

**QUALITATIVE ASSESSMENT  
For  
SR 44 at Continental Boulevard**

Sumter County  
Section 1807000  
Mile Post 15.938

Prepared for:

**THE FLORIDA DEPARTMENT OF TRANSPORTATION  
DISTRICT 5 TRAFFIC OPERATIONS**

719 South Woodland Boulevard  
DeLand, Florida 32720



Continuing Services Contract for Traffic Operations  
Financial Project No. 237988-1-32-11  
Contract C-9R60  
Work Order No. 54  
Study 3

Prepared by:

**Vanasse Hangen Brustlin, Inc.  
225 East Robinson Street, Suite 300  
Orlando, FL 32801**

April 2020

Qualitative Assessment  
For SR 44 at Continental Boulevard  
Financial Project No. 237988-1-32-11  
Contract C-9R60  
Work Order No. 54  
Study 3

This item has been digitally Signed and Sealed by Vinod Vishwanatha  
on the date adjacent to the seal.  
Printed Copies of this document are not considered signed and sealed  
and the signature must be verified on any electronic copies.

Vanasse Hangen Brustlin, Inc.  
225 E. Robinson Street, Suite 300  
Orlando, FL – 32801  
Certificate of Authorization 3932



**Figure 1 - Location Map**

SR 44 at Continental Boulevard

Sumter County

Section: 1807000

Mile Post: 15.938

## EXISTING CONDITION

The characteristics of the study intersection of SR 44 at Continental Boulevard located in Sumter County, Florida are summarized below. An intersection condition diagram and photographs of each respective approach are provided in the following pages.

Features	Description
Main Street	SR 44 oriented east-west; four-lane urban principal arterial
Minor Street	Continental Boulevard oriented north-south approaching SR 44 from the south
Number of Intersection Approach Lanes	EB Approach: one left-turn lane, two through and one right-turn lane WB Approach: one left-turn lane, two through lanes NB Approach: one left-turn lane and one right-turn lane
Traffic Control	Unsignalized (NB approach controlled by Stop Sign)
Posted Speeds	SR 44: 55 mph Continental Boulevard: Not Posted
SIS/NHS Designation	SR 44: None Continental Boulevard: None
Sidewalks	No sidewalks present along SR 44 and Continental Boulevard
Pedestrian/Bicycle Generators	Continental Country Club - Residential Golfing Community
Nearest Signalized Intersections	0.7 miles to the east along SR 44 intersecting CR 468 (Morse Boulevard); 2.2 miles to the west along SR 44 intersecting Buena Vista Boulevard; None to the south
Roadway Lighting	Street lighting present along Continental Boulevard None along SR 44
Surrounding Development	SR 44: medium density residential Continental Boulevard: residential and restaurant
Pavement, Signing & Marking Condition	Pavement markings and signage are in good condition.

**SR 44 at Continental Boulevard  
East Approach**



Exhibit 1: Looking west into the intersection along SR 44



Exhibit 2: Looking east from the intersection along SR 44

**SR 44 at Continental Boulevard  
West Approach**



Exhibit 3: Looking east into the intersection along SR 44



Exhibit 4: Looking west from the intersection along SR 44

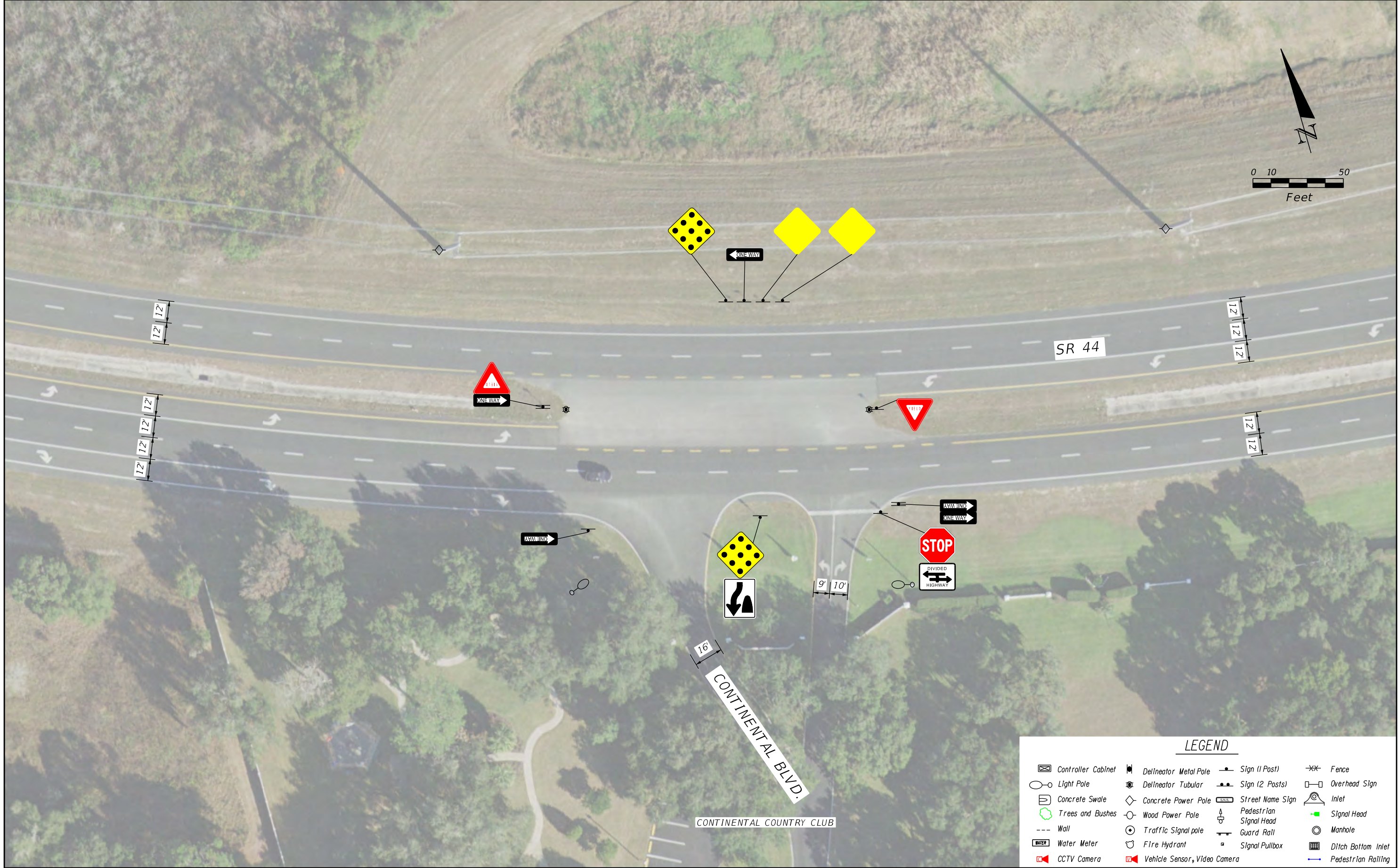
SR 44 at Continental Boulevard  
South Approach



Exhibit 5: Looking north into the intersection along Continental Boulevard



Exhibit 6: Looking south from the intersection along Continental Boulevard



**LEGEND**

Controller Cabinet	Delineator Metal Pole	Sign (1 Post)	Fence
Light Pole	Delineator Tubular	Sign (2 Posts)	Overhead Sign
Concrete Swale	Concrete Power Pole	Street Name Sign	Inlet
Trees and Bushes	Wood Power Pole	Pedestrian Signal Head	Signal Head
Wall	Traffic Signal pole	Guard Rail	Manhole
Water Meter	Fire Hydrant	Signal Pullbox	Ditch Bottom Inlet
CCTV Camera	Vehicle Sensor, Video Camera	Pedestrian Railing	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-44	SUMTER	

<b>CONDITION DIAGRAM</b> <b>SR44 AT CONTINENTAL BLVD</b>
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SHEET NO.
1



## COLLISION ANALYSIS

According to crash records obtained by VHB from Signal4Analytics and CARS, there were seven reported crashes in the latest 36-month period from January 01, 2017 to December 31<sup>st</sup>, 2019. The total property damage of these crashes was estimated at \$45,900. Three of the crashes were angle type, one rear-end, one sideswipe, one right-turn and one hit a utility pole. No bicycle or pedestrian crashes were reported.

The number of crashes by types are as follows:

- Angle 3 (42.8%)
- Rear-End 1 (14.3%)
- Sideswipe 1 (14.3%)
- Right-turn 1 (14.3%)
- Hit Utility Pole 1 (14.3%)

The number of crashes by contributing cause are as follows:

- Failure to Yield ROW 4 (57.1%)
- Followed too Closely 1 (14.3%)
- Improper Backing 1 (14.3%)
- Improper Lane Change 1 (14.3%)

The number of crashes by lighting condition are as follows:

- Daylight 6 (85.7%)
- Dark - Not Lighted 1 (14.3%)

There were five Property Damage Only (PDO) crashes of the seven reported crashes. These seven crashes resulted in a total of five injuries and zero fatalities. The three angle crashes involved a northbound vehicle performing a left-turn maneuver on to SR 44 to travel west. The contributing cause for all the three angle type crashes was failure to yield right-of-way.

The three angle crashes recorded over a three-year period are considered susceptible to correction by a traffic signal. The peak year with the highest incidence of angle crashes was in 2018 with two crashes which is lower than the five crashes required to satisfy the MUTCD crash warrant criteria.

The rear-end crash occurred along Continental Boulevard in the northbound left-turn, where the vehicle at fault followed too closely to the vehicle waiting to perform a northbound left-turn maneuver. The sideswipe crash occurred along eastbound SR 44 when a vehicle in the inside through lane changed lanes into the outside through lane. The hit a utility pole crash type occurred along Continental Boulevard, when the vehicle at fault realized he was traveling north on the southbound lanes and started to back out and hit a light pole. The right turn crash type occurred when northbound right turning vehicle failed to yield the right-of-way to the eastbound through vehicle.





REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 44	SUMTER	

<b>CRASH DIAGRAM</b> <b>SR 44 AT CONTINENTAL BLVD.</b>
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FIGURE NO.
2

## EIGHT HOUR TURNING MOVEMENT COUNTS

Eight-hour turning movement counts were collected at the intersection of SR 44 at Continental Boulevard from 7:00 - 9:00 a.m., 11:00 a.m. - 1:00 p.m., and 2:00 - 6:00 p.m. during a typical weekday. The traffic counts along SR 44 revealed a balanced east-west directional flow during both the a.m. and p.m. peak periods, and a peak eastbound directional flow during the mid-day. Hourly directional traffic volumes on eastbound SR 44 range from 809 vehicles per hour (vph) in the a.m. period, to 1,120 vph during the mid-day, to 1,144 vph in the p.m. period. Westbound SR 44 directional traffic volumes range from 745 vph in the a.m. period, to 935 vph in the mid-day peak and 1,095 vph in the p.m. peak. Northbound Continental Boulevard directional traffic volumes range from 62 vph in the a.m. peak, to 92 vph during the mid-day and 76 vph during the p.m. period. The traffic movement distributions along each approach are listed below.

	NB	EB	WB
<b>Left-Turn/U-turn</b>	46.6%	0.0%	4.9%
<b>Through</b>	0.0%	96.7%	95.1%
<b>Right Turn</b>	53.4%	3.3%	0.0%

Heavy vehicles accounted for approximately 6.8% of the total traffic on SR 44 and 2.0% of traffic on Continental Boulevard. The heavy vehicle percentage for each individual movement during the eight-hour turning movement count period are summarized below.

	NB	EB	WB
<b>Left-Turn/U-turn</b>	2.0%	50.0%	3.0%
<b>Through</b>	0.0%	6.6%	7.4%
<b>Right Turn</b>	2.1%	1.1%	0.0%

No pedestrian and bicycles were recorded during the turning movement counts. Turning movement and pedestrian counts are provided in the Appendix section of this report.

A cursory review of the minor street approach traffic volumes revealed that the northbound left-turn movement recorded an hourly volume range of 23 vph to a high of 52 vph during the 8-hour count period. The right-turn movement recorded a range of 19 vph to 51 vph. The hourly volumes on Continental Boulevard, particularly the left-turn lane movement, do not meet the minimum thresholds for meeting the applicable MUTCD 8-hour and 4-hour traffic volume signal warrants.

## QUALITATIVE ASSESSMENT

A qualitative assessment based on field observations was performed by a registered engineer during the peak period (i.e., highest mainline volume and highest side street volumes) at the study intersection of SR 44 at Continental Boulevard. The purpose of the qualitative assessment was to evaluate prevailing operating traffic flow conditions and identify areas where improvements would be potentially beneficial for safety and efficiency.

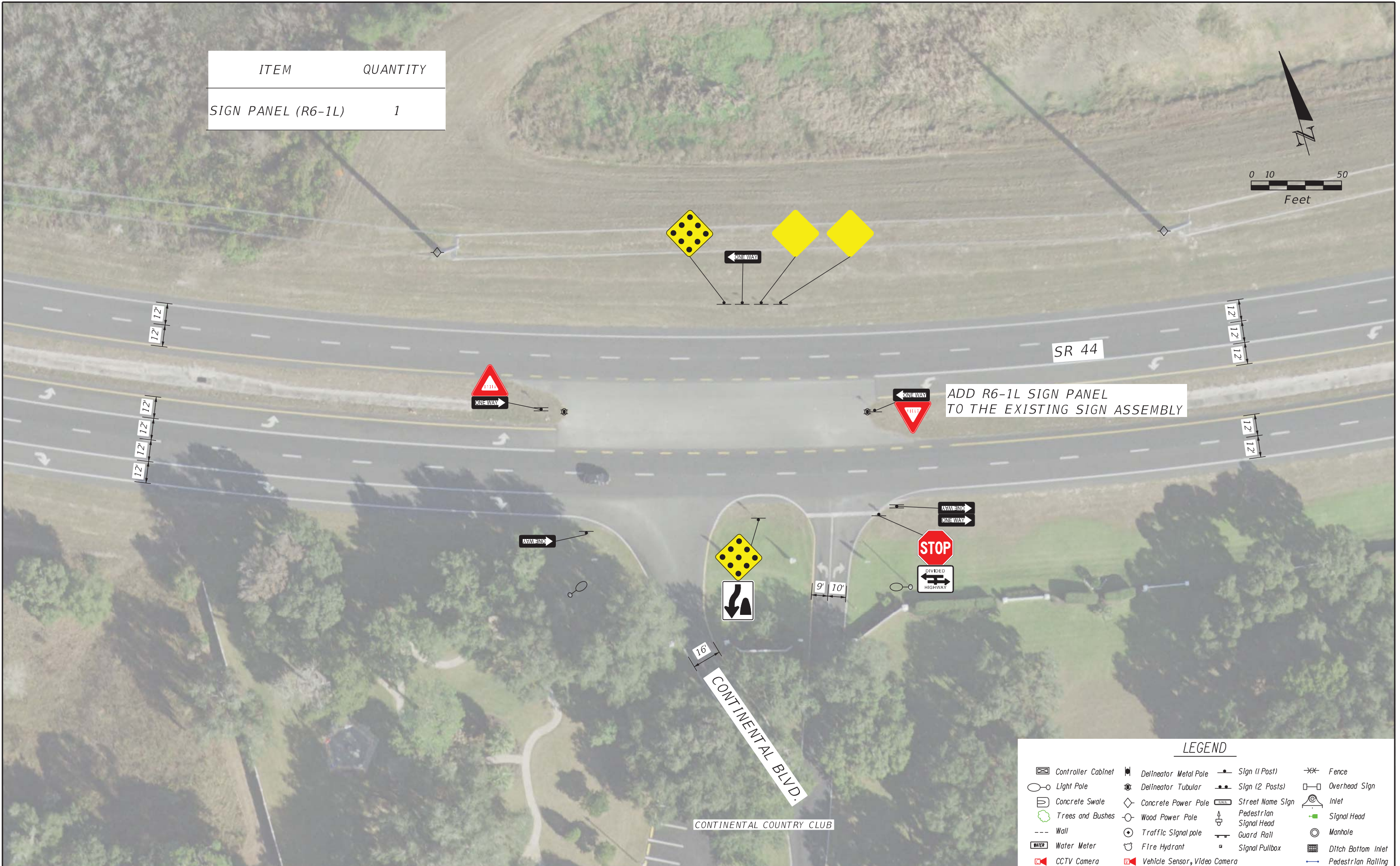
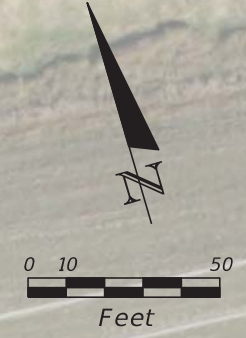
1. The intersection of SR 44 at Continental Boulevard is a three-legged (T-shaped) intersection with the northbound approach being controlled with a STOP sign. The intersection is located at the apex point of a horizontal curve alignment (i.e., concave to the north) on SR 44. As such, the eastbound and westbound lanes of SR 44 are super-elevated with Continental Boulevard approaching SR 44 on a slight upslope. The median opening provides a vertical transition to match the elevation difference between the eastbound and westbound lanes.
2. The horizontal curve on SR 44 provides a clear view of the intersection from all approaches.
3. The eastbound and westbound travel lanes along SR 44 are separated by a 40-foot grass median and a 28-foot median where left turn lanes are provided at the median opening.
4. During the peak period, the northbound left turn volumes was observed to be higher than the northbound right turn volume. The northbound left-turning vehicles were observed to use the median as a staging area to find an adequate gap along the westbound traffic volume to complete the left-turn maneuver.
5. During the peak period, a maximum queue length of three vehicles were observed in the northbound left turn lane and a maximum queue length of two vehicles were observed in the northbound right turn lane.
6. During the peak period, the delay experienced by the northbound left turning vehicles ranged from five to 15 seconds.
7. During the peak period, the eastbound approach was observed to consist of a higher percentage of heavy vehicles in comparison to the westbound approach.
8. Vehicles arrived in platoons along the eastbound and westbound approaches, while the northbound approach has a sporadic arrival.
9. During the peak period, a maximum queue length of two vehicles was observed in the eastbound left turn lane (making a U-Turn). The delay experienced by the eastbound U-turning vehicles was observed to be less than 10 seconds.
10. During the peak period, a maximum queue length of three vehicles was observed in the westbound left turn lane. The delay experienced by the westbound left turning vehicles was observed to be less than 10 seconds.
11. The Stop sign pole located in the southeast quadrant of the study intersection is slightly bent such that the face of the stop sign is not frontally facing the northbound travel way.
12. Existing signing and pavement markings comply with the traffic controls for street terminations per the FDOT Standard Plans.
13. A cursory review of the MUTCD traffic signal warrants reveals the intersection failed to meet traffic volume and crash warrants for signalization at this time. The applicable MUTCD signal warrant worksheets are provided in the Appendix.

## RECOMMENDATIONS

Based on observations of traffic flow patterns and demand, vehicle traffic counts and vehicle composition, crash records, qualitative assessment of the intersection operation, and consideration of potential improvement options, this study recommends maintaining the existing stop-sign facing the northbound approach.

As a maintenance recommendation, add a one-way sign panel (R6-1L) to the existing Yield sign assembly located on the median as shown in the Conceptual Improvement Diagram in accordance with the Florida Design Manual (FDM) Chapter 230.

ITEM	QUANTITY
SIGN PANEL (R6-1L)	1



**LEGEND**

Controller Cabinet	Delineator Metal Pole	Sign (1 Post)	Fence
Light Pole	Delineator Tubular	Sign (2 Posts)	Overhead Sign
Concrete Swale	Concrete Power Pole	Street Name Sign	Inlet
Trees and Bushes	Wood Power Pole	Pedestrian Signal Head	Signal Head
Wall	Traffic Signal pole	Guard Rail	Manhole
Water Meter	Fire Hydrant	Signal Pullbox	Ditch Bottom Inlet
CCTV Camera	Vehicle Sensor, Video Camera		Pedestrian Railing

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL IMPROVEMENT DIAGRAM SR44 AT CONTINENTAL BLVD	SHEET NO. 3
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR-44	SUMTER			

## Appendix





### VEHICLE TURNING MOVEMENT COUNT

SECTION: 1807000  
 STATE ROUTE: SR 44  
 OBSERVER: VHB  
 WEATHER: Good

CITY: Wildwood  
 INTERSECTING ROUTE: Continental Blvd  
 DATE OF COUNT: 1/19/20  
 ROAD CONDITION: Good  
 COUNT PERIODS: 7:00 - 9:00; 11:00 - 13:00 and 14:00 - 18:00

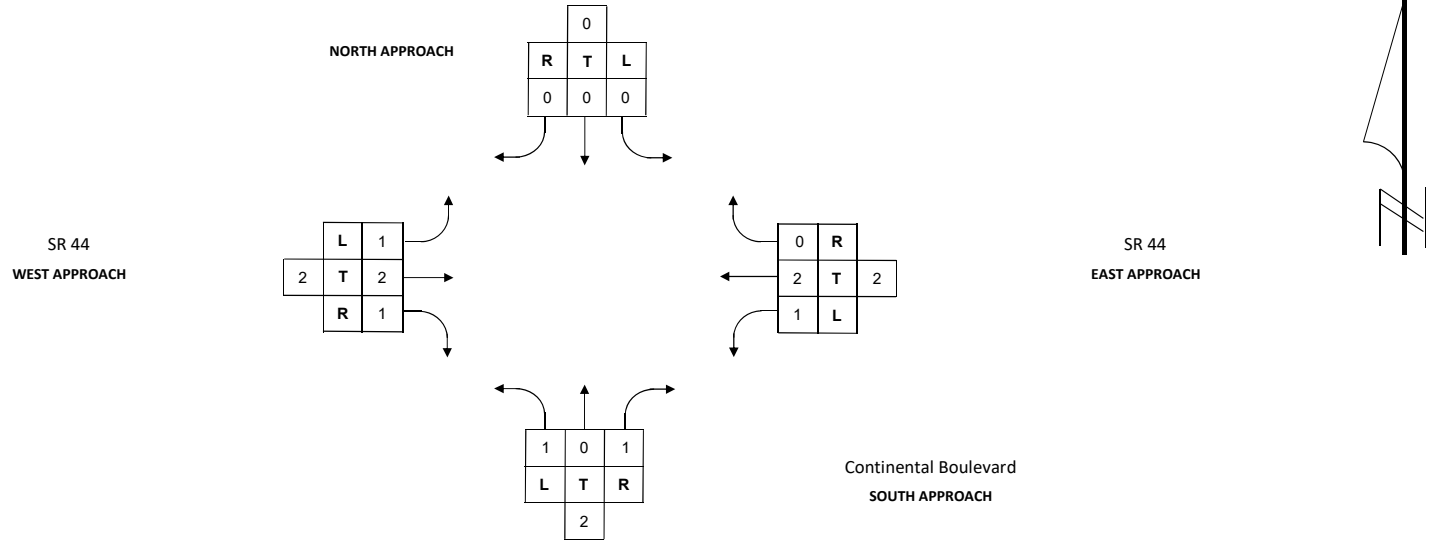
COUNTY: Sumter  
 MILEPOST: 15.938  
 COMPLETED BY: VV  
 DATE COMPLETED: 2/25/20

#### HEAVY VEHICLES (TRUCKS + BUSES)

Direction	Northbound						Southbound						Eastbound						Westbound						EW Total	Grand Total	
	NBU	NBL	NBT	NBR	NBRTOR	Total	SBU	SBL	SBT	SBR	SBRTOR	Total	NS Total	EBU	EBL	EBT	EBR	EBRTOR	Total	WBU	WBL	WBT	WBR	WBRTOR			Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	16	0	0	17	0	0	8	0	0	8	25	25
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	0	9	0	0	9	24	24
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	8	0	0	8	18	18
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	0	18	0	0	18	32	32
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>99</b>	<b>99</b>
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	13	0	0	13	23	23
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18	0	0	10	0	0	10	28	28
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	22	0	1	11	0	0	12	34	34
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	7	0	0	7	17	17
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>1</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>102</b>	<b>102</b>
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	0	3	29	0	0	32	53	53
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	0	0	20	0	0	20	41	41
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	0	17	0	0	17	31	31
11:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	2	0	0	17	2	0	19	0	0	16	0	0	16	35	37
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>73</b>	<b>2</b>	<b>0</b>	<b>75</b>	<b>0</b>	<b>3</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>160</b>	<b>162</b>
12:00 PM	0	2	0	1	0	3	0	0	0	0	0	0	3	0	0	15	0	0	15	0	0	25	0	0	25	40	43
12:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	26	0	0	26	0	0	15	0	0	15	41	42
12:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	2	0	0	28	0	0	28	0	0	12	0	0	12	40	42
12:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	30	0	0	30	0	1	13	0	0	14	44	45
<b>Total</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>1</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>165</b>	<b>172</b>
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	34	0	1	15	0	0	16	50	50
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	1	0	14	0	0	15	35	35
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	0	0	12	0	0	12	32	32
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	1	16	0	0	17	30	30
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>1</b>	<b>2</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>147</b>	<b>147</b>
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18	0	0	25	0	0	25	43	43
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	0	1	16	0	0	17	33	33
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	1	0	12	0	0	13	25	25
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	0	0	23	0	0	23	44	44
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>1</b>	<b>1</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>145</b>	<b>145</b>
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	5	1	0	7	0	0	19	0	0	19	26	27
4:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	20	0	0	20	0	0	11	0	0	11	31	32
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	0	20	0	0	20	33	33
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	0	13	0	0	13	20	20
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>45</b>	<b>1</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>110</b>	<b>112</b>
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	12	0	0	12	21	21
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	27	0	0	27	33	33
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	0	29	0	0	29	41	41
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	1	27	0	0	28	38	38
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>1</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>133</b>	<b>133</b>

**FLORIDA DEPARTMENT OF TRANSPORTATION  
SUMMARY OF VEHICLE MOVEMENTS**

<b>SECTION:</b> 1807000	<b>CITY:</b> Wildwood	<b>COUNTY:</b> Sumter
<b>STATE ROUTE:</b> SR 44	<b>INTERSECTING ROUTE:</b> Continental Blvd	<b>MILEPOST:</b> 15.938
<b>OBSERVER:</b> VHB	<b>DATE:</b> 1/19/20	<b>COMPLETED BY:</b> VV
<b>WEATHER:</b> Good	<b>ROAD CONDITION:</b> Good	<b>DATE COMPLETED:</b> 2/25/20
<b>REMARKS:</b> _____		



TIME	NORTHBOUND						SOUTHBOUND						TOTAL	EASTBOUND						WESTBOUND						TOTAL
	U	L	T	R	RTOR	TOT	U	L	T	R	RTOR	TOT		N/S	U	L	T	R	RTOR	TOT	U	L	T	R	RTOR	
7:00 - 8:00	0	23	0	19	0	42	0	0	0	0	0	0	42	1	0	799	9	0	809	9	21	671	0	0	701	1,510
8:00 - 9:00	0	26	0	36	0	62	0	0	0	0	0	0	62	0	0	779	16	0	795	4	27	714	0	0	745	1,540
11:00 - 12:00	0	29	0	51	0	80	0	0	0	0	0	0	80	0	0	1,043	30	0	1,073	3	42	890	0	0	935	2,008
12:00 - 13:00	0	52	0	40	0	92	0	0	0	0	0	0	92	0	0	1,080	40	0	1,120	7	47	833	0	0	887	2,007
14:00 - 15:00	0	32	0	40	0	72	0	0	0	0	0	0	72	2	0	1,125	53	0	1,180	6	53	884	0	0	943	2,123
15:00 - 16:00	0	33	0	43	0	76	0	0	0	0	0	0	76	0	0	1,101	39	0	1,140	6	44	1,011	0	0	1,061	2,201
16:00 - 17:00	0	26	0	34	0	60	0	0	0	0	0	0	60	1	0	1,097	46	0	1,144	3	49	1,043	0	0	1,095	2,239
17:00 - 18:00	0	30	0	25	0	55	0	0	0	0	0	0	55	0	0	948	36	0	984	7	39	1,024	0	0	1,070	2,054
<b>TOTAL</b>	0	251	0	288	0	539	0	0	0	0	0	0	539	4	0	7,972	269	0	8,245	45	322	7,070	0	0	7,437	15,682

<b>Percentage</b>	0.0%	46.6%	0.0%	53.4%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	N/A	0.0%	0.0%	96.7%	3.3%	0.0%	100.0%	0.6%	4.3%	95.1%	0.0%	0.0%	100.0%	N/A
<b>Maximum</b>	0	52	0	51	0	92	0	0	0	0	0	0	92	2	0	1,125	53	0	1,180	9	53	1,043	0	0	1,095	2,239
<b>Minimum</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Heavy Veh</b>	5		0	6	0	11	0		0	0	0	0	11	2		523	3	0	528	11		52	0	0	533	1,061
<b>% Heavy Veh</b>	2.0%		0.0%	2.1%	0.0%	2.0%	0.0%		0.0%	0.0%	0.0%	0.0%	2.0%	50.0%		6.6%	1.1%	6.4%	3.0%		7.4%	0.0%	0.0%	7.2%	6.8%	





## TRAFFIC SIGNAL WARRANT SUMMARY

City: Wildwood  
County: 18 – Sumter  
District: Five

Engineer: VHB  
Date: March 4, 2020

Major Street: SR 44 Lanes: 2 Major Approach Speed: 55  
Minor Street: Continental Boulevard Lanes: 1 Minor Approach Speed: 25

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level **may** be used if Question 1 or 2 above is answered "Yes"  70%  100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied for eight hours.  Yes  No

Warrant 1 is also satisfied if both Condition A and Condition B are "80%" satisfied (should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems).  Yes  No

#### Condition A - Minimum Vehicular Volume

Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

- 100% Satisfied:  Yes  No  
80% Satisfied:  Yes  No  
70% Satisfied:  Yes  No

Number of Lanes for moving traffic on each approach		Vehicles per hour on major-street (total of both approaches)			Vehicles per hour on minor-street (one direction only)		
Major	Minor	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>
1	1	500	400	350	150	120	105
2 or more	1	600	480	420	150	120	105
2 or more	2 or more	600	480	420	200	160	140
1	2 or more	500	400	350	200	160	140

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

Street	Eight Highest Hours							
	7:00 AM	8:00 AM	11:00 AM	12:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Major	1,510	1,540	2,008	2,007	2,123	2,201	2,239	2,054
Minor	23	26	29	52	32	33	26	30

Existing Volumes

State of Florida Department of Transportation  
**TRAFFIC SIGNAL WARRANT SUMMARY**

**Condition B - Interruption of Continuous Traffic**

Condition B is intended for application where Condition A is not satisfied and the traffic volume on a major street is so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

Applicable:  Yes  No

100% Satisfied:  Yes  No

80% Satisfied:  Yes  No

70% Satisfied:  Yes  No

Number of Lanes for moving traffic on each approach		Vehicles per hour on major-street (total of both approaches)			Vehicles per hour on minor-street (one direction only)		
Major	Minor	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>
1	1	750	600	525	75	60	53
2 or more	1	900	720	630	75	60	53
2 or more	2 or more	900	720	630	100	80	70
1	2 or more	750	600	525	100	80	70

<sup>a</sup> Basic Minimum hourly volume

<sup>b</sup> Used for combination of Conditions A and B after adequate trial of other remedial measures

<sup>c</sup> May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

Eight Highest Hours								
Street	7:00 AM	8:00 AM	11:00 AM	12:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Major	1,510	1,540	2,008	2,007	2,123	2,201	2,239	2,054
Minor	23	26	29	52	32	33	26	30

Existing Volumes

# TRAFFIC SIGNAL WARRANT SUMMARY

City: **Wildwood**  
County: **18 – Sumter**  
District: **Five**

Engineer: **VHB**  
Date: **March 4, 2020**

Major Street: **SR 44** Lanes: **2** Major Approach Speed: **55**  
Minor Street: **Continental Boulevard** Lanes: **1** Minor Approach Speed: **25**

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### Volume Level Criteria

- Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)?  Yes  No
  - Is the intersection in a built-up area of an isolated community with a population < 10,000?  Yes  No
- "70%" volume level may be used if Question 1 or 2 above is answered "Yes"  Yes  No

### WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

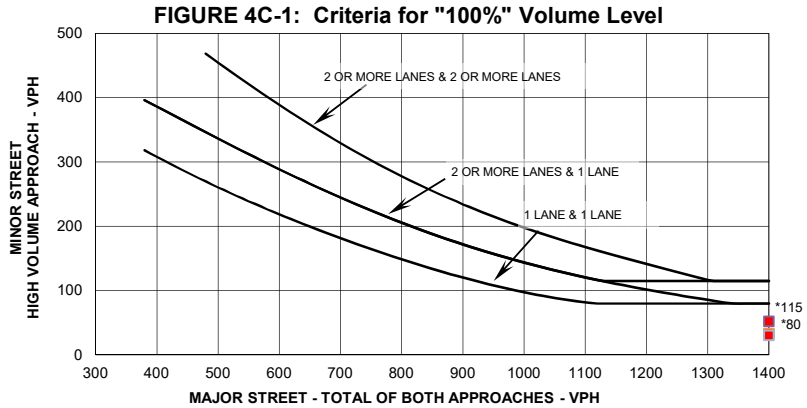
If all four points lie above the appropriate line, then the warrant is satisfied.

Applicable:  Yes  No  
Satisfied:  Yes  No

Plot four volume combinations on the applicable figure below.

#### 100% Volume Level

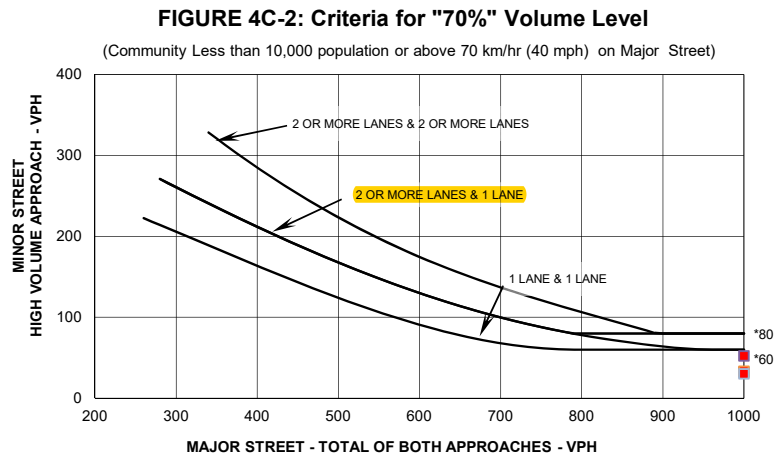
Four Highest Hours	Volumes	
	Major Street	Minor Street
12:00 PM	2007	52
2:00 PM	2123	32
3:00 PM	2201	33
5:00 PM	2054	30



\* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

#### 70% Volume Level

Four Highest Hours	Volumes	
	Major Street	Minor Street
12:00 PM	2007	52
2:00 PM	2123	32
3:00 PM	2201	33
5:00 PM	2054	30



\* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



## TRAFFIC SIGNAL WARRANT SUMMARY

City: **Wildwood**  
 County: **18 – Sumter**  
 District: **Five**

Engineer: **VHB**  
 Date: **March 4, 2020**

Major Street: **SR 44**  
 Minor Street: **Continental Boulevard**

Lanes: **2** Major Approach Speed: **55**  
 Lanes: **1** Minor Approach Speed: **25**

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

### WARRANT 7 - CRASH EXPERIENCE

Record hours where criteria are fulfilled, the corresponding volume, and other information in the boxes provided. The warrant is satisfied if all three of the criteria are fulfilled.

Applicable:  Yes  No  
 Satisfied:  Yes  No

Criteria		Hour				Volume		Met?		Fulfilled?	
						Major	Minor	Yes	No	Yes	No
1. One of the warrants to the right is met.	Warrant 1, Condition A (80% satisfied)								X		X
	Warrant 1, Condition B (80% satisfied)								X		
	Warrant 4, Pedestrian Volume at 80% of volume requirements: # ped/hr for four (4) hours or # ped/hr for one (1) hour.								X		
2. Adequate trial of other remedial measure has failed to reduce crash frequency.	Measure tried:	None									X
3. Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12-month period.	Observed Crash Types:	Angle	Number of crashes per 12 months:					2		X	