

# **TRAFFIC TECHNICAL MEMORANDUM**

## **Corridor Traffic and Intersection Analysis Report**

### **US 41 (SR 45)**

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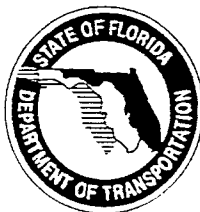
From SR 44 to the Vicinity of SR 200

W.P.I. No: 7119004  
State Project No: 02010-1543

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Prepared for:

FLORIDA DEPARTMENT OF TRANSPORTATION  
DISTRICT 7



November, 1997

## **AIR/NOISE TRAFFIC DATA DEVELOPMENT**

### **Air Traffic Data**

Traffic data were developed for the required air quality screening test. The data was based on the forecasted traffic for Opening Year 2005 and Design Year 2020. The methodology for the development of the traffic forecasts is documented in the Travel Demand Forecasting section starting on page 18.

The traffic demand is assumed to be the same for the build and no-build scenarios, but the average cruise speed will be different due to the level of congestion anticipated. The most congested intersection in the study area under all scenarios is the intersection of US 41/SR 44 as determined by the design hour turning movement volumes documented in Exhibit 12 for the Opening Year 2005 and Exhibit 11 for the Design Year 2020.

The average cruise speed is assumed to be the posted speed for the build condition. For the no-build condition it is assumed to be lower due to anticipated congestion. The no-build cruise speed for the design year is assumed to be lower than the no-build cruise speed for the opening year due to the anticipated increase in congestion. The required forms for the air study screening data were completed and documented in Appendix I.

### **Noise Traffic Data**

Traffic data were developed for the required noise studies. The following five study segments were determined by changes in traffic volumes and posted speed:

1. From SR 44 to Montgomery Avenue
2. From Montgomery Avenue to Inverness Regional Shopping Center (change in Traffic Volumes)
3. From Inverness Regional Shopping Center to Withlacoochee State Trail (change in Traffic Volumes)
4. From Withlacoochee State Trail to CR 486 (change in posted speed from 45mph to 55 mph)
5. From CR 486 to SR 200 (change in Traffic Volumes)

**DISTRICT 7 PD&E**  
**TRAFFIC DATA FOR AIR STUDY SCREENING TEST**

DATE : 10-31-97

PREPARED BY: Abdul-Rahman Hamad

State Project Number(s): 02010-1543

Work Program Number(s): 7119004

Federal Aid Number(s): XL-332-1(14)

Project Description: Widening US 41 (SR 45) from SR 44 to SR 200

**NOTE:** The most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the vph of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 m (500') from the intersection.

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**OPENING YEAR: 2005**

**"BUILD"**

Most Congested Intersection:

US 41 at SR 44

Design or Peak Hour Traffic

for most congested leg: 1440 vph

Specify leg: Eastern Leg (westbound SR 44)

Average Cruise Speed: 70 Km/h (45 mph)

**"NO-BUILD"**

Most Congested Intersection:

US 41 at SR 44

Design or Peak Hour Traffic

for most congested leg: 1440 vph

Specify leg: Eastern Leg (Westbound SR 44)

Average Cruise Speed: 60 Km/h (40 mph)

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**DESIGN YEAR : 2020**

**"BUILD"**

Most Congested Intersection:

US 41 at SR 44

Design or Peak Hour Traffic

for most congested leg: 2215 vph

Specify leg: Eastern Leg (Westbound SR 44)

Average Cruise Speed: 70 Km/h (45 mph)

**"NO-BUILD"**

Most Congested Intersection:

US 41 at SR 44

Design or Peak Hour Traffic

for most congested leg: 2215 vph

Specify leg: Eastern Leg (Westbound SR 44)

Average Cruise Speed: 60 Km/h (35 mph)

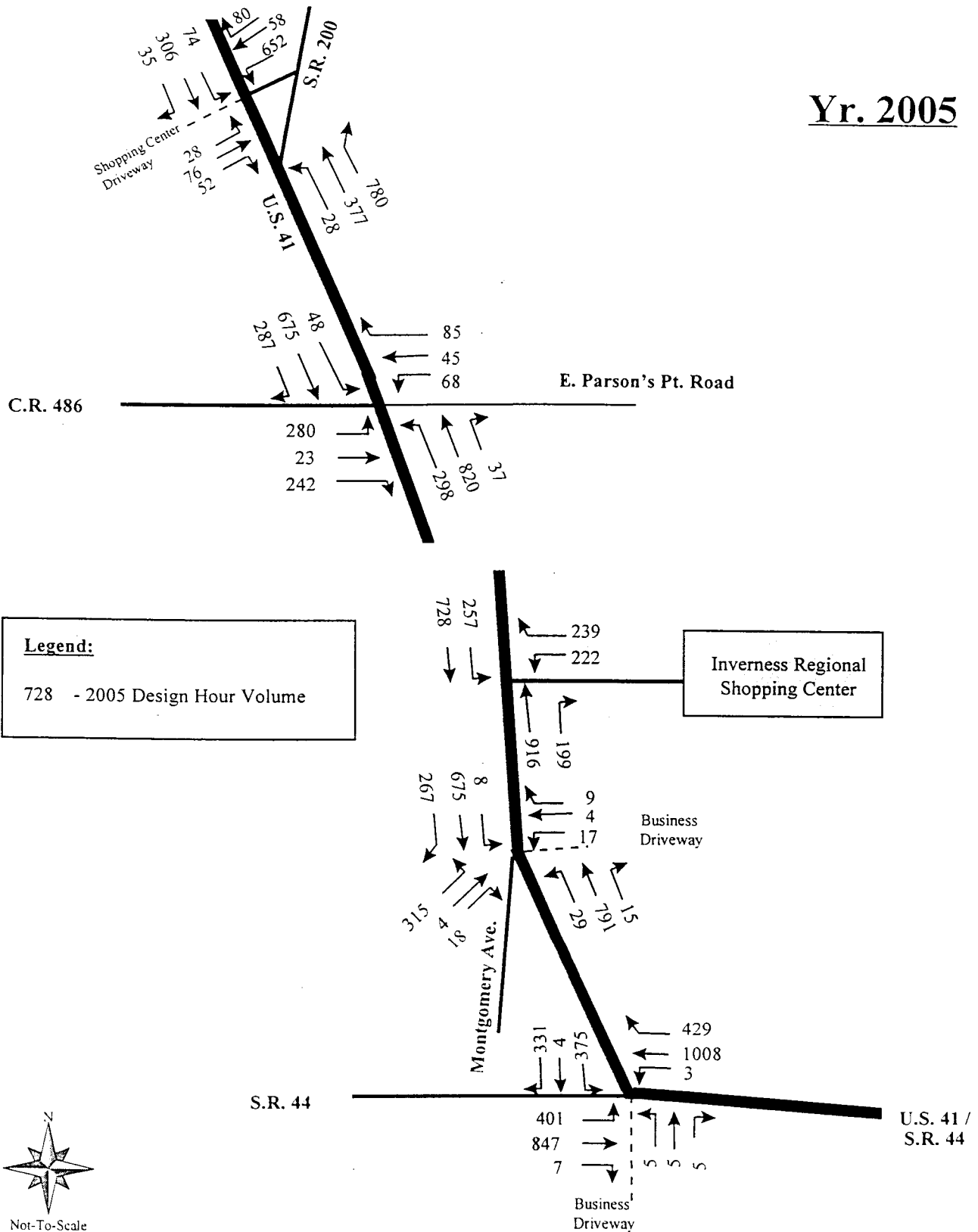
FLORIDA DEPARTMENT OF TRANSPORTATION  
TRAFFIC DATA FOR AIR STUDIES

INTERSECTION TRAFFIC VOLUMES

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↑

1. See Exhibit 12 for "Opening Year 2005" design hour intersection traffic volumes.
2. See Exhibit 11 for "Design Year 2020" design hour intersection traffic volumes.
3. See Exhibit 2 for "No-Build" intersection geometry.
4. See Exhibit 14 for "Build" intersection geometry.

Yr. 2005

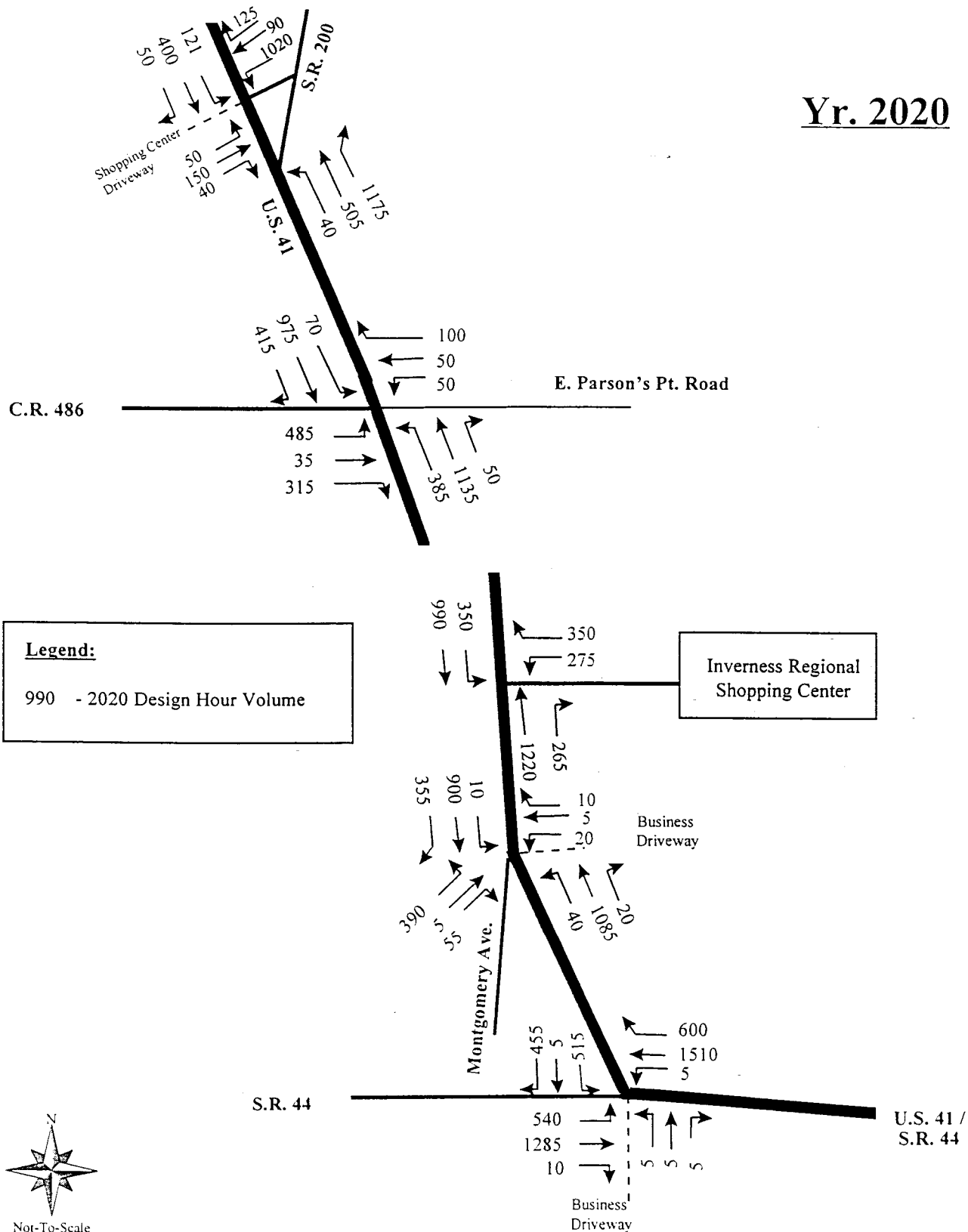


**U.S. 41 PD&E  
Re-evaluation**  
Citrus County  
FDOT - District 7

**Year 2005 Design Hour  
Turning Movement Volumes**

**EXHIBIT  
12**

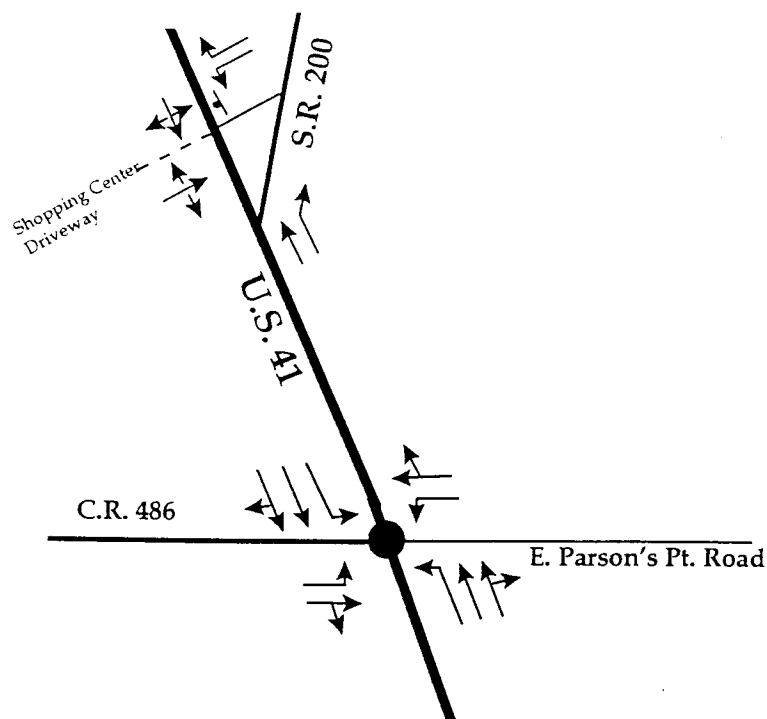
Yr. 2020



**U.S. 41 PD&E  
Re-evaluation**  
Citrus County  
FDOT - District 7

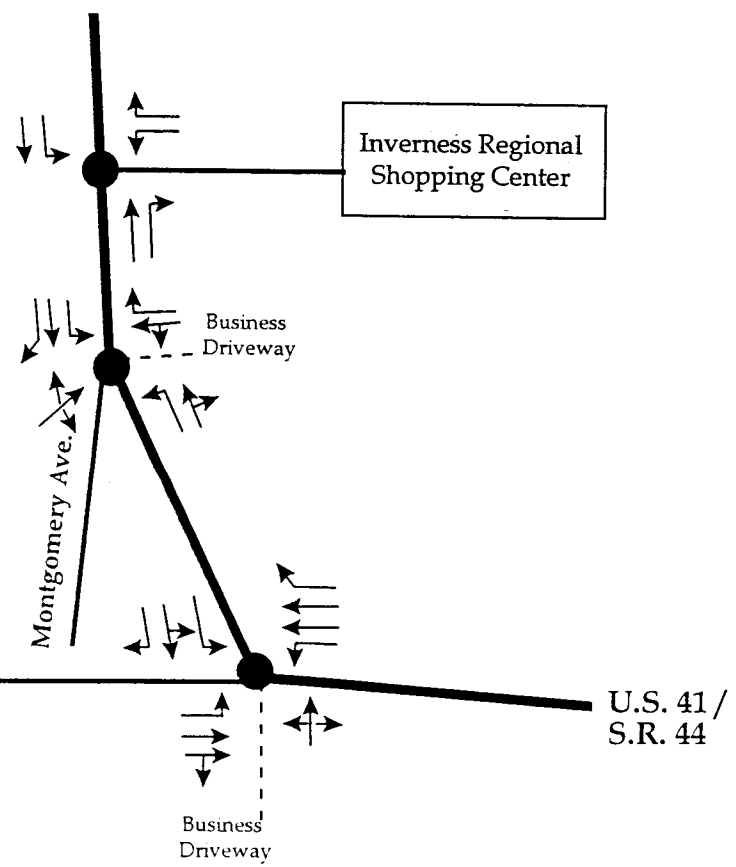
**Year 2020 Design Hour  
Turning Movement Volumes**

**EXHIBIT  
11**

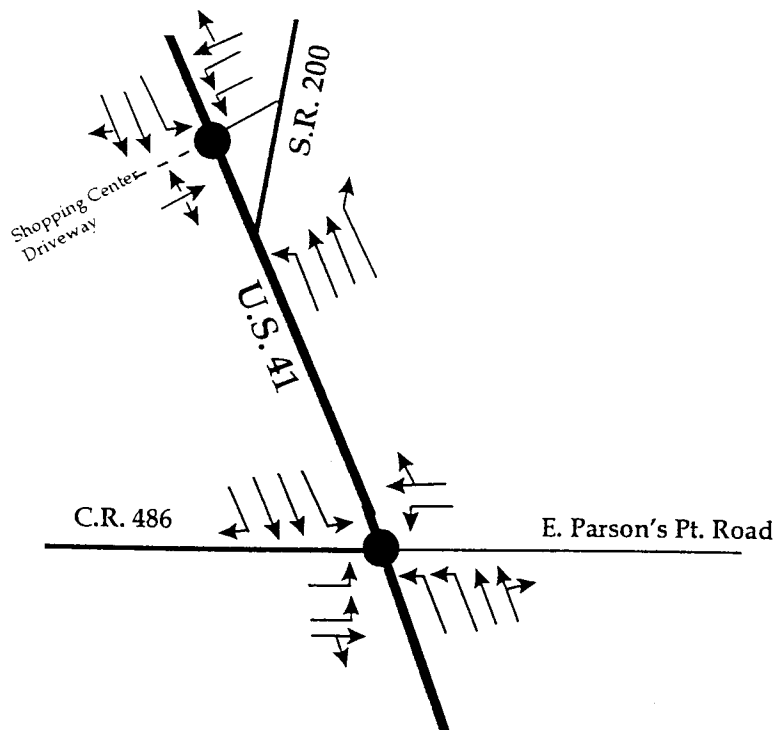


**Legend:**

- ← Through Lane
- ↗ Turn Lane
- Traffic Signal
- ⊥ Stop Sign

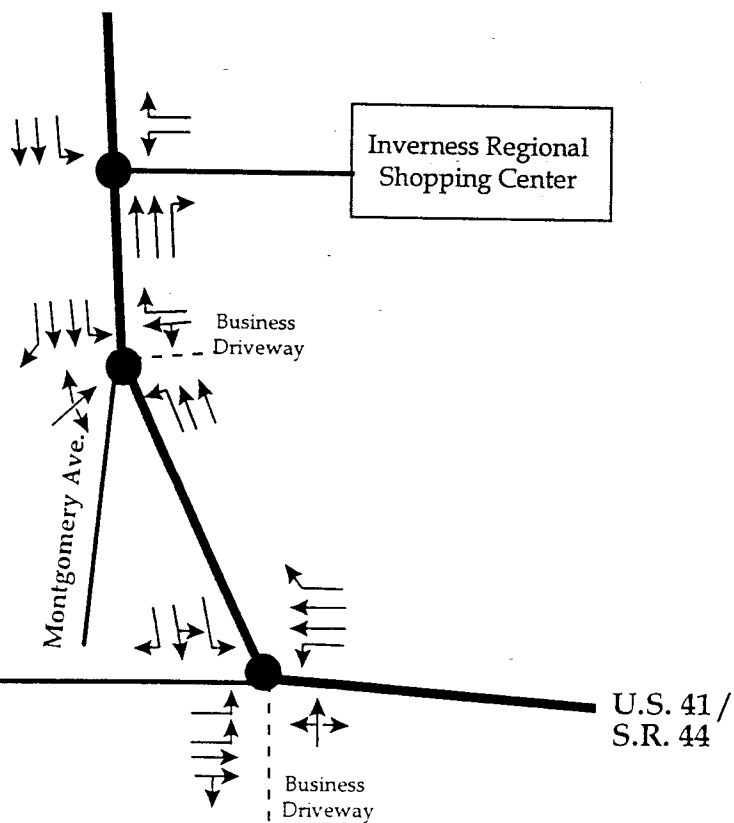


	<p>U.S. 41 PD&amp;E Re-evaluation Citrus County FDOT - District 7</p>	<p>Existing Geometry and Traffic Control</p>	<p>EXHIBIT 2</p>
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**Legend:**

- ← Through Lane
- ↱ Turn Lane
- Traffic Signal



Not-To-Scale



U.S. 41 PD&E  
Re-evaluation  
Citrus County  
FDOT - District 7

Year 2020  
Minimum Lane Requirements

EXHIBIT  
14