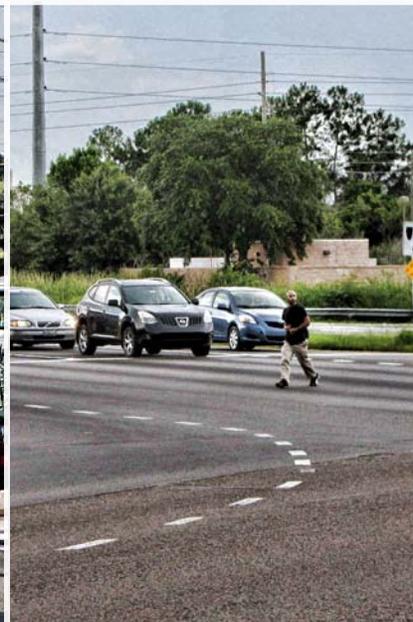




Executive Summary

US 192 to I-4 | November 2017

FM 437174-1 & 437175-1



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Project/Study Area Description

The Florida Department of Transportation (FDOT) District Five conducted a Corridor Planning Study to evaluate the future needs of SR 535 between US 192 and I-4/Vineland Avenue in northwest Osceola County/southwest Orange County. The purpose of the Corridor Planning Study was to identify and evaluate multi-modal alternatives that will be carried forward into future phases of project development. The Corridor Planning Study is a precursor to the SR 535 PD&E Study, which is scheduled in MetroPlan Orlando's Transportation Improvement Program (TIP) for fiscal year 2019/20. SR 535 from US 192 to I-4/Vineland Avenue is classified as an urban minor arterial oriented southeast to northwest in unincorporated Osceola and Orange Counties. There are two distinct clusters of developed parcels at either end of the study corridor separated by large areas of vacant land or conservation open spaces. The SR 535 study corridor is displayed in **Figure 1**.

Purpose and Need

The purpose of the SR 535 Corridor Planning Study is to develop and evaluate alternatives to accommodate future traffic demand and improve bicycle, pedestrian, and transit connectivity. The need for the project is based on three primary factors: transportation demand, modal interrelationships, and safety. From a transportation demand perspective, the projected future year 2040 AADT are anticipated to range from 42,000 vpd in the four lane segment to 70,000 vpd in the six lane segment of SR 535. 2040 demand is projected to be approximately 10,000 to 25,000 vpd higher than the roadway capacities. From a modal interrelationships perspective, pedestrian facilities are missing on both the east and west sides of SR 535 between Kyngs Heath Road and Vistana Drive. There are no bicycle facilities present along the entire length of SR 535 within the study limits. From a safety perspective, there were a total of 1,142 reported crashes between 2010 and 2014, 521 of which (46 percent) resulted in at least one injury and seven (7) of which resulted in at least one fatality. The highest crash type observed was rear end, comprising 61 percent of the total crashes, indicating congestion. Crashes during non-daylight conditions accounted for 42 percent of the overall crashes. Of the 1,142 reported crashed between 2010 and 2014, there were 13 pedestrian crashes and five (5) bicycle crashes during the analysis period and of the seven total fatal crashes, four involved a pedestrian or bicycle. Six (6) of the 18 pedestrian/bicycle crashes occurred when pedestrians/bicyclists were walking on the paved shoulder in areas where no sidewalks are present, with two of those crashes resulting in a fatality.

Summary of Improvements

As noted above, a PD&E Study is programmed for fiscal year 2020. While this corridor planning study identified purpose, need, and various solutions for the issues along the corridor, the PD&E Study will evaluate the alternatives to a greater level of detail and select a preferred alternative. The following summarizes the improvements identified in the SR 535 Corridor Planning Study:

- TSM&O and multi-modal improvements including adaptive PedSafe, signal control, transit enhancements, and LED corridor lighting.

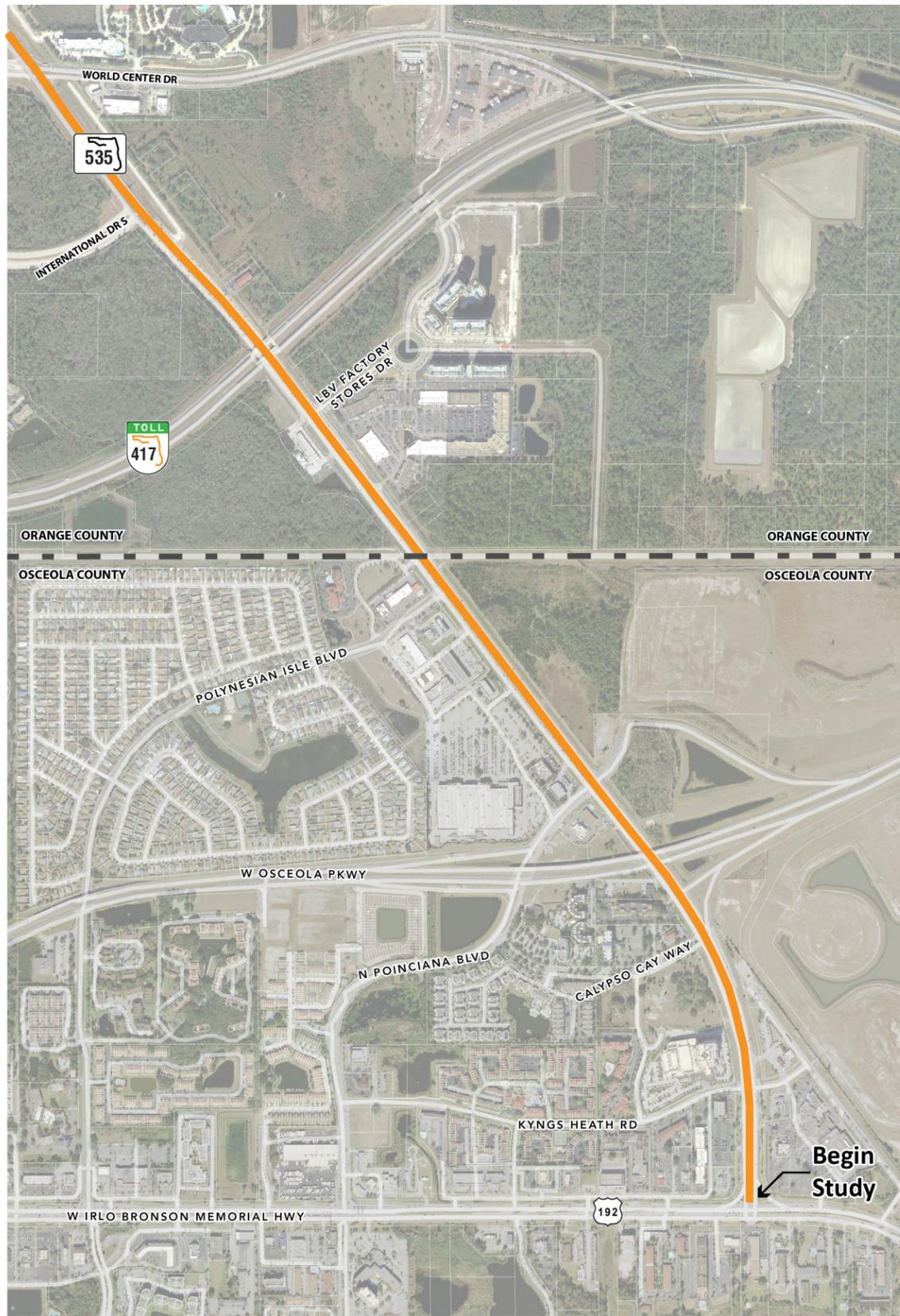
- Typical section alternatives –
 - Three four-to-six lane widen to the outside alternatives from Kyngs Heath Road to Vistana Drive;
 - Three four-to-six lane widen to the inside alternatives from Kyngs Heath Road to Vistana Drive; and
 - Three alternatives addressing pedestrian/bicycle mobility from Vistana Drive to I-4/Vineland Avenue.
- Intersection turn lane improvements from US 192 to International Drive –
 - US 192 – Alternative 1
 - Second exclusive southbound left turn lane;
 - Second westbound right turn lane; and
 - Place the westbound channelized right turn lanes under signal control.
 - US 192 – Alternative 2
 - Second exclusive southbound left turn lane;
 - Second westbound right turn lane; and
 - Remove the channelization for the westbound right turn lanes and bring them under the signal control at the intersection.
 - Kyngs Heath Road
 - Second southbound left turn lane;
 - Third southbound through lane;
 - Third northbound through lane; and
 - Convert westbound shared through/left lane to an through lane and exclusive left turn lane.
 - Poinciana Boulevard
 - Third northbound through lane;
 - Third eastbound left turn lane;
 - Convert southbound shared through/right lane to an through lane and exclusive right turn lane; and
 - Convert westbound shared through/right lane to an through lane and exclusive right turn lane.
 - Polynesian Isle Boulevard
 - Second southbound left turn lane;
 - Third northbound through lane; and
 - Convert westbound shared through/right lane to an through lane and exclusive right turn lane.
 - LBV Factory Stores Drive
 - Second southbound left turn lane;
 - Third northbound and southbound through lane; and
 - Convert westbound shared through/right lane to an through lane and exclusive right turn lane.
 - International Drive

- Third northbound through lane;
- Second northbound left turn lane; and
- Second eastbound right turn lane.
- Grade-separated interchange alternatives at SR 535 and SR 536/World Center Drive –
 - Diverging Diamond Interchange (DDI); and
 - Single Point Urban Interchange (SPUI).
- Innovative intersection treatments –
 - Displaced Left-Turn (DLT) at SR 535 and SR 536/World Center Drive; and
 - Restricted Crossing U-Turns (RCUT) from Vistana Drive to just north of Meadow Creek Drive.

Table 1 summarizes the segment LOS evaluation when implementing the build alternatives noted above.

Table 1: No-Build and Build HCM Segment LOS Evaluation Results

Direction	Segment	No-Build		Build	
		AM	PM	AM	PM
Northbound	US 192 to Kyngs Heath Rd.	C	C	C	C
	Kyngs Heath Rd. to Osceola Parkway Eastbound On-Ramp	B	B	B	B
	Osceola Parkway Ramps to Poinciana Blvd.	F	F	F	D
	Poinciana Blvd. to Polynesian Isle Blvd.	F	F	B	E
	Polynesian Isle Blvd. to LBV Factory Stores Dr.	F	F	E	D
	LBV Factory Stores Dr. to International Dr.	F	F	C	C
	International Dr. to SR 536/World Center Dr.	F	F	F	E
	SR 536/World Center Dr. to Vistana Dr.	B	C	C	C
	Vistana Dr. to Vistana Centre Dr.	B	C	C	C
Vistana Centre Dr. to Meadow Creek Dr.	B	C	D	C	
Southbound	Meadow Creek Dr. to Vistana Centre Dr.	F	F	E	F
	Vistana Centre Dr. to Vistana Dr.	F	F	B	C
	Vistana Dr. to SR 536/World Center Dr.	F	F	B	B
	SR 536/World Center Dr. to International Dr.	D	F	B	B
	International Dr. to LBV Factory Stores Dr.	C	F	B	D
	LBV Factory Store Dr. to Polynesian Isle Blvd.	E	F	C	F
	Polynesian Isle Blvd. to Poinciana Blvd.	C	F	E	E
	Poinciana Blvd. to Osceola Parkway Ramps	C	C	C	C
	Osceola Parkway Eastbound On-Ramp to Kyngs Heath Rd.	C	D	C	D
Kyngs Heath Rd. to US 192	F	F	F	F	



Aerial Image Fly Date: March 2016



0 0.25 0.5 Miles

Figure No. 1
Study Corridor

- Study Corridor
- County Line