

Gainesville's

# **UF I-STREET**

partnerships & initiatives

FSITE – Winter Workshop. Feb 9, 2019

Reitz Union, UF Campus, Gainesville

**Emmanuel Posadas, PE, PTOE**

Author

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UF + FDOT + GNV



Connected Vehicle & Signal Phasing and Timing

Video Detection & Analytics



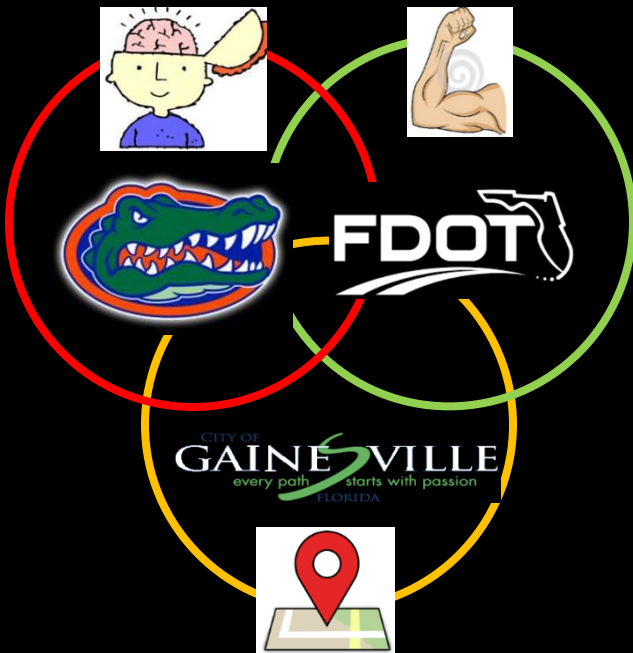
Central System & Performance Measures



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# UF, FDOT, GNV

1. Literature and State-of-the-art Review
2. Assist FDOT with Peer Exchange
3. Develop a Roadmap



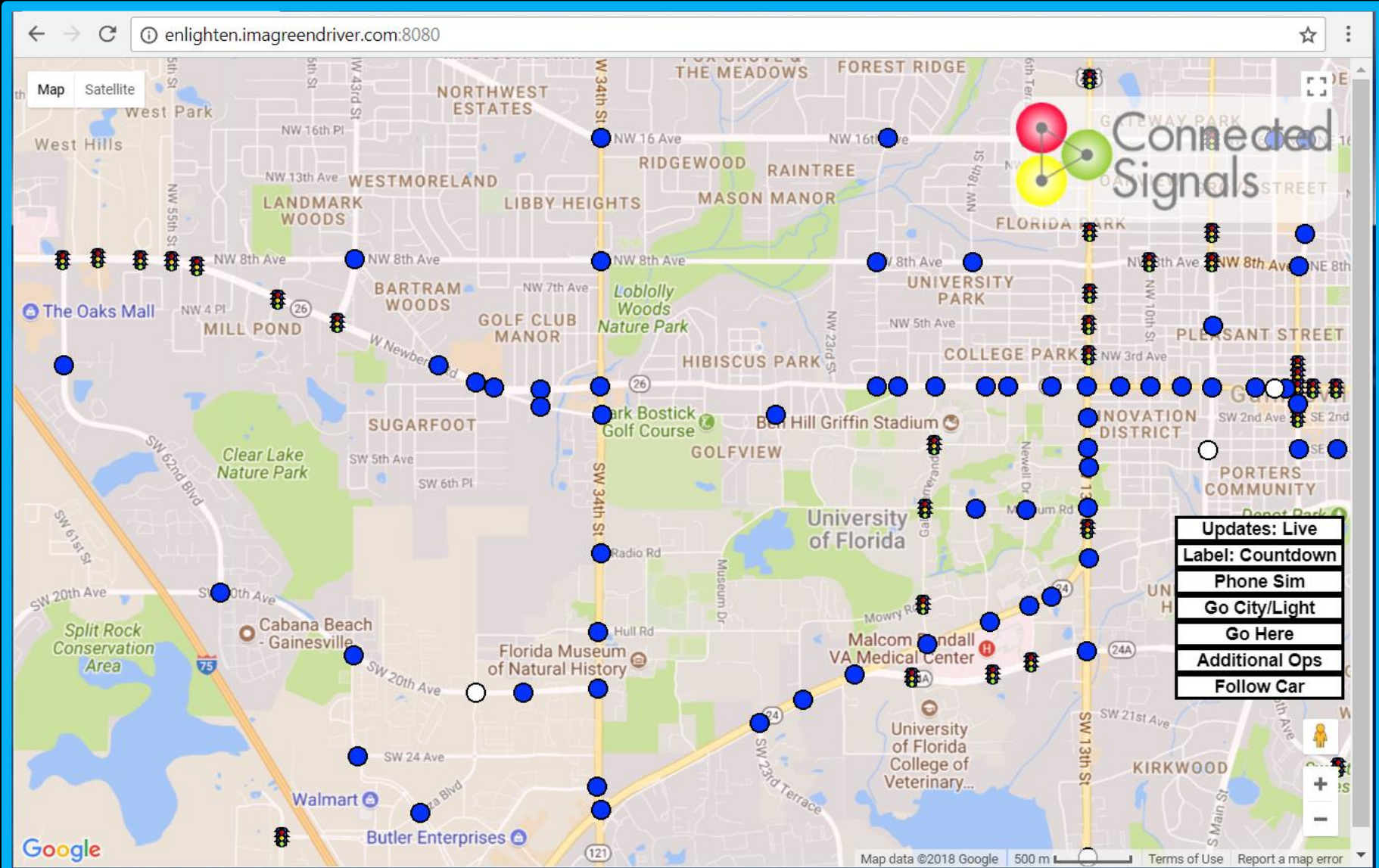
FDOT → State level *Strength*

UF → *Intelligence* and expertise

GNV → *Relevant* and local real world issue

# Connected Signals

## Cloud Collaboration



# Traffic Technology Services Cloud Collaboration

psa.traffictechservices.com/Home/Regions

**Gainesville**

Search ID, at street or on street

0	0	0	0	0	0	52	
0	0	0	0	0	0	28	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	?	?	?	?	?	1	

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6
- Group 7
- Group 11

Legend

Leaflet | © OpenStreetMap

# Iteris (Vantage Live) Cloud Collaboration

Monday, February 5, 2018

By Approach  By Movement

Secure | https://vantagelive.iteris.com/CL\_GAINESVILLE/#

Vantage Live!



### Vehicles - Yesterday

Top 5 Intersections By Volume

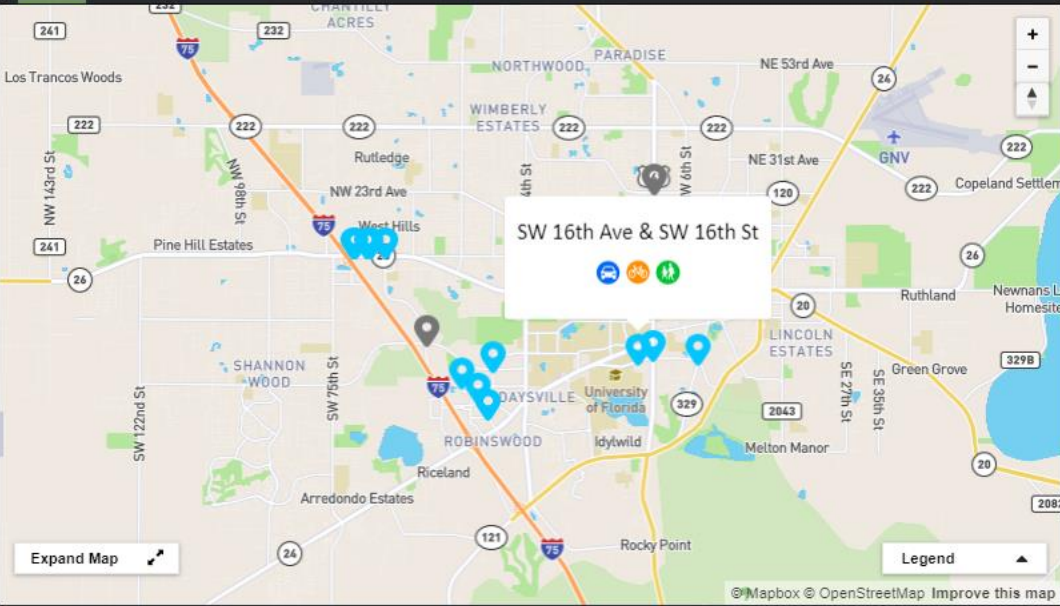
Intersection	Volume
Newberry & NW 69th Terr	59,470
Newberry & NW 62nd St	59,239
Newberry & NW 66th St	52,158
Newberry & Oaks Mall	51,394
Newberry & 175 Eastside	40,526

Top 5 Approaches By Volume

Intersection	Dir	Volume
Newberry & 175 E...	EB	28,185
Newberry & NW 6...	WB	28,032
Newberry & NW 6...	EB	27,961
Newberry & NW 6...	WB	26,078
Newberry & NW 6...	EB	25,786

Top 5 Movements By Volume

Intersection	Dir	Move	Volu
Newberry & 175...	EB	T	28,
Newberry & N...	WB	T	25,
Newberry & N...	EB	T	25,
Newberry & N...	EB	T	23,
Newberry & O...	EB	T	22,



### Mode Share - Yesterday

Top 5 Intersections By Mode Share

Intersection	% Car	% Bicycle	% Pedestrian
S Main St and S...	91.4	2	6.6
SW 16th Ave & ...	95	0.6	4.4
S Main St & SW...	96.8	0.5	2.7
Clark Butler Blv...	97.9	0.5	1.6
S Main St & SW...	98.4	0.4	1.2

### Bicycles - Yesterday

Top 5 Intersections By Volume

Intersection	Volume
SW 16th Ave & SW 13th St	558
S Main St and SE 2nd Ave	472
Clark Butler Blvd & Plaza...	161
SW 16th Ave & SW 16th St	126
Clark Butler Blvd & Wind...	123

### Pedestrians - Yesterday

Top 5 Intersections By Volume

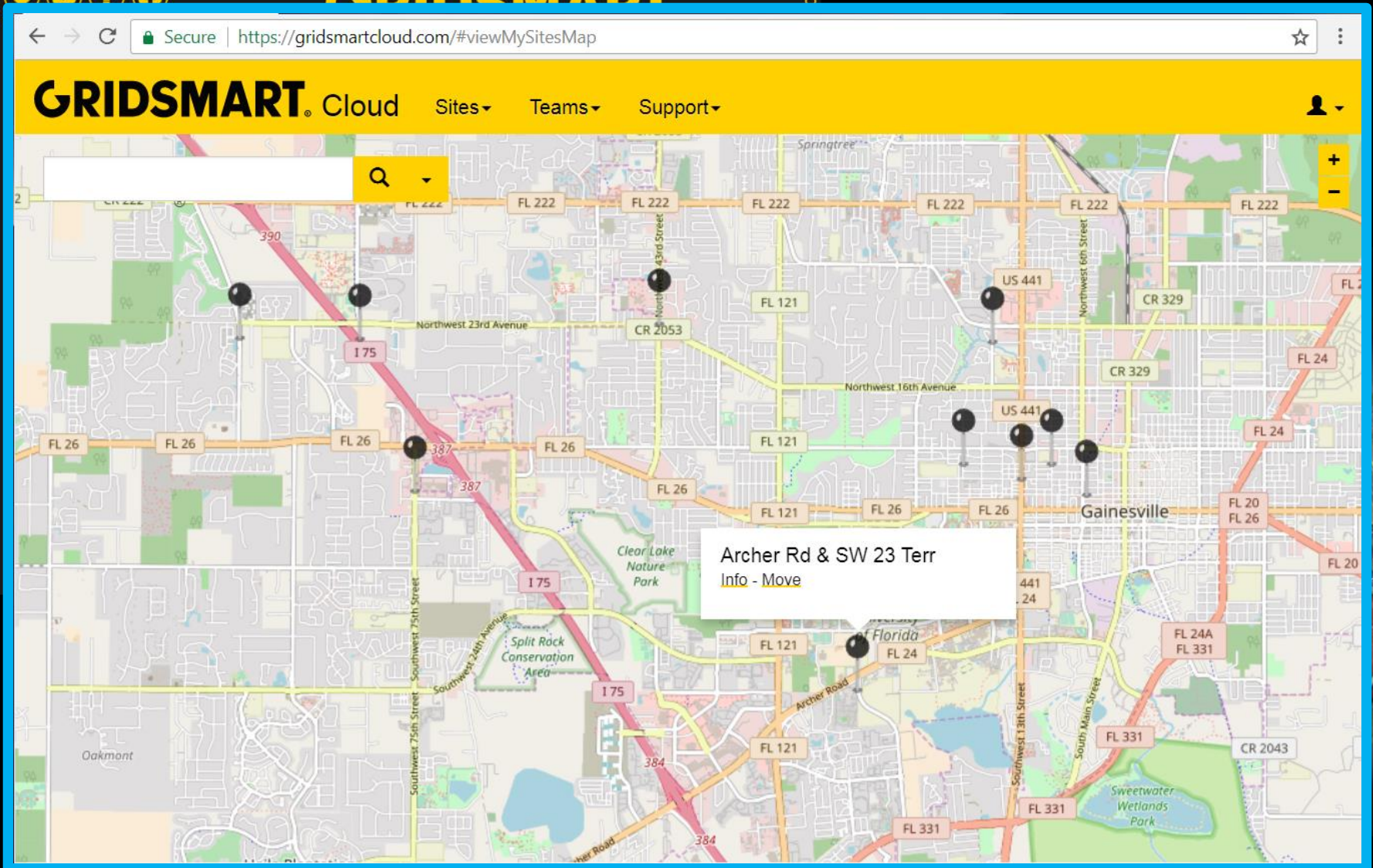
Intersection	Volume
S Main St and SE 2nd Ave	1,530
SW 16th Ave & SW 16th St	1,005
Newberry & NW 69th Terr	731
S Main St & SW 4th Ave	550

### System Status

Intersection	Communication	Standard Detection Mode
	Real-time as of 12:40pm	As of Yesterday
Clark Butler Blvd & Plaza Blvd	<span style="color: green;">■</span>	100%
Clark Butler Blvd & Windmeadows Blvd	<span style="color: green;">■</span>	100%
Newberry & 175 Eastside	<span style="color: green;">■</span>	100%
Newberry & NW 62nd St	<span style="color: green;">■</span>	100%

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# GridSmart Cloud Collaboration



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# Trafficware Cloud Collaboration

The screenshot displays the Trafficware SPM web interface. The browser address bar shows <https://spm.trafficwarecloud.com>. The page header includes the Trafficware logo (Engineered by Naztec), the SPM title, and navigation tabs for 'Report', 'Detector', and 'Contract'. A 'Sign out' link is located in the top right corner.

The main content area is split into two sections:

- Map:** A map of Gainesville, FL, showing major roads like I-75, SR 24, and SR 20. Several purple circular markers are placed on the map, indicating specific detector locations.
- Configuration Panel:** A sidebar on the right contains several input fields and a dropdown menu.
  - Date Range:** Two date pickers are set to '02/05/2018 12:00 AM' and '02/05/2018 11:59 PM'.
  - Metric Type:** A dropdown menu is open, showing 'Turning Movement C...' as the selected option. Other visible options include 'Approach Delay', 'Approach Volume', 'Arrivals On Red', 'Pedestrian Delay', 'Preemption Details', 'Purdue Coordination Diagram', 'Purdue Phase Termination', 'Purdue Split Failure', 'Split Monitor', and 'Turning Movement Counts'.
  - Show Lane Volume:** A checkbox labeled 'SHOW LANE VOLUME' is currently unchecked.
  - Show Total Volume:** A checkbox labeled 'SHOW TOTAL VOLUME' is currently checked.

# Applied Information (Glance) Cloud Collaboration

← → ↻ Secure | https://server1.appinfoinc.com/Home/Home/829

glance University of Florida - City of Gainesville FL powered by Applied Information

Home | Edit Profile | Report | Log-Off

Search

Name	Status	A
<b>City of Gainesville FL - Alachua Elem</b>		
SR_235_1	Online	0
<b>City of Gainesville FL - Alachua Learning Center</b>		
SR_235_EB	Online	0
SR_235_WB	Online	0
<b>City of Gainesville FL - Archer Comm</b>		
CR_241_2	Online	0
US_41_1	Online	0
<b>City of Gainesville FL - Country Day School</b>		
6800_SW_24thAv	Comms Fail	0
<b>City of Gainesville FL - Duval Early Learning</b>		
A_2100_NE_8th_Ave	Online	0
<b>City of Gainesville FL - EM_JJ Finley</b>		
1900 NW5 Ave	Online	0
<b>City of Gainesville FL - EM_Littlewood</b>		
3200 NW 8Ave WB	Online	0
<b>City of Gainesville FL - Gainesville High</b>		
H_1700_NW_13th_St	Online	0
H_2000_NW_13th_St	Online	0

Map Satellite

**1900 NW5 Ave** X

Last 1 Minutes 1  
Contact: Seconds  
Current: None  
Alarm: None

**Now**  
AC Voltage 120.7  
Monitor Battery 13.7

**Status**  
Cabinet Door Closed  
Beacon Status Central Schedule - OFF  
Lamp Status OK

**Next Scheduled Event...**  
6:45 AM Thursday, February Beacon 8, 2018 ON

[More Details...](#)

# TrafficCast/BlueArgus Cloud Collaboration

Index

Speed (mph)

Secure | https://bluetoad.trafficcast.com/map

logged in as posadasep  
Sign Out

DASHBOARD SPEED MAP BlueTOAD SETUP REPORTS METRICS O/D STUDIES ALARMS DOCS ACCOUNT

## Speed Map - Gainesville

Select a route:  
Show all pairs

Pair Selected: Archer Rd (I-75 E - SW 75th St) - WB

Map Satellite

West Hills  
University of Florida  
Gainesville  
Morningside Nature Center  
Gainesville Regional Airport

Updated 2/7/2018, 6:22:39 PM

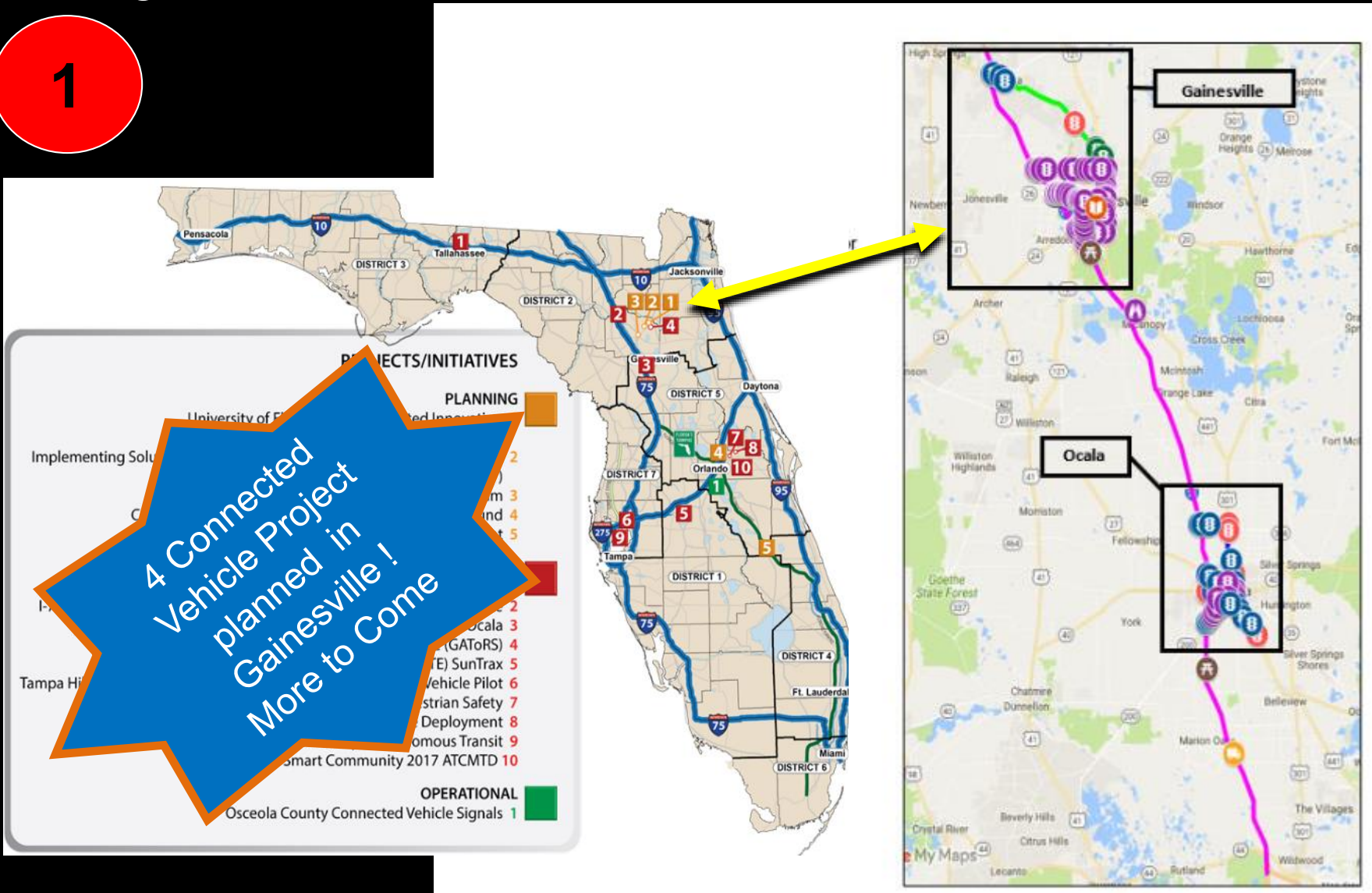
<b>Pair ID</b>	G-18701		
<b>Current Speed</b>	14.0 mph		
<b>Speed Limit</b>	45 mph		
<b>Hist. Speed*</b>	26.0 mph		
<b>Travel Time</b>	10 min 48 sec		
<a href="#">More Information</a>			
<b>Index determined by</b>			
<input type="radio"/> speed limit			
<input checked="" type="radio"/> avg last 12 Wednesdays			
<input type="radio"/> custom historical avg <a href="#">settings</a>			
<a href="#">Change Threshold Levels</a>			
<b>Start Device</b>	2477		
<b>HB</b>	<b>MACs</b>	<b>Lag</b>	<b>Volts</b>
●	●	●	11.30
<b>End Device</b>	2462		
<b>HB</b>	<b>MACs</b>	<b>Lag</b>	<b>Volts</b>
●	●	●	11.30
<b>Refresh Interval:</b>	No Refresh		

Historical Avg of wed. (Last 12 weeks) - Historical Avg of wed. (Last 12 weeks)



# Google "FDOT Connected Vehicle Initiative"

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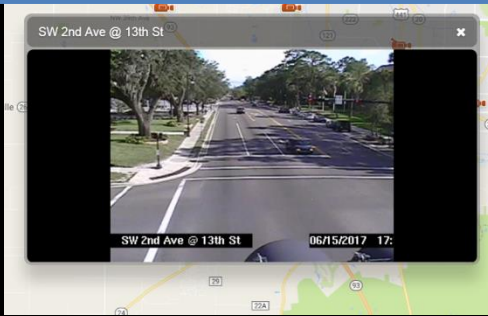
**4 Connected Vehicle Project Planned in Gainesville!**  
**More to Come!**



# VAVZ

## Video Analytics for Vision Zero

GNV Cloudframe/WOWZA



Count Data

Cloud



training

Train & Learn



Near Miss Probabilities



Quantify/Classify



# THANK YOU to Some Awesome Partners!

UF – **Lily** Elefteriadou, **Sanjay** Ranka, **Scott** Washburn  
**Clark** Letter, Nithin Argawal, Siva Srinivasan, Lili Du

UF Super Students – **Ashckan** Omidvar, Patrick Emami, Fabio Sasahara, **Dhruv** Mahajan



**GNV ITS/TMS Team –**

**Dustin** Thomas & Network Team

**Joe** Crackel & Signals Team

**Jeff** Gordon & Engineering Services Support

FDOT Traffic Ops – **Raj** Ponnaluri, **Fred** Heery and **Trey** Tillander  
FDOT D2 – **Pete** Vega, **Glenn** English, Jerry Ausher , Eduardo Gomez

