City of Palm Coast
Agenda
CITY COUNCIL WORKSHOP

Mayor Milissa Holland
Vice Mayor Robert G. Cuff
Council Member Nick Klufas
Council Member Vincent Lyon
Council Member Heidi Shipley

Tuesday, November 13, 2018 9:00 AM  CITY HALL

City of Palm Coast

CALL TO ORDER

PLEDGE OF ALLEGIANCE TO THE FLAG

ROLL CALL

PUBLIC PARTICIPATION
Public Participation shall be held in accordance with Section 286.0114 Florida Statutes. After the Mayor calls for public participation each member of the audience interested in speaking on any topic or proposition not on the agenda or which was discussed or agendaed at the previous City Council Workshop, shall come to the podium and state their name. Each speaker will have up to three (3) minutes each to speak. The Mayor will advise when the three (3) minutes are up and the speaker will be asked to take a seat and wait until all public comments are finished to hear answers to all questions. Once all members of the audience have spoken, the Mayor will close public participation and no other questions/comments shall be heard. Council and staff will then respond to questions posed by members of the audience. Should you wish to provide Council with any material, all items shall be given to the City Clerk and made part of the record. If anyone is interested in discussing an issue...
further or ask additional questions, individual Council Members and staff will be available after the meeting to discuss the matter and answer questions.

PRESENTATIONS

1  PRESENTATION FPL UPDATES

2  PRESENTATION STREETLIGHT MASTER PLAN

3  RESOLUTION 2018-XX APPROVING THE AIRPORT COMMONS PRE-ANNEXATION ECONOMIC DEVELOPMENT AND JOINT PLANNING AGREEMENT

4  RESOLUTION 2018-XX APPROVING A WORK ORDER WITH DRMP, INC., TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR THE REPLACEMENT OF BELLE TERRE BOULEVARD CULVERT

5  PRESENTATION ON UNIMPROVED LOTS AND ROAD FRONTAGE ANALYSIS

WRITTEN ITEMS

6  RESOLUTION 2018-XX APPROVING THE CONTINUATION OF STOP-LOSS INSURANCE COVERAGE WITH SUNLIFE, HEALTH PLAN ADMINISTRATION SERVICES WITH BLUE CROSS BLUE SHIELD AND CHANGING ANCILLARY COVERAGE FROM SUNLIFE TO LINCOLN FINANCIAL

7  RESOLUTION 2018-XX APPROVING THE FLAGLER COUNTY ASSOCIATIONS OF REALTORS HOME FOR THE HOLIDAYS EVENT

8  RESOLUTION 2018-XX APPROVING A CONTRACT WITH ESRI FOR A SMALL GOVERNMENT GIS LICENSE AGREEMENT

9  RESOLUTION 2018-XX APPROVING CONTRACT WITH BRINKS FOR ARMORED CAR CASH TRANSPORT SERVICES

10  RESOLUTION 2018-XX BUDGET AMENDMENT FOR FISCAL YEAR 2017-2018 RELATING TO THE GENERAL FUND EXPENDITURES

PUBLIC PARTICIPATION
Remainder of Public comments is limited to three (3) minutes each.

DISCUSSION BY CITY COUNCIL OF MATTERS NOT ON THE AGENDA

DISCUSSION BY CITY ATTORNEY OF MATTERS NOT ON THE AGENDA
DISCUSSION BY CITY MANAGER OF MATTERS NOT ON THE AGENDA

ADJOURNMENT

11 CALENDAR/WORKSHEET

ATTACHMENTS TO MINUTES
City of Palm Coast, Florida
Agenda Item

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**Subject**  
PRESENTATION FPL UPDATES

**Background :**  
This agenda item addresses two performance measures outlined below that are part of City Council’s adopted Strategic Action Plan for FY2019.

- Request Florida Power & Light to provide a presentation to City Council to discuss feasibility & cost implications of overhead to underground conversion

- Request Florida Power & Light to provide a presentation to City Council to discuss feasibility of mounting of equipment on utility poles

FPL will address these priorities and will also provide an update on other items that may be of interest to the City of Palm Coast.

**Recommended Action :**  
For presentation only.
City of Palm Coast, Florida
Agenda Item

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Subject: PRESENTATION STREETLIGHT MASTER PLAN

Background:
This agenda item addresses the performance measure outlined below that was part of City Council’s adopted Strategic Action Plan for FY2019.

- Develop a continuous street lighting plan for major roads

Attached is the draft Streetlight Master Plan. City staff will present the draft plan, provide an update on the projects underway, and solicit input on the future project priorities.

Recommended Action:
For presentation only.
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Appendix C - Normal Distribution Test
Introduction

Background

The Continuous Roadway Lighting Program was originally initiated by a Council directive to provide roadway lighting along the City’s major arterials (Parkways). The roadway lighting implemented under the current program is composed of a combination of standard “cobra head” and decorative luminaires leased from, and maintained by, the Florida Power & Light Company (FP&L). The City of Palm Coast is concerned with motorist and pedestrian safety during nighttime periods because approximately half of the roadways within the City Limits currently remain unlit. In response to these concerns, on March 21, 2017 the City announced that the Continuous Roadway Lighting Program will resume and continue to expand the extent of roadway lighting along all major arterial roadways in the City, starting with Belle Terre Parkway and Lakeview Boulevard.

Existing Continuous Lighting Master Plan (CLMP)

The existing CLMP is shown in Figure 1, on the next page. The existing CLMP includes an inventory of existing streetlights within the City limits. The CLMP also includes a streetlight retrofit program designed to reduce long-term operating costs through the replacement of incandescent luminaires with Light Emitting Diode (LED) luminaires. Lastly, the existing CLMP contains a prioritized list of future corridors that should be illuminated.

Purpose of Master Plan Update

The basic function of roadway lighting is to improve roadway safety. It is possible to improve the safety of motorists and pedestrians while also improving the visual appeal of the urban environment by considering aesthetics and clutter. The updates to the CLMP establishes guidelines for implementing the continuous lighting systems that balance safety and aesthetics. The CLMP update includes the following sections: Roadway Lighting Education, Roadway Lighting Design, Roadway Lighting Priorities, Preliminary Cost Estimate and Project Schedule.

- **Roadway Lighting Education** provides a summary of roadway lighting philosophy, common hardware, and design standards based on the decades of research conducted by the Illuminating Engineering Society (IES) and the International Commission on Illumination (CIE). The intent is to provide a brief overview of the benefits of a good roadway lighting design and why selected design parameters are critical to mitigate the negative impacts of improper lighting designs.

- **Roadway Lighting Design** provides a description of the methods employed in the development of the continuous lighting system designs. The section documents the process used to ensure new roadway lighting systems are consistent with the existing systems and will meet the standards adopted by the Florida Department of Transportation (FDOT) from guidance developed by IES and CIE. The section concludes with the recommended design criteria and a design selection matrix.

- **Roadway Lighting Priorities** proposes a systematic corridor evaluation based on key characteristics impacting safety and operational factors recommended for use in the determination of a prioritized list of corridors. The section also describes how the Roadway Lighting Justification process documented in the FDOT Manual of Uniform Traffic Studies was used as a reference in selecting criteria for the prioritization process.

- **Preliminary Cost Estimates** calculates preliminary costs for implementing roadway lighting systems on each roadway. The calculations were based on FP&L’s rates and the estimated numbers of poles and luminaries needed for each corridor based on the recommendations in the Roadway Lighting Design Section.

- **Project Schedule** develops a 10-year plan for implementing the master plan based on the estimated annual budget and recommended priorities list shown in the Roadway lighting Priorities section.
Roadway Lighting Education

Federal Highway Administration (FHWA) research shows that approximately half of all crashes occur at night, while only about 25% of all vehicle miles traveled occur at night. The result is a nationwide nighttime crash rate 3 times higher than the daytime crash rate. FHWA research also shows that roadway lighting serves to improve roadway safety by reducing nighttime crashes by approximately 60%. In addition to improving roadway safety and operation, properly designed roadway lighting will promote use by bicyclist and pedestrians, will improve aesthetics, and increase the marketability of adjacent property.

Prior to the application of photometry to roadway lighting the negative effects of improper lighting were not documented nor properly understood and in some cases contributed to an unsafe driving environment. Since 1928 the IES Committee on Roadway Lighting has been evolving our understanding of the complex relationship between lighting and roadway safety. Therefore, it is important that the implementers of this master plan have a basic understanding of roadway photometry, common hardware, and design principles. Technical terminology will be kept to a minimum and presented only when necessary to understand the planning process and development of design criteria.

Basic Functions of Roadway Lighting

Safety – According to the American National Standards Institute (ANSI)/IES Standard Practice RP-8-14 Roadway Lighting published in 2014:

“The principal purpose of roadway and street lighting is to allow accurate and comfortable visibility at night of possible hazards in sufficient time to allow appropriate action. For a pedestrian, this can mean better visibility of the surrounds and the sidewalk, while for the driver of a motor vehicle, it will mean time to stop or to maneuver around an obstacle.”

Security – Properly installed roadway lighting reduces deep shadows and darkness. Studies have shown that roadway lighting can lead to decrease in crime through improving community cohesion and by providing criminals with an increased risk of detection. Safeguarding personal safety and community property can result in increased pedestrian, bicyclist, and commercial activities.

Aesthetics - The contributions of roadway lighting toward the City’s visual appeal. Aesthetics includes:

- The selection of luminaires and supports along principal thoroughfares that promote a cohesive appearance for the City’s roadways.
- Establishing illumination levels appropriate to the adjacent land use.
Common Types of Improper Lighting

**Light Trespass**, also known as spill light, occurs when a light fixture illuminates beyond the intended area. Light trespass can create concerns regarding privacy and impact the ability of residents to darken their surroundings as desired. Light trespass is most commonly seen as a problem when it impacts residential property, but can be a concern when impacting other property types.

**Glare** results from light entering the eye and creating a hazy field within the eye. According to the 2012 edition of the FHWA Lighting Handbook, glare can be classified into two categories:

- **Disability Glare** occurs when the amount of glare prevents an individual from seeing adequately. This is commonly observed when a motorist encounters a driver with “high-beam” headlights driving in the opposite direction.

- **Discomfort Glare** occurs over time due to too much light entering the eye continuously. Physical effects can include a sense of pain in the eyes, increased blink rate, squinting, and even causing tears.
Sky Glow occurs when luminaires emit light upward into the atmosphere where it is scattered by dust and gas molecules, creating a dome-like orange glow and preventing the view of a starry night sky. Understanding of the source and impacts of sky glow has resulted in growth of groups such as the International Dark-Sky Association which promote sky glow-conscious roadway lighting designs promoting environmental, health, energy consumption, and safety benefits. Upward illumination can be achieved accidentally such as with spill-light, or purposefully through selection of globe-shaped luminaires with a high up-light rating.

Clutter, or overlighting, is the excessive grouping of bright lights that cause confusion and distraction. Clutter reduces safety by distracting the observer from critical objects in their environment.
Common Roadway Lighting Terminologies

Adaptive Lighting: An advanced lighting system that automatically brightens when occupants approach and dims when spaces are vacant, reducing energy use without compromising safety. A good application of adaptive lighting is in tunnels and underdecks of interchanges, where daytime lighting is required for approaching vehicles and the required illuminance level varies throughout the day.

Arm Length: it refers to the horizontal length of a luminaire from the approximate location of the bulb to the center of the vertical part of the pole. The most common arm length is 12 feet, but it can range from 8 to 15 feet. The determination of arm length depends on the offset of lighting poles and desirable illumination level (see Basic Definition of Good Lighting Section).

Average Pavement Luminance: Luminance on the pavement based on quantity and direction of light, observer location, and the pavement reflectance characteristics.

Ballast: a device that modifies incoming voltage and controls current to provide the electrical conditions necessary to start and operate the lighting fixtures. Without a ballast to limit its current, a light fixture connected directly to a high voltage power source would rapidly and uncontrollably increase its current draw.

Color Temperature: color temperature is a way to describe the color characteristics of light and is measured in degrees of Kelvin (K). The luminaires in FP&L inventory mostly have color temperature of 4000k.

High Pressure Sodium (HPS): a common type of luminaire with low purchase cost, but low electric efficiency. The existing street lights in the City are mostly HPS.

Horizontal Foot Candle: a measurement of light intensity and is defined as illuminance on a one-square foot surface from a uniform source of light that outputs one lumen.

Illuminance: the amount of light illuminating a given surface area, measured in horizontal foot-candies. A sudden change in illuminance forces the observer’s eye to adjust, causing discomfort.

Light-Emitting Diode (LED): a type of luminaire with high purchase cost, but high electric efficiency. Luminaires in the City are being standardized to employ LED technology. Red, orange or ember colored LED is recommended for coastal areas to reduce light pollution that affects sea turtles.

Low Pressure Sodium (LPS): a common type of luminaire similar to HPS, but emits a deeper yellow light which very much inhibits color vision at night. LPS is often used along streets in coastal area as studies show that LPS do not attract sea turtles as much as other luminaires.

Lumens: a unit of measure of how much light is emitted by a luminaire. A higher lumen output equates to a higher perceived “brightness”.

Luminance: A measure of the amount of light reflected from a surface per unit area in a single direction.

Luminaire (also referred to as a light fixture) a complete lighting unit consisting of:

- The lamp(s),
- A lens and refractor: the components designed to distribute the light,
- A housing to position and protect the lamp(s), and;
- The electrical system required to connect the lamps to the power supply. Sometimes includes ballasts and photocells.

Metal Halide Lamp: A type of high-intensity discharge lamp that produces a wide variety of colors and color temperatures. It has less energy efficiency, but lower upfront cost in comparison to LED. One of the drawbacks of metal Halide is that it requires a long warm up period from 1 to 15 minutes.

Veiling Luminance: a measure of the luminance that is equivalent of the veil of light a person experiences due to the scatter of light passing through the eye.

Watts: a unit of electrical power consumed by the luminaire. The selection of power of luminaire varies depending on the mounting height and the width of the roadway.
Common Roadway Lighting Terminologies (Continued)

**Distribution Type:** refers to the horizontal pattern a luminaire casts and amount of light that reaches certain vertical angles. There are five common distribution types and each of them is employed to serve a specific need.

- **Type I:**
  This type of lighting distribution is long, narrow, and symmetric about the center of the luminaire. It is intended to be installed in the middle of the illuminated area and is therefore a commonly used distribution type for lighting walkways, paths, and sidewalks.

- **Type II:**
  With a long and narrow illuminated area cast slightly forward along the longitudinal axis, Type II luminaires are commonly used for lighting walkways and narrow roadways where the illuminated area is wider along the longitudinal axis but narrower than a type III. Common applications are two-lane streets or jogging paths where the luminaires cannot be mounted directly over the illuminated area.

- **Type III:**
  Type III luminaires are very common on multi-lane arterial and collector roadways. The light distribution reduces lateral illumination (along the roadway) for additional longitudinal coverage. The luminaires can reach further from the lighting point source outward in comparison to Type II and I.

- **Type IV:**
  This type of lighting produces a semicircular light that significantly reduces lateral coverage in exchange for longitudinal illumination. A common application of Type IV lighting is in interchanges and exceptionally wide roadway sections where type III luminaires cannot reach the entirety of the critical areas.

- **Type V:**
  Type V luminaires tend to have a roughly circular distribution pattern and are ideal for illuminating large areas from a high mast support. Type V luminaires are also commonly used as spot lights and as illumination for sports events.
Basic Definition of Good Lighting

Illumination Uniformity

Providing a uniform level of illumination along a roadway eliminates abrupt changes in illumination that can lead to night-blindness or glare, which can cause discomfort and reduce safety. Illumination uniformity is typically established by enforcement of two factors during design:

1. Uniformity Ratios (Avg./Min. & Max./Min.) – are the ratio of average illumination value to the lowest illumination value; and the ratio of Maximum illumination value to the lowest illumination value.

2. Veiling Luminance ratio – is the maximum value of Veiling Luminance divided by the Average Pavement Luminance.

The recommended values for each factor above will be discussed for each roadway type in the section titled Roadway Lighting Design Standards.

Luminaire Spacing

The spacing between luminaires along a roadway. It is typically influenced by roadway geometry and luminaire types. In most cases, the spacing of a selected luminaire type shall be optimized to achieve the desired uniformity and levels of illuminance.

Luminaire Mounting Heights

The proper luminaire mounting height is a function of pole spacing, proximity to the street, luminaire type and distribution. These factors all work together to achieve the desired uniformity and levels of illuminance.

Average Illuminance

The illuminance is the quantity of light available for observers to visually perceive the roadway and surrounding environment at night. The average illuminance is the sum value of all illuminance points included in the analysis divided by the number of points. The appropriate average level of illumination is typically established based on the type of roadway being illuminated.
FP&L Roadway Lighting Inventory

FP&L is currently responsible for supplying and maintaining the Continue Streetlight program, and the City expects the services to be extended throughout the mastered planned project list. Therefore, only the available luminaires in FP&L inventory were considered for the program. The FP&L Roadway Lighting Inventory is attached as Appendix A. As shown on the right of this page, Cree and AEL’s fixtures were selected for the planned roadways based on their optimized luminaire spacing and cost-efficiency.

<table>
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<th>Manufacturer</th>
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1. LED approximately produce 2.67 times more light output than HPS.
2. A tiered rate system developed by FP&L. Each tier corresponds to a pre-determined monthly cost for each available fixture, as shown in FP&L tariffs Section 8.
Roadway Lighting Design

This chapter provides the process and criteria to be used in the development of the continuous lighting systems with consideration of visibility, safety, aesthetics, and environmental conditions. The FDOT Plans Preparation Manual has been used as a reference.

Design Considerations

Lighting designs need to be performed in context with the geometry of the roadway and surroundings. Site conditions will dictate if roadway lighting can be installed, or may place constraints on the design, therefore, the following site conditions should be investigated.

- **Availability of Electric Service** – The availability of electricity is a major factor in determining if economically feasible roadway lighting can be provided. If power is not available, the local utility should be consulted and cost estimates for new electric service should be obtained.

- **Proximity to Aircraft Landing Facilities** – Prospective installations in close proximity to Flagler County Airport may pose problems with defined glide paths and air traffic control operations. The Federal Aviation Authority (FAA) and the local airport authority will have specific pole height limitations and/or optical requirements for the luminaires. Where a lighting installation is proposed in close proximity to an aircraft landing facility, the FAA and the facility should be contacted to ensure requirements specific to that facility can be met.

- **Proximity to Railroads** – Lighting systems near railroad tracks will have specific clearance requirements from the tracks.

- **Presence of Overhead Distribution and Transmission Lines** – Distribution and transmission lines often conflict with luminaire poles and arms. Where transmission or distribution lines exist, or are proposed, the designer should consult the local utility provider and investigate applicable codes and standards to determine clearance requirements. The National Electrical Code establishes the minimum clearance distance based on the voltage of the overhead lines. In the area such as Palm Coast Fire Department at Belle Terre Parkway, where overhead transmission lines exist, the local electrical utility may define additional clearance requirements due to the potential sag of the transmission lines. Line sag will vary with changes in ambient temperature and power demand.

- **Impacts to Roadway Environment** – The impact of glare, light trespass and sky glow should be taken into consideration in urban areas. In the City’s coastal area, where sea turtles often drawn toward the artificial lights, appropriates fixtures types shall be utilized per Florida Fish and Wildlife Conservation Commission (FWC) Sea Turtle Lighting Guidelines. The designer should consider these issues prior to undertaking any design and be aware of community concerns and local requirements.

- **Maintenance and Operation Considerations** – Maintenance should be considered as part of the roadway lighting design. Maintenance personnel should be consulted by those undertaking the roadway lighting design to reduce or eliminate safety and operational concerns. In some cases, products with a higher initial purchase cost can significantly reduce operating or maintenance costs over the life of the project. Hardware should be both corrosion-resistant and durable. All luminaires will require regular service for lamp replacement and cleaning. It is critical that the luminaires be safely accessible by service vehicles with minimal disruption to traffic. The height and reach limits of maintenance equipment may impact luminaire mounting height and location.

- **Roadside Safety Considerations** – Poles can be a potential hazard to errant motor vehicles. Clear zones and geometric concerns should be known and addressed. It is recommended that street light poles be at least 14 feet away from the edge of travel lanes, behind sidewalks, and the mounting height of conventional roadway luminaires should not to exceed 50 feet.

- **Historical Safety Performance** – It is recommended that historical crash data be reviewed in an effort to identify contributing factors. Field visits are critical, as is coordination with local agencies, law enforcement, and maintenance personnel to obtain historical information.

- **Adjacent Land Uses** – Adjacent land uses are associated with number of pedestrians and vehicles on the surrounding roadway networks. Commercial areas are often anticipated to attract many more pedestrians and vehicles at night than residential areas. Thus, identifying adjacent land uses will benefit designers in determining the appropriate street illumination level.
When determining pole height, types and luminaire wattages, the designer must consider the target average illumination and uniformity. Unlike most design criteria, exceedance of design factors does not provide a better end-product. As an example: Choosing to maintain an average initial illumination level of 4 horizontal foot-candles (hfc) does not result in a roadway that is illuminated four times better than one illuminated at 1 hfc. On the contrary, such a design decision would guarantee increased incidences of glare, spill-light, sky-glow, and significant wasted electricity. Maintaining a uniform illumination level near to the recommended average initial value promotes a safe and efficient roadway lighting system.

Table 2 below was developed showing the necessary criteria to achieve the required uniformity and level of illuminance. FDOT Traffic and ITS Design and FHWA Lighting Handbook were used as references in developing each criteria in Table 2.

<table>
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<tr>
<th>Roadway Classification</th>
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<td>Horizontal Foot-Candle\textsubscript{1} (Min)</td>
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Existing roadway lighting should be reevaluated when illumination levels are not met, or light pollution is occurring. The need for new luminaires should be considered in areas where illumination levels are not met. Unnecessary luminaires or different optics should be identified and addressed in areas that are over-illuminated. The installation of shields beneath luminaires results in wasted electricity, improper illumination levels, and high contrast shadowed areas. Shielding should be considered a temporary measure to be deployed only until the photometric flaws at the source of the problems can be addressed.

Luminaire Selection

Luminaire selection should be planned according to roadway characteristics and illumination criteria. This suggests a need to evaluate pole spacing of the selected luminaires based on variables including luminaire mounting height, distribution type, arm length, pole arrangement and setbacks etc. Additionally, new luminaires should be consistent with the existing ones to emphasize the cohesive image of the City when possible. Thus, several different types of luminaires will be required to accommodate the variety of needs and expectations.

Using AGI32 Roadway Optimizer, pole spacings for each luminaire in FP&L inventory were generated assuming no luminaire rotation, tilt and spin. The proposed luminaires are consistent with the existing luminaires and produce the best spacing.

Table 3 on the following page summarizes the recommended luminaires available in the FP&L inventory for 4-lane and 2-lane arterials/collectors as well as local roadways. The AGI32 Roadway Optimizer reports are attached as Appendix B. Please note that the table is for reference purpose only, in circumstances where the existing roadway geometry does not match the analyzed typical sections a site-specific evaluation should be conducted.
# Luminaire Selection

## 4-Lane Arterial/Collector w/ 25 Feet Median

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<tr>
<td>XSP2</td>
<td>102W</td>
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<td>12</td>
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## 2-Lane Arterial/Collector w/ 25 Feet Median

<table>
<thead>
<tr>
<th>Fixture Types</th>
<th>Wattage</th>
<th>Distribution Type</th>
<th>Arm Length (FT)</th>
<th>Setback (FT)</th>
<th>Mounting Height (FT)</th>
<th>Pole Arrangement</th>
<th>Spacing</th>
<th>Setback</th>
<th>Mounting Height</th>
<th>Pole Arrangement</th>
<th>Spacing</th>
<th>Setback</th>
<th>Mounting Height</th>
<th>Pole Arrangement</th>
<th>Spacing</th>
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</thead>
<tbody>
<tr>
<td>ATBS</td>
<td>76W</td>
<td></td>
<td>2</td>
<td>12</td>
<td>14</td>
<td>One Row, Far Side</td>
<td>130</td>
<td>150</td>
<td>22</td>
<td>One Row, Far Side</td>
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<td>135</td>
<td>30</td>
<td>One Row, Far Side</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>One Row, Near Side</td>
<td>130</td>
<td>150</td>
<td></td>
<td>One Row, Near Side</td>
<td>115</td>
<td>135</td>
<td></td>
<td>One Row, Near Side</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>One Row, Far Side</td>
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<td>130</td>
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<td>45 One Row, Far Side</td>
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<td></td>
<td></td>
<td>110</td>
<td>130</td>
<td></td>
<td>One Row, Near Side</td>
<td>110</td>
<td>130</td>
<td></td>
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<td>115</td>
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<td>XPS 2</td>
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<td></td>
<td></td>
<td>One Row, Near Side</td>
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<td>125</td>
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<tr>
<td></td>
<td></td>
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<td>110</td>
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<td>One Row, Near Side</td>
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<td>One Row, Near Side</td>
<td>95</td>
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</table>

## 2-Lane Local Boulevards without Median

<table>
<thead>
<tr>
<th>Fixture Types</th>
<th>Wattage</th>
<th>Distribution Type</th>
<th>Arm Length (FT)</th>
<th>Setback (FT)</th>
<th>Mounting Height (FT)</th>
<th>Pole Arrangement</th>
<th>Spacing</th>
<th>Setback</th>
<th>Mounting Height</th>
<th>Pole Arrangement</th>
<th>Spacing</th>
<th>Setback</th>
<th>Mounting Height</th>
<th>Pole Arrangement</th>
<th>Spacing</th>
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<tbody>
<tr>
<td>ATBS</td>
<td>76W</td>
<td></td>
<td>2</td>
<td>12</td>
<td>14</td>
<td>One Row, Far Side</td>
<td>150</td>
<td>170</td>
<td>30</td>
<td>One Row, Far Side</td>
<td>150</td>
<td>170</td>
<td></td>
<td>One Row, Far Side</td>
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<td></td>
<td></td>
<td>One Row, Near Side</td>
<td>150</td>
<td>170</td>
<td></td>
<td>One Row, Near Side</td>
<td>150</td>
<td>170</td>
<td></td>
<td>One Row, Near Side</td>
<td>150</td>
</tr>
</tbody>
</table>
Roadway Lighting Priorities

Future Project Ranking

The core of the City’s master plan consists of a prioritized list of future projects. To achieve the City’s vision of a properly illuminated arterial network it is necessary to divide the overall plan into components that can be designed and constructed in a fiscally efficient manner while also achieving the highest impact.

An examination of operational, safety, and design criteria was conducted to ensure roadway lighting priorities are developed in accordance with the City’s objectives and industry standards. Criteria 1-4 were selected in accordance with the warrants for lighting established by the American Association of State Highway and Transportation Officials (AASHTO), where each of the criteria is utilized in calculating the benefit-cost ratio of a streetlight project. Criteria 5-7 were selected based on engineering judgment to account for the safety need of pedestrians and elder drivers.

The thresholds for Criteria 1, 2 and 3, were developed through a statistical analysis of data collected from the City of Palm Coast roadway network assuming a normal statistical distribution. The statistical median was established as the lower range value, and the upper values were derived by adding one standard deviation from the lower range value. The high and mid-range values therefore represent the 35th and 75th percentiles, respectively, improving the sensitivity of the criteria to the collected data. The statistical procedures used to develop the normal distributions are attached as Appendix C. The source data is shown on the following page as Table 4.

The evaluation of roadway lighting priorities was completed by multiplying the weight by the rating and adding the product of each criteria to provide an overall score. The roadway segments with higher scores indicate a higher need for roadway lighting.

It is important to note that the rating system should not be considered as absolute. It is intended as a recommendation to be used as guidance in the development of roadway lighting priorities.

Criteria 1:
Average Daily Traffic (vehicles per day) (Weight= 5 )

<table>
<thead>
<tr>
<th>Range</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADT &gt; 15,625</td>
<td>5</td>
</tr>
<tr>
<td>7,250 &lt; ADT ≤ 15,625</td>
<td>3</td>
</tr>
<tr>
<td>ADT ≤ 7,250</td>
<td>1</td>
</tr>
</tbody>
</table>

1. The thresholds were generated using Normal Distribution based on the available data from the City of Palm Coast

Criteria 2:
Night Time Crash Ratio (Average Crashes per MVM, ) (Weight= 5 )

<table>
<thead>
<tr>
<th>Range</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Crash Rate &gt; 5</td>
<td>5</td>
</tr>
<tr>
<td>2 &lt; Crash Rate ≤ 5</td>
<td>3</td>
</tr>
<tr>
<td>Crash Rate ≤ 2</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Million Vehicle Miles
2. The thresholds were generated using Normal Distribution based on the available data from Signal Four Analytics
3. Crashes due to DUI were excluded from this analysis

Criteria 3:
Typical Section (Weight= 5 )

<table>
<thead>
<tr>
<th>Range</th>
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<tbody>
<tr>
<td>2-3 Lanes Urban Undivided</td>
<td>5</td>
</tr>
<tr>
<td>4-5 Lanes Urban Divided</td>
<td>4</td>
</tr>
<tr>
<td>2-3 Lanes Urban Divided</td>
<td>2</td>
</tr>
<tr>
<td>4-5 Lanes Urban Undivided</td>
<td>1</td>
</tr>
</tbody>
</table>

Criteria 4:
Length of Roadway Segments (Feet) (Weight= 2 )

<table>
<thead>
<tr>
<th>Range</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Segment Length ≤ 3,525</td>
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</tr>
<tr>
<td>3,525 &lt; Segment Length ≤ 8,215</td>
<td>2</td>
</tr>
<tr>
<td>Segment Length &gt; 8,215</td>
<td>1</td>
</tr>
</tbody>
</table>

1. The thresholds were generated using Normal Distribution based on the available data from the City of Palm Coast

Criteria 5:
Pedestrian and Elder Driver Destinations
(i.e. schools, parks, senior centers) (Weight= 3 )

<table>
<thead>
<tr>
<th>Range</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>&lt;= 2 mile</td>
<td>3</td>
</tr>
<tr>
<td>&gt; 2 mile</td>
<td>0</td>
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Criteria 6:
Existence of Sidewalks (Weight= 2 )

<table>
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</thead>
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<tr>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
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</table>

Criteria 7:
Posted Speed Limit (Miles per Hour) (Weight= 3 )

<table>
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<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Posted Speed Limit &gt; 50</td>
<td>3</td>
</tr>
<tr>
<td>35 &lt; Posted Speed Limit ≤ 50</td>
<td>2</td>
</tr>
<tr>
<td>Posted Speed Limit ≤ 35</td>
<td>1</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Parkview Drive (S) to White View Parkway</td>
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</tr>
<tr>
<td>East Hampton Boulevard to Cypress Point Parkway</td>
<td>63,400</td>
</tr>
<tr>
<td>Cypress Point Parkway to Pine Lakes Parkway</td>
<td>63,400</td>
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<td>Cypress Point Parkway to Pine Lakes Parkway</td>
<td>63,400</td>
</tr>
<tr>
<td>Pine Lakes Parkway to Cypress Point Parkway</td>
<td>63,400</td>
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<td>Cypress Point Parkway to Pine Lakes Parkway</td>
<td>63,400</td>
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<td>Pine Lakes Parkway to Cypress Point Parkway</td>
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<td>63,400</td>
</tr>
<tr>
<td>Cypress Point Parkway to Pine Lakes Parkway</td>
<td>63,400</td>
</tr>
</tbody>
</table>
Recommended Priority List

Roadways planned for future continuous lighting have been divided into segments to provide a more granular evaluation.

A score was calculated for each roadway segment based on the existing conditions and adopted criteria. An example of calculating the priority score for Belle Terre Parkway (from Rymfire Drive to Royal Palms Parkway Way) based on Criteria 1 is shown below:

\[ \text{ADT}=26,000 \times 15,625 \quad \text{(Criteria 1 Upper Range Value)} \]
\[ \text{Rating} = 5 \quad \text{(Assign rating for segments with } \text{ADT}>15,625) \]
\[ \text{Priority Score} = 5 \times 5 \quad \text{(Rating)} = 25 \]

The rating for each roadway was then calculated by averaging the score of its segments.

Table 5 lists the roadways in descending order of priority (high to low), based on the calculated score. The list should be considered as guidance only, and should be modified as necessary to account for funding availability and other emergent conditions.
Preliminary Cost Estimates

Maintenance and Energy Costs

The cost of implementing continuous roadway lighting system on each roadway is a key factor in forecasting the 5-year and 10-year project schedule. Although it is difficult to provide an accurate cost estimate without a design, an approximate range was calculated using available data. FP&L is currently responsible for supplying the electricity and maintenance required by the existing roadway lighting system, and is anticipated to continue to supply both for the master planned project list. Therefore, the monthly cost for the services was summarized per FP&L Electric Tariff Section 8.

Table 6 on the right of this page shows the estimated total monthly cost of each selected luminaire, which include energy, maintenance, and non-fuel energy charges, etc. Tables 7 and 8 show the monthly maintenance cost for poles and underground conductors, respectively. Table 9 summarizes the monthly fee for converting existing HPS to LED luminaires. Please note that the monthly cost shown in each table does not include sale taxes and may vary in the future due to inflation. The City should coordinate with FP&L for the monthly rate updates prior to programing in additional segments for construction.

Based on the information, the total monthly costs per segment of roadway have been estimated as a range from “best case” to “worst case” scenarios and summarized in Table 10 on the next page. The following assumptions were made in estimating the monthly cost as shown below:

- No customer contributions were required.
- Luminaires will be mounted on concrete poles
- All conductors will be underground.
- The length of conductors is assumed to be the same as the length of the roadway segment.
- ATBL 259W will be used for 4-lane roadways with 180 feet spacing for the worse scenario (Staggered Arrangement) and 380 feet spacing for the best scenario (Staggered Arrangement).
- ATBL 76W will be used for 2-lane roadways with 80 feet spacing for the worse scenario and 130 feet spacing for best scenario.
- ATBL 76 will also be used for local roadways with 150 feet spacing for the worse scenario and 180 feet spacing for the best scenario.

### Table 6

<table>
<thead>
<tr>
<th>Fixture Types</th>
<th>Light Pattern</th>
<th>Monthly Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>XSP2 139 Watt</td>
<td>3</td>
<td>$12.45</td>
</tr>
<tr>
<td>XSP2 102 Watt</td>
<td>3</td>
<td>$11.56</td>
</tr>
<tr>
<td>ATBL 259 Watt</td>
<td>3</td>
<td>$18.21</td>
</tr>
<tr>
<td>ATBS 76 Watt</td>
<td>2</td>
<td>$7.99</td>
</tr>
</tbody>
</table>

1. Monthly Total include energy, maintenance and non-fuel energy charge etc.

### Table 7

<table>
<thead>
<tr>
<th>Pole Types</th>
<th>Monthly Total</th>
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</thead>
<tbody>
<tr>
<td>Wood pole used</td>
<td>$4.92</td>
</tr>
<tr>
<td>Standard concrete pole</td>
<td>$6.74</td>
</tr>
<tr>
<td>Round Fiberglass pole</td>
<td>$7.98</td>
</tr>
<tr>
<td>Decorative tall fiberglass pole</td>
<td>$16.81</td>
</tr>
<tr>
<td>Decorative concrete pole</td>
<td>$13.65</td>
</tr>
</tbody>
</table>

1. Monthly Maintenance Cost for each type of poles

### Table 8

<table>
<thead>
<tr>
<th>Conductor Type</th>
<th>$/Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground</td>
<td>$0.0381</td>
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</tbody>
</table>

1. Monthly Maintenance Cost for every foot of underground conductor

### Table 9

<table>
<thead>
<tr>
<th>Charge Type</th>
<th>Monthly Total</th>
</tr>
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<tr>
<td>LED Conversion Recover</td>
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### Table 10: Monthly Cost Estimate

<table>
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<tr>
<th>Link</th>
<th>2015 Monthly Cost Estimate</th>
<th>Monthly Total</th>
<th>Min Monthly Total</th>
<th>Max Monthly Total</th>
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<td>1,761</td>
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<tr>
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<td>1,557</td>
<td>257</td>
<td>257</td>
<td>257</td>
</tr>
<tr>
<td>Palm Stoney Drive</td>
<td>45</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Belle Terre Parkway</td>
<td>5,100</td>
<td>1,761</td>
<td>1,761</td>
<td>1,761</td>
</tr>
<tr>
<td>Lakeview Boulevard</td>
<td>1,557</td>
<td>257</td>
<td>257</td>
<td>257</td>
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<tr>
<td>Palm Stoney Drive</td>
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<td>1,761</td>
<td>1,761</td>
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<tr>
<td>Lakeview Boulevard</td>
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<td>Palm Stoney Drive</td>
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<td>1,761</td>
<td>1,761</td>
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<tr>
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<td>257</td>
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<td>257</td>
</tr>
<tr>
<td>Palm Stoney Drive</td>
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<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
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<td>1,761</td>
<td>1,761</td>
<td>1,761</td>
</tr>
<tr>
<td>Lakeview Boulevard</td>
<td>1,557</td>
<td>257</td>
<td>257</td>
<td>257</td>
</tr>
<tr>
<td>Palm Stoney Drive</td>
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<td>5,100</td>
<td>1,761</td>
<td>1,761</td>
<td>1,761</td>
</tr>
<tr>
<td>Lakeview Boulevard</td>
<td>1,557</td>
<td>257</td>
<td>257</td>
<td>257</td>
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<tr>
<td>Palm Stoney Drive</td>
<td>45</td>
<td>15</td>
<td>15</td>
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</tr>
</tbody>
</table>

2. The estimated amount of dollars to be paid to FP&L every month based on Table 6 on the previous page for maintaining standard concrete poles
3. An estimated amount of dollars to be paid to FP&L every month based on Table 7 on the previous page for maintaining standard metal poles
4. Monthly Total is the aggregate amount of dollars to be paid to FP&L every month, which also does not include any construction costs
A project priority list for implementation of the CLMP was developed for the next 10 years and has been summarized as Table 11 on the right of the page. The following assumptions were made in developing the project priority list:

- Sufficient budget was assumed to be available.
- The process of designing and permitting was allocated 6 months.
- The start of the design phase for the next roadway will begin 6 months before the on-going construction ends.
- 4 miles of continuous streetlights will be implemented per fiscal year.

As the table shows, the corridors planned for future continuous streetlights will not be completely implemented within the next 10-year project schedule. This project priority list is provided as a planning tool and should be revised as emergent conditions and fiscal impacts alter both the priority list and the incremental costs of implementation. Accordingly, a forecasted project schedule for the CLMP has been created by the City of Palm Coast as shown in Table 12.

### Table 11

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<thead>
<tr>
<th>Roadway Segments</th>
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<tr>
<td><strong>Year-1</strong></td>
</tr>
<tr>
<td>Lake View Boulevard from London Drive to Matanzas Woods Parkway</td>
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<tr>
<td>Belle Terre Parkway from Palm Coast Parkway (WB) to Palm Coast Parkway (EB)</td>
</tr>
<tr>
<td>Belle Terre Parkway from Cypress Point Parkway to Pine Lakes Parkway</td>
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<tr>
<td>Belle Terre Parkway from Pine Lakes Parkway to Parview Drive (S)</td>
</tr>
<tr>
<td>Belle Terre Parkway from Parview Drive (S) to White View Parkway</td>
</tr>
<tr>
<td>Belle Terre Parkway from White View Drive to Rymfire Drive (N)</td>
</tr>
<tr>
<td>Belle Terre Parkway from Rymfire Drive to Royal Palm Parkway (N)</td>
</tr>
<tr>
<td>Belle Terre Parkway from Royal Palm Parkway (N) to East Hampton Boulevard</td>
</tr>
<tr>
<td>Belle Terre Parkway from East Hampton Boulevard to SR 100</td>
</tr>
<tr>
<td>Ravenwood Drive from White View Parkway to Rymfire Drive</td>
</tr>
<tr>
<td><strong>Year-2</strong></td>
</tr>
<tr>
<td>Sesame Boulevard from Seminole Wood Parkway to Terminus</td>
</tr>
<tr>
<td>Seminole Woods Parkway from SR 100 to Ulaturn Place</td>
</tr>
<tr>
<td>Seminole Woods Parkway from SR 100 to Ulaturn Place - Continue</td>
</tr>
<tr>
<td>Seminole Woods Parkway from Ulaturn Place to Citation Parkway</td>
</tr>
<tr>
<td>Seminole Woods Parkway from Citation Boulevard to Seminole Boulevard</td>
</tr>
<tr>
<td>Seminole Woods Parkway from Seminole Boulevard to US 1</td>
</tr>
<tr>
<td>Seminole Woods Parkway from Sesame Boulevard to US 1 - Continue</td>
</tr>
<tr>
<td>Old Kings Road from Forest Grove Drive to Farnsworth Drive</td>
</tr>
<tr>
<td>Old Kings Road from Farnsworth Drive to Frontier Drive</td>
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<tr>
<td>Old Kings Road from Frontier Drive to Fleetwood Drive</td>
</tr>
<tr>
<td>Old Kings Road from Fleetwood Drive to Farragut Drive</td>
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<tr>
<td>Old Kings Road from Farragut Drive to Palm Coast Parkway</td>
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<tr>
<td>Old Kings Road from Palm Coast Parkway to Utility Drive</td>
</tr>
<tr>
<td>Old Kings Road from Palm Coast Parkway to Utility Drive - Continue</td>
</tr>
<tr>
<td>Old Kings Road from Utility Drive to Oak Trails Boulevard</td>
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<tr>
<td>Old Kings Road from Oak Trails Boulevard to Town Center Drive</td>
</tr>
<tr>
<td><strong>Year-3</strong></td>
</tr>
<tr>
<td>Old Kings Road from Oak Trails Boulevard to Town Center Drive - Continue</td>
</tr>
<tr>
<td>White Mill Drive from Pine Lakes Parkway to White View Parkway</td>
</tr>
<tr>
<td>Citation Boulevard from Belle Terre Boulevard to Laguna Forest Lane</td>
</tr>
<tr>
<td><strong>Year-4</strong></td>
</tr>
<tr>
<td>Easthampton Boulevard from Belle Terre Parkway to Terminus</td>
</tr>
<tr>
<td>Palm Harbor Drive from Palm Coast Parkway to Terminus</td>
</tr>
<tr>
<td>White View Drive from US 1 to White Mill Drive</td>
</tr>
<tr>
<td><strong>Year-5</strong></td>
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<tr>
<td>Forest Grove Drive from Old Kings Road (W) to Old Kings Road (E)</td>
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<tr>
<td><strong>Year-6</strong></td>
</tr>
<tr>
<td>Forest Grove Drive from Old Kings Road (W) to Old Kings Road (E)</td>
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<td>Forest Grove Drive from Old Kings Road (E) to Palm Harbor Parkway</td>
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<tr>
<td>Rymfire Drive from Royal Palms Parkway to Ravenwood Drive</td>
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<tr>
<td><strong>Year-7</strong></td>
</tr>
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<td>Bulldog Drive from SR 100 to Central Avenue</td>
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</table>

1. continue incomplete construction work from previous year
<table>
<thead>
<tr>
<th>Design</th>
<th>Construction</th>
<th>Roadway Segment</th>
<th>Limits</th>
<th>Estimated Length LF</th>
<th># of lights</th>
<th>Estimated Operating/Month</th>
<th>Estimated Construction</th>
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<td>FY18</td>
<td>FY19</td>
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<td>From London Dr. to Matanzas Woods Parkway</td>
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<td>From Palm Coast Parkway to Pine Lakes Parkway</td>
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<td>$ 23,000.00</td>
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<tr>
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<td>FY19</td>
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<td>From Pine Lakes Parkway to Parkview Dr. (S)</td>
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<td>54</td>
<td>$ 37,000.00</td>
<td>$ 1,036.26</td>
</tr>
<tr>
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<td>FY19</td>
<td>Belle Terre Parkway</td>
<td>From Parkview Dr. (S) to Whiteview Parkway</td>
<td>5,400</td>
<td>54</td>
<td>$ 37,000.00</td>
<td>$ 1,036.26</td>
</tr>
<tr>
<td>FY19</td>
<td>FY20</td>
<td>Belle Terre Parkway</td>
<td>From Whiteview Parkway to Rymfire Drive</td>
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<td>FY20</td>
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<td>From Rymfire Dr. to Royal Palms Parkway</td>
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<td>$ 19,000.00</td>
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<td>From Royal Palms Parkway to East Hampton Boulevard</td>
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<td>$ 18,500.00</td>
<td>$ 518.13</td>
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<tr>
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<td>FY20</td>
<td>Belle Terre Parkway</td>
<td>From East Hampton Boulevard to SR 100</td>
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<td>54</td>
<td>$ 37,000.00</td>
<td>$ 1,036.26</td>
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<td>From SR100 to Citation Boulevard</td>
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<td>FY21</td>
<td>Belle Terre Boulevard</td>
<td>From Citation Boulevard to US 1</td>
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<td>FY23</td>
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<td>From Seminole Woods Blvd. to Seminole Woods Blvd</td>
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<td>$ 66,750.00</td>
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<td>FY23</td>
<td>East Hampton Blvd</td>
<td>Belle Terre Boulevard to terminus</td>
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<td>$ 30,000.00</td>
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<td>From Belle Terre Blvd. to US 1</td>
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<td>Future</td>
<td>Osprey Grade</td>
<td>From US 1 to Terminus</td>
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<td>33</td>
<td>$ 18,500.00</td>
<td>$ 633.27</td>
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<td>Future</td>
<td>Palm Coast Parkway</td>
<td>From Florida Park Drive to Palm Harbor PKWY</td>
<td>27,420</td>
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<td>$ 633.27</td>
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<td>Roadway Project</td>
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<td>123</td>
<td>$ 256,000.00</td>
<td>$ 8,577.93</td>
<td></td>
</tr>
</tbody>
</table>

Roadway Project

| Whitehall Dr. | From Whitehall Parkway to Pine Lakes Parkway | 1,900                   | 13 | $ 249.47         |

Roadway Project

| Old Kings Road | From Forest Grove Dr. to Palm Coast Parkway | 17,500                | 175 | $ 3,358.25         |

Roadway Project

| Old Kings Road | From Palm Coast Parkway to Utility Dr. | 3,000                | 30 | $ 575.70         |

Roadway Project

| Old Kings Road | From Utility Dr. to Town Center Boulevard | 20,000           | 200 | $ 3,638.00         |

Roadway Project

| Bulldog Drive | From SR 100 to Central Ave. | 2,700            | 27 | $ 518.13         |

|                      |                            | 63,600           | 568 | $ 10,899.92         |
Appendices
Appendix A

FP&L Roadway Lighting Inventory
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Style</th>
<th>Fixture</th>
<th>Pole Options</th>
<th>Light Pattern</th>
<th>Line Watts/NEMA Label</th>
<th>Color Temp</th>
<th>Lumens</th>
<th>Glare Rating (BUG)</th>
<th>.ies File</th>
<th>Billing Tier</th>
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</thead>
<tbody>
<tr>
<td>Cree</td>
<td>LEDWay</td>
<td>Turtle Friendly</td>
<td>7, 8</td>
<td>3</td>
<td>100/100</td>
<td>614nm</td>
<td>5,316</td>
<td>B2-U0-G2</td>
<td>PL04235-001.XSL0306D-UC4.ies</td>
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<td>Cree</td>
<td>RSW</td>
<td>7, 8</td>
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<td>3000K</td>
<td>3,300</td>
<td>B1-U0-G1</td>
<td>RSWS-3ME-3L-30K7.ies</td>
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<td>5,000</td>
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<td>259/260</td>
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<td>ATB2_80BLEDE10_XXXXX_R4.ies</td>
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</tr>
<tr>
<td>AEL</td>
<td>ATB2</td>
<td>7, 8</td>
<td>4</td>
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<td>4000K</td>
<td>15,015</td>
<td>B2-U0-G3</td>
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<tr>
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<td>ATB2</td>
<td>7, 8</td>
<td>4</td>
<td>274/270</td>
<td>4000K</td>
<td>29,567</td>
<td>B3-U0-G5</td>
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<td>O5</td>
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</tr>
<tr>
<td>Cooper</td>
<td>Verdeon</td>
<td>7, 8</td>
<td>3</td>
<td>182/180</td>
<td>4000K</td>
<td>22,236</td>
<td>B3-U0-G3</td>
<td>VERD-M-A03-E-U-T3-APies</td>
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<td>Cooper</td>
<td>Verdeon M</td>
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<td>247/250</td>
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<tr>
<td>GE</td>
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<td>157/160</td>
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<td>B2-U0-G2</td>
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<td>GE</td>
<td>ERS2</td>
<td>7, 8</td>
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<td>193/190</td>
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<td>20,600</td>
<td>B2-U0-G2</td>
<td>ERS2021D1X40_REQUEST.ies</td>
<td>K4</td>
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</tbody>
</table>

Note: All roadway fixtures are grey unless otherwise noted.
Appendix B

AGI32 Roadway Optimizer Reports
4-Lane Arterial/Collector
Opposite Arrangement
14 Setback
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

**ATBL F XXXXX R3**
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 242
Spacing - Row 2: 242

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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<td>-14</td>
<td>40</td>
<td>90</td>
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<tr>
<td>ATBL_F_XXXXX_R3</td>
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<td>-14</td>
<td>40</td>
<td>90</td>
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</table>
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 277
Spacing - Row 2: 277

<table>
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<td>-14</td>
<td>45</td>
<td>90</td>
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Roadway Optimizer – Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite – 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 308
Spacing - Row 2: 308

<table>
<thead>
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<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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<td>ATBL_F_XXXXX_R3</td>
<td>-308</td>
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<td>308</td>
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<td>50</td>
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<td>ATBL_F_XXXXX_R3</td>
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<td>50</td>
<td>90</td>
<td>0</td>
<td>0</td>
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Roadway Optimizer - Layout 2

General:
XSP2 139W 4L W MEDIAN Opposite - 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 220
Spacing - Row 2: 220

<table>
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<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
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<td>90</td>
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Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Opposite - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 219
Spacing - Row 2: 219

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<th>Z-Coord</th>
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<td>-14</td>
<td>45</td>
<td>90</td>
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</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Opposite - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

**BXSPCxx3MEF40K-UL CONFIGURED**
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 210
Spacing - Row 2: 210

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<td>90</td>
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Roadway Optimizer - Layout 5

General:
XSP2 102W 4L W Median - 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 182
Spacing - Row 2: 182

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<th>Z-Coord</th>
<th>Orient</th>
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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

**BXSPCxx3MEF40K-UL Q4**
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 178
Spacing - Row 2: 178

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<th>Z-Coord</th>
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<th>Tilt</th>
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</tbody>
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Roadway Optimizer - Layout 5

General:
XSP2 102W 4L W Median - 50FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 171
Spacing - Row 2: 171

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<td>90</td>
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</table>
4-Lane Arterial/Collector
Opposite Arrangement
26 Setback
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual Q0 Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

**ATBL F XXXXX R3**
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 230
Spacing - Row 2: 230

<table>
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Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL F XXXXX R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 276
Spacing - Row 2: 276

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Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL F XXXXX R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 294
Spacing - Row 2: 294

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Roadway Optimizer - Layout 2

General:
XSP2 139W 4L W MEDIAN Opposite - 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual Q0 Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 199
Spacing - Row 2: 199

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Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Opposite - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

**BXSPCxx3MEF40K-UL CONFIGURED**
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 197
Spacing - Row 2: 197

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Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Opposite - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 192
Spacing - Row 2: 192

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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 161
Spacing - Row 2: 161

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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07 Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 159
Spacing - Row 2: 159

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Roadway Optimizer – Layout 5

General:

XSP2 102W 4L W Median – 50FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 156
Spacing - Row 2: 156

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4-Lane Arterial/Collector
Opposite Arrangement
38 Setback
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07 Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 195
Spacing - Row 2: 195

<table>
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<th>Z-Coord</th>
<th>Orient</th>
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</table>
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 241
Spacing - Row 2: 241

<table>
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<tr>
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Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Opposite - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 300
Spacing - Row 2: 300

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<tr>
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Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Opposite - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 161
Spacing - Row 2: 161

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</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Opposite - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 165
Spacing - Row 2: 165

<table>
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</table>
Roadway Optimizer - Layout 2

General:
XSP2 139W 4L W MEDIAN Opposite - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual Q0 Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 162
Spacing - Row 2: 162

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<td>90</td>
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</table>
Roadway Optimizer – Layout 5

General:
XSP2 102W 4L W Median – 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07 Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 132
Spacing - Row 2: 132

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<td>BXSPCxx3MEF40K-UL_Q4</td>
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Roadway Optimizer - Layout 5

General:
XSP2 102W 4L W Median - 45 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 132
Spacing - Row 2: 132

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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 50FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual Q0 Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 132
Spacing - Row 2: 132

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<th>Z-Coord</th>
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</table>
4-Lane Arterial/Collector
Staggered Arrangement
14 Setback
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 322
Spacing - Row 2: 322

<table>
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<th>Z-Coord</th>
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</tbody>
</table>
Roadway Optimizer - Layout 1

**General:**

ATBL 259W 4L W MEDIAN Staggered - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

**Roadway Layout:**

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

**Luminaire Information:**

**ATBL F XXXXX R3**
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

**Luminaire Location Summary:**

Coordinates in ft

Spacing - Row 1: 369
Spacing - Row 2: 369

<table>
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<th>Z-Coord</th>
<th>Orient</th>
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</table>
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 420
Spacing - Row 2: 420

<table>
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<tr>
<th>Label</th>
<th>X-Coord</th>
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Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 220
Spacing - Row 2: 220

<table>
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<th>Orient</th>
<th>Tilt</th>
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<tr>
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</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 219
Spacing - Row 2: 219

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<td>45</td>
<td>90</td>
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</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07    Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 210
Spacing - Row 2: 210

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</table>
Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 182
Spacing - Row 2: 182

<table>
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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 178
Spacing - Row 2: 178

<table>
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Roadway Optimizer – Layout 5

General:

XSP2 102W 4L W Median - 50 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07 Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft
Spacing - Row 1: 171
Spacing - Row 2: 171

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</table>
4-Lane Arterial/Collector
Staggered Arrangement
26 Setback
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 40FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07 Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL F XXXXX R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 236
Spacing - Row 2: 236

<table>
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</table>
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 304
Spacing - Row 2: 304

<table>
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Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL F XXXXX R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 371
Spacing - Row 2: 371

<table>
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Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 199
Spacing - Row 2: 199

<table>
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<td>40</td>
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</tbody>
</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 197
Spacing - Row 2: 197

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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<td>45</td>
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</tbody>
</table>
Roadway Optimizer - Layout 2

General:
XSP2 139W 4L W MEDIAN Staggered - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCx3MEF40K-UL_CONFIGURED
Description: BXSPCx3MEF40K-UL CONFIGURED FROM BXSPCx3MEF30K-xxxxxx
File Name: BXSPCx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 192
Spacing - Row 2: 192

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<th>Z-Coord</th>
<th>Orient</th>
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<td>-26</td>
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<td>50</td>
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</tbody>
</table>
Roadway Optimizer – Layout 5

General:
XSP2 102W 4L W Median – 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 161
Spacing - Row 2: 161

<table>
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<tr>
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<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
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<tr>
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<tr>
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<tr>
<td>BXSPCxx3MEF40K-UL_Q4</td>
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</table>
Roadway Optimizer - Layout 5

General:
XSP2 102W 4L W Median – 45 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07 Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 159
Spacing - Row 2: 159

<table>
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<td>BXSPCxx3MEF40K-UL_Q4</td>
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<td>45</td>
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<td>-25</td>
<td>45</td>
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</table>
Roadway Optimizer - Layout 5

General:
XSP2 102W 4L W Median - 50 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 156
Spacing - Row 2: 156

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<th>Z-Coord</th>
<th>Orient</th>
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</table>
4-Lane Arterial/Collector
Staggered Arrangement
38 Setback
Roadway Optimizer - Layout 1

General:
ATBL 259W 4L W MEDIAN Staggered - 40FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
**ATBL_F_XXXXX_R3**
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 200
Spacing - Row 2: 200

<table>
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<tr>
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<tbody>
<tr>
<td>ATBL_F_XXXXX_R3</td>
<td>600</td>
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<td>ATBL_F_XXXXX_R3</td>
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<td>40</td>
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<td>-38</td>
<td>40</td>
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</table>
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual Q0 Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL F XXXXX R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 255
Spacing - Row 2: 255

Label          X-Coord  Y-Coord  Z-Coord  Orient  Tilt  Spin
ATBL_F_XXXXX_R3 1020   -38      45       90       0     0
ATBL_F_XXXXX_R3  765   -38      45       90       0     0
ATBL_F_XXXXX_R3  510   -38      45       90       0     0
ATBL_F_XXXXX_R3  255   -38      45       90       0     0
Roadway Optimizer - Layout 1

General:

ATBL 259W 4L W MEDIAN Staggered - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

ATBL_F_XXXXX_R3
Description: ATBL F XXXXX R3
File Name: ATBL_F_XXXXX_R3.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 28091
Luminaire Watts: 259
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 314
Spacing - Row 2: 314

<table>
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<th>Label</th>
<th>X-Coord</th>
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<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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</thead>
<tbody>
<tr>
<td>ATBL_F_XXXXX_R3</td>
<td>-314</td>
<td>-38</td>
<td>50</td>
<td>90</td>
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<td>ATBL_F_XXXXX_R3</td>
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<td>0</td>
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<tr>
<td>ATBL_F_XXXXX_R3</td>
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<td>50</td>
<td>90</td>
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Roadway Optimizer - Layout 2

General:
XSP2 139W 4L W MEDIAN Staggered - 40 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 161
Spacing - Row 2: 161

<table>
<thead>
<tr>
<th>Label</th>
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<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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</thead>
<tbody>
<tr>
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<td>40</td>
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<td>0</td>
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<tr>
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<td>40</td>
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<tr>
<td>BXSPCxx3MEF40K-UL_C...</td>
<td>322</td>
<td>-38</td>
<td>40</td>
<td>90</td>
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<td>0</td>
</tr>
<tr>
<td>BXSPCxx3MEF40K-UL_C...</td>
<td>161</td>
<td>-38</td>
<td>40</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 160
Spacing - Row 2: 160

<table>
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<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
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</thead>
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<tr>
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<td>90</td>
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<tr>
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<td>-38</td>
<td>45</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BXSPCxx3MEF40K-UL C...</td>
<td>0</td>
<td>-38</td>
<td>45</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BXSPCxx3MEF40K-UL_C...</td>
<td>160</td>
<td>-38</td>
<td>45</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Roadway Optimizer - Layout 2

General:

XSP2 139W 4L W MEDIAN Staggered - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), QO=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Opposite, With Median; 2R_OPP_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_CONFIGURED
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_CONFIGURED.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 13434
Luminaire Watts: 139
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 162
Spacing - Row 2: 162

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<th>Tilt</th>
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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07 Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSCpx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 132
Spacing - Row 2: 132

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<tr>
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<th>X-Coord</th>
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Roadway Optimizer - Layout 5

General:
XSP2 102W 4L W Median - 45 FT
Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:
Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:
BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 132
Spacing - Row 2: 132

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Roadway Optimizer - Layout 5

General:

XSP2 102W 4L W Median - 50 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: Two Rows, Staggered, With Median; 2R_STG_w/M
Roadway Width: 24 ft
Median Width: 25 ft
Lanes In Direction Of Travel: 2
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 132
Spacing - Row 2: 132

<table>
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2-Lane Arterial/Collector
   One Row
   14 Setback
Roadway Optimizer - Layout 3

General:

ATBS 76W Collector 2L W/O Median - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

ATBS_I_XXXXX_R2
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 154

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Roadway Optimizer - Layout 4

General:

XSP2 102W Collector 2L W/O Median - 40FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 127

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Roadway Optimizer - Layout 3

General:

ATBS 76W Collector 2L W/O Median - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

**ATBS I XXXXX R2**
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 135

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Roadway Optimizer - Layout 4

General:

XSP2 102W Collector 2L W/O Median - 45FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07   Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 111

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</table>
2-Lane Arterial/Collector
One Row
22 Setback
Roadway Optimizer - Layout 3

General:
ATBS 76W Collector 2L W/O Median - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07 Actual QO Value: 0.07

Roadway Layout:
Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

**ATBS I XXXXX R2**
Description: ATBS I XXXXX R2
File Name: ATBS I XXXXX R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 139

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Roadway Optimizer – Layout 4

General:
XSP2 102W Collector 2L W/O Median – 40FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Qθ=0.07 Actual Qθ Value: 0.07

Roadway Layout:
Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 132

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
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<tr>
<td>BXSPCxx3MEF40K-UL Q4</td>
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<td>46</td>
<td>40</td>
<td>270</td>
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<td>40</td>
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<td>46</td>
<td>40</td>
<td>270</td>
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</table>
Roadway Optimizer - Layout 3

General:

ATBS 76W Collector 2L W/O Median - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

ATBS_I_XXXXX_R2
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 132

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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<tbody>
<tr>
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<td>45</td>
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</tr>
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<td>45</td>
<td>270</td>
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</table>
Roadway Optimizer – Layout 4

General:

XSP2 102W Collector 2L W/O Median - 45FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 119

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<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
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<td>46</td>
<td>45</td>
<td>270</td>
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<td>0</td>
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</table>
2-Lane Arterial/Collector
One Row
38 Setback
Roadway Optimizer – Layout 3

General:

ATBS 76W Collector 2L W/O Median – 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual Q0 Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

ATBS_I_XXXXX_R2
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing – Row 1: 108

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<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
<td>648</td>
<td>54</td>
<td>40</td>
<td>270</td>
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<td>0</td>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
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<td>54</td>
<td>40</td>
<td>270</td>
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<td>0</td>
</tr>
<tr>
<td>ATBS_I_XXXXX_R2</td>
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<td>54</td>
<td>40</td>
<td>270</td>
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<td>ATBS_I_XXXXX_R2</td>
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<td>40</td>
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<td>54</td>
<td>40</td>
<td>270</td>
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</table>
Roadway Optimizer - Layout 4

General:

XSP2 102W Collector 2L W/O Median - 40FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL_Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 120

<table>
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<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
</tr>
</thead>
<tbody>
<tr>
<td>BXSPCxx3MEF40K-UL_Q4</td>
<td>600</td>
<td>54</td>
<td>40</td>
<td>270</td>
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<td>BXSPCxx3MEF40K-UL_Q4</td>
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<td>BXSPCxx3MEF40K-UL_Q4</td>
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<tr>
<td>BXSPCxx3MEF40K-UL_Q4</td>
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<td>40</td>
<td>270</td>
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<td>0</td>
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<tr>
<td>BXSPCxx3MEF40K-UL_Q4</td>
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<td>BXSPCxx3MEF40K-UL_Q4</td>
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<td>54</td>
<td>40</td>
<td>270</td>
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</table>
Roadway Optimizer - Layout 3

General:

ATBS 76W Collector 2L W/O Median - 45 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

ATBS_I_XXXXX_R2
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.00
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

Spacing - Row 1: 110

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
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</thead>
<tbody>
<tr>
<td>ATBS_I_XXXXX_R2</td>
<td>660</td>
<td>54</td>
<td>45</td>
<td>270</td>
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<td>45</td>
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<td>0</td>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
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<td>45</td>
<td>270</td>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
<td>110</td>
<td>54</td>
<td>45</td>
<td>270</td>
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</table>
Roadway Optimizer - Layout 4

General:

XSP2 102W Collector 2L W/O Median - 45FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07    Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

BXSPCxx3MEF40K-UL Q4
Description: BXSPCxx3MEF40K-UL CONFIGURED FROM BXSPCxx3MEF30K-xxxxxx
File Name: BXSPCxx3MEF40K-UL_Q4.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 10882
Luminaire Watts: 102
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:

Coordinates in ft

Spacing - Row 1: 115

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<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
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<tr>
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<tr>
<td>BXSPCxx3MEF40K-UL Q4</td>
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<td>BXSPCxx3MEF40K-UL Q4</td>
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<td>54</td>
<td>45</td>
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</table>
2-Lane Local Roadway
One Row
14 Setback
Roadway Optimizer - Layout 1

General:

ATBS 76W - 2L - Local - 40 FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual Q0 Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

**ATBS_I_XXXXX_R2**
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATBS_I_XXXXX_R2</td>
<td>716</td>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
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<td>30</td>
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Roadway Optimizer - Layout 2

General:

ATBS 76W - 2L - Local - 45FT

Roadway Standard: IES RP-8-14
R-Table: R3 (Slightly Specular), Q0=0.07  Actual QO Value: 0.07

Roadway Layout:

Layout Type: One Row, Far Side; 1RFS
Roadway Width: 24 ft
Lanes In Direction Of Travel: 1
Driver's Side Of Roadway: Right

Luminaire Information:

**ATBS I XXXXX R2**
Description: ATBS I XXXXX R2
File Name: ATBS_I_XXXXX_R2.ies
Lumens Per Lamp: N.A.
Number Of Lamps: 1
Total Lamp Lumens: N.A.
Luminaire Lumens: 8654
Luminaire Watts: 76
Efficiency (%): N.A.
S/P Ratio: 1.00
Total Light Loss Factor: 1.000
Luminaire Arrangement: SINGLE
Arm Length: 12 ft
Offset: 0 ft

Luminaire Location Summary:
Coordinates in ft
Spacing - Row 1: 208

<table>
<thead>
<tr>
<th>Label</th>
<th>X-Coord</th>
<th>Y-Coord</th>
<th>Z-Coord</th>
<th>Orient</th>
<th>Tilt</th>
<th>Spin</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATBS_I_XXXXX_R2</td>
<td>832</td>
<td>38</td>
<td>35</td>
<td>270</td>
<td>0</td>
<td>0</td>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
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<td>35</td>
<td>270</td>
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<tr>
<td>ATBS_I_XXXXX_R2</td>
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<td>ATBS_I_XXXXX_R2</td>
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Appendix C

Normal Distribution Test
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<tr>
<td>Median</td>
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<tr>
<td>Stand Deviation</td>
<td>8178</td>
<td>4687</td>
<td>2</td>
</tr>
<tr>
<td>Mode</td>
<td>5700</td>
<td>N/A</td>
<td>N/A</td>
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<td>Min</td>
<td>500</td>
<td>600</td>
<td>0</td>
</tr>
<tr>
<td>Max</td>
<td>34,700</td>
<td>19,700</td>
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City of Palm Coast, Florida
Agenda Item

Agenda Date: 10/30/2018

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Subject: RESOLUTION 2018-XX APPROVING THE AIRPORT COMMONS DEVELOPMENT PRE-ANNEXATION AND JOINT PLANNING AGREEMENT

Background:
The Pre-Annexation, Economic Development and Joint Planning Agreement (Agreement) proposed between the City, Flagler County (County) and Airport Commons concerns the property located on the corner of Aviation Drive and S.R. 100 (Property). The Property is currently in Flagler County, however, is adjacent to the City’s jurisdictional boundary. Airport Commons is requesting that the City provide water service to the Property and is agreeing to annex the Property into the City once a certificate of occupancy is issued or, if developed in phases, development of the first phase of the project is complete. The proposed project is intended to be a shopping center.

This Agreement is a subsequent agreement to the Settlement Agreement between the City, County and other parties concerning the provision of utility service in Flagler County. Section 5.1 of the Settlement Agreement allows the parties to enter into subsequent agreements to the Settlement Agreement “in order to provide efficient and cost effective utility service to the public”.

The following summarizes the most notable terms of the Agreement:

- It includes a conceptual site plan of the Project that has been reviewed by City and County staff.

- It sets out the terms and timing of the proposed voluntary annexation. The Property will be considered for annexation by the City Council at the time Airport Commons requests water service and if approved, the annexation will become effective after the certificate of occupancy is issued by the County for development on the Property.

- It allows for the County to continue permitting development on the Property, with the City’s review and comment, pursuant to the Interlocal Agreement Between the City and County Relating to the Development of Unincorporated and Incorporated Lands in and Around the County Airport.

- It requires Airport Commons to connect to the City’s water service and enter into the City’s Utility Agreement prior to annexation.

- It states that the City will provide solid waste collection to the Property concurrent with annexation.

- It provides that when City sewer service become available immediately adjacent to the
Property, Airport Commons will connect and sets out a process for the transfer of sewer capacity between the City and the County.

- It gives Airport Commons the ability to connect to the City’s reclaimed water facilities.
- It requires Airport Commons to adhere to an architectural and landscape concept, generally, consistent with the City.
- After annexation, it requires that the City initiate and process applications for a comprehensive plan amendment, rezoning and variance within 36 months.
- It requires the payment of transportation impact fees to the City or, in the alternative, construction of transportation improvements to the Aviation Drive and S.R. 100.

**Recommended Action:**
Adopt Resolution 2018-XX approving the Airport Commons Development Pre-Annexation and Joint Planning Agreement
RESOLUTION 2018 - ___
AIRPORT COMMONS, LLC AND FLAGLER COUNTY
PRE-ANNEXATION, ECONOMIC DEVELOPMENT
AND JOINT PLANNING AGREEMENT

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING THE PRE-ANNEXATION, ECONOMIC DEVELOPMENT AND JOINT PLANNING AGREEMENT WITH AIRPORT COMMONS, LLC AND FLAGLER COUNTY; AUTHORIZING THE MAYOR TO EXECUTE SAID AGREEMENT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Flagler Pines Properties, LLC (“Flagler Pines”) owns certain real property in the unincorporated area of Flagler County, Florida; and

WHEREAS, the Property is adjacent to the Flagler Executive Airport, which is owned/operated and under the jurisdiction of the County; and

WHEREAS, Airport Commons is under contract to purchase the property from Flagler Pines contingent upon site plan development approval and the issuance of building permits permitting a commercial development thereon to be known as Airport Commons; and

WHEREAS, the Property is contiguous to an existing boundary of the City and is within the City’s Chapter 180 water and sewer utility service area, which is subject to that Settlement Agreement to which both the City and County are parties as recorded in Official Records Book 1560, Page 471 of the Public Records of Flagler County, Florida, where in the parties to that Agreement agreed to certain stipulations regarding retail water, wastewater, and reclaimed water service areas; and

WHEREAS, pursuant to Section 5.1 of that Settlement Agreement, the City expressly consents to the County providing wastewater service to the property from Flagler Executive Airport’s wastewater service system and the City and County agree that this undertaking provides efficient and cost effective utility service to the public.
WHEREAS, this Agreement serves as a subsequent agreement between City and the County pursuant to Section 5.1 of that Settlement Agreement for the provision of wastewater service to the Property; and

WHEREAS, the City of Palm Coast desires to approve the Pre-Annexation, Economic Development and Joint Planning Agreement with Airport Commons, LLC and Flagler County.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, AS FOLLOWS:

SECTION 1. APPROVAL OF THE PRE-ANNEXATION AND ECONOMIC DEVELOPMENT AGREEMENT. The City Council of the City of Palm Coast hereby approves the terms and conditions of the Pre-Annexation, Economic Development and Joint Planning Agreement with Airport Commons, LLC and Flagler County, as attached hereto and incorporated herein as Exhibit “A.”

SECTION 2. AUTHORIZATION TO EXECUTE. The Mayor is hereby authorized to execute the necessary documents.

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

SECTION 5. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 6. EFFECTIVE DATE. This Resolution shall take effect immediately upon adoption by the City Council.
DULY PASSED AND ADOPTED by the City Council of the City of Palm Coast, Florida, on this 20th day of November 2018.

CITY OF PALM COAST, FLORIDA

ATTEST: Milissa Holland, Mayor

Virginia A. Smith, City Clerk

Attachment: Exhibit “A” – Pre-Annexation, Economic Development and Joint Planning Agreement with Airport Commons, LLC and Flagler County

Approved as to form and legality

William E. Reischmann, Jr., Esq.
City Attorney
Prepared By:
Jay W. Livingston, Esq.
Livingston & Sword, P.A.
393 Palm Coast Parkway SW #1
Palm Coast, Florida 32137

PRE-ANNEXATION,
ECONOMIC DEVELOPMENT AND JOINT PLANNING AGREEMENT

THIS PRE-ANNEXATION, ECONOMIC DEVELOPMENT AND JOINT PLANNING AGREEMENT (“Agreement”) made this ___ day of November, 2018, by and between the City of Palm Coast, a municipal corporation organized and existing under the laws of the State of Florida (the “City”), whose address is 160 Lake Avenue, Palm Coast, Florida 32164; the Board of County Commissioners of Flagler County, Florida, a political subdivision of the State of Florida, whose address is 1769 E. Moody Blvd., Bldg. 2, Bunnell, Florida 32110 (the “County”); and Airport Commons, LLC, a Florida limited liability company, whose address is 3700 Airport Road, Suite #302, Boca Raton, FL 33431 (“Airport Commons”). Collectively, the City, County and Airport Commons shall be referred to as the “Parties”.

RECITALS

A. Flagler Pines Properties, LLC (“Flagler Pines”) owns certain real property in the unincorporated area of Flagler County, Florida, which is described on Exhibit “A” hereto (individually the “Property”);

B. The Property is adjacent to the Flagler Executive Airport, which is owned/operated and under the jurisdiction of the County;

C. Airport Commons is under contract to purchase the Property from Flagler Pines contingent upon site plan development approval and the issuance of building permits permitting a commercial development thereon to be known as Airport Commons as depicted in the conceptual site plan attached hereto as Exhibit “B” (the “Project”);

D. Airport Commons has obtained authorization from the owner of the Property and is empowered to enter into this Agreement;

E. The Property is contiguous to an existing boundary of the City and is within the City’s Chapter 180 water and sewer utility service area;

F. The Property is subject to that certain Settlement Agreement to which both the City and County are parties as recorded in Official Records Book 1560, Page 471 of the Public Records of Flagler County, Florida (the “Settlement Agreement”);

G. Section 5.1 of the Settlement Agreement provides:
“5.1 Service Area Agreements. PALM COAST and COUNTY agree that the retail water, wastewater, and reclaimed water service areas as depicted on the Map, and shall not offer to serve or service within the service area of another without the express written consent of the other. PALM COAST may serve within its current and future City Limits; provided, however, it may not serve within COUNTY’s service area as depicted on the Map, subject, however, to the provisions of Section 5.3 of this Agreement PALM COAST and the COUNTY may enter into subsequent agreements in order to provide efficient and cost effective utility service to the public.” (Emphasis added.)

H. The Property is within City’s retail water, wastewater, and reclaimed water service areas and the County is prohibited from offering service to the Property without the express written consent of Palm Coast;

I. The Property is proximate to the County’s existing sewer lift station servicing the Flagler Executive Airport;

J. Pursuant to Section 5.1 of the Settlement Agreement, City expressly consents to the County providing wastewater service to the Property from Flagler Executive Airport’s wastewater service system and the City and County agree that this undertaking provides efficient and cost effective utility service to the public. This Agreement serves as a subsequent agreement between City and the County pursuant to Section 5.1 of the Settlement Agreement for the provision of wastewater service to the Property.

K. The Property is also subject to that certain Interlocal Agreement Between the City and County Relating to the Development of Unincorporated and Incorporated Lands in and Around the County Airport as recorded in Official Records Book 2088, Page 124 of the Public Records of Flagler County, Florida (the “JPA”);

L. Section 2 of the JPA provides:

“SECTION 2. REVIEW OF DEVELOPMENT PLANS. The COUNTY and the CITY both understand the importance of coordination on development and ensuring an aesthetically pleasing appearance of the properties in and around the Airport. Additionally, each party is bound within its respective Comprehensive Plan to work jointly together for the public good. To that end, the Parties agree to cooperate on any building / site plan development approvals within the area [DEFINED AS] the ‘Joint Development Review Area’.

“Such cooperation shall consist of the non-jurisdictional party’s review and comment on submitted development plans, but with the ultimate approval and permitting authority being vested with the jurisdictional permitting authority. In addition, each party agrees to make staff available on an as needed basis to help coordinate and provide input
on any differences in the other’s land development regulations for internal COUNTY and CITY joint planning and projects in the Joint Development Review Area.”

M. The Property is within the Joint Development Review Area as defined in the JPA;

N. The County is the jurisdictional permitting authority for the Property under the JPA;

O. Section 163.3171(4), Florida Statutes, provides as follows:

“Local governments may enter into agreements with each other and with a landowner, developer, or governmental agency as may be necessary or desirable to effectuate the provisions and purposes of ss. 163.3177(6)(h)…It is the Legislature’s intent that joint agreements entered into under the authority of this section be liberally, broadly, and flexibly construed to facilitate intergovernmental cooperation between cities and counties and to encourage planning in advance of jurisdictional changes. Joint agreements, executed before or after June 2, 2011, include, but are not limited to, agreements that contemplate municipal adoption of plans or plan amendments for lands in advance of annexation of such lands into the municipality, and may permit municipalities and counties to exercise nonexclusive extrajurisdictional authority within incorporated and unincorporated areas. The state land planning agency may not interpret, invalidate, or declare inoperative such joint agreements, and the validity of joint agreements may not be a basis for finding plans or plan amendments not in compliance pursuant to chapter law.”

P. Airport Commons has requested that the City annex the Property into the City;

Q. Section 171.062(2), Florida Statutes, provides that:

“[i]f the area annexed was subject to a county land use plan and county zoning or subdivision regulations, these regulations remain in full force and effect until the municipality adopts a comprehensive plan amendment that includes the annexed area.”

R. Section 171.062(1), Florida Statutes, provides that:

“An area annexed to a municipality shall be subject to all laws, ordinances and regulations in force in that municipality and shall be entitled to the same privileges and benefits as other parts of that municipality upon the effective date of the annexation.”

S. The City desires to insure that adequate public facilities exist concurrent with the impact of development on the Property and that such development and the City’s Comprehensive Plan are or will be consistent;
T. The Property is designated Commercial High Intensity on the County’s Future Land Use Map ("County FLUM") and is in the C-2 zoning district as depicted on Flagler County’s Official Zoning Map;

U. The purpose of this Agreement is to set forth the understandings and agreements of the parties with respect to the foregoing, and other matters as set forth herein; and

V. This Agreement is authorized by, permitted by, and consistent with the provisions of the City’s Home Rule Charter; the City’s Comprehensive Plan; Chapter 163, Florida Statutes; Chapter 166, Florida Statutes; the County’s Home Rule Power under Chapter 125, Florida Statutes; the State Comprehensive Plan (Chapter 187, Florida Statutes); Article VIII, Section 2(b), Constitution of the State of Florida; the Settlement Agreement; the JPA; the legal authorities referenced above; and other applicable law and this Agreement serves and advances a vital public purpose;

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

1. **Recitals.**
   a. The above Recitals are adopted as the findings of the City Council and the County.
   b. The above recitals are true and correct, are incorporated into this Agreement by reference thereto, and form a material part of this Agreement upon which the parties have relied, including but not limited to, that Flagler Pines owns the Property and that Airport Commons is empowered to enter into this Agreement and make binding determinations to the City and the County.

2. **Petition for Voluntary Annexation.**
   a. Airport Commons hereby agrees it shall petition for voluntary annexation of the Property into the City pursuant to Chapter 171.044, Florida Statutes. Once Airport Commons closes on and obtains title to the Property, Airport Commons will file a Petition for Voluntary Annexation with the City. The City will consider adopting an ordinance in accordance with Chapter 171.044, Florida Statutes, thereby annexing the Property to the City and redefining the boundaries to the City to include the Property. A proposed draft of the annexation ordinance is attached as Exhibit “C” hereto.
   b. The proposed annexation ordinance will be considered for approval by the Palm Coast City Council when Airport Commons, its successors or assigns, requests to connect the Project to the City’s water services. Should the City Council approve the annexation ordinance, the effective date set forth in that ordinance will be a date certain past the anticipated date for issuance of a certificate of occupancy by the County for the Project; or, if the Project is constructed in phases, when a certificate
of occupancy is issued by the County for the first phase (the “Annexation Effective Date”).

c. No fees, costs or expenses will be charged to or become due from Airport Commons to the City or any other governmental authority, private individual or entity on account of or in connection with the City’s review and processing of the Annexation Petition or the annexation of the Property into the corporate limits of the City; provided, however, that Airport Commons will pay its own attorney fees and consulting fees.

3. Public Facilities.
   a. Solid waste collection services are available to serve the demands generated by the Property and will be provided as it is to any other owner of land within the City and will be available concurrent with annexation of the Property into the City.
   b. All drainage issues will be appropriately addressed in the development approvals pertaining to the Property as issued by the County and the impacts of stormwater drainage will be addressed in accordance with state law and other applicable regulatory requirements.
   c. The parties acknowledge that fire, and EMS facilities, equipment and services as necessary to serve the Property will be provided pursuant to the mutual aid agreement(s) between the City and the County. All such public services will be available to support the development of the Property.
   d. The City will provide water services to the Property, subject to standard City utility requirements related to Airport Commons’ contributions-in-aid-of-construction, payment of connection fees, granting of appropriate easements, and dedication of other facilities as necessary or appropriate. Airport Commons will execute the City’s standard Utility Agreement, with any necessary revisions as determined by the City, before work on the water main extension and/or vertical construction commences, whichever occurs first, and connect to water service as soon as it is available.
   e. The County will provide sewer services to the Property through the Flagler Executive Airport’s (“Airport”) onsite wastewater collection system (as a customer of the City’s wastewater system), utilizing the existing sewer infrastructure located on the Airport property, and subject to standard City utility requirements related to Airport Commons’ contributions-in-aid-of-construction, payment of connection fees, granting of appropriate easements, and dedication of other facilities as necessary or appropriate. Airport Commons will execute the necessary standard County Agreements, if any, at the appropriate time and connect to the sewer system as it is available. Airport Commons acknowledges that if the City's sewer services are expanded so that they are available and immediately adjacent to the Project's existing utility connections and allow a connection to the City's sewer services without the need for additional sewer infrastructure improvements, including, without limitation, a lift station, and without interruption of service or disruptions of the businesses and other activities on the Property, then Airport Commons shall
connect to the City's sewer services. Future connection to the City’s sewer service shall be accomplished by Airport Commons within 120 days of sewer service being made available to the Property as provided for above. There will be no additional connection charge or other costs to Airport Commons to connect to the City’s sewer service in the future if and when that connection is made.

f. Prior to a building permit being issued by the County for each structure, Airport Commons shall remit to the County the applicable wastewater sewer capacity charges that the project would have paid had the project been initially connected to City’s Wastewater system. The County will then remit the wastewater sewer charges payment to the City and the City shall in turn credit the County the equivalent number of gallons of wastewater capacity that the wastewater sewer charges would have purchased in the City and record such a wastewater capacity credit to the County in the Official Records of Flagler County, Florida, a copy of which shall be provided to the County. The recorded document shall contain the amounts paid and the wastewater gallon capacity allocation. In the event that a use on the Property requires more wastewater than allocated to the County as provided above, the City and Airport Commons shall provide written notice of the need for additional capacity and Airport Commons shall remit to the County the applicable wastewater sewer charges required for the additional capacity. The County will then remit the additional wastewater sewer charges payment to the City and the City shall record an additional wastewater capacity credit to provide for the additional allocation of capacity in the Official Records of Flagler County, Florida, a copy of which shall be provided to the County. No building permit shall be issued for the use requiring the additional capacity until such time as Airport Commons pays the additional wastewater sewer charges as provided for above. Such capacity allocation shall remain with the County indefinitely until Airport Commons connects directly to the City wastewater system. At that time of the connection, the County’s wastewater allocation with the City shall be reduced by the amount that is the current gallonage allocation for the City water capacity for the Property. Such allocations shall transition to correspond to the appropriate billing cycle to avoid any disparities between the City and County usage agreements. Upon transfer, the City will record a wastewater capacity reduction in the Official Records of Flagler County, Florida for the amount of capacity deducted from the County’s allocation. Copies of all wastewater capacity credits and reductions shall be copied to the County and shall be numerically equal.

g. The City shall provide reclaimed water service to the Property upon request. Airport Commons shall be responsible for the installation of all connections, extensions, improvements and facilities required to connect the Property to the City’s existing reclaimed water facilities. Airport Commons shall bear the cost and expense of connecting to the City’s reclaimed water facilities.
4. **Land Use and Development Approvals.**
   
a. The City has reviewed the Project and provided comments to the County and Airport Commons pursuant to the JPA. The conditions of any County development approval(s) set forth on the County FLUM, Official Zoning Map, development orders and development permits for the Project, relating to the Property, will continue to be in full force and effect upon and after annexation of the Property into the City and the development rights and entitlements relating to such approvals will carry forward as approvals for the Property until the City amends the comprehensive plan designation and zoning of the Property as per Section 4(c).

b. The entire Project and all buildings constructed on the Property will incorporate architectural themes consistent with the architectural elevations attached hereto as Exhibit “D”.

c. The parties acknowledge that the City cannot contract to approve specific comprehensive plan or zoning amendments. The City’s only obligation with respect to comprehensive plan, zoning amendments, and variance approvals is to initiate and timely process the applications, consistent with the uses and improvements approved by the County pursuant to the provisions of the JPA, consider all evidence presented in support of and in opposition to the amendments and approvals and make decisions to approve or deny the amendments and approvals based upon the legal standards that govern actions by local governments when considering comprehensive plan, zoning amendments and variance approvals. In partial consideration for Airport Commons entering into this Agreement, the City will initiate and process applications for a comprehensive plan amendment, rezoning and variances within a time frame of thirty six (36) months of the date of adoption of the Annexation Ordinance consistent with Airport Commons proposed use for the Property at no cost to Airport Commons; provided, however, Airport Commons will cooperate with the City by timely providing the City with all necessary and desirable data and analysis in connection with the comprehensive plan amendments, rezoning, and variance approvals.

d. Airport Commons shall, during the development approval process with the County pursuant to the JPA, comply with all necessary local, state and federal permits, as applicable, and acquire all necessary development orders, permits, licenses, easements and other approvals or rights in connection with the development of the Project in accordance with the County’s applicable land use, zoning, land development, building and construction regulations, and the JPA; provided, however, neither the County nor the City will incur costs relative to such matters and Airport Commons will bear any and all costs.

5. **Transportation Impact Fees.** The City has determined that the transportation impact fee that would be due for the Project if the Property was in the municipal boundaries of the City is $111,326 based on the Shopping Center classification for the calculation of transportation impact fees. This calculation is based on the current development plan of 26,096 square feet of shopping center commercial development. If, prior to the application
for a building permit, Airport Commons proposes changes to the Project that are approved by the County, after review and comment by the City pursuant to the JPA, and those changes result in an increase or decrease of the intensity and uses on the shopping center commercial development then the amount due for the transportation impact fee shall be modified based on the changes in intensity and use and such modification shall be confirmed by a written notice from the City’s City Manager to the County and Airport Commons. Except as providing for herein, Airport Commons shall pay to the City the above transportation impact fee within thirty (30) days of the Annexation Effective Date. In lieu of the payment of transportation impact fees that would be due, Airport Commons may construct, cause to be constructed, or guarantee the construction (to include construction by Flagler County) a west bound deceleration lane on SR 100 into the site and a northbound, right-hand turn lane from Aviation Drive onto SR 100. The final configuration and layout of the County roadway shall be determined by the County and shall be permitted through the County and the Florida Department of Transportation FDOT with the City’s review and comment on such improvements. The improvements shall generally be in accordance with the conceptual layouts depicted in Exhibit “E” (the “Transportation Improvements”). The Transportation Improvements are considered capacity improvements to Aviation Drive and S.R. 100. The estimated construction costs for the Transportation Improvements are anticipated to be in excess of the transportation impact fee due for the project. If Airport Commons chooses to construct, cause or guarantee the Transportation Improvements to be constructed (to include construction by Flagler County), the City agrees to provide a credit up to the full amount of the transportation impact fees that would be due for the Project if constructed in the City. No other transportation impact fees would be due once annexed into the City, unless the transportation impact fees due for the Project exceed the final costs of the Transportation Improvements constructed. Such Transportation Improvement costs shall include all design, construction, and post construction costs, an accounting of which shall be made to the City upon completions of the Transportation Improvements by Airport Commons.

6. Further Assurances. In addition to the acts recited in or set forth in this Agreement, the City, the County, and Airport Commons, will perform or cause to be performed, in a timely manner, any and all further acts as may be reasonably necessary to implement the provisions of this Agreement including, but not limited to, the execution and or recordation of further instruments; provided, however, that the City’s and the County’s obligations will be subject to such limitations as required by applicable law.

7. Limitation of Remedies. The parties will not pursue an award of monetary damages for a breach of or non-performance of this Agreement, except to the extent any action by the City or the County interferes with Airport Commons’ vested rights in the Project as provided for herein or as established and acquired upon issuance of a building permit by the County and the commencement of construction of the Project pursuant to the JPA. The only remedies available against the non-performing party will be either to withhold further performance under this Agreement until the non-performing party cures the non-
performance or seek a court order from the Circuit Court of the Seventh Judicial Circuit in
and for Flagler County, Florida requiring the non-performing party to fulfill its obligations
under this Agreement. The Parties hereby waive any requirement for a bond that may be
applicable in the event of any such legal action. Neither the City nor the County will be
deemed to have waived sovereign immunity in any manner or respect except as provided
in Section 70.001 and 768.28, Florida Statutes. Notwithstanding the forgoing, the City and
County retain their right to enforce their respective codes through the applicable
enforcement process.

8. **Disclaimer of Third Party Beneficiaries.** This Agreement is solely for the benefit of the
Parties, and no right or cause of action will accrue by reason hereof to or for the benefit of
any third party not a formal party hereto. Nothing in this Agreement, expressed or implied,
is intended or will be construed to confer upon or give any person or entity any right,
remedy, or claim under or by reason of this Agreement or any provisions or conditions
hereof, other than the parties hereto and their respective representatives, successors and
assigns.

9. **Effectiveness of Agreement.** This Agreement will become effective upon it being duly
executed by all parties hereto. If, for any reason, Airport Commons does not close on the
contract and complete the purchase of the Property by December 31, 2019, or prior to this
date provides written notice to the other parties that the contract has been terminated, then
this Agreement shall automatically terminate and the County will be entitled to record, at
the County’s expense, a Notice of Termination of this Agreement in the Public Records of
Flagler County, Florida. Further, if, for any reason, the City does not annex the Property
by December 31, 2021, then the City may terminate this Agreement by notice to the other
parties in which event this Agreement will terminate and be no further force or effect, and
Airport Commons will be entitled to record, at the City’s expense, a Notice of Termination
of this Agreement in the Public Records of Flagler County, Florida. However, no
termination of this Agreement pursuant to this paragraph shall relieve the City from
providing water services to the Project, which is within the City’s service area pursuant to
the Settlement Agreement.

10. **Time of the Essence.** Time is of the essence of the lawful performance of the duties and
obligations contained in this Agreement. The parties covenant and agree that they will
diligently and expeditiously pursue their respective obligations set forth in this Agreement.

11. **Successors and Assigns.** This Agreement will be binding upon and inure to the benefit of
the Parties, and their respective successors in interest.

12. **Applicable Law.** This Agreement will be construed, controlled and interpreted according
to the laws of the State of Florida. Further, to the extent permissible under the laws of the
State of Florida, if there is a conflict between this Agreement and the terms of the City’s
land development regulations, the terms of this Agreement will control.
13. **Binding Effect.** Each party hereto represents to the other that it has undertaken all necessary actions to execute this Agreement, and that it has the legal authority to enter into this Agreement and to undertake all obligations imposed on it.

14. **Recording.** The City will, within five (5) business days following full execution of this Agreement, at the City’s sole cost and expense, record a fully executed counterpart of this Agreement in the Public Records of Flagler County, Florida.

15. **Choice of Law and Venue.** Florida law will govern the interpretation and enforcement of this Agreement. In any action or proceeding required to enforce or interpret the terms of this Agreement, venue will be in the Seventh Judicial Circuit in and for Flagler County, Florida.

16. **Effect of Change in Law.** If state or federal laws are enacted after execution of this Agreement which are applicable to and preclude the party’s compliance with the terms of this Agreement, this Agreement will be modified or revoked as is necessary to comply with the relevant state or federal laws and the intent of the parties hereto.

17. **Construction or Interpretation of the Agreement.** This Agreement is the result of bona fide arms-length negotiations between the City, the County, and Airport Commons. All parties have contributed substantially and materially to the preparation of the Agreement. Accordingly, this Agreement will not be construed or interpreted more strictly against any one party than against any other party.

18. **Attorneys’ Fees and Costs.** In the event of any action to enforce the terms of this Agreement, the prevailing party will be entitled to recover reasonable attorneys’ fees, paralegals’ fees, and costs incurred, whether the same be incurred in pre-litigation negotiation, litigation at the trial level, or upon appeal.

19. **Caption/Exhibits.**
   a. The headings or captions of the sections and subsections contained in this Agreement are used for convenience and reference only, and do not, in themselves, have any legal significance and will not be afforded any.
   b. The exhibits to this Agreement are hereby incorporated into this Agreement and are an integral part of this Agreement.

20. **Parties Bound.** Following the recordation of this Agreement, the benefits and burdens of this Agreement will become a covenant running with the title to the Property, and all parts and parcels thereof, and this Agreement will be binding upon and inure to the benefit of the City, the County, and Airport Commons and their assigns and successors in interest to the Property, and all parts and parcels thereof.
21. **Severability.** If any provision of this Agreement, the deletion of which would not adversely affect the receipt of any material benefits by any party to the Agreement or substantially increase the burden of any party to the Agreement, is held to be unconstitutional, invalid or unenforceable to any extent by a court of competent jurisdiction, such portion will be deemed a separate, distinct and independent provision and the same will not affect in any respect whatsoever the validity or enforceability of the remainder of this Agreement.

22. **Notices.** Any notice that is to be delivered hereunder will be in writing and will be deemed to be delivered (whether or not actually received) when (i) hand delivered to the official hereinafter designated, or (ii) upon receipt of such notice when deposited in the United States mail, postage prepaid, certified mail, return receipt requested, addressed to the parties as follows (facsimile transmittal is not acceptable as a form of notice in this Agreement):

   **To the City:** City of Palm Coast  
   Attn: City Manager  
   City Hall  
   160 Lake Ave.  
   Palm Coast, Florida 32164

   **To the County:** Flagler County  
   Attn: County Administrator  
   1769 E. Moody Blvd. #2, Suite 301  
   Bunnell, Florida 32110

   **To Airport Commons**  
   Airport Commons, LLC  
   ATTN: Martin Heise  
   3700 Airport Road #302  
   Boca Raton, FL 33431

23. **Entire Agreement.** This Agreement constitutes the complete and entire agreement between the City, the County, and Airport Commons with respect to the development and construction of the Project and the annexation of the Property, and supersedes any and all prior agreements, arrangements, or understandings, whether oral or written, between the parties relating thereto, all of which have been integrated herein.

24. **Modification.** This Agreement may not be amended, changed, or modified, and material provisions hereunder may not be waived, except by a written document, of equal dignity herewith, approved by the City Council, the Board of County Commissioners, and Airport Commons, and signed by all parties to this Agreement.
25. **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which, taken together, will constitute one and the same document.

{ This Space Intentionally Left Blank }
WHEREFORE, the parties have executed this Agreement as of the day and year first above written.

ATTEST:                      CITY OF PALM COAST

City Clerk                  Milissa Holland, Mayor

STATE OF FLORIDA)
COUNTY OF FLAGLER)

The foregoing instrument was acknowledged before me this ___ day of __________, 2018 by Milissa Holland as Mayor of the City of Palm Coast, on its behalf, who is personally known to me.

(Seal)                      NOTARY PUBLIC

Printed Name

For the use and reliance of the City of Palm Coast only. Approved as to form and legal sufficiency.

__________________________
City Attorney
ATTEST:

Tom Bexley, Clerk and Ex Officio Clerk to the Board

Approved as to form:

__________________________
Albert Hadeed
County Attorney

__________________________
Gregory Hansen, Chairman

FLAGLER COUNTY BOARD OF COUNTY COMMISSIONERS
WITNESSES:

______________________________
Signature

______________________________
Print Name

______________________________
Signature

______________________________
Print Name

STATE OF FLORIDA )
COUNTY OF __________)  

The foregoing instrument was acknowledged before me this ___ day of __________, 2018, by Martin Heise as Manager of Airport Commons, LLC, a Florida limited liability company. He ___ is personally known to me or ___ has produced ______________________________ as identification.

(Seal)  
NOTARY PUBLIC

Printed Name
A PARCEL OF LAND IN GOVERNMENT SECTION 8, TOWNSHIP 12 SOUTH, RANGE 31 EAST, BEING A PORTION OF PARCEL 412 RECORDED IN OFFICIAL RECORD BOOK 601, PAGES 1989 THROUGH 2025, OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: AS A POINT OF REFERENCE BEING THE WEST QUARTER CORNER OF SAID SECTION 8, TOWNSHIP 12 SOUTH, RANGE 31 EAST, THENCE SOUTH 01°13'43" EAST ALONG THE WEST LINE OF SECTION 8 A DISTANCE OF 161.99 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 100, SAID POINT BEING THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE DEPARTING THE WEST LINE OF SAID SECTION 8 NORTH 89°09'05" EAST ALONG THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 100 A DISTANCE OF 529.36 FEET TO THE NORTHWEST CORNER OF THE PARCEL OF LAND RECORDED IN OFFICIAL RECORDS BOOK 363, PAGES 319 AND 320, OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA; THENCE DEPARTING SAID RIGHT-OF-WAY LINE SOUTH 00°50'55" EAST, ALONG THE WEST LINE OF SAID PARCEL, A DISTANCE OF 316.05 FEET; THENCE DEPARTING THE WEST LINE OF SAID PARCEL SOUTH 89°09'05" WEST A DISTANCE OF 527.26 FEET TO A POINT ON SAID WEST LINE OF SECTION 8, TOWNSHIP 12 SOUTH, RANGE 31 EAST; THENCE ALONG THE WEST LINE OF SAID SECTION 8 NORTH 01°13'43" WEST A DISTANCE OF 316.06 FEET TO THE AFOREMENTIONED POINT OF BEGINNING OF THIS DESCRIPTION. THE ABOVE DESCRIBED PARCEL CONTAINS 3.83 ACRES, MORE OR LESS.
ORDINANCE NO. 2018-_____
AX-VOL-____-_____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, TO ANNEX PROPERTY TO BE INCLUDED WITHIN THE CORPORATE AREA AND CITY LIMITS OF THE CITY OF PALM COAST, UPON ADOPTION OF THIS ORDINANCE; PROVIDING FOR THE ANNEXATION OF APPROXIMATELY _____ ACRES OF PROPERTY DESCRIBED IN EXHIBIT “A” TO THIS ORDINANCE AND LYING IN THE AREAS PROXIMATE TO THE EXISTING CITY LIMITS OF THE CITY OF PALM COAST, FLAGLER COUNTY, FLORIDA; PROVIDING FOR ANNEXATION IN ACCORDANCE WITH THE VOLUNTARY ANNEXATION PROVISIONS OF SECTION 171.044, FLORIDA STATUTES; PROVIDING FOR ANNEXATION OF REAL PROPERTY/AMENDMENT OF CORPORATE/CITY LIMITS; PROVIDING FOR RIGHTS AND PRIVILEGES RESULTING FROM ANNEXATION/EFFECT OF ANNEXATION UPON LAND USES; PROVIDING FOR EFFECT ON AD VALOREM TAXES; PROVIDING FOR EFFECT ON BUSINESSES AND OCCUPATIONS; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, a Petition for Annexation has been filed with the City Clerk of the City of Palm Coast, Florida, which petition contains the name of the property owner of the area described in Exhibit “A”, and requests annexation into the incorporated area and City Limits of the City of Palm Coast, Florida; and

WHEREAS, the City’s staff has certified that the property owner has signed the petition for Annexation; and

WHEREAS, the City Council hereby finds that the property described hereinafter is reasonably compact and contiguous to the corporate areas of the City of Palm Coast, Florida, and it is further determined that the annexation of said property will not result in the creation of any enclaves, and it is further determined that the property otherwise fully complies with the requirements of State law; and

WHEREAS, the City of Palm Coast, Florida, is in a position to provide municipal services to the property described herein, and the City Council of the City of Palm Coast, Florida, deems it in the best interest of the City to accept said Petition for Annexation and to annex said property; and

WHEREAS, pursuant to, and in compliance with the law, notice has been given by publication once a week for two consecutive weeks in a newspaper of general circulation notifying the public of this proposed Ordinance and of public hearings to be held at City Hall in the City of Palm Coast; and
WHEREAS, the provisions of this ordinance and the actions taken herein are consistent with the City’s Comprehensive Plan and State law; and

WHEREAS, public hearings were held pursuant to the requirements of State law and in conformity with the published notice described above at which hearings the parties in interest and all others had an opportunity to be, and were in fact, heard; and

WHEREAS, it is the City’s best interest to annex property which provides economic and other benefits to the City wherever possible.

NOW, THEREFORE, IT IS HEREBY ORDAINED BY THE CITY OF PALM COAST, FLORIDA:

SECTION 1. LEGISLATIVE AND ADMINISTRATIVE FINDINGS.

(a) The property that is the subject of this Ordinance and the Petition for Annexation is described in Section 2 of this Ordinance.

(b) The above recitals (whereas clauses) are hereby adopted as the legislative and administrative findings of the City Council of the City of Palm Coast. The City Council of the City of Palm Coast finds and determines that there is competent substantial evidence to support the findings and determinations made in this Section.

(c) The City Council of the City of Palm Coast adopts as legislative and administrative findings the fact that the land area described in Section 2 of this Ordinance (hereinafter referred to as the “Area”) is reasonably compact and contiguous to the present Corporate Limits of the City of Palm Coast, and that no part of the Area is within the boundary of another municipality or the County in any manner or configuration that would contravene the provisions of Florida law or be contrary to sound and generally accepted land use planning practices and principles. The City Council of the City of Palm Coast finds that the annexation of the Area does not create an enclave and that the Area otherwise fully meets the criteria established in Chapter 171, Florida Statutes.

(d) The City Council of the City of Palm Coast has applied the laws of the State of Florida, Chapter 171, Florida Statutes, as well as the case law analyzing, construing and applying said statutory provisions, and the legislative intent pertaining to said statutory provisions as set forth in legislative staff reports.

(e) The City Council of the City of Palm Coast finds and determines that there is competent substantial evidence to support the findings and determinations made in this Section and that no other action of the City is required to fully implement an annexation of the Area as set forth herein.

SECTION 2. ANNEXATION OF PROPERTY/AMENDMENT OF CORPORATE/CITY LIMITS. The lands described in Exhibits “A” and shown on the map in Exhibit “B”, attached hereto, (“Area”) be and they are hereby annexed to and included within the corporate limits of the City of Palm Coast, Florida.
SECTION 3. RIGHTS AND PRIVILEGES RESULTING FROM ANNEXATION/EFFECT OF ANNEXATION UPON LAND USES.

(a) Upon this Ordinance becoming effective, the property owner shall be entitled to all the rights and privileges and immunities as are from time to time granted to property owners of the City of Palm Coast, Florida, as further provided in Chapter 171, Florida Statutes, and shall further be subject to the responsibilities of ownership as may from time to time be determined by the City Council of the City of Palm Coast, Florida, and the provisions of Chapter 171, Florida Statutes.

(b) Upon annexation, the Area shall retain the zoning classification established by the Land Development Code of Flagler County, the land development approvals granted by Flagler County, and a land use designation as assigned by the Flagler County Comprehensive Plan in accordance with the provisions of Section 171.062, Florida Statutes, until otherwise changed or amended by an appropriate ordinance or by a number of ordinances as may be enacted by the City Council of the City of Palm Coast, Florida.

SECTION 4. EFFECT ON AD VALOREM TAXES. All property lying within the boundaries of the Corporate/City Limits of the City of Palm Coast, Florida, as hereby revised, shall hereafter be assessed for payment of municipal ad valorem taxes pursuant to law.

SECTION 5. EFFECT ON BUSINESSES AND OCCUPATIONS. All persons who are lawfully engaged in any occupation, business, trade or profession, within the Area upon the effective date of this Ordinance, under a valid license or permit issued by Flagler County, Florida, shall have right to continue such occupation, business, trade or profession within the corporate limits of the City of Palm Coast, as revised, upon the securing of a valid business tax receipt from the City of Palm Coast, which receipt shall be issued upon payment of the appropriate fee there, without the necessity of taking or passing any additional examination or test relating to the qualifications of such licenses.

SECTION 6. SEVERABILITY. It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of a court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance.

SECTION 7. CONFLICTS. All ordinances or parts of ordinances in conflict with this Ordinance are hereby repealed.

SECTION 8. EFFECTIVE DATE. This Ordinance shall become effective on ________________, 201__.

APPROVED on first reading the ____ day of ________ 201__.

Ordinance 2018-
Page 3 of 4
ADOPTED on second reading after due public notice and public hearing this ____ day of ________ 201__.

CITY OF PALM COAST, FLORIDA

ATTEST:

MILISSA HOLLAND, MAYOR

_____________________________________

WILLIAM E. REISCHMANN, JR., ESQ.
CITY ATTORNEY

G:\Docs\Cities\Palm Coast\Flagler County issues\Airport Commons-Drinking Water System\DRAFT\Annexation Ord.docx
City of Palm Coast, Florida

Agenda Item

Agenda Date 11/13/2018

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**Subject**
RESOLUTION 2018-XX APPROVING A WORK ORDER WITH DRMP, INC., TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR THE REPLACEMENT OF A BELLE TERRE BOULEVARD CULVERT

**Background:**
The City is replacing an aging cross-drain consisting of four (4) 48-inch corrugated metal culverts (CMP’s) under Belle Terre Boulevard just east of the driveway for Magnolia Trace Boulevard. The following paragraphs describe in more detail the scope of services that are anticipated to be performed by DRMP. Additionally, geotechnical investigation by Universal Engineering Sciences is proposed to confirm subsurface conditions in vicinity of the proposed endwalls, and to determine existing pavement and base conditions for roadway reconstruction.

Under the existing continuing services contract, staff negotiated a scope and fee not-to-exceed $36,969.10, with DRMP, Inc. Staff determined with DRMP’s recent stormwater modeling efforts and familiarity with the system, DRMP is better positioned to provide the design services more quickly and economically. Also, the cost for the design services are reasonable and fair and are consistent with these types of services for a project of this size and scope. Funds for this project have been budgeted for out of FY 2019 control structure replacement account.

**SOURCE OF FUNDS WORKSHEET FY 2019**

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<tr>
<td>Balance</td>
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**Recommended Action:**
Adopt Resolution 2018-XX approving a work order with DRMP, Inc., to provide professional engineering services for the replacement of a Belle Terre Boulevard culvert.
RESOLUTION 2018-____
BELLE TERRE BOULEVARD CULVERT

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING THE TERMS AND CONDITIONS OF WORK ORDER WITH DRMP, INC., TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR THE REPLACEMENT OF A BELLE TERRE BOULEVARD CULVERT; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE THE CONTRACT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, DRMP, INC., desires to provide professional engineering services for the replacement of a Belle Terre Boulevard culvert for the City of Palm Coast; and

WHEREAS, the City Council of the City of Palm Coast desires to issue a work order with DRMP, Inc., for the above referenced services.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, AS FOLLOWS:

SECTION 1. APPROVAL OF WORK ORDER. The City Council of the City of Palm Coast hereby approves the terms and conditions of a work order with DRMP, Inc., as attached hereto and incorporated herein by reference as Exhibit “A.”

SECTION 2. AUTHORIZATION TO EXECUTE. The City Manager, or designee, is hereby authorized to execute the work order as depicted in Exhibit “A.”

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.
SECTION 5. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 6. EFFECTIVE DATE. This Resolution shall take effect immediately upon adoption by the City Council.

DULY PASSED AND ADOPTED by the City Council of the City of Palm Coast, Florida, on this 20th day of November 2018.

CITY OF PALM COAST, FLORIDA

ATTEST: 

MILISSA HOLLAND, MAYOR

___________________________

VIRGINIA A. SMITH, CITY CLERK

Attachment: Exhibit “A” – Work Order with DRMP, Inc.

Approved as to form and legality

___________________________

William E. Reischmann, Jr., Esq.
City Attorney
**SUPPLIER INFORMATION**

<table>
<thead>
<tr>
<th>Name</th>
<th>DRMP</th>
</tr>
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<tbody>
<tr>
<td>Street</td>
<td>941 Lake Baldwin Lane</td>
</tr>
<tr>
<td>City, State, Zip</td>
<td>Orlando, Fl 32814</td>
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**BID DETAILS**

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<td>City Council Approval date</td>
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**TOTAL COST:** $36,969.10

*(must equal amount of Purchase Order)*

1. **INCORPORATION BY REFERENCE** The provisions of the agreement dated 10 23 2018
   ("Agreement") are hereby expressly incorporated by reference into and made a part of this Work Order.

2. **METHOD OF COMPENSATION** (chose one): [ ] FIXED FEE  [ ] NOT TO EXCEED*
   Fixed - Amount Proposed is set amount for services – will not change regardless of time. Not to exceed - Spend over time shall not exceed Total Cost without approved change order
   "If "NOT TO EXCEED", then TOTAL COST is (chose one):  [ ] UNIT BASED  [ ] PERCENT OF FIXED FEE__%

3. **PRICING** (chose one): [ ] ATTACHED  [ ] INCLUDED IN CONTRACT

4. **SCHEDULE** (chose one): [ ] AS NEEDED BASIS  [ ] SHALL BE COMPLETED BY 12/31/2018

5. **DESCRIPTION OF SERVICES** (chose one): [ ] ATTACHED  [ ] INCLUDED IN CONTRACT

6. **OTHER ATTACHMENTS TO THIS WORK ORDER:** [ ] No  [ ] Yes
   If yes, identify below:

7. **TIME IS OF THE ESSENCE:** The obligation of Supplier to perform services shall commence upon execution of this Work Order and shall be completed as set forth above. Time is of the essence. Failure to meet the completion date shall be a material default and may be grounds for termination of this Work Order and the Agreement.

8. **CONFLICT.** In the event of a conflict between the terms and conditions of the Agreement and this Work Order, the terms of the Agreement shall govern unless otherwise agreed to in writing by all parties. In the event of a conflict between the terms and conditions of this Work Order and any attachments, the terms of this Work Order shall govern unless otherwise agreed to in writing by all parties.

WITNESS WHEREOF, the parties hereto have made and executed this Work Order on this ____ day of __________, 20___, for the purposes stated herein.

**SUPPLIER APPROVAL**

By: [Signature]
Print: JOHN MINTON
Title: DEPT. MANAGER
Date: 10/24/18

**CITY APPROVAL**

By: _______________________
Print Name: _______________________
Title: Assistant City Manager or Designee
Date: _______________________

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This Work Order shall be incorporated in and become part of the Contract for Professional Stormwater and Environmental Engineering Services between City of Palm Coast (CITY) and DRMP, Inc. (DRMP), RFQ-SW-14-02 dated January 14, 2014 hereafter referred to as the Contract.

A. PROJECT BACKGROUND

The City is replacing an aging cross-drain consisting of four (4) 48-inch corrugated metal culverts (CMP’s) under Belle Terre Boulevard just east of the driveway for Magnolia Trace Boulevard.

The following paragraphs describe in more detail the scope of services that are anticipated to be performed by DRMP. Additionally, geotechnical investigation by Universal Engineering Sciences is proposed to confirm subsurface conditions in vicinity of the proposed endwalls, and to determine existing pavement and base conditions for roadway reconstruction. A separate proposal from Universal is included in this proposal as Exhibit D.

B. SCOPE OF WORK

1.0 Field Review

A field review will be conducted of the existing culverts to be replaced, adjacent pedestrian bridge, and the contributing area to the culverts.

2.0 Cross-Drain Analysis and Technical Memorandum

DRMP will delineate the contributing basin to the culvert crossing to be replaced based on 2017 LiDAR terrain. Land use coverage, soils coverage, and times of concentration will be developed as appropriate to analyze the contributing basin using the CN, rational, or regression method (whichever is most appropriate). Flows for various storms will be determined including the 5-year, 25-year, 50-year, 100-year, and 500-year.

The proposed concrete pipes will be analyzed and compared to the hydraulic performance of the existing CMP’s. The intent of the analysis is to confirm the proposed cross-drain will perform the intended drainage function. Note that tailwater conditions will be based on the best information available and may be estimated based on engineering judgement.

DRMP will provide a technical memorandum that documents the analysis and results with color exhibits as needed to depict the basin contributing areas and other project specifics.
3.0 Subsurface Utilities Engineering (SUE)

Please refer to separate proposal included as Exhibit C.

4.0 Utility Coordination

DRMP will compile the listing of contact information for utility companies with facilities in the area. DRMP will provide the utility contacts with construction plans for review. DRMP will coordinate with the utility companies for confirmation of the locations and types of facilities present. DRMP will coordinate with the utility contacts to work out plans as necessary to relocate or maintain the utilities in order to construct the proposed drainage facilities. Actual construction plans for the utility relocations are not included in this work.

5.0 Construction Plans

DRMP will perform final design of the project based on the topographic survey provided by the City, field geotechnical investigation, cross-drain analysis, and conditions known to exist from data collection. The construction plan set will consist of the following components with the estimated number of plan sheets in parentheses:

- Cover Sheet (1)
- Summary of Quantities/Project Directory (1)
- General Notes (1)
- Project Layout/Survey Data (1)
- Plan Sheet (1” = 40’ scale) (1) (with erosion control information)
- Profile Sheet (1)
- Miscellaneous Details (1)

Total of 7 sheets

It is anticipated that maintenance of traffic (MOT) will be handled by road closure in general notes and references to FDOT standards. An MOT plan should be provided by the Contractor. Erosion control items for construction and utility relocations (if any by others) will be shown on the plan sheets. Existing guardrail will be replaced as necessary to allow for removal and installation of pipes and endwalls. Details will be provided for connecting existing to proposed guardrail. Special notes may be included to direct the contractor about precautions for working in close proximity to the existing pedestrian bridge and abutments.

Under this task, DRMP will compile a full construction plan set (11” x 17” size) for utilization in the bidding process to procure a contractor. Construction plans will be submitted and reviewed by City personnel at the 90% and final levels of completion. DRMP will also provide estimates of construction cost with the plans submittals. DRMP will meet with City staff to discuss review comments and incorporate modifications into drawings at 90% completion.
DRMP will provide preliminary sets of the construction plans at 90% and final levels of completion to all known utilities providers for the area. DRMP will coordinate with utility owners and incorporate additional information into the project design to accommodate protection or relocation of utilities by others.

6.0 Permit Coordination

It is anticipated this project will qualify for an exemption from SJRWMD under rule 62-330.051, Section (9) or (15). This task involves the time to confirm and document a permit exemption with SJRWMD. Note that no permit or exemption fees are included in this proposal. It is also anticipated that no federal permitting with ACOE or other agencies is necessary.

Please note that based on the preliminary project limits, disturbed project area should remain under the one (1) acre threshold for needing an NPDES Construction General Permit for stormwater during construction.

7.0 Project Management and QA/QC

DRMP will attend a kick-off, progress meetings as desired by the City, and a final meeting through the course of design. Progress meetings are anticipated to occur as needed to discuss progress and resolve issues. DRMP will keep the City informed about the progress of the design with regular email, telephone calls, and monthly written progress reports.

DRMP will perform QA/QC of the design and construction plans and ensure quality deliverables to the City.

C. DELIVERABLES

DRMP will provide to the City the following deliverables:

1. Five (5) sets of Construction Plan Sets at 90% and final completion
2. Two (2) sets of Cross-Drain Analysis Technical Memorandum
3. One (1) copy of the Construction Cost Estimate at each level of completion
4. Mailed or e-mailed copy of all external correspondence related to the project

D. CITY RESPONSIBILITIES

In order to conduct the scope of work outlined above, the City will provide the following:

1. City to provide topographic survey (including utility locates) of the project area.
2. Separate payment of any permitting or exemption fees.
E. SCHEDULE

DRMP is prepared to begin work upon approval of this proposal and receipt of the survey CAD files. Anticipated duration for submittal of project documents at 90% completion is one (1) month from notice to proceed (NTP) and receipt of the complete survey CAD files. The City will provide comments from the 90% review within 10 days. Final project documents will be provided within one (1) month of receipt of the 90% review. The above-outlined schedule is based on securing a SJRWMD permit exemption for the project.

F. COMPENSATION

Compensation for this Scope of Work will be paid on a not-to-exceed basis, in the amount of $36,696.10 as detailed in Exhibit B with estimated manhours for each task and hourly rates of staff. The project will be invoiced to the City on a monthly basis based on manhours spent at the time of billing.
## Exhibit B
City of Palm Coast
Belle Terre Boulevard Culvert Replacement
Compensation Breakdown

### DRMP Salary Cost

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<th>Project Manager</th>
<th>Project Engineer</th>
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### Element and Task Descriptions

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### Total Costs by Category

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### DRMP Salary Cost

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<td>$145.00</td>
<td>$115.00</td>
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### DRMP Reimbursables

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<td>Xerox - 8.5x11 Color</td>
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<td>180</td>
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<td>estimated 6 sets</td>
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<th>Project Manager</th>
<th>Project Engineer</th>
<th>GIS Analyst</th>
<th>Administrative Support</th>
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<tbody>
<tr>
<td>Reimbursable Cost</td>
<td>$462.30</td>
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### Total Fee Computations

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<td>DRMP Salary NTE Cost</td>
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<td>Geotechnical Investigation by Universal Engineering Sciences, Inc.</td>
<td>$4,710.00</td>
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### Total Cost

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10/17/2018
September 16, 2018

John Minton Jr. PE, CFM
DRMP
941 Lake Baldwin Lane
Orlando, Florida 32814
Office: 407-896-0594
Direct: 321-663-8526

Sent via jminton@drmp.com

Subject: Subsurface Utility Engineering Services, Belle Terra Culvert Replacement, North of Magnolia Trace Boulevard, Palm Coast, Florida

Mr. Minton:

DRMP, Inc. (DRMP) is pleased to submit the following proposal for Subsurface Utility Engineering Services on the above subject project.

The following is our proposal:

PART I SUBSURFACE UTILITY TEST HOLES (VVHs)

DRMP will provide utility location vacuum test holes (VVH’s) to verify (vertical and horizontal) location of each targeted utility. This proposal assumes we will dig up to 10 VVH’s with possibly 4 being under hard surfaces pavement. The location of these VVH’s will be provided to DRMP, prior to beginning work, via a scalable drawing that shows the proposed position or a list of the holes with coordinate values with project control or both. DRMP will take detailed notes regarding the type, size, depth and ownership of the utilities, if known. This information shall be documented utilizing a subsurface utility form. All efforts will be performed in accordance with the Underground Facility Damage Prevention and Safety Act, Chapter 556, Florida Statutes. All work shall conform to CI/ASCE 38-02 utilizing quality level A and B.

PART II SURVEYING SERVICES

DRMP will provide surveying services to locate the soft dig holes. We will provide the engineer with a CAD file containing the VVH’s, including the location and elevation of each hole.

PART III COMPENSATION SUMMARY AND TERMS

The following summarizes the fees and billing terms as proposed by DRMP for the Scope of Services as presented herein. Please note billing terms for direct expenses. All additional meetings as requested by the Client will be invoiced hourly.
The fee is as follows:

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<tr>
<th>Item Description</th>
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<th>Fee</th>
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<td>PLS</td>
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<td>SUE Technician</td>
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<td>Clerical</td>
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<td>SURVEY</td>
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<td>$ 750.00</td>
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<tr>
<td>Test Holes (Soft Surface)</td>
<td>$350.00 each</td>
<td>*6</td>
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<td>Test Holes (Hard Surface)</td>
<td>$500.00 each</td>
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**Limiting Amount Total** $ 5,685.00

*Subsurface Utility VVH's quantities of are an estimate based on information provided by client. Only actual services used will be considered as billable. A minimum of five (5) Pot/Test-Holes are required to cover mobilization costs. A mobilization cost of $400.00 will be charged if the minimum of five (5) VVHs are not authorized.

Sincerely,

DRMP, Inc.

C. William Faust, III, PSM
Jacksonville Survey Manager
DRMP, Inc.
941 Lake Baldwin Lane
Orlando, FL 32814

Attention: Mr. Mr. John L. Minton Jr., P.E.

Reference: Proposal for Geotechnical Exploration
Professional Geotechnical Stormwater Engineering Services
Palm Coast, Flagler County, Florida
UES Proposal No.: 2018D-947
UES Opportunity No.: 0430.1018.00020

Dear Mr. Minton:

Universal Engineering Sciences, Inc. (UES) is pleased to submit our proposal to conduct a Geotechnical Exploration for the above-referenced property in Palm Coast, Florida. Our understanding of this project, with our proposed scope of services and costs, is presented in the following paragraphs.

PROJECT UNDERSTANDING

We understand that this project will consist of the replacement to four (4) 48-inch diameter culverts under Belle Terre Boulevard in Palm Coast, Florida. We were provided with a copy of the Conceptual Site Plan by you showing the proposed improvements. We also understand that the pipe installation will require a cut up to 7 feet deep for a temporary sheet pile wall and new concrete headwall at the project site.

Universal Engineering Sciences (UES) has been asked to perform a geotechnical exploration to evaluate the subsurface conditions on the subject for the proposed site improvements. Our proposed scope of work does not include an environmental assessment of the property.

This proposal assumes that the test boring locations will be readily accessible using a truck mounted drilling rig.

Our proposal does not include an allowance for horizontal and vertical survey control for the test boring locations. Our field crew will locate the test locations based upon estimated distances and relationships to obvious landmarks. Therefore, the test locations and depths should be considered accurate to the degree of the methodologies used.

Our scope of work has not been designed to evaluate of the deep subsurface soils with respect to the potential for sinkhole activity at the subject site. This requires a more thorough scope of work than proposed including geophysical studies (i.e. ground penetrating radar and electrical resistivity testing) and deep soil borings extending to the limestone bedrock formation. However, we will be glad to furnish you with a proposal for these services upon request.

UES will contact Sunshine State One Call (1-800-432-4770) for public utility clearance prior to the start of drilling activities. It is our experience that this service does not mark the locations of privately owned utilities. Our proposal requires that private utility lines and other subsurface appurtenances be located in the field by others prior to our mobilization. UES shall not be held responsible for service interruptions or damage to private utility lines or other buried structures. Further we have assumed that there is no hazardous materials contamination at the site and no major utility lines crossing the subject site. In the

Exhibit D
event they exist, please inform us so that we may make arrangements for taking adequate precautions and locating the utilities on the site, prior to the drilling operations.

Due to the nature of the equipment required to perform the test borings, some property disturbance should be expected. Our proposal does include limited site clean up including backfilling the boreholes with sand for safety considerations. No other restoration services (i.e. pressure washing, landscaping, repairing wheel ruts, etc.) are included in this proposal. We understand that rights of entry and access to the property will be provided to us prior to and at commencement of field activities.

Should any of the above information or assumptions made by UES be inconsistent with the planned development and construction, we request that you contact us immediately to allow us the opportunity to review the new information in conjunction with our proposal and revise or modify our scope of service and/or fee estimate accordingly, if needed.

GEOTECHNICAL SCOPE OF SERVICES

Based on our understanding of the project, the proposed scope will consist of:

- Due to accessibility constraints, lane closure will be required for drilling operations;
- Performing two (2), 25-feet deep Standard Penetration Test (SPT) borings in the proposed culvert replacement headwall; and
- Performing one (1), pavement core in the proposed roadway open cut restoration.

Standard Penetration Tests (SPT) will be performed continuously in the upper 10-feet of each boring and on 5-foot centers after that to the bottom of the borings. Each recovered soil sample will be visually classified in the field and a geologic log prepared for the soil borings. Groundwater depth and any unusual subsurface conditions will be recorded on the boring logs. Representative portions of the recovered soil samples from the borings will be sealed and packaged for transportation to our laboratory for a more detailed analysis, as required. All soil samples will be classified in general accordance with ASTM D 2487 (Standard Classification of Soils for Engineering Purposes Unified Soil Classification System) guidelines.

We have not made an allowance for surveying services or an environmental assessment of the property. However, we will be glad to furnish you with a proposal for these services upon request. Further we have assumed that there is no hazardous materials contamination at the site, that there are no major utility lines crossing the subject site and no existing septic systems in the vicinity of our borings. In the event they exist, please inform us so that we may make arrangement for taking adequate precautions and locating the utilities on the site, prior to the drilling operations.

Reporting

At the completion of the field and laboratory testing services, our project engineer will prepare a geotechnical report under the direction of a registered professional engineer who specializes in geotechnical engineering consulting. The report shall contain the following information at a minimum:

- Soil boring logs and classifications
- Existing groundwater levels and estimated seasonal high groundwater levels at the boring locations
- Recommendations for retaining wall design consisting of soil parameters.
- Recommendations for culvert installation and site preparation including excavation, and dewatering.
SCHEDULE

Based upon our current backlog at the time of this proposal, we anticipate completing the field exploration and laboratory testing program and issuing a geotechnical report within 3 to 4 weeks upon receipt of written authorization to proceed. Preliminary findings can be provided via email prior to the release of the final report upon completion of the field and laboratory testing program to expedite your civil engineering design schedule.

FEE & TERMS

Universal Engineering Sciences will complete the Geotechnical scope of work outlined within this proposal for a **LUMP SUM FEE of $4,710.00**. We will not exceed our budget unless the scope of work is varied or the soil or groundwater conditions encountered are significantly different from those anticipated, in which event you will be notified prior to any increase in costs.

Enclosed you will find our General Contract Conditions with a copy of our Work Authorization/Proposal Acceptance Form. If you would like to proceed, please sign and return an executed copy of the enclosed work authorization form to our office. We will initiate the field work upon receipt of the executed work authorization form.

CLOSURE

Universal Engineering Sciences, Inc. appreciates this opportunity to offer our services, and we are looking forward to the assignment. Please do not hesitate to contact the undersigned at 386-756-1105 if you have any questions.

Sincerely,

Universal Engineering Sciences, Inc.

Patrick Clark  
Geotechnical Project Manager

Brian C. Pohl, P.E.  
Branch Manager

pclark@universalengineering.com  
bpohl@universalengineering.com

Attachments

PC/BCP/cme

Enclosures:  
Exhibit I  
General Conditions  
Work Authorization/Proposal Acceptance Form

Distribution:  
John L. Minton Jr., P.E.
IF PROPOSAL IS ACCEPTED, SIGN BOTH FORMS, RETURN ONE FORM TO UNIVERSAL AND RETAIN ONE FOR YOUR FILES.

Universal Engineering Sciences, Inc. (UES) is pleased to provide the services described below. The purpose of this document is to describe the terms under which the services will be provided and to obtain formal authorization.

PROJECT NAME: Geotechnical Exploration – Professional Geotechnical Stormwater Engineering Services
PROJECT LOCATION: Palm Coast, Florida
CLIENT NAME: DRMP, Inc.
CLIENT ADDRESS: 941 Lake Baldwin Lane, Orlando, FL 32814
EMAIL: jminton@drmp.com

I. Scope of Services and Understanding of Project (See attached proposal or as indicated below)

UES PROPOSAL NO.: 2018D-947     UES OPPORTUNITY NO. 0430.1018.00020

Geotechnical Exploration Program $4,710.00 LUMP SUM

II. Contract Documents. The following documents form part of this Agreement and are incorporated herein by referral:

A. UES General Conditions.
B. UES Proposal Dated: October 10, 2018
C. Plans, reports, specifications and other documents provided by the Client prior to this Agreement date.
D. Other exhibits marked and described as follows:

In the event of any inconsistency or conflict among the Contract Documents, the provision in the Contract Document first listed above shall govern.

III. Authority to proceed and for payment. (To be completed by Client)

If the invoice is to be mailed for approval to someone other than the account charged, please indicate where below:

Firm: ____________________________ Social Security Number or Federal Identification No.: ____________________________
Address: __________________________
Attention: __________________________

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duty authorized representatives this __________________________ day of __________________________ 2018.

CLIENT: ____________________________ UNIVERSAL ENGINEERING SCIENCES, INC.

BY (signature): ____________________________ BY (signature): ____________________________
NAME: ____________________________ NAME: Brian C. Pohl
TITLE: ____________________________ TITLE: Branch Manager

Return Executed Copy to:
ceberhardt@universalengineering.com
Universal Engineering Sciences, Inc.
## EXHIBIT I

Fee Proposal for Geotechnical Exploration
Professional Geotechnical Stormwater Engineering Services
Palm Coast, Flagler County, Florida
UES Proposal No.: 2018D-947
UES Opportunity No.: 0430.1018.00020

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<td><strong>GEOTECHNICAL TOTAL:</strong></td>
<td></td>
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<td></td>
<td>$4,710.00</td>
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PROPOSAL NOTES:

Additional services, consultations, or meetings if requested, will be invoiced at Universal Engineering Sciences’ standard rates.

This fee proposal will remain effective for 60 days. If you should require more than 60 days to formally authorize us to proceed, we request that you permit us to update our proposal to account for any changes in costs.

We have made a good faith effort to work with you to develop a work scope and fee estimate. Because of the possibility of unknown, discovered, underground conditions and/or the need for additional services that neither you nor we can currently foresee, we recommend that you budget a contingency equal to 15% of the total fee estimate. We will not use the contingency amount without first notifying you.

The Client will be responsible for all applicable taxes.
Subject: PRESENTATION ON UNIMPROVED LOTS AND ROAD FRONTAGE ANALYSIS

Background:
This agenda item addresses the performance measure outlined below that was a part of City Council’s adopted Strategic Action Plan for FY2019.

- Investigate the viability of implementing a maintenance program for vacant lot frontages

Staff will provide Council with a presentation of their findings of the extensive research that has been done. In the presentation there is an overview of the current undeveloped lot inventory, the City’s current procedures, and obstacles.

Recommended Action:
Presentation only
City of Palm Coast, Florida
Agenda Item

Agenda Date: 11/13/2018

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**Subject**
RESOLUTION 2018-XX APPROVING THE CONTINUATION OF STOP-LOSS INSURANCE COVERAGE WITH SUNLIFE, HEALTH PLAN ADMINISTRATION SERVICES WITH BLUE CROSS BLUE SHIELD AND CHANGING ANCILLARY COVERAGE FROM SUNLIFE TO LINCOLN FINANCIAL

The City currently offers a well-rounded, self-insured benefits program to all employees. Under self-insured programs, the City pays a per-employee per-month fee for group health plan administration services and then pays for any health-insurance claims incurred. In addition to the fixed fee for plan administration services, there is a fixed monthly per-employee fee for stop-loss insurance. The City is responsible for the first $150,000 of any given claim and stop-loss coverage provides for claims payments that exceed $150,000. The program includes group health insurance, primary clinic service hours, and ancillary coverages (life insurance, long-term disability (LTD) and accidental death and dismemberment (AD&D) insurance).

The City also offers, at a cost borne completely by the employees, voluntary life (including spouse and children), short-term disability and dental. The City also provides employees the opportunity to participate supplemental insurance through AFLAC insurance. AFLAC is a voluntary benefit for which the City only facilitates the payment of premiums through payroll deduction. Based on employee feedback, the Benefits Team requested alternatives to the AFLAC. Each fall, the City receives proposals for the cost of purchasing stop-loss coverage, plan administration services, and ancillary benefits.

**Alternatives and Analysis**

**Stop Loss Coverage**
In calendar year 2018, the cost of Stop-Loss insurance through SunLife to cover claims in excess of $150,000 was approximately $372,051.00 based upon current enrollment.

The City received quotes through our broker, Brown & Brown, for Stop-Loss coverage from four providers; our current carrier SunLife and alternates from Voya, Cigna and United Healthcare. SunLife provided for an increase of 8.2% over current or $402,571. The other carriers all provided proposals with increases in excess of 8.2% (Voya – 12%, Cigna – 16% and United Healthcare – 40.2%).

**Administrative Fees**
For some time, the City has contracted with Blue Cross Blue Shield (BC/BS) to provide plan administrative services. For calendar year 2018, the cost of administering claims was $57.20 per employee per month for an approximate cost of $256,027.20. For calendar year 2019, BC/BS has offered a rate reduction to $55.20 per employee per month for an estimated cost of $247,075.20, a 3.5% rate reduction. They have also provided for a two-year rate guarantee and are making contributions to the City’s wellness program of $30,000 per year for an approximate annual cost of $217,075.20.
Alternate quotes were requested and both Cigna and United Healthcare provided quotes that would have provided a reduction in per-employee per-month costs to the City. Due to the complexities of insurance products, there are a number of unknowns that need to be considered in addition to the basic monthly fee. For example, Cigna’s network in Flagler County is emerging and does not provide the same breadth of coverage that BC/BS does. A change to Cigna may require employees to change their current providers and in the case of significant health issues, continuing care plans may need to be developed as transfers between current physicians and new, in-network providers occur.

United Healthcare also would have provided a decrease in the base administrative fees. However, United Healthcare would mandate a change to their dedicated pharmacy benefit provider which not only would reduce choice for staff but has the potential to increase plan claims expense as the City would be required to pay whatever United Healthcare deems appropriate. BCBS returns 100% of available pharmacy rebates to the City (about $60,000 per year) and the other options would keep those offsets. The recommendation will be made to remain with BCBS for these reasons as well as consumer confidence amongst employees, contribution to the wellness program and consistency of health-related data through the annual health risk assessments.

Ancillary Coverage
The City also requests proposals every year for the ancillary coverages provided to staff. Current coverages are offered through SunLife. SunLife’s proposal kept all costs current with the exception of dental coverage that carried a 6.7% increase to employees at an approximate cost of $15,229.00. The City has experienced some customer service issues with the current provider. Competitive quotes were received from Lincoln Financial and Mutual of Omaha. Both Lincoln Financial and Mutual of Omaha matched the current rates offered by SunLife for all plans paid for by the City. They both also matched the rates of voluntary life and short-term disability that are paid entirely by staff. However, Lincoln Financial has provided a 7.1% rate reduction on the dental coverage with a two-year rate guarantee and $5,000.00 in wellness funds. These savings, $16,154 over current, represents a direct savings to City employees.

Supplemental Insurance
Due to the customer service issues reported by numerous employees, we evaluated voluntary supplemental insurance coverage by both Colonial Life and Allstate. Colonial Life offers products that most closely mirror those offered by AFLAC with a reduced rates. Recommendation is being made to close AFLAC to new participants and provide Colonial Life as an alternative.

Recommended Action:
Adopt Resolution 2018-XX approving the continuation of stop-loss insurance coverage with Sunlife, health plan administration services with Blue Cross Blue Shield and changing ancillary coverage from Sunlife to Lincoln Financial.
RESOLUTION 2018 -
HEALTH INSURANCE PROGRAM

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING SUNLIFE AS THE STOP-LOSS INSURANCE PROVIDER, BLUE CROSS BLUE SHIELD AS THE PLAN ADMINISTRATOR, AND LINCOLN FINANCIAL AS THE PROVIDER FOR ANCILLARY SERVICES; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE NECESSARY DOCUMENTS; PROVIDING FOR SERVARABILITY, PROVIDING FOR CONFLICTS, PROVIDING FOR IMPLEMENTING ACTIONS, AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, SunLife, Blue Cross Blue Shield and Lincoln Financial desire to provide stop-loss coverage, administrative services and ancillary coverage (respectively) to the City of Palm Coast for its health benefits program; and

WHEREAS, the City Council of the City of Palm Coast desires to have SunLife, Blue Cross Blue Shield and Lincoln Financial provide the above referenced services for the City’s health benefits program.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA AS FOLLOWS:

SECTION 1. APPROVAL OF INSURANCE CARRIERS. That the City Council hereby approves SunLife, Blue Cross Blue Shield and Lincoln Financial to provide stop-loss coverage, benefits administration services and ancillary benefits coverage to the City of Palm Coast for its health benefits program.

SECTION 2. AUTHORIZATION TO EXECUTE. That the City Manager, or designee, is hereby authorized to execute the necessary documents.

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

SECTION 5. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.
SECTION 6. EFFECTIVE DATE. This Resolution shall become effective immediately after its adoption.

PASSED and ADOPTED at the meeting of the City Council of the City of Palm Coast on the 20th day of November 2018.

CITY OF PALM COAST, FLORIDA

ATTEST:  

________________________________________  MILISSA HOLLAND, MAYOR

________________________________________  VIRGINIA SMITH, CITY CLERK

Approved as to form and legality

________________________________________  William E. Reischmann, Jr., Esq.
City Attorney
### City of Palm Coast, Florida

**Agenda Item**

**Agenda Date:** 11/13/2018

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**Subject:** RESOLUTION 2018-XX APPROVING THE FLAGLER COUNTY ASSOCIATION OF REALTORS HOME FOR THE HOLIDAYS EVENT

**Background:**
The Flagler County Association of Realtors is seeking a partnership with the City for their Home for Holidays event to enhance and promote growth our community. The Home for the Holidays event is targeting a usually slower time for home sales and, through a coordinated marketing effort, hopes to increase exposure to potential buyers looking to relocate to Palm Coast.

**Recommended Action:**
Adopt Resolution 2018-XX approving the Flagler County Association of Realtors Home for the Holidays Event.
RESOLUTION 2018-____
FLAGLER COUNTY ASSOCIATION OF REALTORS
HOME FOR THE HOLIDAYS EVENT

A RESOLUTION OF THE CITY COUNCIL OF THE CITY
OF PALM COAST, FLORIDA, RELATING TO THE
FLAGLER COUNTY ASSOCIATION OF REALTORS
HOME FOR THE HOLIDAYS EVENT; PROVIDING
POLICY DIRECTION; PROVIDING FOR SEVERABILITY;
PROVIDING FOR CONFLICTS; PROVIDING FOR
IMPLEMENTING ACTIONS AND PROVIDING FOR AN
EFFECTIVE DATE.

WHEREAS, the Flagler County Association of Realtors is seeking a partnership between
the public, the City of Palm Coast (the “City”) for their Home for Holidays event, which seeks to
enhance and promote growth within Flagler County; and

WHEREAS, the Flagler County Association of Realtor’s Home for the Holidays event is
tasked with creating an atmosphere for residential growth, through economic expansion reflecting
the high quality of life in the City, by encouraging the promotion, retention, and expansion of
industry and business by bringing attention to housing opportunities, as well as actively and
aggressively attracting new business and jobs to the City and the County; and

WHEREAS, the City is a principal partner and supporter in the Flagler County
Association of Realtors Home for the Holidays event; and

WHEREAS, the City recognizes that economic development success is a major key to
maintaining the health of a growing community which is capable of continuing to prosper over
time; and

WHEREAS, the City recognizes that the Flagler County Association of Realtors Home
for the Holidays event provides an opportunity for economic development to the City due to
marketing efforts of the Flagler County Association of Realtors members to market our area, its
quality of life, and housing opportunities to possible buyers all over the nation and world; and

WHEREAS, the City desires to participate with Flagler County Association of Realtors
Home for the Holidays event to help more people “Find their Florida” in Palm Coast.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE
CITY OF PALM COAST, FLAGLER COUNTY, FLORIDA, THAT:

Resolution 2018-_____
SECTION 1. PARTNERSHIP RESPONSIBILITIES FOR THE CITY.

(a) The City Council of the City of Palm Coast hereby provides for the following policy direction to the City Manager:

1. Dates and pertinent information relating to the Home for the Holidays event shall be published in the “Palm Coaster” Newsletter.
2. Staff shall assist the Flagler County Association of Realtors relating to signage and permitting for the Home for the Holidays event.
3. Announcements relating to the Home for the Holidays event shall be placed on the City website.
4. The City will allow use of six (6) utility poles, subject to availability and designated by City staff, on Palm Coast Parkway, for the hanging of banner signs provided by the Flagler County Association of Realtors Home for the Holidays event, as a City sponsored event, for a period not to exceed 30 days.
5. The Home for the Holidays event shall be allowed to use the City of Palm Coast logo(s) on the above-noted advertisements, signs and/or banners.

(b) The Flagler County Association of Realtors will:

1. Place the City of Palm Coast logo marketing materials for the Home for the Holidays event.
2. Indicate that the City of Palm Coast is a “partner” for the Home for the Holidays event in marketing materials.
3. Place the City of Palm Coast logo on all Home for the Holidays event signage.

(c) The City Council of the City of Palm Coast hereby authorizes the City Manager to enter, as needed, into agreements to facilitate the above referenced annual events.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

SECTION 4. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.
SECTION 5. EFFECTIVE DATE. This Resolution shall take effect immediately upon adoption by the City Council.

DULY PASSED and approved by the City Council of the City of Palm Coast, Florida, on this 20th day of November 2018.

ATTEST: 

CITY OF PALM COAST, FLORIDA

_____________________________ ________________________________
Virginia A. Smith, City Clerk Milissa Holland, Mayor

Approved as to form and legality:

______________________________
William E. Reischmann, Jr., Esq.
City of Palm Coast, Florida
Agenda Item

Agenda Date: 11/13/2018

<table>
<thead>
<tr>
<th>Department</th>
<th>Information Technology</th>
<th>Amount</th>
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<tr>
<td>Item Key</td>
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<td>Account</td>
<td>#65052525-051020</td>
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<tr>
<td>Subject</td>
<td>RESOLUTION 2018-XX APPROVING A CONTRACT WITH ESRI TO PURCHASE GIS LICENSING SOFTWARE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Background:
GIS is responsible for mapping the City of Palm Coast utilizing advanced, geographical data software. The software visually represents complex information in the form of shapes and symbols. Embedded in these shapes and symbols is information that can be viewed as maps, as well as extracted in the form of a word document or graphical chart. From the map itself you can view a district, a zone, a parcel, and an individual plat. All of which can be printed in the form of a drawing along with documentation of legal descriptions, restrictions, ownership etc. The City of Palm Coast has maintained a GIS division since 2004.

The City currently utilizes the ESRI software, a sole source provider. ESRI has been the industry standard for GIS for most governments, including the State of Florida since well before 2004. ESRI, as an owner and manufacturer, provides software maintenance (technical support plus ESRI software updates/upgrades) for ESRI products.

This contract is to provide GIS license software on an unlimited basis including maintenance on all software offered through the EA for the term of the agreement. The contract with the vendor is for a period of 3 years, an expected contract value of $150,000 with expected annual costs of $50,000.

Recommended Action:
Adopt Resolution 2018-XX approving a contract with ESRI to purchase GIS licensing software.
RESOLUTION 2018 -____
ESRI
GIS LICENSING SOFTWARE

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING THE TERMS AND CONDITIONS OF A CONTRACT WITH ESRI, FOR THE PURCHASE OF GIS LICENSING SOFTWARE; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE THE CONTRACT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, ESRI, desires to provide GIS license software for the City of Palm Coast; and

WHEREAS, the City Council of the City of Palm Coast desires to contract with GIS, for the above referenced services.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, AS FOLLOWS:

SECTION 1. APPROVAL OF CONTRACT. The City Council of the City of Palm Coast hereby approves the terms and conditions of the contract with ESRI for GIS software licensing, as attached hereto and incorporated herein by reference as Exhibit “A.”

SECTION 2. AUTHORIZATION TO EXECUTE. The City Manager, or designee, is hereby authorized to execute the contract as depicted in Exhibit “A.”

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.
SECTION 5. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 6. EFFECTIVE DATE. This Resolution shall take effect immediately upon adoption by the City Council.

DULY PASSED AND ADOPTED by the City Council of the City of Palm Coast, Florida, on this 20th day of November 2018.

CITY OF PALM COAST, FLORIDA

ATTEST: MELISSA HOLLAND, MAYOR

VIRGINIA A. SMITH, CITY CLERK

Attachment: Exhibit “A” – ESRI Contact.

Approved as to form and legality

William E. Reischmann, Jr., Esq.
City Attorney
October 4, 2018

Ms. Cathleen Almberg  
City of Palm Coast  
160 Lake Ave Ste 237  
Palm Coast, FL 32164-2417

Dear Cathleen,

The Esri Small Municipal and County Government Enterprise Agreement (EA) is a three-year agreement that will grant your organization access to Esri® term license software on an unlimited basis including maintenance on all software offered through the EA for the term of the agreement. The EA will be effective on the date executed and will require a firm, three-year commitment.

Based on Esri’s work with several organizations similar to yours, we know there is significant potential to apply geographic information system (GIS) technology in many operational and technical areas within your organization. For this reason, we believe that your organization will greatly benefit from an enterprise agreement.

An EA will provide your organization with numerous benefits including:

- A lower cost per unit for licensed software
- Substantially reduced administrative and procurement expenses
- Maintenance on all Esri software deployed under this agreement
- Complete flexibility to deploy software products when and where needed

The following business terms and conditions will apply:

- All current departments, employees, and in-house contractors of the organization will be eligible to use the software and services included in the EA.

- If your organization wishes to acquire and/or maintain any Esri software during the term of the agreement that is not included in the EA, it may do so separately at the Esri pricing that is generally available for your organization for software and maintenance.

- The organization will establish a single point of contact for orders and deliveries and will be responsible for redistribution to eligible users.

- The organization will establish a Tier 1 support center to field calls from internal users of Esri software. The organization may designate individuals as specified in the EA who may directly contact Esri for Tier 2 technical support.
The organization will provide an annual report of installed Esri software to Esri.

Esri software and updates that the organization is licensed to use will be automatically available for downloading.

The fee and benefits offered in this EA proposal are contingent upon your acceptance of Esri’s Small Municipal and County Government EA terms and conditions.

Licenses are valid for the term of the EA.

This program offer is valid for 90 days. To complete the agreement within this time frame, please contact me within the next seven days to work through any questions or concerns you may have. To expedite your acceptance of this EA offer:

1. Sign and return the EA contract with a Purchase Order or issue a Purchase Order that references this EA Quotation and includes the following statement on the face of the Purchase Order: "THIS PURCHASE ORDER IS GOVERNED BY THE TERMS AND CONDITIONS OF THE ESRI SMALL MUNICIPAL AND COUNTY GOVERNMENT EA, AND ADDITIONAL TERMS AND CONDITIONS IN THIS PURCHASE ORDER WILL NOT APPLY." Have it signed by an authorized representative of the organization.

2. On the first page of the EA, identify the central point of contact/agreement administrator. The agreement administrator is the party that will be the contact for management of the software, administration issues, and general operations. Information should include name, title (if applicable), address, phone number, and e-mail address.

3. In the purchase order, identify the "Ship to" and "Bill to" information for your organization.

4. Send the purchase order and agreement to the address, email or fax noted below:

   Esri
   e-mail: service@esri.com
   Attn: Customer Service SG-EA
   documents to: 909-307-3083
   380 New York Street
   Redlands, CA 92373-8100
   fax: 909-307-3083

I appreciate the opportunity to present you with this proposal, and I believe it will bring great benefits to your organization.

Thank you very much for your consideration.

Best Regards,

Robyn Garrett
r гарrett@esri.com
704-541-9810 *1-8640
## Quotation # 20538040

**Date:** October 4, 2018  
**Customer #:** 277477  
**Contract #:** 336719

City of Palm Coast  
IT & Comm Dept  
160 Lake Ave Ste 237  
Palm Coast, FL 32164-2417

**ATTENTION:** Cathleen Alimberg  
**PHONE:** (386) 986-3741  
**FAX:**

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<tr>
<th>Material</th>
<th>Qty</th>
<th>Description</th>
<th>Unit Price</th>
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| 110037   | 1   | Populations of 50,001 to 100,000 Small Government Term Enterprise License Agreement  
First year payment                                                                 | 50,000.00  | 50,000.00 |

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<th></th>
<th>50,000.00</th>
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<tbody>
<tr>
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<td></td>
<td><strong>50,000.00</strong></td>
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<tr>
<td><strong>Sales Tax:</strong></td>
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<tr>
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<td><strong>Total:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$50,000.00</strong></td>
</tr>
</tbody>
</table>

This is a three year contract for the total of $150,000. The first year payment of $50,000 is due on receipt of the signed contract with the following years being billed annually.

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Esri may charge a fee to cover expenses related to any customer requirement to use a proprietary vendor management, procurement, or invoice program.

<table>
<thead>
<tr>
<th>For questions contact:</th>
<th>Email:</th>
<th>Phone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robyn Garrett</td>
<td><a href="mailto:rgarrett@esri.com">rgarrett@esri.com</a></td>
<td>(704) 541-9810 x8640</td>
</tr>
</tbody>
</table>

The items on this quotation are subject to and governed by the terms of this quotation, the most current product specific scope of use document found at [http://www.esri.com/~/media/Files/Pdfs/legal/pdfs/e300.pdf](http://www.esri.com/~/media/Files/Pdfs/legal/pdfs/e300.pdf), and your applicable signed agreement with Esri. If no such agreement covers any item quoted, then Esri’s standard terms and conditions found at [http://www.esri.com/~/media/Files/Pdfs/legal/pdfs/ma-full/ma-full.pdf](http://www.esri.com/~/media/Files/Pdfs/legal/pdfs/ma-full/ma-full.pdf) apply to your purchase of that item. Federal government entities and government prime contractors authorized under FAR 51.1 may purchase under the terms of Esri’s GSA Federal Supply Schedule. Supplemental terms and conditions found at [http://www.esri.com/legal/supplemental-terms-and-conditions](http://www.esri.com/legal/supplemental-terms-and-conditions) apply to some state and local government purchases. All terms of this quotation will be incorporated into and become part of any additional agreement regarding Esri’s offerings. Acceptance of this quotation is limited to the terms of this quotation. Esri objects to and expressly rejects any different or additional terms contained in any purchase order, offer, or confirmation sent to or to be sent by buyer. The quotation information is confidential and may not be copied or released other than for the express purpose of system selection and purchase/license. The information may not be given to outside parties or used for any other purpose without consent from Esri. Delivery is FOB Origin.

**If sending remittance, please address to:** Esri, P.O. Box 741076, Los Angeles, CA 90074-1076

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GARRETT

This offer is limited to the terms and conditions incorporated and attached herein.
SMALL ENTERPRISE AGREEMENT
COUNTRY AND MUNICIPALITY GOVERNMENT
(E214-3)

This Agreement is by and between the organization identified in the Quotation ("Customer") and Environmental Systems Research Institute, Inc. ("Esri").

This Agreement sets forth the terms for Customer’s use of Products and incorporates by reference (i) the Quotation and (ii) the Master Agreement. Should there be any conflict between the terms and conditions of the documents that comprise this Agreement, the order of precedence for the documents shall be as follows: (i) the Quotation, (ii) this Agreement, and (iii) the Master Agreement. This Agreement shall be governed by and construed in accordance with the laws of the state in which Customer is located without reference to conflict of laws principles, and the United States of America federal law shall govern in matters of intellectual property. The modifications and additional rights granted in this Agreement apply only to the Products listed in Table A.

Table A
List of Products

<table>
<thead>
<tr>
<th>Uncapped Quantities</th>
<th>Developer Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeskTop Software and Extensions (Single Use)</td>
<td>ArcGIS Engine</td>
</tr>
<tr>
<td>ArcGIS Desktop Advanced</td>
<td>ArcGIS Engine Extensions: ArcGIS 3D Analyst,</td>
</tr>
<tr>
<td>ArcGIS Desktop Standard</td>
<td>ArcGIS Spatial Analyst, ArcGIS Engine Geodatabase</td>
</tr>
<tr>
<td>ArcGIS Desktop Basic</td>
<td>Update, ArcGIS Network Analyst, ArcGIS Schematics</td>
</tr>
<tr>
<td>ArcGIS Desktop Extensions: ArcGIS 3D Analyst,</td>
<td>ArcGIS Runtime (Standard)</td>
</tr>
<tr>
<td>ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst, ArcGIS Publisher, ArcGIS Network Analyst, ArcGIS Schematics, ArcGIS Workflow Manager</td>
<td>ArcGIS Runtime Analysis Extension</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limited Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) Professional subscription to ArcGIS Developer*</td>
</tr>
<tr>
<td>Two (2) ArcGIS CityEngine Advanced Single Use Licenses</td>
</tr>
<tr>
<td>250 Level 1 ArcGIS Online Named Users</td>
</tr>
<tr>
<td>250 Level 2 ArcGIS Online Named Users</td>
</tr>
<tr>
<td>37,500 ArcGIS Online Service Credits</td>
</tr>
<tr>
<td>250 Level 2 ArcGIS Enterprise Named Users</td>
</tr>
<tr>
<td>5 Insights for ArcGIS for use with ArcGIS Enterprise</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enterprise Software and Extensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ArcGIS Enterprise and Workgroup (Advanced and Standard)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enterprise Optional Servers</th>
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</thead>
<tbody>
<tr>
<td>ArcGIS Image Server</td>
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</table>

OTHER BENEFITS

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>Number of Esri User Conference registrations provided annually</td>
<td>4</td>
</tr>
<tr>
<td>Number of Tier 1 Help Desk individuals authorized to call Esri</td>
<td>4</td>
</tr>
<tr>
<td>Maximum number of sets of backup media, if requested**</td>
<td>2</td>
</tr>
<tr>
<td>Self-Paced e-Learning</td>
<td>Uncapped</td>
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</table>

*Five percent (5%) discount on all individual commercially available instructor-led training classes at Esri facilities purchased outside this Agreement (Discount does not apply to Small Enterprise Training Package)
Customer may accept this Agreement by signing and returning the whole Agreement with a signed sales quotation, purchase order, or other document that matches the Quotation and references this Agreement ("Ordering Document"). **ADDITIONAL OR CONFLICTING TERMS IN CUSTOMER'S ORDERING DOCUMENT WILL NOT APPLY, AND THE TERMS OF THIS AGREEMENT WILL GOVERN.** This Agreement is effective as of the date of Esri's receipt of Customer's Ordering Document incorporating this Agreement by reference, unless otherwise agreed to by the parties ("Effective Date").

**Term of Agreement: Three (3) years**

This Agreement supersedes any previous agreements, proposals, presentations, understandings, and arrangements between the parties relating to the licensing of the Products. Except as provided in Article 4—Product Updates, no modifications can be made to this Agreement.

Accepted and Agreed:

______________________________
(Customer)

By: ____________________________
Authorized Signature

Printed Name: ____________________________

Title: ____________________________

Date: ____________________________

______________________________
(Esri)

By: ____________________________
Authorized Signature

Printed Name: Timothy Brazeal
Manager, Commercial & Government Contracts

Title: ____________________________

Date: 11/5/2018

**CUSTOMER CONTACT INFORMATION**

Contact: ____________________________

Address: ____________________________

City, State, Postal Code: ____________________________

Country: ____________________________

Quotation Number (if applicable): ____________________________

Telephone: ____________________________

Fax: ____________________________

E-mail: ____________________________
1.0—ADDITIONAL DEFINITIONS

In addition to the definitions provided in the Master Agreement, the following definitions apply to this Agreement:

"Case" means a failure of the Software or Online Services to operate according to the Documentation where such failure substantially impacts operational or functional performance.

"Deploy", "Deployed" and "Deployment" mean to redistribute and install the Products and related Authorization Codes within Customer's organization(s).

"Fee" means the fee set forth in the Quotation.

"Maintenance" means Tier 2 Support, Product updates, and Product patches provided to Customer during the Term of Agreement.

"Master Agreement" means the applicable master agreement for Esri Products incorporated by this reference that is (i) found at http://www.esri.com/legal/software-license and available in the installation process requiring acceptance by electronic acknowledgment or (ii) a signed Esri master agreement or license agreement that supersedes such electronically acknowledged master agreement.

"Product(s)" means the products identified in Table A—List of Products and any updates to the list Esri provides in writing.

"Quotation" means the offer letter and quotation provided separately to Customer.

"Technical Support" means the technical assistance for attempting resolution of a reported Case through error correction, patches, hot fixes, workarounds, replacement deliveries, or any other type of Product corrections or modifications.

"Tier 1 Help Desk" means Customer's point of contact(s) to provide all Tier 1 Support within Customer's organization(s).

"Tier 1 Support" means the Technical Support provided by the Tier 1 Help Desk.

"Tier 2 Support" means the Esri Technical Support provided to the Tier 1 Help Desk when a Case cannot be resolved through Tier 1 Support.

2.0—ADDITIONAL GRANT OF LICENSE

2.1 Grant of License. Subject to the terms and conditions of this Agreement, Esri grants to Customer a personal, nonexclusive, nontransferable license solely to use, copy, and Deploy quantities of the Products listed in Table A—List of Products for the Term of Agreement (i) for the applicable Fee and (ii) in accordance with the Master Agreement.

2.2 Consultant Access. Esri grants Customer the right to permit Customer's consultants or contractors to use the Products exclusively for Customer's benefit. Customer will be solely responsible for compliance by consultants and contractors with this Agreement and will ensure that the consultant or contractor discontinues use of Products upon completion of work for Customer. Access to or use of Products by consultants or contractors not exclusively for Customer's benefit is prohibited. Customer may not permit its consultants or contractors to install Software or Data on consultant, contractor, or third-party computers or remove Software or Data from Customer locations, except for the purpose of hosting the Software or Data on Contractor servers for the benefit of Customer.

3.0—TERM, TERMINATION, AND EXPIRATION

3.1 Term. This Agreement and all licenses hereunder will commence on the Effective Date and continue for the duration identified in the Term of Agreement, unless this Agreement is terminated earlier as provided herein. Customer is only authorized to use Products during the Term of Agreement. For an Agreement with a limited term, Esri does not grant Customer an indefinite or a perpetual license to Products.

3.2 No Use upon Agreement Expiration or Termination. All Product licenses, all Maintenance, and Esri User Conference registrations terminate upon expiration or termination of this Agreement.

3.3 Termination for a Material Breach. Either party may terminate this Agreement for a material breach by the other party. The breaching party will have thirty (30) days from the date of written notice to cure any material breach.

3.4 Termination for Lack of Funds. For an Agreement with government or government-owned entities, either party may terminate this Agreement before any subsequent year if
Customer is unable to secure funding through the legislative or governing body’s approval process.

3.5 Follow-on Term. If the parties enter into another agreement substantially similar to this Agreement for an additional term, the effective date of the follow-on agreement will be the day after the expiration date of this Agreement.

4.0—PRODUCT UPDATES

4.1 Future Updates. Esri reserves the right to update the list of Products in Table A—List of Products by providing written notice to Customer. Customer may continue to use all Products that have been Deployed, but support and upgrades for deleted items may not be available. As new Products are incorporated into the standard program, they will be offered to Customer via written notice for incorporation into the Products schedule at no additional charge. Customer’s use of new or updated Products requires Customer to adhere to applicable additional or revised terms and conditions in the Master Agreement.

4.2 Product Life Cycle. During the Term of Agreement, some Products may be retired or may no longer be available to Deploy in the identified quantities. Maintenance will be subject to the individual Product Life Cycle Support Status and Product Life Cycle Support Policy, which can be found at http://support.esri.com/en/content/productlifecycles. Updates for Products in the mature and retired phases may not be available. Customer may continue to use Products already Deployed, but Customer will not be able to Deploy retired Products.

5.0—MAINTENANCE

The Fee includes standard maintenance benefits during the Term of Agreement as specified in the most current applicable Esri Maintenance and Support Program document (found at http://www.esri.com/legal). At Esri’s sole discretion, Esri may make patches, hot fixes, or updates available for download. No Software other than the defined Products will receive Maintenance. Customer may acquire maintenance for other Software outside this Agreement.

a. Tier 1 Support

1. Customer will provide Tier 1 Support through the Tier 1 Help Desk to all Customer’s authorized users.

2. The Tier 1 Help Desk will be fully trained in the Products.

3. At a minimum, Tier 1 Support will include those activities that assist the user in resolving how-to and operational questions as well as questions on installation and troubleshooting procedures.

4. The Tier 1 Help Desk will be the initial point of contact for all questions and reporting of a Case. The Tier 1 Help Desk will obtain a full description of each reported Case and the system configuration from the user. This may include obtaining any customizations, code samples, or data involved in the Case.

5. If the Tier 1 Help Desk cannot resolve the Case, an authorized Tier 1 Help Desk individual may contact Tier 2 Support. The Tier 1 Help Desk will provide support in such a way as to minimize repeat calls and make solutions to problems available to Customer’s organization.

6. Tier 1 Help Desk individuals are the only individuals authorized to contact Tier 2 Support. Customer may change the Tier 1 Help Desk individuals by written notice to Esri.

b. Tier 2 Support

1. Tier 2 Support will log the calls received from Tier 1 Help Desk.

2. Tier 2 Support will review all information collected by and received from the Tier 1 Help Desk including preliminary documented troubleshooting provided by the Tier 1 Help Desk when Tier 2 Support is required.

3. Tier 2 Support may request that Tier 1 Help Desk individuals provide verification of information, additional information, or answers to additional questions to supplement any preliminary information gathering or troubleshooting performed by Tier 1 Help Desk.

4. Tier 2 Support will attempt to resolve the Case submitted by Tier 1 Help Desk.
5. When the Case is resolved, Tier 2 Support will communicate the information to Tier 1 Help Desk, and Tier 1 Help Desk will disseminate the resolution to the user(s).

6.0—ENDORSEMENT AND PUBLICITY

This Agreement will not be construed or interpreted as an exclusive dealings agreement or Customer's endorsement of Products. Either party may publicize the existence of this Agreement.

7.0—ADMINISTRATIVE REQUIREMENTS

7.1 OEM Licenses. Under Esri's OEM or Solution OEM programs, OEM partners are authorized to embed or bundle portions of Esri products and services with their application or service. OEM partners' business model, licensing terms and conditions, and pricing are independent of this Agreement. Customer will not seek any discount from the OEM partner or Esri based on the availability of Products under this Agreement. Customer will not decouple Esri products or services from the OEM partners' application or service.

7.2 Annual Report of Deployments. At each anniversary date and ninety (90) calendar days prior to the expiration of this Agreement, Customer will provide Esri with a written report detailing all Deployments. Upon request, Customer will provide records sufficient to verify the accuracy of the annual report.

8.0—ORDERING, ADMINISTRATIVE PROCEDURES, DELIVERY, AND DEPLOYMENT

8.1 Orders, Delivery, and Deployment

a. Upon the Effective Date, Esri will invoice Customer and provide Authorization Codes to activate the nondestructive copy protection program that enables Customer to download, operate, or allow access to the Products. If this is a multi-year Agreement, Esri may invoice the Fee before the annual anniversary date for each year.

b. Undisputed invoices will be due and payable within thirty (30) calendar days from the date of invoice. Esri's federal ID number is 95-2775-732.

c. If requested, Esri will ship backup media to the ship-to address identified on the Ordering Document, FOB Destination, with shipping charges prepaid. Customer acknowledges that should sales or use taxes become due as a result of any shipments of tangible media, Esri has a right to invoice and Customer will pay any such sales or use tax associated with the receipt of tangible media.

8.2 Order Requirements. Esri does not require Customer to issue a purchase order. Customer may submit a purchase order in accordance with its own process requirements, provided that if Customer issues a purchase order, Customer will submit its initial purchase order on the Effective Date. If this is a multi-year Agreement, Customer will submit subsequent purchase orders to Esri at least thirty (30) calendar days before the annual anniversary date for each year.

a. All orders pertaining to this Agreement will be processed through Customer's centralized point of contact.

b. The following information will be included in each Ordering Document:

(1) Customer name; Esri customer number, if known; and bill-to and ship-to addresses
(2) Order number
(3) Applicable annual payment due

9.0—MERGERS, ACQUISITIONS, OR DIVERSTITURES

If Customer is a commercial entity, Customer will notify Esri in writing in the event of (i) a consolidation, merger, or reorganization of Customer with or into another corporation or entity; (ii) Customer's acquisition of another entity; or (iii) a transfer or sale of all or part of Customer's organization (subsections i, ii, and iii, collectively referred to as "Ownership Change"). There will be no decrease in Fee as a result of any Ownership Change.

9.1 If an Ownership Change increases the cumulative program count beyond the maximum level for this Agreement, Esri reserves the right to increase the Fee or terminate this Agreement and the parties will negotiate a new agreement.

9.2 If an Ownership Change results in transfer or sale of a portion of Customer's organization, that portion of Customer's organization will transfer the Products to Customer or uninstall, remove, and destroy all copies of the Products.
9.3 This Agreement may not be assigned to a successor entity as a result of an Ownership Change unless approved by Esri in writing in advance. If the assignment to the new entity is not approved, Customer will require any successor entity to uninstall, remove, and destroy the Products. This Agreement will terminate upon such Ownership Change.
Addendum A – City of Palm Coast, Florida SGEA

8.0 – Ordering, Administrative, Procedures, Delivery, and Deployment
8.1 Orders, Delivery, and Deployment
b. Undisputed invoices will be due and payable in accordance with the Florida Prompt Payment Act Florida Statue § 218.70. Esri’s federal ID number is 95-2775-732.

9.4 PUBLIC RECORDS

Pursuant to Florida Statutes §119.0701, to the extent ESRI is performing services on behalf of City, ESRI shall:
A. Keep and maintain public records required by City to perform the service;
B. Upon request from City’s custodian of public records, provide City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes 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 for the duration of the EA Term and following completion of the EA if ESRI does not transfer the records to City; and
D. Upon completion of the EA, transfer, at no cost, to City all public records in possession of ESRI or keep and maintain public records required by City to perform the service. If ESRI transfers all public records to City upon completion of the EA, ESRI shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If ESRI keeps and maintains public records upon completion of the EA, ESRI shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to City, upon request from City’s custodian of public records, in a format that is compatible with the information technology systems of County.

IF ESRI HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO COUNTY’S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS EA, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, ATTN: VIRGINIA SMITH, CITY CLERK, AT 386-986-3713, vsmith@palmcoastgov.com, 160 LAKE AVENUE, PALM COAST, FLORIDA 32164.

9.5 NO IMPLIED WAIVERS

Nothing herein shall be interpreted as a waiver of City’s rights, including the limitations of the waiver of immunity, as set forth in Florida Statutes § 768.28, or any other statutes, and City expressly reserves these rights to the full extent allowed by law.

Accepted and Agreed:

CITY OF PALM COAST, FLORIDA

(Customer)

By: __________________________
Authorized Signature

Printed Name: __________________________
Title: __________________________
Date: __________________________

ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE, INC.

(Esri)

By: __________________________
Authorized Signature

Printed Name: __________________________
Title: Manager, Commercial & Government Contracts
Date: __________________________

177
City of Palm Coast, Florida
Agenda Item

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**Subject**  
RESOLUTION 2018 – XX APPROVING CONTRACT WITH BRINKS FOR ARMORED CAR CASH TRANSPORT SERVICES

**Background:**  
The City has a need to securely transport cash received from various locations throughout the City. Staff solicited quotes from vendors. Brinks was the only vendor able to provide the services needed in our area.

This contract is to provide armored car cash transport services at different locations within the City. The contract with the vendor is for a period of 3 years, an expected contract value of $45,000 with expected annual costs of $15,000. These funds are budgeted for FY 2018-2019.

The contract start date will be modified based on the final date of execution of the contract.

**Recommended Action:**  
RESOLUTION 2018 -____
ARMORED CAR CASH TRANSPORT SERVICES
BRINKS

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING A CONTRACT WITH BRINKS, FOR SERVICES RELATED TO ARMORED CAR CASH TRANSPORT SERVICES; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE THE CONTRACT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, Brinks, desires to provide armored car cash transport services for the City of Palm Coast; and

WHEREAS, the City Council of the City of Palm Coast desires to obtain the above referenced services;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, AS FOLLOWS:

SECTION 1. APPROVAL OF CONTRACT. The City Council of the City of Palm Coast hereby approves the terms and conditions of the contract with Brinks, as attached hereto and incorporated herein by reference as Exhibit “A”

SECTION 2. AUTHORIZATION TO EXECUTE. The City Manager, or designee, is hereby authorized to execute the contract as depicted in Exhibit “A”

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.
SECTION 5. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 6. EFFECTIVE DATE. This Resolution shall take effect immediately upon adoption by the City Council.

DULY PASSED AND ADOPTED by the City Council of the City of Palm Coast, Florida, on this 20th day of November 2018.

CITY OF PALM COAST, FLORIDA

ATTEST: 

MILISSA HOLLAND, MAYOR

________________________

VIRGINIA A. SMITH, CITY CLERK

Attachment: Exhibit “A” – Brinks contract

Approved as to form and legality

________________________

William E. Reischmann, Jr., Esq.
City Attorney
This SERVICES AGREEMENT (together with Attachment(s), the "Agreement") is made by and between Brink's U.S., a Division of Brink's, Incorporated ("Brink's"), a Delaware corporation with offices located at 555 Dividend Drive, Suite 100, Coppell, TX 75019, and CITY OF PALM COAST ("Customer") with offices located at 160 LAKE AVENUE, PALM COAST, FL-32164 is entered into this 17 day of Oct, 2018.

I. DEFINITIONS

1. "Attachment(s)") means any rider, schedule, exhibit, amendment or other addendum incorporated into this Agreement.

2. "Brink's Days" means Mondays through Fridays (and all holidays observed by the Facility performing Services hereunder).

3. "Delivery Location" means the location designated by Customer as the place where Brink's is to deliver Shipments.

4. "Delivery Window" means that time period during which the Property is to be transported by Brink's, as determined by Customer, which has been closed and fastened with a device or method of sealing having a distinguishing mark that can be clearly seen and recognized as a unique identification number or special mark that is attached to the container so that the Property is firmly enclosed, and the device or method of sealing cannot be removed and resealed to the container shall be removable by external evidence of tampering on the container.

5. "Frangible Property" means any breakable item, including without limitation, decorative pieces, works of art, and jewelry.

6. "Loss" means any loss of, damage, theft or destruction to Property.

7. "Maximally Liability Amount" is means the total liability assumed by Brink's for a Loss of all or part of a shipment, as specified in the Attachment(s).

8. "Pick-Up Location" means the location designated by Customer in an Attachment as the place where Brink's is to receive Shipments.

9. "Property" means currency, coin, checks, securities, other financial instruments, and other valuables agreed to be transported by Brink's.

10. "Rates" means the charges for Services as listed in the Attachment(s).

11. "Services" means armored transportation and related services to be provided to Customer as described in Section II below.

12. "Shipments" means more or more sealed containers of Property received by Brink's at the same time at a single Pick-Up Location, which are to be delivered to a single Delivery Location.

II. BRINK'S RESPONSIBILITIES

1. Brink's shall: (a) arrive at the Pick-Up Locations to request Shipments; (b) sign a receipt for Shipments received by Brink's; and (c) deliver such Shipments to the Delivery Location and obtain a receipt for such delivery. Brink's may return the Shipment to the Pick-Up Location in the event that delivery cannot reasonably be made by Brink's to the Delivery Location. The Services will be performed during Brink's regular business hours as scheduled by Brink's local office(s) performing the Services unless otherwise specified in the Agreement. In the event of inclement weather or some other irregularity, performance shall be as mutually agreed upon. Services will be performed on Business Days, unless otherwise specified in the Attachments.

III. CUSTOMER'S RESPONSIBILITIES

1. Customer shall place all Property to be received by Brink's in Distinctively and Securely Sealed containers.

2. Customer shall correctly declare the actual value of each shipment and each Distinctively and Securely Sealed container in the shipment. Customer shall not conceal or misrepresent any material fact or circumstance concerning the Property delivered to Brink's and agrees, in the event of Loss, to be bound by its declaration of value.

3. Customer will not include Frangible Property in a shipment unless specifically agreed to by Brink's in an Attachment.

4. The locations serviced under this Agreement, whether listed in an Attachment or otherwise, shall not be deleted from service by Customer during the term of this Agreement unless such location is permanently closed or sold.

IV. CHARGES AND PAYMENT

1. Within thirty (30) days of the date of invoice, Customer shall pay Brink's the rates plus all applicable Federal, State and local taxes. The rates may be amended by Brink's via invoices, letters, or other writings. Except for Rate changes made pursuant to paragraph 3 of this section, Customer may, by written Notice within twenty (20) days of such invoice, letter or other writing, reject any charges differing from the Rates. Otherwise, Customer shall be deemed to have accepted such increase. If Customer disputes the accuracy of an invoice, Customer will provide Brink's written Notice of the claimed inaccuracy within sixty (60) days of the invoice date or such claim will be deemed waived by Customer.

2. All charges remaining unpaid after the invoice due date are subject to an interest charge at the lesser of 11/2% per month or the maximum rate allowed by law.

3. Brink's may increase Rates effective January 1 of each year of this Agreement, or upon written communication in the event of a change in economic conditions that increases Brink's operating costs.

4. In addition to the other charges specified in this Agreement, Customer will pay a fuel surcharge which will be adjusted from month to month as described in the applicable Attachment.

5. In the event of Loss of checks or other financial instruments (together "Checks"), Brink's agrees to pay for: (a) Customer's reasonable costs in identifying and replacing the Checks, and (b) the face value of the Checks not identified, except for those Checks which could not be collected on at the time of the Loss.

6. If Brink's acts in the exercise of its discretion and belief, Brink's shall not conceal or misrepresent any material fact or circumstance concerning the Property delivered to Brink's and agrees, in the event of Loss, to be bound by its declaration of value.

7. "Rates" means the charges for Services as listed in the Attachment(s).

8. "Distinctively and Securely Sealed" means that the container used to hold any Property to be transported by Brink's has been closed and fastened with a device or method of sealing having a distinguishing mark that can be clearly seen and recognized as a unique identification number or special mark that is attached to the container so that the Property is firmly enclosed, and the device or method of sealing cannot be removed and resealed to the container shall be removable by external evidence of tampering on the container.

9. "Frangible Property" means any breakable item, including without limitation, decorative pieces, works of art, and jewelry.

10. "Loss" means any loss of, damage, theft or destruction to Property.

11. "Maximally Liability Amount" is means the total liability assumed by Brink's for a Loss of all or part of a shipment, as specified in the Attachment(s).

12. "Pick-Up Location" means the location designated by Customer in an Attachment as the place where Brink's is to receive Shipments.

13. "Property" means currency, coin, checks, securities, other financial instruments, and other valuables agreed to be transported by Brink's.

14. "Shipments" means more or more sealed containers of Property received by Brink's at the same time at a single Pick-Up Location, which are to be delivered to a single Delivery Location.

15. "Services" means armored transportation and related services to be provided to Customer as described in Section II below.

16. "Shipments" means more or more sealed containers of Property received by Brink's at the same time at a single Pick-Up Location, which are to be delivered to a single Delivery Location.

V. BRINK'S LIABILITY, LIMITATIONS, EXCLUSIONS

1. Brink's liability for any of its obligations under this Agreement, including without limitation liability for the Loss of a shipment, shall not exceed the lesser of: Maximum Liability Amount; the actual value of the Loss; or the declared value of the Property subject to the Loss. Brink's liability shall commence when the Shipments has been received into Brink's possession and a receipt has been signed for such shipment and shall terminate when the Shipments is delivered to the Delivery Location or to the Pick-Up Location as described in the Pick-Up Location(s) agreed to by Brink's.

2. Brink's liability for Loss shall not exceed the Maximum Liability Amount, notwithstanding anything to the contrary contained in any oral statement, invoice, or other writing by Brink's. Brink's is not responsible for determining the contents or value of the Property.

3. If Customer requests that Brink's transport an amount over the Maximum Liability Amount ("Excess Liability"), the Maximum Liability Amount for a Loss arising out of that shipment will increase: (i) if mutually agreed in writing by the parties prior to Brink's receiving the shipment; and (ii) is Customer is able to show, in writing, that an Excess Liability exists, the loading or transportation of the liability associated with the Excess Liability.

4. Brink's shall not be liable for any shortage within any shipment that: (a) is not Distinctively and Securely Sealed when received by Brink's; (b) occurred before Brink's received possession of the shipment; or (c) shows no external evidence of tampering when received by Brink's; Brink's shall not be liable for a Loss caused in whole or in part by the criminal acts, or fraud of Customer, its employees, representatives or agents.

5. In the event of Loss of checks or other financial instruments (together "Checks"), Brink's agrees to pay for: (a) Customer's reasonable costs in identifying and replacing the Checks, and (b) the face value of the Checks not identified, except for those Checks which could not be collected on at the time of the Loss.

6. Customer shall maintain a complete record of all Checks in a Shipment and agrees to diligently pursue identification and replacement efforts of the Checks. Customer further agrees to reimburse Brink's for all amounts that are recovered as the result of such efforts.

7. Brink's shall not be liable for non-performance or delays of Service caused by or resulting from: (a) war, hostile or warlike action in time of peace or war, including action in hindering, combating or defending against an actual, impending or expected attack; (b) any government or sovereign power (de jure or de facto); or by any authority maintaining or using military, naval or armed forces; or by (c) strikes, lockouts or other labor disturbances, riots, authority of law, civil war, usurped power, or action taken by governmental authority in hindering, combating or defending against such an occurrence or confiscation by order of any government or public authority; (b) in no case shall Brink's be liable for Loss or for non-performance or delays of Service (or for any cost, expense or liability incurred) or indirectly caused by or contributed to arise from: (i) any chemical, biological, bio-chemical or electromagnetic weapon; (ii) the use or operation, as a means for inflicting harm, of any computer, computer system, computer software program, malicious code, computer virus, worm, Trojan horse or other electronic system; (iii) ionizing radiations from or contamination by radioactivity from any nuclear fuel or from any nuclear waste or from the combustion of nuclear fuel; (iv) the radioactive, toxic, explosive or other hazardous or contaminating properties of any nuclear installation, reactor or other nuclear assembly or nuclear component thereof; (v) any weapon or device employing atomic or nuclear fusion and/or fission or other like reactant; (vi) any nuclear, radioactive, toxic, explosive or other hazardous or contaminating properties of any radioactive matter. The exclusion in sub-clause (vi) does not extend to radioactive isotopes, other than nuclear fuel, when such isotopes are being prepared, carried, stored or used for commercial, agricultural, medical, scientific or other similar peaceful purposes. (c) The following limitation shall not apply to Property in transit. Brink's liability for non-performance or for non-performance of delays of Service (or for any cost, expense or liability incurred) or indirectly caused by or contributed to arise from: (i) any act of terrorism or any attack in controlling, preventing, suppressing or in any way relating to any act of terrorism. An act of terrorism means an act, including but not limited to the use of force and violence or the threat thereof, of any person or group or organizational, acting alone or on behalf of or in connection with any nation(s) or government(s), committed for political, religious, ideological or similar purposes including the intention to influence any government and/or to put the public, or any section of the public, in fear.

8. Brink's is not an insurer under this Agreement. Brink's shall not be liable under any circumstances for consequential, indirect, or punitive losses or damages (including lost profits, interest or savings) whether or not caused by the fault or negligence of Brink's and/or whether or not Brink's had knowledge that such losses or damages might be incurred.

VI. INSURANCE

1. Brink's will maintain all times during the term of this Agreement, insurance payable to Brink's in such amounts and against such risks as shall

Services Agreement – Short Form (Rev. 2012-12)
adequately cover the Maximum Liability Amount. Upon Customer's written request, Brink's will provide a certificate of insurance. Customer shall be given thirty (30) days notice in the event such insurance coverage is canceled, not renewed or materially restricted.

2. Customer shall at all times maintain comprehensive general liability insurance coverage, including contractual liability and premises liability. Such insurance shall be in reasonable amounts and with insurance companies of recognized financial responsibility. Upon written request, Customer shall provide to Brink's evidence of such insurance coverage, and Customer agrees that Brink's shall be given thirty (30) days notice in the event that such insurance coverage shall be canceled, not renewed or materially restricted.

VII. FILING OF CLAIMS; PROOF OF LOSS

1. In the event of a Loss under this Agreement, Customer shall notify Brink's as soon as practicable and provide written Notice to Brink's within one (1) business day after the Loss or suspected Loss is discovered or should have been discovered so that Brink's and Customer can effectively initiate investigation of the Loss. In no event will Customer provide Notice of Loss more than thirty (30) days after the Property which is the subject of the claim was delivered into Brink's possession. It is Customer's responsibility to verify shipment deliveries promptly. Unless such Notice is given by Customer within the time prescribed, any and all claims for Customer by Loss shall be deemed waived. No action, suit or other proceeding to recover for any such Loss shall be brought against Brink's unless (a) the above described Notice has been given to Brink's, and (b) such action, suit or proceeding is commenced within sixty (60) days after the date of the event upon which Customer's claim is based, and (c) after written demand by Customer for a certificate of insurance. Customer shall be given thirty (30) days notice in the event such insurance coverage is canceled, not renewed or materially restricted.

2. Customer shall maintain a record of all Property placed in any Shipments and shall promptly and diligently assist Brink's in establishing the identity of any Loss in any Shipments. Customer agrees to mitigate its damages in connection with any Loss. Brink's and Customer shall fully cooperate in conducting an investigation, and any action or proceeding of a Loss or the cause thereof, to the extent reasonably possible, shall be resolved by the findings of such investigation.

3. Affirmative written proof of the Loss, subscribed and sworn to by Customer and substantiated by the books, records and accounts of Customer, shall be furnished to Brink's prior to payment of a claim. Upon payment of a claim by Brink's, Customer hereby assigns to Brink's all of its right, title and interest in the Property which was the subject of the Loss and all rights of recovery against third parties that are the subject of the claim. Customer will execute any documents necessary to perfect such assignment upon request by Brink's or Brink's insurers.

VIII. DEFAULTS; REMEDIES; TERMINATION

1. In the event of termination under this Agreement, Customer shall notify Brink's as soon as practicable and provide written Notice to Brink's within one (1) business day after the Loss or suspected Loss is discovered or should have been discovered so that Brink's and Customer can effectively initiate investigation of the Loss. In no event will Customer provide Notice of Loss more than thirty (30) days after the Property which is the subject of the claim was delivered into Brink's possession. It is Customer's responsibility to verify shipment deliveries promptly. Unless such Notice is given by Customer within the time prescribed, any and all claims for Customer by Loss shall be deemed waived. No action, suit or other proceeding to recover for any such Loss shall be brought against Brink's unless (a) the above described Notice has been given to Brink's, and (b) such action, suit or proceeding is commenced within sixty (60) days after the date of the event upon which Customer's claim is based, and (c) after written demand by Customer for a certificate of insurance. Customer shall be given thirty (30) days notice in the event such insurance coverage is canceled, not renewed or materially restricted.

2. Customer shall at all times maintain comprehensive general liability insurance coverage, including contractual liability and premises liability. Such insurance shall be in reasonable amounts and with insurance companies of recognized financial responsibility. Upon written request, Customer shall provide to Brink's evidence of such insurance coverage, and Customer agrees that Brink's shall be given thirty (30) days notice in the event that such insurance coverage shall be canceled, not renewed or materially restricted.

3. All "Notices" under this Agreement, shall be in writing and shall be deemed given to the other party immediately upon: personal or messenger delivery; proof of transmission date of facsimile transmission; or delivery date of overnight courier or certified mail service. Notice shall be sent to the party at the address shown on the front of this Agreement or to such other address as either party may specify by Notice. Notice to Brink's, including Bankruptcy notices, shall be delivered to: Brink’s, Inc., 555 Deluxe Blvd., Decorah, IA 52101.

4. Any pre-printed terms and conditions contained in any purchase order or other similar document used by Customer shall be null and void and have no force or effect in modifying the terms and conditions of this Agreement.

5. This Agreement governs the rights and responsibilities of Customer and Brink's. Customer agrees to look only to the provisions of this Agreement for any claim against Brink's relating to Customer's Property.

6. Each party agrees to comply with all applicable laws, rules and regulations in the performance of its obligations hereunder.

7. Any attempt by either party to modify, extend or change any of the terms hereof shall be deemed ineffective unless the same is in writing and initialed or otherwise signed by both parties.

8. This Agreement supersedes all prior agreements, written or oral, and constitute the entire agreement between Customer and Brink's with respect to the subject matter hereof and supersedes all prior agreements and understandings, whether oral or written, express or implied.

9. Except with respect to Rates, this Agreement may only be amended or superseded by a writing signed by the parties. The sole and exclusive remedies for any breach of the terms and provisions of this Agreement or any claim or cause of action otherwise arising out of or related to this Agreement shall be such remedies available at law or in equity for breach of contract only (as such contractual remedies have been further limited or excluded pursuant to the express terms of this Agreement), and neither of the parties hereto, nor any other person or entity will have any other entitlement, remedy or recourse, whether in contract, tort or otherwise.

10. Neither party shall use the other party's trade name, likeness, trademarks or logo, without the other party's prior written consent.

11. The failure by either party to require strict adherence to any term of this Agreement will not be deemed a waiver or deprive that party of the right thereafter to insist upon strict adherence to any term of this Agreement.

12. The legality or invalidity of any provision of this Agreement shall not affect or invalidate the remainder of the Agreement.

13. The parties HEREBY AGREE VOLUNTARILY AND WITNESSESTHAT THE RIGHTS OF EITHER PARTY MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION ARISING IN ANY WAY OUT OF THIS AGREEMENT. THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE PARTIES TO ENTER INTO THIS AGREEMENT.

14. If Customer fails for protection under any provision of the Bankruptcy Code (11 U.S.C. S. 301, et seq.), Customer shall file all of its first day motions a motion seeking authorization (1) to assume the Brink's contract, (2) to pay any of the amounts due under the contract on ongoing basis, and (3) to pay a cure any claim past due amounts.

15. In the event Services include transportation, Customer agrees: (a) none of the provisions of the Carmack Amendment apply to any obligation of Brink's under this Agreement and (b) Customer shall comply with the Private Express Statutes (United States Postal Laws and Regulations) in the preparation of all Shipments.

16. Customer will not assign this Agreement without the prior written consent of Brink's.

17. This Agreement may be executed in multiple counterparts, each of which will be deemed an original but all of which together will constitute one and the same instrument.

AGREED AND ACCEPTED:

"CUSTOMER":

"BRINK'S":

CITY OF PALM COAST

Brink's U.S., a Division of Brink's, Incorporated

By: ________________________________

(Customers Signature)

Name: ______________________________

Title: ______________________________

By: ________________________________

(Customers Signature)

Name: ______________________________

Title: ______________________________
EXHIBIT A

This Exhibit A is attached to and incorporated by reference into the Brink’s Services Agreement dated [date], between BRINK’S U.S., a Division of BRINK’S, INCORPORATED ("Brink’s") and CITY OF PALM COAST ("Customer").

I. PICK-UP LOCATIONS AND DELIVERY LOCATIONS; MAXIMUM LIABILITY AMOUNT

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*Hourly rates are charged for round-trip hours - Portal to Portal
IV. FUEL SURCHARGE

A fuel adjustment will be determined on a quarterly basis according to the charts and formula below. The formula to determine the fuel surcharge is:

Applicable fee(s) for Services requiring/involving transportation for the quarter x fuel surcharge percentage as set forth in the table below = Total fuel surcharge

Fuel Prices will be based on the U.S. Department of Energy, Energy Information Administration, Retail On-Highway Diesel Fuel Prices reported monthly.

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<th>Maximum</th>
<th>Surcharge</th>
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<td>13.75%</td>
<td>$5.46</td>
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Note: For every additional $0.05 increase in fuel price will result in an additional .25% in surcharge.

This Exhibit is entered into as of 17-Oct-2018 (the “Effective Date”).

"CUSTOMER":

CITY OF PALM COAST

By: ____________________________________________
(Customer Signature)

Name: __________________________________________

Title: __________________________________________

"BRINK’S":

Brink’s U.S., a Division of Brink’s, Incorporated

By: ____________________________________________

Name: __________________________________________

Title: __________________________________________
AMENDMENT TO SERVICES AGREEMENT

THIS AMENDMENT TO SERVICES AGREEMENT ("Amendment"), effective as of October 18, 2018 ("Effective Date") is attached to and made a part of that certain Services Agreement (No. 10000112910) dated October 18, 2018 (together, the "Agreement") between Brink’s U.S., a Division of Brink’s, Incorporated ("Brink’s") and CITY OF PALM COAST ("Customer"). Capitalized terms not otherwise defined herein shall have the meaning given to such terms in the Agreement.

A. Modification of Terms of the Agreement. The parties agree to amend the Agreement as follows:

Section IV.1 (CHARGES AND PAYMENTS) is hereby modified and amended by deleting the third and fourth sentences in their entirety. “The Rates may be amended by Brink’s invoices, letters, or other writings. Except for Rate changes made pursuant to paragraph 3 of this section, Customer may, by written Notice within forty-five (45) days of such invoice, letter or other writing, reject any charges differing from the Rates. Otherwise, Customer shall be deemed to have accepted such increase.”

Section IV.2 (CHARGES AND PAYMENTS) is hereby modified and amended by deleting “1 ½%” and replacing it with “one percent (1%).”

Section VII.1 (FILING OF CLAIMS; PROOF OF LOSS) is hereby modified and amended by deleting the reference to “one (1) business day” and replacing it with “three (3) business days” and deleting the reference to “thirty (30)” and replacing it with “seventy-five (75)”.

B. Effect of Amendment. Except as expressly amended by this Amendment, the terms of the Agreement remain in full force and effect. In the event of any conflict or inconsistency between the provisions of the Agreement and the provisions of this Amendment, the provisions of this Amendment shall control.

"Customer"
First Federal Bank of Florida
Brink’s U.S.,

By: ______________________
Name: ______________________
Title: ______________________
Date: ______________________

"Brink’s"
a Division of Brink’s, Incorporated

By: ______________________
Name: ______________________
Title: ______________________
Date: ______________________
### City of Palm Coast, Florida

**Agenda Item**

**Agenda Date:** 11/13/2018

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**Subject:** RESOLUTION 2018-XX BUDGET AMENDMENT FOR FISCAL YEAR 2017-2018 RELATING TO GENERAL FUND EXPENDITURES

**Background:**
General Fund personnel expenditures have exceeded the projected budget for Fiscal Year 2018 requiring City Council to amend the Fiscal Year 2017-2018 budget relating to the City Manager Department.

**Recommended Action:**
Adopt Resolution 2018-XX approving a budget amendment for Fiscal Year 2017-2018 relating to General Fund Expenditures.
RESOLUTION 2018-____
FISCAL YEAR 2018 BUDGET AMENDMENT

A RESOLUTION OF THE CITY OF PALM COAST, FLORIDA, AMENDING THE FISCAL YEAR 2017-2018 BUDGET RELATING TO GENERAL FUND EXPENDITURES; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, General Fund personnel expenditures exceeded the final budget for Fiscal Year 2018; and

WHEREAS, City Council desires to amend the Fiscal Year 2017-2018 budget.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, AS FOLLOWS:

SECTION 1. BUDGET AMENDMENT. The City Council of the City of Palm Coast hereby amends the Fiscal Year 2017-2018 budget by $175,000, as shown in Exhibit “A” as attached hereto and incorporated herein.

SECTION 2. SEVERABILITY. It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Resolution are severable, and if any phrase, clause, sentence, paragraph or section of this Resolution shall be declared unconstitutional by the valid judgment or decree of a court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Resolution.

SECTION 3. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

SECTION 4. IMPLEMENTING ACTIONS. The City Manager, or designee, is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 5. EFFECTIVE DATE. This Resolution shall become effective immediately upon its passage and adoption.
DULY PASSED AND ADOPTED by the City Council of the City of Palm Coast, Florida, on this 20th day of November 2018.

CITY OF PALM COAST, FLORIDA

ATTEST: 

Milissa Holland, Mayor

Virginia A. Smith, City Clerk

Attachment: Exhibit A– 2017-2018 Budget Amendment

Approved as to form and legality

William E. Reischmann, Jr., Esq.
City Attorney
## FY 2018: GENERAL FUND

### PREPARED:

NOVEMBER 2018

### FINANCE:

HELENA P. ALVES

### FY 2017-2018 REVISED BUDGET

#### REVENUES:

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<td>Local Business Tax</td>
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<td>Miscellaneous Revenues</td>
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<td>Transfers from Other Funds</td>
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<td>Appropriated Fund Balance</td>
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**TOTAL REVENUES:** $35,412,622

#### EXPENDITURES:

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<td>Non-Departmental</td>
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**TOTAL EXPENDITURES:** $35,412,622
City of Palm Coast, Florida
Agenda Item

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Subject: CALENDAR/WORKSHEET

Background:

Recommended Action:
Meeting Calendar for 11/14/2018 through 12/31/2018

11/14/2018 5:30 PM
Planning & Land Development Regulation Board
City Hall

11/14/2018 5:30 PM
Leisure Services Advisory Committee
Palm Coast Community Center

11/20/2018 9:00 AM
City Council
City Hall

11/27/2018 9:00 AM
City Council Workshop
City Hall

11/28/2018 5:30 PM
Citizens' Advisory Task Force
City Hall

12/4/2018 10:00 AM
Animal Control Hearing
City Hall

12/4/2018 6:00 PM
City Council
City Hall

12/5/2018 10:00 AM
Code Enforcement Board
City Hall
Meeting Calendar for 11/14/2018 through 12/31/2018

12/6/2018 5:00 PM
Beautification and Environmental Advisory Committee
City Hall

12/11/2018 9:00 AM
City Council Workshop
City Hall

12/18/2018 9:00 AM
City Council
City Hall

12/19/2018 5:30 PM
Planning & Land Development Regulation Board
City Hall
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**Workshop 11/27/2018**

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**Business 12/04/2018**

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City of Palm Coast, Florida
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City of Palm Coast

Overhead to Underground Conversion Workshop

November 13, 2018
Agenda:

• Storm Secure
• What is an overhead to underground conversion?
• Overhead to underground conversion cost
• Overhead to underground incentive
• Overhead to underground conversion process
• Questions?
Storm Secure

• **A Four Point program**

  • Hardening the Electric Grid – Utilizes the National Electric Safety Code’s “extreme wind velocity” standards for new and replacement poles
  
  • Line Clearing and Vegetation Management – Accelerates line clearing efforts so that 75% of the vegetation management work is completed by hurricane season each year
  
  • Pole Inspections – Inspects all existing poles on an eight-year cycle
  
  • Overhead to Underground Conversions - Encourages the undergrounding of FPL electric facilities by providing up to a 25% discount for qualifying projects
What is an Overhead to Underground Conversion?

- **FPL overhead facilities are removed and replaced with electrical facilities to serve the load from an underground source**

  **FPL Overhead Construction:**
  Poles, wires, and transformers

  **FPL Underground Construction:**
  Underground conductors and pad mount transformers

Note: The FPL overhead to underground conversion process does not include converting the other utilities on the poles such as ATT or Charter/Comcast to underground or residential meter cans. Commercial customers must bring their conductors to the pad mounted transformer or secondary box.
Overhead to Underground Conversion Cost

• Calculation components
  + Cost of new underground installation
  - Hypothetical equivalent new overhead hardening cost
  + Existing overhead – net book value
  + Existing overhead – removal cost
  - Existing overhead – salvage value
  +/- Operational (30-year NPV) cost differential

Cost (Contribution in Aid of Construction / Non GAF)
  - Governmental Adjustment Factor (25%)

= CIAC Due FPL (GAF)
Overhead to Underground Incentive

- **Eligibility Criteria for Governmental Adjustment Factor Incentive**
  - Convert 3 pole line miles of FPL facilities or minimum of 200 detached dwelling units for the conversion area in 3 years
  - All customers within the conversion area served by an overhead service must be required to convert to an underground service within 6 months after completion of the underground facilities installation
  - Easements for the underground equipment are required or the local government must execute a right-of-way agreement
  - No state or federal funds are available to cover any portion of the cost of the conversion
Overhead to Underground Conversion Process

- Municipality provides written request to FPL
- FPL provides non-binding ballpark estimate
- Municipality pays engineering deposit
- FPL performs detailed engineering design and provides binding cost estimate - engineering deposit is applied to total cost if project proceeds
- Municipality secures easements
- Municipality pays for conversion
- Construction is performed
- Electrical services are converted
- Overhead facilities are removed
Questions?
Continuous Street Lighting
Continuous Street Lighting Gaps
Master Plan & Design

• L.O.I. sent to continuing service engineering firms

• 2 step work order
  – Develop a master plan
  – Provide design for the first two projects

Lassiter Transportation Group, Inc.
Engineering and Planning
Task List

• **Master Plan**
  – Study & Development - **Draft**

• **Lighting Design for Belle Terre Parkway**
  – PC Pkwy to Pine Lakes Pkwy – **Complete**
  – Pine Lakes Pkwy to SR 100 – **Preliminary design**

• **Lighting Design for Lakeview Boulevard**
  – Matanzas Woods Parkway to Terminus - **Complete**
Master Plan
Master Plan

• Prioritize Collector/Arterial Inventory

• 7 Ranking Criteria
  1. Traffic Volume
  2. Night Time Crash Rates
  3. Roadway Type
  4. Length of Segment
  5. Distance to Pedestrian Destinations
  6. Presence of Sidewalks
  7. Posted Speed Limit

• Design Criteria
  – American Association of State Highway and Transportation Officials (AASHTO)
    • Federal Highway Administration
    • Florida Department of Transportation
### Recommended Work Plan

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## 2018-2021 Work Plan

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<td>FY19</td>
<td>Lakeview Boulevard</td>
<td>From London Dr. to Matanzas Woods Parkway</td>
<td>Complete - Preparing for installation (Jan 2019)</td>
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<tr>
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<td>FY19</td>
<td>Belle Terre Parkway</td>
<td>From Palm Coast Parkway to Pine Lakes Parkway</td>
<td>Complete - Design sent to FPL to schedule installation</td>
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<tr>
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<td>FY20</td>
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<td>From East Hampton Boulevard to SR 100</td>
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AIRPORT COMMONS

Pre-Annexation, Economic Development & Joint Planning Area Agreement
November 13, 2018

Community Development Department
LOCATION

- 3.8 acre site.
- Adjacent to the City’s boundary on SR 100.
- Across from Town Center MPD & CRA.
- Adjacent to Flagler Executive Airport & Aviation Drive.
Overview

- Airport Commons site is 3.8 acres in the Joint Planning Area City has with County.
- County designates area as Commercial High Intensity on FLUM, and C-2 zoning district.
- Location is within the City’s water and sewer utility service area.
- Site plan resulted in questions regarding water and wastewater utility connections and service.
Pre-annexation, Economic & Joint Planning Area Agreement

Key Elements –

• Establishes terms for voluntary annexation into the City.
• Requires Airport Commons to connect to City water and enter utility agreement.
• When sewer becomes available, sets forth a process for transfer of capacity between City and the County.
• Requires Airport Commons to pay transportation impact fees, or construct or guarantee the identified improvements to Aviation and 100.
Airport Commons Site Plan

- Proposed retail, restaurant, and fitness center uses.
- Access off SR 100 & Aviation Drive.
- Includes City’s landscaping and architecture recommendations.
Architectural Concept
Next Steps

• Approve pre-annexation agreement November 20th.
• Annexation effective after the Certificate of Occupancy is issued by the County.
• City will receive payment of transportation impact fees or receive guarantee re: SR 100 roadway capacity improvements 30 days after the annexation date.
• Applicant will adhere to architectural and site plan theme.
• City will initiate comprehensive plan amendment and rezone within 36 months of adopted annexation ordinance.
Belle Terre Blvd
Pipe Replacements
City Council Workshop
November 13, 2018
Enhanced Stormwater Plan Over 5 Years

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<table>
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<tr>
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Belle Terre Blvd. Pipe Replacements

4Each – 48-inch CMPs
Ditch, Swale, & Pipe Projects
Sections E, F, R, and W

City Council Workshop

November 13, 2018
E-Section Ditch and Canal Stormwater Improvements
E-Section Ditch & Canal Improvements Northeast

Notes:
1. All elevations in vertical datum NAVD88
2. ECMP = Elliptical Corrugated Metal Pipe
3. CBC = Concrete Box Culvert

Legend
- Palm Coast City Limits
- Parcel Boundary
- Canal/Ditch Grading
- Proposed Culverts
- Control Structures
- Model Nodes
- Flow Direction

Existing: 3 72-inch CMP
Proposed: Replace pipe with equivalent size; construct headwalls

Existing: 29-inch x 42-inch ECMP
Proposed: 4-foot x 3-foot CBC with straight endwalls

Existing: 24-inch x 35-inch ECMP
Proposed: 4-foot x 3-foot CBC with straight endwalls

Existing: 24-inch x 35-inch ECMP
Proposed: 4-foot x 2-foot CBC with straight endwalls

Existing: 20-inch x 28-inch ECMP
Proposed: 4-foot x 2-foot CBC with straight endwalls

Existing: 18-inch x 24-inch ECMP
Proposed: 4-foot x 1.5-foot CBC with straight endwalls

Residence with documented flooding (estimated finished floor 26.0 ft NAVD88)
First Phase – Section E Ditch & Canal Improvements

Develop Conceptual Level Plans to Include:
- Typical Sections
- Profiles
- Pipe Improvement/Replacement Recommendations
- Best Management Practices
- Construction Cost Estimate
First Phase – Section F Ditch & Swale Improvements

Develop Conceptual Level Plans to Include:

- Typical Sections
- Profiles
- Pipe Improvement/Replacement Recommendations
- Best Management Practices
- Construction Cost Estimate
First Phase – Section R Ditch & Swale Improvements

Develop Conceptual Level Plans to Include:

• Typical Sections
• Profiles
• Pipe Improvement/Replacement Recommendations
• Best Management Practices
• Construction Cost Estimate
First Phase – Section W Ditch & Swale Improvements

Develop Conceptual Level Plans to Include:
- Typical Sections
- Profiles
- Pipe Improvement/Replacement Recommendations
- Best Management Practices
- Construction Cost Estimate
Current Stormwater Program Efforts

- City-wide Stormwater Infrastructure Master Plan
  - Develop 100-yr. Base Flood Elevations for flood prone areas
  - Develop base flow information and stage-storage relationships in the fresh water canals and a Master Plan for Improvements
  - Develop multiple conceptual level plans to address storage and conveyance improvements
  - Address MS4 Permitting requirements for stormwater mapping and water quality monitoring and improvements
- Replace deteriorating concrete ditch and drainage structures in F Section
- Replace failing pipes on Belle Terre South
- Develop plans for improving conveyance and capacity in Sections E, F, R, & W
- Develop enhanced planning and scheduling program for swale and ditch maintenance
Unimproved Lot Inventory & Road Frontage Analysis

City Council Priority

Community Development: Planning Division
Summary

• During the City Council Special Workshop on 2/8/17, Council expressed concern with the appearance of unimproved lots.

• This presentation is a response to their concerns as they made this subject a Council Priority.
  • “Investigate the viability of implementing a maintenance program for vacant lot frontages”.

Find Your Florida
City Council Direct
Example Pictures
Unimproved Lot Inventory
Inventory

• Originally ITT had platted 47,000 lots in Palm Coast.
• There are roughly 16,500 unimproved residential lots left in Palm Coast.
• These numbers are constantly changing as new construction continues in the City.
Importance of Unimproved
Habitat

• These unimproved lots provide crucial habitat for Endangered and Listed Species such as:
  • Gopher Tortoise
  • Eastern Indigo Snakes
  • Florida Mouse

• These lots also provide foraging area and nutrients to a number of native species.
Environmental Concerns

• The vegetation on these unimproved lots are absorbing water that would otherwise be standing and provide a breeding ground for mosquitoes.
• The vegetation also stabilizes the soil and prevents any type of erosion.
• Trying to remove some of the invasive vegetation, outside of the proper months, could actually result in the spread of the invasive even further.
Land Development Code

11.02.05.D. Permit Requirements

1. A permit is required for land clearing/filling. It is prohibited and unlawful to clear trees, fill land, excavate, or dredge any parcel of land prior to the issuance of a single-family building permit or a site development permit, unless otherwise stated in this LDC, or authorized by the Land Use Administrator. The building permit shall act as the tree removal permit.
Building

- The reason the City requires a building permit to clear an unimproved lot is so that the City can ensure that the clearing is being done the correct way.
- There are inspections and standards in place to protect the surrounding lots from potential damage.
  - These include Environmental inspections such as Floodplain and Listed Species.
- If citizens were allowed to clear lots without permits, it could have disastrous effects on the Stormwater system, existing homes, and the native landscape.
Other Cities

• No other cities, that we contacted, have any kind of code or ordinance that regulates native vegetation on an unimproved lot.

• Some cities/counties specifically state that the code or ordinance does not apply to vacant or unimproved lots.
Hi Angelica – We have 2 different kinds of vacant lots, those that have been previously cleared and those containing natural or native vegetation. The untended vegetation you mention would be for previously cleared lots that contain ruderal species that would require minimal maintenance (occasional mowing). Please let me know if you need further clarification. Thanks, Nora

Nora Fosman  |  Senior Environmental Officer
City of Boca Raton, Development Services Department

Hi Nora,
I appreciate your response.
Just to clarify, the City of Boca Raton does not require vacant lot owners whose lots contain natural or native vegetation to maintain those lots (when these lots are not previously cleared)? I am also describing what the majority of vacant lots look like in Palm Coast.

Thank you for your time.

Angelica Curtes
Landscape Architecture Intern

That’s correct. Of course this applies to the vegetation only. Dumping, trash accumulation, etc. would need to be monitored.

Nora Fosman  |  Senior Environmental Officer
City of Boca Raton, Development Services Department
Altamonte Springs does have ordinance LDC section 8.2.1.3 (c) that states undeveloped and vacant property, grass and weeds shall not exceed eight inches in height, however, this code was only written to enforce the handful of lots that we have, that previously may have had structures that have been torn down because of sink hole activity or fire.

- Our thought was about 10+ years ago when we introduced that code, as well as our developed 6-inch ordinance, was that if you have a property that is habitable, it must be mowed regularly and if you had a lot that was at one time habitable has been affected by sink hole or fire, that we would force those property owners to decide to either redevelop their site or pay someone to regularly mow it after they pass their demo permit final inspection, which does require them to sod the entire property before a final can be passed. We felt it was not fair for a neighborhood or a business district that had a home or business for 20 years to have a fire and then allow them to just walk away from the lot and make the neighbors look at weeds 5 feet tall for years, until they decide to redevelop or flip the lot to someone else. By requiring the mow ordinance, it has proven to entice a property owner to almost immediately submit building plans to our office and restore the site with another habitable structure fairly soon.

Altamonte is 9-square miles and only has about 20 true undeveloped lots that still have the natural tree canopy and underbrush traditionally found in a wooded lot, and we do not enforce our 8.2.1.3(c) code on those properties.

I hope this helps.

BILL VAN HORN, CEP, FCP
Code Compliance Officer III & Fire Inspector I
Wildfire Hazard Mitigation

• A case is created with Code Enforcement
• A Code Officer then goes out to inspect the property
• They are looking for specific plants to qualify for Wildfire Hazard Mitigation
  • These are: Saw palmetto, Gall berry, Fetterbush, and Wax myrtle
• The vegetation must be taller than 3ft and within 30ft of the neighboring residence
Wildfire Hazard Mitigation Example

Before

After
Wildfire Hazard Mitigation Example

Before

After
Hazardous Tree Removal

• A case is created with Code Enforcement
• A Code Officer then goes out to inspect the property
• The tree is then determined to either be Hazardous or not Hazardous
• There are also Imminent Threat Trees which pose an immediate danger to citizens
  • These trees have a high probability that they could fall directly on citizens, electric lines, block right-of-ways, or sidewalks.
Remedy

• The lot owner can sign a Letter of Authorization for the City to take care of the violation for them and then bill the lot owner.

• If the owner of the lot does not remedy either the Wildfire or the Hazardous Tree, the work will be done for them and billed on their taxes, if they fail to pay the invoice within the fiscal year.

• Imminent Threat Trees are removed first without notice and then billed in the regular procedure.
Right-of-Way Mowing

• Public Works mows the first 15ft of unimproved lots so that the grass and vegetation does not grow on to the roadways.
Other Procedures

• Public Works picks up trash along the Right-of-Way as they mow.

• The City also has access to a Boom Ax which can remove tree limbs that are overhanging onto the roadways.

• Palm Coast prides itself on having a balance with nature, which benefits both the citizens and the environment.

• Everywhere you look in Palm Coast, you will see either natural vegetation or beautiful native landscaping.
Clearing Cost Estimates
## Clearing Services

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<th>10,000 ft²</th>
<th>All Unimproved Lots</th>
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<tr>
<td><strong>Total Clearing</strong></td>
<td>$0.45</td>
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<td><strong>Underbrush Mowing</strong></td>
<td>N/A</td>
<td>$600</td>
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Obstacles

• If you start cutting down trees and other vegetation just because it does not look good, when does it stop?
• How do you measure the vegetation to determine if it requires maintenance?
• Once addressed, what will the long-term maintenance schedule be?
• Where do you draw the line on maintenance?
• If the vegetation is not hazardous, what is the reason to justify removal?
Staff Recommendation

• Staff recommends no further action related to unimproved lots.
  • Current procedures provide for remedies to mitigate wildfire hazards, hazardous tree removal, and right-of-way maintenance.
  • Additional cosmetic maintenance could have adverse impacts to wildlife and vegetative habitat.
• The costs of additional cosmetic maintenance would be significant and ongoing.
THANK YOU
HEALTH INSURANCE PROGRAM
HEALTH INSURANCE PROGRAM

☐ Medical
  ☐ Blue Cross Blue Shield Administers
  ☐ Stop-Loss Insurance for Claims > $150,000

☐ Ancillary Coverage
  ☐ Life, ADD, and Long-Term Disability
    ■ City Paid
  ☐ Voluntary Life (including Spouse & Children), Dental, AFLAC
    ■ Employee Paid
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RECOMMENDATIONS

- **Blue Cross Blue Shield as Administrator**
  - No Change

- **SunLife as Stop-Loss Carrier**
  - No Change

- **Ancillary Coverages**
  - Change to Lincoln Financial
QUESTIONS?