Kimley»Horn

MEMORANDUM

To: CRTPA

From: Kimley-Horn and Associates, Kate Widness, AICP, CNU-A

Date: October 2021

Subject: ***Thomasville Road Multi-Use Path Feasibility Study: Safety Review and Comparison***

Purpose

The purpose of the memorandum is to outline the existing conditions and crash analysis for corridors with comparable conditions to what is being evaluated along Thomasville Road as part of the *Thomasville Road Multi-Use Path Feasibility Study*. It is important to note that no two roads are exactly alike, and the corridors reviewed were comparable to the facility under evaluation along Thomasville Road by all having an adjacent 8- to12-foot multi-use path and one or more of the following characteristics:

- Average Annual Daily Traffic (AADT)
- Posted Speed Limit
- Surrounding land uses
- Number of driveways entrances/curb cuts

The attached matrix summarizes the key characteristics for each of the comparable corridors, which are further described below, in addition to summary crash data. Due to the varying corridor characteristics, crash data was reviewed on a per mile per year basis. These crash rates serve as a consistent comparison of the number of crashes along each of the study corridors.

Thomasville Road

The corridor under evaluation, Thomasville Road, is approximately a 2.41-mile segment extending from Betton Road to Metropolitan Boulevard in Tallahassee, FL. This corridor is under feasibility study to determine the possibility of constructing a 10- to 12-foot multi-use path adjacent to the road within existing right-of-way. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) reports. The AADT along this segment varies between 30,000 and 34,000 as there are two AADT count locations. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for a five-year period from January 1, 2016 to December 31, 2020 using the University of Florida's Signal4 Analytics online application. Over the five-year period, a total of 673 crashes occurred along this segment of Thomasville Road. The crash rate resulting from the 673 crashes occurring over the five-year period over the 2.41-mile segment is 56 crashes per mile per year. Of those 673 crashes, five (5) involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile per year. This crash rate is based on the existing facilities along the corridor which is a sidewalk and 4-ft bike lane (which is not present

along the entire 2.41-mile segment). In addition, over the five-year period, four (4) of the Bike/Ped crashes resulted in injury and there was one (1) fatality.

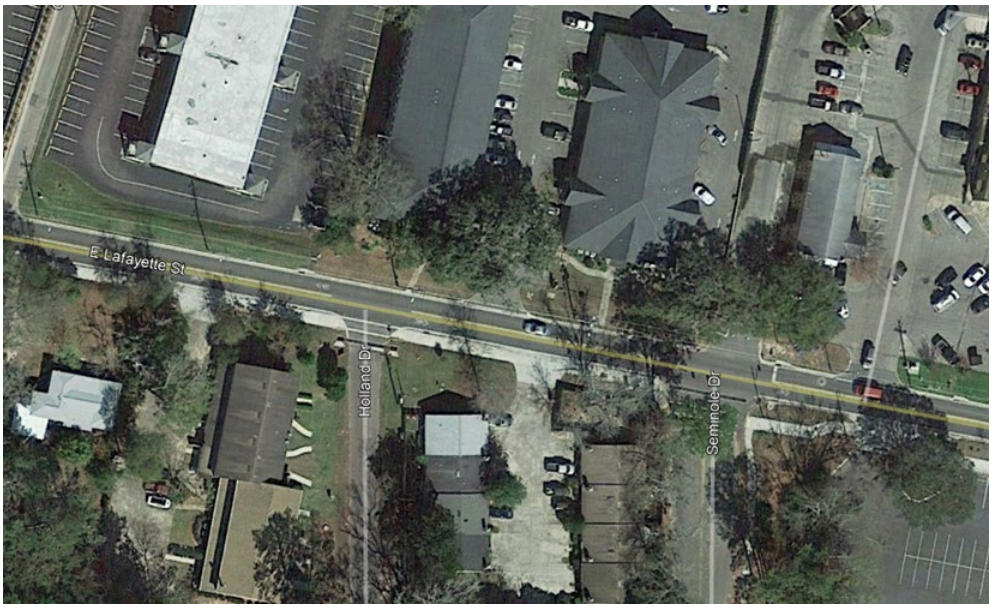
Local Comparisons

Two corridors within Tallahassee-Leon County were reviewed to compare facilities within the community as it would relate to an 8-to-12-foot multi-use path in an area with multiple curb cuts. These local corridors for comparison purposes are Lafayette Street and Franklin Boulevard. Though these corridors do not have comparable speeds or AADTs, the number of curb cuts and land uses are similar to Thomasville Road. For these local comparisons existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) reports. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for each of the corridors over a five-year period from January 1, 2016 to December 31, 2020 using the University of Florida's Signal4 Analytics online application.

Lafayette Street, Tallahassee, FL

The section of multi-use path reviewed along Lafayette Street is approximately a 0.89-mile segment extending from Franklin Boulevard to Magnolia Drive in Tallahassee, FL. The trail was constructed approximately in year 2012. The AADT along this segment of Lafayette Street is 9,300. Over the five-year period, a total of 210 crashes occurred along the studied segment. The crash rate resulting from the 210 crashes occurring over the five-year period and the 0.89-mile segment is 48 crashes per mile per year. Of those 210 crashes, three (3) involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile per year. In addition, over the five-year period, the three (3) Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image of the Lafayette Street Trail is shown below in **Figure 1**.

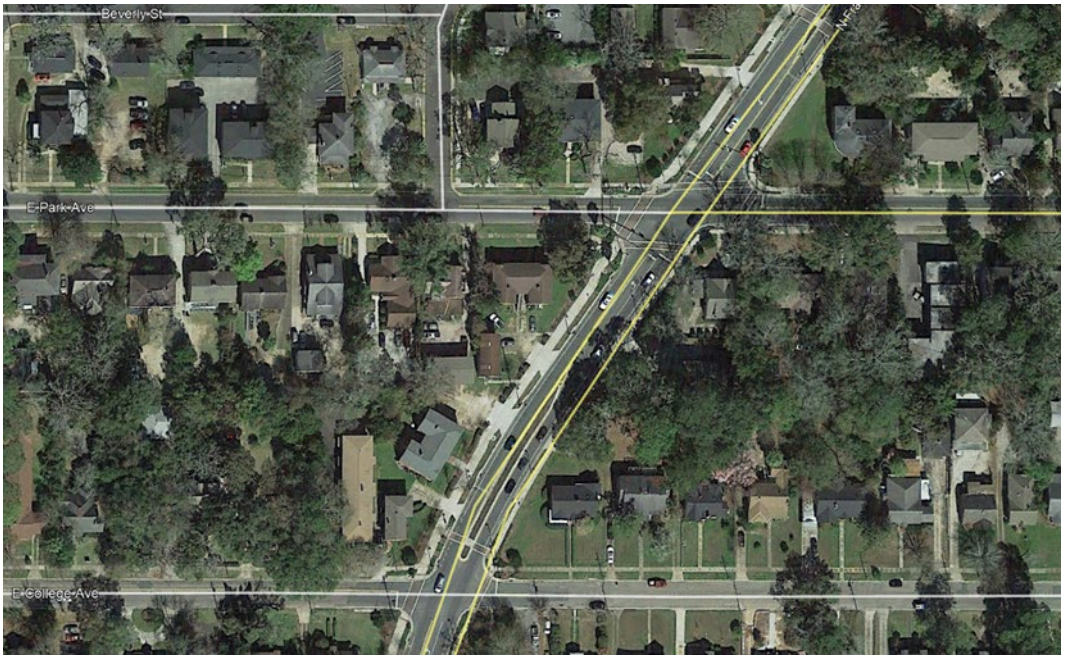
Figure 1: Lafayette Street Trail



Franklin Boulevard, Tallahassee, FL

The section of multi-use path reviewed along Franklin Boulevard is approximately a 0.54-mile segment extending from Mahan Drive to Lafayette Street in Tallahassee, FL. This trail was constructed approximately in year 2013. The AADT along this segment of Franklin Boulevard is 8,700. Over the five-year period, a total of 156 crashes occurred along the studied segment of Franklin Boulevard. The crash rate resulting from the 156 crashes occurring over the five-year period and the 0.54-mile segment is 58 crashes per mile per year. Of those 156 crashes, three (3) involved a bicycle or a pedestrian which gives a crash rate of 2 Bike/Ped crashes per mile per year. In addition, over the five-year period, all seven (7) of the Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image of the Franklin Boulevard Trail is shown below in **Figure 2**.

Figure 2: Franklin Boulevard Trail



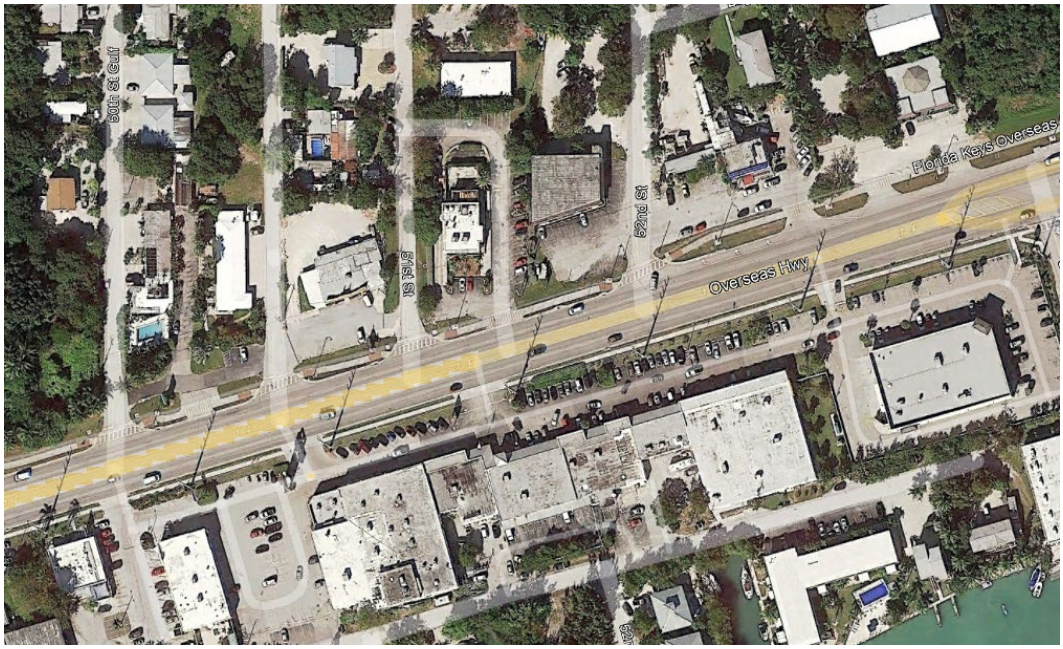
State Comparisons

Three corridors within the State of Florida were reviewed to compare facilities across the state as it would relate to an 8- to 12-foot multi-use path in an area with multiple curb cuts. These corridors have varying AADTs, but the number of curb cuts, speed limits, and adjacent land uses are similar to that along the Thomasville Road study area. For these state comparisons, existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Florida Department of Transportation (FDOT) Florida Traffic Online (FTO) reports. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for each corridor over a five-year period from January 1, 2016 to December 31, 2020 using the University of Florida's Signal4 Analytics online application.

US 1 – Overseas Trail, Marathon, FL

This section of the Overseas Trail along US 1 reviewed for this effort is approximately a 5.72-mile segment extending from Knights Key Boulevard to Gulf of Mexico Boulevard in Marathon, FL. This trail was constructed sometime prior to year 2000 based on Google Earth aerial photography. The AADT along this segment of US 1 varies between 12,800 and 29,900 as there are four AADT count locations. Over the five-year period, a total of 997 crashes occurred along this segment of US 1. The crash rate resulting from the 997 crashes occurring over the five-year period and the 5.72-mile segment is 35 crashes per mile per year. Of those 997 crashes, 49 involved a bicycle or a pedestrian which gives a crash rate of 2 Bike/Ped crashes per mile per year. In addition, over the five-year period, 37 of the Bike/Ped crashes resulted in injury and there were four (4) fatalities. An aerial image of the Overseas Trail is shown below in **Figure 3**.

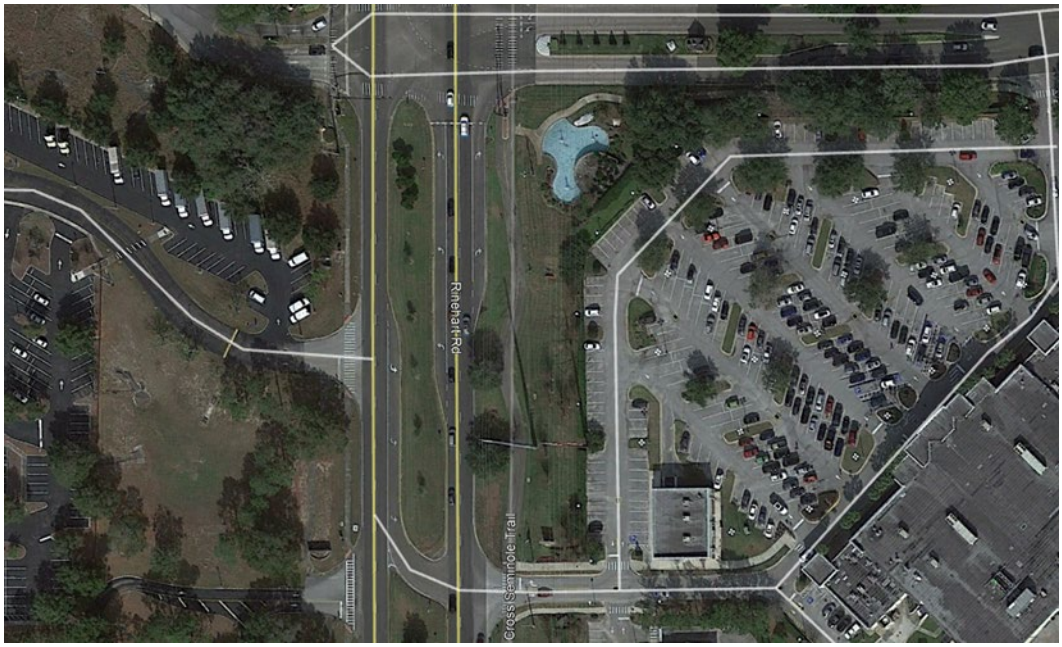
Figure 3: Overseas Trail



Cross Seminole Trail, Sanford, FL

This section of the Cross Seminole Trail reviewed along Rinehart Road is approximately a 4.22-mile segment extending from North Sun Drive to State Road 46 in Sanford, FL. This trail was constructed sometime prior to year 2000 based on Google Earth aerial photography. The AADT along this segment of US 1 varies between 18,500 and 29,500 as there are two AADT count locations. Over the five-year period, a total of 997 crashes occurred along this segment of Rinehart Road. The crash rate resulting from the 997 crashes occurring over the five-year period and the 4.22-mile segment is 72 crashes per mile per year. Of those 997 crashes, 14 involved a bicycle or a pedestrian which gives a crash rate of less than 1 Bike/Ped crash per mile per year. In addition, over the five-year period, ten (10) of the Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image from the Cross Seminole Trail is shown below in **Figure 4**.

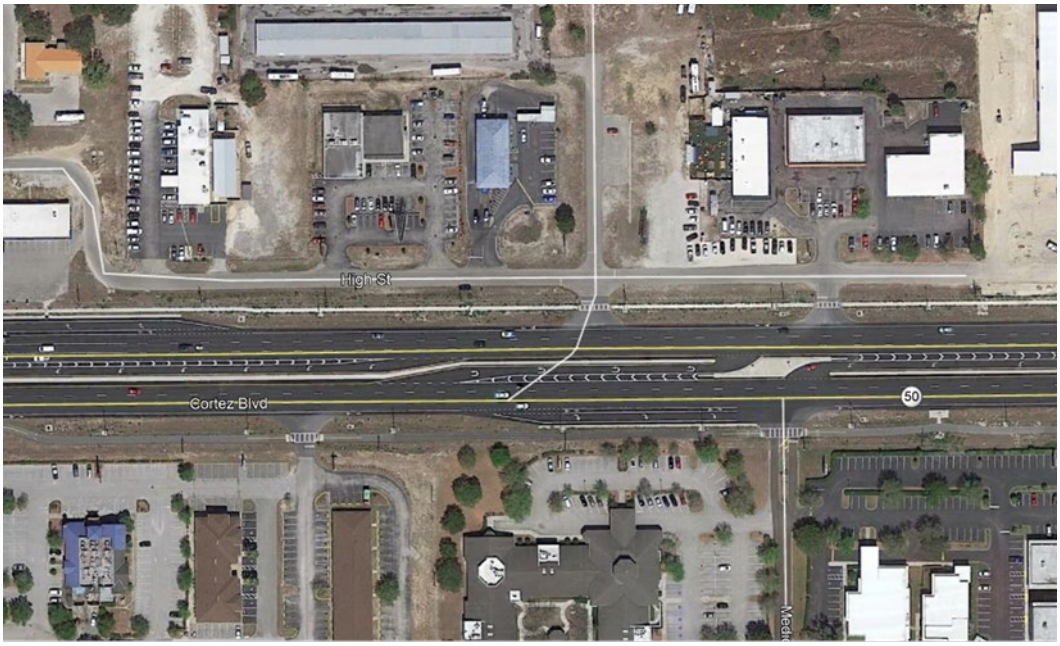
Figure 4: Cross Seminole Trail



Cortez Boulevard, Spring Hill, FL

This section of multi-use path reviewed along Cortez Boulevard is approximately a 5.84-mile segment extending from US 19 to Suncoast Parkway in Spring Hill, FL. This path was constructed approximately in year 2014 based on Google Earth aerial photography. The AADT along this segment of Cortez Boulevard varies between 27,500 and 40,500 as there are four AADT count locations. Over the five-year period, a total of 1,513 crashes occurred along this segment of Cortez Boulevard. The crash rate resulting from the 1,513 crashes occurring over the five-year period and the 5.84-mile segment is 52 crashes per mile by year. Of those 1,513 crashes, 18 involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile by year. In addition, over the five-year period, 16 of the Bike/Ped crashes resulted in injury and there were two (2) fatalities. An aerial image from the Cortez Boulevard Trail is shown below in **Figure 5**.

Figure 5: Cortez Boulevard Trail



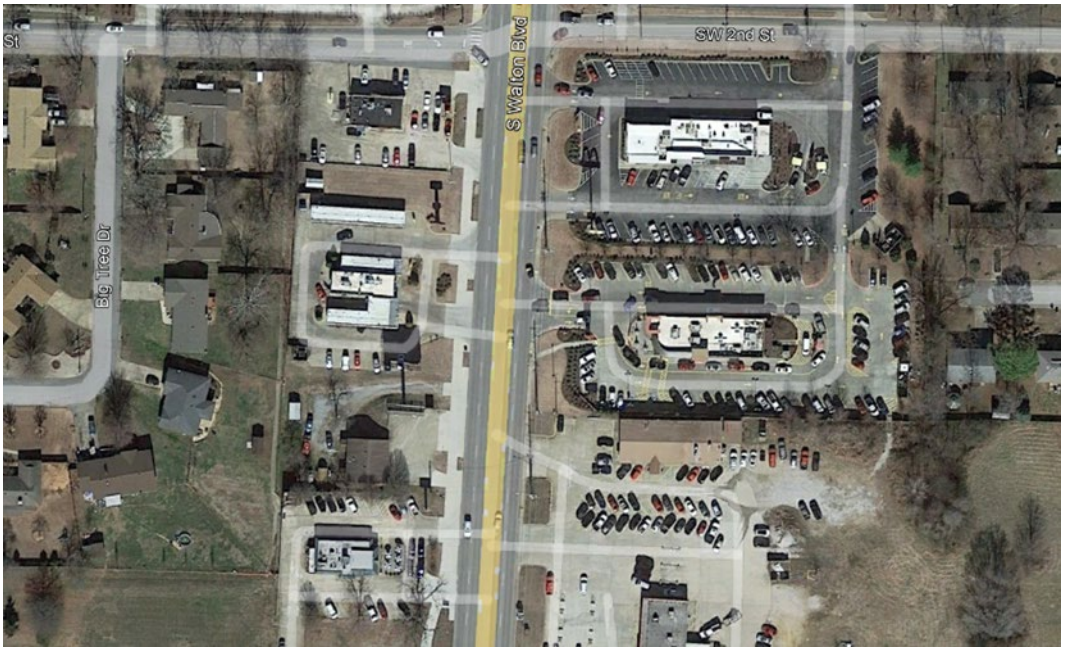
National Comparisons

Three corridors outside the State of Florida were reviewed to compare facilities across the country as it would relate to an 8- to 12-foot multi-use path in an area with multiple curb cuts. These corridors have varying AADTs, but the number of curb cuts, speed limits, and land uses are similar to that along Thomasville Road. For these national comparisons existing Annual Average Daily Traffic (AADT) volumes were obtained from each state's online traffic count application. Due to the potential for traffic counts to be skewed due to COVID-19, the 2019 traffic volumes were used in the place of the 2020 volumes. Crash data was collected for each corridor over a five-year period from January 1, 2016 to December 31, 2020.

North Walton Boulevard Trail, Bettonville, AR

This section of trail reviewed along North Walton Boulevard is approximately a 1.48-mile segment extending from NW 14th Street (Walton Boulevard) to SW I Street in Bentonville, AR. This trail was constructed in approximately year 2015 based on Google Earth aerial photography. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 Arkansas Department of Transportation (ARDOT) Average Daily Traffic online application. The AADT along this segment of North Walton Boulevard varies between 25,000 and 30,000 as there are two AADT count locations. Crash data was collected using the ARDOT Arkansas Crash Analytics Tool (ACAT) online application. Due to the limitations of the ACAT online application, total crashes along the segment were not collected and only Bicycle/Pedestrian crashes were collected. Over the five-year period, one (1) Bike/Ped crash occurred along this segment of North Walton Boulevard which results in a crash rate of less than one (1) Bike/Ped crash per mile by year. No injuries or fatalities were observed in the Bike/Ped crash data along the segment. An aerial image from the trail along North Walton Boulevard is shown below in **Figure 6**.

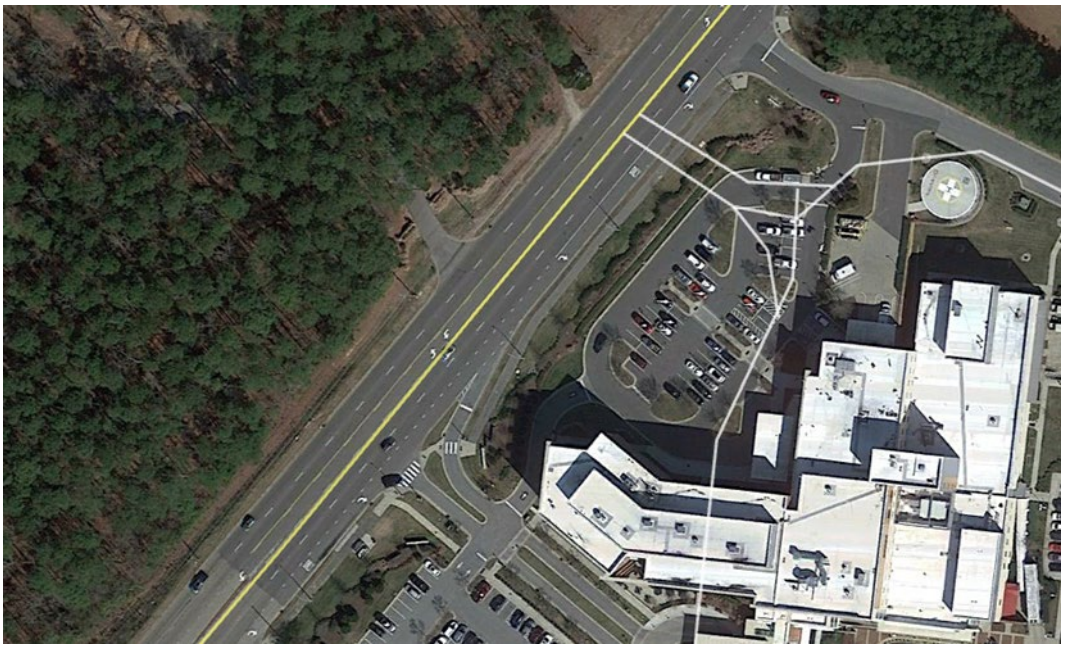
Figure 6: North Walton Boulevard Trail



Falls of Neuse Road Trail, Raleigh, NC

This section of trail along Falls of Neuse Road reviewed for this effort is approximately a 3.13-mile segment extending from Falls Valley Drive to Old Falls of Neuse Road in Raleigh, NC. This trail was constructed in approximately year 2005 based on Google Earth aerial photography. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2019 North Carolina Department of Transportation (NCDOT) Annual Average Daily Traffic Mapping Application. The AADT along this segment of Falls of Neuse Road varies between 39,000 and 50,500 as there are four AADT count locations. Crash data was collected using the NCDOT Planning Level Safety Scoring Data interactive web application. Over the five-year period, a total of 726 crashes occurred along this segment of Falls of Neuse Road. The crash rate resulting from the 726 crashes occurring over the five-year period and the 3.13-mile segment is 47 crashes per mile by year. Of those 726 crashes, ten (10) involved a bicycle or a pedestrian which gives a crash rate of less than one (1) Bike/Ped crash per mile by year. The crash data obtained from NCDOT did not indicate severity of the injury or whether a fatality occurred for bicycle and pedestrian crashes. An aerial image from the Falls of Neuse Road Trail is shown below in **Figure 7**.

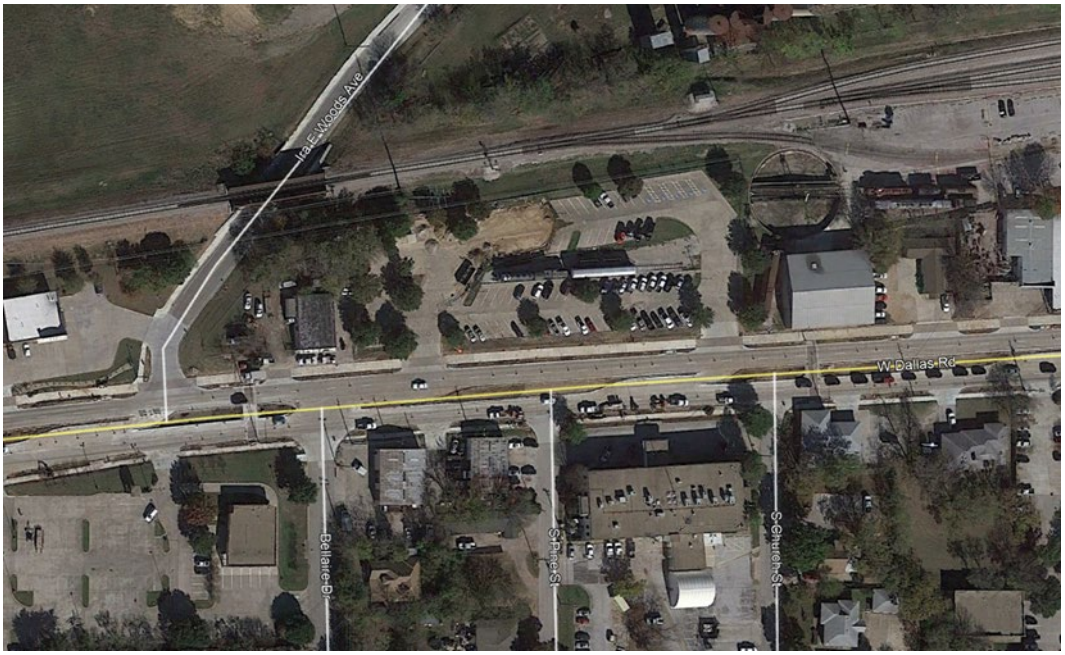
Figure 7: Falls of Neuse Road Trail



Dallas Road Trail, Dallas, TX

This section of trail reviewed along Dallas Road is approximately a 0.34-mile segment extending from Ball Street to Main Street in Dallas, TX. This Trail was constructed approximately in year 2020 based on Google aerial photography. Existing Annual Average Daily Traffic (AADT) volumes were obtained from the 2020 Texas Department of Transportation (TxDOT) District Traffic Web Viewer online application. The AADT along this segment of Dallas Road is 25,927. Crash data was collected using the TxDOT Crash Record Information System (CRIS) Query online application. Over the five-year period, a total of 192 crashes occurred along this segment of Dallas Road. The crash rate resulting from the 192 crashes occurring over the five-year period and the 0.34-mile segment is 113 crashes per mile by year. Of those 192 crashes, four (4) involved a bicycle or a pedestrian which gives a crash rate of two (2) Bike/Ped crashes per mile by year. In addition, over the five-year period, two (2) of the Bike/Ped crashes resulted in injury and there were no fatalities. An aerial image from the Dallas Road Trail is shown below in **Figure 8**.

Figure 8: Dallas Road Trail



Summary

In summary, each of the corridors reviewed varied in length, number of curb cuts, and AADTs. However, the number of bicycle/pedestrian crashes occurring per mile per year was generally consistent across the eight (8) study corridors ranging from 0.31 miles to 5.84 miles in length. Based on the corridors reviewed, there are a consistent number of crashes involving bicycles and pedestrians occurring along each of the comparable corridors.

Comparable Locations						Comparable Characteristics to Study Corridor				Crash Summary Data						
Comparison Type	Location	Limits of Evaluated Corridor	Map Link	Year Trail was Constructed[1]	Segment Length	Number of driveways/curb cuts the trail crosses (includes intersections)[1]	AADT[2]	Posted Speed Limit	Surrounding Land Uses	Total Crashes (2016 - 2020)		Crashes per mile per year (2016 - 2020)		Bike/Ped Crash Severity (2016 - 2020)		Data Sources for Crash History
										Total	*Bike/Ped*	*Total*	*Bike/Ped*	*Injuries*	*Fatalities*	
Study Corridor	Thomasville Road (Tallahassee, FL)[3]	Betton Road to Metropolitan Boulevard	Google Maps	-	2.41	44	30,000 34,000	45 MPH	Commercial/ Residential	673	5	56	<1	4	1	2016 - 2020 Signal4 Analytics
Local	Lafayette Street (Tallahassee, FL)	Franklin Boulevard to Magnolia Drive	Google Maps	2012	0.89	21	9,300	30 MPH	Commercial/ Residential	210	3	48	<1	3	0	2016 - 2020 Signal4 Analytics
Local	Franklin Boulevard (Tallahassee, FL)	Mahan Drive to Lafayette Street	Google Maps	2013	0.54	21	8,700	30 MPH	Residential/ Limited Commercial and Office/Open Space	156	7	58	2	7	0	2016 - 2020 Signal4 Analytics
State	US 1 - Overseas Trail (Marathon Key, FL)	Knights Key Boulevard to Gulf of Mexico Boulevard	Google Maps	~2000	5.72	125	12,800 19,300 29,900 24,000	45 MPH	Commercial/ Residential	997	49	35	2	37	4	2016 - 2020 Signal4 Analytics
State	Cross Seminole Trail - Rinehart Road (Sanford, FL)	N. Sun Drive to SR 46	Google Maps	~2000	4.22	44	18,500 29,500	45 MPH	Commercial/ Residential	997	14	72	<1	10	0	2016 - 2020 Signal4 Analytics
State	Cortez Boulevard (Spring Hill, FL)	US 19 to Suncoast Parkway (589)	Google Maps	Prior to 2016	5.84	62	27,500 38,000 40,500 35,000	45 MPH	Commercial/ Residential	1513	18	52	<1	16	2	2016 - 2020 Signal4 Analytics
National	N. Walton Boulevard (Bentonville, AR)	(Walton Boulevard) NW 14th Street to SW I Street	Google Maps	~2015	1.48	52	25,000 30,000	45 MPH	Commercial	Not Available	1	Not Available	<1	0	0	2016 - 2020 Arkansas Crash Analytics Tool
National	Falls of Neuse Road (Raleigh, NC)	Falls Valley Drive to Old Falls of Neuse Road	Google Maps	~2005	3.13	46	44,000 39,000 49,500 50,500	45 MPH	Commercial/ Residential	726	10	47	<1	Not Available	Not Available	2016 - 2020 NCDOT Planning Level Safety Scoring Data
National	Dallas Road (Dallas, TX)	Ball Street to Main Street	Google Maps	2020	0.34	9	25,927	40 MPH	Commercial/Office	192	4	113	2	2	0	2016 - 2020 TxDOT CRIS Query

[1]Based on desktop review using Google Earth.

[2]Segments with multiple AADTs have more than one count location along the corridor in the applicable DOT count application.

[3]Crash data based on the existing facilities along Thomasville Road