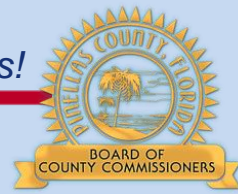




# Doing Things!

**Public Works, Transportation**





# Points to Cover

- Current status of ITS / ATMS construction projects
- Benefits of the new signal timing



# • MPO Approved ITS Planning Map

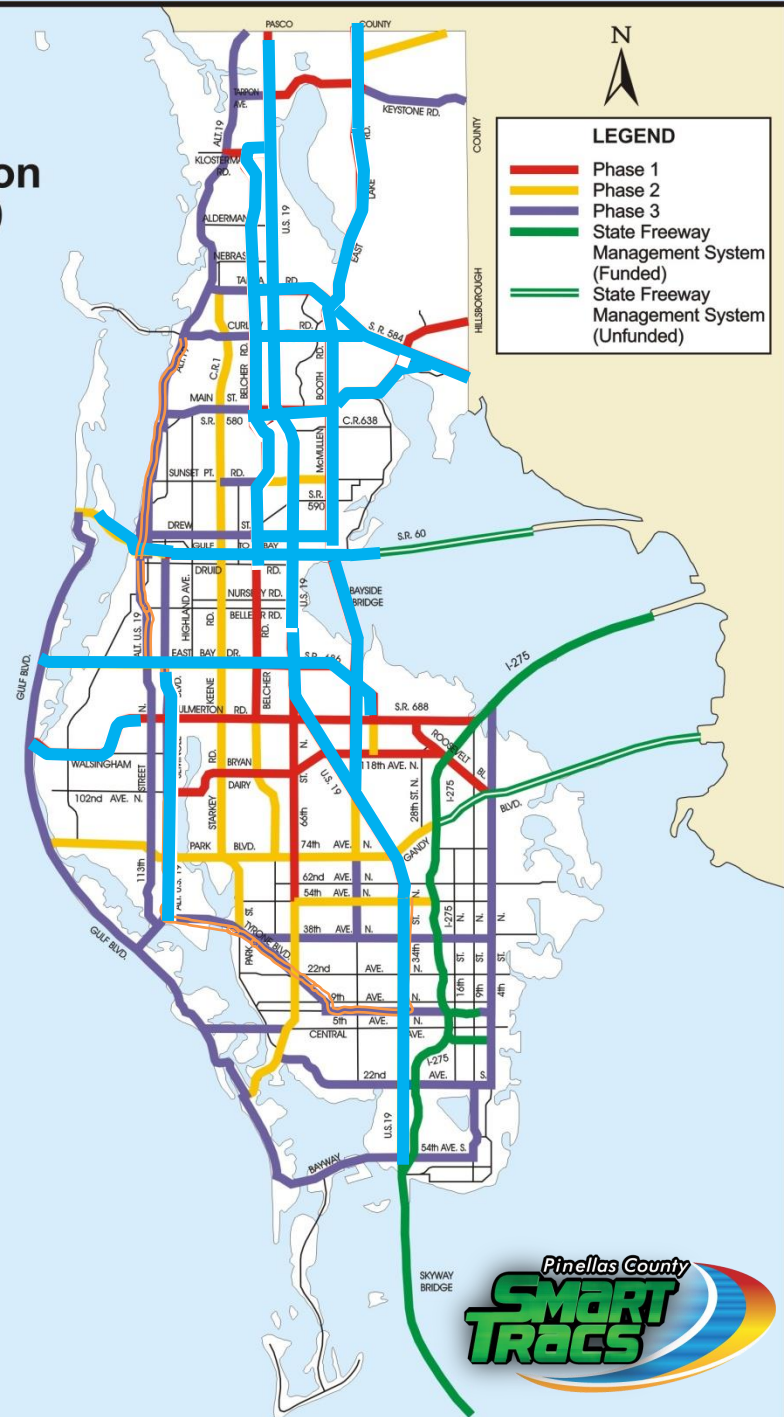
Circa 2005

## Intelligent Transportation System (ITS) Corridors



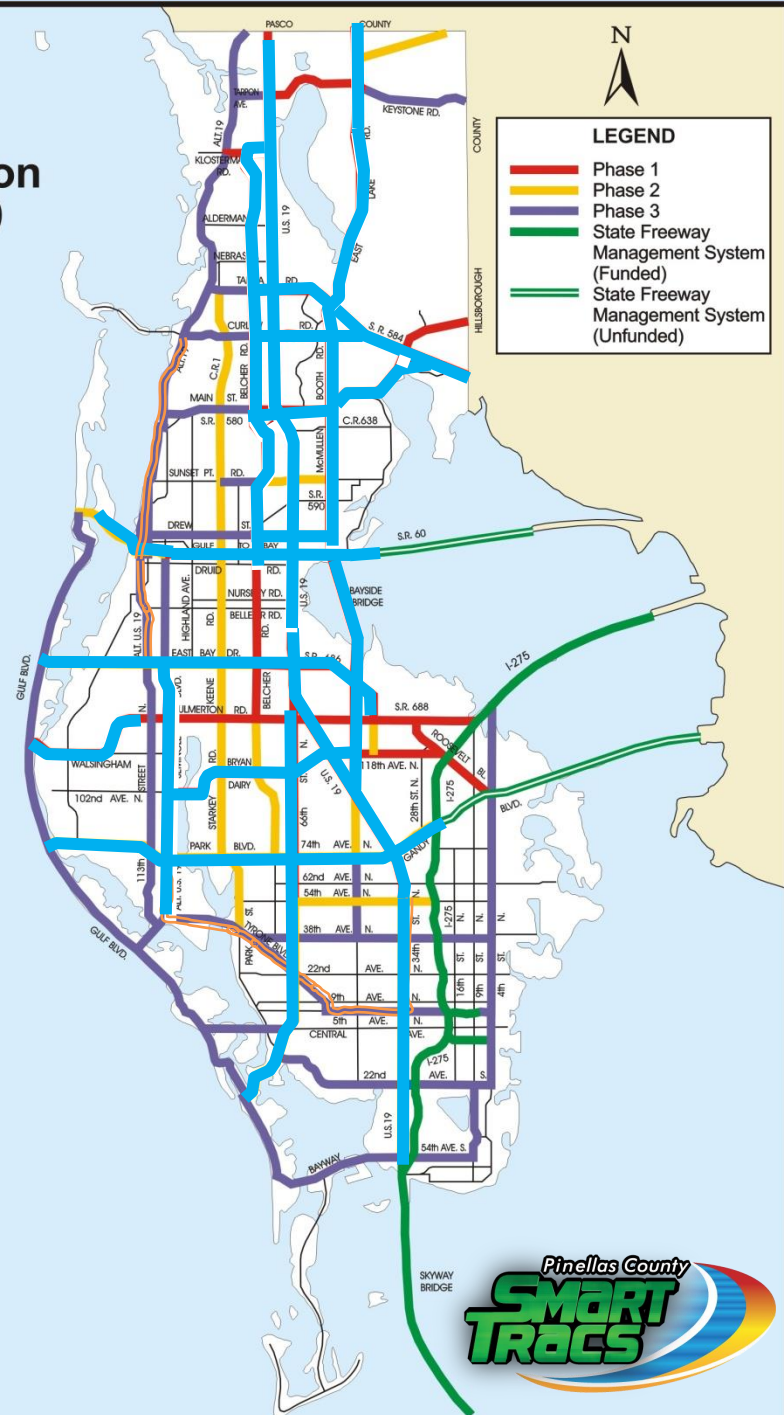
- US 19 from Pasco to Haines-Bayshore - COMPLETE
- SR 60 from Damascus to Hillcrest - COMPLETE
- US 19 from Haines Bayshore to 46th Avenue – COMPLETE
- 49th Street from Bayside Bridge to US 19 – COMPLETE
- Belcher Road from Klosterman to Druid – COMPLETE
- SR 60 from Hillcrest to Island Way - COMPLETE
- SR 580/586 from Race Track Rd to Alt US 19, Tampa Road from SR 580 to Keene Rd – COMPLETE
- North Fiber Trunk Line – COMPLETE
- SR 686 from Roosevelt to Gulf Blvd. –COMPLETE
- South Fiber Trunk Line / Seminole Blvd. ATMS – COMPLETE
- US 19 from 46th Avenue N to 54th Ave S – COMPLETE
- Ulmerton from Hamlin to Seminole – COMPLETE

## Intelligent Transportation System (ITS) Corridors



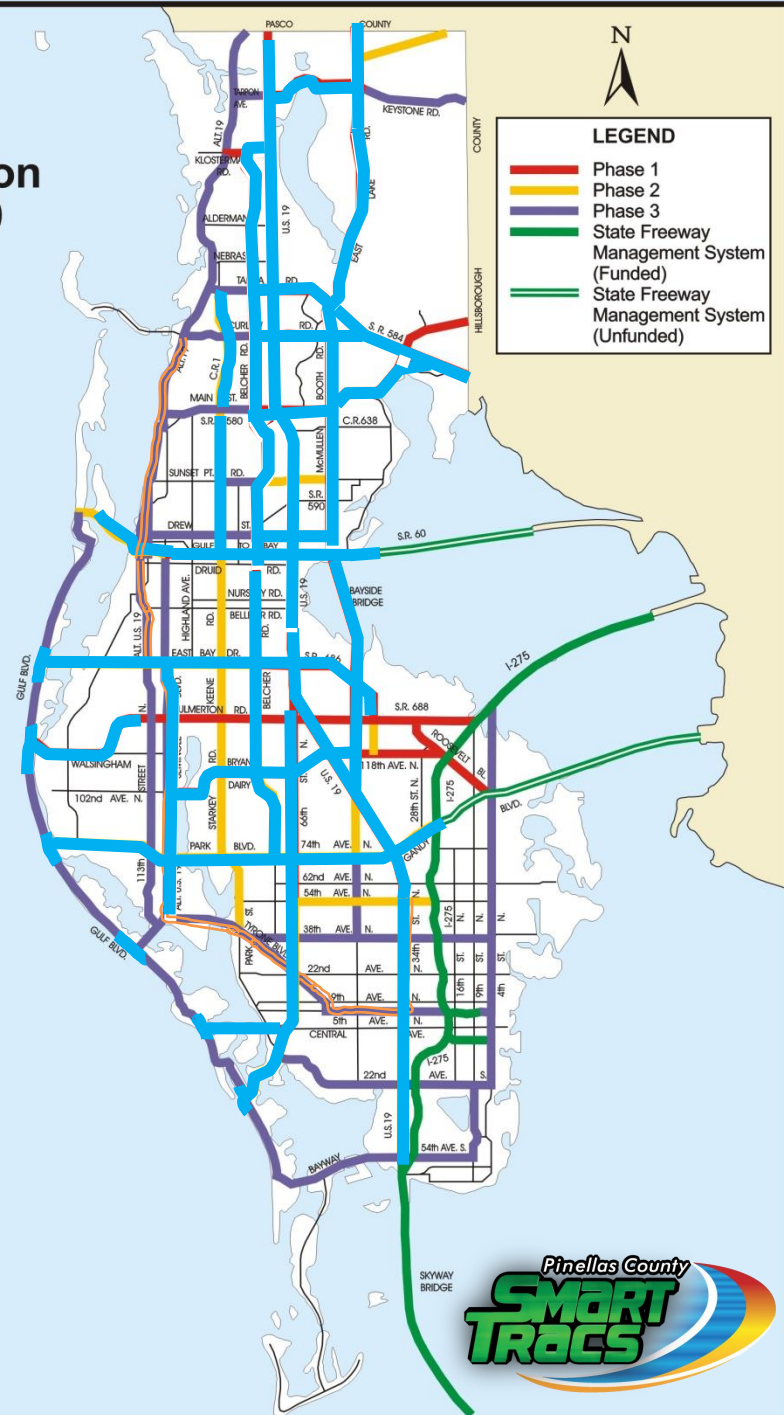
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- Ulmerton from Hamlin to Seminole – COMPLETE
- Park Blvd from I-275 to Gulf Blvd. – CONSTR 2016
- 66th Street from US 19 to Gulf Blvd. – CONSTR 2016
- Bryan Dairy from Seminole to 49<sup>th</sup> Street – CONSTR 2016

## Intelligent Transportation System (ITS) Corridors



- US 19 from Pasco to Haines-Bayshore - COMPLETE
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- 66th Street from US 19 to Gulf Blvd. – CONSTR 2016
- Bryan Dairy from Seminole to 49th Street – CONSTR 2016
- Belcher Rd from Druid to Park Blvd. – CONSTR MID 2016
- Gulf Blvd from SR 686 to Bayway – CONSTR LATE 2016
- CR 1 from GTB to Alderman – CONSTR 2016

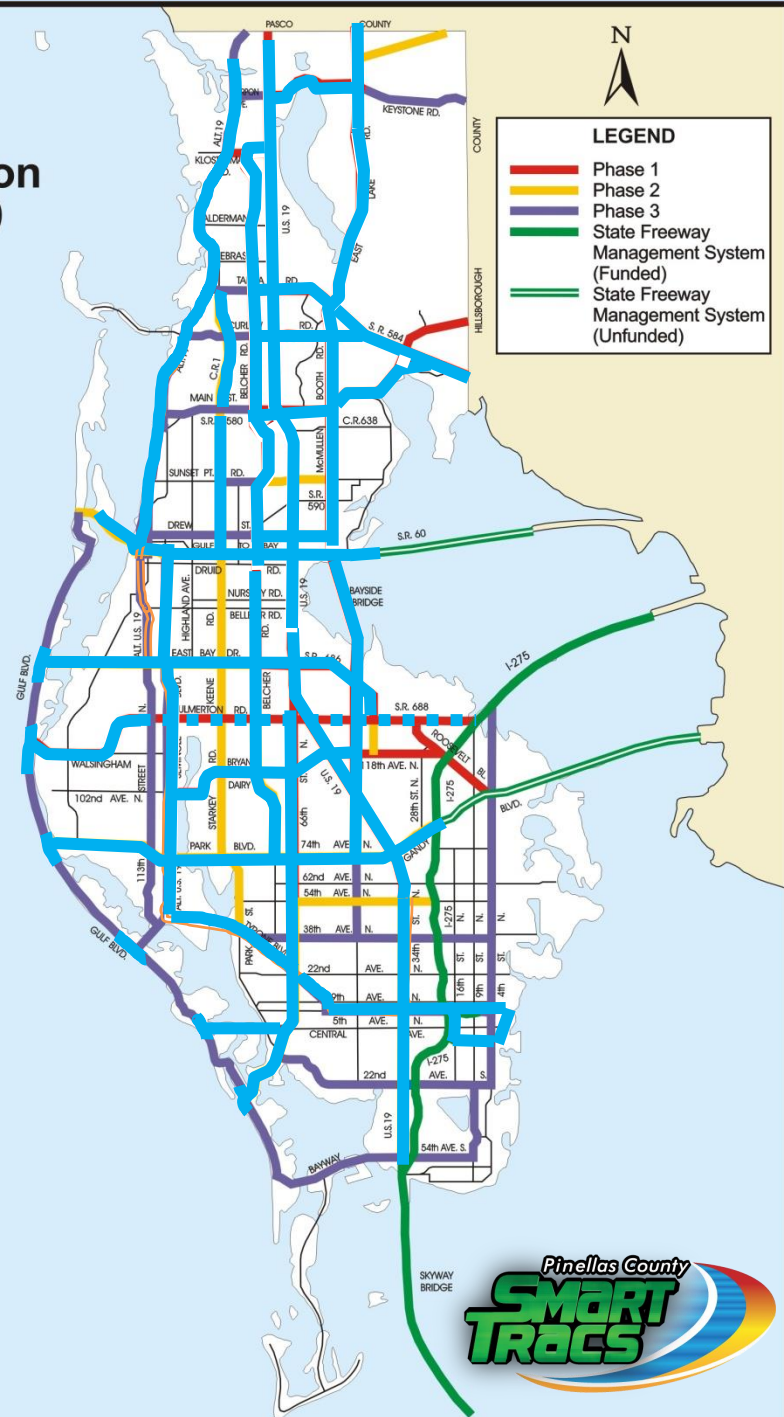
## Intelligent Transportation System (ITS) Corridors



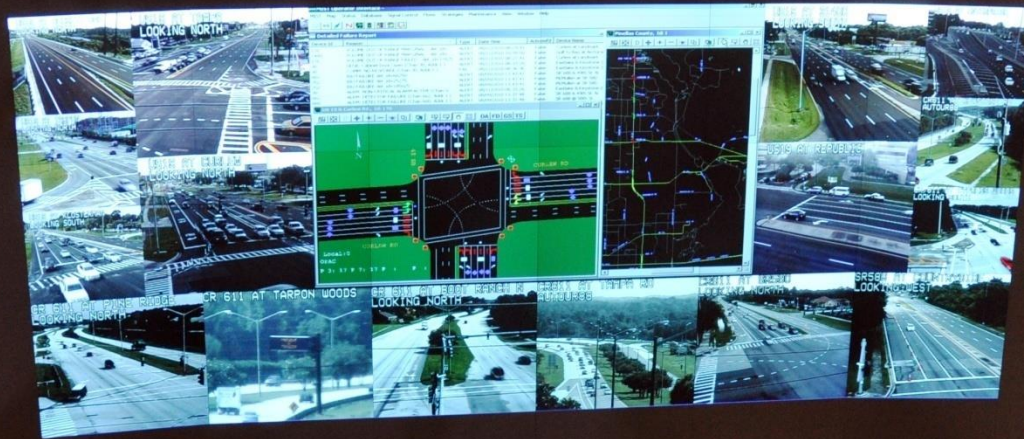
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- Belcher Rd from Druid to Park Blvd. – CONSTR MID 2016
- Gulf Blvd from SR 686 to Bayway – CONSTR LATE 2016
- CR 1 from GTB to Alderman – CONSTR 2016
- Alt US 19 from Pasco County to US 19 – CONSTR 2017
- St Pete Downtown ITS – CONSTR 2017
- 49<sup>th</sup> Street from US 19 to Park – Design 2017

*Our Vision: To Be the Standard for Public Service in*

## Intelligent Transportation System (ITS) Corridors



# Benefits of ATMS Signal Timing





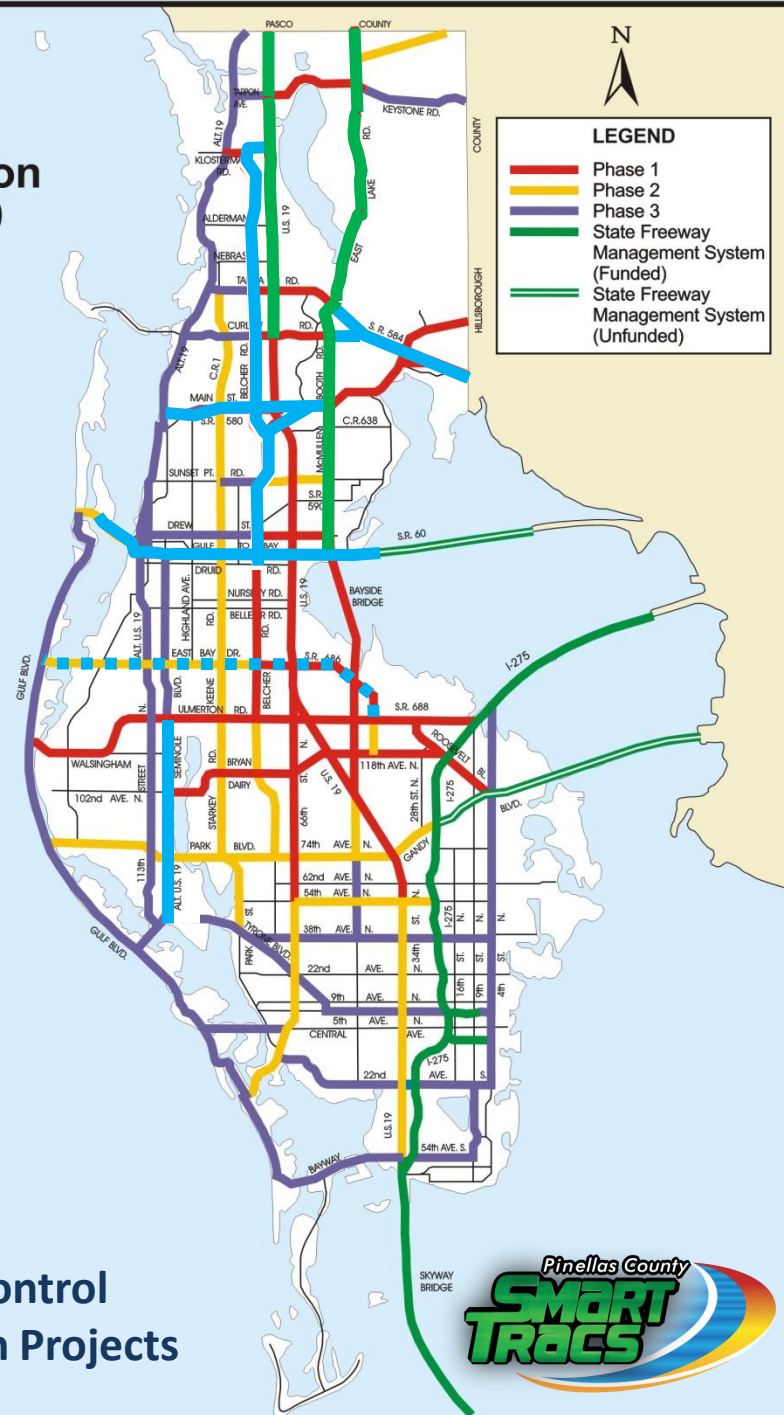
## ORIGINAL ADAPTIVE

- US 19 from Curlew to Beckett Way
- McMullen Booth from Drew Street to Trinity

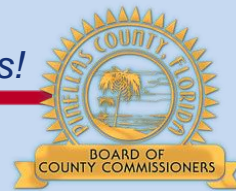
## INSYNC ADAPTIVE

- SR 60 from Damascus to Hillcrest – COMPLETE
- 49th Street from Bayside Bridge to US 19 – COMPLETE
- Belcher Road from Klosterman to Druid – COMPLETE
- SR 60 from Hillcrest to Island Way - COMPLETE
- SR 580/586 from Race Track Rd to McMullen Booth - COMPLETE
- SR 580 from Alt 19 to McMullen Booth - COMPLETE
- Seminole Blvd. from Ulmerton Road to 95<sup>th</sup> – FINE TUNING
- SR 686 from Roosevelt to Gulf Blvd. – JUNE 2016

## Intelligent Transportation System (ITS) Corridors



## Adaptive Control Intersection Projects

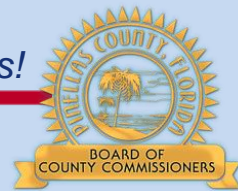


# Original Adaptive System Before / After Study Results

## Gulf-to-Bay Before/After Travel Time Studies

Westbound						
	Existing 2006	Adaptive 2006	Existing vs Adapt 06	Adaptive 2008	Existing vs Adapt 08	Adapt 06 vs Adapt 08
	Before	After	% Improvement		% Improvement	% Improvement
AMP	11:02	10:11	7.70%	9:36	12.99%	5.73%
AMO	10:52	10:03	7.52%	10:01	7.82%	0.33%
PMO	12:04	10:38	11.88%	9:47	18.92%	7.99%
PMP	13:13	12:19	6.81%	10:01	24.21%	18.67%
Eastbound						
AMP	12:06	10:23	14.19%	9:42	19.83%	6.58%
AMO	10:32	10:03	4.59%	9:58	5.38%	0.83%
PMO	11:07	10:28	5.85%	9:54	10.94%	5.41%
PMP	11:45	11:42	0.43%	10:24	11.49%	11.11%

\* Existing = Signal timing running prior to new system. Performed by Gord and Associates



# Accident Analysis

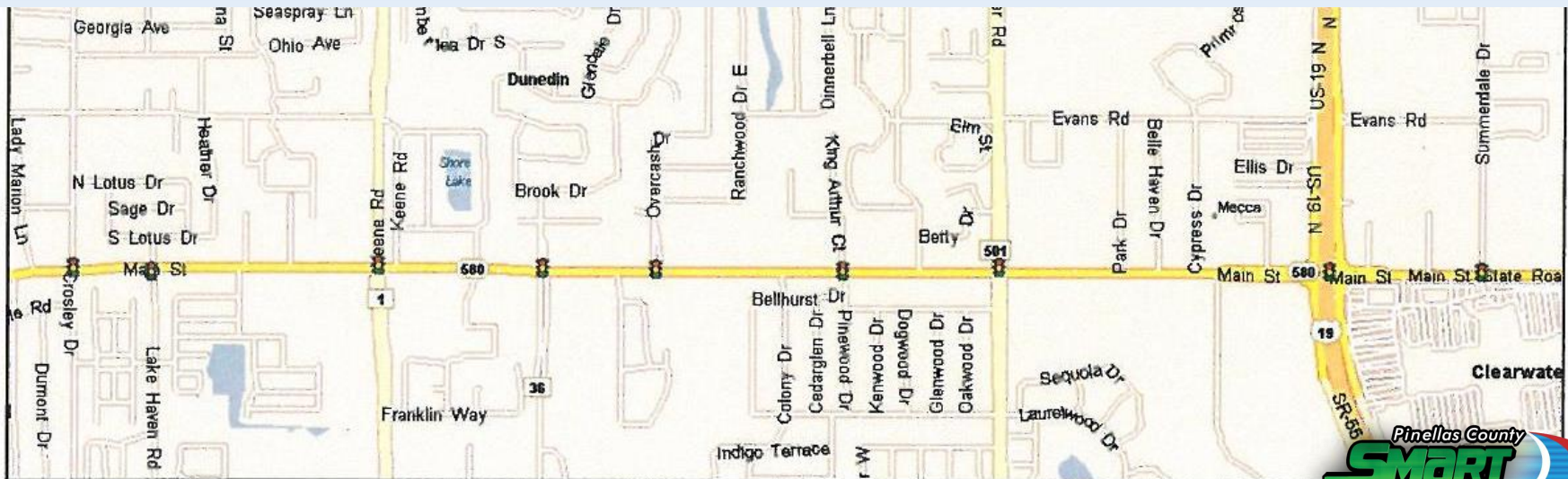
## REAR-ENDS BY FISCAL YEAR ALONG US HWY 19 N CORRIDOR (FROM ENTERPRISE RD TO BECKETT WAY)

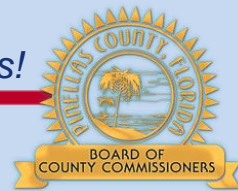
	ON US HWY 19 N				AT US HWY 19 N				TOTALS			
	TOTAL REAR-ENDS	TOTAL # OF INJ. ACC	Injuries (INJ.)	Fatalities (FAT.)	TOTAL REAR-ENDS	TOTAL # OF INJ. ACC	Injuries (INJ.)	Fatalities (FAT.)	TOTAL REAR-ENDS	TOTAL # OF INJ. ACC.	TOTAL INJ.	TOTAL FAT.
PERCENTAGE IMPROVED	15.6%	17.5%	14.5%	100.0%	-3.3%	10.5%	-7.8%	0.0%	12.2%	16.4%	11.7%	100.0%



# InSync Adaptive Control Software Test

- SR 580 from Summerdale to Pinehurst (9 ints)
- Pinellas County is the first installation in Florida
- Before / After studies were preformed to evaluate the new software



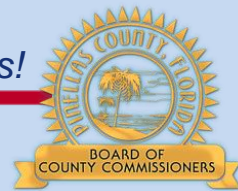


# SR 580 Before / After Study Results

- Study Conducted by Kimley-Horn and Associates  
March 6 – 15, 2012.

SR 580 Travel Time Comparison (Overall Results)			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	2,127.8	1,914.7	10%
Average Speed (mph)	23.6	26.6	13%
Total Delay (secs)	889.3	675.7	24%
Number of Stops	15.4	9.7	37%





# SR 580 Before / After Study Results

- Study Conducted by Albeck-Gerken, Inc. April 2015.

	SR 580/Main St: Crash Histories (All Intersections)							
	Crashes Before InSync			Crashes After InSync			Annual Crash Difference	Annual % Difference
	2010 Jan - Dec	2011 Jan - Dec	Average Per Year	2012 / 2013 Apr - Mar	2013 / 2014 Apr - Mar	Average Per Year		
Angle	32	31	31.5	29	25	27	-4.5	-14%
Bike	15	10	12.5	5	6	5.5	-7	-56%
Fixed Object	3	5	4	7	2	4.5	0.5	13%
Head - On	2	0	1	1	0	0.5	-0.5	-50%
Left Turn	15	11	13	14	15	14.5	1.5	12%
Ped	6	4	5	2	1	1.5	-3.5	-70%
Rear End	102	103	102.5	75	85	80	-22.5	-22%
Side Swipe	22	26	24	28	28	28	4	17%
U-Turn	0	2	1	3	5	4	3	300%
<i>Total</i>	<i>197</i>	<i>192</i>	<i>194.5</i>	<i>164</i>	<i>167</i>	<i>165.5</i>	<i>-29</i>	<i>-15%</i>





# Belcher Road Before / After Study Results

- Study Conducted by DKS and Associates June 2014.

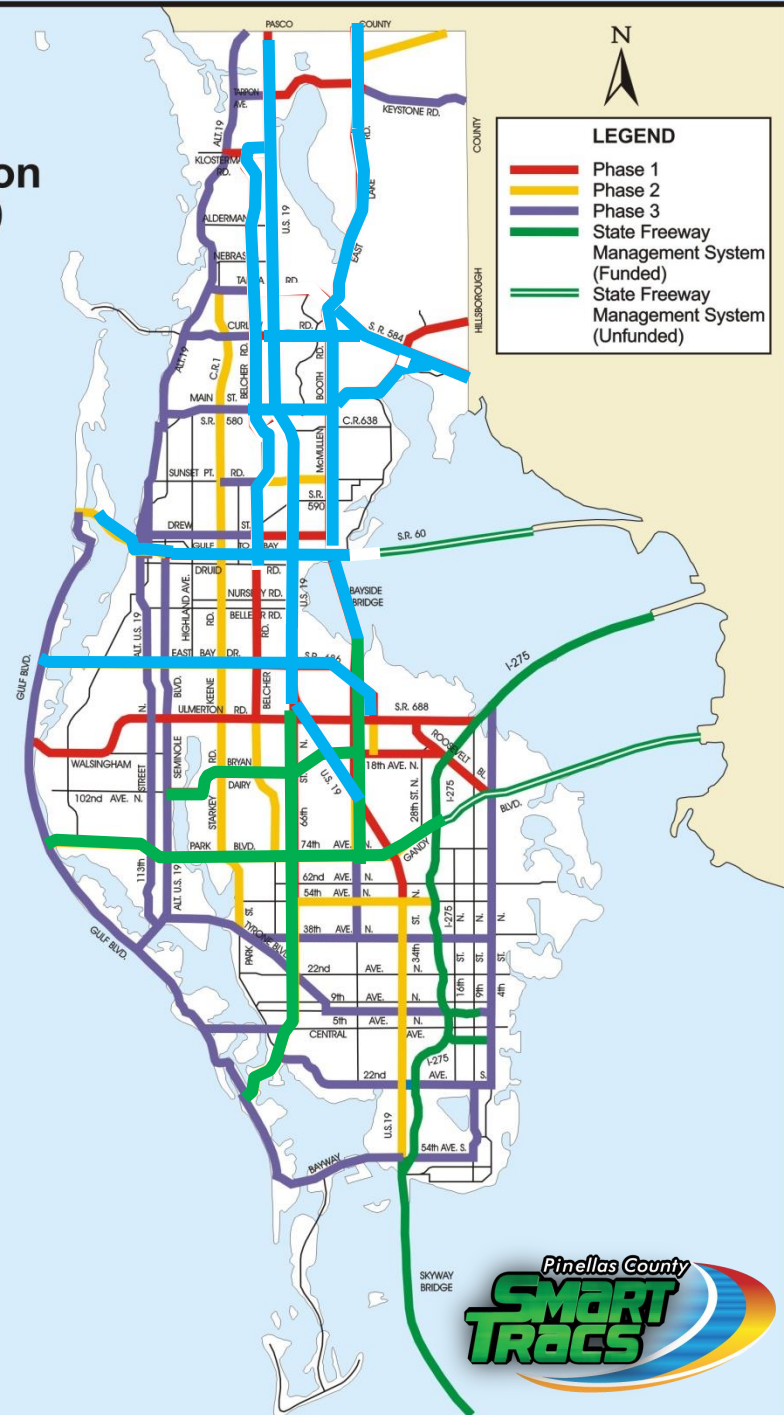
Belcher Road Travel Time Comparison			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	1,227	1,165	5%
Average Speed (MPH)	25.8	26.9	4%
Total Delay (secs)	213	145	46%
Number of Stops	4.6	4.1	12%



# BLUETOOTH TRAVEL TIME

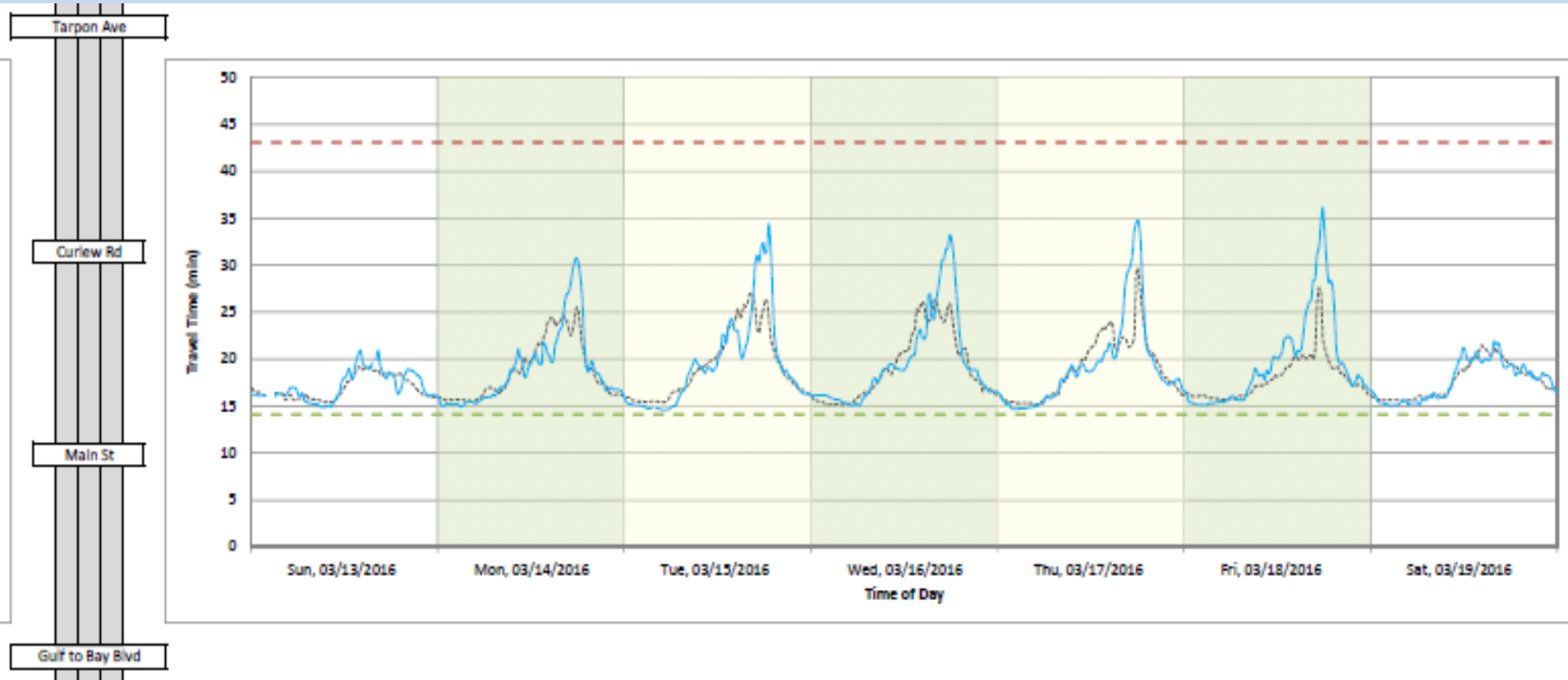
- McMullen from Trinity to Roosevelt (Complete)
- SR 60 from Island Way to Damascus (Complete)
- US 19 from Beckett Way to 49th St (Collecting Data)
- SR 580 from Racetrack to McMullen-Booth Road (Complete)
- Belcher Road from Klosterman to Druid (2016)
- SR 686 (Bay / Roosevelt) from Ulmerton to Gulf (2016)
- 49th Street from Ulmerton to US 19 (website only)
- 66th Street from Park to Gulf Blvd. (website only)
- Park Blvd from Gandy to Gulf Blvd. (website only)
- Bryan Dairy from Seminole to US 19 (website only)

## Intelligent Transportation System (ITS) Corridors





# Bluetooth Travel Time Data





# ATIS Components - Website

The screenshot displays the Pinellas Smart Tracs website interface. At the top, there is a navigation bar with the following tabs: **Select Your Region**, **Home**, **Traffic Condition Map** (selected), **Traffic Events**, **Travel Times**, and **My Smart Tracs**. Below the navigation bar is a header section featuring the **Pinellas County SMART TRACS** logo, a weather widget showing **Clearwater 86** and **Party Cloudy**, and a navigation menu with icons for **Weather Alerts**, **Traffic Construction**, **Traffic Incidents**, **Traffic Cameras**, **Message Signs**, and **Traffic Speeds**. The main content area is a map of Clearwater, Florida, with a red line indicating a route. A **CCTV List** window is open, showing a camera view from **SR 60 @ BELCHER RD** looking east. A **Map Key** is visible on the right side of the map, detailing symbols for **Camera**, **Message Signs** (Active and Inactive), and **Speed** (Fast, Normal, Below Normal, Slow, No data). The bottom of the map includes the text **Map data ©2015 Google**, **Terms of Use**, and **Report a map error**.

# Questions or Comments?

