



# **Traffic Engineering Division Overview**

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Chief of Traffic Engineering**

**presentation for**

## **Transportation, Energy and Utilities Committee**

**of the**

**Jacksonville City Council**

**April 18, 2023**



- Overview of Traffic Engineering
  - Signs, Stripes & Signals
  - Engineering Studies
  - Other Duties
- Project List
  - Countywide Projects
  - “Named” Projects
- Questions



# Traffic Engineering Division

- Overview of Traffic Engineering
  - Signs, Stripes & Signals
  - Engineering Studies
  - Other Duties
- Project List
  - Countywide Projects
  - “Named” Projects
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# Traffic Engineering Division

- Signs, Stripes & Signals
  - Signs
  - Stripes
  - Signals



# Traffic Engineering Division

- Engineering Studies
  - Safety & Operations
  - Traffic Calming
  - Pedestrian Crossings
  - Private Development
  - Capital Improvement Program



# Traffic Engineering Division

- Other Duties
  - MyJax Customer Requests
  - School Safety Committee
  - Staff Support for CPAC, NFTPO, CSSSC
  - Liaison with FDOT, JSO, JTA, JEA
  - Collaborate with Parks, Planning, DIA, Engineering, RWSM, Mowing & Landscaping





## Traffic Engineering Division

○ Countywide Projects	(Annual Allocation)
○ Signs, Stripes & Signals	\$2,860,000
○ Pavement Markings	\$1,500,000
○ Traffic Signalization	\$1,100,000
○ Intersections	\$300,000
○ Traffic Calming	\$150,000
○ Pedestrian Crossings	\$300,000
○ Fiber Optics	\$750,000
○ Street Lights	\$100,000
○ Pole Painting	\$100,000
○ Crosswalk Murals	\$150,000
○ School Flasher Clocks	\$500,000



## Traffic Signal Pulaski Rd. and Howard Rd.

FY 20-21 = \$0

FY 21-22 = \$0

FY 22-23 = \$0

FY 23-24 = \$0

FY 24-25 = \$0

Beyond 5th = \$600,000

### **RATING CRITERIA:**

#### **Priority #2 (Score 11)**

Public Health & Safety

Strategic Priorities

Fiscal Impact

Economic Development

Community Support & LT  
Planning

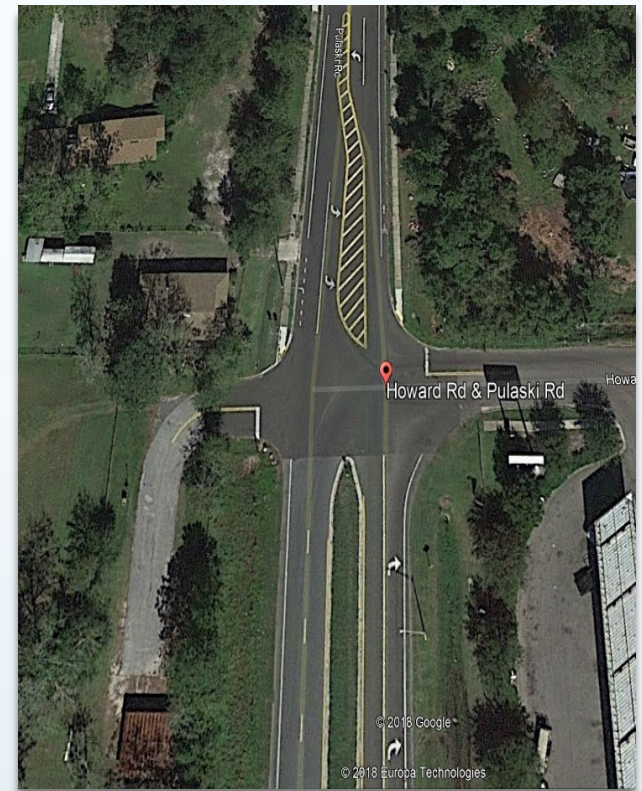
Relationship to Other  
Projects

Service Level Impact

**Description:** Install traffic signal with pedestrian crossings features.

**Justification:** During evaluation it was determined that signal warrants are met and a full signal will allow the intersection to operate more safely and efficiently. Pedestrian features such as crosswalks and countdown pedestrian signal heads will be installed to connect existing sidewalk along both roadways.

**Useful Life:** 25 years





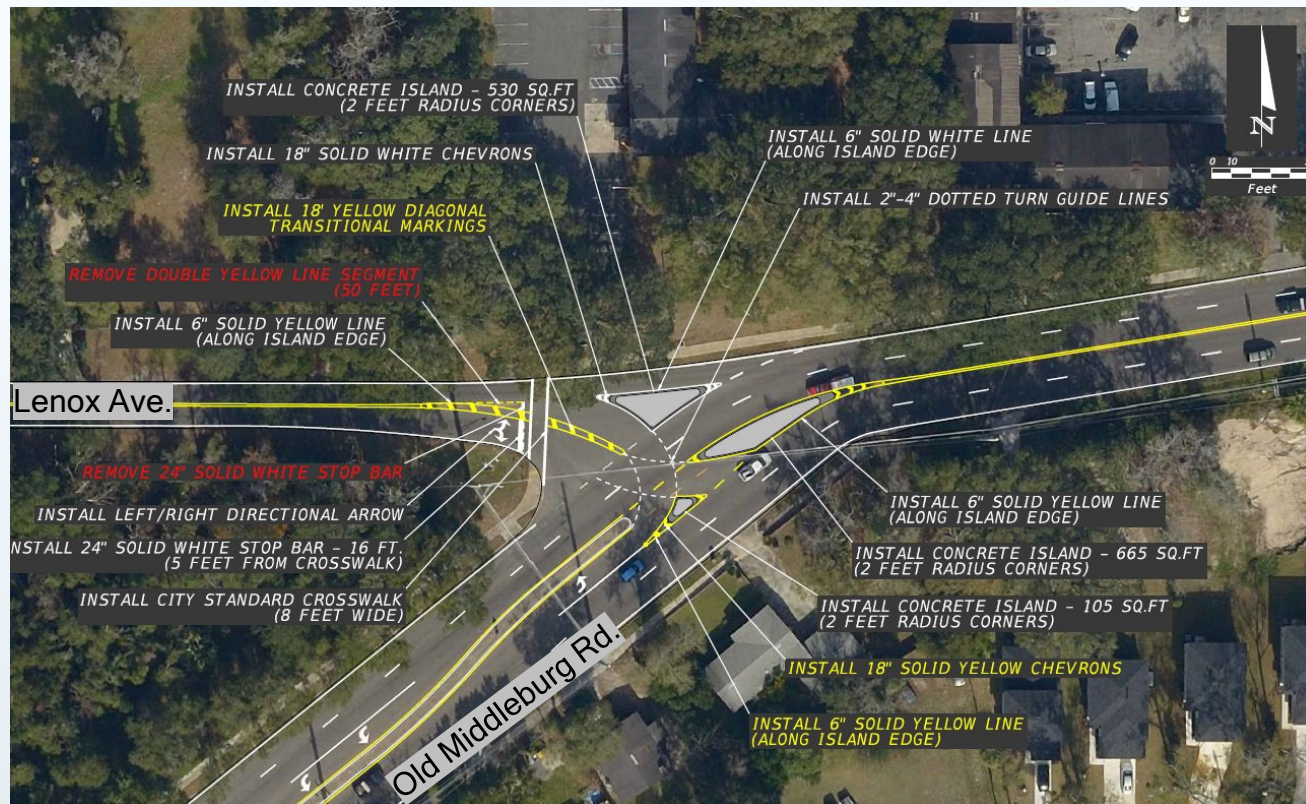


## Old Middleburg Rd. & Lenox Ave.

**Description:** This project will make left turns safer by improving the intersection alignment. There will be better sight distance, a shorter crossing distance, and a better pedestrian crossing.

**Timeline:** Awarded to contractor and construction to begin in 4-5 months.

**Cost:** \$101,000





## Traffic Signal - Argyle Forest Blvd. & Loch Highlands Blvd.

**Description:** New traffic signal.

**Justification:** It meets Warrant 7 indicating that there are high number of crashes that could be prevented by a signal. It also meets Warrant 3 indicating that operations and efficiency will be improved during the peak hour. Once a third business is built at this location it is likely that volume will increase justifying the installation of a signal.

**Useful Life:** 25 years

### RATING CRITERIA:

#### Priority #4 (Score 18)

Public Health & Safety  
Strategic Priorities  
Fiscal Impact  
Economic Development  
Community Support & LT Planning  
Relationship to Other Projects  
Service Level Impact

- **Council District** 14
- **Mobility Zone** 6
- **Planning District** 4
- **Community Redevelopment Area (None)**
- **Fair Share Sector** 4.1

### Budget:

- Land Acquisition \$0
- Engineering & Design \$135,000
- Construction \$765,000







## AC Skinner Charter School – School Zone

### Request funding for FY22-23

**Description:** Children must walk across a 5-lane road to get to Duval Charter School at Southside, a K-8 school. This project will install a reduced-speed school zone on AC Skinner so that children can safely walk to school. It includes mast arm-mounted flashers and a marked crosswalk. The design is finished. These funds are needed for construction.

**Justification:** School safety

**Useful Life:** 20 years

- **Council District** 11
- **Mobility Zone** 1
- **Planning District** 3
- **Community Redevelopment Area (None)**
- **Fair Share Sector** 1



### Budget:

• Land Acquisition	\$0
• Engineering & Design	\$0
• <u>Construction</u>	<u>\$300,000</u>
• Total Budget	\$300,000



## Traffic Signals

### 1) San Pablo Prkwy. and San Pablo Rd. S.

### 2) San Pablo Prkwy. and San Yezep Rd.

FY 20-21 = \$0

FY 21-22 = \$0

FY 22-23 = \$0

FY 23-24 = \$0

FY 24-25 = \$0

Beyond 5th = \$2,400,000

#### RATING CRITERIA:

#### Priority #4 (Score 7)

Public Health & Safety

Strategic Priorities

Fiscal Impact

Economic Development

Community Support & LT

Planning

Relationship to Other

Projects

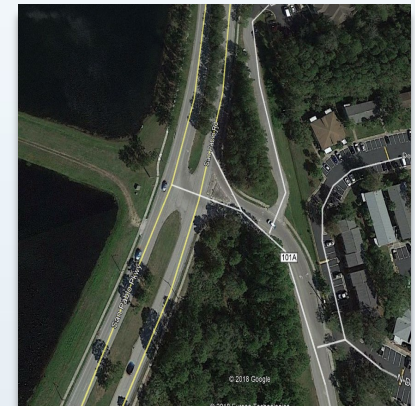
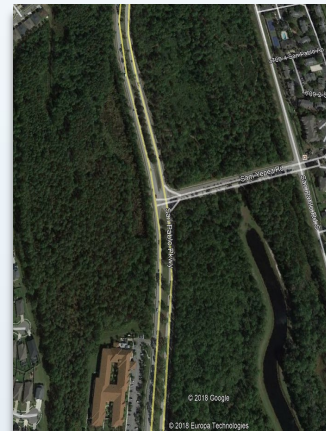
Service Level Impact

**Description:** Install traffic two (2) signals and fiber-optic interconnect cable.

**Justification:** During evaluation it was determined that signal warrants are met and full signals will allow the intersections to operate more safely and efficiently. Fiber-optic communication cable is needed to interconnect all signals from W. M. Davis Prkwy. to Beach Blvd.

Pedestrian features such as crosswalks and countdown pedestrian signal heads will be installed to connect existing sidewalk along both roadways.

**Useful Life:** 25 years







## Traffic Signals

### 1)Hodges Blvd. and Hunt Club Rd. 2)Hodges Blvd. and Montebello Way / Danforth Dr. W.

FY 19-20 = \$0

FY 20-21 = \$0

FY 21-22 = \$0

FY 22-23 = \$0

FY 23-24 = \$0

Beyond 5th = \$2,200,000

**Description:** Install two (2) traffic signals and fiber optic interconnect

**Justification:** During evaluation it was determined that signal warrants are met and full signals will allow the intersection to operate more safely and efficiently. Pedestrian features such as crosswalks and countdown pedestrian signal heads will be installed to connect existing sidewalk along both roadways.

**Useful Life:** 25 years

#### RATING CRITERIA:

##### Priority #1 (Score 12)

Public Health & Safety

Strategic Priorities

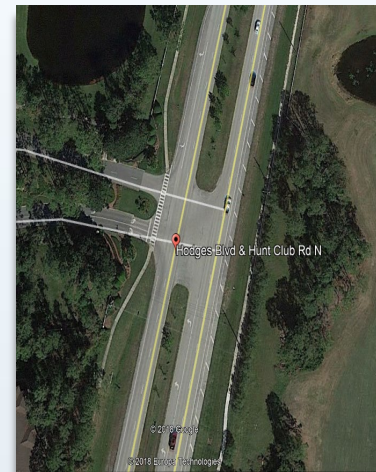
Fiscal Impact

Economic Development

Community Support & LT  
Planning

Relationship to Other  
Projects

Service Level Impact







## Traffic Signal - Baymeadows Rd. E. & Stonebridge Village Condos

**Description:** Two-way traffic signal. Meets warrants 1-Eight Hour Volume, Warrant 2-Four Hour Volume, Warrant 3-Peak Hour Delay, and Warrant 8-Roadway Network.

**Justification:** Improved operation. Improved safety.

**Useful Life:** 25 years

**RATING CRITERIA:**

**Priority #6 (Score 11)**

Public Health & Safety

Strategic Priorities

Fiscal Impact

Economic Development

Community Support & LT  
Planning

Relationship to Other  
Projects

Service Level Impact

- **Council District** 11
- **Mobility Zone** 1
- **Planning District** 3
- **Community  
Redevelopment Area  
(None)**
- **Fair Share Sector** 3.1



**Budget:**

- Land Acquisition \$0
- Engineering & Design \$105,000
- Construction \$595,000



## Traffic Signal - Baymeadows Rd. E. & Hampton Park Blvd.

**Description:** New Traffic signal.

**Justification:** This traffic signal will improve the operations and efficiency of this intersection during all hours of the day. The signal is justified because of the high traffic volumes at this location. Warrants 1,2, and 3 are met indicating that there is consistent congested throughout the day that can be reduced by a signal.

**Useful Life:** 25 years

<b>RATING CRITERIA:</b>	• <b>Council District</b>	<b>11</b>
<b>Priority #7 (Score 10)</b>	• <b>Mobility Zone</b>	<b>1</b>
Public Health & Safety	• <b>Planning District</b>	<b>3</b>
Strategic Priorities	• <b>Community Redevelopment Area (None)</b>	
Fiscal Impact	• <b>Fair Share Sector</b>	<b>3.1</b>
Economic Development		
Community Support & LT Planning		
Relationship to Other Projects		
Service Level Impact		



### Budget:

• Land Acquisition		\$0
• Engineering & Design	\$105,000	
• Construction		\$595,000



## Traffic Signal Airport Center Dr. and Gillespie Ave.

FY 20-21 = \$0

FY 21-22 = \$0

FY 22-23 = \$0

FY 23-24 = \$0

FY 24-25 = \$0

Beyond 5th = \$700,000

**Description:** Install traffic signal with pedestrian crossings features.

**Justification:** Citizens requested a signal at this location due to growth in the area. During evaluation it was determined that signal warrants are met and a full signal will allow the intersection to operate more safely and efficiently. Pedestrian features such as crosswalks and countdown pedestrian signal heads will be installed to connect existing sidewalk along both roadways.

**Useful Life:** 25 years

### RATING CRITERIA:

#### Priority #3 (Score 10)

Public Health & Safety

Strategic Priorities

Fiscal Impact

Economic Development

Community Support & LT  
Planning

Relationship to Other  
Projects

Service Level Impact







## Traffic Signal - New Berlin Rd. & Cedar Point Rd.

**Description:** New Traffic Signal

**Justification:** The study of this intersection showed that a signal will improve traffic operations during the morning and afternoon peak hours. It meets Warrants 1 and 2 indicating that it the signal will help to reduce congestion during busy times.

**Useful Life:** 25 years

**RATING CRITERIA:**

**Priority #8 (Score 6)**

Public Health & Safety

Strategic Priorities

Fiscal Impact

Economic Development

Community Support & LT

Planning

Relationship to Other

Projects

Service Level Impact

- **Council District** 2
- **Mobility Zone** 3
- **Planning District** 6
- **Community Redevelopment Area (None)**
- **Fair Share Sector 6.1**



**Budget:**

- |                        |           |           |
|------------------------|-----------|-----------|
| • Land Acquisition     |           | \$0       |
| • Engineering & Design | \$150,000 |           |
| • Construction         |           | \$850,000 |



# Traffic Engineering Division

- Sub-Projects
  - Signal Rebuilds
    - Highway Ave. & Ellis Rd.
    - Palmdale & Lake Park
    - Roselle & King
  - Signal Retiming





# Traffic Engineering Division

Questions?

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