and the distance from the existing signals.

The proposed FSER site is a portion of a larger development site, which would have an internal roadway network, with another connection to Graves Avenue west of Normandy Boulevard, and possibly another connection to Graves Avenue at the intersection with Normandy Boulevard. The site layout for the proposed FSER builds the first segment of this internal roadway network as a dedicated roadway, with two driveways into the FSER parking lot/drop-off areas, as shown in **Figure 1-2**. The site is designed to have separate loading areas for ambulances (to the east of the building) and personal vehicles (on the southwest corner of the building).





## 2.0 Trip Generation

There are three existing Land Use Codes in the ITE Trip Generation Manual for medical uses, as shown in **Table 2-1**. In the past, Land Use Code 610: Hospital has been used for the FSERs approved in Florida, as an emergency room has been considered a department of an associated hospital. However, per the ITE definitions, the stand-alone facility would best be classified as a Medical Clinic. The clinic and medical office land uses have a significantly higher trip generation rates than the hospital land use (2-3x higher daily, 3.5-6x higher during the peak hour).

**Table 2-1. ITE Descriptions for Medical Land Uses**

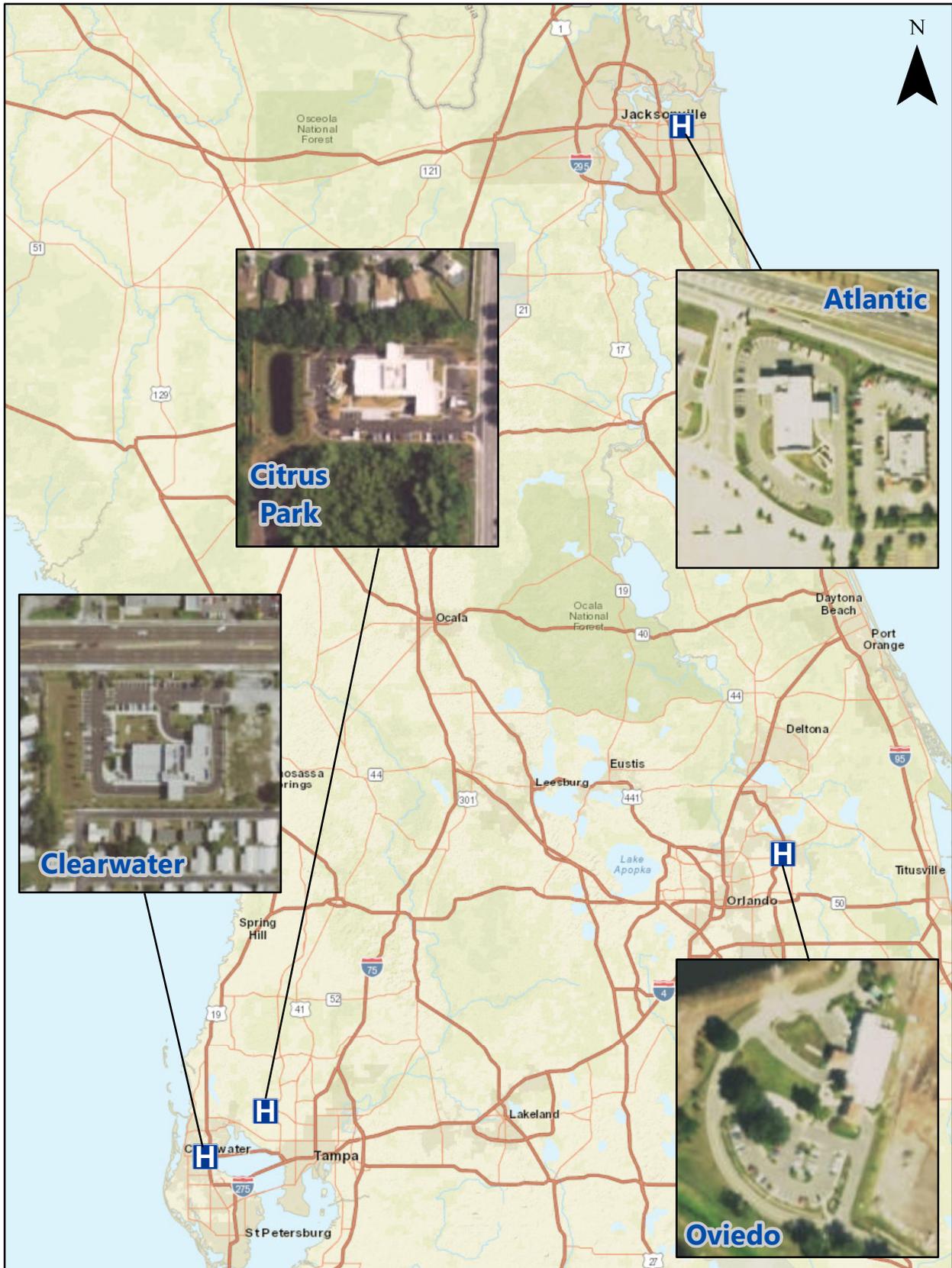
Land Use	Definition	Daily Rate (KSF)	PM Peak Rate (KSF)
610: Hospital	A hospital is any institution where medical or surgical care and overnight accommodations are provided to non-ambulatory and ambulatory patients.	13.22	0.93
630: Clinic	A clinic that is any facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care. Clinics commonly have lab facilities, supporting pharmacies and a wide range of services (compares to the medical office, which may only have specialized or individual physicians).	31.45	5.18
720: Medical/Dental Office	A medical dental office building is a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility.	36.13	3.57

*Source: ITE Trip Generation Manual, 9<sup>th</sup> Edition*

As part of the Traffic Impact Analysis completed by Littlejohn for another project, PM peak hour traffic counts were taken at the existing Oviedo FSER during the PM peak period. The trip generation rate observed during those peak hours fell between the Hospital and Medical/Dental Office PM peak rates and less than half of the Clinic rate, which supported the previous use of Land Use Code 610 for the FSERs (as it is more closely a hospital use than a medical office building use). However, as FSERs are unique facilities, with a trip generation that does not correlate with the existing ITE trip generation rates, a trip generation study was completed to determine appropriate trip generation rates for the FSER land use.

### 2.1 Study Facilities

A trip generation study was conducted using four existing facilities within Florida, as shown in **Figure 2-1** and **Table 2-2**. The facilities analyzed were chosen based on the ability to isolate trips to and from the FSER (no shared parking with other uses) for data collection, as well as the fact that they outperform more than half of the existing FSERs in terms of annual visits, as seen in **Figure 2-2**.



# Traffic Impact Analysis

## Deltona FSER

**Table 2-2. Summary of Study FSERs**

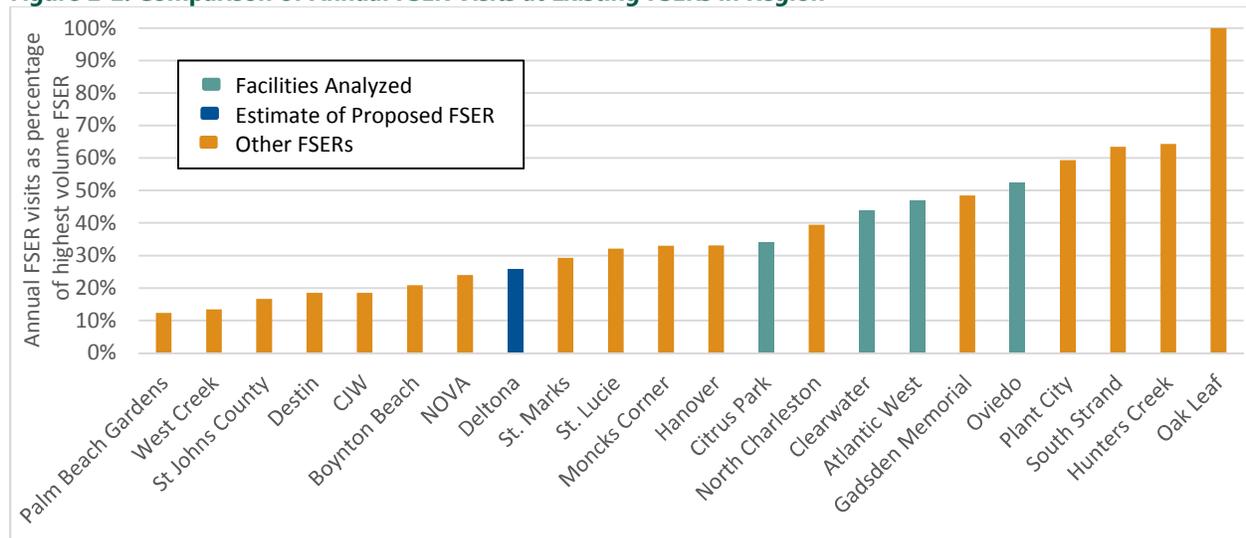
Facility	Open Date	Size (SF)	Adjacent Roadway AADT <sup>1</sup>	Distance to Nearest Hospital (mi)
<b>Atlantic ER</b> 11850 Atlantic Blvd, Jacksonville	Mid 2014	9,878	55,500 <i>(2014 State Roads Traffic Counts, Duval County)</i>	8.0 <i>(Memorial Hospital)</i>
<b>Citrus Park ER</b> 12922 Sheldon Road, Tampa	Mid 2015	11,232	21,500 <i>(2015 FDOT Florida Traffic Online)</i>	5.0 <i>(Tampa Community Hospital)</i>
<b>Clearwater ER</b> 2339 Gulf to Bay Blvd, Clearwater	Late 2014	10,620	49,500 <i>(2015 FDOT Florida Traffic Online)</i>	4.5 <i>(Morton Plant Clearwater)</i>
<b>Oviedo ER</b> 8300 Red Bug Lake Road, Oviedo	Mid 2014	11,045	47,839 <i>(2015 Traffic Counts, Seminole County)</i>	9.0 <i>(Winter Park Memorial)</i>
<b>Proposed Deltona ER</b>	-	10,820	36,570 <i>(2015 Annual Average Daily Traffic, Volusia County)</i>	4.0 <i>(Florida Hospital Fish Memorial)</i>

<sup>1</sup>FDOT Data used when available, otherwise local data was utilized

Source: Littlejohn, FDOT Florida Traffic Online, Seminole, Duval, and Volusia County Traffic Counts

The data collected for each facility included the size of each facility, adjacent roadway AADT, and distance from the nearest full-service hospital to provide options as to the best independent variable for analysis and those which show more variability between the study locations.

**Figure 2-2. Comparison of Annual FSER Visits at Existing FSERs in Region**



Source: HCA Healthcare

## 2.2 Trip Generation Data Collection

Trips were counted inbound and outbound at all access points to the facilities for a 72 hour period (August 30, 2016 through September 1, 2016). Raw counts from each location are included in **Appendix A**. A summary of the trip generation by site is shown in **Table 2-3**. Although all of the ERs are roughly the same size (within 1,500 SF), the trip generation varied greatly between locations. The Oviedo ER had significantly higher trip generation than any of the other sites, with the Clearwater ER having the lowest trip generation.

**Table 2-3. Trip Generation by Location**

Location	Day 1	Day 2	Day 3	Average
<i>Daily Trip Generation</i>				
Atlantic	241	239	258	246
Citrus Park	183	189	149	174
Clearwater	232	231	193	219
Oviedo	417	424	404	415
<i>AM Peak Period Trip Generation (of FSER)</i>				
Atlantic	22	21	27	23
Citrus Park	18	18	18	18
Clearwater	18	22	20	20
Oviedo	33	35	41	36
<i>PM Peak Period Trip Generation (of FSER)</i>				
Atlantic	26	23	32	27
Citrus Park	24	25	23	24
Clearwater	20	18	15	18
Oviedo	37	32	36	35

**Source:** Littlejohn

Trip generation rates were calculated for each of the facilities based on three different independent variables – Building Size, Adjacent Roadway AADT, and Distance from Nearest Hospital – as shown in **Table 2-4**. The rates calculated for each facility were averaged to determine the overall trip generation rate based off of each independent variable. An  $R^2$  value was calculated for each of the average rates to determine the statistical correlation between the independent variable and resulting trip generation rate. Based on the  $R^2$  values, the rates calculated using the distance from the nearest hospital provided the best correlation between independent variable and dependent variable. However, distance to nearest similar facility is not currently used as an independent variable in the ITE trip generation handbook, and could be difficult to define (do other urgent care facilities or FSERs count, or is it specifically hospitals, etc). While the size and adjacent roadway volumes do not have a high correlation, using the average rate based on size provides a conservative estimate of trip generation, as it is the scenario where the average rate produces trip generations above the observed values in most cases, as shown in **Figure 2-3** and **Figure 2-4**.

**Table 2-4. Calculated Trip Generation Rates**

Rate	Atlantic	Citrus Park	Clearwater	Oviedo	Average	R <sup>2</sup>
<i>Size (KSF)</i>						
Daily	24.9	15.49	20.62	37.57	24.65	0.01
AM	2.33	1.6	1.88	3.71	2.38	0.05
PM	2.73	2.14	1.69	3.26	2.46	0.03
<i>Adjacent Roadway Volume (1,000 AADT)</i>						
Daily	4.43	8.09	4.42	8.9	6.46	-0.43
AM	0.41	0.84	0.4	0.86	0.63	-0.09
PM	0.49	1.12	0.36	0.75	0.68	-1.76
<i>Distance to Closest Hospital (mi)</i>						
Daily	47.33	34.8	48.67	47.33	40.39	0.68
AM	4.56	3.6	4.44	4.56	3.87	0.68
PM	4	4.8	4	4	4.05	0.76

*Source: Littlejohn*

The number of inbound vehicles during each of the peak hours was compared to the overall peak number of trips to determine the split between inbound and outbound vehicles for each of the peak periods. The percentage of inbound vehicles during the peak period on each of the count days at all of the locations was averaged together to determine the inbound/outbound split for both peak periods, as shown in **Table 2-5**.

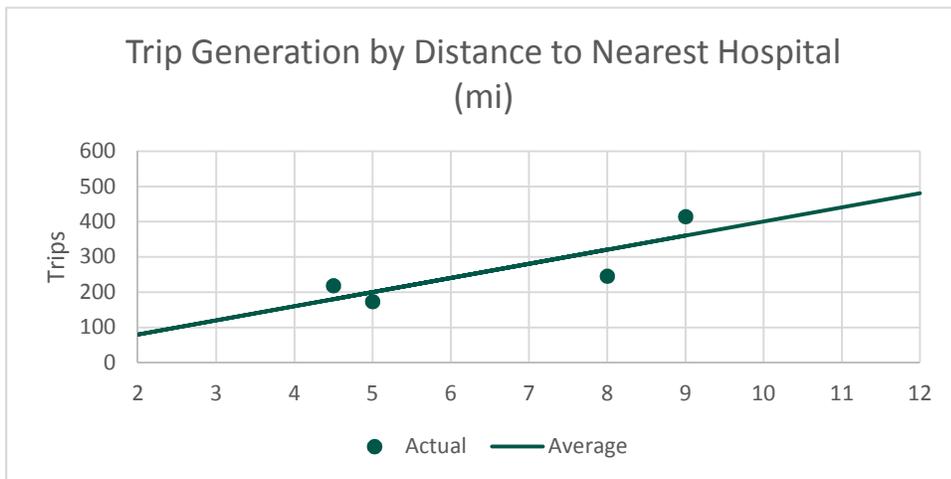
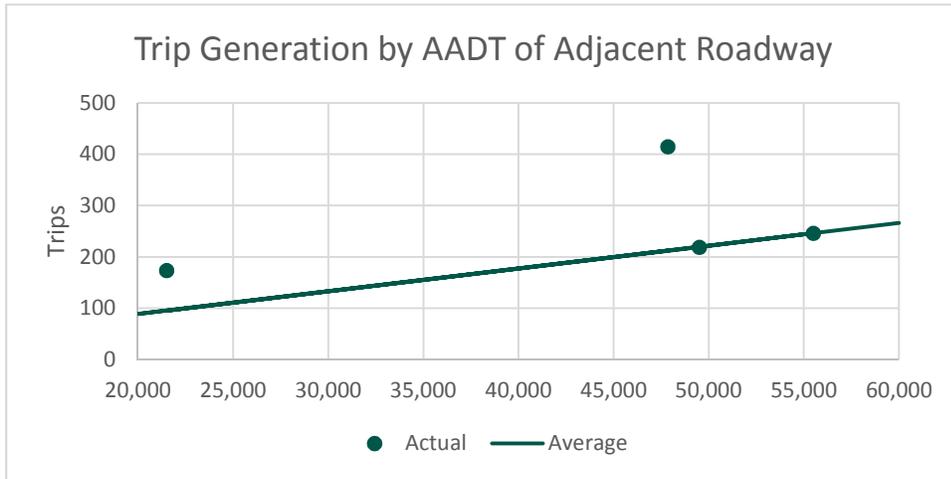
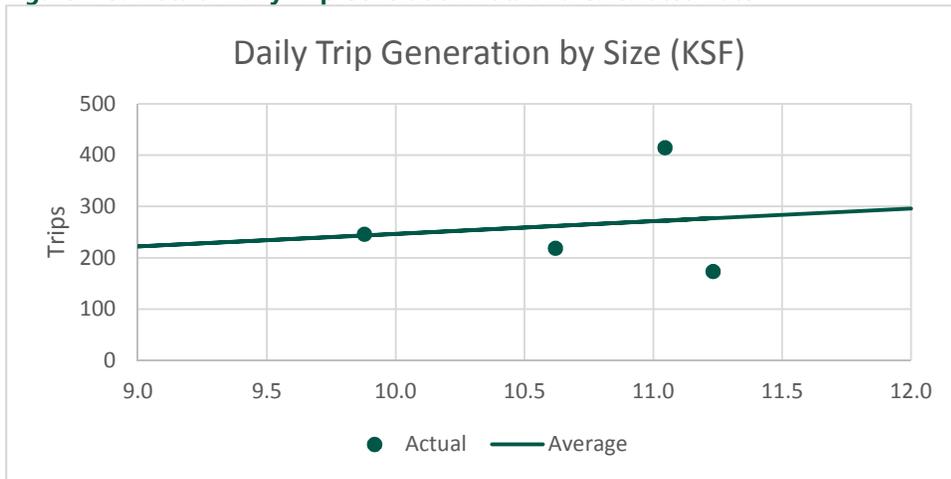
**Table 2-5. Percentage of Inbound Vehicles**

Site	AM Peak Period			PM Peak Period		
	Day 1	Day 2	Day 3	Day 1	Day 2	Day 3
Atlantic	0.50	0.48	0.56	0.50	0.43	0.50
Citrus Park	0.50	0.50	0.50	0.54	0.60	0.57
Clearwater	0.73	0.68	0.50	0.30	0.67	0.47
Oviedo	0.67	0.69	0.68	0.49	0.56	0.47
Average	0.58			0.51		

*Source: Littlejohn*

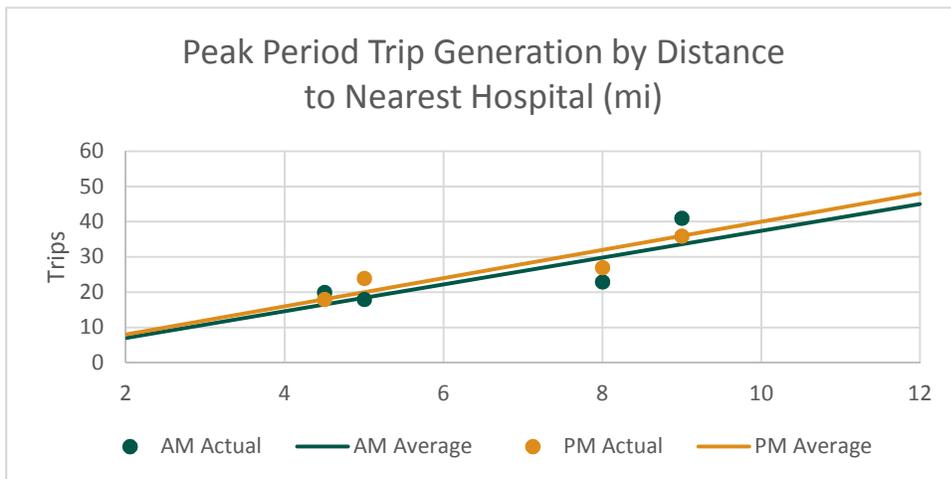
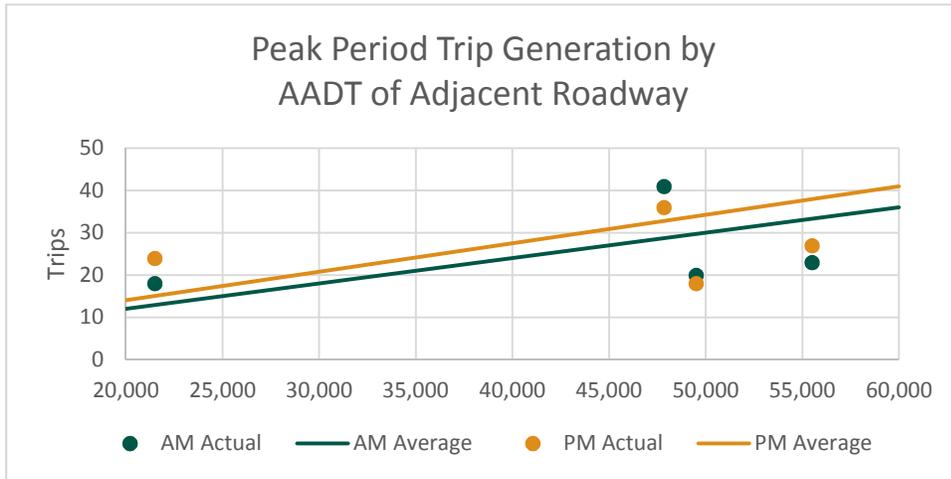
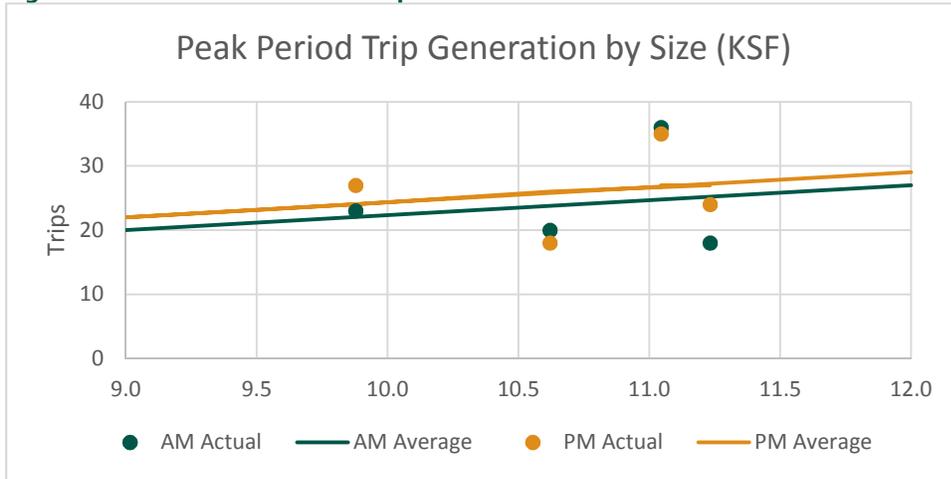
While not specifically counted as part of the data collection effort, it was estimated that each site had between one and five ambulance trips per day, representing less than 5% of the daily trips at any of the facilities.

**Figure 2-3. Plots of Daily Trip Generation Data and Calculated Rate**



Source: Littlejohn

Figure 2-4. Plots of Peak Period Trip Generation Data and Calculated Rate



Source: Littlejohn

### 3.0 Trip Distribution

For visitor/patient trips, the trips will be distributed to the roadway network based on the distribution of population. The TAZs and base data from the Central Florida Regional Planning Model (CFRPM5) will be used to determine the distribution of population. Based on the roadway driving distance, the TAZs for which the Deltona FSER is the closest emergency room facility were identified, as shown in **Figure 3-1**.

For the TAZs which are closest to the proposed Deltona FSER, each TAZ was analyzed to determine the most direct route to and from the proposed FSER out of the following options, as shown on **Figure 3-2**:

- Graves Avenue (west of Normandy Boulevard)
- Normandy Boulevard (south of Graves Avenue)
- I-4 (to Howland Boulevard)
- SR 472 (west of I-4)
- Howland Boulevard (east of Graves Avenue)

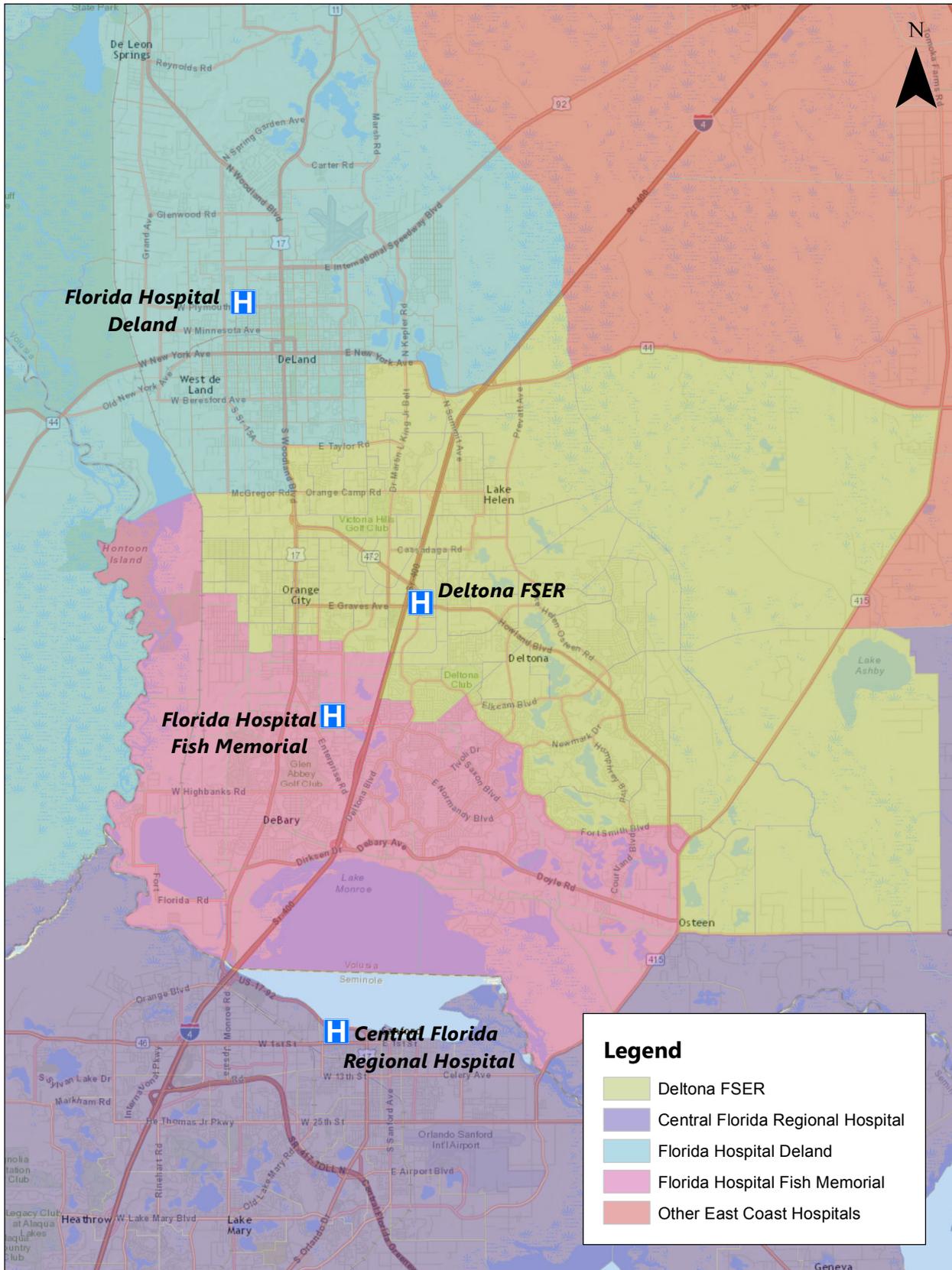
The total population (single family and multi-family) within each of the TAZs was summarized by approach roadway and then divided by the total population of the TAZs closest to the Deltona FSER to determine the percentage attributed to each roadway, as seen on **Table 3-1**.

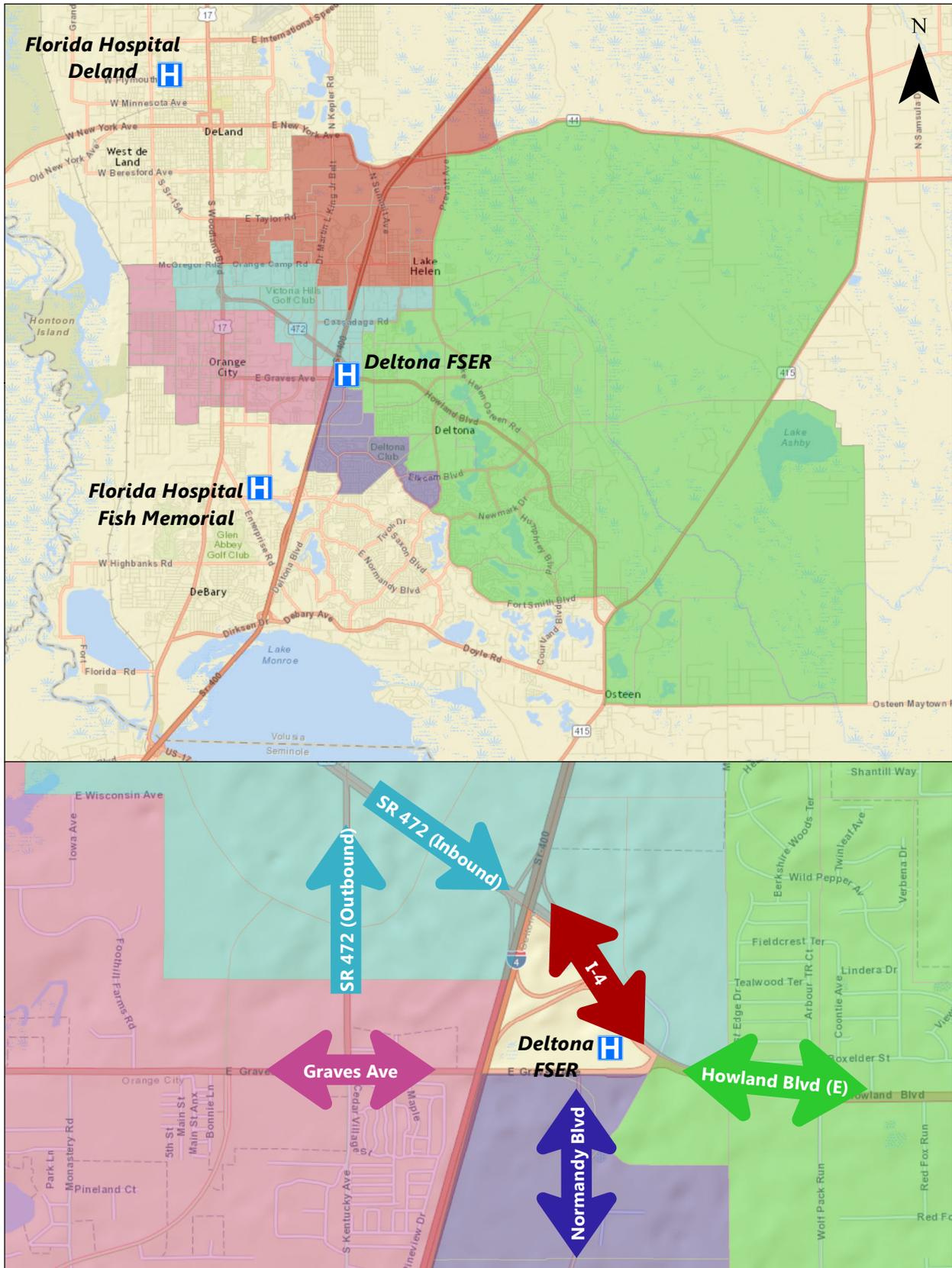
**Table 3-1. Distribution of Population Closest to Deltona FSER**

Approach Roadway	Model Population (Single Family)	Model Population (Multi-Family)	Model Population (Total)	Percentage of Total
Graves Avenue	10,912	875	11,787	16%
Normandy Boulevard	7,638	0	7,638	11%
I-4	5,529	109	5,638	8%
SR 472	2,000	106	2,106	3%
Howland Boulevard	44,927	537	45,464	63%
<b>Total</b>	<b>70,148</b>	<b>1,627</b>	<b>71,775</b>	<b>100%</b>

*Source: CFRPMv501; Littlejohn*

Due to the timing of the shifts at the FSER, most employee trips occur around 7pm, when there would be approximately 6 inbound/6 outbound staff trips. While other shift changes happen throughout the day, they would only be expected to cause 1-2 inbound/outbound trips during an hour. While employee trips would have a different distribution than patient trips (due to the fact that they do not necessarily work next to the 'closest' facility), distributing the employee trips separately across five approach roadways would result in less than 1 vehicle per approach roadway, and thus employee trips were distributed at the same distribution as would be assumed for patient/visitor trips.





The distribution was rounded to the nearest 5%, as shown in **Table 3-2**. Based on the population distribution, the majority of trips are projected to come from Howland Boulevard east of Graves Avenue. This is due to the presence of other medical facilities to the west of I-4, which would draw patients away from the Deltona FSER.

**Table 3-2. Project Distributions**

Approach Roadway	Distribution
Graves Avenue	15%
Normandy Boulevard	10%
I-4 to Howland Boulevard	10%
Howland Boulevard (West)	5%
Howland Boulevard (East)	60%

*Source: Littlejohn*

## 4.0 Intersection Analysis

### 4.1 Deltona FSER Trip Generation

Trip generation for the Deltona FSER was generated using the average rates from the comparable sites analysis, as shown in **Table 4-1**. Using the size of the building as the independent variable produces the highest, most conservative trip generation for the development, with a total of 267 daily trips, 26 AM peak hour trips, and 27 PM peak hour trips.

**Table 4-1. Deltona FSER Trip Generation**

Independent Variable	Intensity	Daily Trip Ends	AM Peak Period			PM Peak Period		
			In	Out	Total	In	Out	Total
Size	10,820 SF	267	15	11	26	14	13	27
AADT of Adjacent Roadway	36,570 AADT	234	13	9	22	15	10	25
Distance from Nearest Hospital	4.0 mi	160	9	6	15	9	7	16

*Source: Littlejohn*

### 4.2 Data Collection

The existing turning movements were collected at the intersection of Graves Avenue/Howland Boulevard and Graves Avenue/Normandy Boulevard on August 30, 2016. The turning movement volumes were adjusted using a Peak Season Conversion Factor of 1.08 per the FDOT Peak Season Factor Category Report for Volusia County and a 2% annual growth factor (applied for 1 year). The raw traffic counts and peak season category factor report are included in **Appendix B**. The adjusted turning movement counts, along with the distributed project trips, are shown in **Figure 4-1**.

### 4.3 Effects of U-Turning Vehicles on Capacity

The existing Highway Capacity Manual (HCM) methodologies and available software packages (such as Highway Capacity Software [HCS] and Synchro) analyze the u-turning movement as a left-turn. However, as u-turns generally have a slower speed due to the smaller turning radius, they can have an impact on the capacity of the left-turn lane/movement. A study completed at the University of South Florida (USF) analyzed the u-turn movement at various signalized intersections to determine the impact of the u-turn movement on the capacity of the intersection.<sup>1</sup> For this analysis, when u-turns are present on a movement, the saturated flow rate will be adjusted for the lane group based on the factors from the USF study, as shown in **Table 4-2**.

**Table 4-2. U-Turn Adjustment Factor**

Percentage of U-Turns	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
U-Turn Adjustment Factor	0.99	0.98	0.96	0.94	0.92	0.90	0.87	0.84	0.82	0.79	0.76

*Source: Effects of U-turns on Capacity at Signalized Intersections and Simulation of U-Turning Movements by Synchro, Xiaodong Wang, University of South Florida, 2008*

### 4.4 Existing Analysis

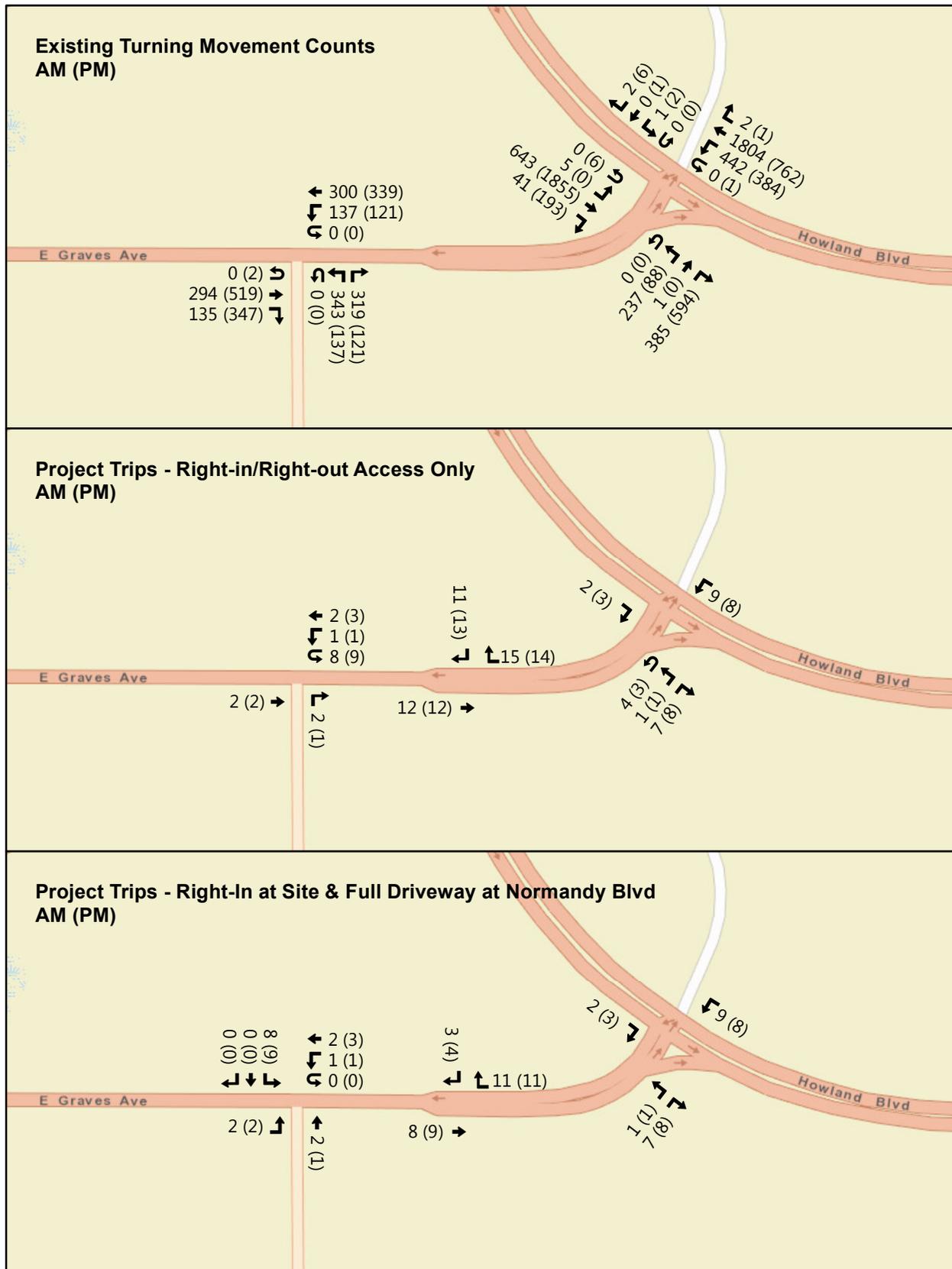
Each of the existing study intersections were evaluated with the existing geometrics and signal timings using Synchro 8 (existing signal timing information included in **Appendix C**). The results of that analysis indicate that while the intersection of Graves Avenue/Normandy Boulevard operates at an acceptable level of service in both peak periods, there are some existing deficiencies at the intersection of Graves Avenue/Howland Boulevard, as shown in **Table 4-3**. However, the approach that is failing per the analysis is the westbound approach, which currently has less than 10 vehicles per hour in either peak period, and the average delays for the approach are less than the cycle length of the intersection, indicating that the delays are due to a lack of green time given to the approach, but vehicles are able to clear the intersection within one cycle length. Copies of the HCS analysis printouts are included in **Appendix D**.

**Table 4-3. Existing Intersection Level of Service**

Intersection	Stop Control	Intersection Conditions	Approach				
			Overall	EB	WB	NB	SB
<b>AM Peak Period</b>							
Graves Ave @ Normandy Blvd	Signal	LOS	C	B	B	D	
		Delay (sec/veh)	24.0	17.9	10.8	36.5	
Graves Ave @ Howland Blvd	Signal	LOS	C	E	F	C	C
		Delay (sec/veh)	30.5	67.3	92.3	25.1	35.2
<b>PM Peak Period</b>							
Graves Ave @ Normandy Blvd	Signal	LOS	B	B	A	D	
		Delay (sec/veh)	15.4	12.5	5.9	44.6	
Graves Ave @ Howland Blvd	Signal	LOS	E	E	F	E	E
		Delay (sec/veh)	71.4	73.4	90.7	69.8	72.2

*Source: Littlejohn*

<sup>1</sup> Wang, Xiaodong, "Effects of U-turns on capacity at signalized intersections and simulation of U-turning movement by synchro" (2008). Graduate Theses and Dissertations. <http://scholarcommons.usf.edu/etd/553>



#### 4.5 Build-Out Analysis: Right-In/Right-Out

The Synchro 8 model was updated to include the project trips per the right-in/right-out distribution, adjusting the capacity of the left-turning movements to account for the u-turning volumes. The existing counts, reflecting the peak period of roadway traffic, were combined with the project trip generation, reflecting the peak periods of trip generation, to produce a conservatively high estimate of the impacts of the proposed development. At the right-in, right-out intersection, it was assumed that the 2<sup>nd</sup> westbound lane would become a right-turn only lane into the project instead of merging into the other westbound lane.

As shown in **Table 4-4**, the addition of the project traffic does not have a significant impact on any of the signal operations, with all but one approach experiencing one second or less of additional delay with the project traffic. The details of the intersection analysis results are shown in and copies of the HCS analysis printouts are included in **Appendix E**.

The eastbound left turn/u-turn movement at the intersection of Howland Boulevard/Graves Avenue is projected to have 50-percentile queue lengths of 5 vehicles per lane in the AM peak period, and 2 vehicles per lane in the PM peak period. With u-turning vehicles consisting of 2% of the AM volume and 3% of the PM volume in the left-turn lanes, the chances of the first vehicle in the queue being a u-turning vehicle are fairly limited. Thus, the chances of a u-turning vehicle being the first in the queue and able to make an illegal u-turn when the light is red is small.

**Table 4-4. Build-Out Intersection Level of Service: Right-In/Right-Out**

Intersection	Stop Control	Intersection Conditions	Approach				
			Overall	EB	WB	NB	SB
<b>AM Peak Period</b>							
Graves Ave @ Normandy Blvd	Signal	LOS	C	B	B	D	
		Delay (sec/veh)	24.1	18.3	11.0	36.4	
Graves Ave @ Site Driveway	TWSC	LOS					B
		Delay (sec/veh)					11.7
Graves Ave @ Howland Blvd	Signal	LOS	C	E	F	C	D
		Delay (sec/veh)	31.1	67.2	92.3	25.5	36.3
<b>PM Peak Period</b>							
Graves Ave @ Normandy Blvd	Signal	LOS	B	B	A	D	
		Delay (sec/veh)	15.5	12.8	6.0	44.5	
Graves Ave @ Site Driveway	TWSC	LOS					B
		Delay (sec/veh)					12.7
Graves Ave @ Howland Blvd	Signal	LOS	E	E	F	E	E
		Delay (sec/veh)	73.5	73.9	90.7	74.6	72.8

Source: Littlejohn Engineering Associates

#### 4.6 Build-Out Analysis: Full Access at Normandy

The Synchro 8 model was updated to include the project trips per the full access at Normandy + right-in distribution. At the intersection of Graves Avenue/Normandy Boulevard, an additional approach was added to the intersection, and the signal timing and phasing was optimized for this intersection. The signal timings at the intersection of Graves Avenue/Howland Boulevard were not changed, as they are coordinated with other signals on Howland Boulevard. As was assumed in

the Right-In/Right-Out analysis, the 2<sup>nd</sup> westbound lane at the project entrance was assumed to become a right-turn only lane instead of merging into the other westbound lane. At the intersection of Graves Avenue/Normandy Boulevard, it was assumed that there would be no additional left-turn and right-turn lanes into the project site, as the location of the driveway for the concrete plant would prohibit a left-turn lane being added at this location, and there are no westbound right-turns projected at this location due to the right-in movement being available at the project site itself.

Details of the analysis results are shown in **Table 4-5**. The details of the intersection analysis results are shown in and copies of the HCS analysis printouts are included in **Appendix F**.

**Table 4-5. Build-Out Intersection Level of Service: Full Access at Normandy**

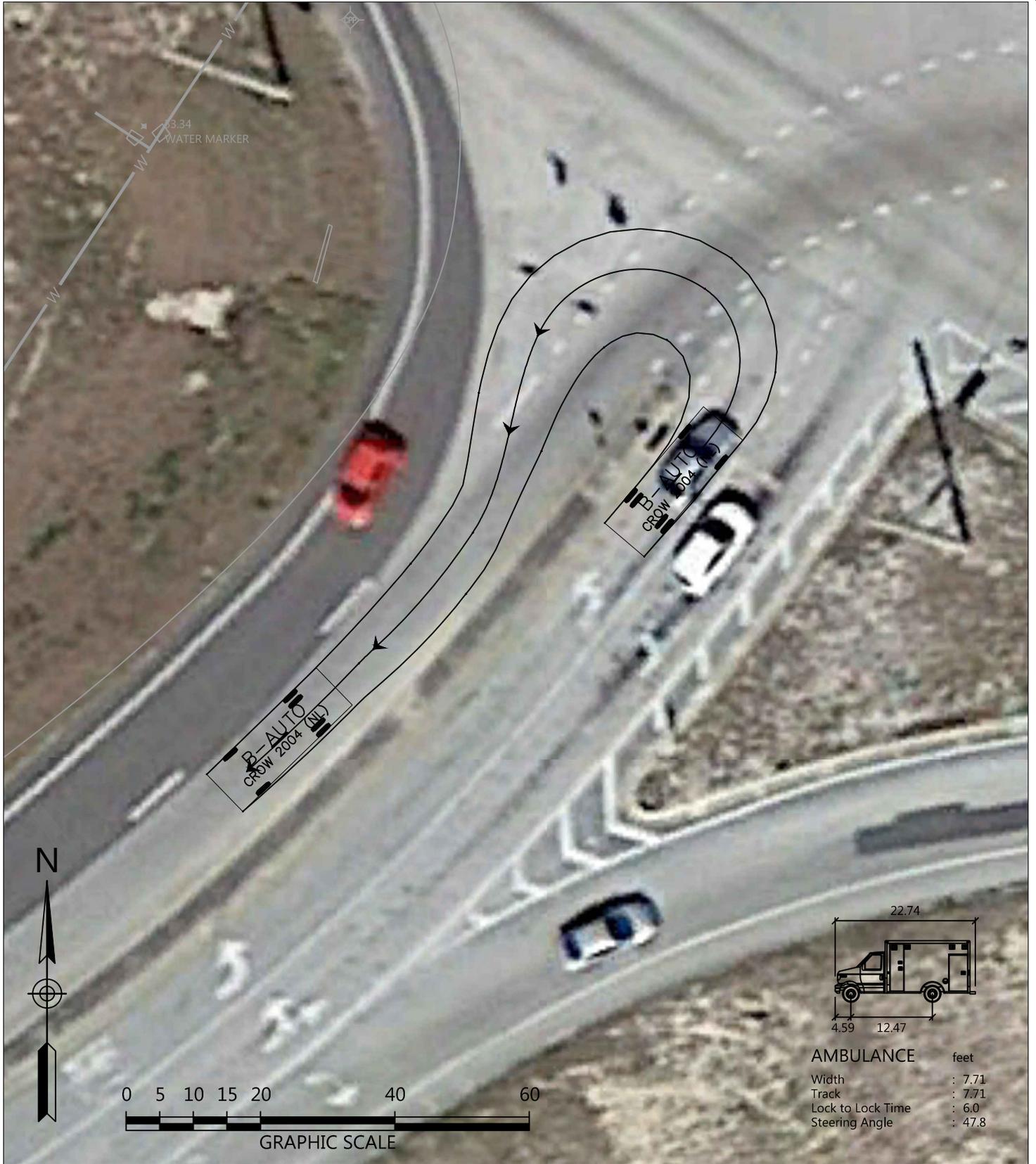
Intersection	Stop Control	Intersection Conditions	Approach				
			Overall	EB	WB	NB	SB
<b>AM Peak Period</b>							
Graves Ave @ Normandy Blvd	Signal	LOS	D	D	B	E	C
		Delay (sec/veh)	45.1	51.6	19.2	57.8	28.7
Graves Ave @ Site Driveway	TWSC	LOS					B
		Delay (sec/veh)					11.6
Graves Ave @ Howland Blvd	Signal	LOS	C	E	F	C	C
		Delay (sec/veh)	30.9	67.3	92.3	25.4	36.1
<b>PM Peak Period</b>							
Graves Ave @ Normandy Blvd	Signal	LOS	D	E	C	D	C
		Delay (sec/veh)	43.1	55.8	22.4	44.2	26.8
Graves Ave @ Site Driveway	TWSC	LOS					B
		Delay (sec/veh)					12.5
Graves Ave @ Howland Blvd	Signal	LOS	E	E	F	E	E
		Delay (sec/veh)	73.4	73.5	90.7	74.6	72.7

*Source: Littlejohn Engineering Associates*

With the addition of another leg to the Graves Avenue/Normandy Boulevard intersection, there are additional delays on all legs due to the green time required for the southbound movement, which takes time away from the other movement. At the intersection of Graves Avenue/Howland Boulevard, the delays remain consistent with what was shown in both the existing and right-in/right-out analysis.

#### **4.7 Auto-Turn Analysis**

An auto-turn analysis was completed for the intersections of Graves Avenue/Howland Boulevard and Graves Avenue/Normandy Boulevard to demonstrate the ability of an ambulance to complete a u-turn movement. Based on the preliminary AutoTURN analysis (based on a scaled aerial, as a survey is not available for these locations), an ambulance would be able to make both u-turn movements from the left-turn lane, as shown in **Figure 4-2** and **Figure 4-3**. At both intersections, the u-turning movements would occur from a dedicated left-turn lane that has a protected left-turn signal phase.

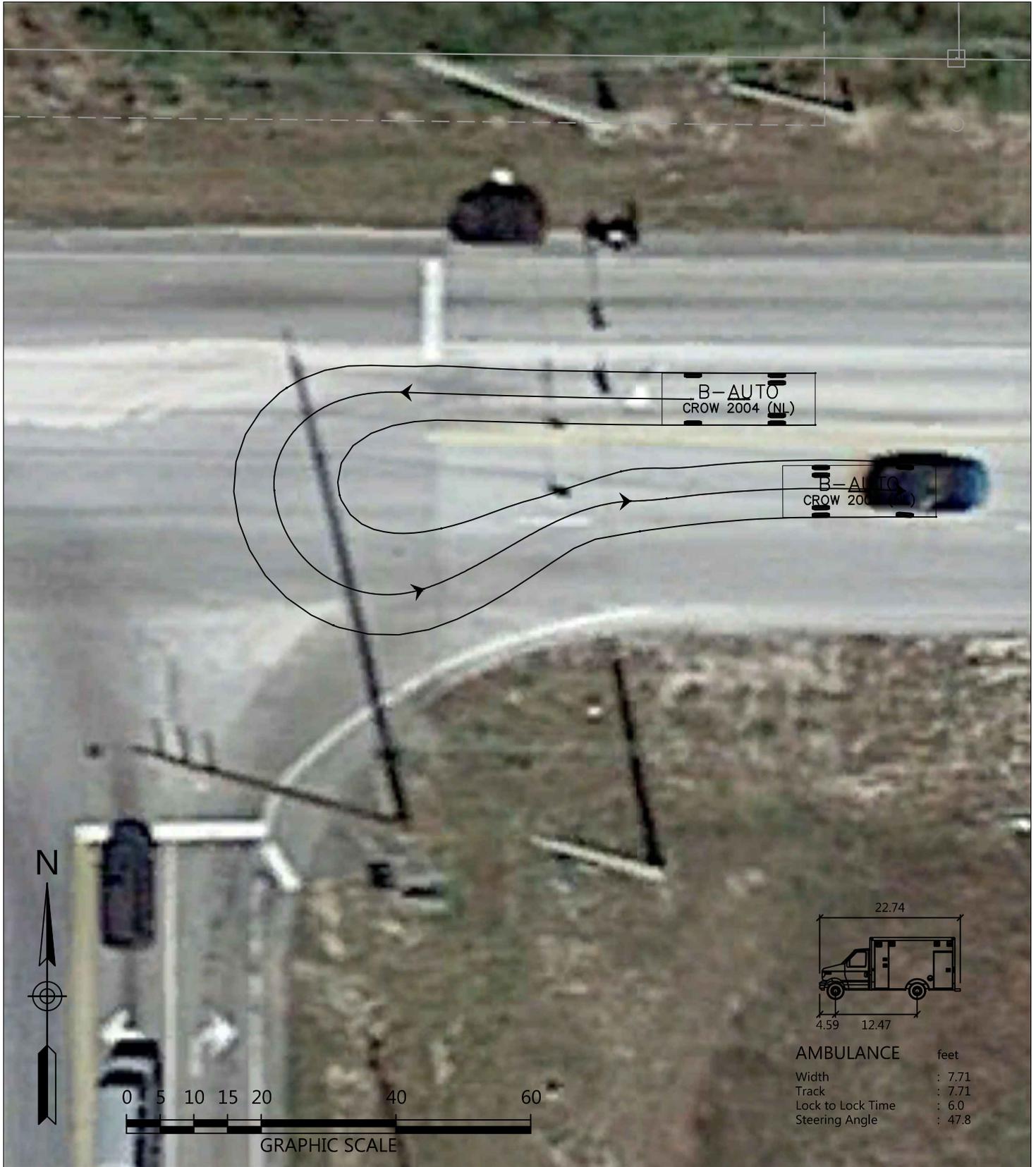


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Florida Firm Registration No. 28050

PROJECT:  
 Deltona FSER  
 Deltona, Florida

TITLE:  
 Howland Ave. AutoTURN  
 PROJ # 527116026 DWG. NO. 4-2  
 DATE: 9/9/16



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Florida Firm Registration No. 28050

PROJECT:  
Deltona FSER  
Deltona, Florida

TITLE:  
Normandy Blvd. AutoTURN

PROJ # 527116026	DWG. NO. 4-3
DATE: 9/9/16	

## 5.0 Findings and Recommendations

### 5.1 Trip Generation Study

The observed trip generation rate (based on size) for the FSER land use is higher than the hospital land use ITE rate, but lower than the clinic and medical/dental office land use ITE rates. The average trip generation rates calculated from the trip generation analysis are summarized on **Table 5-1**. For purposes of this study, the highest peak hour of generation was reported for both the AM and PM peak periods for a conservative analysis, even if the peak period did not correspond with the peak period of roadway traffic.

**Table 5-1. Summary of Calculated Rates**

Rate	Units	Daily	AM Peak Hour	% Inbound AM	PM Peak Hour	% Inbound PM
Size	KSF	24.65	2.38	58%	2.46	51%
Adjacent Roadway Volume	1,000 AADT	6.46	0.63	58%	0.68	51%
Distance to Closest Hospital	mi	40.39	3.87	58%	4.05	51%

Source: Littlejohn

- Based on the four observed sites, the trip generation rate based on distance to closest hospital provides the best correlation. However, this independent variable may be hard to define (does it include other FSER/critical care facilities) and can change over time as facilities are brought online, so it is not necessarily the best independent variable to use.
- For consistency with other medical land uses, the trip generation rate based on facility size is recommended for use. The average of the observed rates produces trip generation estimates that are slightly higher than the observed trip generation at more locations during more analysis periods than any other independent variable, indicating that using the rate based on size is a conservatively high estimate of trip generation.

### 5.2 Intersection Analysis

- The addition of trips to and from the Deltona FSER project does not have a significant impact on the intersection and approach delays at the intersection of Graves Avenue/Howland Boulevard. Although there are some existing deficiencies, the project does not increase delays by more than 1 second on all but the northbound Howland Boulevard approach to Graves Avenue, and does not increase delays by more than 5 seconds on that approach.
- At the intersection of Graves Avenue/Normandy Boulevard, the addition of project trips does not have a significant effect on the operations of the intersection in the "right-in/right-out only" scenario. However, with the addition of a northern leg to the intersection in the "full

access at Normandy” scenario, delays increase on all approaches, due to the need for green time for the southbound approach.

- For the eastbound u-turn movement at the intersection of Graves Avenue/Howland Boulevard, which was of particular concern due to its possible misuse during an emergency situation, the 50<sup>th</sup> percentile queue lengths and percentage of u-turning vehicles indicate that there is a low probability that the first vehicle in the queue would be making the u-turn. This in turn limits the ability of the u-turning vehicle to make the illegal movement.
- For both u-turning movements required for the right-in/right-out scenario, there is a dedicated left-turn lane to start the movement from, and two receiving lanes. At both intersections, the AutoTURN analysis indicates that an ambulance would be able to complete a u-turn at both intersections with the existing geometry.

### **5.3 Summary**

Although a right-in/right-out is not the most desirable access scenario for any development, it can provide sufficient access for the proposed FSER. Due to safety concerns with sight-distance on Graves Avenue and the existing intersection spacing between Normandy Boulevard and Howland Boulevard, a right-in/right-out access is an appropriate access at the property, preventing both the left-turn into the site from eastbound Graves Avenue and the left-turn out of the site.

The FSER is designed to have alternate access to Graves Avenue as the lands to the west develop. Since this project does not produce a significant number of project trips, it may stand alone even if access is limited to right-turning movements only.

## *Appendix A*

# Trip Generation Counts

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

*CITRUS*

Start Date : August 30, 2016  
 Stop Date : September 2, 2016  
 County : 0  
 Location : 0 TAMPA DAY 1

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62234.16

30-Aug-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	2	0	2	0	0	1	1
30	0	0	0	0	1	1	1	0	1	1	1	0
45	0	0	0	0	0	0	5	0	0	2	1	0
00	1	2	0	0	0	1	1	0	2	1	0	1
<b>Hr Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>2</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	2	0	1	1	3	0	1	2	1	4	0
30	1	1	1	0	0	0	2	1	1	0	1	0
45	0	1	1	3	1	0	6	1	0	0	2	1
00	1	2	1	2	0	3	4	2	4	1	0	2
<b>Hr Total</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>6</b>	<b>12</b>	<b>5</b>	<b>7</b>	<b>2</b>	<b>7</b>	<b>3</b>

24 Hour Total : 93  
 AM Peak Hour begins : 6:15 AM Peak Volume : 9 AM Peak Hour Factor : 0.45  
 PM Peak Hour begins : 18:15 PM Peak Volume : 13 PM Peak Hour Factor : 0.54

30-Aug-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	2	0	0	1	1	7	0	1	1	0
30	0	1	0	0	1	0	1	1	0	1	2	0
45	0	0	0	0	0	1	0	0	0	0	1	2
00	1	1	0	0	0	0	1	0	0	0	0	1
<b>Hr Total</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	1	0	1	1	0	1	5	2	1	2	2
30	0	1	0	2	0	0	1	1	0	0	3	1
45	2	2	0	1	3	3	2	2	1	0	0	3
00	0	1	2	2	1	0	3	1	2	2	0	2
<b>Hr Total</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>7</b>	<b>9</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>8</b>

24 Hour Total : 90  
 AM Peak Hour begins : 6:15 AM Peak Volume : 9 AM Peak Hour Factor : 0.32  
 PM Peak Hour begins : 18:15 PM Peak Volume : 11 PM Peak Hour Factor : 0.55

30-Aug-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	2	0	2	0	0	3	1	9	0	1	2	1
30	0	1	0	0	2	1	2	1	1	2	3	0
45	0	0	0	0	0	1	5	0	0	2	2	2
00	2	3	0	0	0	1	2	0	2	1	0	2
<b>Hr Total</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>10</b>	<b>10</b>	<b>3</b>	<b>6</b>	<b>7</b>	<b>5</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	3	3	0	2	2	3	1	6	4	2	6	2
30	1	2	1	2	0	0	3	2	1	0	4	1
45	2	3	1	4	4	3	8	3	1	0	2	4
00	1	3	3	4	1	3	7	3	6	3	0	4
<b>Hr Total</b>	<b>7</b>	<b>11</b>	<b>5</b>	<b>12</b>	<b>7</b>	<b>9</b>	<b>19</b>	<b>14</b>	<b>12</b>	<b>5</b>	<b>12</b>	<b>11</b>

24 Hour Total : 183  
 AM Peak Hour begins : 6:15 AM Peak Volume : 18 AM Peak Hour Factor : 0.50  
 PM Peak Hour begins : 18:15 PM Peak Volume : 24 PM Peak Hour Factor : 0.75

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016  
 Stop Date : September 2, 2016  
 County : 0  
 Location : 0

Start Time : 00:00  
 Stop Time : 24:00

*TAMPA DAY 2*

VHB Project #: 62234.16

31-Aug-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	0	2	0	2	2
30	0	1	0	0	0	0	2	1	0	0	3	2
45	0	0	0	0	1	1	4	0	0	0	1	2
00	0	0	0	0	0	1	1	0	0	2	4	2
<b>Hr Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>8</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	3	0	1	0	1	3	0	3	0	1	1	0
30	1	2	1	0	0	3	3	1	2	2	2	0
45	1	1	2	2	0	2	6	1	0	1	0	1
00	0	1	2	0	2	1	3	0	1	1	1	0
<b>Hr Total</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>9</b>	<b>12</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>1</b>

24 Hour Total : 94  
 AM Peak Hour begins : 10:00  
 PM Peak Hour begins : 18:15

AM Peak Volume : 10  
 PM Peak Volume : 15  
 AM Peak Hour Factor : 0.63  
 PM Peak Hour Factor : 0.63

31-Aug-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	0	0	4	1	0	1	1
30	0	1	0	0	0	0	0	1	0	0	1	2
45	0	0	0	0	1	0	0	0	0	0	3	1
00	1	0	0	0	0	1	4	0	1	0	1	2
<b>Hr Total</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>6</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	0	4	1	3	2	1	3	1	1	2	1
30	2	2	0	0	0	3	2	1	1	0	4	0
45	0	0	1	0	2	3	0	1	2	2	1	1
00	2	4	1	1	0	0	5	0	1	1	1	0
<b>Hr Total</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>2</b>	<b>5</b>	<b>8</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>8</b>	<b>2</b>

24 Hour Total : 95  
 AM Peak Hour begins : 6:30  
 PM Peak Hour begins : 13:15

AM Peak Volume : 9  
 PM Peak Volume : 10  
 AM Peak Hour Factor : 0.56  
 PM Peak Hour Factor : 0.63

31-Aug-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	0	1	4	3	0	3	3
30	0	2	0	0	0	0	2	2	0	0	4	4
45	0	0	0	0	2	1	4	0	0	0	4	3
00	1	0	0	0	0	2	5	0	1	2	5	4
<b>Hr Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>12</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>16</b>	<b>14</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	7	0	5	1	4	5	1	6	1	2	3	1
30	3	4	1	0	0	6	5	2	3	2	6	0
45	1	1	3	2	2	5	6	2	2	3	1	2
00	2	5	3	1	2	1	8	0	2	2	2	0
<b>Hr Total</b>	<b>13</b>	<b>10</b>	<b>12</b>	<b>4</b>	<b>8</b>	<b>17</b>	<b>20</b>	<b>10</b>	<b>8</b>	<b>9</b>	<b>12</b>	<b>3</b>

24 Hour Total : 189  
 AM Peak Hour begins : 10:00  
 PM Peak Hour begins : 18:15

AM Peak Volume : 16  
 PM Peak Volume : 25  
 AM Peak Hour Factor : 0.80  
 PM Peak Hour Factor : 0.78

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016  
 Stop Date : September 2, 2016  
 County : 0  
 Location : 0 TAMPA DAY 3

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62234.16

1-Sep-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	1	0	0	2
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	3	3	1	2	3	0	0
00	0	0	0	0	0	0	6	0	0	1	3	2
<b>Hr Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>9</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	1	0	0	1	3	0	2	1	1	2	0
30	1	1	1	0	0	1	2	1	1	1	1	0
45	0	1	1	2	0	1	6	1	0	0	1	1
00	0	1	1	1	1	2	3	1	2	1	0	1
<b>Hr Total</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>11</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>2</b>

24 Hour Total : 77  
 AM Peak Hour begins : 6:00  
 PM Peak Hour begins : 18:15

AM Peak Volume : 9  
 PM Peak Volume : 13  
 AM Peak Hour Factor : 0.38  
 PM Peak Hour Factor : 0.54

1-Sep-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	5	0	0	0	1
30	0	0	0	0	0	0	1	2	0	0	0	0
45	0	0	0	0	0	0	0	0	1	2	2	1
00	0	0	0	0	0	2	2	0	0	1	1	1
<b>Hr Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	2	1	2	1	1	4	1	1	2	1
30	0	1	0	1	0	1	1	1	0	0	3	0
45	1	1	0	0	2	3	1	1	1	1	0	2
00	1	2	1	1	0	0	4	0	1	1	0	1
<b>Hr Total</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>4</b>

24 Hour Total : 72  
 AM Peak Hour begins : 6:30  
 PM Peak Hour begins : 18:15

AM Peak Volume : 9  
 PM Peak Volume : 10  
 AM Peak Hour Factor : 0.45  
 PM Peak Hour Factor : 0.63

1-Sep-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	5	1	0	0	3
30	0	0	0	0	0	0	1	2	0	0	0	0
45	0	0	0	0	0	3	3	1	3	5	2	1
00	0	0	0	0	0	2	8	0	0	2	4	3
<b>Hr Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>12</b>	<b>8</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>7</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	1	2	1	3	4	1	6	2	2	4	1
30	1	2	1	1	0	2	3	2	1	1	4	0
45	1	2	1	2	2	4	7	2	1	1	1	3
00	1	3	2	2	1	2	7	1	3	2	0	2
<b>Hr Total</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>12</b>	<b>18</b>	<b>11</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>6</b>

24 Hour Total : 149  
 AM Peak Hour begins : 6:30  
 PM Peak Hour begins : 18:15

AM Peak Volume : 18  
 PM Peak Volume : 23  
 AM Peak Hour Factor : 0.56  
 PM Peak Hour Factor : 0.82

CLEARWATER

# Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

Start Date : August 30, 2016      Start Time      00:00  
 Stop Date : September 2, 2016      Stop Time      24:00  
 County : 0  
 Location : 05T PETE WEST DAY 1

VHB Project #: 62234.16

30-Aug-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	2	0	0	2	1	1	1	2
30	0	0	0	0	0	0	1	0	0	3	1	1
45	0	0	0	0	1	2	1	0	1	0	1	1
00	0	0	0	0	0	1	2	3	0	0	0	1
Hr Total	1	0	0	0	3	3	4	5	2	4	3	5

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	3	1	0	0	2	1	0	0	0	1	1	0
30	1	0	0	0	0	0	0	0	1	3	1	1
45	5	1	1	0	0	3	2	0	0	2	3	1
00	1	3	1	1	2	0	3	0	0	0	0	0
Hr Total	10	5	2	1	4	4	5	0	1	6	5	2

24 Hour Total : 75  
 AM Peak Hour begins : 6:15      AM Peak Volume : 6      AM Peak Hour Factor : 0.75  
 PM Peak Hour begins : 12:00      PM Peak Volume : 10      PM Peak Hour Factor : 0.50

30-Aug-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	1	0	0	0	0	0	3	1	0	0	1
30	2	1	1	0	0	0	2	0	1	0	1	0
45	0	0	0	0	0	0	1	0	0	0	1	1
00	1	0	0	0	0	1	0	1	0	2	3	0
Hr Total	3	2	1	0	0	1	3	4	2	2	5	2

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	2	1	0	1	4	2	0	1	3	2
30	0	0	0	2	0	1	1	0	0	0	1	0
45	0	1	0	0	1	0	0	0	0	0	2	0
00	0	1	1	1	1	0	0	0	1	0	0	1
Hr Total	1	2	3	4	2	2	5	2	1	1	6	3

24 Hour Total : 57  
 AM Peak Hour begins : 6:15      AM Peak Volume : 6      AM Peak Hour Factor : 0.50  
 PM Peak Hour begins : 21:45      PM Peak Volume : 6      PM Peak Hour Factor : 0.50

30-Aug-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	0	0	2	0	0	5	2	1	1	3
30	2	1	1	0	0	0	3	0	1	3	2	1
45	0	0	0	0	1	2	2	0	1	0	2	2
00	1	0	0	0	0	2	2	4	0	2	3	1
Hr Total	4	2	1	0	3	4	7	9	4	6	8	7

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	1	2	1	2	2	4	2	0	2	4	2
30	1	0	0	2	0	1	1	0	1	3	2	1
45	5	2	1	0	1	3	2	0	0	2	5	1
00	1	4	2	2	3	0	3	0	1	0	0	1
Hr Total	11	7	5	5	6	6	10	2	2	7	11	5

24 Hour Total : 132  
 AM Peak Hour begins : 6:15      AM Peak Volume : 12      AM Peak Hour Factor : 0.60  
 PM Peak Hour begins : 12:00      PM Peak Volume : 11      PM Peak Hour Factor : 0.55

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016                      Start Time                      00:00  
 Stop Date : September 2, 2016                   Stop Time                      24:00  
 County : 0  
 Location : *ST PETE WEST OAK*

VHB Project #: 62234.16

31-Aug-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	1	1	0	2
30	0	0	0	0	0	0	2	0	2	0	0	2
45	0	0	1	0	0	0	0	2	1	2	0	0
00	0	0	0	0	0	1	2	0	0	1	1	4
<b>Hr Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>8</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	1	0	1	1	0	0	0	0	1	1	0
30	1	0	0	2	0	0	1	0	3	1	0	1
45	0	0	0	0	0	0	3	1	0	1	0	1
00	1	3	1	1	1	2	3	1	0	1	0	0
<b>Hr Total</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>

24 Hour Total : 59  
 AM Peak Hour begins : 11:00                      AM Peak Volume : 8                      AM Peak Hour Factor : 0.50  
 PM Peak Hour begins : 18:00                      PM Peak Volume : 7                      PM Peak Hour Factor : 0.58

31-Aug-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	0	0	0	0	4	3	0	0	0	1
30	0	1	0	0	0	0	0	0	0	0	0	0
45	1	0	0	0	0	1	0	0	0	1	0	0
00	0	0	0	0	0	0	0	0	0	0	1	0
<b>Hr Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	2	0	0	0	1	1	1	1	1	3	2
30	0	0	1	0	0	0	1	0	0	1	0	2
45	0	0	0	1	0	1	1	1	0	0	0	0
00	0	1	0	0	0	1	1	1	1	1	0	0
<b>Hr Total</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>

24 Hour Total : 42  
 AM Peak Hour begins : 5:15                      AM Peak Volume : 5                      AM Peak Hour Factor : 0.31  
 PM Peak Hour begins : 21:15                      PM Peak Volume : 5                      PM Peak Hour Factor : 0.42

31-Aug-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	0	0	0	0	4	3	1	1	0	3
30	0	1	0	0	0	0	2	0	2	0	0	2
45	1	0	1	0	0	1	0	2	1	3	0	0
00	0	0	0	0	0	1	2	0	0	1	2	4
<b>Hr Total</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>8</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>9</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	3	0	1	1	1	1	1	1	2	4	2
30	1	0	1	2	0	0	2	0	3	2	0	3
45	0	0	0	1	0	1	4	2	0	1	0	1
00	1	4	1	1	1	3	4	2	1	2	0	0
<b>Hr Total</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>11</b>	<b>5</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>6</b>

24 Hour Total : 101  
 AM Peak Hour begins : 11:00                      AM Peak Volume : 9                      AM Peak Hour Factor : 0.56  
 PM Peak Hour begins : 18:00                      PM Peak Volume : 11                      PM Peak Hour Factor : 0.69

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016      Start Time      00:00  
 Stop Date : September 2, 2016      Stop Time      24:00  
 County : 0  
 Location : **0 ST PETE WEST DAY 3**

VHB Project #: 62234.16

1-Sep-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	1	0	0	0	0
30	0	0	0	1	0	0	0	0	0	2	0	1
45	0	0	0	1	0	1	2	1	1	0	0	0
00	1	0	0	0	0	2	3	0	0	1	2	0
<b>Hr Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	1	0	0	1	0	0	0	0	1	1	0
30	0	0	0	1	0	0	0	0	2	2	0	1
45	0	0	0	0	0	1	2	0	0	1	1	1
00	2	3	1	1	1	1	3	0	0	0	0	0
<b>Hr Total</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>

24 Hour Total : 49  
 AM Peak Hour begins : 6:15      AM Peak Volume : 6      AM Peak Hour Factor : 0.50  
 PM Peak Hour begins : 18:00      PM Peak Volume : 5      PM Peak Hour Factor : 0.42

1-Sep-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	1	0	0	0	4	3	0	0	0	0
30	0	0	0	0	0	0	1	0	1	0	1	1
45	0	0	0	0	0	0	1	2	0	0	0	0
00	0	0	0	0	0	0	0	0	1	0	1	1
<b>Hr Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	1	0	0	1	2	1	0	1	3	2
30	0	0	0	1	0	0	1	0	0	0	0	1
45	0	0	0	0	0	0	0	0	0	0	1	0
00	0	1	0	0	0	0	0	0	1	0	0	0
<b>Hr Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>3</b>

24 Hour Total : 36  
 AM Peak Hour begins : 5:45      AM Peak Volume : 6      AM Peak Hour Factor : 0.38  
 PM Peak Hour begins : 21:45      PM Peak Volume : 4      PM Peak Hour Factor : 0.33

1-Sep-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	1	0	0	0	4	4	0	0	0	0
30	0	0	0	1	0	0	1	0	1	2	1	2
45	0	0	0	1	0	1	3	3	1	0	0	0
00	1	0	0	0	0	2	3	0	1	1	3	1
<b>Hr Total</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>11</b>	<b>7</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>3</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	1	1	0	1	1	2	1	0	2	4	2
30	0	0	0	2	0	0	1	0	2	2	0	2
45	0	0	0	0	0	1	2	0	0	1	2	1
00	2	4	1	1	1	1	3	0	1	0	0	0
<b>Hr Total</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>8</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>5</b>

24 Hour Total : 85  
 AM Peak Hour begins : 6:00      AM Peak Volume : 11      AM Peak Hour Factor : 0.69  
 PM Peak Hour begins : 18:00      PM Peak Volume : 8      PM Peak Hour Factor : 0.67



# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016                      Start Time                      00:00  
 Stop Date : September 2, 2016                   Stop Time                      24:00  
 County : 0  
 Location : *OST PETE EAST DAY 2*

VHB Project #: 62234.16

**31-Aug-16                      Inbound Volume for Lane 1**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	1	0	0	1	2	1	0	0	0
30	2	0	0	0	0	2	0	1	0	0	0	0
45	0	1	1	1	0	0	0	0	1	0	0	2
00	0	0	0	0	0	1	0	0	2	1	0	5
<b>Hr Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>7</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	0	0	1	1	2	0	0	2	0	0	2
30	0	1	3	1	2	1	0	1	0	0	0	0
45	0	0	0	3	0	0	2	0	0	1	0	1
00	1	0	0	3	0	2	1	1	0	0	1	0
<b>Hr Total</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>

24 Hour Total : 60  
 AM Peak Hour begins : 11:00                      AM Peak Volume : 7                      AM Peak Hour Factor : 0.35  
 PM Peak Hour begins : 15:30                      PM Peak Volume : 9                      PM Peak Hour Factor : 0.75

**31-Aug-16                      Outbound Volume for Lane 2**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	1	0	1	0	0
30	1	1	0	1	0	0	0	1	2	1	0	1
45	1	1	2	0	0	1	0	0	0	1	0	0
00	1	0	1	0	1	0	0	2	2	2	1	2
<b>Hr Total</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>3</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	0	1	1	2	1	1	0	0	1	1	0
30	1	3	4	0	1	0	0	1	0	1	0	1
45	0	0	1	2	1	2	0	0	0	0	1	1
00	0	1	2	1	0	0	0	2	1	1	2	0
<b>Hr Total</b>	<b>5</b>	<b>4</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2</b>

24 Hour Total : 70  
 AM Peak Hour begins : 8:15                      AM Peak Volume : 5                      AM Peak Hour Factor : 0.63  
 PM Peak Hour begins : 14:00                      PM Peak Volume : 8                      PM Peak Hour Factor : 0.50

**31-Aug-16                      Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	1	0	0	1	3	1	1	0	0
30	3	1	0	1	0	2	0	2	2	1	0	1
45	1	2	3	1	0	1	0	0	1	1	0	2
00	1	0	1	0	1	1	0	2	4	3	1	7
<b>Hr Total</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>1</b>	<b>10</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	6	0	1	2	3	3	1	0	2	1	1	2
30	1	4	7	1	3	1	0	2	0	1	0	1
45	0	0	1	5	1	2	2	0	0	1	1	2
00	1	1	2	4	0	2	1	3	1	1	3	0
<b>Hr Total</b>	<b>8</b>	<b>5</b>	<b>11</b>	<b>12</b>	<b>7</b>	<b>8</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>5</b>

24 Hour Total : 130  
 AM Peak Hour begins : 11:00                      AM Peak Volume : 10                      AM Peak Hour Factor : 0.36  
 PM Peak Hour begins : 15:30                      PM Peak Volume : 15                      PM Peak Hour Factor : 0.75

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016                      Start Time                      00:00  
 Stop Date : September 2, 2016                   Stop Time                      24:00  
 County : 0  
 Location : **OST PETE EAST DAY 3**

VHB Project #: 62234.16

1-Sep-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	0	0	1	0	1
30	0	0	0	0	0	0	1	0	1	3	1	1
45	0	0	0	0	1	0	2	0	0	0	2	0
00	2	0	0	0	0	2	1	1	1	1	1	0
<b>Hr Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>2</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	0	0	0	1	0	0	1	0	0	1
30	0	1	2	0	1	1	0	0	1	0	0	0
45	1	0	0	1	0	0	1	0	0	2	0	0
00	2	0	0	2	0	1	1	1	0	0	1	0
<b>Hr Total</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>

24 Hour Total : 47  
 AM Peak Hour begins : 5:45                      AM Peak Volume : 6                      AM Peak Hour Factor : 0.75  
 PM Peak Hour begins : 12:00                      PM Peak Volume : 4                      PM Peak Hour Factor : 0.50

1-Sep-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	1	1	0	0	0	2	1	0	1	0	1
30	1	0	0	0	0	2	0	1	0	1	0	1
45	1	0	0	1	1	0	0	0	0	3	0	2
00	0	1	0	0	0	0	2	2	0	1	0	0
<b>Hr Total</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>4</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	0	1	1	1	1	1	0	0	0	0
30	0	2	2	1	1	0	0	0	0	0	0	1
45	2	0	1	1	1	1	1	0	0	0	1	1
00	4	1	1	0	0	0	2	1	1	1	1	0
<b>Hr Total</b>	<b>7</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>

24 Hour Total : 61  
 AM Peak Hour begins : 9:00                      AM Peak Volume : 6                      AM Peak Hour Factor : 0.50  
 PM Peak Hour begins : 12:30                      PM Peak Volume : 8                      PM Peak Hour Factor : 0.50

1-Sep-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	1	1	0	0	0	3	1	0	2	0	2
30	1	0	0	0	0	2	1	1	1	4	1	2
45	1	0	0	1	2	0	2	0	0	3	2	2
00	2	1	0	0	0	2	3	3	1	2	1	0
<b>Hr Total</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>9</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>4</b>	<b>6</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	0	0	1	1	2	1	1	1	0	0	1
30	0	3	4	1	2	1	0	0	1	0	0	1
45	3	0	1	2	1	1	2	0	0	2	1	1
00	6	1	1	2	0	1	3	2	1	1	2	0
<b>Hr Total</b>	<b>11</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

24 Hour Total : 108  
 AM Peak Hour begins : 9:00                      AM Peak Volume : 11                      AM Peak Hour Factor : 0.69  
 PM Peak Hour begins : 12:30                      PM Peak Volume : 12                      PM Peak Hour Factor : 0.50

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016  
 Stop Date : September 2, 2016  
 County : Seminole  
 Location : Oviedo Revised

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62234.16

**30-Aug-16**

**Inbound Volume for Lane 1**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	4	1	1	0	1	6	2	2	1	3
30	1	0	2	0	0	1	4	1	4	4	2	2
45	0	3	1	0	1	0	3	3	4	4	2	1
00	1	0	0	1	1	2	9	2	3	3	2	0
<b>Hr Total</b>	<b>2</b>	<b>3</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>17</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>7</b>	<b>6</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	4	5	5	2	3	4	2	4	4	2	0
30	5	3	1	5	2	1	4	2	4	2	2	0
45	5	1	1	5	2	2	3	5	1	1	1	1
00	3	3	1	6	5	1	8	2	0	2	1	1
<b>Hr Total</b>	<b>17</b>	<b>11</b>	<b>8</b>	<b>21</b>	<b>11</b>	<b>7</b>	<b>19</b>	<b>11</b>	<b>9</b>	<b>9</b>	<b>6</b>	<b>2</b>

24 Hour Total : 219  
 AM Peak Hour begins : 6:15  
 PM Peak Hour begins : 15:00

AM Peak Volume : 22  
 PM Peak Volume : 21  
 AM Peak Hour Factor : 0.61  
 PM Peak Hour Factor : 0.88

**30-Aug-16**

**Outbound Volume for Lane 2**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	2	1	2	3	2	0	1	4	2	3	0	2
30	1	0	1	0	0	0	1	2	0	2	0	2
45	0	0	0	2	0	2	2	2	4	4	1	2
00	2	1	1	1	0	0	4	1	2	7	3	1
<b>Hr Total</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>9</b>	<b>8</b>	<b>16</b>	<b>4</b>	<b>7</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	5	6	2	2	7	2	4	6	6	4	2	0
30	2	1	2	4	1	0	2	4	1	3	2	1
45	3	2	1	5	4	3	2	5	3	1	1	4
00	3	2	0	3	3	3	2	4	1	0	0	1
<b>Hr Total</b>	<b>13</b>	<b>11</b>	<b>5</b>	<b>14</b>	<b>15</b>	<b>8</b>	<b>10</b>	<b>19</b>	<b>11</b>	<b>8</b>	<b>5</b>	<b>6</b>

24 Hour Total : 198  
 AM Peak Hour begins : 9:00  
 PM Peak Hour begins : 15:15

AM Peak Volume : 16  
 PM Peak Volume : 19  
 AM Peak Hour Factor : 0.57  
 PM Peak Hour Factor : 0.68

**30-Aug-16**

**Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	2	1	6	4	3	0	2	10	4	5	1	5
30	2	0	3	0	0	1	5	3	4	6	2	4
45	0	3	1	2	1	2	5	5	8	8	3	3
00	3	1	1	2	1	2	13	3	5	10	5	1
<b>Hr Total</b>	<b>7</b>	<b>5</b>	<b>11</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>25</b>	<b>21</b>	<b>21</b>	<b>29</b>	<b>11</b>	<b>13</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	9	10	7	7	9	5	8	8	10	8	4	0
30	7	4	3	9	3	1	6	6	5	5	4	1
45	8	3	2	10	6	5	5	10	4	2	2	5
00	6	5	1	9	8	4	10	6	1	2	1	2
<b>Hr Total</b>	<b>30</b>	<b>22</b>	<b>13</b>	<b>35</b>	<b>26</b>	<b>15</b>	<b>29</b>	<b>30</b>	<b>20</b>	<b>17</b>	<b>11</b>	<b>8</b>

24 Hour Total : 417  
 AM Peak Hour begins : 6:15  
 PM Peak Hour begins : 15:15

AM Peak Volume : 33  
 PM Peak Volume : 37  
 AM Peak Hour Factor : 0.64  
 PM Peak Hour Factor : 0.93

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016  
 Stop Date : September 2, 2016  
 County : Seminole  
 Location : Oviedo Revised

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62234.16

**31-Aug-16**

**Inbound Volume for Lane 1**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	2	1	3	2	1	5	6
30	1	0	0	0	0	0	3	0	4	6	2	2
45	3	1	0	0	0	2	5	0	2	2	1	3
00	2	1	0	0	0	1	13	2	6	2	6	2
<b>Hr Total</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>22</b>	<b>5</b>	<b>14</b>	<b>11</b>	<b>14</b>	<b>13</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	1	2	3	4	3	4	3	1	1	2	1
30	4	3	7	1	3	5	5	2	1	4	1	1
45	4	2	4	2	2	2	2	1	2	2	2	1
00	5	5	1	4	2	1	9	2	1	1	0	2
<b>Hr Total</b>	<b>14</b>	<b>11</b>	<b>14</b>	<b>10</b>	<b>11</b>	<b>11</b>	<b>20</b>	<b>8</b>	<b>5</b>	<b>8</b>	<b>5</b>	<b>5</b>

24 Hour Total : 214  
 AM Peak Hour begins : 6:15  
 PM Peak Hour begins : 18:00

AM Peak Volume : 24  
 PM Peak Volume : 20  
 AM Peak Hour Factor : 0.46  
 PM Peak Hour Factor : 0.56

**31-Aug-16**

**Outbound Volume for Lane 2**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	1	0	2	0	1	6	0	1	0	5
30	3	3	0	0	0	1	1	1	1	3	3	2
45	0	0	1	0	0	0	2	2	1	2	2	4
00	2	1	3	1	0	0	2	1	1	3	4	4
<b>Hr Total</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>10</b>	<b>3</b>	<b>9</b>	<b>9</b>	<b>15</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	5	2	2	5	3	1	1	2	2	4	0
30	4	2	3	8	2	5	1	9	0	1	1	4
45	5	2	2	1	4	3	2	3	0	2	2	3
00	1	7	4	5	4	2	2	5	5	1	2	2
<b>Hr Total</b>	<b>12</b>	<b>16</b>	<b>11</b>	<b>16</b>	<b>15</b>	<b>13</b>	<b>6</b>	<b>18</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>9</b>

24 Hour Total : 210  
 AM Peak Hour begins : 10:45  
 PM Peak Hour begins : 15:15

AM Peak Volume : 15  
 PM Peak Volume : 19  
 AM Peak Hour Factor : 0.75  
 PM Peak Hour Factor : 0.59

**31-Aug-16**

**Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	1	0	2	2	2	9	2	2	5	11
30	4	3	0	0	0	1	4	1	5	9	5	4
45	3	1	1	0	0	2	7	2	3	4	3	7
00	4	2	3	1	0	1	15	3	7	5	10	6
<b>Hr Total</b>	<b>12</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>28</b>	<b>15</b>	<b>17</b>	<b>20</b>	<b>23</b>	<b>28</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	3	6	4	5	9	6	5	4	3	3	6	1
30	8	5	10	9	5	10	6	11	1	5	2	5
45	9	4	6	3	6	5	4	4	2	4	4	4
00	6	12	5	9	6	3	11	7	6	2	2	4
<b>Hr Total</b>	<b>26</b>	<b>27</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>24</b>	<b>26</b>	<b>26</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>14</b>

24 Hour Total : 424  
 AM Peak Hour begins : 6:15  
 PM Peak Hour begins : 13:45

AM Peak Volume : 35  
 PM Peak Volume : 32  
 AM Peak Hour Factor : 0.58  
 PM Peak Hour Factor : 0.67

# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016  
 Stop Date : September 2, 2016  
 County : Seminole  
 Location : Oviedo Revised

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62234.16

**1-Sep-16**

**Inbound Volume for Lane 1**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	2	1	0	0	1	0	0	2	2	0	2	2
30	1	0	0	2	0	0	6	1	2	3	4	0
45	1	0	0	0	0	0	6	0	1	1	4	1
00	0	4	0	2	1	2	14	3	5	2	4	2
<b>Hr Total</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>26</b>	<b>6</b>	<b>10</b>	<b>6</b>	<b>14</b>	<b>5</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	6	1	2	0	4	5	4	2	2	2	2	0
30	4	3	5	3	4	3	4	2	2	3	1	0
45	4	3	5	1	2	2	2	3	1	1	1	1
00	6	1	5	4	2	1	5	2	0	1	0	1
<b>Hr Total</b>	<b>20</b>	<b>8</b>	<b>17</b>	<b>8</b>	<b>12</b>	<b>11</b>	<b>15</b>	<b>9</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>2</b>

24 Hour Total : 202  
 AM Peak Hour begins : 6:15  
 PM Peak Hour begins : 12:00

AM Peak Volume : 28  
 PM Peak Volume : 20  
 AM Peak Hour Factor : 0.50  
 PM Peak Hour Factor : 0.83

**1-Sep-16**

**Outbound Volume for Lane 2**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	1	0	5	3	0	1	3
30	2	0	3	0	2	0	2	5	1	2	1	5
45	4	0	0	1	0	0	1	4	1	3	1	3
00	2	1	0	2	0	1	5	1	2	0	5	2
<b>Hr Total</b>	<b>9</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>15</b>	<b>7</b>	<b>5</b>	<b>8</b>	<b>13</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	5	2	6	5	2	2	2	5	5	3	3	0
30	1	2	3	5	4	2	1	5	0	2	1	2
45	2	1	4	6	0	3	2	4	1	1	1	3
00	5	2	6	2	4	2	2	4	3	0	1	1
<b>Hr Total</b>	<b>13</b>	<b>7</b>	<b>19</b>	<b>18</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>16</b>	<b>9</b>	<b>6</b>	<b>6</b>	<b>6</b>

24 Hour Total : 202  
 AM Peak Hour begins : 6:45  
 PM Peak Hour begins : 14:45

AM Peak Volume : 19  
 PM Peak Volume : 22  
 AM Peak Hour Factor : 0.95  
 PM Peak Hour Factor : 0.92

**1-Sep-16**

**Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	3	1	0	0	1	1	0	7	5	0	3	5
30	3	0	3	2	2	0	8	6	3	5	5	5
45	5	0	0	1	0	0	7	4	2	4	5	4
00	2	5	0	4	1	3	19	4	7	2	9	4
<b>Hr Total</b>	<b>13</b>	<b>6</b>	<b>3</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>34</b>	<b>21</b>	<b>17</b>	<b>11</b>	<b>22</b>	<b>18</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	11	3	8	5	6	7	6	5	7	5	5	0
30	5	5	8	8	8	5	5	7	2	5	2	2
45	6	4	9	7	2	5	4	7	2	2	2	4
00	11	3	11	6	6	3	7	6	3	1	1	2
<b>Hr Total</b>	<b>33</b>	<b>15</b>	<b>36</b>	<b>26</b>	<b>22</b>	<b>20</b>	<b>22</b>	<b>25</b>	<b>14</b>	<b>13</b>	<b>10</b>	<b>8</b>

24 Hour Total : 404  
 AM Peak Hour begins : 6:15  
 PM Peak Hour begins : 14:00

AM Peak Volume : 41  
 PM Peak Volume : 36  
 AM Peak Hour Factor : 0.54  
 PM Peak Hour Factor : 0.82

ATLANTIC

Roadway Count Summary  
Vanasse Hangen Brustlin, Inc.

Start Date : August 30, 2016  
Stop Date : September 2, 2016  
County : 0  
Location : 0 JAX x NORTH DASH 1

Start Time : 00:00  
Stop Time : 24:00

VHB Project #: 62234.16

30-Aug-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	2	0	1	2	1	0	0
30	0	0	0	0	0	0	0	0	0	0	0	2
45	0	0	0	0	0	0	0	0	0	2	1	0
00	0	0	1	0	0	0	2	0	0	0	0	2
Hr Total	1	0	1	0	0	2	2	1	2	3	1	4

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	2	1	1	0	0	2	2	1	1	0	0
30	2	0	0	1	1	2	3	0	0	0	0	1
45	0	0	0	0	1	1	3	1	0	0	1	0
00	0	3	4	0	3	0	0	1	3	1	0	0
Hr Total	4	5	5	2	5	3	8	4	4	2	1	1

24 Hour Total : 61  
AM Peak Hour begins : 11:00  
PM Peak Hour begins : 17:45

AM Peak Volume : 4  
PM Peak Volume : 8  
AM Peak Hour Factor : 0.50  
PM Peak Hour Factor : 0.67

30-Aug-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	2	0	0	0	1	0	1	3	0	0	0	1
30	1	0	0	0	0	0	0	0	0	0	1	1
45	0	0	0	0	0	1	3	0	0	0	4	1
00	1	0	0	0	0	0	3	1	0	1	1	0
Hr Total	4	0	0	0	1	1	7	4	0	1	6	3

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	1	3	3	2	1	2	1	1	1	0	0
30	0	0	0	2	1	0	3	1	0	0	1	1
45	2	2	0	0	3	1	2	1	1	6	1	1
00	2	1	4	0	0	0	1	3	0	0	0	2
Hr Total	6	4	7	5	6	2	8	6	2	7	2	4

24 Hour Total : 86  
AM Peak Hour begins : 6:15  
PM Peak Hour begins : 14:30

AM Peak Volume : 9  
PM Peak Volume : 9  
AM Peak Hour Factor : 0.75  
PM Peak Hour Factor : 0.56

30-Aug-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	3	0	0	0	1	2	1	4	2	1	0	1
30	1	0	0	0	0	0	0	0	0	0	1	3
45	0	0	0	0	0	1	3	0	0	2	5	1
00	1	0	1	0	0	0	5	1	0	1	1	2
Hr Total	5	0	1	0	1	3	9	5	2	4	7	7

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	3	4	4	2	1	4	3	2	2	0	0
30	2	0	0	3	2	2	6	1	0	0	1	2
45	2	2	0	0	4	2	5	2	1	6	2	1
00	2	4	8	0	3	0	1	4	3	1	0	2
Hr Total	10	9	12	7	11	5	16	10	6	9	3	5

24 Hour Total : 147  
AM Peak Hour begins : 6:15  
PM Peak Hour begins : 18:00

AM Peak Volume : 12  
PM Peak Volume : 16  
AM Peak Hour Factor : 0.60  
PM Peak Hour Factor : 0.67



# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016                      Start Time                      00:00  
 Stop Date : September 2, 2016                   Stop Time                      24:00  
 County : 0  
 Location : 0 JAX NORTH OAKS

VHB Project #: 62234.16

1-Sep-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	1	0	1	1	3	0	1
30	0	0	0	0	0	0	0	0	0	2	0	0
45	0	0	0	0	0	0	0	0	1	1	3	2
00	0	0	0	0	1	1	1	1	1	0	3	3
Hr Total	0	0	0	0	1	2	1	2	3	6	6	6

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	6	1	1	0	0	1	1	1	0	0	0
30	4	0	1	0	0	1	1	0	0	0	0	1
45	2	2	1	0	1	1	2	1	1	0	1	0
00	2	2	3	1	1	0	1	0	1	0	1	0
Hr Total	10	10	6	2	2	2	5	2	3	0	2	1

24 Hour Total : 72  
 AM Peak Hour begins : 8:30                      AM Peak Volume : 7                      AM Peak Hour Factor : 0.58  
 PM Peak Hour begins : 12:15                      PM Peak Volume : 14                      PM Peak Hour Factor : 0.58

1-Sep-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	0	0	0	0	1	2	0	1	0	5
30	0	0	0	0	0	1	0	1	1	1	1	3
45	0	0	0	0	0	1	1	1	0	0	3	0
00	0	0	0	0	0	0	1	1	2	2	0	3
Hr Total	1	1	0	0	0	2	3	5	3	4	4	11

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	2	2	1	1	2	1	1	1	0	2
30	2	4	0	1	1	0	2	1	0	0	2	1
45	2	2	0	0	3	2	2	1	0	3	0	1
00	3	4	2	0	0	0	1	1	0	0	0	1
Hr Total	7	10	4	3	5	3	7	4	1	4	2	5

24 Hour Total : 89  
 AM Peak Hour begins : 10:30                      AM Peak Volume : 11                      AM Peak Hour Factor : 0.55  
 PM Peak Hour begins : 13:15                      PM Peak Volume : 12                      PM Peak Hour Factor : 0.75

1-Sep-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	1	0	0	0	1	1	3	1	4	0	6
30	0	0	0	0	0	1	0	1	1	3	1	3
45	0	0	0	0	0	1	1	1	1	1	6	2
00	0	0	0	0	1	1	2	2	3	2	3	6
Hr Total	1	1	0	0	1	4	4	7	6	10	10	17

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	6	3	3	1	1	3	2	2	1	0	2
30	6	4	1	1	1	1	3	1	0	0	2	2
45	4	4	1	0	4	3	4	2	1	3	1	1
00	5	6	5	1	1	0	2	1	1	0	1	1
Hr Total	17	20	10	5	7	5	12	6	4	4	4	6

24 Hour Total : 161  
 AM Peak Hour begins : 10:30                      AM Peak Volume : 18                      AM Peak Hour Factor : 0.75  
 PM Peak Hour begins : 12:15                      PM Peak Volume : 21                      PM Peak Hour Factor : 0.88





# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : August 30, 2016                      Start Time                      00:00  
 Stop Date : September 2, 2016                   Stop Time                      24:00  
 County : 0  
 Location : 0 JAX SOUTH OAY 3

VHB Project #: 62234.16

1-Sep-16

Inbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	0	0	1	0	1	0	3
30	0	0	0	0	0	0	1	2	2	0	1	1
45	0	0	0	0	0	0	2	0	1	1	0	0
00	0	0	0	0	0	2	3	0	2	1	4	1
<b>Hr Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>5</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	2	1	0	0	0	0	1	0	0	1
30	2	0	6	1	1	3	2	1	0	0	0	0
45	0	1	1	1	1	1	1	0	0	0	0	0
00	3	1	0	0	0	0	2	0	0	0	0	1
<b>Hr Total</b>	<b>5</b>	<b>2</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

24 Hour Total : 64  
 AM Peak Hour begins : 6:30                      AM Peak Volume : 8                      AM Peak Hour Factor : 0.67  
 PM Peak Hour begins : 13:30                      PM Peak Volume : 10                      PM Peak Hour Factor : 0.42

1-Sep-16

Outbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	1	0	0
45	0	0	0	0	0	0	1	0	0	0	1	0
00	0	0	0	0	0	1	2	0	0	1	0	1
<b>Hr Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	1	4	0	2	0	0	0	1	0	0	0
30	0	1	1	1	1	1	1	0	0	0	0	0
45	1	1	0	0	0	1	1	1	0	0	0	0
00	0	2	0	0	0	0	2	1	0	1	0	0
<b>Hr Total</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

24 Hour Total : 33  
 AM Peak Hour begins : 6:00                      AM Peak Volume : 3                      AM Peak Hour Factor : 0.38  
 PM Peak Hour begins : 13:15                      PM Peak Volume : 8                      PM Peak Hour Factor : 0.50

1-Sep-16

Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	0	0	0	0	1	0	1	0	3
30	0	0	0	0	0	0	1	2	2	1	1	1
45	0	0	0	0	0	0	3	0	1	1	1	0
00	0	0	0	0	0	3	5	0	2	2	4	2
<b>Hr Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>9</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	1	6	1	2	0	0	0	2	0	0	1
30	2	1	7	2	2	4	3	1	0	0	0	0
45	1	2	1	1	1	2	2	1	0	0	0	0
00	3	3	0	0	0	0	4	1	0	1	0	1
<b>Hr Total</b>	<b>6</b>	<b>7</b>	<b>14</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>2</b>

24 Hour Total : 97  
 AM Peak Hour begins : 6:30                      AM Peak Volume : 11                      AM Peak Hour Factor : 0.55  
 PM Peak Hour begins : 13:30                      PM Peak Volume : 18                      PM Peak Hour Factor : 0.64

## *Appendix B*

# **Intersection Counts & Peak Season Factor Category Report**



# Roadway Count Summary

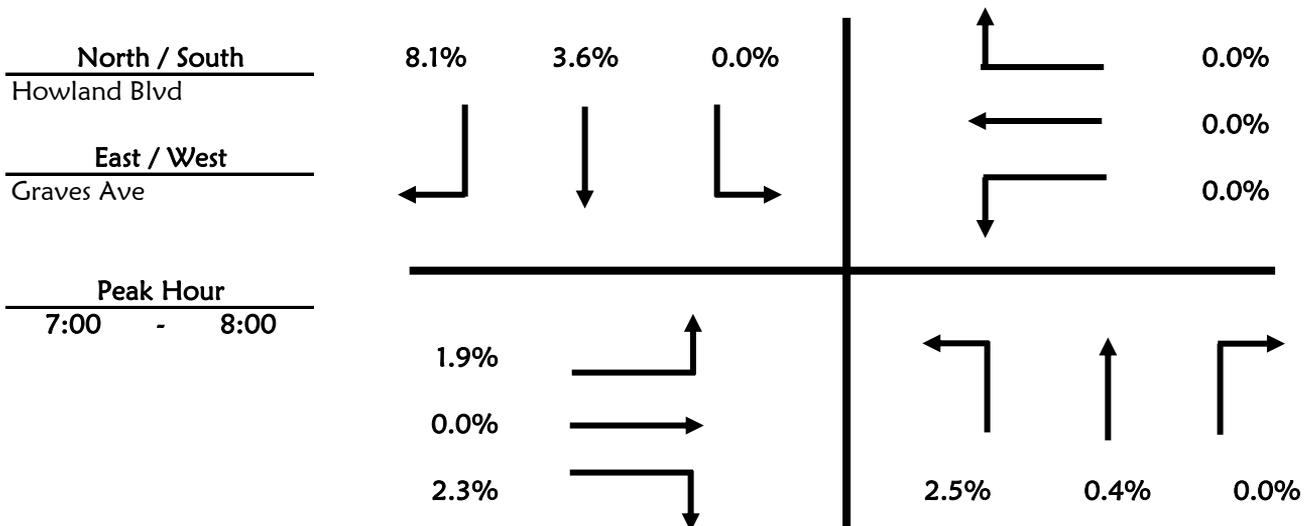
*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Howland Blvd & Graves Ave  
**Date** August 30, 2016  
**Time Period** 7:00 to 9:00 **Trucks**

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	4	0	0	0	3	1
7:15 - 7:30	1	2	0	0	3	1
7:30 - 7:45	1	2	0	0	10	0
7:45 - 8:00	4	3	0	0	5	1
8:00 - 8:15	7	5	0	0	1	2
8:15 - 8:30	1	1	0	0	1	2
8:30 - 8:45	0	4	0	0	7	1
8:45 - 9:00	1	3	0	0	6	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	4	0	0	0
7:15 - 7:30	2	0	0	0	0	0
7:30 - 7:45	0	0	3	0	0	0
7:45 - 8:00	2	0	1	0	0	0
8:00 - 8:15	0	0	1	0	0	0
8:15 - 8:30	3	0	2	0	0	0
8:30 - 8:45	4	0	2	0	0	0
8:45 - 9:00	2	0	10	0	0	0



# Roadway Count Summary

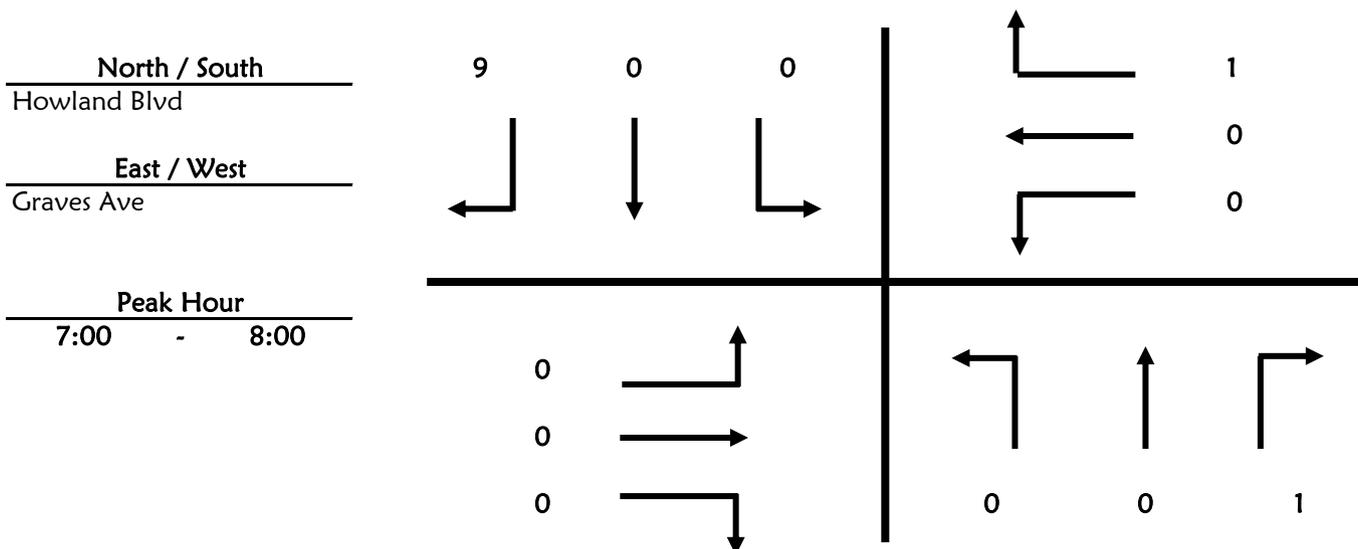
*Vanasse Hangen Brustlin, Inc.*

County Volusia City Deltona  
 Intersection Howland Blvd & Graves Ave  
 Date August 30, 2016  
 Time Period 7:00 to 9:00 U-Turn & RTOR

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	2
7:15 - 7:30	0	0	0	0	0	1
7:30 - 7:45	0	0	0	0	0	1
7:45 - 8:00	0	0	0	0	0	5
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	1	0	3
8:30 - 8:45	0	0	0	0	0	1
8:45 - 9:00	0	0	0	1	0	5

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	1
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	1



# Pedestrian & Bicycle Summary

Project #: 62234.17

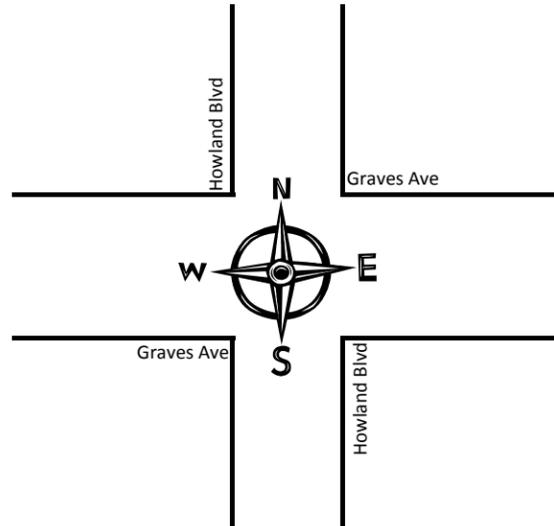
NB/SB: Howland Blvd

Date: 8/30/2016

EB/WB: Graves Ave

		Hour								
		7:00	8:00		16:00	17:00				
		1	2	3	4	5	6	7	8	
Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0

Hour	Southbound		Northbound	
	Ped ▼	Bike	Ped ▲	Bike
1 7:00	0	0	0	0
2 8:00	0	0	0	0
3				
4 16:00	0	0	0	0
5 17:00	0	0	0	0
6				
7				
8				
	0	0	0	0



Hour	Southbound		Northbound	
	Ped ▼	Bike	Ped ▲	Bike
1 7:00	2	0	2	0
2 8:00	1	0	1	0
3				
4 16:00	0	0	1	0
5 17:00	0	0	0	0
6				
7				
8				
	3	0	4	0

Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	1	0		0	0				1

		7:00	8:00		16:00	17:00				
		1	2	3	4	5	6	7	8	
Hour										

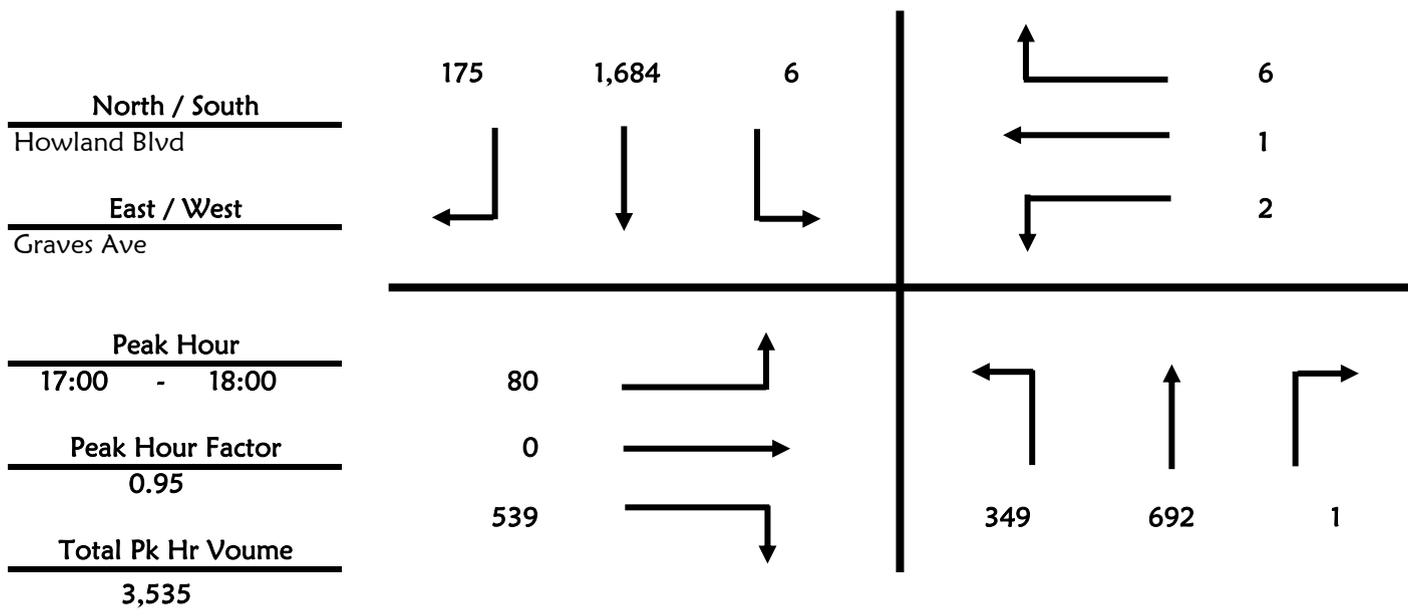
# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Howland Blvd & Graves Ave  
**Date** August 30, 2016 **All Vehicles**  
**Time Period** 16:00 to 18:00  
VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	83	188	0	0	283	24
16:15 - 16:30	82	180	0	2	316	33
16:30 - 16:45	75	166	0	1	391	42
16:45 - 17:00	85	194	0	1	340	24
17:00 - 17:15	79	188	1	1	381	37
17:15 - 17:30	83	188	0	1	457	42
17:30 - 17:45	93	160	0	4	414	46
17:45 - 18:00	94	156	0	0	432	50
<b>Total</b>	<b>674</b>	<b>1,420</b>	<b>1</b>	<b>10</b>	<b>3,014</b>	<b>298</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	16	0	102	0	0	0
16:15 - 16:30	13	0	123	0	1	1
16:30 - 16:45	18	0	140	1	0	0
16:45 - 17:00	17	0	147	0	0	0
17:00 - 17:15	25	0	131	1	1	5
17:15 - 17:30	25	0	136	0	0	1
17:30 - 17:45	16	0	145	1	0	0
17:45 - 18:00	14	0	127	0	0	0
<b>Total</b>	<b>144</b>	<b>0</b>	<b>1,051</b>	<b>3</b>	<b>2</b>	<b>7</b>



# Roadway Count Summary

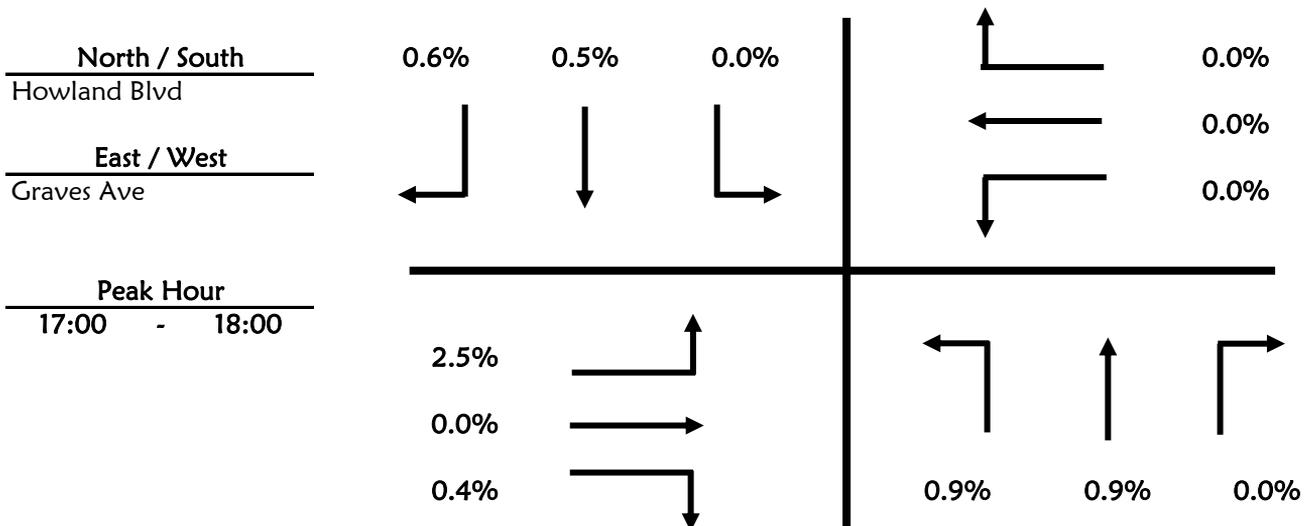
*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Howland Blvd & Graves Ave  
**Date** August 30, 2016  
**Time Period** 16:00 to 18:00 **Trucks**

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	2	2	0	0	4	0
16:15 - 16:30	0	3	0	0	3	1
16:30 - 16:45	0	3	0	0	6	1
16:45 - 17:00	1	3	0	0	1	0
17:00 - 17:15	1	1	0	0	2	0
17:15 - 17:30	1	0	0	0	4	1
17:30 - 17:45	0	3	0	0	1	0
17:45 - 18:00	1	2	0	0	1	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	1	0	1	0
16:30 - 16:45	0	0	8	0	0	0
16:45 - 17:00	3	0	2	0	0	0
17:00 - 17:15	1	0	0	0	0	0
17:15 - 17:30	1	0	1	0	0	0
17:30 - 17:45	0	0	1	0	0	0
17:45 - 18:00	0	0	0	0	0	0



# Roadway Count Summary

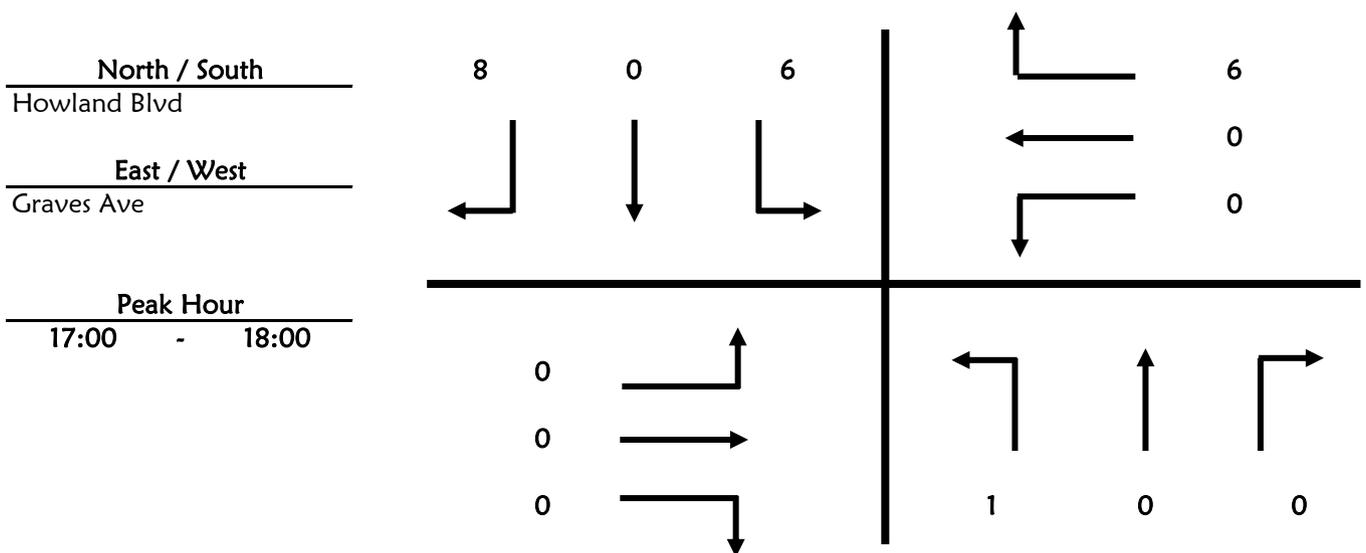
*Vanasse Hangen Brustlin, Inc.*

County Volusia City Deltona  
 Intersection Howland Blvd & Graves Ave  
 Date August 30, 2016  
 Time Period 16:00 to 18:00 U-Turn & RTOR

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	4
16:15 - 16:30	1	0	0	2	0	3
16:30 - 16:45	0	0	0	1	0	4
16:45 - 17:00	0	0	0	0	0	6
17:00 - 17:15	1	0	0	1	0	6
17:15 - 17:30	0	0	0	1	0	0
17:30 - 17:45	0	0	0	4	0	1
17:45 - 18:00	0	0	0	0	0	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	1	0	0	1
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	5
17:15 - 17:30	0	0	0	0	0	1
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0



# Pedestrian & Bicycle Summary

Project #: 62234.17

NB/SB: Howland Blvd

Date: 8/30/2016

EB/WB: Graves Ave

		Hour								
		7:00	8:00		16:00	17:00				
		1	2	3	4	5	6	7	8	
Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0

Hour	Southbound		Northbound	
	Ped ▼	Bike	Ped ▲	Bike
1 7:00	0	0	0	0
2 8:00	0	0	0	0
3				
4 16:00	0	0	0	0
5 17:00	0	0	0	0
6				
7				
8				
	0	0	0	0



Hour	Southbound		Northbound	
	Ped ▼	Bike	Ped ▲	Bike
1 7:00	2	0	2	0
2 8:00	1	0	1	0
3				
4 16:00	0	0	1	0
5 17:00	0	0	0	0
6				
7				
8				
	3	0	4	0

Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	1	0		0	0				1

		7:00	8:00		16:00	17:00					
		1	2	3	4	5	6	7	8		
		Hour									

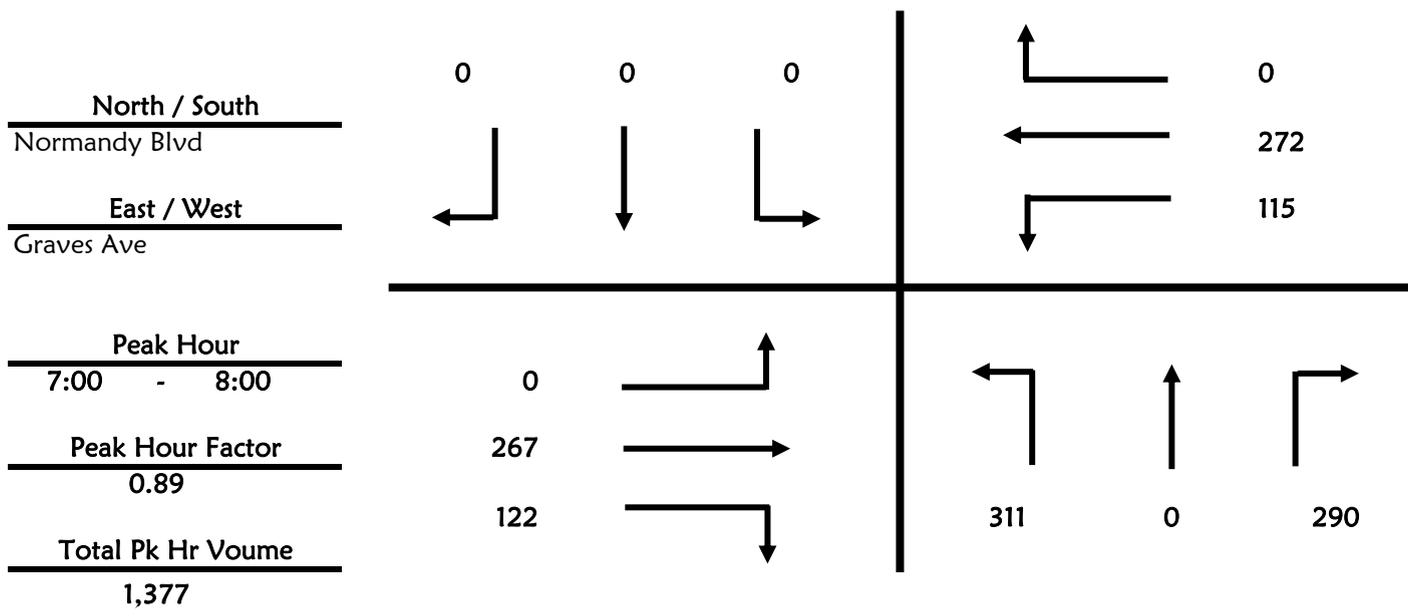
# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Normandy Blvd & Graves Ave  
**Date** August 30, 2016 **All Vehicles**  
**Time Period** 7:00 to 9:00  
VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	75	0	83	0	0	0
7:15 - 7:30	81	0	98	0	0	0
7:30 - 7:45	93	0	60	0	0	0
7:45 - 8:00	62	0	49	0	0	0
8:00 - 8:15	44	0	50	0	0	0
8:15 - 8:30	52	0	31	0	0	0
8:30 - 8:45	50	0	35	0	0	0
8:45 - 9:00	48	0	21	0	0	0
<b>Total</b>	<b>505</b>	<b>0</b>	<b>427</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	62	25	23	60	0
7:15 - 7:30	0	78	33	27	56	0
7:30 - 7:45	0	71	40	45	76	0
7:45 - 8:00	0	56	24	20	80	0
8:00 - 8:15	0	50	22	22	98	0
8:15 - 8:30	0	50	21	19	79	0
8:30 - 8:45	0	51	22	12	77	0
8:45 - 9:00	0	56	24	12	82	0
<b>Total</b>	<b>0</b>	<b>474</b>	<b>211</b>	<b>180</b>	<b>608</b>	<b>0</b>



# Roadway Count Summary

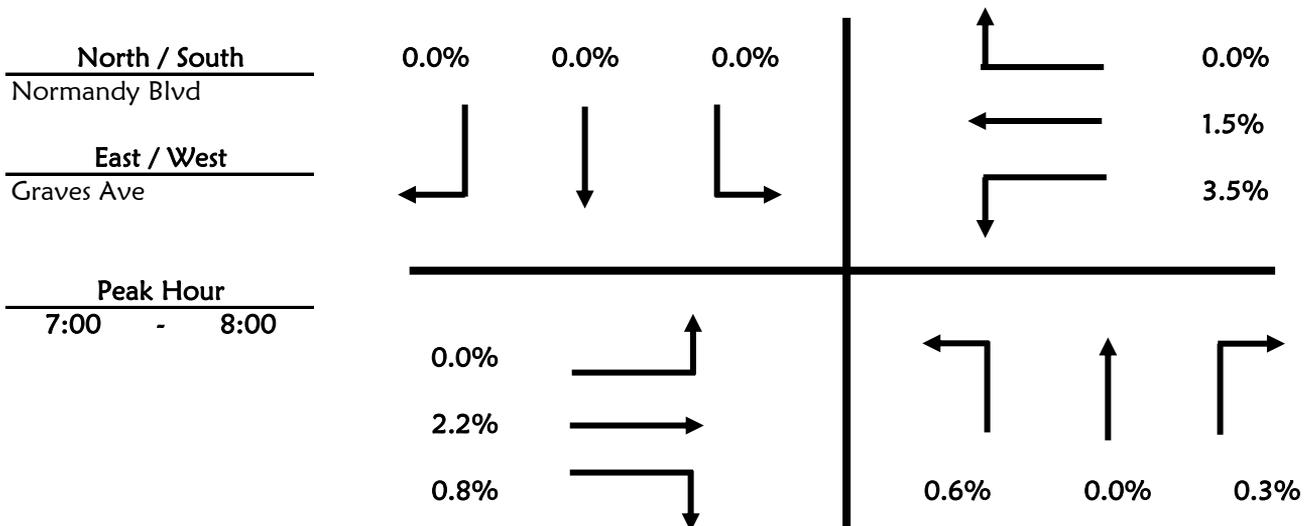
*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Normandy Blvd & Graves Ave  
**Date** August 30, 2016  
**Time Period** 7:00 to 9:00 **Trucks**

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	1	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	1	0	0	0	0	0
7:45 - 8:00	1	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	1	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	2	1	3	1	0
7:15 - 7:30	0	1	0	0	0	0
7:30 - 7:45	0	2	0	0	1	0
7:45 - 8:00	0	1	0	1	2	0
8:00 - 8:15	0	1	2	3	3	0
8:15 - 8:30	0	3	0	0	2	0
8:30 - 8:45	0	3	0	0	0	0
8:45 - 9:00	0	10	0	0	1	0



# Roadway Count Summary

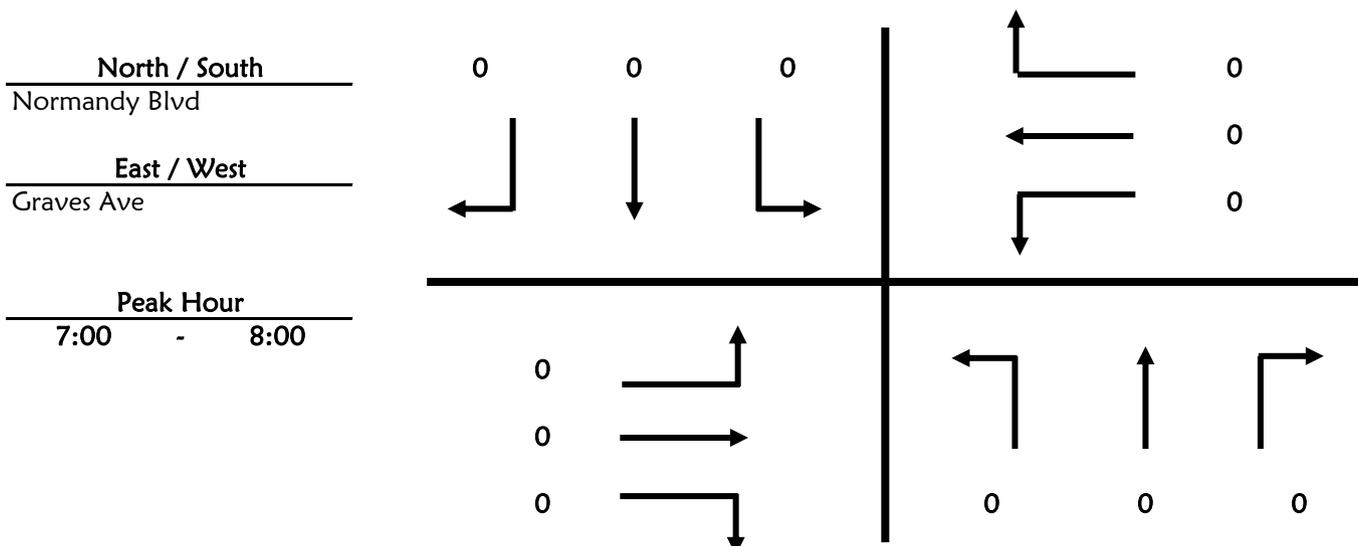
*Vanasse Hangen Brustlin, Inc.*

County Volusia City Deltona  
 Intersection Normandy Blvd & Graves Ave  
 Date August 30, 2016  
 Time Period 7:00 to 9:00 U-Turn & RTOR

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0



# Pedestrian & Bicycle Summary

Project #: 62234.17

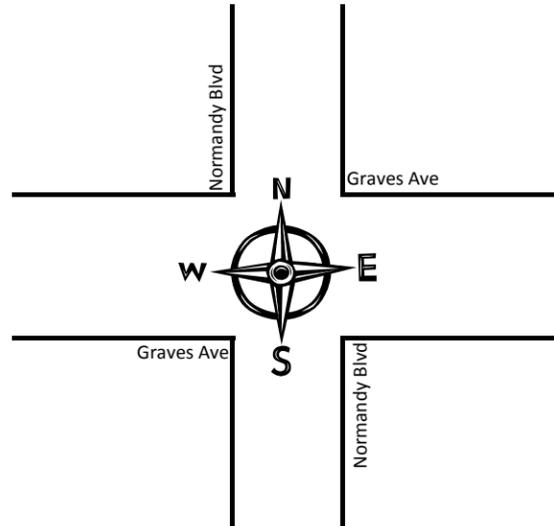
NB/SB: Normandy Blvd

Date: 8/30/2016

EB/WB: Graves Ave

		Hour								
		7:00	8:00		16:00	17:00				
		1	2	3	4	5	6	7	8	
Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0

		Southbound		Northbound	
Hour		Ped	Bike	Ped	Bike
1	7:00	0	0	0	0
2	8:00	0	0	0	0
3					
4	16:00	0	0	0	0
5	17:00	0	0	0	0
6					
7					
8					
		0	0	0	0



		Southbound		Northbound			
Hour		Ped	Bike	Ped	Bike		
1	7:00	0	0	0	0		
2	8:00	0	0	0	0		
3							
4	16:00	0	0	0	0		
5	17:00	0	0	3	0		
6							
7							
8							
		0	0	3	0		

Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0

		7:00	8:00		16:00	17:00					
		1	2	3	4	5	6	7	8		
		Hour									

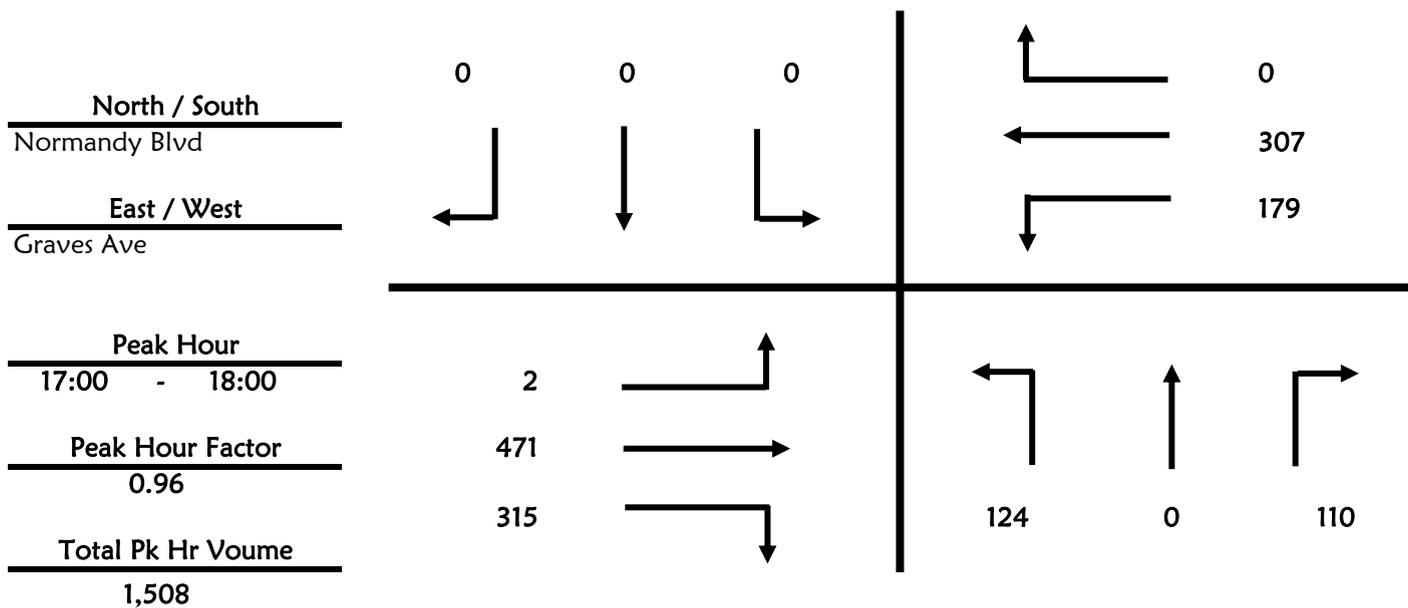
# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Normandy Blvd & Graves Ave  
**Date** August 30, 2016 **All Vehicles**  
**Time Period** 16:00 to 18:00  
VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	22	0	10	0	0	0
16:15 - 16:30	41	0	27	0	0	0
16:30 - 16:45	45	0	38	0	0	0
16:45 - 17:00	25	0	26	0	0	0
17:00 - 17:15	26	0	32	0	0	0
17:15 - 17:30	25	0	22	0	0	0
17:30 - 17:45	37	0	30	0	0	0
17:45 - 18:00	36	0	26	0	0	0
<b>Total</b>	<b>257</b>	<b>0</b>	<b>211</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	106	45	33	63	0
16:15 - 16:30	0	111	63	40	75	0
16:30 - 16:45	0	116	52	43	75	0
16:45 - 17:00	0	131	68	25	72	0
17:00 - 17:15	0	115	74	42	51	0
17:15 - 17:30	2	122	87	30	94	0
17:30 - 17:45	0	126	78	50	71	0
17:45 - 18:00	0	108	76	57	91	0
<b>Total</b>	<b>2</b>	<b>935</b>	<b>543</b>	<b>320</b>	<b>592</b>	<b>0</b>



# Roadway Count Summary

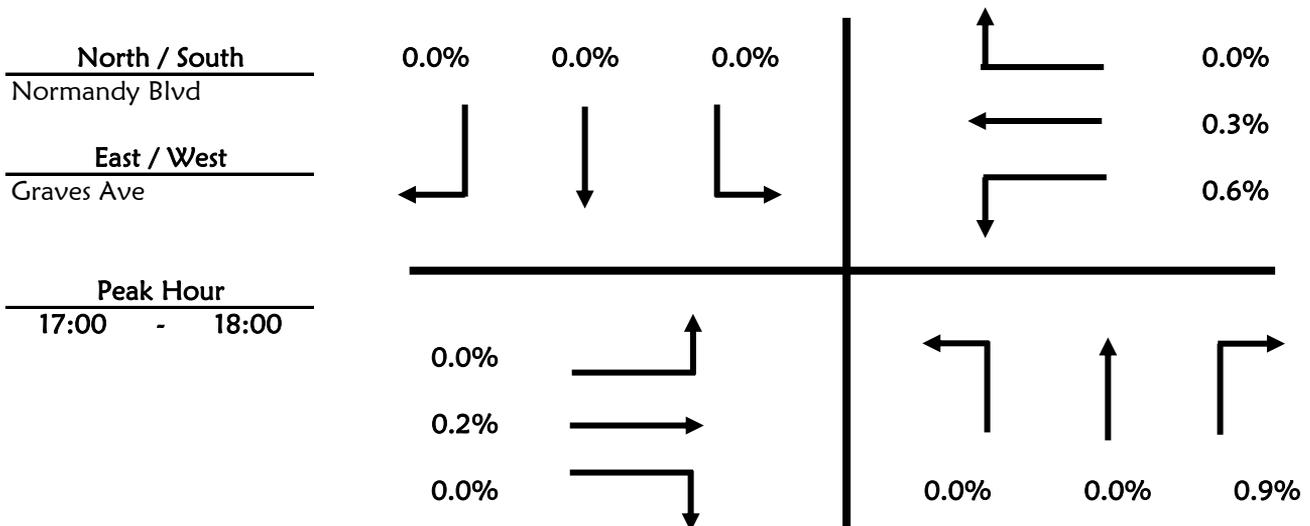
*Vanasse Hangen Brustlin, Inc.*

**County** Volusia **City** Deltona  
**Intersection** Normandy Blvd & Graves Ave  
**Date** August 30, 2016  
**Time Period** 16:00 to 18:00 **Trucks**

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	2	0	0	0	0	0
16:15 - 16:30	1	0	1	0	0	0
16:30 - 16:45	0	0	1	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	1	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	5	0	0	0	0
16:45 - 17:00	0	2	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	1	0	1	1	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0



# Roadway Count Summary

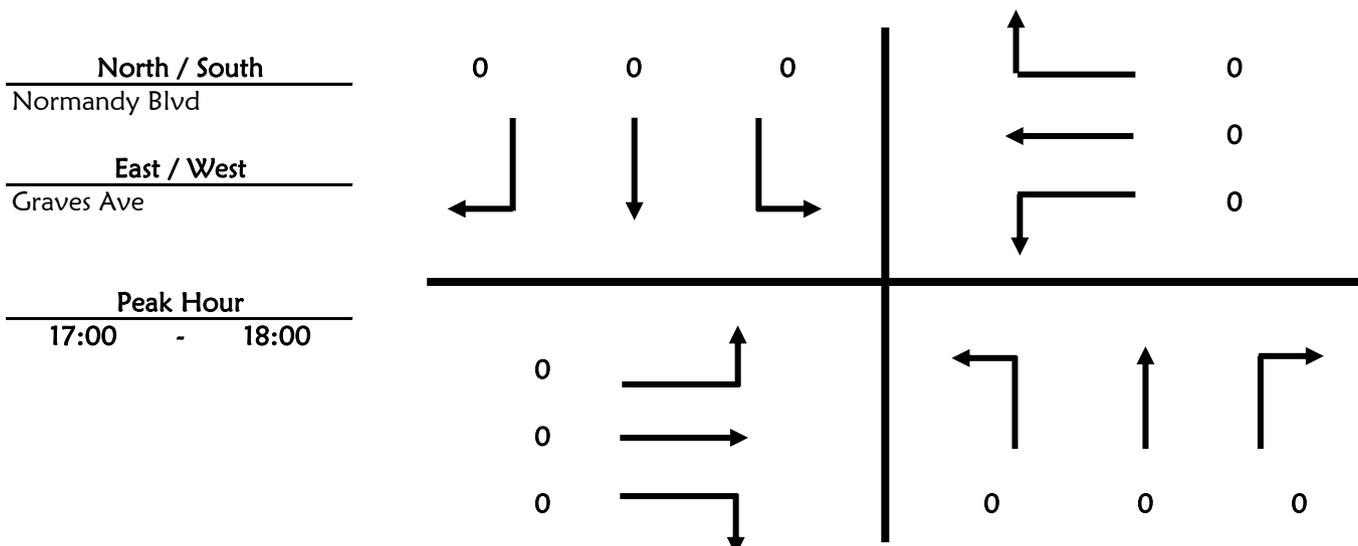
*Vanasse Hangen Brustlin, Inc.*

County Volusia City Deltona  
 Intersection Normandy Blvd & Graves Ave  
 Date August 30, 2016  
 Time Period 16:00 to 18:00 U-Turn & RTOR

VHB Project #: 62234.17

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	7	0	0	0
16:15 - 16:30	0	0	2	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	1	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0



# Pedestrian & Bicycle Summary

Project #: 62234.17

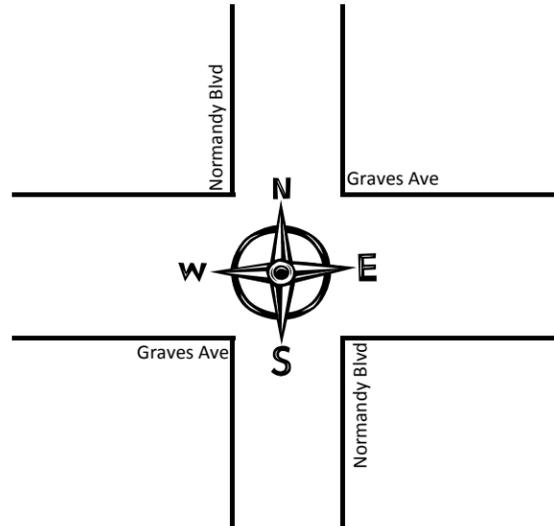
NB/SB: Normandy Blvd

Date: 8/30/2016

EB/WB: Graves Ave

		Hour								
		7:00	8:00		16:00	17:00				
		1	2	3	4	5	6	7	8	
Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0

		Southbound		Northbound	
Hour		Ped	Bike	Ped	Bike
1	7:00	0	0	0	0
2	8:00	0	0	0	0
3					
4	16:00	0	0	0	0
5	17:00	0	0	0	0
6					
7					
8					
		0	0	0	0



		Southbound		Northbound			
Hour		Ped	Bike	Ped	Bike		
1	7:00	0	0	0	0		
2	8:00	0	0	0	0		
3							
4	16:00	0	0	0	0		
5	17:00	0	0	3	0		
6							
7							
8							
		0	0	3	0		

Eastbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0
Westbound	Bike	0	0		0	0				0
	Ped	0	0		0	0				0

		7:00	8:00		16:00	17:00					
		1	2	3	4	5	6	7	8		
		Hour									

2015 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 7900 VOLUSIA COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.96 PSCF
1	01/01/2015 - 01/03/2015	0.99	1.03
2	01/04/2015 - 01/10/2015	1.02	1.06
3	01/11/2015 - 01/17/2015	1.04	1.08
4	01/18/2015 - 01/24/2015	1.02	1.06
5	01/25/2015 - 01/31/2015	1.01	1.05
* 6	02/01/2015 - 02/07/2015	0.99	1.03
* 7	02/08/2015 - 02/14/2015	0.97	1.01
* 8	02/15/2015 - 02/21/2015	0.96	1.00
* 9	02/22/2015 - 02/28/2015	0.95	0.99
*10	03/01/2015 - 03/07/2015	0.93	0.97
*11	03/08/2015 - 03/14/2015	0.92	0.96
*12	03/15/2015 - 03/21/2015	0.93	0.97
*13	03/22/2015 - 03/28/2015	0.95	0.99
*14	03/29/2015 - 04/04/2015	0.96	1.00
*15	04/05/2015 - 04/11/2015	0.97	1.01
*16	04/12/2015 - 04/18/2015	0.98	1.02
*17	04/19/2015 - 04/25/2015	0.98	1.02
*18	04/26/2015 - 05/02/2015	0.99	1.03
19	05/03/2015 - 05/09/2015	1.00	1.04
20	05/10/2015 - 05/16/2015	1.00	1.04
21	05/17/2015 - 05/23/2015	1.01	1.05
22	05/24/2015 - 05/30/2015	1.02	1.06
23	05/31/2015 - 06/06/2015	1.02	1.06
24	06/07/2015 - 06/13/2015	1.03	1.07
25	06/14/2015 - 06/20/2015	1.04	1.08
26	06/21/2015 - 06/27/2015	1.04	1.08
27	06/28/2015 - 07/04/2015	1.05	1.09
28	07/05/2015 - 07/11/2015	1.05	1.09
29	07/12/2015 - 07/18/2015	1.05	1.09
30	07/19/2015 - 07/25/2015	1.05	1.09
31	07/26/2015 - 08/01/2015	1.05	1.09
32	08/02/2015 - 08/08/2015	1.05	1.09
33	08/09/2015 - 08/15/2015	1.04	1.08
34	08/16/2015 - 08/22/2015	1.04	1.08
35	08/23/2015 - 08/29/2015	1.04	1.08
36	08/30/2015 - 09/05/2015	1.04	1.08
37	09/06/2015 - 09/12/2015	1.04	1.08
38	09/13/2015 - 09/19/2015	1.03	1.07
39	09/20/2015 - 09/26/2015	1.02	1.06
40	09/27/2015 - 10/03/2015	1.01	1.05
41	10/04/2015 - 10/10/2015	1.00	1.04
42	10/11/2015 - 10/17/2015	0.99	1.03
43	10/18/2015 - 10/24/2015	0.99	1.03
44	10/25/2015 - 10/31/2015	0.99	1.03
45	11/01/2015 - 11/07/2015	0.99	1.03
46	11/08/2015 - 11/14/2015	0.99	1.03
47	11/15/2015 - 11/21/2015	0.99	1.03
48	11/22/2015 - 11/28/2015	0.99	1.03
49	11/29/2015 - 12/05/2015	0.99	1.03
50	12/06/2015 - 12/12/2015	0.99	1.03
51	12/13/2015 - 12/19/2015	1.01	1.05
52	12/20/2015 - 12/26/2015	1.03	1.07
53	12/27/2015 - 12/31/2015	1.04	1.08

\* PEAK SEASON

03-MAR-2016 11:19:30

830UPD

5\_7900\_PKSEASON.TXT

## *Appendix C*

# Traffic Signal Timing Sheets

## COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: <u>Graves Avenue &amp; Normandy Blvd</u>	ISOLATED: <input checked="" type="checkbox"/>	DATE: <u>2/18/2015</u>
<u>Deltona</u>		
SIGNAL #: <u>347</u>	CO-ORD: <input type="checkbox"/>	Design By: <u>M. Tobin</u>
System #: <u>26</u>		

### Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8
DIRECTION		WB		NB	WBL	EB		
TURN TYPE		-		-	PERM/PROT	-		
MIN GREEN		12		7	5	12		
EXTENSION		3		3	3	3		
CLEARANCE		5.0		3.5	5.0	5.0		
ALL RED		3.0		3.0	3.0	2.0		
WALK		-		-	-	-		
FDW		-		-	-	-		
MAX 1		45		25	20	45		
MAX 2		-		-	-	-		
MAX 3		90		-	-	90		
ADJUST		10		-	-	10		
RECALL		MIN		-	-	MIN		
DETECTOR		LOCK		NON-LOCK	NON-LOCK	LOCK		
FLASH		YELLOW		RED	-	YELLOW		
SET		2		-	-	2		
CLEAR		2		-	-	2		
BASE DAY	1	2	3	4	5	6	7	
								Crosswalk Length
MON #1	TIME 00:01-00:00							P2
	PLAN Free							
TUES #1	TIME 00:01-00:00							-
	PLAN Free							
WED #1	TIME 00:01-00:00							P4
	PLAN Free							
THU #1	TIME 00:01-00:00							-
	PLAN Free							
FRI #1	TIME 00:01-00:00							P6
	PLAN Free							
SAT #2	TIME 00:01-00:00							-
	PLAN Free							
SUN #3	TIME 00:01-00:00							-
	PLAN Free							
CONTROLLER TYPE	3000E	CONDITION OF OVERHEAD	OK	PROM NUMBER				P8
		OVERHEAD STREET NAMES	YES					-
PHASES:	4Φ	ILLUMINATED STREET NAMES	NO	8216A 3.7.3				SIGNAL OWNER <sup>4</sup>
CABINET TYPE	V	PRE-EMPTION	NO	IP ADDRESS				County
CABINET DATE	12/1997	PRE-EMPTION TYPE	N/A	10.77.8.44				LED YES

REMARKS:

Omit Phase 5 when Phase 6 is Active





## COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: <u>SR 472 (Howland Blvd) &amp; Graves Ave</u>	ISOLATED: <input type="checkbox"/>	DATE: <u>5/10/2016</u>
<u>Deltona</u>		
SIGNAL #: <u>360</u>	CO-ORD: <input checked="" type="checkbox"/>	Design By: <u>M Tobin</u>
System #: <u>26</u>		

### Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8
DIRECTION		WB		NB	WBL	EB		SB
TURN TYPE		-		SPLIT LEAD	PROT	-		SPLIT LAG
MIN GREEN		17		7	5	17		5
EXTENSION		3		3	3	3		3
CLEARANCE		5.0		5.0	5.0	5.5		5.0
ALL RED		2.0		3.0	2.0	2.0		2.5
WALK		9		-	-	7		-
FDW		23		-	-	-		-
MAX 1		35		20	25	35		15
MAX 2		-		-	-	-		-
MAX 3		-		-	-	-		-
ADJUST		-		-	-	-		-
RECALL		MIN		-	-	MIN		-
DETECTOR		LOCK		NON-LOCK	LOCK	LOCK		NON-LOCK
FLASH		YELLOW		RED	RED	YELLOW		RED
SET		-		-	-	-		-
CLEAR		-		-	-	-		-
BASE DAY	1	2	3	4	5	6	7	Crosswalk Length
MON #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		P2
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
TUES #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		86 Feet
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
WED #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		P4
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
THU #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		-
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
FRI #1	TIME	00:01-06:30	06:30-09:00	09:00-15:30	15:30-19:00	19:00-00:00		P6
	PLAN	FREE	C1O1S1	C2O1S1	C3O1S1	FREE		
SAT #2	TIME	00:01-00:00						-
	PLAN	FREE						
SUN #3	TIME	00:01-00:00						-
	PLAN	FREE						
CONTROLLER TYPE		CONDITION OF OVERHEAD			OK		PROM NUMBER	
3000E		OVERHEAD STREET NAMES			NO			
PHASES:	8Φ	ILLUMINATED STREET NAMES			YES		8216A 3.7.3	SIGNAL OWNER <sup>4</sup>
CABINET TYPE	V	PRE-EMPTION			NO		IP ADDRESS	FDOT
CABINET DATE	08/2000	PRE-EMPTION TYPE			N/A		10.77.8.43	LED YES

REMARKS:

2	4	8
5	6	



*Appendix D*

**Synchro Results –  
Existing**

HCM 2010 Signalized Intersection Summary  
 1: Normandy Blvd & Graves Avenue

9/19/2016

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	 							
Volume (veh/h)	294	135	126	300	343	319		
Number	6	16	5	2	7	14		
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	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	320	147	137	326	373	347		
Adj No. of Lanes	2	0	1	1	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1026	462	506	1087	453	405		
Arrive On Green	0.43	0.43	0.06	0.58	0.26	0.26		
Sat Flow, veh/h	2468	1069	1774	1863	1774	1583		
Grp Volume(v), veh/h	237	230	137	326	373	347		
Grp Sat Flow(s),veh/h/ln	1770	1674	1774	1863	1774	1583		
Q Serve(g_s), s	7.9	8.2	3.6	8.0	17.8	18.8		
Cycle Q Clear(g_c), s	7.9	8.2	3.6	8.0	17.8	18.8		
Prop In Lane		0.64	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	765	723	506	1087	453	405		
V/C Ratio(X)	0.31	0.32	0.27	0.30	0.82	0.86		
Avail Cap(c_a), veh/h	765	723	632	1087	759	677		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	16.8	16.8	12.1	9.5	31.6	31.9		
Incr Delay (d2), s/veh	1.1	1.2	0.3	0.7	3.8	5.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.0	4.0	1.8	4.3	9.2	15.7		
LnGrp Delay(d),s/veh	17.8	18.0	12.3	10.2	35.4	37.7		
LnGrp LOS	B	B	B	B	D	D		
Approach Vol, veh/h	467			463	720			
Approach Delay, s/veh	17.9			10.8	36.5			
Approach LOS	B			B	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.5		29.5	13.6	46.9		
Change Period (Y+Rc), s		8.0		6.5	8.0	* 8		
Max Green Setting (Gmax), s		37.0		38.5	12.0	* 18		
Max Q Clear Time (g_c+I1), s		10.0		20.8	5.6	10.2		
Green Ext Time (p_c), s		4.6		2.2	0.2	2.7		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			24.0					
HCM 2010 LOS			C					
<b>Notes</b>								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

# HCM 2010 Signalized Intersection Summary

## 2: Howland Boulevard & Graves Avenue

9/19/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	237	1	385	1	0	2	442	1804	2	5	643	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	1863	1900	1900	1900	1845	1900	1900	1900	1823	1900
Adj Flow Rate, veh/h	264	0	0	1	0	1	491	2004	1	6	714	36
Adj No. of Lanes	2	0	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	0	2	0	0	0	3	0	0	0	4	4
Cap, veh/h	325	0	145	5	5	4	518	2746	1	138	1332	67
Arrive On Green	0.09	0.00	0.00	0.00	0.00	0.00	0.29	0.74	0.74	0.40	0.40	0.40
Sat Flow, veh/h	3548	0	1583	1810	1900	1615	1757	3703	2	218	3355	169
Grp Volume(v), veh/h	264	0	0	1	0	1	491	977	1028	6	368	382
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1810	1900	1615	1757	1805	1900	218	1732	1793
Q Serve(g_s), s	10.2	0.0	0.0	0.1	0.0	0.1	38.3	42.7	42.7	2.4	22.8	22.8
Cycle Q Clear(g_c), s	10.2	0.0	0.0	0.1	0.0	0.1	38.3	42.7	42.7	2.4	22.8	22.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.09
Lane Grp Cap(c), veh/h	325	0	145	5	5	4	518	1338	1409	138	687	712
V/C Ratio(X)	0.81	0.00	0.00	0.21	0.00	0.23	0.95	0.73	0.73	0.04	0.54	0.54
Avail Cap(c_a), veh/h	558	0	249	110	115	98	590	1338	1409	138	687	712
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(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.4	0.0	0.0	69.7	0.0	69.7	48.3	10.2	10.2	26.2	32.3	32.3
Incr Delay (d2), s/veh	4.9	0.0	0.0	19.9	0.0	25.3	23.5	3.5	3.4	0.6	3.0	2.9
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(50%),veh/ln	5.2	0.0	0.0	0.1	0.0	0.1	21.9	22.2	23.3	0.2	11.5	11.9
LnGrp Delay(d),s/veh	67.3	0.0	0.0	89.5	0.0	95.0	71.9	13.7	13.6	26.8	35.3	35.2
LnGrp LOS	E			F		F	E	B	B	C	D	D
Approach Vol, veh/h		264			2			2496			756	
Approach Delay, s/veh		67.3			92.3			25.1			35.2	
Approach LOS		E			F			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		111.3		20.8	48.2	63.1		7.9				
Change Period (Y+Rc), s		* 7.5		8.0	7.0	7.5		7.5				
Max Green Setting (Gmax), s		* 87		22.0	47.0	32.5		8.5				
Max Q Clear Time (g_c+I1), s		44.7		12.2	40.3	24.8		2.1				
Green Ext Time (p_c), s		31.1		0.6	0.9	7.1		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.5									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary  
 1: Normandy Blvd & Graves Avenue

9/19/2016

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	 							
Volume (veh/h)	521	347	197	339	137	121		
Number	6	16	5	2	7	14		
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	1900	1900	1881	1900	1900	1881		
Adj Flow Rate, veh/h	543	361	205	353	143	126		
Adj No. of Lanes	2	0	1	1	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	1	0	0	1		
Cap, veh/h	1195	794	465	1390	194	172		
Arrive On Green	0.57	0.57	0.07	0.73	0.11	0.11		
Sat Flow, veh/h	2174	1382	1792	1900	1810	1599		
Grp Volume(v), veh/h	471	433	205	353	143	126		
Grp Sat Flow(s),veh/h/ln	1805	1656	1792	1900	1810	1599		
Q Serve(g_s), s	13.5	13.5	3.9	5.5	6.9	6.9		
Cycle Q Clear(g_c), s	13.5	13.5	3.9	5.5	6.9	6.9		
Prop In Lane		0.83	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1037	952	465	1390	194	172		
V/C Ratio(X)	0.45	0.45	0.44	0.25	0.74	0.73		
Avail Cap(c_a), veh/h	1037	952	582	1390	774	684		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	11.0	11.0	7.7	4.0	38.9	38.9		
Incr Delay (d2), s/veh	1.4	1.6	0.7	0.4	5.4	6.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.1	6.5	2.0	3.0	3.7	6.2		
LnGrp Delay(d),s/veh	12.5	12.6	8.4	4.4	44.3	44.9		
LnGrp LOS	B	B	A	A	D	D		
Approach Vol, veh/h	904			558	269			
Approach Delay, s/veh	12.5			5.9	44.6			
Approach LOS	B			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		73.8		16.2	14.1	59.7		
Change Period (Y+Rc), s		8.0		6.5	8.0	* 8		
Max Green Setting (Gmax), s		37.0		38.5	12.0	* 18		
Max Q Clear Time (g_c+I1), s		7.5		8.9	5.9	15.5		
Green Ext Time (p_c), s		8.6		0.8	0.3	1.6		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			15.4					
HCM 2010 LOS			B					
<b>Notes</b>								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

HCM 2010 Signalized Intersection Summary  
 2: Howland Boulevard & Graves Avenue

9/19/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	88	0	594	2	1	6	385	762	1	6	1855	193
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	1845	1845	1900	1900	1900	1900	1881	1881	1900	1444	1881	1900
Adj Flow Rate, veh/h	93	0	0	2	1	0	405	802	1	6	1953	195
Adj No. of Lanes	2	0	1	1	1	1	1	2	0	1	2	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, %	3	0	0	0	0	0	1	1	1	0	1	1
Cap, veh/h	161	0	74	7	7	6	322	2920	4	346	1876	184
Arrive On Green	0.05	0.00	0.00	0.00	0.00	0.00	0.18	0.80	0.80	0.57	0.57	0.57
Sat Flow, veh/h	3514	0	1615	1810	1900	1615	1792	3663	5	523	3288	323
Grp Volume(v), veh/h	93	0	0	2	1	0	405	391	412	6	1046	1102
Grp Sat Flow(s),veh/h/ln	1757	0	1615	1810	1900	1615	1792	1787	1880	523	1787	1824
Q Serve(g_s), s	3.9	0.0	0.0	0.2	0.1	0.0	27.0	8.5	8.5	0.7	85.6	85.6
Cycle Q Clear(g_c), s	3.9	0.0	0.0	0.2	0.1	0.0	27.0	8.5	8.5	0.7	85.6	85.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.18
Lane Grp Cap(c), veh/h	161	0	74	7	7	6	322	1424	1499	346	1019	1040
V/C Ratio(X)	0.58	0.00	0.00	0.28	0.13	0.00	1.26	0.27	0.27	0.02	1.03	1.06
Avail Cap(c_a), veh/h	515	0	237	103	108	92	322	1424	1499	346	1019	1040
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(l)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	0.0	0.0	74.5	74.5	0.0	61.5	4.0	4.0	14.0	32.2	32.2
Incr Delay (d2), s/veh	3.3	0.0	0.0	20.3	8.0	0.0	138.0	0.5	0.5	0.1	35.2	44.8
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(50%),veh/ln	2.0	0.0	0.0	0.1	0.1	0.0	25.7	4.3	4.5	0.1	51.9	55.7
LnGrp Delay(d),s/veh	73.4	0.0	0.0	94.8	82.4	0.0	199.5	4.4	4.4	14.1	67.4	77.0
LnGrp LOS	E			F	F		F	A	A	B	F	F
Approach Vol, veh/h		93			3			1208			2154	
Approach Delay, s/veh		73.4			90.7			69.8			72.2	
Approach LOS		E			F			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		127.1		14.9	34.0	93.1		8.1				
Change Period (Y+Rc), s		* 7.5		8.0	7.0	7.5		7.5				
Max Green Setting (Gmax), s		* 97		22.0	27.0	62.5		8.5				
Max Q Clear Time (g_c+I1), s		10.5		5.9	29.0	87.6		2.2				
Green Ext Time (p_c), s		56.7		0.2	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			71.4									
HCM 2010 LOS			E									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

## *Appendix E*

# **Synchro Results – Build-Out: Right-In/Right-Out**

# HCM 2010 Signalized Intersection Summary

## 1: Normandy Blvd & Graves Avenue

9/19/2016

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Volume (veh/h)	296	135	135	302	343	321		
Number	6	16	5	2	7	14		
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	1900	1844	1863	1863	1863		
Adj Flow Rate, veh/h	322	147	147	328	373	349		
Adj No. of Lanes	2	0	1	1	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1015	454	502	1084	456	407		
Arrive On Green	0.43	0.43	0.07	0.58	0.26	0.26		
Sat Flow, veh/h	2473	1065	1756	1863	1774	1583		
Grp Volume(v), veh/h	238	231	147	328	373	349		
Grp Sat Flow(s),veh/h/ln	1770	1675	1756	1863	1774	1583		
Q Serve(g_s), s	8.0	8.3	4.0	8.0	17.8	18.9		
Cycle Q Clear(g_c), s	8.0	8.3	4.0	8.0	17.8	18.9		
Prop In Lane		0.64	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	755	715	502	1084	456	407		
V/C Ratio(X)	0.31	0.32	0.29	0.30	0.82	0.86		
Avail Cap(c_a), veh/h	755	715	619	1084	759	677		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	17.1	17.2	12.2	9.5	31.5	31.9		
Incr Delay (d2), s/veh	1.1	1.2	0.3	0.7	3.7	5.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.1	4.0	1.9	4.3	9.2	15.8		
LnGrp Delay(d),s/veh	18.2	18.4	12.6	10.3	35.2	37.8		
LnGrp LOS	B	B	B	B	D	D		
Approach Vol, veh/h	469			475	722			
Approach Delay, s/veh	18.3			11.0	36.4			
Approach LOS	B			B	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.4		29.6	14.0	46.4		
Change Period (Y+Rc), s		8.0		6.5	8.0	* 8		
Max Green Setting (Gmax), s		37.0		38.5	12.0	* 18		
Max Q Clear Time (g_c+I1), s		10.0		20.9	6.0	10.3		
Green Ext Time (p_c), s		4.7		2.2	0.2	2.7		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			24.1					
HCM 2010 LOS			C					
<b>Notes</b>								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

# HCM 2010 Signalized Intersection Summary

## 2: Howland Boulevard & Graves Avenue

9/19/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	242	1	392	1	0	2	451	1804	2	5	643	43
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	1844	1863	1863	1900	1900	1900	1845	1900	1900	1900	1823	1900
Adj Flow Rate, veh/h	270	0	0	1	0	1	501	2004	1	6	714	38
Adj No. of Lanes	2	0	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	0	2	0	0	0	3	0	0	0	4	4
Cap, veh/h	330	0	149	5	5	4	527	2737	1	136	1301	69
Arrive On Green	0.09	0.00	0.00	0.00	0.00	0.00	0.30	0.74	0.74	0.39	0.39	0.39
Sat Flow, veh/h	3513	0	1583	1810	1900	1615	1757	3703	2	218	3345	178
Grp Volume(v), veh/h	270	0	0	1	0	1	501	977	1028	6	369	383
Grp Sat Flow(s),veh/h/ln	1756	0	1583	1810	1900	1615	1757	1805	1900	218	1731	1791
Q Serve(g_s), s	10.6	0.0	0.0	0.1	0.0	0.1	39.1	43.1	43.1	2.4	23.2	23.2
Cycle Q Clear(g_c), s	10.6	0.0	0.0	0.1	0.0	0.1	39.1	43.1	43.1	2.4	23.2	23.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	330	0	149	5	5	4	527	1334	1404	136	674	697
V/C Ratio(X)	0.82	0.00	0.00	0.21	0.00	0.23	0.95	0.73	0.73	0.04	0.55	0.55
Avail Cap(c_a), veh/h	552	0	249	110	115	98	590	1334	1404	136	674	697
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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	0.0	0.0	69.7	0.0	69.7	48.0	10.4	10.4	26.9	33.2	33.2
Incr Delay (d2), s/veh	5.0	0.0	0.0	19.9	0.0	25.3	24.1	3.6	3.4	0.6	3.2	3.1
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(50%),veh/ln	5.4	0.0	0.0	0.1	0.0	0.1	22.5	22.5	23.6	0.2	11.7	12.1
LnGrp Delay(d),s/veh	67.2	0.0	0.0	89.5	0.0	95.0	72.1	14.0	13.8	27.5	36.4	36.3
LnGrp LOS	E			F		F	E	B	B	C	D	D
Approach Vol, veh/h		270			2		2506			758		
Approach Delay, s/veh		67.2			92.3		25.5			36.3		
Approach LOS		E			F		C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		111.0		21.2	49.0	62.0		7.9				
Change Period (Y+Rc), s		* 7.5		8.0	7.0	7.5		7.5				
Max Green Setting (Gmax), s		* 87		22.0	47.0	32.5		8.5				
Max Q Clear Time (g_c+I1), s		45.1		12.6	41.1	25.2		2.1				
Green Ext Time (p_c), s		30.9		0.6	0.9	6.7		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			31.1									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	625	483	15	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	679	525	16	0	12

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	525	0	865
Stage 1	-	-	525
Stage 2	-	-	340
Critical Hdwy	4.12	-	6.63
Critical Hdwy Stg 1	-	-	5.43
Critical Hdwy Stg 2	-	-	5.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	1042	-	308
Stage 1	-	-	592
Stage 2	-	-	693
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1042	-	308
Mov Cap-2 Maneuver	-	-	308
Stage 1	-	-	592
Stage 2	-	-	693

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1042	-	-	-	552
HCM Lane V/C Ratio	-	-	-	-	0.022
HCM Control Delay (s)	0	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 2010 Signalized Intersection Summary  
 1: Normandy Blvd & Graves Avenue

9/19/2016

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Volume (veh/h)	523	347	207	342	137	122		
Number	6	16	5	2	7	14		
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	1900	1900	1862	1900	1900	1881		
Adj Flow Rate, veh/h	545	361	216	356	143	127		
Adj No. of Lanes	2	0	1	1	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	1	0	0	1		
Cap, veh/h	1189	787	463	1389	195	172		
Arrive On Green	0.57	0.57	0.07	0.73	0.11	0.11		
Sat Flow, veh/h	2178	1379	1774	1900	1810	1599		
Grp Volume(v), veh/h	472	434	216	356	143	127		
Grp Sat Flow(s),veh/h/ln	1805	1657	1774	1900	1810	1599		
Q Serve(g_s), s	13.7	13.7	4.2	5.6	6.9	6.9		
Cycle Q Clear(g_c), s	13.7	13.7	4.2	5.6	6.9	6.9		
Prop In Lane		0.83	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1030	946	463	1389	195	172		
V/C Ratio(X)	0.46	0.46	0.47	0.26	0.73	0.74		
Avail Cap(c_a), veh/h	1030	946	573	1389	774	684		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	11.2	11.2	7.9	4.0	38.9	38.9		
Incr Delay (d2), s/veh	1.5	1.6	0.7	0.4	5.3	6.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.2	6.7	2.1	3.0	3.7	6.3		
LnGrp Delay(d),s/veh	12.7	12.8	8.6	4.4	44.2	45.0		
LnGrp LOS	B	B	A	A	D	D		
Approach Vol, veh/h	906			572	270			
Approach Delay, s/veh	12.8			6.0	44.5			
Approach LOS	B			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		73.8		16.2	14.4	59.4		
Change Period (Y+Rc), s		8.0		6.5	8.0	* 8		
Max Green Setting (Gmax), s		37.0		38.5	12.0	* 18		
Max Q Clear Time (g_c+I1), s		7.6		8.9	6.2	15.7		
Green Ext Time (p_c), s		8.7		0.8	0.3	1.5		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			15.5					
HCM 2010 LOS			B					
<b>Notes</b>								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

HCM 2010 Signalized Intersection Summary  
 2: Howland Boulevard & Graves Avenue

9/19/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	92	0	602	2	1	6	393	762	1	6	1855	196
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	1826	1845	1900	1900	1900	1900	1881	1881	1900	1444	1881	1900
Adj Flow Rate, veh/h	97	0	0	2	1	0	414	802	1	6	1953	198
Adj No. of Lanes	2	0	1	1	1	1	1	2	0	1	2	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, %	3	0	0	0	0	0	1	1	1	0	1	1
Cap, veh/h	159	0	74	7	7	6	322	2919	4	346	1872	187
Arrive On Green	0.05	0.00	0.00	0.00	0.00	0.00	0.18	0.80	0.80	0.57	0.57	0.57
Sat Flow, veh/h	3479	0	1615	1810	1900	1615	1792	3663	5	523	3283	327
Grp Volume(v), veh/h	97	0	0	2	1	0	414	391	412	6	1048	1103
Grp Sat Flow(s),veh/h/ln	1739	0	1615	1810	1900	1615	1792	1787	1880	523	1787	1823
Q Serve(g_s), s	4.1	0.0	0.0	0.2	0.1	0.0	27.0	8.5	8.5	0.7	85.5	85.5
Cycle Q Clear(g_c), s	4.1	0.0	0.0	0.2	0.1	0.0	27.0	8.5	8.5	0.7	85.5	85.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.18
Lane Grp Cap(c), veh/h	159	0	74	7	7	6	322	1424	1499	346	1019	1040
V/C Ratio(X)	0.61	0.00	0.00	0.28	0.13	0.00	1.28	0.27	0.27	0.02	1.03	1.06
Avail Cap(c_a), veh/h	510	0	237	103	108	92	322	1424	1499	346	1019	1040
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	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	0.0	0.0	74.5	74.5	0.0	61.5	4.0	4.0	14.0	32.2	32.2
Incr Delay (d2), s/veh	3.7	0.0	0.0	20.3	8.0	0.0	149.3	0.5	0.5	0.1	35.7	45.5
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(50%),veh/ln	2.1	0.0	0.0	0.1	0.1	0.0	26.7	4.3	4.5	0.1	52.0	55.9
LnGrp Delay(d),s/veh	73.9	0.0	0.0	94.8	82.4	0.0	210.8	4.4	4.4	14.1	67.9	77.8
LnGrp LOS	E			F	F		F	A	A	B	F	F
Approach Vol, veh/h		97			3			1217			2157	
Approach Delay, s/veh		73.9			90.7			74.6			72.8	
Approach LOS		E			F			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		127.0		14.9	34.0	93.0		8.1				
Change Period (Y+Rc), s		* 7.5		8.0	7.0	7.5		7.5				
Max Green Setting (Gmax), s		* 97		22.0	27.0	62.5		8.5				
Max Q Clear Time (g_c+I1), s		10.5		6.1	29.0	87.5		2.2				
Green Ext Time (p_c), s		56.8		0.2	0.0	0.0		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	73.5
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	652	578	14	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	709	628	15	0	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	628	0	982
Stage 1	-	-	628
Stage 2	-	-	354
Critical Hdwy	4.12	-	6.63
Critical Hdwy Stg 1	-	-	5.43
Critical Hdwy Stg 2	-	-	5.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	954	-	261
Stage 1	-	-	531
Stage 2	-	-	682
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	954	-	261
Mov Cap-2 Maneuver	-	-	261
Stage 1	-	-	531
Stage 2	-	-	682

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	954	-	-	-	482
HCM Lane V/C Ratio	-	-	-	-	0.029
HCM Control Delay (s)	0	-	-	-	12.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

## *Appendix F*

# **Synchro Results – Build-Out: Full Intersection at Normandy**

HCM 2010 Signalized Intersection Summary  
 1: Normandy Blvd & Graves Avenue

9/27/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	294	135	126	300	0	343	2	319	8	1	2
Number	1	6	16	5	2	12	7	4	14	3	8	18
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	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	2	320	147	137	326	0	373	2	347	9	1	2
Adj No. of Lanes	0	2	0	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	352	158	255	649	0	401	2	360	99	11	22
Arrive On Green	0.15	0.15	0.15	0.08	0.35	0.00	0.23	0.23	0.23	0.08	0.08	0.08
Sat Flow, veh/h	4	2326	1041	1774	1863	0	1765	9	1583	1309	146	291
Grp Volume(v), veh/h	256	0	213	137	326	0	375	0	347	12	0	0
Grp Sat Flow(s),veh/h/ln	1860	0	1511	1774	1863	0	1774	0	1583	1746	0	0
Q Serve(g_s), s	1.7	0.0	9.2	4.1	9.1	0.0	13.7	0.0	14.3	0.4	0.0	0.0
Cycle Q Clear(g_c), s	8.9	0.0	9.2	4.1	9.1	0.0	13.7	0.0	14.3	0.4	0.0	0.0
Prop In Lane	0.01		0.69	1.00		0.00	0.99		1.00	0.75		0.17
Lane Grp Cap(c), veh/h	337	0	229	255	649	0	403	0	360	132	0	0
V/C Ratio(X)	0.76	0.00	0.93	0.54	0.50	0.00	0.93	0.00	0.96	0.09	0.00	0.00
Avail Cap(c_a), veh/h	337	0	229	255	649	0	403	0	360	132	0	0
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	0.0	27.7	20.8	17.0	0.0	25.0	0.0	25.2	28.4	0.0	0.0
Incr Delay (d2), s/veh	9.6	0.0	41.1	2.3	0.6	0.0	27.9	0.0	37.9	0.3	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(50%),veh/ln	5.4	0.0	6.5	2.1	4.7	0.0	9.8	0.0	10.1	0.2	0.0	0.0
LnGrp Delay(d),s/veh	37.1	0.0	68.8	23.0	17.6	0.0	52.9	0.0	63.2	28.7	0.0	0.0
LnGrp LOS	D		E	C	B		D		E	C		
Approach Vol, veh/h		469			463			722				12
Approach Delay, s/veh		51.6			19.2			57.8				28.7
Approach LOS		D			B			E				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		31.0		23.0	13.0	18.0		12.0				
Change Period (Y+Rc), s		8.0		8.0	8.0	*8		7.0				
Max Green Setting (Gmax), s		22.0		15.0	5.0	*10		5.0				
Max Q Clear Time (g_c+I1), s		11.1		16.3	6.1	11.2		2.4				
Green Ext Time (p_c), s		3.3		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			45.1									
HCM 2010 LOS			D									
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary  
 2: Howland Boulevard & Graves Avenue

9/27/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	238	1	392	1	0	2	451	1804	2	5	643	43
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	1844	1863	1863	1900	1900	1900	1845	1900	1900	1900	1823	1900
Adj Flow Rate, veh/h	265	0	0	1	0	1	501	2004	1	6	714	38
Adj No. of Lanes	2	0	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	0	2	0	0	0	3	0	0	0	4	4
Cap, veh/h	325	0	147	5	5	4	527	2742	1	136	1306	69
Arrive On Green	0.09	0.00	0.00	0.00	0.00	0.00	0.30	0.74	0.74	0.39	0.39	0.39
Sat Flow, veh/h	3513	0	1583	1810	1900	1615	1757	3703	2	218	3345	178
Grp Volume(v), veh/h	265	0	0	1	0	1	501	977	1028	6	369	383
Grp Sat Flow(s),veh/h/ln	1756	0	1583	1810	1900	1615	1757	1805	1900	218	1731	1791
Q Serve(g_s), s	10.4	0.0	0.0	0.1	0.0	0.1	39.1	42.9	42.9	2.4	23.1	23.2
Cycle Q Clear(g_c), s	10.4	0.0	0.0	0.1	0.0	0.1	39.1	42.9	42.9	2.4	23.1	23.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	325	0	147	5	5	4	527	1337	1407	136	676	700
V/C Ratio(X)	0.82	0.00	0.00	0.21	0.00	0.23	0.95	0.73	0.73	0.04	0.55	0.55
Avail Cap(c_a), veh/h	552	0	249	110	115	98	590	1337	1407	136	676	700
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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	0.0	0.0	69.7	0.0	69.7	48.0	10.3	10.3	26.7	33.1	33.1
Incr Delay (d2), s/veh	5.0	0.0	0.0	19.9	0.0	25.3	24.1	3.6	3.4	0.6	3.2	3.1
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(50%),veh/ln	5.3	0.0	0.0	0.1	0.0	0.1	22.5	22.5	23.6	0.2	11.7	12.1
LnGrp Delay(d),s/veh	67.3	0.0	0.0	89.5	0.0	95.0	72.1	13.8	13.7	27.3	36.2	36.1
LnGrp LOS	E			F		F	E	B	B	C	D	D
Approach Vol, veh/h	265			2			2506			758		
Approach Delay, s/veh	67.3			92.3			25.4			36.1		
Approach LOS	E			F			C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	111.2		21.0		49.0		62.2		7.9			
Change Period (Y+Rc), s	* 7.5		8.0		7.0		7.5		7.5			
Max Green Setting (Gmax), s	* 87		22.0		47.0		32.5		8.5			
Max Q Clear Time (g_c+I1), s	44.9		12.4		41.1		25.2		2.1			
Green Ext Time (p_c), s	31.0		0.6		0.9		6.8		0.0			
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay	30.9											
HCM 2010 LOS	C											
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	621	483	11	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	675	525	12	0	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	525	0	863
Stage 1	-	-	525
Stage 2	-	-	338
Critical Hdwy	4.12	-	6.63
Critical Hdwy Stg 1	-	-	5.43
Critical Hdwy Stg 2	-	-	5.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	1042	-	309
Stage 1	-	-	592
Stage 2	-	-	695
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1042	-	309
Mov Cap-2 Maneuver	-	-	309
Stage 1	-	-	592
Stage 2	-	-	695

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1042	-	-	-	552
HCM Lane V/C Ratio	-	-	-	-	0.006
HCM Control Delay (s)	0	-	-	-	11.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

# HCM 2010 Signalized Intersection Summary

## 1: Normandy Blvd & Graves Avenue

9/27/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	519	347	197	339	0	137	1	121	9	1	3
Number	1	6	16	5	2	12	7	4	14	3	8	18
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	1710	1900	1900	1881	1900	1900	1900	1900	1881	1900	1863	1900
Adj Flow Rate, veh/h	4	541	361	205	353	0	143	1	126	10	1	3
Adj No. of Lanes	0	2	0	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.92	0.96	0.96	0.96	0.96	0.92	0.96	0.92	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	1	0	0	2	2	1	2	2	2
Cap, veh/h	56	539	358	245	878	0	191	1	170	131	13	39
Arrive On Green	0.27	0.27	0.27	0.08	0.46	0.00	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	4	2034	1350	1792	1900	0	1797	13	1599	1239	124	372
Grp Volume(v), veh/h	507	0	399	205	353	0	144	0	126	14	0	0
Grp Sat Flow(s),veh/h/ln	1897	0	1491	1792	1900	0	1810	0	1599	1735	0	0
Q Serve(g_s), s	4.2	0.0	17.5	5.0	8.1	0.0	5.1	0.0	5.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	17.5	0.0	17.5	5.0	8.1	0.0	5.1	0.0	5.0	0.5	0.0	0.0
Prop In Lane	0.01		0.91	1.00		0.00	0.99		1.00	0.71		0.21
Lane Grp Cap(c), veh/h	558	0	395	245	878	0	192	0	170	184	0	0
V/C Ratio(X)	0.91	0.00	1.01	0.84	0.40	0.00	0.75	0.00	0.74	0.08	0.00	0.00
Avail Cap(c_a), veh/h	558	0	395	245	878	0	192	0	170	184	0	0
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.3	0.0	24.3	18.4	11.7	0.0	28.7	0.0	28.6	26.6	0.0	0.0
Incr Delay (d2), s/veh	19.0	0.0	47.4	21.7	0.3	0.0	15.1	0.0	16.1	0.2	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(50%),veh/ln	12.1	0.0	12.3	2.7	4.3	0.0	3.4	0.0	3.0	0.2	0.0	0.0
LnGrp Delay(d),s/veh	43.3	0.0	71.7	40.2	12.0	0.0	43.8	0.0	44.7	26.8	0.0	0.0
LnGrp LOS	D		F	D	B		D		D	C		
Approach Vol, veh/h		906			558			270			14	
Approach Delay, s/veh		55.8			22.4			44.2			26.8	
Approach LOS		E			C			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		38.5		13.5	13.0	25.5		14.0				
Change Period (Y+Rc), s		8.0		6.5	8.0	* 8		7.0				
Max Green Setting (Gmax), s		29.5		7.0	5.0	* 18		7.0				
Max Q Clear Time (g_c+I1), s		10.1		7.1	7.0	19.5		2.5				
Green Ext Time (p_c), s		7.5		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			43.1									
HCM 2010 LOS			D									
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary  
 2: Howland Boulevard & Graves Avenue

9/27/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	0	602	2	1	6	393	762	1	6	1855	196
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	1845	1845	1900	1900	1900	1900	1881	1881	1900	1444	1881	1900
Adj Flow Rate, veh/h	94	0	0	2	1	0	414	802	1	6	1953	198
Adj No. of Lanes	2	0	1	1	1	1	1	2	0	1	2	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, %	3	0	0	0	0	0	1	1	1	0	1	1
Cap, veh/h	161	0	74	7	7	6	322	2919	4	346	1873	187
Arrive On Green	0.05	0.00	0.00	0.00	0.00	0.00	0.18	0.80	0.80	0.57	0.57	0.57
Sat Flow, veh/h	3514	0	1615	1810	1900	1615	1792	3663	5	523	3283	327
Grp Volume(v), veh/h	94	0	0	2	1	0	414	391	412	6	1048	1103
Grp Sat Flow(s),veh/h/ln1757	0	1615	1810	1900	1615	1792	1787	1880	523	1787	1823	
Q Serve(g_s), s	3.9	0.0	0.0	0.2	0.1	0.0	27.0	8.5	8.5	0.7	85.6	85.6
Cycle Q Clear(g_c), s	3.9	0.0	0.0	0.2	0.1	0.0	27.0	8.5	8.5	0.7	85.6	85.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.18
Lane Grp Cap(c), veh/h	161	0	74	7	7	6	322	1424	1499	346	1019	1040
V/C Ratio(X)	0.58	0.00	0.00	0.28	0.13	0.00	1.28	0.27	0.27	0.02	1.03	1.06
Avail Cap(c_a), veh/h	515	0	237	103	108	92	322	1424	1499	346	1019	1040
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(l)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	0.0	0.0	74.5	74.5	0.0	61.5	4.0	4.0	14.0	32.2	32.2
Incr Delay (d2), s/veh	3.4	0.0	0.0	20.3	8.0	0.0	149.3	0.5	0.5	0.1	35.6	45.5
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(50%),veh/ln2.0	0.0	0.0	0.0	0.1	0.1	0.0	26.7	4.3	4.5	0.1	52.0	55.9
LnGrp Delay(d),s/veh	73.5	0.0	0.0	94.8	82.4	0.0	210.8	4.4	4.4	14.1	67.8	77.7
LnGrp LOS	E			F	F		F	A	A	B	F	F
Approach Vol, veh/h		94			3			1217			2157	
Approach Delay, s/veh		73.5			90.7			74.6			72.7	
Approach LOS		E			F			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		127.1		14.9	34.0	93.1		8.1				
Change Period (Y+Rc), s		* 7.5		8.0	7.0	7.5		7.5				
Max Green Setting (Gmax), s		* 97		22.0	27.0	62.5		8.5				
Max Q Clear Time (g_c+l1), s		10.5		5.9	29.0	87.6		2.2				
Green Ext Time (p_c), s		56.8		0.2	0.0	0.0		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	73.4
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

**Intersection**

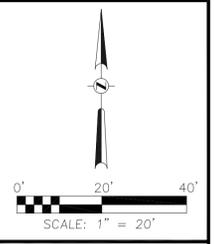
Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	649	578	11	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	705	628	12	0	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	628	0	981
Stage 1	-	-	628
Stage 2	-	-	353
Critical Hdwy	4.12	-	6.63
Critical Hdwy Stg 1	-	-	5.43
Critical Hdwy Stg 2	-	-	5.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	954	-	261
Stage 1	-	-	531
Stage 2	-	-	683
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	954	-	261
Mov Cap-2 Maneuver	-	-	261
Stage 1	-	-	531
Stage 2	-	-	683

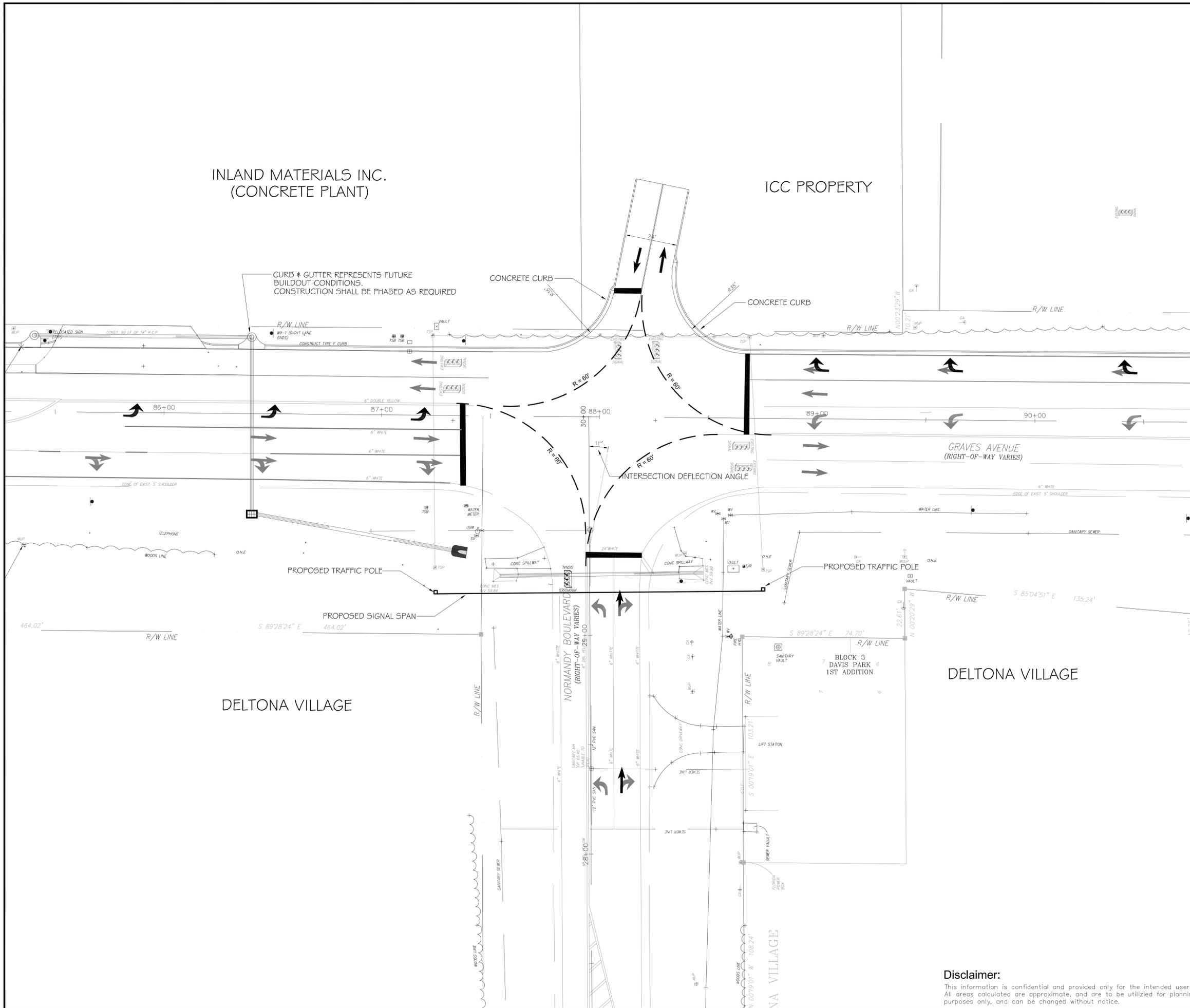
Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	954	-	-	-	482
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	12.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



INLAND MATERIALS INC.  
(CONCRETE PLANT)

ICC PROPERTY



DELTONA VILLAGE

DELTONA VILLAGE

INTERSECTION SKETCH PLAN  
Graves Ave. & Normandy Blvd.  
ICC Parcel  
EPIC Theatres

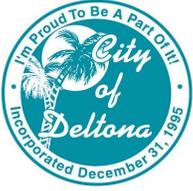


• Engineering Consultants •  
PO BOX 450006 • Kissimmee, FL 34745  
Phone: (407) 738-1979 Fax: (407) 348-7552

**Disclaimer:**

This information is confidential and provided only for the intended user. All areas calculated are approximate, and are to be utilized for planning purposes only, and can be changed without notice.





## Agenda Memo

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**AGENDA ITEM: B.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 9 - B

**SUBJECT:**

Request for approval of Resolution No. 2016-51, changing the covenants and restrictions as to the Community Center on Lake Monroe by repealing such covenants and restrictions - Becky Vose, Legal Department (407) 448-0111.

Strategic Goal: Economic Development

**LOCATION:**

980 Lakeshore Drive, Deltona

**BACKGROUND:**

On November 12, 1976, the Deltona Corporation imposed certain covenants and restrictions as to the property located at 980 Lakeshore Drive, Deltona.

Such covenants and restrictions expired on November 1, 2006, with the provision that they would automatically be extended for successive periods of ten (10) years, unless by vote of a majority of the then owner of the Property, it is agreed to change the covenants and restrictions in whole or in part.

The City of Deltona is currently the owner of the Property and the City finds it in the best interest of the City and its residents to repeal such covenants and restrictions.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

Legal Department

**STAFF RECOMMENDATION PRESENTED BY:**

Becky Vose, City Attorney - That the City Commission adopt Resolution No. 2016-51 changing the covenants and restrictions as to the Community Center on Lake Monroe by repealing such covenants and restrictions.

**POTENTIAL MOTION:**

"I move to adopt Resolution No. 2016-51 changing the covenants and restrictions as to the

---

**AGENDA ITEM: B.**

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Community Center on Lake Monroe by repealing such covenants and restrictions.”

**RESOLUTION NO. 2016-51**

**A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA, CHANGING THE COVENANTS AND RESTRICTIONS AS TO THE COMMUNITY CENTER ON LAKE MONROE BY REPEALING SUCH COVENANTS AND RESTRICTIONS; AND PROVIDING FOR CONFLICTS AND AN EFFECTIVE DATE**

**WHEREAS**, on November 12, 1976, the Deltona Corporation imposed certain covenants and restrictions as to the property described in the attached Exhibit "A" ("Property"); and

**WHEREAS**, such covenants and restrictions expired on November 1, 2006, with the proviso that they would automatically be extended for successive periods of ten (10) years, unless by vote of a majority of the then owner of the Property, it is agreed to change the covenants and restrictions in whole or in part; and

**WHEREAS**, the City of Deltona is currently the owner of the Property; and

**WHEREAS**, the City of Deltona finds it in the best interest of the City and its residents to repeal such covenants and restrictions.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA:**

**SECTION 1:** The City of Deltona, the owner of the Property described in the attached Exhibit "A", hereby changes the covenants and restrictions imposed by that certain Declaration of Restrictions dated November 12, 1976, by the Deltona Corporation, by repealing such covenants and restrictions.

**SECTION 2. Conflicts.** All resolutions or parts of resolutions in conflict herewith be and the same are hereby repealed.

**SECTION 3. Effective Date.** This resolution shall take effect on October 31, 2016 so as to prevent the covenants and restrictions as to the Property from being extended.

**PASSED AND ADOPTED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2016.**

BY:

\_\_\_\_\_  
JOHN C. MASIARCZYK, SR., Mayor

ATTEST:

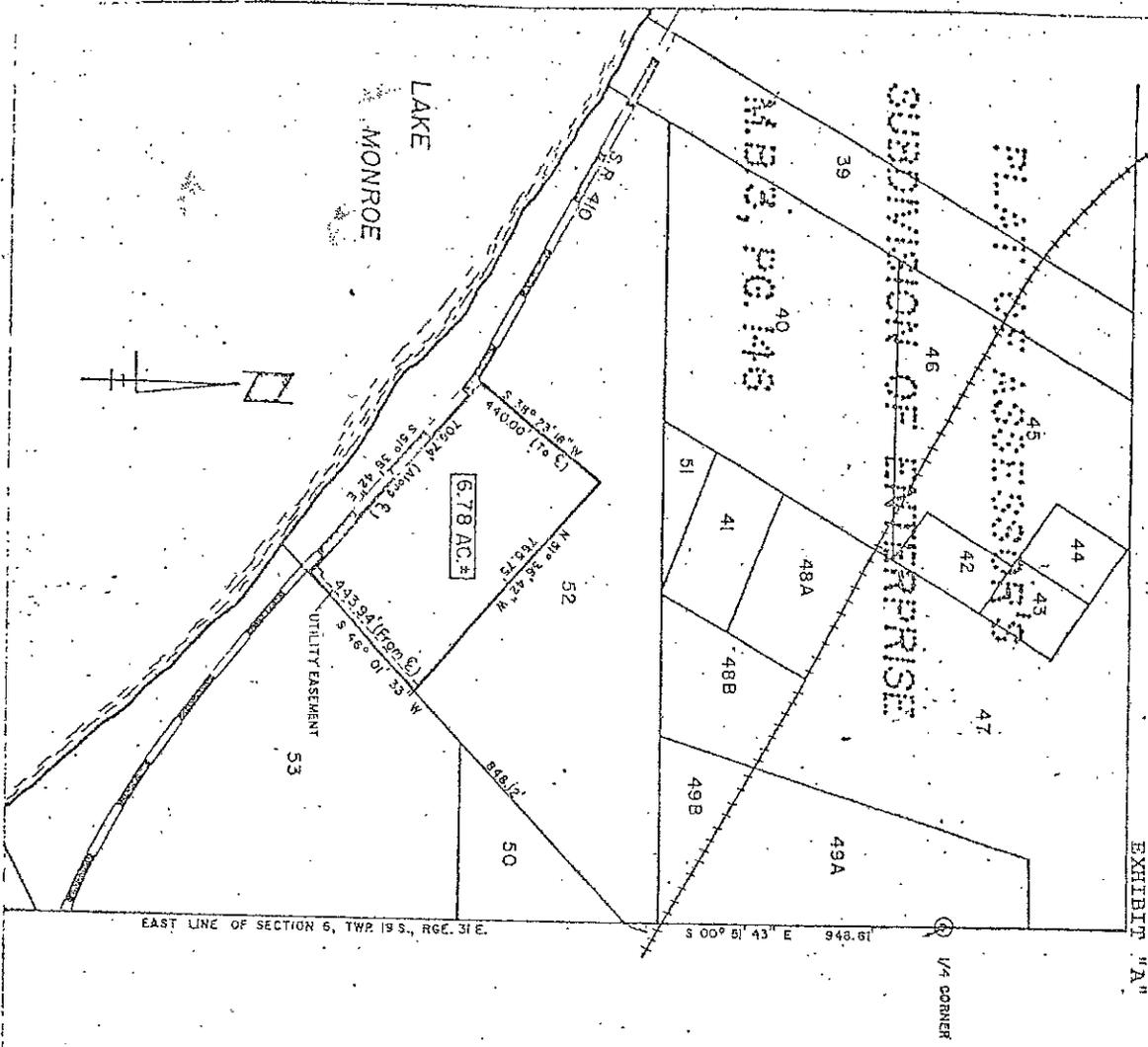
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JOYCE RAFTERY, City Clerk

Approved as to form and legality for use and  
reliance of the City of Deltona, Florida:

---

GRETCHEN R. H. VOSE, City Attorney



LEGAL DESCRIPTION

That certain parcel of land lying in and being a part of Lot 52 of the PLAT OF ASSESSOR'S SUBDIVISION OF ENTERPRISE, according to the plat thereof as recorded in Map Book 3, Page 146 of the Public Records of Volusia County, Florida, said plat superceding the plat recorded in Map Book 3, Page 93, Public Records of Volusia County, Florida,

Being more particularly described as follows:

Commence at the East 1/4 corner of Section 5, Township 19 South, Range 31 East, Volusia County, Florida; run thence S 00° 51' 43" E, along the East boundary line of said Section 6, for a distance of 948.61 feet to the intersection of said East boundary line with the Southeastern boundary line of aforesaid Lot 52; run thence S 46° 01' 33" W, along said Southeastern boundary line of Lot 52 for a distance of 848.12 feet to the POINT OF BEGINNING of the parcel of land hereinafter described; thence, leaving said Southeastern boundary line, run N 51° 35' 42" W for a distance of 755.75 feet; thence run S 36° 23' 19" W for a distance of 440.00 feet to a point on the centerline of State Road No. 410; thence run S 51° 36' 42" E, along said centerline, for a distance of 708.74 feet to its intersection with the aforementioned Southeastern boundary line of Lot 52; run thence N 46° 01' 33" E, along said Southeastern boundary line, for a distance of 443.94 feet to the Point of Beginning. LESS AND EXCEPT the right-of-way for State Road 410, containing 6.78 acres more or less.

THE DELTONA CORPORATION - ENGINEERING DEPT  
 COMMUNITY CENTER ON LAKE MONROE  
 EASEMENT CS 11-176 Date 8-13-76 Scale 1" = 300' Dwg No. 68 Sheet 1 of 1  
 Revision By: REX Date Drawn By: C.S. Written by: C.S. Approved by:

James L. Shroads, Attorney  
3250 S.W. 17th Avenue  
Miami, Florida 33129

TO WHOM IT MAY CONCERN

DECLARATION OF RESTRICTIONS

\* \* \* \* \*

WHEREAS, THE DELTONA CORPORATION, a Delaware corporation, authorized to transact business in the State of Florida, hereinafter referred to as Owner, holds record title to the following described property, situate, lying and being in Volusia County, Florida; to-wit:

See Exhibit A attached hereto and made a part hereof.

and,

WHEREAS, the above described property is not subject to any restrictions or limitations of record; and

WHEREAS, it is now desired by the Owner to place restrictions and limitations of record on the above described property and to limit the purposes for which the property shall be used.

NOW, THEREFORE, the Owner does hereby declare that;

(1) the above described property is restricted as hereinafter set forth; (2) all restrictions and limitations set forth hereinafter shall be accepted as part of the consideration for any agreement for deed or any deed of conveyance hereafter made pertaining to the above described property and shall be one of the express conditions thereof; and (3) the restrictions and limitations set forth hereinafter shall be covenants that run with the land.

1. Use Restrictions

The above described property, located in Volusia County, Florida shall be known and described as a community center site and said property or any buildings constructed thereon may only be used for the following purposes: Outdoor playgrounds, playfields and tot lots, stadia and fairgrounds, camps and campgrounds, swimming pools, community centers, park sites, conservation lands, wildlife areas, libraries, schools for adult education, country clubs, non profit membership organizations, and charitable organizations.

2. Setbacks

No building shall be erected on the above described property nearer than TWENTY-FIVE (25) feet from the front property line; nearer than TWENTY-FIVE

(25) feet from the rear property line; nor nearer than TWENTY-FIVE (25) feet from the side property line. For purpose of this restriction, eaves and steps shall not be considered part of a building or structure; however, this shall not be construed to permit any portion of eaves or steps to extend over any property line.

### 3. General Restrictions

(A) No noxious or offensive trade shall be carried on upon any portion of the above described property nor shall anything be done thereon which may be or become an annoyance to the general neighborhood.

(B) At no time shall any mobile home, camping trailer, tent, shack, basement, garage, barn, or similar outbuilding or temporary shelter be used as a residence, temporarily or permanently. However, and notwithstanding the foregoing, a live-in night watchman may be allowed to reside upon the premises upon approval by The Deltona Corporation, its successors or assigns.

(C) No oil drilling, oil development, oil refining, quarrying or mining operations of any kind shall be permitted upon the above described property; no oil wells, tanks, tunnels, mineral excavations or shafts shall be permitted upon the property; and no derrick or other structure designed for use in boring for oil or natural gas shall be erected, maintained or permitted upon the property.

(D) No animals, livestock or poultry of any kind shall be raised, bred or kept upon the above described property.

(E) This tract shall not be used or maintained as a dumping ground for rubbish. Trash, garbage, or other waste shall not be kept except in sanitary containers, which shall be maintained in a clean and sanitary condition. No incinerator or similar device for the disposition of such material shall be allowed.

### 4. Obstructions to Sight Lines

No fence, sign, wall, hedge or shrub planting which obstructs sight shall be placed or permitted to remain on any corner where a parking lot entrance road enters a street within FIFTY (50) feet from the intersection of the street center line and the center line of the entrance road. No tree shall be permitted to remain within such distance of such intersections unless the foliage line is maintained at sufficient height to prevent obstruction of such sight lines.

5. Drainage

No changes in elevations of the above described property shall be made which will interfere with the drainage of or otherwise cause undue hardship on adjoining property.

6. Architectural Approval

No building or sign shall be erected nor shall alterations or additions be made to existing buildings or signs located on the above described property until the design and location thereof shall have been approved in writing by a committee appointed by the Owner, its successors or assigns; however, if such a committee is not in existence or fails to take official action in approving or disapproving of any designs or location within thirty (30) days after submission for approval, then such approval shall not be required, but the design or location must nevertheless conform to and be in harmony with existing structures on the lots or tracts in the adjacent Deltona Lakes Subdivision.

7. Definition of Successors and Assigns

As used in these restrictions, the words "successors and assigns" shall not be deemed to refer to individual purchasers of property within the Deltona Lakes Subdivision, but shall be deemed to refer to the successors or assigns of legal or equitable interests of the Owner who are designated as such by an instrument in writing signed by the Owner and recorded among the Public Records of Volusia County, Florida, specifically referring to this provision of these restrictions.

8. Duration of Restrictions

These covenants and restrictions are to run with the land and shall be binding upon the undersigned and upon all the parties and all persons owning or using the above described property until November 1, 2006, at which time these covenants and restrictions shall be automatically extended for successive periods of ten (10) years, unless by vote of a majority of the then owner of the above described property, it is agreed to change these covenants and restrictions in whole or in part.

9. Remedies For Violations

In the event of a violation or breach of any of these restrictions by any person or concern claiming by, through or under the Owner, or by virtue of any judicial proceedings, the Owner, its successors and assigns,

and the lot or tract owners of the Deltona Lakes Subdivision or any of them jointly or severally, shall have the right to proceed at law or in equity to compel compliance with the terms hereof or to prevent the violation or breach of any of them. In addition to the foregoing, the Owner, its successors or assigns, shall have the right whenever there shall have been built on the above described property any structure which is in violation of these restrictions, to enter upon the property where such violation exists and summarily abate or remove the same at the expense of the fee title owner, and such entry and abatement or removal shall not be deemed a trespass. The failure to enforce any right, reservation, restriction or condition contained in this Declaration of Restrictions, however long continued, shall not be deemed a waiver of the right to do so thereafter as to the same breach or as to a breach occurring prior or subsequent thereto and shall not bar or affect its enforcement.

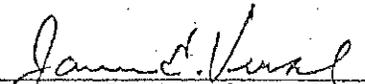
10. Severability

Invalidation or removal of any of these covenants by judgment, decree, Court Order or amendment, shall in no way affect any of the other provisions which shall remain in full force and effect.

IN WITNESS WHEREOF, the Owner, a Florida corporation, has caused these presents to be executed by its proper officers, who are thereunto duly authorized, and its corporate seal to be affixed, at Miami, Dade County, Florida, this 12<sup>th</sup> day of November, 1976.

THE DELTONA CORPORATION

BY:

  
James E. Vensel  
Senior Vice President

Attest:

  
Michelle K. Garbis  
Corporate Secretary

STATE OF FLORIDA

: SS

COUNTY OF DADE

I HEREBY CERTIFY that on this 12<sup>th</sup> day of November, A.D. 1976, before me personally appeared JAMES E. VENSEL and MICHELLE R. GARBIS, Senior Vice-President and Corporate Secretary, respectively of The Deltona Corporation, a Delaware corporation, to me known to be the persons described in and who executed the foregoing instrument as such officers for the uses and purposes therein mentioned, and that they affixed thereto the official seal of said corporation, and that said instrument is the act and deed of said corporation.

WITNESS my signature and official seal at Miami, in the County of Dade and State of Florida, the day and year last aforesaid.

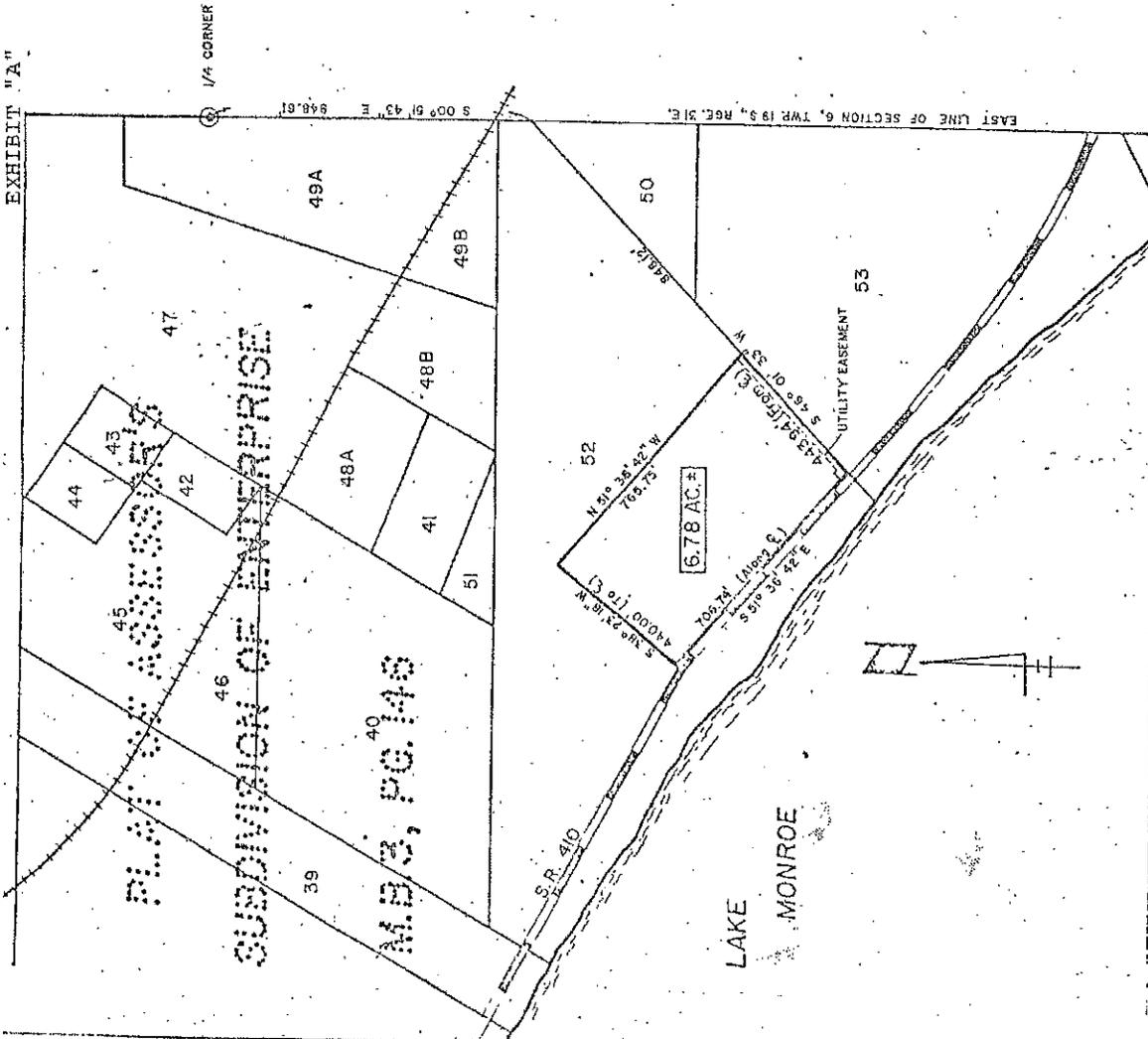
*Ann Victoria Fitzpatrick*

Notary Public, State of Florida

My Commission Expires:

NOTARY PUBLIC STATE OF FLORIDA AT LARGE  
MY COMMISSION EXPIRES JULY 5 1980  
BONDED THRU GENERAL INS. UNDERWRITERS

EXHIBIT "A"



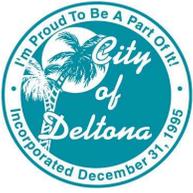
COMMUNITY CENTER ON LAKE MONROE  
 CONVEYANCE TO  
 THE DELTONA CIVIC ASSOCIATION, INC.  
 LEGAL DESCRIPTION

That certain parcel of land lying in and being a part of Lot 52 of the PLAT OF ASSESSOR'S SUBDIVISION OF ENTERPRISE, according to the plat thereof as recorded in Map Book 3, Page 145 of the Public Records of Volusia County, Florida, said plat superceding the plat recorded in Map Book 3, Page 93, Public Records of Volusia County, Florida, being more particularly described as follows:

Commence at the East 1/4 corner of Section 6, Township 19 South, Range 31 East, Volusia County, Florida; run thence S 08° 51' 43" E, along the East boundary line of said Section 6, for a distance of 943.61 feet to the intersection of said East boundary line with the Southeastly boundary line of aforesaid Lot 52; run thence S 46° 01' 33" W, along said Southeastly boundary line of Lot 52 for a distance of 842.12 feet to the POINT OF BEGINNING of the parcel of land hereinafter described; thence, leaving said Southeastly boundary line, run N 51° 36' 42" W for a distance of 765.75 feet; thence run S 38° 23' 13" W for a distance of 440.00 feet to a point on the centerline of State Road No. 410; thence run S 61° 36' 42" E, along said centerline, for a distance of 706.74 feet to it's intersection with the aforementioned Southeastly boundary line of Lot 52; run thence N 46° 01' 33" E, along said Southeastly boundary line, for a distance of 443.94 feet to the Point of Beginning, LESS AND EXCEPT the right-of-way for State Road 410.

Containing 6.78 acres more or less.

THE DELTONA CORPORATION - ENGINEERING DEPT  
 COMMUNITY CENTER ON LAKE MONROE  
 EASEMENT, CS 11-1-76, Date 8-13-76, Scale 1" = 300', Plat No. 68, Sheet 1 of 1  
 Revision By: [Blank] Date: [Blank] Written By: C.S. [Blank] Approved by: [Blank]



## Agenda Memo

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**AGENDA ITEM: C.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 9 - C

**SUBJECT:**

Request for approval of Resolution No. 2016-53, a Resolution of the City Commission of the City of Deltona, Florida Waiving Building Permit Fees for Repair of Storm Related Damages until the end of 2016.- Jane K. Shang, City Manager (386) 878-8850.

Strategic Goals: Public Safety.

**LOCATION:**

City Wide

**BACKGROUND:**

On October 3, 2016 the Honorable Rick Scott, Governor of the State of Florida, issued Executive Order Number 16-230 declaring a state of emergency in the State of Florida due to Hurricane Matthew. On October 5, 2016 the City of Deltona declared a state of local emergency in anticipation of Hurricane Matthew. Hurricane Matthew caused significant damage to properties within the City of Deltona. It is the recommendation of the City Manager that building permit fees for repair of storm related damages be waived until the end of 2016.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

Jane K. Shang, City Manager 386-878-8850

**STAFF RECOMMENDATION PRESENTED BY:**

Jane K. Shang, City Manager - It is the recommendation of the City Manager that building permit fees for repair of storm related damages be waived until the end of 2016.

**POTENTIAL MOTION:**

"I move to adopt Resolution No. 2016-53, a Resolution of the City Commission of the City of Deltona, Florida waiving building permit fees for repair of storm related damages until the end of 2016."

**RESOLUTION 2016-53**

**A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA WAIVING BUILDING PERMIT FEES FOR REPAIR OF STORM RELATED DAMAGES UNTIL END OF 2016**

**WHEREAS**, Section 252.38(3), Florida Statutes, authorizes the City of Deltona to declare a state of local emergency, to enable certain emergency management powers, and to waive the procedures and formalities otherwise required of political subdivisions by law; and

**WHEREAS**, on October 3, 2016 the Honorable Rick Scott, Governor of the State of Florida, issued Executive Order Number 16-230 declaring a state of emergency in the State of Florida due to Hurricane Matthew; and

**WHEREAS**, the City of Deltona declared a state of local emergency on October 5, 2016, in anticipation of Hurricane Matthew; and

**WHEREAS**, Hurricane Matthew caused significant damage to properties within the City of Deltona; and

**WHEREAS**, Volusia County and some other cities have determined it best to waive permit fees for storm related damages until the end of 2016; and

**WHEREAS**, it is the recommendation of the City Manager that building permit fees for repair of storm related damages be waived until the end of 2016; and

**WHEREAS**, at the City Commission meeting on October 10, 2016, the City Commission agreed with the proposal that building permit fees for the repair of storm related damages be waived for a period of time.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA:**

Building permit fees for the repair of storm related damages shall be waived by the City of Deltona beginning October 10, 2016, and such waiver shall remain in effect until the end of 2016.

**DONE AND ORDERED** in Deltona, Volusia County, Florida, this 17th day of October 2016.

**PASSED AND ADOPTED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA THIS 17TH DAY OF OCTOBER, 2016.**

BY: \_\_\_\_\_  
JOHN C. MASIARCZYK, SR., Mayor

ATTEST:

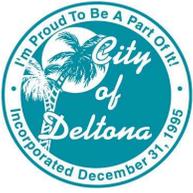
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JOYCE RAFTERY, CMC, City Clerk

Approved as to form & legality for use and  
reliance by the City of Deltona, Florida only

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GRETCHEN R. H. VOSE, City Attorney



## Agenda Memo

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**AGENDA ITEM: D.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 9 - D

**SUBJECT:**

Request for approval of Resolution No. 2016-54, a Resolution of the City Commission of the City of Deltona, Florida Ratifying Agreement for As Needed Emergency Debris Monitoring Services.- Jane K. Shang, City Manager (386) 878-8850.

Strategic Goals: Public Safety

**LOCATION:**

City Wide

**BACKGROUND:**

On October 3, 2016 the Honorable Rick Scott, Governor of the State of Florida, issued Executive Order Number 16-230 declaring a state of emergency in the State of Florida due to Hurricane Matthew. On October 5, 2016 the City of Deltona declared a state of local emergency in anticipation of Hurricane Matthew. Hurricane Matthew caused significant damage to properties within the City of Deltona. On May 21, 2014, the City of Deltona entered into an Agreement between the City of Deltona, Florida and Leidos, Inc. for As Needed Emergency Debris Monitoring Services per RFP # PW 14-03 ("Agreement"). The Agreement provides that the Agreement may not be assigned or transferred in any manner. The assets division of Leidos, Inc. that provides the services set forth in the Agreement was acquired by Tetra Tech, Inc. on August 23, 2014. In order to avoid any confusion or misunderstanding with regard to the ability of the City of Deltona to utilize the services provided for under the Agreement, and to avoid any issues regarding the reimbursement of expenses incurred under the Agreement by FEMA, it is deemed in the best interest of the City of Deltona to formally ratify the Agreement and to affirm that the services under the Agreement shall be performed by Tetra Tech as the successor of Leidos, Inc., and that payments under the Agreement shall be paid to Tetra Tech, as the successor of Leidos, Inc.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

Jane K. Shang, City Manager 386-878-8850

**STAFF RECOMMENDATION PRESENTED BY:**

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**AGENDA ITEM: D.**

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Jane K. Shang, City Manager - The City Manager recommends for the City Commission to Approve and Adopt Resolution No. 2016-54, a Resolution of the City Commission of the City of Deltona, Florida Ratifying Agreement for As Needed Emergency Debris Monitoring Services.

**POTENTIAL MOTION:**

“I move to approve Resolution No. 2016-54, a Resolution of the City Commission of the City of Deltona, Florida Ratifying Agreement for As Needed Emergency Debris Monitoring Services.”

## **RESOLUTION NO. 2016-54**

### **A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA RATIFYING AGREEMENT FOR AS NEEDED EMERGENCY DEBRIS MONITORING SERVICES**

**WHEREAS**, Section 252.38(3), Florida Statutes, authorizes the City of Deltona to declare a state of local emergency, to enable certain emergency management powers, and to waive the procedures and formalities otherwise required of political subdivisions by law; and

**WHEREAS**, on October 3, 2016 the Honorable Rick Scott, Governor of the State of Florida, issued Executive Order Number 16-230 declaring a state of emergency in the State of Florida due to Hurricane Matthew; and

**WHEREAS**, the City of Deltona declared a state of local emergency on October 5, 2016, in anticipation of Hurricane Matthew; and

**WHEREAS**, Hurricane Matthew caused significant damages within the City of Deltona; and

**WHEREAS**, on May 21, 2014, the City of Deltona entered into an Agreement Between City of Deltona, Florida and Leidos, Inc. for As Needed Emergency Debris Monitoring Services Per RFP # PW 14-03 (“Agreement”); and

**WHEREAS**, the Agreement provides that the Agreement may not be assigned or transferred in any manner; and

**WHEREAS**, the assets of the division of Leidos, Inc. that provides the services set forth in the Agreement was acquired by Tetra Tech, Inc. on August 23, 2014; and

**WHEREAS**, in order to avoid any confusion or misunderstanding with regard to the ability of the City of Deltona to utilize the services provided for under the Agreement, and to avoid any issues regarding the reimbursement of expenses incurred under the Agreement by FEMA, it is deemed in the best interest of the City of Deltona to formally ratify the Agreement and to affirm that the services under the Agreement shall be performed by Tetra Tech as the successor of Leidos, Inc., and that payments under the Agreement shall be paid to Tetra Tech, as the successor of Leidos, Inc.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA:**

The City of Deltona hereby formally ratifies the Agreement Between City of Deltona, Florida and Leidos, Inc. for As Needed Emergency Debris Monitoring Services Per RFP # PW 14-03 (“Agreement”); and acknowledges that the services under the Agreement shall be performed by Tetra Tech as the successor of Leidos, Inc., and that payments under the Agreement shall be

paid to Tetra Tech, as the successor of Leidos, Inc. Otherwise, the Agreement shall remain unchanged.

**DONE AND ORDERED** in Deltona, Volusia County, Florida, this 17th day of October 2016.

**PASSED AND ADOPTED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA THIS 17TH DAY OF OCTOBER, 2016.**

BY: \_\_\_\_\_  
JOHN C. MASIARCZYK, SR., Mayor

ATTEST:

\_\_\_\_\_  
JOYCE RAFTERY, CMC, MMC, City Clerk

Approved as to form & legality for use and  
reliance by the City of Deltona, Florida only

\_\_\_\_\_  
GRETCHEN R. H. VOSE, City Attorney

**AGREEMENT BETWEEN  
CITY OF DELTONA, FLORIDA AND  
LEIDOS, INC.**

**FOR  
AS NEEDED EMERGENCY DEBRIS MONITORING SERVICES PER RFP # PW 14-03**

THIS AGREEMENT is made and entered into this 21 day of May, 2014 by and between the CITY OF DELTONA, a municipality of the State of Florida, whose address is 2345 Providence Boulevard, Deltona, Florida 32725, hereinafter called the "City" and LEIDOS, INC., duly authorized to conduct business in the State of Florida, whose principal address is 2301 Lucien Way, Suite 120, Maitland, Florida 32751, hereinafter called the "Consultant".

**WHEREAS**, the City desires to obtain services related As Needed Emergency Debris Monitoring Services, per RFP No PW 14-03; and

**WHEREAS**, RFP # PW 14-03 did seek firms or individuals qualified to provide professional Emergency Debris Monitoring Services; and

**WHEREAS**, the Consultant desires to perform such services subject to the terms of this Agreement; and

**NOW, THEREFORE, IN CONSIDERATION** of the mutual terms, understandings, conditions, premises, covenants and payment hereinafter set forth, and intending to be legally bound, the parties hereby agree as follows:

**Article 1. Recitals**

1.1 The foregoing recitals are true and correct and incorporated herein by reference.

**Article 2. Scope of Professional Services**

2.1 On the terms and conditions set forth in this Agreement, City hereby engages Consultant to provide professional Emergency Debris Monitoring Services per RFP # PW 14-03, attached hereto and incorporated herein by reference, and Consultant's Proposal dated January 14, 2014. The Consultant acknowledges and agrees that if the work is assigned to the Consultant, each individual project shall have a specific Scope of Services agreed to by the parties and a task order shall be executed by both parties. The task order shall include all necessary work to be completed, the Employee / Service Category, Hourly Rate and estimated time to complete each specific task. The task order shall be signed by the parties and a purchase order issued prior to the Consultant performing any of the agreed upon work. All task orders shall be reviewed and approved by the City in writing prior to the Consultant beginning any work on the assigned project or payment being made to the Consultant.

2.2 The services, as described in RFP # PW 14-03, to be rendered by the Consultant, shall be for an initial one (1) year period with the option to renew for three (3) additional one (1) year periods upon mutual written consent of both parties. Labor prices for renewals shall be determined based upon the percentage change in the Consumer Price Index for the South Urban MSA. The base period shall be the month in which this Agreement was executed by the CITY.

2.3 The services to be rendered by the Consultant shall include all labor, materials and incidentals necessary to perform all work indicated and specified in the RFP documents.

2.4 Consultant shall coordinate, cooperate, and work with any other consultants or contractors retained by the City. Consultant acknowledges that nothing herein shall be deemed to preclude the City from retaining the services of other persons or entities undertaking the same or similar services as those undertaken by the Consultant or from independently developing or acquiring materials or programs that are similar to or competitive with, the services provided under this Agreement.

2.5 Consultant shall be responsible for obtaining all required federal, state or local permits required to complete the scope of work under this agreement. Consultant shall be familiar with and compliant with all federal, state and local requirements to maximize the City's participation in reimbursement programs and perform the scope of work in accordance with the guidelines set forth within the FEMA 327, Public Assistance Debris Monitoring Guide.

2.6 Consultant agrees that this shall be an open contract to be used on an as-needed basis. The City does not guarantee to the Consultant any minimum amount of work throughout the term of this Agreement. Furthermore, Consultant agrees and acknowledges that in the event Consultant cannot meet the City's specifications including, but not limited to, time for completion and cost for individual project, the City reserves the sole right to offer the individual project to the City's alternate firm(s).

2.7 Consultant shall be responsible for the removal of all surplus material and debris occurring from the work if the materials or debris was generated as a result of the Consultant's work. The Consultant shall take precautions against damage to public and private property during the course of its work. Should damage occur, by negligent omission or commission by the Consultant, the Consultant shall, at its own expense, restore damaged property to a condition similar or equal to that existing before damage was done. In the event Consultant fails to correct the damage, the City shall have the option of correcting the damage and issuing a deductive change order to the Consultant to deduct the amount of the corrective work from the contract balance.

### **Article 3. Compensation**

3.1 The City agrees to compensate Consultant for work performed, completed and accepted by the City's representative for services provided at the hourly rates indicated on the attached pricing sheet described as Exhibit A, attached hereto and incorporated herein by reference. The personnel needed for each individual project shall be determined once the Consultant receives

the Task Assignment Sheet. Upon reviewing the project specific scope of services, the Consultant shall submit a list of specific tasks to be performed as part of the project, including any alternate tasks, and a detailed estimated cost sheet. A list of deliverables shall also be provided. The Consultant and City hereby agree that the hours of service set forth in the cost sheet are projected hours of service and that the Consultant's actual time may be more or less than the estimated hours. If work is accepted, the City shall pay the Consultant only for the total fee agreed upon for each project. Fees for any additional work needed will be agreed upon prior to any service being completed.

**3.2** Invoices shall be submitted in duplicate to the City of Deltona, Accounts Payable, 2345 Providence Blvd., Deltona, Florida 32725. Each invoice shall contain the purchase order number and a detailed description of services and fees.

**3.3** The City shall make payment on all invoices in accordance with the Florida Prompt Payment Act, sections 218.70 through 218.79, Florida Statutes.

**3.4** The Consultant shall not be entitled to payment for any other expenses, fees, or other costs it may incur at any time and in any connection with its performance hereunder other than those fees as stated in Exhibit A unless expressly agreed upon in writing prior to the start of any additional work. The Consultant hereby agrees that the hourly rates, as stated in Exhibit A, are inclusive of all overhead and administrative expenses.

**3.5** In the event a specific project is to be funded by state or federal monies, the Consultant hereby agrees to comply with all requirements of the state or federal government applicable to the use of the monies, including receiving no payment until all required forms are completed, submitted, and approved by the City.

#### **Article 4. City Responsibilities**

**4.1** City shall promptly review the deliverables and other materials submitted by Consultant and provide direction to Consultant as needed. City shall designate one City staff member to act as City's Project Administrator and/or Spokesperson.

**4.2** The City will provide to the Consultant all necessary and available data developed and/or within the possession of the City, and any other data the City possesses that would be useful to the Consultant in the completion of the required services.

**4.3** The City shall reimburse Consultant, in accordance with the provisions of Article 3 above, for required services timely submitted and approved by City in accordance with the terms of this Agreement.

#### **Article 5. Special Terms and Conditions**

**5.1** Qualifications. Firms or individuals shall be registered with the State of Florida and have obtained at least the minimum thresholds of education and professional experience required by Florida Statutes to perform the services contained herein.

**5.2 Termination.** This Agreement may be terminated by the City upon thirty (30) days advance written notice to the Consultant; but if any work is in progress but not completed as of the date of termination, then this Agreement may be extended upon written approval of the City until said work is completed by the Consultant and accepted by the City.

- A. Upon notification to the Consultant of termination by the City, Consultant will immediately discontinue all services affected unless the notice directs otherwise.
- B. Termination for Convenience. In the event this Agreement is terminated or cancelled upon the request and for the convenience of City, City shall reimburse Consultant for actual work satisfactorily completed.
- C. Termination for Cause. If the termination of this Agreement is due to the failure of the Consultant to fulfill his contractual obligations, City shall reimburse Consultant for actual work satisfactorily completed, and City may take over the work and prosecute the same to completion by Agreement or otherwise.
- D. In the event of termination of this Agreement, all work, reports, and other work product produced by Consultant in connection with the Agreement shall be returned to the City and become and remain the property of the City.

**5.3 Assignment.** This Agreement may not be assigned or transferred in any manner by Consultant and any such assignment is expressly prohibited. Any attempt to assign this Agreement shall render this Agreement null and void.

**5.4 Insurance.** Consultant shall provide and maintain, during the entire term of this Agreement, without cost to the City, insurance in the following types and limits with a company or companies authorized to do business in the State of Florida. Consultant shall not commence work under the Agreement until City has received an acceptable certificate or certificates of insurance and endorsement evidencing the required insurance, with the following minimum limits and coverage limits fully available during the entire contract period:

- (A) Professional liability (medical malpractice, engineers, architect, environmental, errors and omissions, etc.) insurance as applicable, with minimum limits of \$1,000,000. Professional liability insurance shall be maintained for at least one year from the termination of the Agreement.
- (B) General Liability insurance on forms no more restrictive than the latest edition of the Commercial General Liability policy (CG 00 01 or CG 00 02) of the Insurance Services Office or equivalent without restrictive endorsements, with the minimum limits and coverage of \$1,000,000 per occurrence; combined single limit for Bodily Injury Liability and Property Damage Liability. This shall include Premises and/or Operations, Independent Contractors, and Products and/or Completed Operations, and a Contractual Liability Endorsement.

(C) Workers' compensation insurance in accordance with Florida Statute, Chapter 440, and/or any other applicable law requiring workers' compensation (Federal, maritime, etc).

(D) Additional Requirements.

(1) City of Deltona shall be **named and endorsed** as an additional insured on the General liability policy.

(2) The General Liability policy is to contain or be endorsed to name the City, its officers, officials and employees as additional insureds as respects to the liability arising out of the activities performed under this Agreement. Such coverage shall be primary to the extent of Consultants negligent acts or omissions or willful misconduct, and shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. In addition, a waiver of subrogation by the commercial liability insurer shall be provided that lists or names the additional insured as subject to the waiver. Coverage shall be on an "occurrence" basis and not "claims made".

(3) Certificates of insurance shall provide for a minimum of thirty (30) days prior written notice to the City of any material change or cancellation of the required insurance, with ten (10) day written notice of cancellation due to non-payment of premium.

(4) Certificates of insurance shall identify the Bid number, contract, project, etc. in the Description of Operations section of the Certificate.

(5) Consultant shall be responsible for subcontractors and their insurance.

(6) The Certificate holder section of each policy shall state: City OF DELTONA, 2345 PROVIDENCE BOULEVARD, DELTONA, FLORIDA 32725.

(7) Consultant shall be solely responsible for all deductibles and self-insurance retention on Liability Insurance policies. All of the policies of insurance so required to be purchased and maintained shall contain a provision or endorsement that the coverage afforded shall not be canceled, materially changed or renewal refused without thirty (30) calendar days written notice, or without ten (10) days written notice of cancellation due to non-payment of premium, being given to City by certified mail.

**5.5 Indemnity.** Consultant shall indemnify and hold City and its agents, officers, commission, or employees harmless for any damages resulting from failure of Consultant to take out and maintain the above insurance. Additionally, Consultant agrees to indemnify, defend and hold the

City, and its officers, commission, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional and attorney fees, court costs, other expenses and liabilities to the extent resulting from the negligent act, error or omission of Consultant, its agents, employees or representative, in the performance of Consultant's duties set forth in this Agreement, including any act alleged to give rise to an action in inverse condemnation.

**5.6 Independent Contractor.** Consultant agrees that it shall be acting as an independent contractor and shall not be considered or deemed to be an agent, employee, joint venturer, or partner of City. Consultant shall have no authority to contract for or bind City in any manner and shall not represent itself as an agent of City or as otherwise authorized to act for or on behalf of City.

**5.7 Ownership of Deliverables.**

(a) Title to all work product produced by Consultant pursuant to this Agreement shall be and remain the sole and exclusive property of City when produced. Consultant shall deliver all such original work product to City upon completion thereof unless it is necessary for Consultant, in City's sole discretion to retain possession for a longer period of time.

(b) The documents, reports, and similar materials provided or created by Consultant are public records and Consultant shall abide by applicable requirements of Florida law. Consultant shall notify the City within 24 hours of receiving the request to release the information concerning the subject project to a member of the media and/or to the public. The City's notification shall to the extent possible provide the name, date, time and type of information requested to be released prior to the Consultant's release or disclosure of information to the media or to the public.

**5.8 Return of Materials.** Upon the request of the City, but in any event upon termination of this Agreement, Consultant shall surrender to the City all memoranda, notes, records, and other documents or materials pertaining to the services hereunder, that were furnished to the Consultant by the City pursuant to this Agreement. Consultant may keep copies of all work products for its records.

**5.9 NO CLAIM FOR DAMAGES OR ANY CLAIM OTHER THAN FOR AN EXTENSION OF TIME SHALL BE MADE OR ASSERTED AGAINST THE CITY BY REASON OF ANY DELAYS.** No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the work from any cause whatsoever, shall relieve the Consultant of his duty to perform or give rise to any right to damages or additional compensation from the City. The Consultant expressly acknowledges and agrees that the Consultant shall receive no damages for delay. The Consultant's sole remedy, if any, against the City shall be the right to seek an extension to the contract time.

**5.10 Retaining Other Consultants.** Nothing herein shall be deemed to preclude the City from retaining the services of other persons or entities undertaking the same or similar services as

those undertaken by the Consultant or from independently developing or acquiring materials or programs that are similar to or competitive with, the services provided under this Agreement.

**5.11 Accuracy.** The Consultant is responsible for the professional quality, technical accuracy, timely completion and coordination of all the services furnished hereunder. The Consultant shall, without additional compensation, correct or revise any errors, omissions or other deficiencies in its designs, drawings, reports or other services.

**5.12 Codes and Regulations.** All work completed under this Agreement shall at all times comply with all applicable federal, state and local statutes, codes, regulations and ordinances.

**5.13 Public Entity Crimes.** A person or affiliate who has been placed on the convicted vendor list following a conviction of a public entity crime may not be awarded or perform work as a contractor, supplier, subcontractor, or engineer under a contract with any public entity in excess of the threshold amount provided in Florida Statutes, section 287.017 for Category Two for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.

**5.14 Prohibition against Contingent Fees.** Consultant warrants that they have not employed or retained any company or person, other than a bona fide employee working solely for the Consultant to solicit or secure this Agreement and that they have not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Agreement.

**5.15 Public Records.** The Consultant shall allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the Consultant in conjunction with this Agreement. Specifically, the Engineer shall:

- (a) Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
- (b) Provide the public with access to public records on the same terms and conditions that the City would provide the records and at a cost that does not exceed the cost provided in state law or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
- (d) Meet all requirements for retaining public records and transfer, at no cost, to the City all public records in possession of the Consultant upon termination of the Agreement and destroy and duplicate public records that are exempt or confidential and exempt from the public records disclosure requirements. All records stored electronically must be provided to the City in a format that is compatible with the information technology system of the City.

## **Article 6. General Conditions**

**6.1** This Agreement is made under, and in all respects shall be interpreted, construed, enforced, and governed by and in accordance with, the laws of the State of Florida. Venue for any legal action resulting from this Agreement shall lie solely in Volusia County, Florida.

**6.2** No modification, amendment or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith. The City may make changes in the services at any time by giving written notice to Consultant. If such changes increase (additional services) or decrease (eliminate any amount of work) in the scope of work, City and Consultant shall modify this agreement through issuance of a change order. All change orders shall be authorized in writing by City prior to commencing or reducing any term of this agreement.

**6.3** The captions utilized in this Agreement are for the purposes of identification only and do not control or affect the meaning or construction of any of the provisions hereof.

**6.4** This Agreement shall be binding upon and shall inure to the benefit of each of the parties and of their respective successors and permitted assigns. Nothing in this Agreement is intended or shall be deemed to confer any rights or benefits upon any entity or person other than the parties hereto or to make or render any such other entity or person a third-party beneficiary of this Agreement.

**6.5** This Agreement may not be amended, released, discharged, rescinded or abandoned, except by a written instrument duly executed by each of the parties hereto.

**6.6** The failure of any party hereto at any time to enforce any of the provisions of this Agreement will in no way constitute or be construed as a waiver of such provision or of any other provision hereof, nor in any way affect the validity of, or the right thereafter to enforce, each and every provision of this Agreement.

**6.7** During the term of this Agreement Consultant assures City that it is in compliance with Title VII of the 1964 Civil Rights Act, as amended, and the Florida Civil Rights Act of 1992, in that Consultant does not on the grounds of race, color, national origin, religion, sex, age, disability or marital status, discriminate in any form or manner against Consultant employees or applicants for employment. Consultant understands and agrees that this Agreement is conditioned upon the veracity of this statement of assurance.

## **Article 7. Severability**

**7.1** The invalidity or unenforceability of any particular provision of this Agreement shall not affect the other provisions hereof, and this Agreement shall be construed in all respects as if such invalid or unenforceable provisions were omitted.

**7.2** Wherever provision is made in this Agreement for the giving, service or delivery of any notice, statement or other instrument, such notice shall be in writing and shall be deemed to have

been duly given, served and delivered, if delivered by hand or mailed by United States registered or certified mail or sent by facsimile, addressed as follows:

If to Consultant:  
Betty Kamara  
Contracts Administrator  
Leidos, Inc.  
2301 Lucien Way, Suite 120  
Maitland, Florida 32751

If to City:  
Gerald Chancellor  
Public Works Director  
City of Deltona  
2345 Providence Blvd.  
Deltona, Florida 32725

Each party hereto may change its mailing address by giving to the other party hereto, by hand delivery, United States registered or certified mail notice of election to change such address.

### **Article 8. Scope of Agreement**

**8.1** This Agreement is intended by the parties hereto to be the final expression of their Agreement, and it constitutes the full and entire understanding between the parties with respect to the subject hereof, notwithstanding any representations, statements, or agreements to the contrary heretofore made.

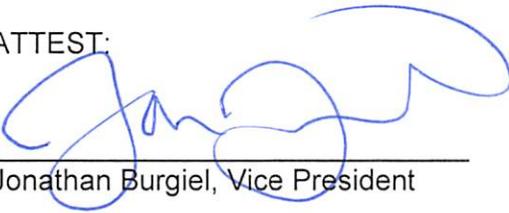
**8.2** This Agreement consists of the following:

This Agreement  
Notice of Award  
RFP Documents  
Addendum, if any  
Consultant's Proposal  
Exhibit A  
Exhibit B

(REMAINDER OF PAGE INTENTIONALLY LEFT BLANK)

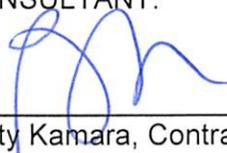
IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement for the purposes stated herein.

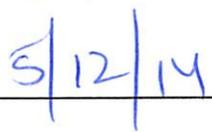
ATTEST:

  
Jonathan Burgiel, Vice President

(CORPORATE SEAL)  
*See Attached Corporate Resolution*

CONSULTANT:

  
Betty Kamara, Contracts Administrator

  
Date

ATTEST:

  
JOYCE RAFTERY  
City Clerk

CITY OF DELTONA:

  
WILLIAM "DAVE" DENNY  
City Manager

  
Date

Approved as to Form and Legality:

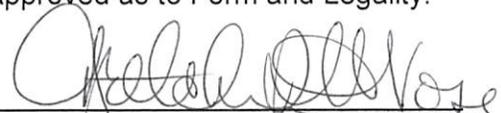
  
GRETCHEN R.H. VOSE  
City Attorney



EXHIBIT "A"

February 28, 2014



Submitted electronically to: [BBoehs@deltonafl.gov](mailto:BBoehs@deltonafl.gov)

Mr. Brian Boehs  
Public Works Division  
City of Deltona, Florida  
255 Enterprise Road  
Deltona, FL 32725

Subject: **Best and Final Offer (BAFO)**  
**RFP No. PW 14-03 - Emergency Debris Monitoring Services**

Dear Mr. Boehs,

Leidos, Inc. (Leidos) is pleased to provide a response to the City of Deltona's (City) best and final offer (BAFO) for the subject RFP. Leidos remains committed to providing the City with the highest level of debris monitoring and program management services on a stand-by basis in the event that the City is impacted by a future debris generating event.

Leidos' BAFO hourly rate schedule is attached hereto.

Thank you for the opportunity to submit this Best and Final Offer to the City of Deltona. Although we hope no harm will come to the City, should a disaster event occur, we would be honored to work with the City to provide the high quality service our clients have come to expect. For questions regarding this submittal, please contact me or the technical representative listed below.

**Contractual representative:**

Ms. Betty Kamara  
Contracts Administrator  
(407) 803-2551 | [betty.v.kamara@leidos.com](mailto:betty.v.kamara@leidos.com)

**Technical representative:**

Mr. Simon Carlyle  
Deputy Director of Client Services  
(407) 803-2525 | [simon.d.carlyle@leidos.com](mailto:simon.d.carlyle@leidos.com)

Sincerely,

**Leidos, Inc.**

A handwritten signature in black ink, appearing to read "Betty Kamara", written over a faint, larger version of the signature.

Betty Kamara  
Contracts Administrator

**BEST AND FINAL OFFER**  
**FOR**  
**EMERGENCY DEBRIS MONITORING SERVICES**

**UTILIZING AN AUTOMATED DATA MANAGEMENT SYSTEM**  
**WITH EXTERNAL ACCOUNT RESOURCES**

Includes hourly rates associated with a fully operational Automated Data Management System during an emergency scenario. Pricing shall include equipment, materials, hardware, software, labor; set up fees, training fees, start-up fees, travel related expenses, meal allowances, hotel rooms and any charges or other relevant out of pocket expenses associated with the services required within this solicitation.

<b>Employee / Service Category</b>	<b>Total Est. Hours</b>	<b>Hourly Rate</b>	<b>Total Amount</b>
On-Site Project Manager	700	\$75.00	\$52,500
Site Supervisor or Area Supervisor	2,800	\$55.00	\$154,000
Tower Monitor	3,080	\$36.50	\$112,420
Field Monitor	38,500	\$36.50	\$1,405,250
Administrative Support Staff	1,400	\$28.00	\$39,200
1-800 Telephone Service	280	\$24.00	\$6,720
Data Manager	560	\$55.00	\$30,800
<b>GRAND TOTAL</b>			<b>\$1,800,890</b>

**UTILIZING AN AUTOMATED DATA MANAGEMENT SYSTEM**  
**WITH INTERNAL ACCOUNT RESOURCES**

Includes hourly rates associated with leasing an Automated Data Management System during an emergency scenario. Pricing shall include equipment, materials, hardware, software, set up fees, training fees, start-up fees, and delivery expenses, and any charges or other relevant out of pocket expenses associated with the services required within this solicitation.

<b>No. of Sets</b>	<b>Total Est. Hours</b>	<b>Hourly Rate</b>	<b>Total Amount</b>
10	250	\$4.00	\$10,000

## **EXHIBIT "B"**

### **SCOPE OF WORK/MINIMUM SPECIFICATIONS**

#### **2.0 Intent**

The Scope of Work is an integrated part of the Contract Documents and as such will not stand alone if used independently. The intent of these documents is to set forth requirements of performance. It is also intended to include all labor and materials, equipment, tools and transportation necessary for the proper execution of the Work, to require new material and equipment unless otherwise indicated, and to require complete performance of the Work in spite of omission of specific reference to any minor component part and to include all items necessary for the proper execution and completion of the Work by the Consultant.

Performance by the Consultant shall be required only to the extent consistent with these documents and reasonably inferable from them as being necessary to produce the intended results.

The Scope of Work is to be used as a general guide and is not intended to be a complete list of all work necessary to complete the project. At its discretion, the City may implement a Service Level Agreement, to be drafted prior to an award, detailing all the work necessary to complete this project. The successful consultant will have broad experience in the areas of providing monitoring and management of disaster debris, and any additional or required tasks, as deemed necessary to complete the project successfully.

The scope of work performed by the consultant shall adhere and be followed in accordance with the guidelines set forth within the FEMA 327 / Public Assistance Debris Monitoring Guide. Monitoring of debris removal work involves constant observation of crews to ensure that workers are performing eligible work in accordance with any public assistance guidelines including but not limited to Federal, State and Local regulations.

#### **2.1 Project Management and Administration**

- A. The consultant shall appoint a qualified and experienced Project Manager for overall coordination and communication with the City. The Project Manager shall remain on the job and available to the City at all times during the operational phases of the debris collection and disposal project.
- B. The consultant shall be prepared to supply a temporary field office for the monitoring staff. The field office shall include all necessary communication and office equipment, and supplies to effectively implement assigned duties.
- C. Examples of project management and administrative responsibilities include but are not limited to:
  - 1. Coordinate daily briefings with key operational staff, City staff and debris removal contractor(s) to review, formulate and update debris removal operations and strategies. Scheduling, managing and conducting periodic meetings with field staff and contractors. Meetings shall be scheduled so that they will not impede, hinder nor delay the debris removal contractor(s) and the debris removal operation.
  - 2. Provide a daily report of the debris contractor crew assignments, working locations, number of trucks assigned, total loads, cubic yards collected by debris type, an

updated map of streets where debris is collected, and other key operational statistics to the City's Project Manager or designee.

3. Coordinate daily scheduling, dispatching and logistical operations of the field collection monitors.
4. Hire, train, deploy and supervise all field collection monitors and staff.
5. Conduct debris surveys and perform debris estimation by debris types.
6. Maintain accurate records of all debris collection vehicles, including the measurements of the inside of the useable bed space, photographs, license information, vehicle identification decal issuance and regular monitoring for vehicle modifications.
7. Track and coordinate responses to problems identified in the field, citizen complaints, including commercial and/or residential property damage claims as a result of debris removal. Consultant shall maintain a detailed database of customer complaints and resolutions.
8. Ensure that debris reduction and disposal sites have access control and security. Conduct end of the day duties and verify that all vehicles have left the disposal site at the specified time established by the City.
9. Ensure the field collection monitors are accurately recording the streets and locations where debris was collected. Maps shall be posted daily in a central location at the City and updated by 10:00 AM of each business day illustrating the progress from the previous day's work.
10. Schedule work for all team members and contractors on a daily basis.
11. Conduct safety inspections on a regular, predetermined and random basis. Ensure the appropriate frequency of oversight is performed for all work crews, vehicles and locations.
12. Monitor the debris removal contractor for compliance.
13. Provide training to City staff in essential debris management and collection functions to ensure appropriate and responsive interface with disaster debris collection contractor(s), City, state and federal agencies.
14. Develop forms, databases, etc. for tracking field activities, and submitting invoices for reimbursement, etc. Such forms and invoices shall be compatible with City software and approved by the City's Project Manager or designee. The City utilizes Microsoft products (Excel, Access and Sequel Server).
15. Daily personnel tracking sheets (field reports) shall be maintained for all consultant personnel assigned to the project.

16. Set up schedules for monitors each day and determine cleanup crew assignments. Survey and maintain list of areas with special needs, including but not limited to, hazardous stumps, trees, hangers/leaners, debris types, and other potential problems.
17. Prepare daily and periodic tracking reports to support debris removal, Temporary for Debris Storage and Recovery Site (TDSRS) Operations and final debris disposal and audit purposes. Includes maintaining a database of debris managed, costs incurred and reconciliation of debris collection and contractor invoices.
18. Compile records and assist the City with the preparation of required forms for reimbursement.

## **2.2 Collection Monitoring**

A. In order to obtain maximum reimbursement, all debris loads shall be monitored in the field by collection monitors to ensure debris eligibility. The Consultant shall provide fully trained collection monitors to assure proper and compliant documentation protocols are instituted and followed.

B. The Consultant shall provide a field quality control team consisting of one field collection monitor per debris removal crew and at least one field supervisor for every seven monitors unless otherwise approved by the City. This team will monitor the debris contractors for contract compliance, efficiency and regulatory compliance. The team shall provide daily feedback to the City through their Project Manager. All field team members shall be equipped with the state-of-the-art technology, which shall include cameras, computers, communication devices with GPS, and other equipment as deemed necessary and/or appropriate.

C. When a field collection monitor signs a load ticket, he or she is certifying that **ALL** information on the document is complete and correct. The field collection monitor shall not sign or accept any incorrect or partially completed information. Only tickets that are one hundred (100%) percent complete will be paid by the City.

D. Examples of collection monitoring quality control tasks include but are not limited to:

1. Verification that all debris picked up is a direct result of the disaster.
2. Accurately recording the addresses, streets and locations where debris was collected;
3. Verification that the debris collection contractor(s) are working in their assigned collection areas and roads;
4. Stop work in progress that is not being performed or documented in the approved manner. Such work should be documented, noted for non-payment and brought to the attention of the City's Project Manager.
5. Inspect work in progress to ensure that removal efforts include debris of the proper type in

the proper areas;

6. Ensure compliance with City contracts and Federal/State requirements by all subcontractors.
7. Maintain and catalog/index all photo documentation of recovery work on a daily basis;
8. Identification of eligible stumps, hangers and leaners. Coordinate with the City and Federal/State representatives for eligibility determination and ensure documentation (forms, photos, etc.) are completed for reimbursement purposes;
9. Ensure that contractor(s) are working in compliance with all Federal, State, and Local safety regulations appropriate for the task being performed.
10. Coordinate with the City to respond to problems in the field, such as property damage complaints, debris crew issues, other customer complaints, etc. Consultant shall maintain a detailed database of customer complaints and resolutions.

### **2.3 Load Ticket Process Development**

A. The Consultant shall establish an organized process that ensures complete and accurate data is being recorded on an approved debris load ticket. Load tickets shall consist of multi-copy pages. The Consultant shall retain original completed tickets on behalf of the City and copies provided to the debris removal contractors, vehicle drivers, etc., as appropriate. Tickets shall be filed in ticket number order and scanned. Scanned tickets shall be cataloged by ticket number order, easily retrievable, printable and cataloged /indexed with accompanying photos. Original tickets retained by the Consultant on behalf of the City shall be cataloged /indexed with accompanying photos. The hardcopy and electronic versions of the tickets shall be turned over to the City upon completion of the project.

B. Load tickets shall include the following minimum information:

1. Date
2. Time
3. Map page
4. Section number
5. Complete street address of closest property
6. Nearest cross street(s)
7. Vehicle tag number
8. Type of debris
9. Vehicle certification number
10. Percent of volume (PV)
11. Driver name (printed) and signature
12. Field monitor's name (printed) and signature
13. Name of sub-contractor
14. Tower monitor's name (printed) and signature

## **2.4 Disposal Site Monitoring**

- A. All debris collected and disposed of, and certifications of collection vehicles shall be documented and monitored by the disposal site monitors. The Consultant shall ensure that disposal site and field collection monitors are deployed and operational commensurate with the beginning of debris collection and the establishment of debris site(s).
- B. The Consultant shall provide disposal site monitors and Spotters to observe debris unloading operations at the City's designated disposal site(s). A minimum of two disposal site monitors are required per debris site. These staff members, in conjunction with the project management team and the debris contractor, shall coordinate the logistics of the disposal site to ensure efficient traffic flow and proper handling of load tickets that record FEMA data (such as vehicle volume, type of waste, etc.). The Consultant shall observe all vehicles entering and exiting the disposal site, ensuring all vehicles are in good repair and safe with secure side boards and have a full tailgate. Additionally, the disposal site monitor shall calibrate their debris vehicle load determinations daily with the FEMA monitors. Disposal site monitors are expected to provide volume determination consistent with FEMA.
- C. When a field collection monitor signs a load ticket, he or she is certifying that **ALL** information on the document is complete and correct. The field collection monitor shall not sign or accept any incorrect or partially completed information. Only tickets that are one hundred (100%) percent complete will be paid by the City.
- D. The Consultant's Project Manager shall conduct field quality inspections to check and verify information on debris removal and at Temporary Debris Staging and Reduction Sites (TDSRS) located throughout the City.
- E. Examples of disposal site monitoring tasks include but shall not be limited to:
1. Keeping accurate records of debris vehicles, cubic yard volume determinations, time in and out, number of loads per day and other data as requested by City.
  2. Coordinate with all local, state and federal agencies as needed for TDSRS on issues such as notification, obtaining permits, determining reimbursement, etc.
  3. Provide preliminary assessment and documentation of TDSRS and assist in return of site to original conditions.
  4. Provide personnel to supervise the operation of TDSRS including monitoring incoming loads of debris, processing of debris and outgoing loads of processed debris.
  5. Monitor and record the cubic yard capacity of each debris removal vehicle added into service; this shall be the physical internal measurement of the storage bed or trailer with deductions for unusable areas.
  6. Conduct end of day activities, such as verifying completion of debris crew assignments, completion of all record keeping, vehicles have left disposal site and locking down facilities.

## **2.5 Debris Vehicle Certification**

- A. All debris hauling vehicles shall be measured and certified prior to performing debris removal. The Consultant shall complete a certification on each vehicle deemed appropriate for collection. In addition to

completing vehicle certification forms, photographs must be taken of each vehicle showing the vehicle number and type of vehicle. These photographs shall be attached with the certification. Original copies of these certifications, including photographs, shall be retained by the Consultant on behalf of the City and provided to the City upon project completion. Additional copies shall be provided to the debris removal contractor and the vehicle driver. Once these vehicles are certified, random verifications shall be performed once every two weeks to ensure no vehicle modifications have been made and to confirm data accuracy.

B. The Consultant shall measure the usable space of each debris collection vehicle for volume and certify that capacity. This certification process includes developing certification forms and documents to accurately measure the cubic yard volume to the nearest cubic yard of each vehicle. These forms shall show the following at a minimum:

1. Vehicle make, model
2. Length
3. Width
4. Depth
5. Gross volume in cubic yards
6. Reduction areas such as wheel wells to reduce volume areas in cubic yards
7. Net volume in cubic yards
8. Tag number of vehicle
9. Company vehicle number
10. Driver of vehicle name (printed) and signature
11. Disposal site monitor name (printed) and signature certifying vehicle
12. Date
13. Vehicle certification number

C. When a debris site monitor signs a vehicle certification, he or she is certifying that **ALL** of the information is complete and correct. The debris site monitor shall not sign or accept any partially completed information. Only tickets that are one hundred (100%) percent complete will be paid by the City.

## **2.6 Public Information Assistance**

A. The Consultant shall provide regular status updates to the City's Project Manager for public information use.

B. The Consultant shall provide appropriate staff to assist with public telephone inquiries and complaints regarding debris removal operations. Customer calls shall be documented and a status maintained to track complaint resolution. Damage complaints concerning the debris removal shall be tracked and reported by debris contractor(s) and forwarded to the project management team to be resolved with the debris contractor. A weekly log of such complaints and their resolution shall be provided to the City's Project Manager.

C. The Consultant shall provide the City's Project Manager and the debris contractor(s) with daily updates on the quantities and type of debris collected. Each daily report shall contain the following:

1. Contractor Name
2. Contractor Number
3. Reports and graphs to delineate production rates of crews and their equipment, progress by area and estimations of total quantities remaining, estimated time to

completion, and daily cumulative cubic yards of debris removed, processed, and hauled. This reporting is due no later than 10:00 a.m. the following business day or as requested by the City.

D. The Consultant shall provide a colored collection status map, electronically prepared in Adobe PDF format, weekly. This map shall show areas currently collected, debris pass number, as well as areas to be collected for the upcoming week. The map is due to the City by noon (12:00 P.M.) every Monday. Maps shall be provided in various sizes and quantities as determined by the City's Project Manager.

## **2.7 Database Reporting**

A. The Consultant shall be responsible for collecting, auditing for completeness and accuracy, tabulating and organizing debris disposal data, including the scanned ticket images and photos, vehicle certifications, etc., into electronic formats to support federal, (FEMA and FHWA), state and local reimbursements, and subsequent audits.

B. A single database shall be utilized by the Consultant. This database shall include all information on debris removal and disposal including but not limited to:

1. Complete load ticket information
2. Vehicle certification information
3. Stump removal information
4. Hanger removal
5. Leaner removal information

C. Any electronic reporting from this database must be provided in both the options of either Adobe and/or Microsoft Excel, as requested by the City. The database created by the Consultant shall be given to the City with user documentation at the conclusion of the event. The Consultant shall ensure the City can navigate, perform searches and produce reports from the final database.

D. Databases or Software which is proprietary to the Consultant shall not conflict with the City's needs or ability to obtain the information desired. The City will not be required to procure or maintain a database, software and / or hardware in which additional costs of such software and / or hardware and their maintenance agreements are to be procured by the City of Deltona. Proprietary databases, software and / or hardware shall be provided by the consultant, converted and readily available to the City as to not prohibit, hamper or impede the ability of the City to obtain the information required.

## **2.8 Payment Monitoring and Reconciliation Process**

The Consultant shall review, validate and reconcile debris removal contractor(s) invoices prior to submission to the City for processing. The Consultant shall conduct a meeting at the beginning of the debris removal operation to fully explain the process to the City, debris contractor(s) and FEMA representatives. All invoices from the debris contractor(s) shall be directed to the monitoring consultant. Within seven (7) calendar days of receipt, the invoices shall be reviewed by the monitoring consultant to be accepted or rejected. The monitoring consultant shall issue in writing to the City and the debris contractor, the acceptance or rejection of the invoices and a payment recommendation. If the invoice is rejected, the monitoring consultant shall clearly state the reasons for rejection and work with the debris contractor to resolve immediately. Only invoices that are one hundred (100%) percent accurate and complete will be forwarded to the City's Project Manager for payment.

## **2.9 Reporting to the City's Project Manager**

The Consultant shall contact the City's Project Manager, at a minimum, twenty-four (24) Hours prior to a hurricane event or immediately upon the occurrence of a major disaster event within the City when there is no advance notification/warning. The Consultant shall report to the City Project Manager or designee within eight (8) hours of being given a Notice to Proceed.

## **2.10 Staffing Plan**

The Consultant shall include in the response to this RFP a management plan that will outline how the Consultant proposes to handle the specified services, staffing (administrative and field), and equipment necessary to meet the City's requirements as identified in this RFP. The Consultant shall submit a list of key personnel to be used in the resulting Agreement, which shall include names and resumes. The supervising staff shall speak English and be able to effectively communicate with the drivers. The Consultant may use other positions as necessary. All such positions and their purpose or role in the monitoring operations shall be identified.

## **2.11 Other Related Services**

- A. **Event Closure:** The Consultant shall assist the City in preparing final reports necessary for reimbursement by FEMA, FHWA (Federal Highway Administration) and other applicable agencies for disaster recovery efforts by City staff and designated debris removal contractors. The Consultant shall assist in reviewing and processing requests for payment by the debris removal contractor(s).
- B. **Federal Funding:** To ensure that processing of Federal funding is done as quickly as possible, the following information and its accuracy is the responsibility of the Consultant:
  - 1. Debris related invoices
  - 2. Monitoring Information
  - 3. Reports
  - 4. Load Tickets
  - 5. Consultant Payroll
  - 6. Equipment Hours
  - 7. Vehicle Certifications
  - 8. Start and end dates of the first debris removal pass and all subsequent passes
- C. **Compliance:** The Consultant shall provide professional oversight to ensure compliance with Florida Department of Environmental Protection (FDEP) regulations, Florida Department of Transportation (FDOT), Florida Department of Forestry (DOF), FEMA reporting requirements, and any other Federal, State or Local regulation. The Consultant shall stay current with FEMA and FHWA policies and procedures and notify the City's Project Manager immediately as changes occur.
- D. **Meetings with City Personnel:** The Consultant shall meet with City Representatives and the debris contractor daily during disaster event activation. During periods without a disaster, the Consultant shall meet with the City's Project Manager or designee at least once a year at no cost to the City. This meeting shall occur prior to the hurricane season.
- E. **Additional Services:** The Consultant shall be capable of providing a 1-800 service to respond and

report on resident inquiries during the debris recovery activity. Services not specifically identified in this Scope of Work, but imperative to the outcome of the project may be utilized and added to the Agreement upon mutual consent of the contracting parties without further competition

**2.12 Subcontractors**

The City prefers that the Consultant provide all services needed to comply with the RFP. Should a Sub-Consultant be needed, the Primary Consultant will be sole point of contact and have sole responsibility for all issues. It is the responsibility of the Primary Consultant to ensure that Sub-Consultants needed to be used during the management and monitoring of disaster debris removal shall comply with the scope of work initiated to support this project.

**2.13 Contract Terms**

Term of Contract to provide items and services listed at firm fixed prices on an as needed basis for an initial period of one (1) year, renewable for three additional one (1) year periods. Both the City and the vendor must mutually agree upon renewals in writing. Rates quoted will be for the first year and will not be changed based on the guidelines outlined in this solicitation.

August 18, 2014



Brian Boehs  
Purchasing Agent, Public Works Division  
City of Deltona  
2345 Providence Boulevard  
Deltona, FL 32725

Dear Mr. Boehs,

I am pleased to announce that the BDR Division of Leidos has signed a definitive agreement to be acquired by Tetra Tech, Inc., with a planned closing date of August 23. We at BDR are excited about this new chapter in our business and the joining of technical strengths that are highly complementary and will enable us to provide a new and broader set of services to you.

Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. They are a diverse company, including individuals with expertise in science, research, engineering, and information technology (see more at: [www.tetrattech.com](http://www.tetrattech.com)).

***While we may have taken on a new name, you can expect to see the same team and the same focus and commitment to helping you meet your goals.*** As many of our long-term clients can attest, despite our multiple organizational transitions over the last few years we have continued to provide best-in-class service to our clients in preparing for and recovering from disasters. We are, first and foremost, a business built on relationships...and yours is very valuable to us. Therefore, our level of service and commitment to you remains unchanged.

We hope you will join us in celebrating this change in ownership as it provides an exciting opportunity for you, our clients, and our team. We look forward to bringing you a broader range of expertise and an unmatched quality of service.

In the coming weeks you will hear much more about the acquisition, however, we wanted to communicate this information to you as soon as possible. If you have any questions, please do not hesitate to contact Betty Kamara at 321.441.8518 or [betty.v.kamara@leidos.com](mailto:betty.v.kamara@leidos.com). We look forward to continuing doing business with you.

Sincerely,

A handwritten signature in blue ink that reads "Jonathan Burgiel".

Jonathan Burgiel

Vice President



August 26, 2014

Brian Boehs  
Purchasing Agent, Public Works Division  
City of Deltona  
2345 Providence Boulevard  
Deltona, FL 32725

Subject: **Acquisition of Assets of the BDR Division of Leidos, Inc.**

Dear Mr. Boehs:

As you are aware, as of August 23, 2014, Tetra Tech, Inc. (Tetra Tech) acquired the assets of the BDR Division of Leidos, Inc. Tetra Tech will continue to provide the same level of services and support with little or no operational impact.

Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. It is a diverse company, including individuals with expertise in science, research, engineering, and information technology (*see more at [www.tetratech.com](http://www.tetratech.com)*).

While we may have taken on a new name, you can expect to see the same team and the same focus and commitment to helping you meet your goals. As many of our long-term clients can attest, despite our multiple organizational transitions over the last few years, we have continued to provide best-in-class service to our clients in preparing for and recovering from disasters. We are, first and foremost, a business built on relationships...and yours is very valuable to us. Therefore, our level of service and commitment to you remains unchanged.

*For your records, I have enclosed a completed W-9.*

As certain contract of BDR may technically require consent in connection with this transaction, we also request that you indicate your consent pursuant to the following contract you have from us:

***Standby Contract for Emergency Debris Monitoring Services, RFP No. PW 14-03***

*Note that Tetra Tech has succeeded to all of the BDR Division of Leidos, Inc.'s assets and liabilities, including performance obligations under the contract with the City of Deltona, FL. There are no present defenses or avoidances to the performance of same as of August 23, 2014 and that Tetra Tech will perform on said contracts when requested.*

Please contact me directly should you have any further questions regarding this matter, and we look forward to providing outstanding services to the City of Deltona, FL.

Sincerely,

Tetra Tech, Inc.

A handwritten signature in blue ink, appearing to read 'BK' followed by a flourish.

Betty Kamara  
Contracts Administrator

**EXECUTION VERSION**

**ASSET PURCHASE AGREEMENT**

**BY AND BETWEEN**

**LEIDOS, INC.**

**AND**

**TETRA TECH, INC.**

**Dated as of August 11, 2014**

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## ASSET PURCHASE AGREEMENT

This ASSET PURCHASE AGREEMENT (this "Agreement") is dated as of August 11, 2014, by and between Leidos, Inc., a Delaware corporation ("Seller"), and Tetra Tech, Inc., a Delaware corporation ("Buyer").

### RECITALS

WHEREAS, for purposes of this Agreement, Seller is engaged, among other things, in the Business; and

WHEREAS, Seller desires to sell to Buyer, and Buyer desires to purchase from Seller, the assets, properties and rights of Seller primarily used in connection with the Business (other than the Excluded Assets (as hereinafter defined)), and Seller desires to transfer to Buyer, and Buyer desires to assume from Seller, certain liabilities associated with the Business (other than the Excluded Liabilities), all on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth and other good and valuable consideration, the receipt and sufficiency of which is acknowledged, it is hereby agreed between Seller and Buyer as follows (certain initially capitalized terms used herein are defined in ARTICLE 11):

### ARTICLE 1 PURCHASE AND SALE OF ASSETS

#### 1.1 Purchase and Sale of Assets.

(a) Upon the terms and subject to the conditions of this Agreement, on the Closing Date, Buyer shall purchase from Seller, and Seller shall sell, convey, transfer, assign and deliver to Buyer, free and clear of all Encumbrances other than Permitted Encumbrances, all of Seller's right, title and interest in and to the following assets which are primarily utilized in the Business (the following are collectively referred to as the "Assets"):

(i) The tangible personal property set forth on Schedule 1.1(a)(i), as such Schedule may be amended from time to time to reflect operations in the Ordinary Course (the "Transferred Personal Property");

(ii) The Transferred Intellectual Property set forth on Schedule 1.1(a)(ii), which shall specifically include all assets associated with Seller's proprietary RecoveryTrac™ digital processing system ("RecoveryTrac");

(iii) All rights of Seller under the contracts and proposals set forth on Schedule 1.1(a)(iii) (the "Assigned Contracts"), as such Schedule may be amended from time to time to reflect operations in the Ordinary Course;

(iv) All active purchase orders for products or services directly related to the Assigned Contracts;

(v) The Permits set forth on Schedule 1.1(a)(v) to the extent transferable;

(vi) All Contract A/R as listed in the Closing Statement (as updated by the Post-Closing Statement);

(vii) All guarantees, warranties, indemnities and other similar rights in favor of the Seller with respect to any of the Assets;

(viii) Except as otherwise set forth as an Excluded Asset, all books (other than stock record books), records, ledgers, files, studies, reports and other printed or written materials directly related to and primarily maintained in connection with the Business; and

(ix) All goodwill associated with any of the assets described in the foregoing clauses.

Notwithstanding anything to the contrary herein, Seller may retain copies of any Assigned Contracts, documents or records: (A) which relate to properties or activities of Seller other than the Business, (B) which are required to be retained pursuant to any legal requirement or are subject to the attorney-client privilege, or (C) for financial reporting purposes, archival purposes, Tax purposes, legal defense or prosecution purposes or otherwise in connection with the Excluded Assets; provided, however, that Seller shall comply with its obligation of confidentiality hereunder with respect to any such retained copies.

(b) Notwithstanding anything to the contrary herein, Seller shall not sell, contribute, convey, assign or transfer to Buyer, and Buyer shall not acquire or have any rights to acquire, any assets other than those set forth in Section 1.1(a) (all such assets other than the Assets, the "Excluded Assets"). Without limiting the generality of the foregoing, the following are included in the Excluded Assets:

(i) All assets, properties and rights of Seller that are not primarily used in the Business, including, without limitation, all personnel records, information technology assets, telecommunications assets, and Marks (except to the extent set forth on Schedule 1.1(a)(i), Schedule 1.1(a)(ii) or 1.1(a)(iii));

(ii) All cash, cash equivalents and securities of Seller;

(iii) All bank and other depository accounts and safe deposit boxes of Seller;

(iv) All contracts that are not Assigned Contracts;

(v) All Tax refunds, Tax loss carryforwards, Tax deposits and other Tax assets of Seller that relate to any Pre-Closing Tax Period (any such refunds received by Buyer shall be promptly paid over by Buyer to Seller pursuant to Section 1.6(c)), it being understood that any Tax refunds (other than refunds of Taxes payable by Seller under Section

1.6(a) or Section 1.6(b)) received by Buyer relating to the Assets for any period or portion thereof beginning after the Closing Date shall be retained by Buyer);

- (vi) All Tax books and records;
- (vii) All Permits other than as set forth on Schedule 1.1(a)(v);
- (viii) All insurance policies of Seller, any refunds paid or payable in connection with the cancellation or discontinuance of any insurance policies, and any claims made on any such insurance policies;
- (ix) All accounts receivable or notes receivable of Seller that are not Contract A/R;
- (x) All prepaid expenses, credits, advance payments, claims, security, refunds, rights of recovery, rights of set-off, rights of recoupment, deposits, charges, sums and fees;
- (xi) All Actions, demands, rights and privileges against third parties that relate to any of the Excluded Assets, including Actions and rights under insurance policies relating thereto;
- (xii) All assets used in connection with Seller's corporate functions (including, but not limited to, the corporate charter, taxpayer and other identification numbers, seals, minute books, and stock transfer books);
- (xiii) All assets of Seller related to Benefit Plans;
- (xiv) All rights of Seller under the Transaction Documents;
- (xv) All Intellectual Property that is not Transferred Intellectual Property;
- (xvi) All rights of Seller under physically complete and/or closed Government Contracts related to the Business; and
- (xvii) The assets set forth on Schedule 1.1(b)(xvii).

1.2 Assumption of Liabilities. In connection with the sale of the Assets hereunder and upon the terms and subject to the conditions set forth herein, at the Closing, Buyer shall assume and shall thereafter pay, perform, discharge or otherwise satisfy in accordance with its terms, all Liabilities of Seller that arise out of or primarily relate to the Business and/or the Assets (collectively, the "Assumed Liabilities"). Notwithstanding the foregoing, in no event shall Buyer be obligated to assume, perform or otherwise discharge the following: (a) any Liabilities of Seller to the extent Seller receives insurance proceeds or is otherwise indemnified by an unaffiliated third party with respect thereto; (b) Liabilities of Seller that result from misrepresentations or breaches of any warranty by Seller under this Agreement; and (c) Liabilities incurred by Seller as a result of any act performed, transaction entered into, or

state of facts suffered to exist in violation by Seller of any provision of this Agreement. Further, Buyer's assumption of the Assumed Liabilities shall in no way be deemed a waiver or release by Buyer of any rights, at law or in equity, which Buyer may have against Seller as a result of any claim arising out of the breach by Seller of any representation, warranty or covenant of Seller under this Agreement.

1.3 Excluded Liabilities. Buyer shall not assume and shall not be responsible to pay, perform or discharge any of the following Liabilities of Seller (collectively, the "Excluded Liabilities"):

- (a) any Liabilities relating to or arising out of the Excluded Assets;
- (b) any Liabilities for (i) Taxes relating to the Business, the Assets or the Assumed Liabilities for any Pre-Closing Tax Period and (ii) any other Taxes of Seller (other than Taxes payable by Buyer under Section 1.6(a) or Section 1.6(b)) for any taxable period;
- (c) except as specifically provided in Section 6.2, any Liabilities of Seller relating to or arising out of (i) the employment, or termination of employment, of any Business Employee prior to the Closing, or (ii) workers' compensation claims of any Business Employee which relate to events occurring prior to the Closing Date;
- (d) all accounts payable existing as of the Closing Date;
- (e) any Liabilities of Seller arising or incurred in connection with the negotiation, preparation, investigation and performance of this Agreement, the other Transaction Documents and the transactions contemplated hereby and thereby, including, without limitation, fees and expenses of counsel, accountants, consultants, advisers and others; or
- (f) all Liabilities arising out of the performance by Seller of Completed Projects. For this purpose, "Completed Projects" shall mean those task orders, work orders or purchase orders (or any similar orders or obligations) under any of Seller's contracts for which all tasks and deliverables have been completed by Seller prior to the Closing Date. Specifically, but not by way of limitation, the parties acknowledge that Seller is a party to certain contracts (which are included among the Assigned Contracts) with respect to and against which work orders, purchase orders and task orders are issued. It is the intent of the parties that, with respect to such work orders, purchase orders and task orders, Seller will retain liability under such Assigned Contracts with respect to work orders, purchase orders and task orders fully completed prior to the Closing Date, and Buyer will assume liability under such Assigned Contracts with respect to work orders, purchase orders and task orders for which work is in process on the Closing Date or with respect to which work is begun on or after the Closing Date. To the extent work performed under an Assigned Contract is performed subject to a general scope of work as opposed to specific work orders, purchase orders or task orders, and such scope of work has been partially, but not fully completed, Buyer will assume liability for work performed under such Assigned Contracts.

1.4 Purchase Price. In consideration of the sale by Seller to Buyer of the Assets and for Seller's other covenants and agreements herein, Buyer shall pay to Seller an aggregate purchase price equal to \$ [REDACTED] plus an amount (the "Contract A/R Value") equal

to the book value, determined in accordance with GAAP, of the Contract A/R as of the close of business on the Closing Date minus the aggregate of the amounts set forth on Schedule 1.4 (the "Key Employee Benefit Amounts"), which Key Employee Benefit Amounts represent the minimum value of the benefits to be provided by Buyer to each of the Key Employees pursuant to Section 6.2(e) hereof (the "Purchase Price").

(a) At the Closing, upon the assumption by Buyer of the Assumed Liabilities, Buyer shall pay to Seller an amount equal to \$ [REDACTED] plus the Estimated Contract A/R Value (as defined below) minus the Key Employee Benefit Amounts.

(b) At least two (2) Business Days prior to the Closing, Seller shall prepare and deliver to Buyer a statement (the "Closing Statement") setting forth (i) a pro forma statement of accounts receivable of the Business comprising Seller's good faith estimate of Contract A/R as of the close of business on the Closing Date and (ii) Seller's good faith estimate of the Contract A/R Value (the "Estimated Contract A/R Value").

(c) No later than sixty (60) days after the Closing Date, Seller shall calculate the Contract A/R Value and deliver to Buyer a statement (the "Post-Closing Statement") setting forth (i) a pro forma statement of accounts receivable of the Business comprising Contract A/R as of the close of business on the Closing Date and (ii) Seller's calculation of the Contract A/R Value.

(d) If Buyer delivers written notice (the "Contract A/R Disputed Items Notice") to the Seller no later than thirty (30) days after delivery of the Post-Closing Statement, stating that Buyer objects to any portion of the Post-Closing Statement and setting forth Buyer's proposed modifications to the Post-Closing Statement (the "Contract A/R Disputed Items"), then Seller and Buyer will attempt to resolve and finally determine and agree upon the Contract A/R Disputed Items as promptly as practicable. Any portion of the Post-Closing Statement not timely disputed by Buyer in accordance with this Section 1.4(d), or accepted in writing, shall thereupon be deemed accepted.

(e) If Seller and Buyer are unable to agree upon the Contract A/R Disputed Items within thirty (30) days after delivery of the Contract A/R Disputed Items Notice, Seller and Buyer shall submit the dispute to the Arbiter to resolve the Contract A/R Disputed Items specified in the Contract A/R Disputed Items Notice. The Arbiter shall address only the Contract A/R Disputed Items set forth in the Contract A/R Disputed Items Notice, will be bound by the terms and conditions of this Agreement in its calculation of Contract A/R Value, and may not assign a value greater than the greatest value claimed for such item by either party or smaller than the smallest value claimed for such item by either party. Buyer and Seller shall furnish to the Arbiter such work papers and other documents and information related to the disputed issues as the Arbiter may request and are available to that party, and each party shall be afforded the opportunity to present to the Arbiter any materials related to such issues and to discuss the same with the Arbiter. The Arbiter will resolve the Contract A/R Disputed Items specified in the Contract A/R Disputed Items Notice. The determination of the Arbiter will be made no later than sixty (60) days after being selected and will be final, binding and unappealable/unchallengeable upon the parties in the absence of manifest error. The fees, costs and expenses of the Arbiter shall be allocated to be paid by the Buyer and/or the Seller,

respectively, based upon the percentage which the portion of the amount contested and not awarded to each party bears to the total amount contested by such party, as determined by the Arbitrator.

(f) If Buyer does not deliver the Contract A/R Disputed Items Notice to Seller within thirty (30) days after delivery of the Post-Closing Statement, or if Buyer agrees in writing that the calculation of the Contract A/R Value specified in the Post-Closing Statement is acceptable, then such calculations in the Post-Closing Statement will thereupon become final, binding and conclusive upon the parties.

(g) If the Estimated Contract A/R Value is greater than the Contract A/R Value as finally determined pursuant to Section 1.4(e) or Section 1.4(f), as the case may be, then, no later than five (5) Business Days after such final determination, Seller shall pay to Buyer the amount of such difference by wire transfer of immediately available U.S. funds to an account designated by Buyer to Seller in writing at least three (3) Business Days prior to the date the payment is to be made. If the Contract A/R Value as finally determined pursuant to Section 1.4(e) or Section 1.4(f), as the case may be, is greater than the Estimated Contract A/R Value, then, no later than five (5) Business Days after such final determination, Buyer shall pay to Seller the amount of such difference by wire transfer of immediately available U.S. funds to an account designated by Seller to Buyer in writing at least three (3) Business Days prior to the date the payment is to be made.

1.5 Allocation of Purchase Price. Within thirty (30) Business Days of the Closing Date, Seller shall deliver to the Buyer an allocation schedule which allocates the consideration for the Assets, as determined pursuant to Treasury Regulations § 1.1060-1(c) (the "Tax Purchase Price") among the Assets for all purposes (including federal, state, local and foreign Tax purposes and financial accounting purposes), as provided in Code Section 1060 and the Treasury Regulations thereunder (the "Allocation"). Buyer shall have a period of fifteen (15) Business Days after the delivery of the Allocation to present in writing to Seller notice of any objections Buyer may have to the Allocation. If Buyer shall raise any such objections within the fifteen (15) Business Days after the delivery of the Allocation, Buyer and Seller shall negotiate in good faith and use their reasonable best efforts to resolve such dispute. If the parties fail to agree within fifteen (15) Business Days after the delivery of Buyer's objections to Seller, then the disputed items shall be resolved by the Arbitrator, whose determination shall be final and binding on the parties. The fees, costs and expenses of the Arbitrator shall be borne one-half (1/2) by Buyer and one-half (1/2) by Seller. Buyer and Seller shall execute and file all federal, state, local and foreign Tax Returns (including, without limitation, IRS Form 8594) in a manner consistent with the Allocation, as finalized in accordance with this Section 1.5, and shall not take any position in any Tax Return, before any Governmental Authority, or in any Tax proceeding that is inconsistent with the final Allocation, except pursuant to a final "determination" (as defined in Section 1313(a) of the Code or corresponding provision of state, local or foreign Law).

1.6 Allocation of Expenses; Tax Refunds. On the Closing Date, the following expenses attributable to the Assets shall be allocated between and are hereby assumed by Buyer and Seller as follows:

(a) Taxes and Utilities. All state, county and local ad valorem Taxes on real or personal property shall be apportioned between Buyer and Seller, based on the number of days in the Pre-Closing Tax Period and the number of days in the entire taxable period, as of 11:59 P.M. on the Closing Date, computed on the basis of the fiscal year for which the same are levied and all utility charges, gas charges, electric charges, water charges, water rents and sewer rents, if any, shall be apportioned between Buyer and Seller as of 11:59 P.M. on the Closing Date, computed on the basis of the most recent meter charges or, in the case of annual charges, on the basis of the established fiscal year.

(b) Transfer Taxes. Buyer and Seller shall each pay fifty percent (50%) of all transfer, documentary, sales, use, value-added, goods and services, stamp, registration and other such Taxes (including any penalties and interest) incurred in connection with the purchase and sale of the Assets. Buyer and Seller shall cooperate in preparing, executing and filing any Tax Returns required to be filed in connection with any such Taxes, and such Tax Returns shall be prepared in a manner that is consistent with the Allocation. The party responsible under applicable Law for remitting any such Taxes shall notify the other party of the amount thereof, and such other party shall pay fifty percent (50%) of such amount to the responsible party within twenty (20) days of such notice, who in turn shall pay and remit the same to the appropriate Governmental Authority. Buyer and Seller shall take commercially reasonable efforts to eliminate or reduce the amount of any such Taxes imposed on the purchase and sale of the Assets.

(c) Tax Refunds. Any Tax refunds, and any amounts credited against Taxes, with respect to the Assets, the Assumed Liabilities or the Business that relate to the Pre-Closing Tax Period and are received by Buyer shall be for the account of Seller, and Buyer shall promptly pay over to Seller any such refund or the amount of any such credit.

## ARTICLE 2 CLOSING

2.1 Closing Date. The closing of the purchase and sale of Assets provided for in this Agreement (the "Closing") shall be consummated on a date and at a time agreed upon by Buyer and Seller, but in no event later than the fifth (5<sup>th</sup>) Business Day after the conditions set forth in ARTICLE 7 have been satisfied, at the offices of Venable LLP, 8010 Towers Crescent Drive, Suite 300, Tysons Corner, Virginia 22182, or at such other place and in such other manner as may be agreed upon by Buyer and Seller. The date on which the Closing is actually held is referred to herein as the "Closing Date". The Closing shall be effective at 11:59 P.M., Eastern Time, on the Closing Date.

2.2 Buyer's Closing Date Deliveries. At the Closing, Buyer shall deliver to Seller all of the following:

(a) The Purchase Price, by means of a wire transfer of immediately available U.S. funds to an account designated by Seller to Buyer in writing at least two (2) Business Days prior to the Closing Date;

(b) An assignment and assumption agreement substantially in the form of Exhibit A (the "Assignment and Assumption Agreement"), executed by a duly authorized officer of Buyer;

(c) A license agreement for the currently utilized space of the Leased Real Property in a form reasonably satisfactory to Buyer and Seller and approved by the landlord in accordance with the applicable requirements of the Lease (the "License Agreement"), executed by a duly authorized officer of Buyer;

(d) A certificate of good standing of Buyer issued as of a recent date by the Secretary of State of its formation;

(e) Documentation evidencing the authorization of Buyer to execute, deliver and perform this Agreement and the other Transaction Documents and the transactions contemplated hereby and thereby, and the names of the officers of Buyer executing this Agreement and the other Transaction Documents;

(f) A transition services agreement substantially in the form attached hereto as Exhibit B (the "Transition Services Agreement"), executed by a duly authorized officer of Buyer;

(g) A trademark assignment agreement assigning Seller's Marks included in the Transferred Intellectual Property to Buyer, substantially in the form attached hereto as Exhibit C (the "Trademark Assignment Agreement"), executed by a duly authorized officer of Buyer;

(h) a subcontract agreement substantially in the form attached hereto as Exhibit D-1 (the "Subcontract Agreement"), executed by a duly authorized officer of Buyer;

(i) a subcontract agreement substantially in the form attached hereto as Exhibit D-2 (the "GSA Subcontract"), executed by a duly authorized officer of Buyer;

(j) A certificate executed by a duly authorized officer of Buyer certifying that each of the conditions set forth in Sections 7.2(a), 7.2(b) and 7.2(c) have been satisfied; and

(k) Those assignments, approvals, consents and waivers set forth on Schedule 2.2(k).

2.3 Seller's Closing Date Deliveries. At the Closing, Seller shall deliver to Buyer all of the following:

(a) A bill of sale, substantially in the form of Exhibit F, executed by a duly authorized officer of Seller;

(b) The Assignment and Assumption Agreement, executed by a duly authorized officer of Seller;

(c) The License Agreement, executed by a duly authorized officer of Seller;

(d) Copies of all instruments, certificates, documents and other filings necessary to release the Assets from all Encumbrances other than Permitted Encumbrances;

(e) A certificate of good standing of Seller issued as of a recent date by the Secretary of State of the State of Delaware;

(f) Documentation evidencing the authorization of Seller to execute, deliver and perform this Agreement and the other Transaction Documents and the transactions contemplated hereby and thereby, and the names of the officers of Seller executing this Agreement and the other Transaction Documents;

(g) A properly executed certificate of non-foreign status, described under Treasury Regulation Section 1.1445-2(b)(2);

(h) The Transition Services Agreement, executed by a duly authorized officer of Seller;

(i) The Trademark Assignment Agreement, executed by a duly authorized officer of Seller;

(j) The Subcontract Agreement, executed by a duly authorized officer of Seller;

(k) The GSA Subcontract, executed by a duly authorized officer of Seller;

(l) A certificate executed by a duly authorized officer of Seller certifying that each of the conditions set forth in Sections 7.1(a), 7.1(b) and 7.1(c) have been satisfied; and

(m) Those assignments, approvals, consents and waivers set forth on Schedule 2.3(m).

### ARTICLE 3 REPRESENTATIONS AND WARRANTIES OF SELLER

Seller represents and warrants to Buyer that the statements contained in this ARTICLE 3 are correct and complete as of the date hereof and will be correct and complete as of the Closing Date (unless such statement refers to a specific date, in which case, such statement shall be correct and complete as of such specific date) except as set forth in the Disclosure Schedule.

3.1 Organization and Power. Seller is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. Seller is duly qualified to conduct the Business under the laws of each jurisdiction where the

character of the Assets or its conduct of the Business makes such qualification necessary, except where the failure to be qualified would not have a Material Adverse Effect. Seller has the corporate power and authority to own or lease and operate the Assets and to carry on the Business in the manner conducted immediately prior to the date of this Agreement.

3.2 Actions and Authority; Enforceability. Seller has all requisite corporate power and authority to execute and deliver this Agreement and each Transaction Document to which it is a party, to perform its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Agreement and each Transaction Document to which Seller is a party by Seller and the consummation by Seller of the transactions contemplated hereby and thereby have been duly and validly authorized by all requisite corporate action on the part of Seller and no other proceedings on the part of Seller are necessary to authorize this Agreement and each Transaction Document to which Seller is a party or to consummate the transactions so contemplated. This Agreement and each Transaction Document to which Seller is a party has been duly and validly executed and delivered by Seller and, assuming such agreements constitute the legal, valid and binding obligations of Buyer, constitute the legal, valid and binding agreements of Seller, enforceable against Seller in accordance with their terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium and other Laws of general application affecting the rights and remedies of creditors and (b) general principles of equity.

### 3.3 Consents and Approvals; No Violations.

(a) Except as set forth on Schedule 3.3(a), neither the execution and delivery of this Agreement by Seller, nor the consummation of the transactions contemplated hereby, will: (i) violate any Order or other restriction, or Law of any Governmental Authority to which the Business, the Assets or the Assumed Liabilities are subject, (ii) violate any provision of the certificate of incorporation of Seller or the bylaws of Seller, (iii) violate or constitute a default under, result in the termination of, or accelerate performance required by any of the terms, conditions or provisions of any Assigned Contract or (iv) result in the creation of any Encumbrance on the Assets.

(b) Except as set forth on Schedule 3.3(b), no consent, approval, novation, order or authorization of, or registration, qualification, designation, declaration or filing with, any Governmental Authority on the part of Seller is required to consummate the transactions contemplated by this Agreement.

3.4 Business Financial Reports. Seller has delivered to Buyer copies of (a) its unaudited statement of current assets (other than cash) and current liabilities with respect to the Business identified therein as at May 2, 2014, which statement is set forth on Schedule 3.4(a), and (b) its unaudited statement of total revenue, direct costs, gross margin, indirect costs, and contribution profit with respect to the Business identified therein for the fiscal year to date period ended May 2, 2014, which statement is set forth on Schedule 3.4(b) (such statements collectively, the "Business Financial Reports"). The Business Financial Reports are derived from the financial records of Seller and fairly present, in all material respects, the assets and liabilities of, and the revenue, costs identified therein, and contribution profit with respect to,

the Business identified in the Business Financial Reports as of the dates and for the period indicated, in each case, subject to the disclosures and limitations set forth in the Business Financial Reports.

3.5 Absences of Certain Changes. Except as set forth in Schedule 3.5, since January 31, 2014, (a) Seller has conducted the Business only in the Ordinary Course, (b) there has not been any event, change, circumstance or development (whether or not arising in the Ordinary Course) which has had or could reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, and (c) Seller has not, outside the Ordinary Course:

- (a) incurred any Encumbrance on any of the Assets;
- (b) acquired any Assets or properties;
- (c) materially damaged any Assets, or incurred or caused any material loss, destruction or casualty with respect to the Business not covered by insurance;
- (d) amended, modified or terminated any Assigned Contract;
- (e) acquired, sold, transferred or disposed of, or agreed to acquire, sell, transfer or otherwise dispose of, or entered into any agreement requiring the consent of any party to the transfer and assignment of, any Assets;
- (f) with respect to the Business, except as required by applicable Law or by the terms of any Benefit Plan, (i) hired any individual as an employee, (ii) hired or engaged any individual as a consultant or independent contractor, (iii) increased the annual salary, bonus or other compensation payable or to become payable to any employee, consultant or independent contractor, other than normal increases in the Ordinary Course; (iv) increased the coverage or benefits available under any existing, or created any new, severance pay, termination pay, vacation pay, company awards, salary continuation for disability, sick leave, deferred compensation, bonus or other incentive compensation, insurance, pension or other employee benefit plan or arrangement or otherwise modified or amended or terminated any such plan or arrangement, or (v) entered into any employment, deferred compensation, severance, consulting, non-competition or similar agreement (or amended any such existing agreement) with any employee, consultant or independent contractor of the Business, except, in each case, as required by applicable Law or by the terms of any Benefit Plan or in the Ordinary Course;
- (g) with respect to the Business, made any loans to any of its Affiliates or changed any of its existing borrowing or lending arrangements for or on behalf of any of such Persons pursuant to a Benefit Plan or otherwise;
- (h) entered into, modified or terminated any labor or collective bargaining agreement covering any Business Employee or, through negotiations or otherwise, made any commitment or incurred any Liability to any labor organization representing any employee of the Business;
- (i) entered into any transaction between the Seller and any of its Affiliates that has materially impacted or could reasonably be expected to materially impact the Assets;

(j) with respect to the Business, made any changes in any of its sales practices or credit terms, except in the Ordinary Course; or

(k) entered into any agreement to do any of the things described in the preceding clauses (a) through (j).

### 3.6 Taxes.

(a) There are no Encumbrances for Taxes, other than Permitted Encumbrances, on any of the Assets.

(b) None of the Assets is tax-exempt use property within the meaning of Section 168(h) of the Code.

(c) None of the Assumed Liabilities is an obligation to make a payment that is not fully deductible under Section 162(m) or Section 280G of the Code.

(d) Seller has collected all sales, use, transaction privilege and value added Taxes required to be collected with respect to the Business, and has remitted, or will remit on a timely basis, such amounts to the appropriate Governmental Authority and has furnished properly completed exemption certificates for all exempt transactions.

(e) Seller has properly withheld income and social security or other similar Taxes and paid payroll Taxes with respect to all persons properly characterized as Business Employees for foreign, federal, state or local Tax purposes.

3.7 Permits. Schedule 3.7 sets forth all Permits owned, held or possessed by Seller as of the date of this Agreement that are used primarily in the Business ("Governmental Permits"). Each Governmental Permit is in full force and effect and Seller is not in violation of or default thereunder, and, to the Knowledge of Seller, no suspension or cancellation of any such Governmental Permit is threatened.

### 3.8 Real Property.

(a) Schedule 3.8 lists all real property leased or subleased to Seller used in the Business and all real property subleased by Seller to any third parties used primarily in the Business. With respect to the Leased Real Property: (i) the lease or sublease (the "Lease") is in full force and effect and is binding, and enforceable against Seller, and to the Knowledge of Seller, each of the other parties thereto, in accordance with its terms subject to (A) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium and other Laws of general application affecting the rights and remedies of creditors and (B) general principles of equity, (ii) Seller is not in material breach or material default under any lease or sublease and, to the Knowledge of Seller, no event has occurred which, with notice or lapse of time, would constitute a material breach or material default or permit termination, modification or acceleration thereunder, (iii) Seller has a good and valid leasehold interest in the Leased Real Property, free and clear of any Encumbrance except for Permitted Encumbrances, (iv) Seller has not received written notice of any condemnation or eminent domain proceeding pending or threatened against such property or any part thereof, (v) other than Seller, there are no parties in possession or

parties having any rights to occupy any of the Leased Real Property, and (vi) except as set forth on Schedule 3.8, the Leased Real Property constitutes all of the real property utilized by Seller in the operation of the Business and is sufficient for Seller to operate the Business.

(b) The Leased Real Property is adequate and suitable for the purposes for which it is currently being used. Without limiting the generality of the foregoing:

(i) no alteration, repair, improvement or other work has been ordered, directed or requested in writing by any Governmental Authority to be done or performed by or on behalf of Seller to or in respect of the Leased Real Property or to any of the plumbing, heating, water, drainage or electrical systems, or fixtures, which alteration, repair, improvement or other work has not been completed, and Seller has no Knowledge of any written notification having been given to Seller of any such outstanding work being ordered, directed or requested, other than those that have been complied with;

(ii) all accounts for work and services performed and materials placed or furnished upon or in respect of the Leased Real Property at the request of Seller have been fully paid and satisfied, and no Person (other than the landlord under the Lease) is entitled to claim an Encumbrance in respect of the Leased Real Property or any part thereof, other than current accounts in respect of which the payment due date has not yet passed;

(iii) there is nothing owing in respect of the Leased Real Property by Seller to any enterprise owning or operating a public utility for water, gas, electrical power or energy, or for the use thereof, other than current accounts in respect of which the payment due date has not yet passed;

(iv) the Leased Real Property is not currently undergoing any alteration or renovation by or on behalf of Seller, and no such alteration or renovation is contemplated; and

(v) to the Knowledge of the Seller, the Leased Real Property, and the condition or use thereof, does not contravene or violate any material building, zoning, fire safety, seismic, design, conservation, parking, architectural barriers to the handicapped, occupational safety and health or other applicable Law, or any restrictive covenant.

3.9 Assets of the Business. When taken together with Buyer's rights under the Transition Services Agreement and except as disclosed in Schedule 3.9, the Assets (a) comprise, in all material respects, all of the assets of Seller or its Affiliates which are primarily used in the conduct of the Business as presently conducted and (b) are sufficient in all material respects for the conduct the Business as presently conducted. Except as disclosed in Schedule 3.9 and for ordinary wear and tear, each item of Transferred Personal Property is, in all material respects, in good repair and in good operating condition. Seller exclusively owns and has good title to all tangible assets among the Assets free and clear of all Encumbrances except for Permitted Encumbrances.

### 3.10 Intellectual Property.

(a) Schedule 3.10(a) sets forth a true, correct and complete list of all Transferred Intellectual Property. Seller owns or has the right to use the Transferred Intellectual Property in connection with the operation and conduct of the Business as presently conducted.

(b) No Transferred Intellectual Property is subject to any legal proceeding or outstanding Order (i) restricting in any manner the use thereof by Seller, or (ii) that would affect the validity, use or enforceability of any such Transferred Intellectual Property. During the past two (2) years prior to the date hereof, Seller has not received any charge, complaint, claim, demand or notice alleging any infringement or misappropriation of any Transferred Intellectual Property. To the Knowledge of Seller, the Transferred Intellectual Property does not infringe upon or misappropriate any intellectual property rights of third Persons.

(c) All necessary registration, maintenance and renewal fees currently due and owing in connection with any pending applications or active registrations for the Transferred Intellectual Property have been paid and all necessary documents, recordations and certifications in connection with such applications or registrations for the Transferred Intellectual Property have been filed with the relevant patent, copyright, trademark or other authorities in the United States or foreign jurisdictions, as the case may be, for the purposes of maintaining such Transferred Intellectual Property and recording ownership by Seller of Transferred Intellectual Property.

(d) To the Knowledge of Seller, the operations of the Business as currently conducted do not infringe or misappropriate the Intellectual Property of any third party or constitute unfair competition or trade practices under the Laws of any jurisdiction in which the operations of the Business are currently conducted.

(e) With respect to RecoveryTrac, (i) Seller has not entered into any written agreements limiting its ability to develop the software (ii), RecoveryTrac does not violate any written license agreements that Seller has executed or, to the Knowledge of Seller, infringe on any intellectual property rights of others arising under U.S. Law, (iii) except as set forth on Schedule 3.10(e), Seller has not licensed, granted use rights or given the RecoveryTrac source code to any third party, (iv) all rights to the RecoveryTrac developed software, including the source code, will be included among the Transferred Intellectual Property, and (v) RecoveryTrac functions in connection with the Business as conducted on the date hereof and in accordance with any written requirements in any agreements by which the Seller grants a license to use Recoverytrac.

### 3.11 No Violation, Litigation or Regulatory Action.

(a) Except as set forth on Schedule 3.11(a), Seller is in compliance, in all material respects, with all applicable Laws and Orders relating to the Business. Seller has not received a written notice or other written communication alleging a possible violation of any Law or Order applicable to the Business or the Assets, and no such written notice, communication or allegation has been threatened in writing.

(b) Except as set forth on Schedule 3.11(b), there are no Actions arising out of the operation of the Business pending or, to the Knowledge of Seller, threatened, against Seller.

(c) There are no Actions pending or, to the Knowledge of Seller, threatened, that question the legality or propriety of the transactions contemplated by this Agreement or any of the other Transaction Documents.

(d) Except as set forth on Schedule 3.11(d), there is no Order to which the Business or the Assets is subject.

(e) Seller has not, in connection with the Business, directly or indirectly offered, paid or promised to pay, or authorized the payment of, any money or other thing of value or any commission payment payable, to any Person in violation of any applicable Law or where such payment would constitute a bribe, kickback or illegal or improper payment to assist Seller in obtaining or retaining business for, with, or directing business to, any Person, for any of the following purposes: (i) influencing any action or decision of such Person in such Person's official capacity, including a decision to fail to perform such Person's official function; or (ii) inducing such Person to use such Person's influence with any Governmental Authority to affect or influence any act or decision of such Governmental Authority.

3.12 Contracts. Schedule 3.12 sets forth a list of each of the following as of the date of this Agreement (except to the extent that any such agreements cannot be disclosed by Seller under applicable Laws):

(a) Any contract (but excluding all purchase orders) relating primarily to the Business and (i) involving the obligation of Seller to purchase products or services pursuant to which the aggregate of payments to become due from Seller exceeds \$ [REDACTED] annually, or (ii) involving the obligation to make payment to Seller in excess of \$ [REDACTED] annually;

(b) Any contract pertaining primarily to the Business under which Seller has agreed as a principal purpose of such agreement to indemnify any third party;

(c) Any commitment of Seller in excess of \$50,000 pertaining primarily to the Business to make a capital expenditure or to purchase a capital asset;

(d) Any contract that contains a covenant not to compete pertaining to the Business;

(e) Any lease or similar agreement pertaining primarily to the Business under which (i) Seller is the lessee of, or holds or uses, any machinery, equipment, vehicle or other tangible personal property owned by any third Person for an annual lease payment in excess of \$ [REDACTED] or (ii) Seller is the lessor of, or makes available for use by any third Person, any tangible personal property owned by it for an annual lease payment in excess of \$100,000;

(f) Any contract establishing or relating to a partnership, joint venture, teaming arrangement, exclusivity, consortium or other similar arrangement, in each case, which primarily relates to the Business;

(g) Any contract relating to Indebtedness which primarily relates to the Business;

(h) Any contract that limits the ability of Seller to own, operate, sell, transfer, pledge or otherwise dispose of any Assets;

(i) Any contract, other than contracts with customers or vendors in the Ordinary Course, under which Seller has agreed to indemnify, or to provide any warranty or guaranty in favor of, any Person;

(j) Any contract that requires the payment of commissions, finder's fees or similar payments by Seller; or

(k) Any other contract not made in the Ordinary Course that is material to the Business.

3.13 Status of Contracts. As of the date hereof, each Assigned Contract (excluding Government Contracts and Government Bids which are the subject of Section 3.14 below) is valid, binding and in full force and effect. Seller has either delivered to Buyer or has given Buyer access to a true and correct copy of all such Assigned Contracts. With respect to each Assigned Contract other than Government Contracts and Government Bids, except as set forth on Schedule 3.13:

(a) there is no default under such Assigned Contract by Seller or, to the Knowledge of Seller, by any other party thereto, and no event has occurred that with the lapse of time or the giving of notice or both would constitute a default thereunder by Seller or, to the Knowledge of Seller, any other party;

(b) no party to such Assigned Contract has given written notice to Seller or, to the Knowledge of Seller, oral notice to Seller of or made a claim against Seller with respect to any breach or default thereunder;

(c) no party to such Assigned Contract has given written notice to Seller or, to the Knowledge of Seller, oral notice to Seller that it intends to cancel or withdraw such Assigned Contract;

(d) (i) to the Knowledge of Seller, Seller has complied with all material terms and conditions of such Assigned Contract and of any bid that, if accepted or successful, would result in an Assigned Contract other than a Government Contract (a "Commercial Bid"), including all clauses, provisions and requirements incorporated expressly or by reference therein; (ii) Seller has complied, in all material respects, with all requirements of any statute, rule, regulation or Order of any Governmental Authority or any agreement pertaining to such Assigned Contract or any Commercial Bid; (iii) no Governmental Authority nor any prime contractor, subcontractor or other Person has notified Seller in writing or, to the

Knowledge of Seller, orally, that Seller has breached or violated any such statute, rule, regulation, representation, clause, provision or requirement with respect to such Assigned Contract or any Commercial Bid; (iv) no termination for convenience, termination for default, cure notice or show cause notice has been issued with respect to such Assigned Contract; (v) except for disallowances in the Ordinary Course, no cost incurred by Seller has been disallowed by a customer or Governmental Authority; and (vi) to the Knowledge of Seller, except as permitted by the Assigned Contract or agreed to in the Ordinary Course, no money due to Seller has been withheld or set off;

(e) to the Knowledge of the Seller, there exist (i) no financing arrangements with respect to the performance by Seller of such Assigned Contract other than surety bonds; (ii) no outstanding claims or requests for financial adjustments against Seller, either by any party to such Assigned Contract, any Governmental Authority or by any prime contractor, subcontractor, vendor or other third party, arising under or relating to such Assigned Contract or any Commercial Bid; and (iii) no contract disputes for which written notice has been given or of which the Seller otherwise has Knowledge, between the Seller and any party to an Assigned Contract, any Governmental Authority or any prime contractor, subcontractor or vendor arising under or relating to any Assigned Contract; and

(f) to the Knowledge of Seller, the revenue and gross profit associated with each of the Assigned Contracts, as applicable, have been recorded in accordance with GAAP, and there exists no uncompleted Assigned Contract as to which the Seller's estimated cost at completion (without any Buyer-related overhead), including material and labor costs, other direct costs, overheads, and engineering costs whether incurred or yet to be incurred, exceeds the aggregate contract revenue recorded or to be recorded under such Assigned Contract through completion.

### 3.14 Government Contracts and Regulatory Matters.

#### (a) Lists of Government Contracts and Government Bids.

(i) Each Government Contract relating primarily to the Business the period of performance of which has not yet expired or terminated or for which final payment has not yet been received (each, a "Current Government Contract") is, except as set forth in Schedule 3.14(a)(i), in full force and effect and constitutes a legal, valid and binding agreement, enforceable against Seller and, to the Knowledge of Seller, against the other parties thereto, in accordance with its terms. Schedule 3.14(a)(i) sets forth as of the date hereof a current, complete and accurate list of all Current Government Contracts for which there is a reasonable likelihood of payment or financial liability greater than \$ [REDACTED] thereunder.

(ii) Schedule 3.14(a)(ii) sets forth a current, complete and accurate list of each unexpired Government Bid relating primarily to the Business as of the date hereof.

#### (b) Representations and Warranties Regarding Government Contracts.

With respect to each Current Government Contract or Government Bid, except as set forth on Schedule 3.14(b): (i) Seller has complied in all material respects with all terms and conditions of such Current Government Contract or Government Bid, including all clauses, provisions and

requirements incorporated expressly by reference or by operation of Law therein; (ii) all representations and certifications executed, acknowledged or set forth in or pertaining to such Current Government Contract or Government Bid were complete and correct in all material respects as of the dates they were made (or deemed made), and Seller has complied in all material respects with all such representations and certifications, including those required by or relating to the Foreign Corrupt Practices Act, the Cost Accounting Standards, and the regulations and rules relating to the submission of progress payment requests; (iii) all Cost or Pricing Data (as defined by the regulation(s) and/or contractual language applicable to each Current Government Contract or Government Bid) and other information submitted by Seller in support of the negotiation of the Current Government Contracts or Government Bids, or modifications thereto, or in support of requests for payments thereunder, was, as of the date of price agreement or payment submission current, accurate and complete in all material respects; (iv) neither any Governmental Authority nor any prime contractor, subcontractor or other Person has notified Seller, either in writing or, to the Knowledge of Seller, orally, that Seller has breached or violated any Law, certification, representation, clause, provision or requirement pertaining to such Current Government Contract or Government Bid; (v) Seller has not been notified in writing or, to the Knowledge of Seller, orally, by any Governmental Authority, any prime contractor, subcontractor or any other Person that any such Current Government Contract has been terminated for any reason and no cure notice or show cause notice is currently in effect pertaining to any such Current Government Contract or Government Bid; and (vi) no money due to Seller pertaining to such Current Government Contract or Material Government Bid has been withheld or offset nor has any claim been made in writing to withhold or offset money.

(c) The Business is not (or during the last five (5) years has not been), and, to the Knowledge of the Seller, none of the Business Employees is (or during the last five (5) years has been), (i) under administrative, civil or criminal investigation, indictment or, to the Knowledge of the Seller, information, audit or internal investigation by any Governmental Authority other than in the Ordinary Course, or (ii) in violation, in any material respect, of any statutes or regulations applicable to the Business that are specifically applicable to Government Contracts, including prohibitions against conflict of interest or any governmental accounting regulations. There has been no audit or investigation related to the Business with respect to any alleged irregularity, misstatement or omission arising under or relating to any Current Government Contract or Government Bid. During the last five (5) years, Seller has not conducted or initiated any internal investigation or made a voluntary disclosure to any Governmental Authority with respect to any alleged irregularity, misstatement or omission arising under or relating to a Current Government Contract or Government Bid.

(d) There exist no outstanding material disputes with Seller, either by any Governmental Authority or by any prime contractor, subcontractor, vendor or other third party, arising under or relating to any Current Government Contract or Government Bid.

(e) Seller's accounting system for the Business meets the applicable regulatory and/or contractual requirements for each Current Government Contract or Government Bid in all material respects. To the Knowledge of the Seller, there are no reports resulting from financial contract audits or other investigations by any Governmental Authority of any of the Government Contracts (past or present) that conclude that Seller engaged in

overcharging or other defective pricing practices or in other practices in violation of applicable regulatory or contractual requirements.

(f) To the Knowledge of Seller, the revenue and gross profit associated with each of the Current Government Contracts, as applicable, have been recorded in accordance with GAAP, and there exists no uncompleted Current Government Contract as to which the Seller's estimated cost at completion (without any Buyer-related overhead), including material and labor costs, other direct costs, overheads, and engineering costs whether incurred or yet to be incurred, exceeds the aggregate contract revenue recorded or to be recorded under such Current Government Contract through completion.

### 3.15 Employee Benefits.

(a) Each Benefit Plan is set forth on Schedule 3.15(a), and Seller has made available to Buyer true and correct copies of such plans or a summary of the general terms of any such Benefit Plan.

(b) Each Benefit Plan intended to meet the requirements of Section 401(a) of the Code has received a favorable determination or opinion letter from the IRS as to its tax-qualified status, and nothing has occurred (whether by act or omission) since the issuance of such determination or opinion letter that would reasonably be expected to adversely affect the tax-qualified status of such Benefit Plan.

(c) No Benefit Plan is a "multiemployer plan" within the meaning of Section 3(37) of ERISA. Neither Seller nor any ERISA Affiliate sponsors, maintains, contributes to or has an obligation to contribute to a single employer plan or other pension plan subject to Title IV or Section 302 of ERISA or Section 412 of the Code.

(d) Except as disclosed on Schedule 3.15(d), as a result of the sale of the Assets and the Business to Buyer or the employment by Buyer of the Designated Employees, Buyer will not incur any Liability with respect to the Benefit Plans previously maintained, now maintained, or at any time in the future maintained by Seller or by any Affiliate of Seller, including Liability with respect to funding obligations to or with respect to any Benefit Plan.

(e) There is no Litigation and, to the Knowledge of Seller, there are no investigations, either currently in progress or threatened, relating to any Benefit Plan, by any administrative agency, whether local, state or federal.

(f) Seller has no intention or commitment, whether legally binding or not, to create any additional Benefit Plan for Business Employees, or to modify or change any existing Benefit Plan for Business Employees, other than changes that are necessary to comply with applicable Law or that are contemplated under the terms of this Agreement.

3.16 Environmental Compliance; Health and Safety Matters. Except as set forth on Schedule 3.16:

(a) The Business is in compliance, in all material respects, with currently applicable Environmental Laws.

(b) Seller possesses all material Permits required under Environmental Laws (the “Environmental Permits”) for operation of the Business as currently conducted. A true and complete list of all such Environmental Permits is set out in Schedule 3.16. Except as set forth on Schedule 3.16, all of the Environmental Permits are transferable and none requires consent, notification or other action to remain in full force and effect following the Closing.

(c) During the two (2) years prior to the date hereof, Seller has not received any written notice of violation, nor is any Action pending or, to the Knowledge of Seller, threatened, asserting Liability under any Environmental Law arising from Seller’s operation of the Business.

(d) During the past two (2) years prior to the date hereof, the Business has not transported or arranged for the treatment, storage, handling, disposal or transportation of any Hazardous Substance to any off-site location which would be reasonably expected to result in any Liability to Buyer under any Environmental Law.

(e) Seller has furnished or caused to be furnished to Buyer copies of all environmental assessments, reports, audits and other information in its possession or under its control that relate to the Leased Real Property. To the Knowledge of Seller, any information furnished or made available to Buyer by Seller concerning the Leased Real Property was accurate and complete in all material respects when furnished.

(f) Seller has not, as related to the Business or the Business Employees, been involved in any event involving loss of life, bodily injury or any material violation of or non-compliance with Environmental Law during the most recent five (5) year period.

### 3.17 Employee Relations and Agreements.

(a) There are no collective bargaining agreements with any union or other bargaining group for any Business Employees and, to the Knowledge of Seller, there have been no union organizational efforts involving Business Employees during the two (2) years prior to the date hereof. There is no strike, labor dispute, work slowdown or stoppage pending or, to the Knowledge of Seller, threatened against the Business and there has not been any such strike, labor dispute, work slowdown or stoppage within the two (2) years prior to the date hereof.

(b) Schedule 3.17(b)(i) sets forth the name of all Business Employees, together with their position, work location and length of service, and a notation next to the name of any Business Employee who is subject to any Employment Agreement. Except as set out on Schedule 3.17(b)(ii), no Business Employee is (i) on short-term or long-term disability leave, (ii) on leave of absence under the Family and Medical Leave Act of 1993 (or comparable state statute), (iii) on military leave (under conditions that give the employee re-employment rights), (iv) receiving benefits pursuant to workers’ compensation legislation as of the date of this Agreement, or (v) other Seller-approved leave of absence. All current assessments under workers’ compensation legislation in relation to the Business have been paid or accrued and Seller has not been subject to any special or penalty assessment with respect to the Business

under such legislation which has not been paid. Except to the extent set forth in Schedule 3.17(b)(ii):

(i) with respect to the Business, Seller is in compliance in all material respects with all Laws, Orders and other requirements respecting employment and employment practices as to the Business Employees, including, without limitation, any Laws relating to wrongful discharge, discrimination, wages, hours, collective bargaining, fair labor standards, or occupational health and safety; and is not engaging in any unfair labor practice with respect to any Business Employee;

(ii) there is no existing material default or material breach of Seller under any Employment Agreement (or event or condition that, with notice or lapse of time or both could constitute such a material default or material breach) and, to the Knowledge of Seller, there is no such material default (or event or condition that, with notice or lapse of time or both, could constitute such a material default or material breach) with respect to any other party to any Employment Agreement;

(iii) other than the Employment Agreements, there is no severance, consulting, relocation or other agreement, contract or understanding between Seller and any of the Business Employees, other than at-will employment arrangements;

(iv) there is no pending or, to the Knowledge of Seller, threatened charge, complaint, or claim against Seller before any Governmental Authority with respect to any Business Employee;

(v) Seller has paid and performed all material obligations when due with respect to the Business Employees, including without limitation the payment of any accrued and payable wages, severance pay, vacation pay, benefits and commissions, except those obligations that are in good faith being challenged by Seller as not valid obligations;

(vi) there are no pending or, to the Knowledge of Seller, threatened claims or Actions against Seller with respect to any Business Employee under any workers' compensation policy or long-term disability policy; and

(vii) to the Knowledge of Seller, there are no blood or spousal relationships between (A) supervisory Business Employees, and (B) Business Employees whom such supervisory Business Employees directly or indirectly supervise.

(c) Seller has not, at any time within the ninety (90)-day period prior to the date of this Agreement, effectuated any "plant closing", "mass layoff" (each as defined in the Worker Adjustment, Retraining and Notification Act, 29 U.S.C. Sec. 2101, et seq. ("WARN")) or any other similar event, affecting in whole or in part, any Business Employee.

(d) Seller has not mischaracterized any Business Employee as an independent contractor. Seller is not subject to any pending claim for overdue overtime compensation due to any Business Employee, and to the Knowledge of Seller, no such claim has been threatened.

3.18 No Brokers. Except as set out on Schedule 3.18, neither Seller nor any Person acting on its behalf has become obligated to pay any fee or commission to any broker, finder or intermediary for or on account of the transactions contemplated by this Agreement.

3.19 Relations with Suppliers and Customers.

(a) Schedule 3.19(a) sets forth a list of the top ten (10) suppliers (each a "Material Supplier") of products, supplies or services of the Business by dollar volume of purchases for the most recent fiscal year of Seller. Seller has not received notice from any Material Supplier to the effect that it will stop, materially decrease the rate of, or materially change the terms (whether related to payment, price or otherwise) with respect to, supplying materials, products or services to Seller for purposes of, or in connection with, the Business.

(b) Schedule 3.19(b) sets forth a list of the top ten (10) customers (each a "Material Customer") of services of the Business by revenue for the most recent fiscal year of Seller. Seller has not received notice from any Material Customer to the effect that it will terminate or materially alter its business relations with the Seller in connection with the Business.

3.20 Affiliate Transactions. Except as set forth on Schedule 3.20, to the Knowledge of the Seller, other than for compensation received as employees and reimbursement for expenses incurred in the Ordinary Course, no Affiliate of Seller, no Person with whom any such Affiliate has any direct or indirect relation by blood, marriage or adoption, no entity in which any such Affiliate or Person owns any beneficial interest (other than a publicly held entity whose stock is traded on a national securities exchange or in the over-the-counter market and less than five percent (5%) of the stock of which is beneficially owned by all such Affiliates and Persons in the aggregate), and no Affiliate of any of the foregoing has any interest in any of the Assets.

3.21 No Undisclosed Liabilities. As of the date hereof, the Business does not have any Liabilities of a nature required by Seller's accounting policies to be reflected on the face of a balance sheet except for (a) Liabilities disclosed, reflected or reserved against on the Business Financial Reports, (b) Liabilities incurred since January 31, 2014 in the Ordinary Course, (c) the matters disclosed in or arising out of matters set forth on the Disclosure Schedule, or (d) Liabilities incurred in connection with this Agreement and the transactions contemplated hereby. Notwithstanding the foregoing, no representation or warranty is made pursuant to this Section 3.21 with respect to any Liabilities relating to or arising from matters that are explicitly covered by another representation or warranty contained in this ARTICLE 3.

3.22 Contract A/R. All Contract A/R (a) arose in the Ordinary Course, (b) are valid, existing and collectible in full within one hundred eighty (180) days of the Closing Date without resort to legal proceedings or collection agencies, and (c) are not subject to any refund or adjustment or any defense, right of set-off, assignment, restriction, security interest or other Encumbrance. No third party has initiated or threatened in writing to initiate, a dispute regarding the collectability of any Contract A/R.

3.23 Surety Arrangements. Schedule 3.23 contains a complete, current and correct list of all outstanding bonds (including any bid, performance and payment bonds), letters of credit and other surety arrangements issued or entered into in connection with the Business, Assets and Liabilities of Seller, whether Seller is principal or obligee thereunder. Seller is not in default under any of such arrangements.

3.24 No Additional Representations. Except for the representations and warranties contained in this ARTICLE 3 (as modified by the Disclosure Schedule), neither Seller nor any other Person has made or shall be deemed to have made any representation or warranty to Buyer, express or implied, at Law or in equity, with respect to the Business or the Assets, including any representations and warranties as to the accuracy or completeness of any future sales, revenue, profitability or success of the Business, or any representations or warranties arising from statute or otherwise in Law, from a course of dealing or a usage of trade. All other representations and warranties are expressly disclaimed by Seller.

#### ARTICLE 4 REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer represents and warrants to Seller that the statements contained in this ARTICLE 4 are correct and complete as of the date hereof and will be correct and complete as of the Closing Date (unless such statement refers to a specific date, in which case, such statement shall be correct and complete as of such specific date).

4.1 Organization. Buyer is a duly organized and validly existing corporation in good standing under the Laws of Delaware with all corporate power and authority to own or lease all of its properties and assets and to conduct its Business as presently conducted.

4.2 Actions and Authority; Enforceability. Buyer has all requisite corporate power and authority to execute and deliver this Agreement and each Transaction Document to which it is a party, to perform its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Agreement and each Transaction Document to which Buyer is a party by Buyer and the consummation by Buyer of the transactions contemplated hereby and thereby have been duly and validly authorized by the Board of Directors of Buyer and no other corporate proceedings on the part of Buyer are necessary to authorize this Agreement and each Transaction Document to which Buyer is a party or to consummate such transactions. This Agreement and each Transaction Document to which it is a party has been duly and validly executed and delivered by Buyer and, assuming such agreements constitute the legal, valid and binding obligations of Seller, constitute the legal, valid and binding agreements of Buyer, enforceable against Buyer in accordance with their terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium and other Laws of general application affecting the rights and remedies of creditors and (b) general principles of equity.

4.3 Consents and Approvals; No Violation.

(a) Except as set forth on Schedule 4.3(a), neither the execution and delivery of this Agreement by Buyer, nor the consummation of the transactions contemplated hereby, will: (i) violate any Order or other restriction, or Law of any Governmental Authority to which Buyer is subject, (ii) violate any provision of the certificate of incorporation or bylaws of Buyer, (iii) materially violate or constitute a material default under, result in the termination of, or accelerate performance required by any of the terms, conditions or provisions of any material note, mortgage, deed of trust, lease or agreement of Buyer or (iv) result in the creation of any Encumbrance on the material assets or properties of Buyer, except in the cases of clauses (iii) and (iv) where such violation, default or creation would not be reasonably expected to have a material adverse effect on Buyer's ability to consummate the transactions herein.

(b) Except as set forth on Schedule 4.3(b), no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any Governmental Authority on the part of Buyer is required to consummate the transactions contemplated by this Agreement.

4.4 Claims and Proceedings. There is no Action (whether civil, criminal, administrative, investigative, or informal) pending or, to the Knowledge of Buyer, threatened, against or relating to Buyer that could reasonably cause a material adverse effect on Buyer's ability to perform its obligations hereunder, or the ability of the parties hereto to consummate the transactions contemplated hereby, or that in any manner challenges or seeks to prevent, enjoin, alter or materially delay the transactions contemplated hereby. Buyer is not subject to any outstanding Order of any legal or administrative body or arbitrator that could reasonably cause a material adverse effect on Buyer's ability to perform its obligations hereunder. To the Knowledge of Buyer, there are no audits, investigations or inquiries by any Governmental Authority pending, threatened or contemplated to which Buyer is a party or of which any of its property is the subject, that could reasonably cause a material adverse effect on Buyer's ability to perform its obligations hereunder.

4.5 Brokers. No investment banker, agent, broker, Person or firm acting on behalf of Buyer or its stockholders is, or will be, entitled to any commission or broker's or finder's fees from any of the parties hereto, or from any Person controlling, controlled by or under common control with any of the parties hereto, in connection with any of the transactions contemplated herein.

4.6 Solvency; Ability to Perform Agreement. Buyer is solvent, now has, or at the Closing Date will have, available funds necessary to pay the Purchase Price, and there is no occurrence, event or condition with respect to it that would prevent it from performing this Agreement in all material respects. Buyer will not become insolvent as a result of consummating the transaction contemplated by this Agreement.

4.7 No Other Representations or Warranties. Buyer hereby acknowledges and agrees that (a) except for the representations and warranties set forth in ARTICLE 3 (as modified by the Disclosure Schedule), (i) neither Seller, nor any other Person has made or shall be deemed to have made, any other express or implied representation or

warranty with respect to the Business or the Assets, including with respect to any information provided or made available to Buyer or any of its Affiliates, stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person; (ii) neither Seller, nor any other Person will have or be subject to any Liability or indemnification obligation or other obligation of any kind or nature to Buyer or any of its Affiliates, stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person, resulting from the delivery, dissemination or any other distribution to Buyer or any of its Affiliates, stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person, or the use by Buyer or any of its Affiliates, stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person, of any such information provided or made available to any of them by Seller, or any of its respective stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person, including any information, documents, estimates, projections, forecasts or other forward-looking information, business plans or other material provided or made available to Buyer or any of its Affiliates, stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person, in "data rooms," confidential information memoranda or management presentations in anticipation or contemplation of the transactions contemplated by this Agreement; (iii) neither Seller, nor any other Person has made or is making, any other express or implied representation or warranty with respect to the Business or the Assets, including with respect to any information provided or made available, whether before or after the date of this Agreement, to Buyer, any of its Affiliates, stockholders, directors, officers, employees, agents, representatives or advisors, or any other Person, with respect to estimates, projections, forecasts, forward-looking statements or business plans (including the reasonableness of the assumptions underlying such estimates, projections, forecasts, forward-looking statements or business plans); and (iv) Buyer specifically disclaims that it is relying upon or has relied upon any such other representations or warranties with respect to the Business or the Assets.

## ARTICLE 5 ACTIONS PRIOR TO THE CLOSING DATE

Buyer and Seller covenant and agree to take the following actions between the date hereof and the Closing Date:

5.1 Access to Information. Seller will continue to give Buyer and its accountants, counsel, financial advisors and other representatives, reasonable access in accordance with the terms of the Non-Disclosure Agreement to its properties, books, contracts and records; provided, however, that the foregoing right of access shall not require furnishing information that, in the reasonable opinion of counsel, would violate any Laws. The Non-Disclosure Agreement shall remain in full force and effect until Closing and, if this Agreement is terminated prior to Closing, such Non-Disclosure Agreement shall continue in accordance with its terms.

### 5.2 Consents of Third Parties; Governmental Approvals.

(a) Nothing in this Agreement nor the consummation of the transactions contemplated hereby shall be construed as an attempt, offer or agreement to assign any Asset, including any contract, Permit, certificate, approval, authorization or other right,

which by its terms or by Law is nonassignable without the consent of a third party or Governmental Authority or is cancelable by a third party or Governmental Authority in the event of an assignment ("Nonassignable Assets") unless and until such consent shall have been obtained. Notwithstanding anything in this Agreement to the contrary, unless and until any consent or approval with respect to any Nonassignable Asset is obtained, such Nonassignable Asset shall not constitute an Asset and any associated Liability shall not constitute an Assumed Liability hereunder.

(b) Buyer and Seller shall take, or cause to be taken by others, reasonable steps to obtain and satisfy, at the earliest practicable date, all consents required under the Assigned Contracts (other than those required to be obtained from a Governmental Authority); provided, however, that such cooperation shall not require Seller or any of its Affiliates to remain secondarily liable or to make any material payment to obtain any such consent with respect to any Nonassignable Asset. Buyer and Seller shall use their respective reasonable efforts to obtain, or to cause to be obtained, any consent, substitution, approval or amendment required to novate all obligations under any and all contracts, including, without limitation, each of the prime Government Contracts listed on Schedule 5.2(b) (the "Prime Contracts") or other Liabilities that constitute Assumed Liabilities or to obtain in writing the release of Seller and its Affiliates so that, in any such case, Buyer shall be solely responsible for such Assumed Liabilities. To the extent permitted by Law, Seller and Buyer shall request that each Governmental Authority or Person whose consent is requested treat all information, documents and other materials submitted to such Person as confidential in connection with such request.

(c) In the event that any Prime Contract is not assigned on the Closing Date, then, to the extent permitted by Law and economically reasonable, effective upon the Closing Date and until such time as the applicable Governmental Authority or third-party recognizes the transfer of the rights and obligations under such Assigned Contract to Buyer, Seller and Buyer will enter into (i) the GSA Subcontract, with respect to any Prime Contract awarded under a GSA Schedule, and (ii) the Subcontract Agreement, with respect to all other Prime Contracts, pursuant to which, among other things, the economic and practical benefits thereof shall be vested in Buyer and Seller shall be relieved of the performance and other obligations thereunder, prior to novation or assignment, as applicable, thereof. Seller will ensure that it satisfactorily maintains a facility clearance and all required personnel clearances necessary to perform any classified Prime Contract or any Follow-On Contract (as such term is defined in the Subcontract Agreement) until such contract is novated, expires, or is terminated and the applicable Governmental Authority issues Buyer a facility clearance and all required personnel clearances. To the extent that Buyer is provided the benefits of a Prime Contract that is not assigned at Closing, Buyer agrees to pay, perform and discharge the obligations of Seller under such Prime Contract.

(d) In the event that the applicable Governmental Authority or third-party affirmatively declines to novate or assign any Prime Contract, Seller will use its commercially reasonable efforts to (i) transition the work under such Prime Contract to Buyer and/or provide to Buyer the benefits of the applicable Prime Contract through the Subcontract Agreement, (ii) cooperate in any reasonable and lawful arrangement designed to provide such

benefits to Buyer, and (iii) enforce at the request of Buyer and for the account of Buyer, any rights of Seller arising from any such Prime Contract.

(e) Except as otherwise provided herein, the obligations of the parties under this Section 5.2 shall not include any requirement of Seller, Buyer or any of their respective Affiliates to expend money (other than normal legal and professional fees or filing fees), commence or participate in any litigation or arbitration or offer or grant any accommodation (financial or otherwise) to any third Person. Any costs payable to third Persons in connection with obtaining any consents for Assigned Contracts or other consents in connection with transferring the Assets or rights to Buyer hereunder shall be borne equally by Buyer and Seller.

### 5.3 Operations Prior to the Closing Date.

(a) Between the date hereof and the Closing Date, except as otherwise expressly contemplated by the terms of this Agreement, Seller shall use reasonable efforts to operate and carry on the Business in the Ordinary Course and substantially as operated immediately prior to the date of this Agreement.

(b) Without limiting the provisions of Section 5.3(a), except as set forth on Schedule 5.3(b), as otherwise contemplated by this Agreement or with the written approval of Buyer (which Buyer agrees shall not be unreasonably withheld, conditioned or delayed), between the date hereof and the Closing Date, Seller shall not do any of the following:

(i) Make any material change in the Business, except such changes as may be required to comply with the Assigned Contracts or applicable Law;

(ii) Make any individual capital expenditure primarily in relation to the Business or enter into any commitment therefor in excess of One Hundred Thousand Dollars (\$100,000);

(iii) Enter into any contract in relation to the Business for the purchase or lease (as lessor or lessee) of real property or exercise any option to extend a lease included in the Assigned Contracts;

(iv) Sell, lease (as lessor), transfer or otherwise dispose of, the Assets other than in the Ordinary Course;

(v) Create, incur or assume, or agree to create, incur or assume, any Indebtedness for borrowed money in relation to the Business other than any Indebtedness which is not being assumed by Buyer, or incur or permit any Encumbrance upon the Assets, other than Permitted Encumbrances or Encumbrances that will be released on or before the Closing Date;

(vi) Institute any material increase in, enter into, terminate or adopt any Benefit Plan being assumed by Buyer, other than in the Ordinary Course as required by any such existing Benefit Plan, or by any existing employment agreement or by Law, or to the

extent that Seller made or adopted changes for similarly situated plan participants who are employed outside of the Business;

(vii) Make any material change in the compensation of any Designated Employee, other than changes made in accordance with normal compensation practices and consistent with past practices of Seller or changes required by existing employment agreements or by any Law;

(viii) Settle or compromise any litigation or arbitration relating to the Business, if such settlement would create an Assumed Liability;

(ix) Make any material modification to any existing Assigned Contract, in each case other than any extensions with a term of less than one year;

(x) Hire any new employees for the Business except (A) to replace existing Business Employees, agents or consultants at similar compensation levels in all material respects or (B) in the Ordinary Course; or

(xi) Authorize, approve, agree or commit to do any of the actions described in clauses (i) through (x) above.

5.4 Commercially Reasonable Efforts. Subject to the terms and conditions herein provided for, each of the parties hereto shall use commercially reasonable efforts to take, or cause to be taken, all appropriate action, and to do, or cause to be done, all things necessary, proper or advisable under applicable Laws to consummate and make effective, in the most expeditious manner practicable, the transactions contemplated by this Agreement. In connection with and without limiting the foregoing, Seller and Buyer shall cooperate with one another (a) in promptly determining whether any filings are required to be or should be made, or any consents, approvals, Permits or authorizations are required to be or should be obtained under any applicable Law or whether any consents, approvals or waivers are required to be or should be obtained from other parties to loan agreements or other contracts or instruments material to the Business in connection with the consummation of the transactions contemplated by this Agreement, and (b) in promptly making any such filings, furnishing information required in connection therewith and seeking to obtain timely any such consents, Permits, authorizations, approvals or waivers. In case at any time after the Closing any further action is necessary or desirable to carry out the purposes of this Agreement, the parties to this Agreement (or as applicable, their officers and directors) shall take all such necessary action as may be reasonable in the context thereof.

#### 5.5 Notification of Certain Matters.

(a) In the event that Buyer becomes aware on or prior to the Closing Date (whether by notification by Seller, updating of the Disclosure Schedule or otherwise) of any breach of any representation, warranty or agreement of Seller that would entitle Buyer to not consummate the Closing, Buyer shall promptly notify Seller in writing, and, to the extent such breach is not cured by Seller on or prior to the Closing Date, Buyer may terminate this Agreement in accordance with Section 9.1. If Buyer proceeds to Closing irrespective of such uncured breach and such uncured breach arose out of events occurring following the date hereof,

then Buyer shall be deemed to have waived its rights to pursue remedies in respect of such breach following the Closing; provided, that if such uncured breach did not arise out of events occurring following the date hereof, then Buyer may proceed to Closing and seek indemnification for such breach as provided herein.

(b) Seller shall promptly notify Buyer of any event that (i) may arise after the date of this Agreement and that, if existing or occurring at or prior to the date of this Agreement, would have been required to be set forth or described in the Schedules to this Agreement or (ii) makes it necessary to correct any information in the Schedules to this Agreement or in any representation and warranty of Seller, that has been rendered inaccurate thereby. Such notice shall not amend, supplement or modify the Schedules unless such notice concerns an event that occurs following the date of this Agreement (a "New Event"), and, such New Event shall be set forth and/or corrected on the Schedules as an update (such updated Schedules to be referred to herein collectively as the "Updated Schedules") and, to the extent disclosed on the Updated Schedules, the Updated Schedules shall be effective to cure any representation or warranty that is rendered inaccurate as a result of such New Event. For the avoidance of doubt, to the extent disclosed on the Updated Schedules, Buyer shall not be entitled to indemnity or other remedy in respect of any New Event and a New Event shall not be or cause a breach of this Agreement. If a New Event individually or together with all other New Events constitutes a Material Adverse Effect, then Buyer may terminate this Agreement in accordance with Section 9.1. Without limiting the obligations under Section 5.3, New Events may include, without limitation, (x) the disposal, replacement, repair or addition of assets used primarily in connection with the Business and (y) the entering into or termination of Assigned Contracts in the Ordinary Course, in each case between the date of this Agreement and the Closing Date.

(c) Prior to the Closing, Seller shall not directly or indirectly solicit, encourage, initiate or hold discussions or negotiations with, or enter into any agreement with, any Person (other than Buyer) concerning selling the Business or any material portion thereof to such Person; provided, that the foregoing shall not prevent any discussion with any counterparty to an Assigned Contract in connection with transition of the Business or obtaining consents.

5.6 Insurance. Seller will keep insurance policies currently maintained relating to the Business, the Assets and current or former Business Employees, or suitable replacements therefor, in full force and effect through the Closing Date. Buyer shall become exclusively responsible for all insurance coverage and related risk of loss based on events occurring after the Closing Date with respect to the Business, the Assets and its employees.

5.7 Public Announcements. No party shall, without the prior written approval of the other, issue any press release or otherwise make any public statement with respect to this Agreement or the sale of the Business, except as may be required by Law or any listing agreement with any applicable national or regional securities exchange or markets. Without limiting the foregoing, from the date of this Agreement through the Closing, Buyer and Seller shall consult with each other with respect to issuing any press release or otherwise making any public statements with respect to this Agreement or the sale of the Business, except as may be required by applicable Law or any listing agreement with any applicable national or regional securities exchange or markets.

ARTICLE 6  
ADDITIONAL AGREEMENTS

6.1 Name. Except to the extent included in Transferred Intellectual Property, Buyer shall have no rights to Seller's Marks after the Closing Date and shall, within sixty (60) days following the Closing Date, remove any and all such Marks from stationery and the Assets.

6.2 Employees; Employee Benefits; Hiring of Employees.

(a) Hiring of Employees. Buyer shall offer employment as of the Closing Date to all Business Employees who are in an active employment status and not on (i) temporary leave status, including without limitation, vacation, short term disability, family medical leave or military leave, or (ii) permanent leave of absence such as long term disability on the Closing Date, each of whom is listed on Schedule 6.2(a) (all such employees to whom an offer is made, the "Designated Employees"). In the case of any Business Employee on temporary leave status on the Closing Date, Buyer shall offer employment to such Business Employee as of the date of his or her return to active employment status, on the terms and with the benefits that will be offered by Buyer to the Designated Employees pursuant to this Agreement. Other than Jonathan Burgiel, the Designated Employees shall have at least the same base salaries as were in effect prior to Closing. In addition, Buyer will provide a bonus pool for the Designated Employees.

(b) Benefit Plans and Prior Service Credit. Buyer shall provide the Designated Employees with benefits (including, without limitation, retirement and welfare benefits) under Buyer's benefit plans (the "Buyer's Plans"), which shall be substantially equivalent to, in the aggregate, (i) the benefits provided under the Benefit Plans as in effect immediately prior to the Closing Date or (ii) the benefits provided under Buyer's Plan to similarly situated Buyer employees. Buyer shall recognize the prior service of the Designated Employees for all periods of employment with Seller and its Affiliates (or their predecessor entities) for all comparable employment and employee benefits-related purposes (other than accrual of benefits under a defined benefit pension plan), including, without limitation, for purposes of eligibility to participate, benefit levels, years of seniority, and vesting, under Buyer's Plans in which the Designated Employees are covered, except to the extent such prior service credit would result in a duplication of benefits.

(c) Health Coverages. Without limiting the scope of Section 6.2(b), and provided that the relevant information is made available to Buyer, Buyer shall cause each Designated Employee who meets the eligibility requirements of Buyer's health plan (and his or her eligible dependents) to be covered effective on the first day of the month following the Closing, by a group health plan that (i) provides health benefits (within the meaning of Section 5000(b)(1) of the Code) that does not limit or exclude coverage on the basis of any pre-existing condition of such Designated Employee or dependent (other than any limitation already in effect under Seller's group health plan), and (ii) provides each Designated Employee full credit, for the year in which the Closing Date occurs, for any deductible, co-insurance or co-payment already incurred by the Designated Employee under the applicable group health Benefit Plan and for any other out-of-pocket expenses that count against any annual deductible requirements and

maximum out-of-pocket expense provision of the applicable group health Benefit Plan or Buyer's group health plans.

(d) Equity Awards; ESPP. The key Designated Employees will be eligible to receive equity awards from Buyer, which are granted annually by Buyer's Board of Directors, based on performance. All of the eligible Designated Employees will be entitled to purchase Buyer's common stock under the terms of Buyer's employee stock purchase plan.

(e) Key Employee Benefits. Buyer shall provide to each of the Key Employees, in lieu of any Recognition Payment that might otherwise be made by Seller to such Key Employees pursuant to subsection (g) of this Section 6.2, certain additional benefits with a value (as determined by the Buyer) at least equal to the amounts set forth with respect to such Key Employee in Schedule 1.4. Buyer shall be solely responsible for the payment and withholding of the employer portion of all Taxes associated with the provision of such benefits.

(f) WARN and Corresponding State Laws. If Buyer intends to terminate any Designated Employees within the sixty (60)-day period following the Closing, Buyer shall make any filings and shall deliver any notices required under WARN in connection with the transactions contemplated herein or the proposed termination of employment, and Seller shall have no Liability under WARN or any similar state or local Law with respect to any Designated Employee. Buyer shall be solely responsible for and agrees to indemnify, hold harmless and, at the option of Seller, to defend Seller from and against any Liability under WARN or any similar state or local Law, to any Designated Employee who is found to have suffered an "employment loss" under WARN on or after the Closing Date, and any and all other Liabilities, including attorneys' fees, arising out of or resulting from any such employment loss to a Designated Employee or Buyer's failure to employ such Designated Employees, serve sufficient notice, or provide pay in lieu of notice pursuant to WARN or any similar state or local Law.

(g) Seller Benefits. Seller will provide or pay any benefits or other compensation payable solely as a result of the consummation of the transactions contemplated hereby which any Business Employee is entitled to receive pursuant to the Benefit Plans or any other Employment Agreement or arrangement entered into by Seller. In recognition of the forfeiture of all outstanding and unvested shares (or options to acquire shares) of the capital stock of Seller held by Designated Employees that will occur at the Closing as a result of the consummation of the transactions contemplated hereby, Seller will pay to each Designated Employee identified on Schedule 6.2(g) the amount listed therein with respect to such Designated Employee, less all payroll-related Taxes owing in connection with such payment (the "Recognition Payments"); provided, however, that no such Recognition Payment shall be paid to a Designated Employee unless and until the Seller shall have received from such Designated Employee a release in a form satisfactory to Seller and delivered in accordance with the requirements contained therein.

(h) No Third Party Beneficiaries. Nothing herein is intended to, and shall not be construed to, (i) create any third party beneficiary rights of any kind or nature, including, without limitation, the right of any Designated Employee or other individual to seek to enforce any right to compensation, benefits, or any other right or privilege of employment with

Seller or Buyer, (ii) constitute an amendment to the Benefit Plans or any other employee benefit plan, program or arrangement established or maintained by Buyer on and after the Closing Date for the benefit of the Designated Employees, (iii) prohibit Buyer from terminating the employment of any Designated Employee following the Closing Date or (iv) prohibit Buyer from amending or terminating any benefit plan of Buyer following Closing.

6.3 Bulk Sales. The parties hereby agree to waive compliance with the provisions of any applicable Law regarding bulk sales. Seller agrees to indemnify Buyer against all Losses arising out of such noncompliance or otherwise for any claims made against Buyer by any creditor of Seller asserted against or incurred by Buyer by reason of or resulting from such waiver. The parties acknowledge and agree that neither the Threshold Amount nor the Cap shall apply to claims under this Section 6.3, and there shall be no time limit with respect to such claims.

6.4 Retention of and Access to Records. For ten (10) years after the Closing Date, Seller and its representatives shall have, during normal business hours and on at least twenty-four (24) hours' prior written notice, reasonable access to those books and records of Seller that were delivered to Buyer with the Assets for financial reporting purposes, Tax purposes (including preparing Tax Returns and dealing with Tax audits), legal defense or prosecution purposes, employee purposes and any other reasonable business purpose. In addition, if Buyer decides to dispose of any such books and records prior to the expiration of such ten (10) year period, then Buyer shall, prior to such disposition, give Seller written notice of such proposed disposition and a reasonable opportunity, at Seller's expense, to segregate and remove such books and records as Seller may select.

6.5 Further Assurances. The parties shall cooperate reasonably with each other and with their respective representatives in connection with any steps required to be taken as part of their respective obligations under this Agreement.

6.6 Non-Competition.

(a) Prohibitions. From the Closing Date until the third anniversary thereof (the "Non-Competition Period"), Seller shall not, either directly or indirectly without the prior written consent of Buyer (i) engage in; (ii) own or control any interest in (except as a passive investor of less than five percent (5%) of the capital stock of a publicly held company); (iii) act as a partner, shareholder or joint venturer of; or (iv) lend credit or money for the purpose of establishing or operating, any business (including by itself or in association with any person, firm, corporate or other business organization or through any other entity) in competition with the Business within the United States. In addition, during the Non-Competition Period, Seller shall not, directly or indirectly, influence or attempt to influence any Person who is a contracting party with Seller as of the date of this Agreement to terminate or adversely amend any Assigned Contract. Notwithstanding the foregoing, in the event that Seller either directly or indirectly acquires the business of any other entity (an "After-Acquired Concern") during the Non-Competition Period (whether through acquisition of an ownership interest in, purchase of the assets of, or merger with such entity), Seller shall have a period of six months from the date of such acquisition to divest itself of or cease operations with respect to any portion of the After-Acquired Concern that is in competition with the Business, during which period the operations of

the After-Acquired Concern shall not be a violation of the restrictions set forth in this Section 6.6(a).

(b) Confidential Information. During the Non-Competition Period, Seller shall not at any time disclose to any Person other than Buyer or use any Transferred Intellectual Property, which constitutes a trade secret under the laws of the State of Delaware, whether or not such information is embodied in writing or other physical form.

(c) Non-Solicitation of Employees. Immediately following the Closing Date, Seller shall not retain or attempt to retain the employment of any Designated Employee. During the Non-Competition Period, Seller shall not encourage, solicit or induce, or attempt to encourage, solicit or induce any Designated Employee to leave his/her employment (or devote less than full time efforts) with Buyer for any reason, and Seller shall not attempt to hire, for any position with any other business, any Person who is an employee with Buyer at such time or who has been an employee in connection with the Business at any time within six months preceding such time; provided, however, that a violation of this Section 6.6 will not occur if (i) the individual's employment has been terminated by Buyer; (ii) Seller advertises for employees in newspapers, trade publications, or other media not targeted specifically at the employees of Buyer, or (iii) Seller hires employees who apply for employment with Seller, as long as, in the cases of clauses (i) and (iii), such employees were not solicited by Seller and Seller has obtained Buyer's prior written consent.

(d) Reasonableness of Restrictions. Each of the parties recognizes that the limitations set forth in this Section 6.6 are reasonable, not burdensome and are properly required for the adequate protection of the parties, and in the event that such limitations are deemed to be unreasonable by a court of competent jurisdiction, then the parties agree to submit to a modification or reduction of such limitations as such court shall deem reasonable and in particular (but without limitation) if the territorial scope or duration of any such limitation shall be so deemed to be too wide or (as applicable) too long to be enforceable in any jurisdiction or territory (or any part thereof), such territorial scope or duration (as applicable) shall be reduced to the extent necessary to render the relevant limitation enforceable in such jurisdiction or territory (or the relevant part thereof).

(e) Injunctive Relief. Seller acknowledges that its expertise in the Business is of a special, unique, unusual, extraordinary and intellectual character, which gives such expertise a peculiar value, and that a breach by it of the covenants contained in this Section 6.6 may not be reasonably or adequately compensated in damages in an action at law and that such breach may cause Buyer irreparable injury and damage. Seller further acknowledges that it possesses unique skills, knowledge and ability and that competition in violation of this Section 6.6 might be extremely detrimental to Buyer. By reason thereof, if Seller breaches or threatens to breach this Section 6.6, Seller agrees that Buyer shall be entitled, in addition to any other remedies it may have under this Agreement or otherwise, to seek temporary, preliminary and/or permanent injunctive and other equitable relief.

6.7 Accounts Receivable. With respect to any receivables included in Contract A/R, the amounts of which are paid to any Buyer Indemnitee pursuant to Sections 3.22 and 8.1(a), Buyer shall use commercially reasonable collection activities with respect thereto that are consistent with the past practices of the Business, and shall remit promptly to Seller any

amount of such receivables that are received by Buyer after Seller has paid such amounts to a Buyer Indemnitee pursuant to such sections.

## ARTICLE 7 CONDITIONS TO CLOSING

7.1 Conditions to Obligations of Buyer. The obligations of Buyer under this Agreement shall, at the option of Buyer, be subject to the satisfaction or waiver, on or prior to the Closing Date, of the following conditions:

(a) Seller shall have performed or complied in all material respects with its agreements and covenants contained in this Agreement required to be performed or complied with at or prior to the Closing Date.

(b) The representations and warranties of Seller contained in this Agreement shall have been true and correct in all material respects as of the date hereof, except that those representations and warranties which address matters only as of a particular date shall have been true and correct in all material respects only on such date (it being agreed that all Materiality Qualifications in the representations and warranties shall be disregarded in determining whether such representations and warranties are true and correct in all material respects).

(c) The representations and warranties of Seller contained in this Agreement shall be true and correct as of the Closing Date with the same force and effect as if made on the Closing Date (except that those representations and warranties which address matters only as of a particular date shall have been true and correct only on such date), except for failures of the representations and warranties to be true and correct that would not reasonably be expected to result in a Material Adverse Effect or in a material adverse effect on the ability of Seller to consummate the transactions contemplated by this Agreement or to perform its obligations hereunder (it being agreed that all Materiality Qualifications in the representations and warranties shall be disregarded in determining whether any such failure would reasonably be expected to result in a Material Adverse Effect or in such a material adverse effect regarding Seller).

(d) Buyer shall have received the deliveries referred to in Section 2.3.

(e) No Action shall be pending or threatened before any Governmental Authority wherein an unfavorable Order could reasonably be expected to prevent consummation of any of the transactions contemplated hereby.

(f) There shall not have occurred between the date hereof and the Closing Date (i) any Material Adverse Effect or (ii) damage or destruction in the nature of a casualty loss whether covered by insurance or not, resulting in a Material Adverse Effect.

For the avoidance of doubt, Buyer shall be entitled to seek indemnification as provided herein for any breach of a representation or warranty of Seller that does not result in a failure by Seller to satisfy the conditions of clause (c) of this Section 7.1.

7.2 Conditions to Obligations of Seller. The obligations of Seller under this Agreement shall, at the option of Seller, be subject to the satisfaction or waiver, on or prior to the Closing Date, of the following conditions:

(a) Buyer shall have performed or complied in all material respects with its agreements and covenants contained in this Agreement required to be performed or complied with at or prior to the Closing Date.

(b) The representations and warranties of Buyer contained in this Agreement shall have been true and correct in all material respects as of the date hereof, except that those representations and warranties which address matters only as of a particular date shall have been true and correct in all material respects only on such date (it being agreed that all Materiality Qualifications in the representations and warranties shall be disregarded in determining whether such representations and warranties are true and correct in all material respects).

(c) The representations and warranties of Buyer contained in this Agreement shall be true and correct as of the Closing Date with the same force and effect as if made on the Closing Date (except that those representations and warranties which address matters only as of a particular date shall have been true and correct only on such date), except for failures of the representations and warranties to be true and correct that would not reasonably be expected to result in a material adverse effect on the ability of the Buyer to consummate the transactions contemplated by this Agreement or to perform its obligations hereunder (it being agreed that all Materiality Qualifications in the representations and warranties shall be disregarded in determining whether any such failure would reasonably be expected to result in a such a material adverse effect regarding Buyer).

(d) Seller shall have received the deliveries referred to in Section 2.2.

(e) No Action shall be pending or threatened before any Governmental Authority wherein an unfavorable Order could reasonably be expected to prevent consummation of any of the transactions contemplated hereby.

For the avoidance of doubt, Seller shall be entitled to seek indemnification as provided herein for any breach of a representation or warranty of Buyer that does not result in a failure by Buyer to satisfy the conditions of clause (c) of this Section 7.2.

## ARTICLE 8 INDEMNIFICATION

8.1 By Seller. Subject to the terms and conditions of this ARTICLE 8, and notwithstanding any investigation right of Buyer pursuant to Section 5.1 hereof or otherwise, Seller covenants and agrees to defend, indemnify and hold harmless Buyer and its directors, officers, Affiliates, successors and permitted assigns (collectively, the "Buyer

Indemnitees”) from and against, and pay or reimburse the Buyer Indemnitees for, any and all Losses resulting from or arising out of:

(a) any misrepresentation or breach of any warranty by Seller contained in ARTICLE 3; provided, however, that no claim for indemnification under this clause (a) may be made after the eighteen (18) month anniversary of the Closing Date, excepting only that any claim for misrepresentation or breach of warranty under Sections 3.6 and 3.15 may be made no later than a date one hundred eighty (180) days from and after the expiration of the period of the applicable statute of limitations and (ii) under Sections 3.1 and 3.2 may be made without limitation as to time;

(b) any failure of Seller to perform any covenant or agreement of Seller made or contained herein or fulfill any obligation in respect thereof;

(c) any Excluded Asset or Excluded Liability;

(d) any Liability relating to the operation of the Business on or before the Closing Date;

(e) Seller’s Transaction Expenses; or

(f) any obligation of Seller to indemnify any Buyer Indemnitee with respect to specific matters contained elsewhere in this Agreement.

Seller shall not be required to indemnify the Buyer Indemnitees with respect to any claim for indemnification resulting from or arising out of matters described in clause (a) above pursuant to this Section 8.1 (other than any claim for indemnification resulting from or arising out of any misrepresentation or breach of any warranty under Sections 3.1, 3.2 and 3.22) unless and until the aggregate amount of all claims against Seller exceeds \$150,000 (the “Threshold Amount”), in which case Seller shall be required to indemnify the Buyer Indemnitees for the amount of such claims in excess of the Threshold Amount, subject to the other limitations in this ARTICLE 8.

Notwithstanding the foregoing but subject to the following paragraph, the maximum aggregate amount of indemnification obligations of Seller from time to time under this Section 8.1 shall not exceed \$ [REDACTED] (the “Cap”).

Notwithstanding the foregoing or any other provision of this Agreement to the contrary, in no event shall the Threshold Amount or the Cap apply to a misrepresentation or breach of warranty under Section 3.22, or to fraud or intentional misrepresentation by Seller.

8.2 By Buyer. Subject to the terms and condition of this ARTICLE 8, and notwithstanding any investigation right of Seller, Buyer covenants and agrees to defend, indemnify and hold harmless Seller and its directors, officers, Affiliates, successors and permitted assigns (collectively, the “Seller Indemnitees”), from and against any and all Losses resulting from or arising out of:

(a) any misrepresentation or breach of warranty of Buyer contained in ARTICLE 4; provided, however, that no claim for indemnification under this clause (a) may be made after the eighteen (18) month anniversary of the Closing Date, excepting only that any claim for misrepresentation or breach of warranty under Sections 4.1 and 4.2 may be made no later than a date thirty (30) days from and after the expiration of the period of the applicable statute of limitations;

(b) any failure of Buyer to perform any covenant or agreement made or contained herein or fulfill any other obligation in respect thereof;

(c) any Assumed Liability;

(d) any Liability relating to the operation of the Business after the Closing Date;

(e) Buyer's Transaction Expenses; or

(f) any obligation of Buyer to indemnify any Seller Indemnitee with respect to specific matters contained elsewhere in this Agreement.

Buyer shall not be required to indemnify the Seller Indemnitees with respect to any claim for indemnification resulting from or arising out of matters described in clause (a) above pursuant to this Section 8.2 (other than any claim for indemnification resulting from or arising out of any misrepresentation or breach of any warranty at Sections 4.1 and 4.2) unless and until the aggregate amount of all claims against Buyer exceeds the Threshold Amount, in which case Buyer shall be required to indemnify the Seller Indemnitees for the amount of such claims in excess of the Threshold Amount, subject to the other limitations in this ARTICLE 8.

The maximum aggregate amount of indemnification obligations of Buyer from time to time under this Section 8.2 shall not exceed the Cap.

Notwithstanding the foregoing or any other provision of this Agreement to the contrary, in no event shall the Threshold Amount or the Cap apply to fraud or intentional misrepresentation by Buyer.

**8.3 Separate Indemnification Regarding Government Audits.** Seller covenants and agrees to defend, indemnify and hold harmless the Buyer Indemnitees from and against, and pay or reimburse the Buyer Indemnitees for, any and all Losses resulting from or arising out any audit by a Governmental Authority relating to periods prior to the Closing Date. Upon the completion of any such audit, the Losses of the Buyer Indemnitees shall be determined and shall be subject to indemnification hereunder. Buyer shall assist Seller in responding to any government requests relating to any such audit. The parties acknowledge and agree that the Cap, but not the Threshold Amount, shall apply to claims under this Section 8.3, and that there shall be no time limit with respect to such claims.

**8.4 Indemnification Procedures.**

(a) Third Party Claims. In the case of any Third Party Claim against a party entitled to indemnification hereunder (the "Indemnified Party"), notice shall be given by the Indemnified Party to the party required to provide indemnification (the "Indemnifying Party") as soon as practicable after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and the Indemnified Party shall permit the Indemnifying Party (at the expense of such Indemnifying Party) to assume the defense of any Third Party Claim or any litigation with a third party resulting therefrom; provided, however, that (i) the Indemnified Party may participate in such defense at such Indemnified Party's expense, and (ii) the failure by any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its indemnification obligation under this Agreement except and only to the extent that such Indemnifying Party is materially prejudiced by such failure to give notice. Notwithstanding anything to the contrary contained herein, in no event may the Indemnifying Party assume or maintain control of the defense of any claim involving criminal liability or in which any relief other than monetary damages is sought against the Indemnified Party which, if obtained, would reasonably be expected to adversely impact the ability of the Indemnified Party to conduct its business in the ordinary course. Except with the prior consent of the Indemnified Party, no Indemnifying Party, in the defense of any such claim or litigation, shall consent to entry of any judgment or enter into any settlement that provides for injunctive or other nonmonetary relief affecting the Indemnified Party or that does not include as an unconditional term thereof the giving by each claimant or plaintiff to such Indemnified Party of a general release from all Liability with respect to such claim or litigation. If the Indemnified Party has been advised in writing by counsel that it may have available to it one or more defenses or counterclaims that are inconsistent with one or more of those that may be available to the Indemnifying Party in respect of such claim or any litigation relating thereto, then the Indemnified Party shall be entitled, at the Indemnifying Party's cost and expense, to separate counsel of its own choosing (but no more than one such separate counsel). If the Indemnifying Party does not accept the defense of any matter as above provided within thirty (30) days after receipt of the notice from the Indemnified Party described above (or any shorter period required to avoid material prejudice with respect to the defense of such matter), the Indemnified Party shall have the full right to defend against any such claim or demand at the sole cost of the Indemnifying Party, provided that the Indemnified Party shall not settle such claim or litigation without the consent of the Indemnifying Party, such consent not to be unreasonably withheld, delayed or conditioned. In any event, the Indemnifying Party and the Indemnified Party shall reasonably cooperate in the defense of any claim or litigation subject to this ARTICLE 8 and the records of each shall be reasonably available to the other with respect to such defense.

(b) Non-Third Party Claims. With respect to any claim for indemnification hereunder which does not involve a Third Party Claim, the Indemnified Party will give the Indemnifying Party written notice of such claim. The Indemnifying Party may acknowledge and agree by notice to the Indemnified Party in writing to satisfy such claim within thirty (30) days after receipt of notice of such claim from the Indemnified Party. If the Indemnifying Party shall dispute such claim, the Indemnifying Party shall provide written notice of such dispute to the Indemnified Party within such thirty (30)-day period, setting forth in reasonable detail the basis of such dispute. Upon receipt of notice of any such dispute, the Indemnified Party and the Indemnifying Party shall use commercially reasonable efforts to resolve such dispute within thirty (30) days after the date such notice of dispute is received. If the Indemnifying Party shall fail to provide written notice to the Indemnified Party within thirty

(30) days after receipt of notice from the Indemnified Party that the Indemnifying Party either acknowledges and agrees to pay such claim or disputes such claim, the Indemnifying Party shall be deemed to have acknowledged and agreed to pay such claim in full and to have waived any right to dispute such claim. Once (i) the Indemnifying Party has acknowledged and agreed to pay any claim pursuant to this Section 8.4, (ii) any dispute under this Section 8.4 has been resolved in favor of indemnification by mutual agreement of the Indemnifying Party and the Indemnified Party, or (iii) any dispute under this Section 8.4 has been finally resolved in favor of indemnification by order of a court of competent jurisdiction or other tribunal having jurisdiction over such dispute, then the Indemnifying Party within twenty (20) days after the date of acknowledgement by the Indemnifying Party shall pay the amount of such claim to the Indemnified Party to such account and in such manner as is designated in writing by the Indemnified Party.

8.5 Exclusive Remedy. Absent fraud or intentional misrepresentation, the indemnifications provided for in this ARTICLE 8 shall be the sole and exclusive remedies available to any Person against any other Person for any claims under or based upon this Agreement.

8.6 Subrogation. Upon making an indemnity payment pursuant to this Agreement, the Indemnifying Party will, to the extent of such payment, be subrogated to all rights of the Indemnified Party against any third party in respect of the damages to which the payment related. Without limiting the generality of any other provision hereof, each such Indemnified Party and Indemnifying Party will duly execute upon request all instruments reasonably necessary to evidence and perfect the above described subrogation rights.

8.7 Treatment of Indemnification Payments. All indemnification payments made under this Agreement shall be treated by the parties as an adjustment to the Purchase Price.

8.8 Limitations. Notwithstanding anything herein to the contrary, no Person shall be entitled to indemnification or reimbursement under any provision of this Agreement for any amount to the extent (i) such Person has been indemnified or reimbursed for such amount under any other provision of this Agreement, the Exhibits or Disclosure Schedules attached hereto, or any document executed in connection with this Agreement or otherwise, or (ii) of any Tax benefits that may be available to such Person. An Indemnified Party shall use reasonable commercial efforts to pursue, and cause its Affiliates to pursue, all insurance claims to which it may be entitled in connection with any Losses it incurs. All Losses recoverable by an Indemnified Party shall be net of any proceeds such Indemnified Party recovers under any applicable insurance coverage and any amounts recovered from third parties. Each Indemnified Party shall (and shall cause its Affiliates) to use reasonable efforts to pursue all legal rights and remedies available in order to minimize the Losses for which indemnification is provided under this ARTICLE 8.

ARTICLE 9  
TERMINATION; AMENDMENT AND WAIVER

9.1 Termination.

(a) Notwithstanding anything contained in this Agreement to the contrary, this Agreement may be terminated and the transactions contemplated hereby may be abandoned at any time prior to the Closing Date:

(i) By mutual written consent of Buyer and Seller;

(ii) By Buyer on the one hand, or by Seller on the other hand, if the Closing shall not have occurred on or before the date that is ninety (90) calendar days after the date hereof (the "End Date"); provided that the right to terminate this Agreement under this Section 9.1(a)(ii) shall not be available to any party whose failure to fulfill any obligation under this Agreement has been the cause of, or resulted in, the failure of the transaction to be consummated on or before such date;

(iii) By Seller if prior to the Closing Date (A) there shall have been a breach of or inaccuracy in any of the representations or warranties on the part of Buyer contained in this Agreement that could reasonably be expected to result in a material adverse effect on the ability of Buyer to consummate the transactions contemplated by this Agreement or to perform its obligations hereunder, or (B) there shall have been a breach of any covenant or agreement on the part of Buyer contained in this Agreement in any material respect, in either case (A) or (B) which breach shall not have been cured (if capable of cure) prior to the earlier of (1) fifteen (15) days following notice thereof to Buyer and (2) the End Date; or

(iv) By Buyer if prior to the Closing Date (A) there shall have been a breach of or inaccuracy in any of the representations or warranties on the part of Seller contained in this Agreement that could reasonably be expected to result in a Material Adverse Effect or in a material adverse effect on the ability of Seller to consummate the transactions contemplated by this Agreement or to perform its obligations hereunder, or (B) there shall have been a breach of any covenant or agreement on the part of Seller contained in this Agreement in any material respect, in either case (A) or (B) which breach shall not have been cured (if capable of cure) prior to the earlier of (1) fifteen (15) days following notice thereof to Seller and (2) the End Date.

(b) If this Agreement is terminated in accordance with Section 9.1 hereof, this Agreement shall become null and void and of no further force and effect, except that (i) the terms and provisions of the Non-Disclosure Agreement, this Section 9.1(b), Section 9.2 and ARTICLE 8 shall remain in full force and effect, and (ii) any termination of this Agreement shall not relieve any party hereto from any Liability for any breach of its representations, warranties or covenants hereunder and in the event of such breach the parties will be entitled to exercise any and all remedies available under Law or in equity in accordance with this Agreement.

9.2 Expenses. Each of Buyer and Seller shall bear its own, respective fees and expenses incurred in connection with this Agreement and the transactions contemplated

hereby (including, but not limited to, fees and disbursements of attorneys and financial advisors) (the "Transaction Expenses").

9.3 Amendment. This Agreement may not be amended except by an instrument specifically referring to this Agreement signed by the parties hereto.

9.4 Waiver. At any time prior to the Closing Date, Buyer with respect to Seller, and Seller with respect to Buyer, may (a) extend the time for the performance of any of the obligations or other acts provided herein or in any document delivered pursuant hereto, (b) waive any inaccuracies in the representations and warranties contained herein or in any document delivered pursuant hereto, and (c) waive compliance with any of the agreements or conditions contained herein. Any such extension or waiver shall be valid if set forth in an instrument in writing specifically referring to this Agreement signed by the party or parties to be bound thereby. The failure of any party to this Agreement to assert any of its rights under this Agreement or otherwise shall not constitute a waiver of such rights.

## ARTICLE 10 GENERAL PROVISIONS

10.1 Notices. All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in person, by facsimile, or by registered or certified mail (postage prepaid, return receipt requested) or commercial overnight courier to the respective parties at the following addresses (or at such other address for a party as shall be specified by like notice):

If to Buyer:

Tetra Tech, Inc.  
3475 E. Foothill Boulevard  
Pasadena, CA 91107  
Attn: Dan L. Batrack, Chief Executive Officer  
Fax: (626) 470-2669

with a copy to:

Tetra Tech, Inc.  
3475 E. Foothill Boulevard  
Pasadena, CA 91107  
Attn: Janis B. Salin, General Counsel  
Fax: (626) 470-2681

If to Seller:

Leidos, Inc.  
11951 Freedom Drive  
Reston, VA 20190

Attn: General Counsel  
Fax: (571) 526-7955

with a copy to:

Venable LLP  
8010 Towers Crescent Drive, Suite 300  
Vienna, VA 22182  
Attn: Joseph C. Schmelter  
Fax: (703) 821-8949

10.2 Severability. If any term or other provision of this Agreement is invalid, illegal or incapable of being enforced by any rule of Law or public policy, all other conditions and provisions of this Agreement shall nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner to the end that the transactions contemplated hereby are fulfilled to the fullest extent possible.

10.3 Entire Agreement; Assignment; Failure of Certain Conditions. This Agreement, including the Exhibits and Schedules hereto, together with the Non-Disclosure Agreement, constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior agreements and undertakings, both written and oral, among the parties, or any of them, with respect to the subject matter hereof. This Agreement shall not be assigned by either party hereto, by operation of Law or otherwise, without the prior written consent of the other party hereto. Any attempted assignment which does not comply with the provisions of this Section 10.3 shall be null and void.

10.4 Parties in Interest; Successors and Assigns. This Agreement shall be binding upon and inure solely to the benefit of each party hereto and their respective permitted successors and assigns, and, nothing in this Agreement, express or implied, is intended to or shall confer upon any other Person any rights, benefits or remedies of any nature whatsoever under or by reason of this Agreement.

10.5 Governing Law; Submission to Jurisdiction. This Agreement shall be governed by and construed in accordance with the internal Laws of the State of Delaware applicable to parties residing in the State of Delaware, without regard to applicable principles of conflicts of law. Each of the parties irrevocably consents to the exclusive jurisdiction and venue of the United States District Court for the District of Delaware or, if such court does not have jurisdiction, any Delaware state court, in connection with any matter based upon or arising out of this Agreement or the transactions contemplated hereby and agrees that process may be served upon it in any manner authorized by the Laws of the State of Delaware for such Persons and waives and covenants not to assert or plead any objection which it might otherwise have to such jurisdiction and such process.

10.6 Headings. The descriptive headings contained in this Agreement are included for convenience of reference only and shall not affect in any way the meaning or interpretation of this Agreement.

10.7 Counterparts. This Agreement may be executed in two or more counterparts, and by the different parties hereto in separate counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one and the same agreement.

10.8 WAIVER OF TRIAL BY JURY. THE PARTIES HERETO HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE THE RIGHT ANY MAY HAVE TO A TRIAL BY JURY IN RESPECT TO ANY LITIGATION BASED HEREON, OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH THIS AGREEMENT AND ANY AGREEMENT CONTEMPLATED TO BE EXECUTED IN CONNECTION HEREWITH, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF EITHER PARTY IN CONNECTION WITH SUCH AGREEMENTS.

10.9 Time. Time is of the essence in each and every provision of this Agreement.

## ARTICLE 11 DEFINITIONS AND CONSTRUCTION

11.1 Definitions. In this Agreement, the following terms have the meanings specified or referred to in this Section 11.1 and shall be equally applicable to both the singular and plural forms. Any agreement referred to below shall mean such agreement as amended, supplemented and modified from time to time to the extent permitted by the applicable provisions thereof and by this Agreement.

“Action” means any lawsuit, claim, judicial or administrative proceeding, litigation, arbitration, demand, or claim.

“Affiliate” means, with respect to any Person, any other Person which directly or indirectly controls, is controlled by or is under common control with such Person.

“Arbiter” shall mean an independent, nationally recognized accounting firm with expertise in the government contracting industry selected by mutual agreement of Seller and Buyer to resolve a dispute arising under Section 1.4 or Section 1.5 of this Agreement. If Buyer and Seller are unable to agree on the selection of the Arbiter, then the Arbiter will be chosen by the American Arbitration Association, with the expenses of the American Arbitration Association in choosing such Arbiter to be borne one-half (1/2) by Buyer and one-half (1/2) by Seller.

“Benefit Plan” means each compensation or benefits plan, program or arrangement, whether oral or written (including, without limitation, plans within the meaning of Section 3(3) of ERISA, employment agreements, and profit-sharing, defined contribution, deferred compensation, pension, retirement, medical, hospital, dental, disability, or life

insurance, change of control, severance, welfare or fringe benefit plans, programs, agreements or arrangements, cash or equity-based bonus or incentive arrangements, and vacation policies) sponsored or maintained by Seller or any of its Affiliates for the benefit of any Business Employee.

“Business” means the business of providing emergency management consulting services, focused on disaster preparedness, response, recovery, and mitigation, as such business is conducted on the date hereof by Seller. For the avoidance of doubt, “Business” does not include the business of providing services related to master planning, engineering and architectural design, construction management, construction, environmental planning, environmental remediation, or program management, or any services performed for federal government customers.

“Business Day” means a day other than Saturday, Sunday or any day on which banks located in the State of Delaware are authorized or obligated to close.

“Business Employee” means an employee of Seller whose primary job function is to perform services for the Business.

“Code” means the Internal Revenue Code of 1986, as amended.

“Contract A/R” means all amounts owed to Seller by customers under the Assigned Contracts for work performed by Seller prior to the Closing, irrespective of whether such work is billed to customers before, on or after the Closing Date.

“Disclosure Schedule” means the collection of Schedules attached hereto that sets forth on each of its Schedules the Section of this Agreement to which such Schedule relates and sets forth specific exceptions to representations and warranties of Seller; in each case, as the same may be updated from time to time in accordance with this Agreement. Unless otherwise specified, each reference in this Agreement to any numbered Schedule is a reference to the corresponding numbered Schedule which is included in the Disclosure Schedule.

“Employment Agreement” means any employment contract, consulting agreement, termination or severance agreement, change of control agreement, non-compete agreement or any other agreement or understanding (written or oral) respecting the terms and conditions of employment or payment of compensation, or of a consulting or independent contractor relationship, in respect of any Business Employee.

“Encumbrance” means any lien, encumbrance, claim, charge, security interest, mortgage, deed of trust, pledge, easement, conditional sale or other title retention agreement, defect in title or other restriction of a similar kind.

“Environmental Laws” means all federal, state and local laws, statutes, ordinances and regulations, which (a) regulate or relate to the protection or clean-up of the environment; the processing, use, treatment, storage, transportation, handling, disposal or release of Hazardous Substances; the preservation or protection of waterways, groundwater, drinking water, air, wildlife, plants or other natural resources; or the health and safety of persons or property,

including, without limitation, protection of the health and safety of employees; (b) impose Liability with respect to any of the foregoing.

“ERISA” means the Employee Retirement Income Security Act of 1974, as amended, and all rules and regulations promulgated thereunder.

“ERISA Affiliate” means a trade or business considered as a single employer with Seller under Code Section 414(b) or (c) or Section 4001(b)(1) of ERISA.

“GAAP” means United States generally accepted accounting principles, consistently applied.

“Government Bid” shall mean any bid, offer or proposal made by Seller related to the Business which, if accepted or successful, would result in a Government Contract.

“Government Contract” shall mean any prime contract, subcontract, basic ordering agreement, pricing agreement, letter contract or other similar arrangement of any kind related to the Business, between Seller, on the one hand, and (a) any Governmental Authority, (b) any prime contractor of a Governmental Authority in its capacity as a prime contractor, or (c) any subcontractor with respect to any contract of a type described in clauses (a) or (b) above, on the other hand. A task, purchase or delivery order under a Government Contract shall not constitute a separate Government Contract, for purposes of this definition, but shall be part of the Government Contract to which it relates.

“Governmental Authority” means any domestic, federal, territorial, state or local governmental authority, quasi-governmental authority, court, commission, board, bureau, agency or instrumentality, or any regulatory, administrative or other department, agency, or any political or other subdivision, department or branch of any of the foregoing.

“Hazardous Substances” means any wastes, substances, radiation, or materials (whether solids, liquids or gases): (a) which are hazardous, toxic, infectious, explosive, radioactive, carcinogenic, or mutagenic; (b) which are defined as “pollutants,” “contaminants,” “hazardous materials,” “hazardous wastes,” “hazardous substances,” “toxic substances,” “radioactive materials,” “solid wastes,” or other similar designations in any Environmental Laws; or (c) which pose a hazard to human health, safety, natural resources, employees or the environment.

“Indebtedness” means, as to any Person, (a) all obligations for borrowed money or issued in substitution for or exchange of indebtedness for borrowed money; (b) other indebtedness evidenced by notes, bonds, debentures or other debt securities; (c) indebtedness of the types described in clauses (a) and (b) guaranteed, directly or indirectly, in any manner through an agreement, contingent or otherwise, to supply funds to, or in any other manner invest in, the debtor, or to purchase indebtedness, primarily for the purpose of enabling the debtor to make payment of the indebtedness or to insure the owners of indebtedness against loss; (d) indebtedness for the deferred purchase price of property or services with respect to which the Person is liable, contingently or otherwise, other than ordinary course trade payables; (e) all obligations as lessee or lessees under capital leases in accordance with GAAP; (f) all payment obligations under any interest rate swap agreements or interest rate hedge agreements; (g) any

interest owed with respect to the indebtedness referred to above and prepayment premiums or fees related thereto; and (h) all obligations under or evidenced by any letter of credit, banker's acceptance, guarantee, surety, bonds (including a performance bond, bid bond or appeal bond) or similar credit transaction or debt security.

"Intellectual Property" all of the following as they exist in any jurisdiction throughout the world: (i) issued patents and patent applications, and any divisionals, continuations, continuations-in-part, renewals, reexaminations, substitutions, extensions, or reissues thereof, and the rights related thereto (including the right to sue for past infringement); (ii) trademarks, service marks, trade dress, trade names, and Internet domain names, (including, in each case, the goodwill associated therewith), whether registered or unregistered, and all registrations and applications for registration and renewal thereof; (iii) works of authorship, copyright registrations, and applications for copyright registration, and any extensions or renewals thereof; (iv) trade secrets and other forms and types of confidential or non-public business, financial, research or development, pricing and cost, or technical information, concepts, ideas, designs, processes, procedures, techniques, specifications, operating and maintenance manuals, drawings, methods, know-how, data, databases, formulas, compositions, methods, customer and supplier lists, business and marketing plans, proposals, and invention disclosures (whether or not patentable, but in each case excluding any rights in respect of any of the foregoing that comprise or are protected by issued patents) and the trade secret rights that are related thereto; and (v) computer software, including all source code, object code, and documentation related thereto.

"IRS" means the United States Internal Revenue Service.

"Key Employees" means Jonathan Burgiel, John Buri, and Ralph Natale.

"Knowledge of," or "Knowledge," when used in connection with Seller, means the actual knowledge of Jonathan Burgiel, Christopher Godley, Ralph Natale and John Buri, and such knowledge as would reasonably be expected to be discovered by any of the foregoing Persons in the ordinary course of performing their respective responsibilities; and, when used in connection with Buyer, means the actual knowledge of Dan L. Batrack, and such knowledge as would reasonably be expected to be discovered by any of the foregoing Persons in the ordinary course of performing their respective responsibilities.

"Law" means, with respect to a Person, to the extent applicable to such Person: any law, statute, treaty, rule, regulation, ordinance, order, decree, consent decree or similar instrument or determination or award of an arbitrator or a court or any other Governmental Authority.

"Leased Real Property" means Seller's leased premises at 2310 Lucien Way, Suite 120, Maitland, FL.

"Liability" (and, with correlative meaning, "Liabilities") means all obligations, damages, fines, fees, penalties, and other liabilities (or contingencies that have not yet become liabilities), whether absolute, accrued, matured, contingent (or based upon any contingency),

known or unknown, direct or indirect, monetary or non-monetary, fixed or otherwise, or whether due or to become due.

“Losses” means any and all losses, Liabilities, claims, damages and expenses (including costs of investigation and defense and reasonable attorneys’ fees and expenses); provided, however, that Losses shall not include punitive damages except in the case of fraud by the Indemnifying Party or to the extent actually awarded to a third party.

“Marks” means registered and unregistered trademarks and service marks (including logos and slogans), trade names, product names, and trade dress, including any registrations or internet domain names therefor.

“Material Adverse Effect” means any change, circumstance or effect, individually or together with other changes, circumstances or effects, which has had or is reasonably likely to have a material adverse effect on the Assets, results of operations, condition (financial or otherwise), or operation of the Business (taken as a whole), but does not include any adverse effect resulting from any change, circumstance or effect relating to (a) the economy or financial, banking or securities markets in general, (b) the industries in which the Business operates, (c) national or international political, regulatory or social conditions, including acts of terrorism and the engagement by the United States in hostilities, (d) any change in Law or accounting rules or principles, including any change in GAAP or (e) the execution and delivery of this Agreement or the announcement and performance hereunder (including any cancellations or delays in contract awards and any impact on relationships with customers, prime contractors, subcontractors, suppliers or employees), provided that none of the events set forth in items (a) through (c) shall have had or be reasonably likely to have a disproportionate effect on the operations of the Business (taken as a whole).

“Materiality Qualifications” means any “material,” “materially,” “in all material respects,” “Material Adverse Effect” and similar qualifications contained in any representations and warranties under this Agreement (including the Disclosure Schedule hereto) or any certificate delivered pursuant to ARTICLE 2 hereof.

“Non-Disclosure Agreement” means the Mutual Nondisclosure Agreement (Proprietary Information) dated March 7, 2014 between Seller and Buyer, as modified, amended or supplemented from time to time.

“Order” means any judgment, order, writ, decision, injunction, award or decree of any foreign, federal, state, local or other court or tribunal and any ruling or award in any arbitration proceeding.

“Ordinary Course” means the ordinary course of business consistent with past practices of Seller in operating the Business.

“Permits” means all licenses, permits, franchises, approvals, authorizations, consents or Orders of, or filings with, any Governmental Authority that are necessary for the conduct of, or relating to the operation of, the Business.

**“Permitted Encumbrances”** means (a) liens for Taxes and other governmental charges and assessments which are not yet due and payable or which are being contested in good faith, (b) liens of landlords and liens of carriers, warehousemen, mechanics and materialmen and other like liens arising in the Ordinary Course for sums not yet due and payable or which are being contested in good faith, (c) other liens or imperfections on property which are not material in amount or do not materially detract from the value of or materially impair the existing use of the property affected by such lien or imperfections, (d) liens relating to deposits made in the Ordinary Course in connection with workers’ compensation, unemployment insurance and other types of social security or to secure the performance of leases, trade contracts or other similar agreements, and (e) purchase money liens on personal property acquired in the Ordinary Course.

**“Person”** means an individual, partnership, corporation, business trust, joint stock company, trust, unincorporated association, joint venture, Governmental Authority or other entity of whatever nature.

**“Pre-Closing Tax Period”** means any taxable period or portion thereof ending on or prior to the Closing Date.

**“Schedules”** means the documents attached hereto setting forth certain information called for by this Agreement, including, without limitation, the Disclosure Schedule and schedules setting forth certain Assets.

**“Tax”** (and, with correlative meaning, **“Taxes”**) means any federal, state, local or foreign income, gross receipts, estimated, profits, windfall profits, intangible property, occupation, production, emergency excess, capital gains, capital stock, stamp, goods and services, value-added property, sales, use, license, excise, franchise, employment, payroll, withholding, alternative or add-on minimum, ad valorem, transfer or excise tax, or any other tax or other like assessment or charge of any kind whatsoever, together with any interest or penalty, imposed by any Governmental Authority.

**“Tax Return”** means any return, report or similar statement required to be filed with respect to any Tax (including any attached Disclosure Schedules), including, without limitation, any information return, claim for refund, amended return or declaration of estimated Tax and any affiliated, consolidated, combined, unitary or similar return.

**“Third Party Claim”** means any claim against any Indemnified Person by a Person that is not a party, or an Affiliate of a party, to this Agreement, whether or not involving an Action.

**“Transaction Documents”** means this Agreement and the documents to be executed and delivered by any party at the Closing pursuant hereto.

**“Transferred Intellectual Property”** means Intellectual Property that is owned by Seller, that relates primarily to the Business, and that is being transferred to Buyer pursuant hereto and pursuant to the Trademark Assignment Agreement, the Patent Assignment Agreement and the Domain Name Assignment Agreement.

11.2 Index of Defined Terms. Solely for convenience purposes, the following is a list of certain terms that are defined in this Agreement and the section numbers where such definitions are contained:

<u>After-Acquired Concern</u> .....	<i>Section 6.6(a)</i>
<u>Agreement</u> .....	<i>Preamble</i>
<u>Allocation</u> .....	<i>Section 1.5</i>
<u>Assets</u> .....	<i>Section 1.1(a)</i>
<u>Assigned Contracts</u> .....	<i>Section 1.1(a)(iii)</i>
<u>Assignment and Assumption Agreement</u> .....	<i>Section 2.2(b)</i>
<u>Assumed Liabilities</u> .....	<i>Section 1.2</i>
<u>Business Financial Reports</u> .....	<i>Section 3.4</i>
<u>Buyer</u> .....	<i>Preamble</i>
<u>Buyer Indemnitees</u> .....	<i>Section 8.1</i>
<u>Buyer's Plans</u> .....	<i>Section 6.2(b)</i>
<u>Closing</u> .....	<i>Section 2.1</i>
<u>Closing Date</u> .....	<i>Section 2.1</i>
<u>Closing Statement</u> .....	<i>Section 1.4(b)</i>
<u>Commercial Bid</u> .....	<i>Section 3.13 (d)</i>
<u>Completed Projects</u> .....	<i>Section 1.3(f)</i>
<u>Contract A/R Disputed Items</u> .....	<i>Section 1.4(d)</i>
<u>Contract A/R Disputed Items Notice</u> .....	<i>Section 1.4(d)</i>
<u>Contract A/R Value</u> .....	<i>Section 1.4</i>
<u>Current Government Contract</u> .....	<i>Section 3.14(a)(i)</i>
<u>Designated Employees</u> .....	<i>Section 6.2(a)</i>
<u>End Date</u> .....	<i>Section 9.1(a)(ii)</i>
<u>Environmental Permits</u> .....	<i>Section 3.16(b)</i>
<u>Estimated Contract A/R Value</u> .....	<i>Section 1.4(b)</i>
<u>Excluded Assets</u> .....	<i>Section 1.1(b)</i>
<u>Excluded Liabilities</u> .....	<i>Section 1.3</i>
<u>General Cap</u> .....	<i>Section 8.1</i>
<u>Governmental Permits</u> .....	<i>Section 3.7</i>
<u>Indemnified Party</u> .....	<i>Section 8.4(a)</i>
<u>Indemnifying Party</u> .....	<i>Section 8.4(a)</i>
<u>Key Employee Benefit Amounts</u> .....	<i>Section 1.4</i>
<u>Lease</u> .....	<i>Section 3.8(a)</i>
<u>License Agreement</u> .....	<i>Section 2.2(c)</i>
<u>Material Customer</u> .....	<i>Section 3.19(b)</i>
<u>Material Supplier</u> .....	<i>Section 3.19(a)</i>
<u>New Event</u> .....	<i>Section 5.5(b)</i>
<u>Nonassignable Assets</u> .....	<i>Section 5.2(a)</i>
<u>Non-Competition Period</u> .....	<i>Section 6.6(a)</i>
<u>Post-Closing Statement</u> .....	<i>Section 1.4(c)</i>
<u>Prime Contracts</u> .....	<i>Section 5.2(b)</i>
<u>Purchase Price</u> .....	<i>Section 1.4</i>
<u>Recognition Payments</u> .....	<i>Section 6.2(g)</i>
<u>RecoveryTrac</u> .....	<i>Section 1.1(a)(ii)</i>

<u>Seller</u> .....	<i>Preamble</i>
<u>Seller Indemnitees</u> .....	<i>Section 8.2</i>
<u>Subcontract Agreement</u> .....	<i>Section 2.2(h)</i>
<u>Tax Purchase Price</u> .....	<i>Section 1.5</i>
<u>Threshold Amount</u> .....	<i>Section 8.1(b)</i>
<u>Trademark Assignment Agreement</u> .....	<i>Section 2.2(g)</i>
<u>Transaction Expenses</u> .....	<i>Section 9.2</i>
<u>Transferred Personal Property</u> .....	<i>Section 1.1(a)(i)</i>
<u>Transition Services Agreement</u> .....	<i>Section 2.2(f)</i>
<u>Updated Schedules</u> .....	<i>Section 5.5(b)</i>
<u>WARN</u> .....	<i>Section 3.17(c)</i>

### 11.3 Construction.

(a) In this Agreement, unless a clear contrary intention appears:

(i) the singular number includes the plural number and vice versa and reference to any gender includes each other gender;

(ii) reference to any Person includes such Person's successors and assigns but only if such successors and assigns are not prohibited by this Agreement, and reference to a Person in a particular capacity excludes such Person in any other capacity;

(iii) all references to "Articles," "Sections" and "Exhibits" refer to the corresponding Articles, Sections and Exhibits of this Agreement, unless otherwise stated;

(iv) "hereunder," "hereof," "hereto," and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section or other provision hereof;

(v) reference to any agreement, document or instrument (including any Transaction Document) means such agreement, document or instrument as amended or modified and in effect from time to time in accordance with the terms thereof;

(vi) references to documents, instruments or agreements (including this Agreement) shall be deemed to refer as well to all addenda, exhibits, Schedules, restatements, supplements or amendments thereto;

(vii) reference to any applicable Law means such applicable Law as amended, modified, codified, replaced or reenacted, in whole or in part, and in effect from time to time, including rules and regulations promulgated thereunder, and reference to any Section or other provision of any applicable Law means that provision of such applicable Law from time to time in effect and constituting the substantive amendment, modification, codification, replacement or reenactment of such Section or other provision;

(viii) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding the word “including”;

(ix) where specific language is used to clarify by example a general statement contained herein, such specific language shall not be deemed to modify, limit or restrict in any manner;

(x) “or” is used in the inclusive sense of “and/or”;

(xi) “primarily” means “primarily or exclusively”;

(xii) with respect to the determination of any period of time, “from” means “from and including” and “to” means “to but excluding”;

(xiii) the measure of a period of one (1) month or year for purposes of this Agreement shall be the date of the following month or year corresponding to the starting date; provided, that if no corresponding date exists, then the end date of such period being measured shall be the next actual date of the following month or year (for example, one (1) month following February 18 is March 18 and one (1) month following March 31 is May 1);

(xiv) references to times herein shall be based on Eastern Time;

(xv) consents with respect to Assigned Contracts, include, without limitation (to the extent appropriate and required or requested by the applicable counterparty), novations; and

(xvi) references to amounts of money expressed in dollars are references to U.S. dollars, unless express reference is made to currency of another country.

(b) Each party acknowledges and represents that it (i) has consulted with, or has been afforded the opportunity to consult with, counsel of its own choosing in connection with the drafting, negotiation and execution of this Agreement, (ii) enters into this Agreement of its own free will and as its independent act and (iii) is being independently advised as to the Tax consequences of the transactions contemplated by this Agreement. Each party further acknowledges and represents that this Agreement is the mutual product of the parties, and each provision hereof has been subject to the mutual consultation, negotiation and agreement of each of the parties, and shall not be construed for or against any party hereto, but according to the application of the rules of interpretation of contracts. The phrases “delivered to Buyer,” “made available to Buyer” and similar phrases, when used in ARTICLE 3, mean that a copy of the subject document was posted to the Merrill electronic data room maintained by Seller in a folder location reasonably appropriate for such subject document in relation to the context in which such phrase is used, in connection with the contemplated sale of the Assets and at least two (2) Business Days prior to the date hereof.

(c) The Disclosure Schedule shall be construed with and as an integral part of this Agreement to the same extent as if it was set forth verbatim herein. Each numbered Schedule in the Disclosure Schedule shall be deemed to qualify the corresponding Section of this

Agreement and any other Section to which the application of such disclosure is reasonably apparent. The Disclosure Schedule may expressly provide exceptions to a particular Section of ARTICLE 3 notwithstanding that such Section does not state "except as set forth in Schedule '\_\_\_'" or words of similar import. Neither the specification of any dollar amount in any representation or warranty contained in this Agreement nor the inclusion of any specific item in the Disclosure Schedule is intended to vary the definition of "Material Adverse Effect" or to imply that such amount, or higher or lower amounts, or the item so included or other items, are or are not material, and no party shall use the fact of the setting forth of any such amount or the inclusion of any such item in any dispute or controversy between the parties as to whether any obligation, item or matter not described herein or included in the Disclosure Schedule is or is not material for purposes of this Agreement. Unless this Agreement specifically provides otherwise, neither the specification of any item or matter in any representation or warranty contained in this Agreement nor the inclusion of any specific item in the Disclosure Schedule is intended to imply that such item or matter, or other items or matters, are or are not in the Ordinary Course, and no party shall use the fact of the setting forth or the inclusion of any such item or matter in any dispute or controversy between the parties as to whether any obligation, item or matter not described herein or included in the Disclosure Schedule is or is not in the Ordinary Course for purposes of this Agreement.

*[Signature page follows]*

IN WITNESS WHEREOF, the parties hereto have caused this Asset Purchase Agreement to be executed and delivered as of the day and year first above written.

**LEIDOS, INC.**

By: Peter D. Schuster  
Name: Peter D. Schuster  
Title: Vice President – Mergers and Acquisitions

**TETRA TECH, INC.**

By: \_\_\_\_\_  
Name: Dan L. Batrack  
Title: Chairman and Chief Executive Officer

IN WITNESS WHEREOF, the parties hereto have caused this Asset Purchase Agreement to be executed and delivered as of the day and year first above written.

**LEIDOS, INC.**

By: \_\_\_\_\_  
Name: Peter D. Schuster  
Title: Vice President – Mergers and Acquisitions

**TETRA TECH, INC.**

By:   
Name: Dan L. Batrack  
Title: Chairman and Chief Executive Officer



## Agenda Memo

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**AGENDA ITEM: A.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 10 - A

**SUBJECT:**

Request for approval to award the health insurance to Cigna. - Richard Adams, Human Resources (386) 878-8752.

Strategic Goal: Fiscal Issues

**LOCATION:**

City Wide

**BACKGROUND:**

Staff was asked to put out to bid the City's health insurance. The bids went out in August, 2016 for health insurance and the City received seven (7) bids for health insurance and nine (9) bids for dental insurance. The Selection Committee reviewed the bids and unanimously elected to go with Cigna. By going with Cigna it would save the City approximately \$600,000 +/-.

**COST:**

\$2.6 Million +/-

**SOURCE OF FUNDS:**

2017 Budget

**ORIGINATING DEPARTMENT:**

Human Resources Department

**STAFF RECOMMENDATION PRESENTED BY:**

Richard Adams, Human Resources Director - That the Commission approve moving forward with awarding the City's health insurance to Cigna.

**POTENTIAL MOTION:**

"I move to approve moving forward with awarding the City's health insurance to Cigna."

# Gene Gizzi Insurance Services

751 Brechner Terrace  
Deltona, Florida 32738  
(386) 575-2555 Fax (386) 575-2775

## **Summary of Negotiation Progress with Cigna and Recommendation to Implement Health & Dental Insurance Carrier Change**

On October 5, 2016 negotiations were initiated with Cigna as directed by the Selection Committee for **RFP 16014 Group Health and/or Dental Insurance** and approved by Jane Shang, City Manager.

The negotiation team of Gene Gizzi - Agent of Record; Kate Krauss – Purchasing Manager; and Rich Adams – HR Director met with Kelly Reabe – Senior Account Executive of Cigna. Several areas of Health Plan concerns were addressed, many of which were immediately resolved such as:

- Discussion of Cigna procedures & programs that allow **Continuity of Care** (and recognition of current providers) for employees & dependents undergoing procedures during the transition of carriers;
- Renewal rate formula specifics including pooling points, transparencies, and City requirement to receive renewal notice **120 days** prior to renewal;
- Availability of **Quality Cost & Comparison Tool** for members;
- Discussion of Cigna enhanced **Wellness Allowance** and accessibility;
- Discussion of Cigna **50% Dividend Eligibility**, which allows City of Deltona to receive refunds if annual claims are lower than projected claims.

Negotiations also identified issues that required follow up approval from Cigna Underwriting & Management team:

- Variations from current **Health Plan** design.
  - Deductibles did NOT count toward Out of Pocket Annual Maximums on RFP proposed health plans. **ISSUE RESOLVED** -- Cigna agreed to allow deductibles to count toward Out of Pocket Maximums and to waive corresponding premium impact (estimated at approximately 2%). The result is NO LOSS OF BENEFITS on the CORE PLAN and a REDUCTION of Out of Pocket Maximum on the BUY UP Plan.
  - Language in CORE PLAN Benefit Summary implied PCP & Specialist Copay involved satisfaction of plan deductibles. **ISSUE RESOLVED** - Benefit Summaries were corrected as will subsequent documents.

## Gene Gizzi Insurance Services

751 Brechner Terrace  
Deltona, Florida 32738  
(386) 575-2555 Fax (386) 575-2775

- Variations from current **Dental Plan** design.
  - Current UHC Dental Plan included a Benefit Carry-Over provision that added up to \$250 additional annual benefits (\$1,000 Maximum). Many employees accrued allowance that would be lost in a change of carriers. Remedies were discussed and CIGNA agreed to an equitable solution:
    - **ISSUE RESOLVED** – Cigna agreed to raise Annual Benefit Maximum from \$1,000 per member/per year to \$1,250 per member per year, while including the proposed Wellness Benefit Carry-Over of \$150 per member per year up to \$450 Maximum at premium rates 17.5% below current rates.

Additional items were discussed including 24/7 – 365 days per year customer service availability; a dedicated Public Sector Division for City benefit; inclusion of a comprehensive Employee Assistance Program; willingness to partner in cost effective solutions to health care management and plan design.

Cigna was recently awarded the contract for **Volusia County** Government. Efforts are currently underway to enhance provider access for our area which will positively impact on the City of Deltona, and help minimize disruption during transition.

### **SUMMARY AND CONCLUSION:**

**RFP 16014** resulted in an opportunity for the City of Deltona to save roughly \$600,000 in premium contribution without passing costs to employees in calendar year 2017. Savings will be incurred without loss of benefits (other than accrued dental carry over credits), and employee premium contributions will also decrease.

Negotiations surpassed expectations, and I fully support the Selection Committee decision to award both health and dental insurance contracts to Cigna. To ensure timely and effective transition, I recommend implementation immediately upon approval from the City Commission.

Sincerely,

Gene Gizzi, REBC, RHU, ChHC

# Health Insurance 2017

Richard Adams, SPHR, SHRM-SCP  
Human Resources Director  
City of Deltona

# Timeline

- July/August – Received input from Benefit Committee.
- August – RFP for Health Insurance went out.
- October – Received 7 proposals for Health Insurance and 9 proposals (7 combined) for Dental coverage.
- October – Selection Committee reviewed proposals and made a unanimous choice.

# Proposals Received

Proposals for Health Insurance were received from:

- United Health Care
- Cigna
- Aetna
- Humana
- Florida Hospital
- Florida Health Care Plans
- Florida Blue (in conjunction with Florida Health Care Plans)

Proposals for Dental Insurance were received from:

- United Health Care
- Cigna
- Aetna
- Humana
- Florida Combined
- Standard
- Ameritas
- League of Cities
- Met Life

# Cigna

- Cigna's proposal was chosen for their pricing, plan comparison, wellness, and history of positive customer service.
- Cigna's Dental Plan was chosen for continuity of providers, as all dental proposals were extremely competitive as far as coverages and pricing.

# Savings

- Due to the City's low utilization numbers for the previous 2 years, in part, as a result of HR's commitment to promoting Wellness, our Core Plan came in with a savings of 16% over current United Health Care costs.
- Cigna offers a Dividend Rebate program which rewards the City for favorable claims experience

# Dividend Rebate Example

Sample year-end settlement

Claims run better than expected

Premium	\$3,000,000
---------	-------------

Less expenses/paid claims

- Paid claims – \$2,500,000
  - Administrative expenses – \$400,000
  - Change in claim reserve – \$50,000
- |  |             |
|--|-------------|
|  | \$2,950,000 |
|--|-------------|

Balance	\$50,000
---------	----------

- Your 50% dividend (balance/2) \$25,000

If claims are higher than expected, Cigna covers the additional claim cost.

# Wellness

- Cigna incorporates a comprehensive Wellness program.
- Wellness check information is shared with the employee's PCP (with approval from employee).
- Cigna offers an outreach program where medical professionals will reach out to employees who may be in an 'at risk' situation. (included at no cost).
- Additional funding is provided from Cigna for the City to spend on Wellness initiatives.

# Cadillac Tax

- The Cadillac Tax was designed to slow the rising cost of healthcare and raise revenue to pay for other components of the Affordable Care Act.
- It was originally scheduled to take effect on January 1st, 2018. However, on December 18th, President Obama signed the Consolidated Appropriations Act, 2016 (the Act).that pushes back the start of the Cadillac Tax from 2018 to 2020.
- Indications are that it could be repealed permanently.
- The Cadillac Tax would be a 40% tax on employers who offer premium health insurance plans that exceed specified high-cost limits (\$10,200 for individuals and \$27,000 for families). (Combined Employee/Employer contributions)
- The 40% tax applies to the amount above the cost threshold. So, for an individual plan that costs \$11,000, the tax would be \$320, or 40% of the \$800 over the \$10,200 limit.

# City Plans

- If Individual health insurance monthly rates rise above \$850 per month, the City would be taxed on the portion over that amount.
- City of Deltona's 2017 Rates are at 70% of the threshold.
- If Family health insurance monthly rates (including employer contribution) rise above \$2,291.67 per month, the City would be taxed on the portion over that amount.
- City of Deltona's 2017 rates are at 75% of the threshold.
- \*\*\*Threshold rates have not been indexed as of yet from the 2010 numbers.

# Summary

- Cigna provides a 16% savings for the City on our Core Plan
- Coverage levels remain the same
- Enhanced Wellness programs
- Potential rebates
- Potential Cadillac Tax is not a factor at this time
- Deltona remains competitive and in line with benefits offered by other municipalities

**Morris Dean Mirabella**  
Vice President



2701 North Rocky Point Drive  
Suite 800  
Tampa, FL 33607  
Tel 813.637.1201  
Fax 813.637.1265  
m.dean.mirabella@cigna.

October 13, 2016

Ms. Jane Shang  
City Manager  
City of Deltona  
2345 Providence Blvd  
Deltona, FL 32725

**Subject: RFP #16014 Group Health and/or Dental Insurance**

Dear Ms. Shang

Cigna Health and Life Insurance Company proposes the following Medical premium rates effective January 1, 2017 through December 31, 2017

Medical

<b>Health Plans</b>	<b>Core H.M.O.</b>	<b>Buy-Up H.M.O</b>	<b>P.O.S</b>
Employee	\$599.41	\$630.89	\$653.83
Emp + Spouse	\$1231.20	\$1295.94	\$1343.12
Emp + Child(ren)	\$1147.43	\$1207.78	\$1251.73
Emp + Family	\$1734.96	\$1826.22	\$1892.70

Cigna Health and Life Insurance Company also proposes the following Dental PPO & Progressive @\$150 per year plan effective January 1, 2017 through December 31, 2017 at the premium rates listed below

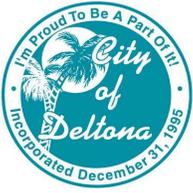
<b>Dental Plans</b>	<b>12 months</b>
Employee	\$26.79
Emp + Spouse	\$49.64
Emp + Child(ren)	\$57.72
Emp + Family	\$80.58

If we can be of further assistance and provide any additional information please let me know.

Sincerely,

A handwritten signature in blue ink that reads "Morris Dean Mirabella".

Morris Dean Mirabella  
Vice President



## Agenda Memo

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**AGENDA ITEM: B.**

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 10 - B

**SUBJECT:**

Consideration of Commissioner Schleicher's appointment to the Planning and Zoning Board for the remainder of a term to expire on March 15, 2017 - Joyce Raftery, City Clerk (386) 878-8502.

Strategic Goal: Internal and external communication.

**LOCATION:**

N/A

**BACKGROUND:**

At the Regular Commission Meeting on September 19, 2016 Commissioner Schleicher tabled her appointment to the board for 30 days. Mr. Noble Olasimbo, Commissioner Schleicher's appointment, resigned from the Planning and Zoning Board on August 31, 2016. Per Article XII. Planning and Zoning Board, Sec. 110-1200. Creation (b), "The vacancy shall be filled within 30 days from the time it occurs." The appointment will serve for the remainder of a term to expire on March 15, 2017.

The City has run press releases, posted the opening on D-TV, the City's web page and bulletin boards. To date the City has received applications from the following individuals: Jose Irizarry, Smiley Thurston and Frank Whittock.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

City Clerk's Department.

**STAFF RECOMMENDATION PRESENTED BY:**

Joyce Raftery, City Clerk - That the Commission confirm Commissioner Schleicher's appointment to the Planning and Zoning Board for the remainder of a term to expire on March 15, 2017.

**POTENTIAL MOTION:**

"I move to confirm Commissioner Schleicher's appointment to the Planning and Zoning Board for the remainder of a term to expire on March 15, 2017."

**City of Deltona, Florida**  
**PLANNING AND ZONING BOARD**

	<u>Appointed By</u>	<u>Apptd. Date</u>	<u>Term Exp.</u>
Tom Burbank <b>CHAIRMAN</b> 2073 Brewster St Deltona, FL 32738 (386) 789-3054 (386) 747-1944 Email: <a href="mailto:tburbank@cfl.rr.com">tburbank@cfl.rr.com</a>	Commissioner Nabicht (District 6)	06-17-13 03-17-14 (Re-apptd.)	03-15-17
Adam Walosik <b>VICE CHAIRMAN</b> 1426 Montecito Ave Deltona, FL 32738 (407) 625-4194 Email: <a href="mailto:awalosik@att.net">awalosik@att.net</a>	Commissioner Lowry (District 5)	04-04-11 03-17-14 (Re-apptd.)	03-15-17
John Harper 1022 Feather Dr. Deltona, FL 32725 (386) 547-0121 Email: <a href="mailto:nativeson904@att.net">nativeson904@att.net</a>	Commissioner Smith (District 2)	01-19-15 03-08-16 (Re-apptd)	03-15-19
<b>Resigned August 31, 2016</b>			
<del>Noble Olasimbo 2768 Foxdale Dr. Deltona, FL 32738 (386) 737-6023 (352) 483-9092 Email: <a href="mailto:nolasimbo@bellsouth.net">nolasimbo@bellsouth.net</a></del>	Commissioner Schleicher (District 4)	04-04-11 03-17-14 (Re-apptd.)	03-15-17
Donald Philpitt 455 Saxon Blvd. Deltona, FL 32725 (386) 860-7279 Email: <a href="mailto:dapbap@att.net">dapbap@att.net</a>	Mayor Masiarczyk	02-01-16 03-08-16 (Re-apptd)	03-15-19
Michael Putkowski 2736 Courtland Blvd. Deltona, FL 32738 (407) 641-6920 Email: <a href="mailto:mikeputkowski@gmail.com">mikeputkowski@gmail.com</a>	Commissioner Honaker (District 1)	02-15-16 03-08-16 (Re-apptd)	03-15-19
Stony Sixma 1977 Catalina Boulevard Deltona, FL 32725 (386) 848-1147 Email: <a href="mailto:Stonysixma@yahoo.com">Stonysixma@yahoo.com</a>	Vice Mayor Herzberg (District 3)	07-21-14	03-15-17

**Staff Liaison:**  
Chris Bowley, AICP  
Planning & Development Services Director  
2345 Providence Blvd.  
Deltona, FL 32725  
(386) 878-8602  
(386) 878-8501 Fax  
Email: [cbowley@deltonafl.gov](mailto:cbowley@deltonafl.gov)

Noble Olasimbo, AICP  
2768 Foxdale Drive  
Deltona FL 32738

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August 17, 2016

Joyce Raftery, CMC, MMC  
City Clerk of Deltona  
2345 Providence Blvd.  
Deltona FL 32725

Subject: Resignation from the City of Deltona Planning and Zoning Advisory Board

Dear Ms. Raftery:

I have thoroughly enjoyed volunteering for the City of Deltona Planning and Zoning Advisory Board, but I wanted to let you know that I do not plan on continuing to volunteer effective August 31<sup>st</sup>, 2016. I will be out of United States for some months which will have impact on my attending monthly meeting,

I have enjoyed working with my fellow Planning and Zoning Advisory Board Members.

Sincerely,

*Noble Olasimbo*

Noble Olasimbo, AICP  
City of Deltona Planning and Zoning Advisory Board Member

C: City Commission  
Chris Bowley, AICP, Planning & Development Services Director

Received: September 29, 2016

Request From: Jose Irizarry  
Email: [joseirizarry47@gmail.com](mailto:joseirizarry47@gmail.com)  
Source IP: 108.189.52.128

Address: 1931 Kirkwood Street  
City: Deltona  
State: Florida  
Zip: 32738  
Phone: 3862186812  
Alt Phone: 3214202764  
Fax: N/A  
Organization:

Checkbox Choices

Planning & Zoning Board,

Number of Years as a Deltona Resident

25+ Years

What Commission district do you reside in?

District 4

Are you a registered voter in Volusia County?

Yes

Who is your employer? (Please include number of years, address, phone number and title/position)

IPC Investigations

3 Years

1155 S Volusia Ave Suite 103

Orange City, FL 32763

Chief Investigator

Please summarize your work experience.

Served as a municipal Police Officer for the City of Mount Dora, FL for over 13 years. Currently teach Criminal Justice at a University in Orlando (SUAGM).A licensed private

Received: September 29, 2016

investigator for IPC Investigations (Surveillance, Public records (FOIA), Sunshine laws, Domestic cases, Criminal investigations (defense), and executive protection. Also the owner of IPC Training Academy Security and CCW training

List any volunteer service organizations, clubs, or professional societies you are a member of and give the positions or titles you have held.

Florida Association of Private Investigators (FAPI), Florida Association of Licensed Investigators (FALI), Former Board member of FAPI.

Have you ever served on a committee or advisory board? If so, give the details, including any positions held. Have you ever held public office? If so, give the details, including offices involved, whether elected or appointed, and the length of service.

Served on the Planning and Zoning Board for Deltona in 2011

Describe any additional knowledge, skill, education, or experience you have, which would assist you in the duties of this Board/Committee.

BA in Criminal Justice Administration; MS in Legal Studies (Homeland Security minor), Served on the Deltona Planning and Zoning Board and my years as a Municipal Police Officer for Mount Dora have giving me some knowledge of Municipal policies and procedures

Explain why you want to serve on this Board/Committee, and include any potential contribution you selection would bring.

As a lifelong resident of Deltona I feel it is my duty to give something back to the City.

Potential conflict of interest: Do you do business, or are you engaged in the management of any business enterprise that has a financial interest with the City of Deltona? Please give details, including the name of the enterprise, the nature of the business, and the position you hold.

No

Have you ever been convicted for violation of any federal, state, county, or municipal law, regulation, or ordinance? If so, give details. Do not include traffic violations or fines of \$100 or less that were imposed, unless it also included a jail sentence.

No

List names, addresses, and telephone numbers of at least three persons who are in a position to comment on your qualifications and of whom inquiry may be made by the City of Deltona.

Received: September 29, 2016

Astrid Vellon, Esq (407) 207-8060

Arlene Vellon, Esq (407) 880-8300

Jesse Gonzalez (407) 948-3133

Additional Information or Comments

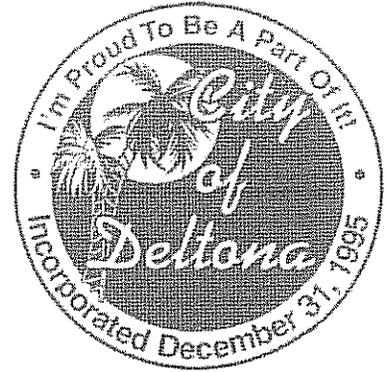
It will be an honor to serve again if selected

City Clerk's Office Use:  
 Appointed to: \_\_\_\_\_  
 \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Other Boards of Interest/Dates  
 contacted: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RECEIVED  
 SEP 12 2016  
 BY: \_\_\_\_\_

City of Deltona

Citizen Board / Committee  
 Application



Name of Board/Committee: OPEN

1. **Personal Information:**

Name: SMILEY W THURSTON  
 Address: 608 SAXON BLVD  
 City: DELTONA State: FL Zip: 32725 # Years: 20+ District: \_\_\_\_\_  
 Telephone #: (386) 717-5647 Alt. Phone #: (386) 957-7957 Fax: (\_\_\_\_\_) \_\_\_\_\_  
 Organization: HELPING HANDS FOUNDATION, COALITION AGAINST HUNGER, SALVATION ARMY VOLUNTEER  
 Are you a registered Voter?: Yes  No \_\_\_\_\_  
 E-mail Address: WEHAVE THE SOLUTION@AOL.COM  
 Employer: PROPERTY SHOWCASE INC # of Years: 30+  
 Address: ~~XXXXXXXXXX~~ POST OFFICE BOX 4132 ENTERPRISE FL 32725  
 Employer Telephone #: 386-717-5647 Position: OWNER, ADM,  
 Summarize your work experience: HAVE WORK IN NEW AND RESTORATION CONSTRUCTION  
SINCE EARLY 80', LIC GENERAL CONTRACTOR, LIC REAL ESTATE SALES.  
EXTENSIVE EXPERIENCE IN REAL ESTATE FIELD.

2. **Volunteer, Civic, Professional & Other Activities:**

- List any volunteer service organizations, clubs or professional societies you are a member of and give the positions of titles you have held. Director of Lytleburg Historical Society, CETA program, Historical Society Reunion 50's current work as volunteer Community Life Center, Alliance Church Deltona, Food Program and monthly Community Dinner, Salvation Army Volunte Director of Food Programs
- Have you ever served on a committee or advisory board? If so, give the details, including any positions held. BOARD MEMBER OF VOLUSIA COUNTY HUMAN SERVICES ADVISORY BOARD. RE ELECTED FOR ANOTHER 2 year term this month. Human Services Board of Salvation Army, Elected Board of Director.
- Have you ever held public office? If so, give the details, including the offices involved, whether elected or appointed, and the length of service. IN THE EARLY 1970'S INVOLVED WITH THE CETA PROGRAM IN DELTONA. VOTED TO POSITION OF Director for 4 years.

3. **Reasons for serving:**

- Describe any additional knowledge, skill, education or experience you have, which would assist you in the duties of this Board/Committee. I AM ESPECIALLY INTERESTED IN BOARD OF COMMITTEE INVOLVED WITH HUMAN SERVICES AND AFFORDABLE HOUSING, HELPING DELTONA GROW IN SIZE

b. Explain why you want to serve on this Board/Committee, and include, and include any particular potential contribution your selection would bring.

PREVIOUSLY MENTIONED LIC. GENERAL CONTRACTOR C66005961 -  
LICENSED REAL ESTATE AGENTS WITH KEVIN WILLIAMS  
PORTORANG, WORKING TO HELP THE HOMELESS AND WORKING  
POOR IN VOLusia COUNTY, ESPECIALLY THE WEST SIDE.

4. **Miscellaneous:**

a. Potential conflict of interest: Do you do business, or are you engaged in the management of any business enterprise that has a financial interest with the City of Deltona? Please give details, including the name of the enterprise, the nature of the business, and the position you hold. N/A

b. Have you ever been convicted for violation of any federal, state, county or municipal law, regulation or ordinance? If so, give details. Do not include traffic violations or fines of \$100 or less that were imposed, unless it also included a jail sentence. N/A

5. **References:**

List names, addresses and telephone numbers of at least three persons who are in a position to comment on your qualifications and of whom inquiry may be made by the City of Deltona.

- DE RAMMO BONNET 727 OCEANSHORE BLVD ORMOND BEACH FL # ON REQUEST
- DR STANLEY STOCKHAMMER (386) 736-7205
- DINO DODANIT Kevin Williams Realty # upon request

6. **Additional Information or comments:**

EXTREMELY INTERESTED IN SERVING MY COMMUNITY

I DECLARE THE FOREGOING FACTS TO BE TRUE, CORRECT AND COMPLETE.

[Signature] 9-12-2016  
Signature Date

Return completed application to:  
City of Deltona ♦ City Clerk's Office ♦ 2345 Providence Blvd. ♦ Deltona, FL 32725

\*\*Please note that the City Clerk's Office keeps applications active for 6 months from the date of receipt if you are not chosen to fill the Board/Committee vacancy. If at a later date you wish to be considered for another Board/Committee vacancy other than the Board originally applied for, you must contact the City Clerk's Office at (386) 878-8500 and request your application be pulled for consideration.

## Joyce Raftery

---

**From:** Frank Whittock <fwhittock@cfl.rr.com>  
**Sent:** Friday, September 23, 2016 5:43 PM  
**To:** Joyce Raftery  
**Subject:** Citizen Board/Committee Application  
**Attachments:** Attach0.html

Request From: Frank Whittock  
Email: [fwhittock@cfl.rr.com](mailto:fwhittock@cfl.rr.com)  
Source IP: 97.103.8.84

Address: 2911 McClellan st.  
City: Deltona  
State: Fl.  
Zip: 32738  
Phone: 321-363-3389  
Alt Phone: 717-683-3495 (cell)  
Fax: 321-363-3389  
Organization:

Checkbox Choices

Planning & Zoning Board,

Number of Years as a Deltona Resident

6 - 10 Years

What Commission district do you reside in?

District 6

Are you a registered voter in Volusia County?

Yes

Who is your employer? (Please include number of years, address, phone number and title/position)

Retired

Please summarize your work experience.

Founder & president For 50 years of Frank Whittock & Associates Inc. Architectural scale models.

List any volunteer service organizations, clubs, or professional societies you are a member of and give the positions or titles you have held.

Shriners President of Mia-Atlantic Association OF Shrine Motor Corps 1989

Have you ever served on a committee or advisory board? If so, give the details, including any positions held. Have you ever held public office? If so, give the details, including offices involved, whether elected or appointed, and the length of service.

No

Describe any additional knowledge, skill, education, or experience you have, which would assist you in the duties of this Board/Committee.

Have worked with various planners ,architects & landscape architects.

Explain why you want to serve on this Board/Committee, and include any potential contribution you selection would bring.

As a resident of Deltona,I am interested in future development of our city and it's planning.

Potential conflict of interest: Do you do business, or are you engaged in the management of any business enterprise that has a financial interest with the City of Deltona? Please give details, including the name of the enterprise, the nature of the business, and the position you hold.

None

Have you ever been convicted for violation of any federal, state, county, or municipal law, regulation, or ordinance? If so, give details.

Do not include traffic violations or fines of \$100 or less that were imposed, unless it also included a jail sentence.

No

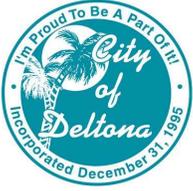
List names, addresses, and telephone numbers of at least three persons who are in a position to comment on your qualifications and of whom inquiry may be made by the City of Deltona.

Emmadean Fetzer 524 Saxon Blvd Deltona 386-574 2025

Donald Frazee 494 Glen Haven Dr. Deltona 386-575-0795

Edith Tinari 1860 S. Merrick Dr. Deltona 386-574-6364

Additional Information or Comments



## Agenda Memo

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**AGENDA ITEM:** A.

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**TO:** Mayor and Commission

**AGENDA DATE:** 10/17/2016

**FROM:** Jane K. Shang, City Manager

**AGENDA ITEM:** 11 - A

**SUBJECT:**

Request for approval of the 2017 holiday meeting schedule - Joyce Raftery, City Clerk's Department (386) 878-8502.

**LOCATION:**

N/A

**BACKGROUND:**

In the past, the Commission has chosen to change the Commission meeting schedule in December due to the holiday season, i.e. combining the two (2) regular meetings in December to one (1) meeting in the middle of the month of December and to have no workshops during the month of December.

Attached for the Commission's approval is the proposed schedule for the calendar year 2017 City Commission meetings which includes one (1) regular City Commission meeting and no workshops for the month of December, 2017 and for the Commission's information the invocation schedule for 2017 is also included.

**COST:**

N/A

**SOURCE OF FUNDS:**

N/A

**ORIGINATING DEPARTMENT:**

City Clerk's Office

**STAFF RECOMMENDATION PRESENTED BY:**

Joyce Raftery, City Clerk - to approve the meeting and invocation calendars for 2017, as presented.

**POTENTIAL MOTION:**

"I move to approve the meeting and invocation calendars for 2017, as presented."

**City of Deltona**  
**City Commission Meeting Dates and City Holiday Schedule**  
**January – December, 2017**

**City Commission Meeting Dates**

The City of Deltona City Commission meetings are held at 6:30 p.m. the 1<sup>st</sup> and 3<sup>rd</sup> Monday of each month (unless otherwise noted below by \*) in the Commission Chambers located in City Hall, 2345 Providence Blvd., Deltona, FL. For questions on any Commission or Workshop meeting, please contact the City Clerk's Office at (386) 878-8500.

January	3 <sup>rd</sup> and *17 <sup>th</sup>	July	3 <sup>rd</sup> and 17 <sup>th</sup>
February	6 <sup>th</sup> and 20 <sup>th</sup>	August	7 <sup>th</sup> and 21 <sup>st</sup>
March	6 <sup>th</sup> and 20 <sup>th</sup>	September	*5 <sup>th</sup> and 18 <sup>th</sup>
April	3 <sup>rd</sup> and 17 <sup>th</sup>	October	2 <sup>nd</sup> and 16 <sup>th</sup>
May	1 <sup>st</sup> and 15 <sup>th</sup>	November	6 <sup>th</sup> and 20 <sup>th</sup>
June	5 <sup>th</sup> and 19 <sup>th</sup>	December	11 <sup>th</sup>

The City of Deltona City Commission Workshops take place the 2<sup>nd</sup> and 4<sup>th</sup> Monday of each month at 5:30 p.m. and are held in the 2<sup>nd</sup> Floor Conference Room located in City Hall, 2345 Providence Blvd., Deltona, FL and are subject to change or be cancelled due to no topics. Special Meetings of the City Commission are scheduled as needed. There will not be any workshop meetings in the month of December.

**City Holiday Schedule**

January	2 <sup>nd</sup> – New Year's Day
January	16 <sup>th</sup> – Martin Luther King, Jr. Day
April	14 <sup>th</sup> – Good Friday
May	29 <sup>th</sup> – Memorial Day
July	4 <sup>th</sup> – Independence Day
September	4 <sup>th</sup> – Labor Day
November	10 <sup>th</sup> – Veteran's Day 23 <sup>th</sup> – Thanksgiving Day 24 <sup>th</sup> – Thanksgiving Friday
December	25 <sup>th</sup> – Christmas Day Monday 26 <sup>th</sup> – Christmas Holiday Tuesday

**NOTE:** If any person decides to appeal any decision made by the City Commission with respect to any matter considered at this meeting or hearing, he/she will need a record of the proceedings, and for such purpose he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based (F.S. 286.0105).

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk, Joyce Raftery 48 hours in advance of the meeting date and time at (386) 878-8500.

**City of Deltona**  
**City Commission Meeting Dates and Invocation Schedule**  
**January – December, 2017**

At the Workshop on Monday, October 10, 2011, the City Commission concurred to have each Commissioner by District schedule someone to present the invocation at each Regular City Commission meeting rotating each Commissioner by District starting with District #1, #2, #3, #4, #5, #6 and the Mayor. The Commissioner will need to provide the name of the person(s) giving the invocation and the organization they are with to the City Clerk’s Office 10 days prior to the meeting date (see below), the invocation should be 100 words or less, if a Commissioner does not have someone to present the invocation and it is their designated meeting then that Commissioner can present the invocation themselves if they so choose or the information is not provided to the City Clerk’s Office by the due date then the agenda will read “Silent Invocation” as it does currently.

Below are the dates for the City Commission Meetings, the Commissioner by District # responsible for scheduling the invocation and the date the information is due to the City Clerk’s Office in order to be placed on the agenda.

<b>MEETING DATE</b>	<b>COMMISSIONER’S DISTRICT #</b>	<b>INFO. DUE TO CLERK</b>
January 3, 2017	District #4 Commissioner	December 23, 2016
January 17, 2017	District #5 Commissioner	January 6, 2017
February 6, 2017	District #6 Commissioner	January 27, 2017
February 20, 2017	Mayor	February 10, 2017
March 6, 2017	District #1 Commissioner	February 24, 2017
March 20, 2017	District #2 Commissioner	March 10, 2017
April 3, 2017	District #3 Commissioner	March 24, 2017
April 17, 2017	District #4 Commissioner	April 7, 2017
May 1, 2017	District #5 Commissioner	April 21, 2017
May 15, 2017	District #6 Commissioner	May 5, 2017
June 5, 2017	Mayor	May 26, 2017
June 19, 2017	District #1 Commissioner	June 9, 2017
July 3, 2017	District #2 Commissioner	June 23, 2017
July 17, 2017	District #3 Commissioner	July 7, 2017
August 7, 2017	District #4 Commissioner	July 28, 2017
August 21, 2017	District #5 Commissioner	August 11, 2017
September 5, 2017	District #6 Commissioner	August 25, 2017
September 18, 2017	Mayor	September 8, 2017
October 2, 2017	District #1 Commissioner	September 22, 2017
October 16, 2017	District #2 Commissioner	October 6, 2017
November 6, 2017	District #3 Commissioner	October 27, 2017
November 20, 2017	District #4 Commissioner	November 10, 2017
December 11, 2017	District #5 Commissioner	December 1, 2017