

### *Average Travel Speeds*

An evaluation of average travel speeds was conducted based upon probe data provided by FDOT Central Office by HERE—a data analytics company owned by Audi, BMW, and Daimler—and obtained by FDOT Central Office to support planning analyses by District offices. The passenger vehicle probe data in the HERE dataset are obtained from several sources including mobile phones, vehicles, and portable navigation devices. HERE then weighs travel times according to the observed volumes of passenger vehicles and freight vehicles.

**Figure 31** outlines the average travel speeds on the study corridor for northbound and southbound directions for various time periods (i.e., AM, midday, PM, and night time). Average travel speeds in the northbound direction range between 28 MPH and 38 MPH. The northbound average travel speed from Palm Bay Road to University Boulevard is approximately 7 to 9 MPH faster in the night time compared to the AM, midday, and PM periods.

- The highest northbound average travel speed (38 MPH) was observed from Palm Bay Road to Eber Boulevard/Pirate Lane during the night time period.
- The lowest northbound average travel speed (28 MPH) was observed in two locations:
  - from Eber Boulevard/Pirate Lane to University Boulevard in the PM period, and
  - from University Boulevard to US 192 in the midday period.

Average travel speeds in the southbound direction range between 23 MPH and 35 MPH. The southbound average travel speed is approximately 10 to 12 MPH faster in the night time compared to the PM period.

- The highest southbound average travel speed (35 MPH) was observed from University Boulevard to Eber Boulevard/Pirate Lane
- The lowest southbound average travel speed (23 MPH) was observed from US 192 to Palm Bay Road.

### *Peak Hour Intersection Operations*

The existing intersection operating conditions (2018) were evaluated for the weekday AM and PM peak hour traffic volume conditions. Current signal timing plans were obtained from Brevard County and the City of Melbourne for use in the analysis and are included in **Appendix F**. The intersection LOS was analyzed using HCM methodologies as implemented by Synchro Version 10. **Table 5** summarizes the existing AM and PM peak hour intersection operations. For the signalized intersections, average delay and LOS are presented for each approach and for the overall intersection. For the unsignalized intersections, average delay and LOS are presented for the critical movement on each approach. The volume-to-capacity (V/C) ratios are reported for the critical movement on each approach. Detailed HCM output reports are provided in **Appendix F**.

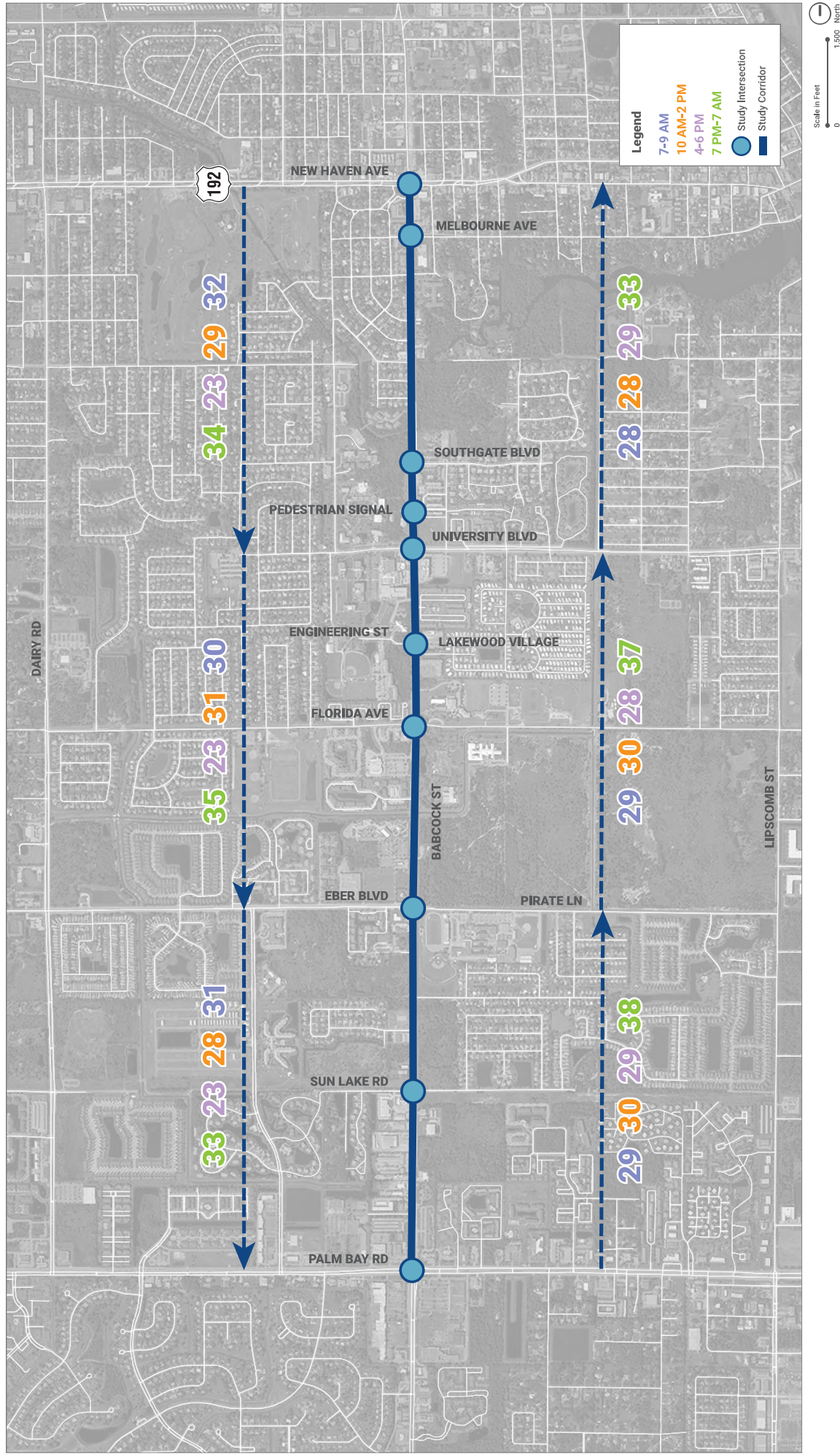


FIGURE 31 | Average Travel Speeds

Babcock Street Corridor Planning Study

**Table 5: 2018 Intersection Operations Analysis**

Intersection	Measure	AM Peak Hour					PM Peak Hour				
		EB	WB	NB	SB	Overall	EB	WB	NB	SB	Overall
Babcock Street at Palm Bay Road	Delay (LOS)	90.0 (F)	49.4 (D)	47.9 (D)	46.4 (D)	63.8 (E)	45.4 (D)	46.7 (D)	47.0 (D)	66.4 (E)	51.5 (D)
	V/C ratio	1.26	0.96	0.91	0.89	-	0.85	0.90	0.85	1.00	-
Babcock Street at Sun Lake Road	Delay (LOS)	150.0 (F)	150.0 (F)	8.2 (A)	11.6 (B)	-	150.0 (F)	150.0 (F)	10.7 (B)	9.0 (A)	6.7 (A)
	V/C ratio	0.5	1.20	0.01	0.02	-	0.99	1.02	0.07	0.06	-
Babcock Street at Eber Boulevard/Pirate Lane	Delay (LOS)	84.4 (F)	82.3 (F)	46.7 (D)	5.1 (A)	47.2 (D)	73.6 (E)	82.3 (F)	26.9 (C)	3.0 (A)	26.7 (C)
	V/C ratio	0.99	0.79	0.92	0.68	-	0.91	0.91	0.55	0.93	-
Babcock Street at Florida Avenue	Delay (LOS)	70.7 (E)	78.8 (E)	47.5 (D)	55.3 (E)	55.1 (E)	66.7 (E)	105.1 (F)	33.8 (C)	55.0 (E)	55.7 (E)
	V/C ratio	0.81	0.83	1.00	1.15	-	0.86	1.03	0.84	1.05	-
Babcock Street at Lakewood Village Place	Delay (LOS)	-	150.0 (F)	-	20.0 (C)	-	-	46.1 (E)	-	12.5 (B)	0.5 (A)
	V/C ratio	-	0.78	-	0.03	-	-	0.17	-	0.09	-
Babcock Street at Engineering Street	Delay (LOS)	10.4 (B)	-	-	-	-	25.6 (D)	-	-	-	0.4 (A)
	V/C ratio	0.02	-	-	-	-	0.25	-	-	-	-
Babcock Street at University Boulevard	Delay (LOS)	62.7 (E)	63.3 (E)	36.3 (D)	5.0 (A)	32.9 (C)	56.5 (E)	62.7 (E)	30.7 (C)	10.4 (B)	27.9 (C)
	V/C ratio	0.41	0.57	0.9	0.67	-	0.46	0.73	0.66	0.87	-
Babcock Street at Pedestrian Signal	Delay (LOS)	-	-	0.4 (A)	0.2 (A)	0.3 (A)	-	-	0.2 (A)	0.4 (A)	0.4 (A)
	V/C ratio	-	-	0.57	0.26	-	-	-	0.35	0.50	-
Babcock Street at Southgate Boulevard	Delay (LOS)	-	81.3 (F)	1.7 (A)	1.0 (A)	2.1 (A)	-	82.5 (F)	2.3 (A)	0.9 (A)	1.9 (A)
	V/C ratio	-	0.09	0.66	0.30	-	-	0.22	0.41	0.54	-
Babcock Street at Melbourne Ave	Delay (LOS)	86.4 (F)	81.1 (F)	19.3 (B)	9.8 (A)	23.7 (C)	88.2 (F)	82.6 (F)	13.5 (B)	14.6 (B)	24.1 (C)
	V/C ratio	0.64	0.78	0.78	0.33	-	0.74	0.83	0.48	0.63	-
Babcock Street at US 192	Delay (LOS)	69.2 (E)	64.4 (E)	52.7 (D)	43.5 (D)	57.1 (E)	61.1 (E)	67.6 (E)	47.1 (D)	55.8 (E)	57.4 (E)
	V/C ratio	0.89	0.75	0.92	0.73	-	0.80	0.83	0.83	0.87	-

\*Average delays (seconds) and LOS reported for approach on signalized approaches or critical movement on unsignalized approaches. Volume-to-capacity (V/C) ratios reported for critical movement on all approaches.

The signalized intersection approaches operate at LOS D or better, with the following exceptions:

- **Babcock Street at Palm Bay Road:** the overall intersection operates at LOS E with average delay of 65 seconds in the AM peak hour.
  - In the AM peak hour, the eastbound approach is over capacity operates at LOS F with average delay of 90 seconds.
  - In the PM peak hour, the southbound approach has reached capacity and operates at LOS E with 65 seconds of delay.
- **Babcock Street at Eber Boulevard/Pirate Lane Drive:**
  - In the AM peak hour, the eastbound and westbound approaches operate at LOS F with average delays of 80-85 seconds.
  - In the PM peak hour, the eastbound approach operates at LOS E with average delay of 75 seconds and the westbound approach operates at LOS F with average delay of 80 seconds.
- **Babcock Street at Florida Avenue:** the overall intersection operates at LOS E with average delay of 55 seconds in the AM and PM peak hours.
  - In the AM peak hour, the eastbound, westbound, and southbound approaches operate at LOS E with average delays of 55-80 seconds. The southbound approach is over capacity.
  - In the PM peak hour, the eastbound and southbound approaches operate at LOS E with average delays of 55-65 seconds and the westbound approach is over capacity and operates at LOS F with average delay of 105 seconds.
- **Babcock Street at University Boulevard:**
  - In the AM peak hour, the eastbound and westbound approaches operate at LOS E with average delays of 65 seconds.
  - In the PM peak hour, the eastbound and westbound approaches operate at LOS E with average delays of 55-65 seconds.
- **Babcock Street at Southgate Boulevard:** the westbound approaches operate at LOS F with average delays of 80-85 seconds in the AM and PM peak hours.
- **Babcock Street at Melbourne Avenue:** the eastbound and westbound approaches operate at LOS F with average delays of 80-90 seconds in the AM and PM peak hours.
- **Babcock Street at US 192:** the overall intersection operates at LOS E with average delays of 55 seconds in the AM and PM peak hours.
  - In the AM peak hour, the eastbound and westbound approaches operate at LOS E with average delays of 65-70 seconds.
  - In the PM peak hour, the eastbound and westbound approaches operate at LOS E with average delays of 60-70 seconds.

Critical movements at the unsignalized intersections operate at LOS D or better, with the following exceptions:

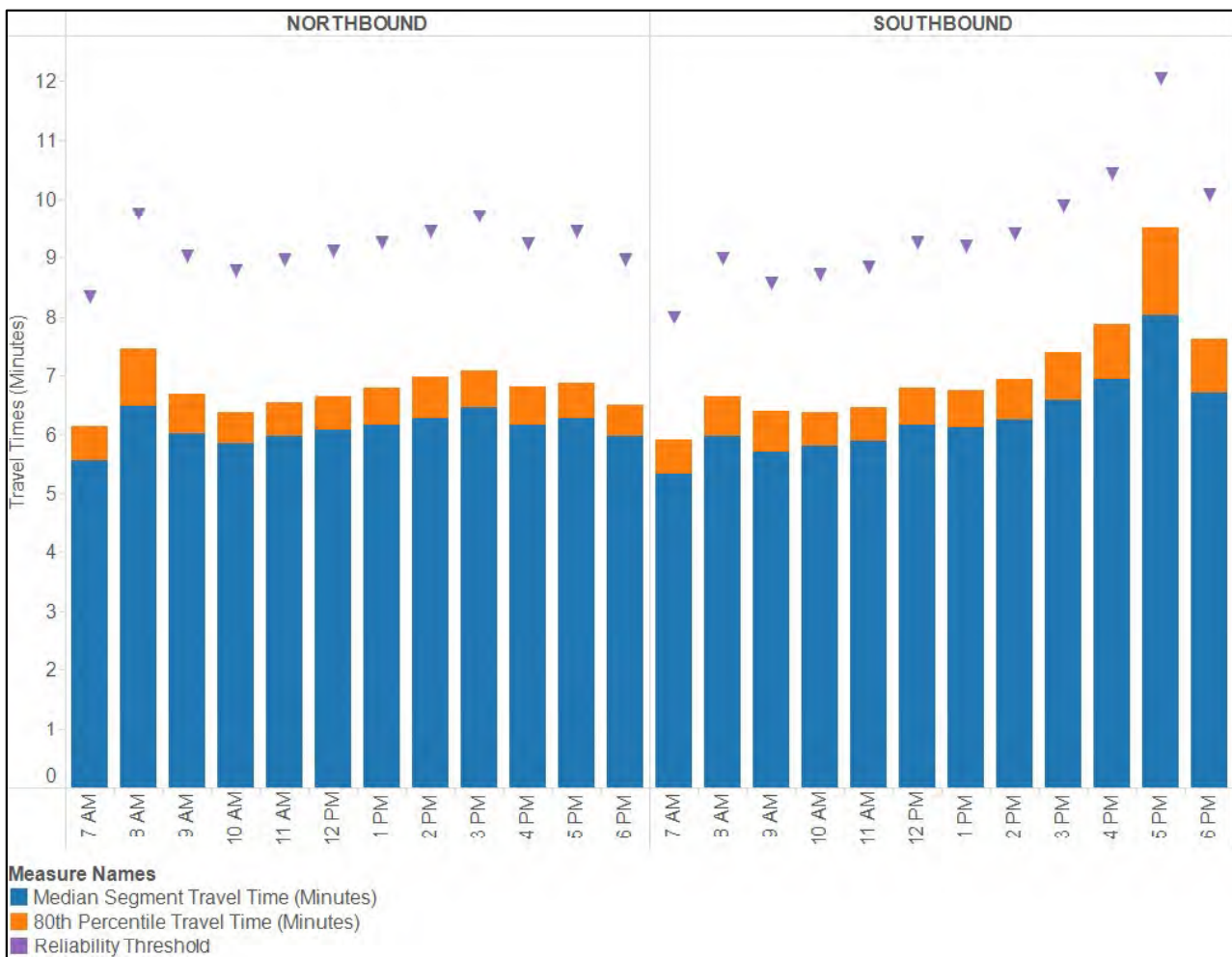
- **Babcock Street at Sun Lake Road:** the eastbound approach operates at LOS F with average delay of 185 seconds in the AM peak hour and 570 seconds in the PM peak hour. The westbound

approach is over capacity at operates at LOS F with average delay of 660 seconds in the AM peak hour and 435 seconds in the PM peak hour.

- Babcock Street at Lakewood Village Place:** the westbound approach operates at LOS F with average delay of 490 seconds in the AM peak hour and LOS E with average delay of 45 seconds in the PM peak hour.

**Travel Time Reliability**

Travel time data based upon HERE probe data along Babcock Street were evaluated to assess the corridor’s travel time reliability. **Figure 32** illustrates northbound and southbound travel times between Palm Bay Road and US 192 and how they fluctuate throughout the day. Average (50<sup>th</sup> percentile) travel times, 80<sup>th</sup> percentile travel times, and the travel time reliability threshold (i.e., 1.5 times the 50<sup>th</sup> percentile travel time) are displayed for each hour between 7 AM and 7 PM.



**Figure 32: Travel Time Reliability**

Average travel times northbound through the corridor are consistently between 5.5 and 6.5 minutes throughout the day. Average travel times southbound incur more variability, ranging between 5.5 and 8 minutes throughout the day. The AM peak hour peaks in the northbound direction, which a travel time spike of less than one minute shown between 8 AM and 9 AM. The PM peak hour peaks in the southbound direction, with a travel time spike of more than one minutes between 5 PM and 6 PM.

The travel time reliability evaluation was based on the Level of Travel Time Reliability (LOTTR) metric used by FHWA for MAP-21 performance reporting purposes. In this metric, the 80<sup>th</sup> percentile travel time is compared to the 50<sup>th</sup> percentile (i.e., median) travel time, as shown in the equation below.

$$LOTTR = \frac{80th\ Percentile\ Travel\ Time}{50th\ Percentile\ Travel\ Time}$$

The [FHWA definition of reliability](#) stipulates that a roadway segment is considered reliable if the LOTTR is 1.5 or lower. Although there are increases in travel time during the peak periods, the 80<sup>th</sup> percentile travel time remains below the reliability threshold between 7 AM and 7 PM. Therefore, travel times along the study corridor are considered reliable under the FHWA definition.

## Safety Assessment

Crash records were obtained for Babcock Street within the study limits for a five-year period (2012 through 2016) from FDOT's Crash Analysis Reporting System (CARS) and University of Florida's Signal Four Analytics. CARS data for 2017 was not yet validated at the time of this study; therefore, a 5-year trend of crash data through 2016 was analyzed. This section summarizes the corridor wide crash statistics then reviews crash data for the high crash intersections along the study corridor. A detailed pedestrian/bicycle safety review is also discussed in this section.

### Corridor Wide Crash Statistics

**Figure 33** displays a summary of crash frequency by year along with their respective severity from 2012 to 2016. A total of 1,620 crashes were reported during this period, 410 of which (25 percent) resulted in at least one injury and three (3) of which resulted in at least one fatality. Approximately 75 percent of crashes resulted in property damage only (PDO). The annual crash frequency has been relatively consistent between 2013 and 2016 ranging from 330 (2013) to 395 (2014) total crashes.

**Figure 34** displays the crashes along the corridor by type and severity for the five-year study period. The highest crash type observed was rear-end, comprising 53 percent of the total crashes. Sideswipe (11 percent) and angle (5 percent) were the second and third highest crash types. There were 20 pedestrian and 26 bicycle crashes over the five years resulting in one (1) of the three (3) fatal crashes. The other two (2) fatal crashes were a rear end and an "other" (unclassified). Other crash statistics to note include the following:

- Crashes occurring in non-daylight conditions accounted for 25 percent of the crashes.
- Crashes occurring in wet roadway surfaces conditions accounted for 14 percent of the crashes.
- Eighty-three (83) percent of the crashes occurred on a weekday.
- A spike in crashes was observed during the months of August through October, which combined accounted for 30 percent of the total crashes and corresponds with the beginning of the fall semester for Florida Institute of Technology.
- Fifty (50) percent of the crashes were observed between 12 PM and 6 PM.
- Fifteen (15) percent of the drivers at fault were younger than 30 years old.

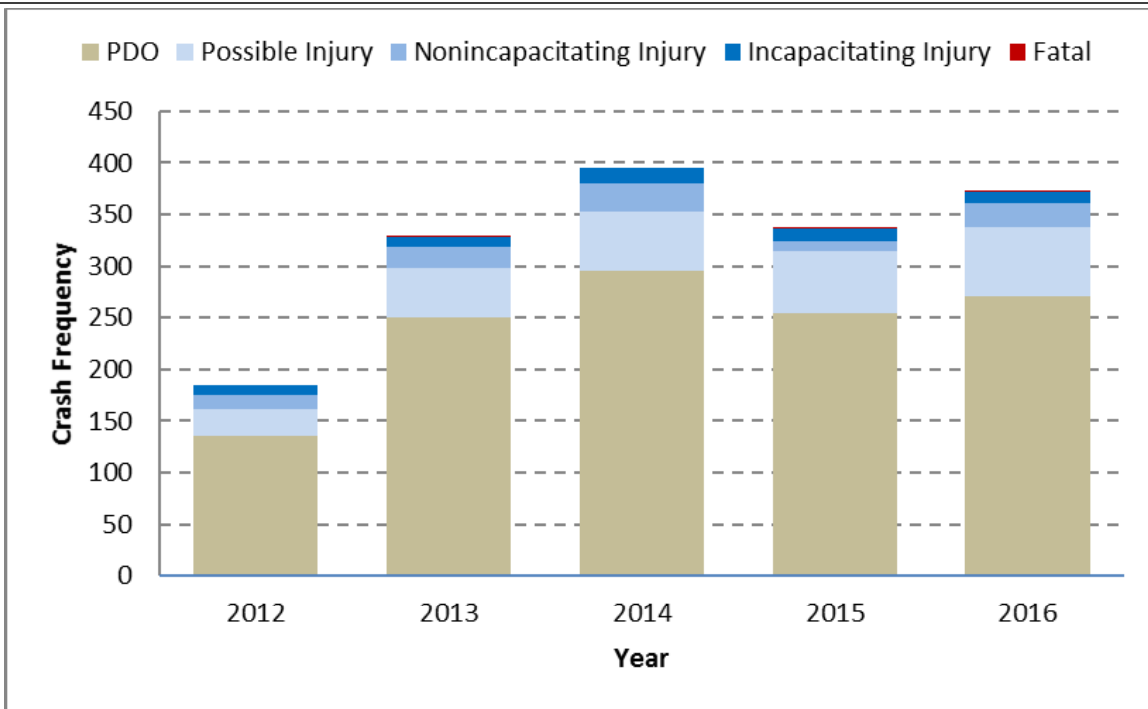


Figure 33: Crashes by Year and Severity (Corridor)

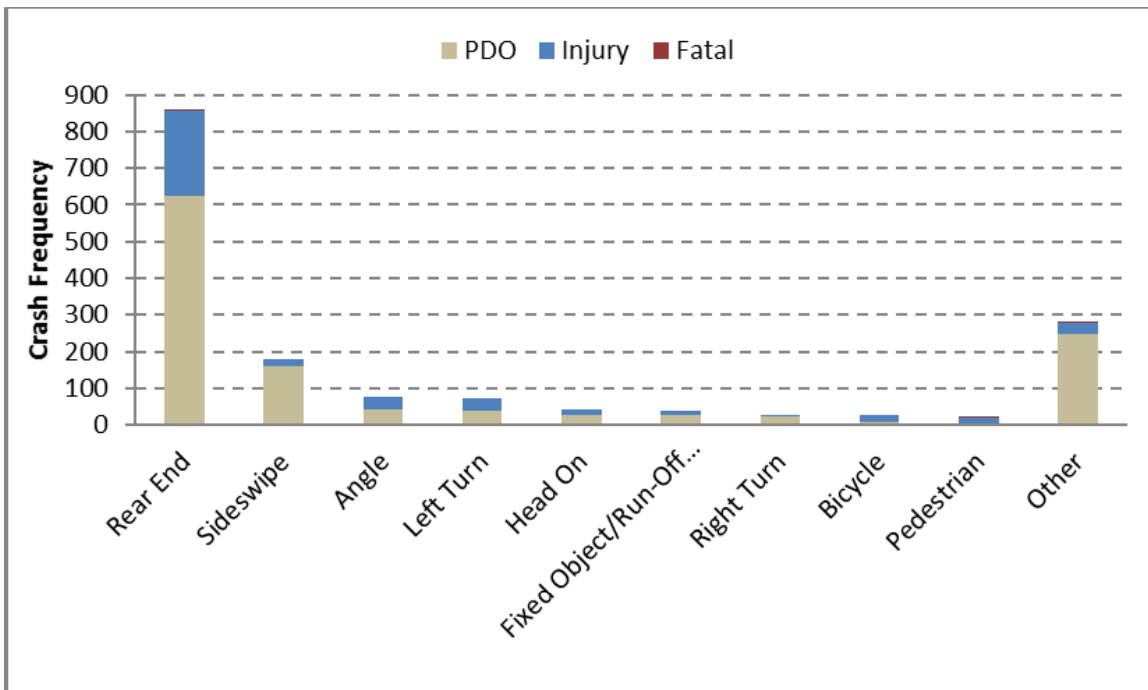


Figure 34: Crashes by Type and Severity (Corridor)

Crash frequencies along the corridor are illustrated in **Figure 35**, and high crash frequency locations were identified. 1,386 of the 1,620 total crashes (86 percent) occurred at intersections and 234 of the 1,620 total crashes (14 percent) occurred on segments between intersections. Babcock Street/Palm Bay Road is the intersection with the highest number of crashes, accounting for 478 of the 1,386 intersection crashes (34 percent) over the five years. US 192 (195 crashes), University Boulevard (189 crashes), Florida Avenue (179 crashes), and Pirate Lane/Eber Boulevard (178 crashes) were the next highest crash frequency intersection locations. The segment from Palm Bay Road to Sun Lake Road had 68 of the 234 segment crashes (29 percent) and the segment from Lakewood Village to University Boulevard had 41 of the 234 segment crashes (18 percent).

Crash severity (i.e., fatal, injury, and property damage only crashes) along the corridor are illustrated in **Figure 36**. While the injury crashes are spread throughout the corridor, concentrations appear at the Palm Bay Road intersection, between Eber Boulevard and University Boulevard, and between Melbourne Avenue and US 192. Additional details from the crash data set in tabular and graphical format are provided in **Appendix G**.

### **High Crash Locations**

Six signalized intersections and one unsignalized intersection on Babcock Street were identified as high crash locations. Crashes at the six signalized intersections accounted for 1,285 of the 1,620 crashes (79 percent) along the Babcock Street corridor. Crashes at the unsignalized intersection accounted for 50 of the 1,620 crashes (3 percent). This section provides an overview of crash statistics at the identified high crash locations. Additional details for each high crash intersection are provided in tabular and graphical format in **Appendix G**.

#### *Babcock Street/Palm Bay Road (478 crashes)*

The signalized intersection of Babcock Street with Palm Bay Road accounted for 478 of the corridor's crashes (30 percent).

- The highest crash type observed was rear end (48 percent), one of which resulted in a fatality.
- Sideswipe (12 percent) and angle (4 percent) were the next highest crash types.
- There were five (5) pedestrian crashes, four resulted in an injury and one resulted in a fatality.
  - Two of the injury pedestrian crashes occurred in the crosswalk on the south side of the intersection.
  - One of the injury pedestrian crashes occurred in the crosswalk on the west side of the intersection.
- There were eight (8) bicycle crashes, six of which resulted in an injury.
  - One (1) of the PDO bicycle crashes occurred in the crosswalk on the south side of the intersection.





FIGURE 35 | Corridor Crash Frequency (2012-2016)

**Babcock Street Corridor Planning Study**

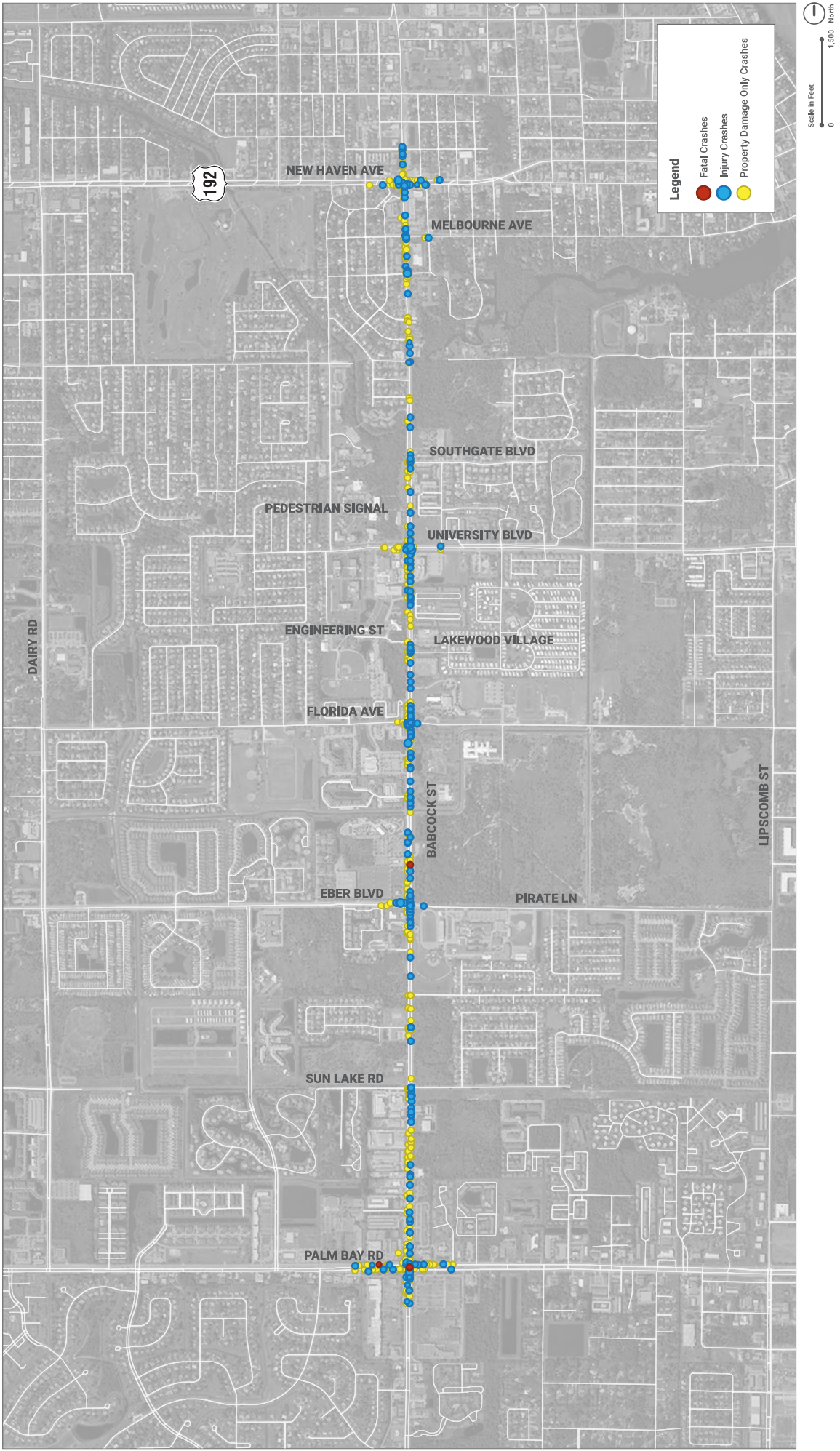


FIGURE 36 | Corridor Crash Severity (2012-2016)

**Babcock Street Corridor Planning Study**

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*Babcock Street/Pirate Lane/Eber Boulevard (178 crashes)*

The signalized intersection of Babcock Street with Pirate Lane/Eber Boulevard accounted for 178 of the corridor's crashes (11 percent).

- The highest crash type observed was rear end, comprising 64 percent of the total crashes.
- Sideswipe (8 percent) and left turn (6 percent) were the next highest crash types.
- There were two (2) pedestrian crashes, one of which resulted in an injury, and one (1) bicycle crash.
  - One (1) of the PDO pedestrian crashes occurred in the crosswalk on the west side of the intersection.
  - The PDO bicycle crash occurred in the crosswalk on the west side of the intersection.

*Babcock Street/Florida Avenue (179 crashes)*

The signalized intersection of Babcock Street with Florida Avenue accounted for 179 of the corridor's crashes (11 percent).

- The highest crash type observed was rear end, comprising 50 percent of the total crashes.
- Sideswipe (10 percent) and angle (6 percent) were the next highest crash types.
- There were four (4) pedestrian crashes, all resulting in injury, and eight (8) bicycle crashes, four resulting in injury.
  - One (1) of the injury pedestrian crashes occurred in the crosswalk on the south side of the intersection.
  - Three (3) of the injury bicycle crashes occurred in the crosswalk on the west side of the intersection.

*Babcock Street/University Boulevard (189 crashes)*

The signalized intersection of Babcock Street with University Boulevard accounted for 189 of the corridor's crashes (12 percent).

- The highest crash type observed was rear end, comprising 61 percent of the total crashes.
- Sideswipe (12 percent) and left turn (7 percent) were the next highest crash types.
- There were four (4) pedestrian crashes and one (1) bicycle crash at this intersection, all of which resulted in at least one injury.
  - One (1) of the injury pedestrian crashes occurred in the crosswalk on the east side of the intersection.
  - One (1) of the injury pedestrian crashes occurred in the crosswalk on the west side of the intersection.
  - One (1) of the injury pedestrian crashes occurred in the crosswalk on the south side of the intersection.
  - The injury bicycle crash occurred in the crosswalk on the west side of the intersection.

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*Babcock Street/Melbourne Avenue (66 crashes)*

The signalized intersection of Babcock Street with Melbourne Avenue accounted for 66 of the corridor's crashes (4 percent).

- The highest crash type observed was rear end, comprising 53 percent of the total crashes.
- Angle (15 percent) and sideswipe (6 percent) were the next highest crash types.
- There were zero (0) pedestrian crashes and one (1) bicycle crash at this intersection.
  - The PDO bicycle crash occurred in the crosswalk on the west side of the intersection.

*Babcock Street/US 192 (195 crashes)*

The signalized intersection of Babcock Street with US 192 accounted for 195 of the corridor's crashes (12 percent).

- The highest crash type observed was rear end, comprising 60 percent of the total crashes.
- Sideswipe (12 percent) and left turn (5 percent) were the next highest crash types.
- There were two (2) pedestrian crashes, one of which resulted in an injury and one (1) bicycle crash that resulted in an injury at this intersection.
- Babcock Street and US 192 was under construction from September 2013 through 2014. Approximately 68 crashes (35 percent) at the intersection occurred during this period and may have been related to construction activities at the intersection.

*Babcock Street/Sun Lake Road (50 Crashes)*

The two way stop controlled intersection of Babcock Street with Sun Lake Road accounted for 50 of the corridor's crashes (3 percent).

- The highest crash type observed was rear end, comprising 30 percent of the total crashes.
- Sideswipe (14 percent) and fixed object/run-off the road (14 percent) were the next highest crash types.
- There were no pedestrian crashes or bicycle crashes at this intersection.

***Pedestrian and Bicycle Crash Review***

There were 46 crashes involving pedestrians and bicyclists during the analysis period, of which 20 involved pedestrians and 26 involved bicyclists. Pedestrian and bicycle crashes by location are displayed in **Figure 37**, and general pedestrian and bicycle statistics are summarized below:

- Of the 20 pedestrian crashes, one (1) was fatal and 15 resulted in injuries.
- Of the 26 bicycle crashes, none were fatal and 16 resulted in injuries.
- 14 pedestrian/bicycle related crashes (30 percent) occurred in non-daylight conditions.
- Alcohol was involved in one (1) of the 46 crashes (2 percent).



FIGURE 37 | Pedestrian and Bicycle Crashes (2012-2016)

Crashes by location are summarized below:

- Seven (7) pedestrian and nine (9) bicycle crashes occurred from Palm Bay Road to Eber Boulevard/Pirate Lane. One (1) of the pedestrian crashes resulted in a fatality.
- Ten (10) pedestrian and 13 bicycle crashes occurred between Eber Boulevard/Pirate Lane and University Boulevard.
- Three (3) pedestrian and four (4) bicycle crashes occurred from University Boulevard to US 192.
- Eight (8) pedestrian and eight (8) bicycle crashes occurred within marked crosswalks along Babcock Street.
- Two (2) pedestrian and one (1) bicycle crash occurred when pedestrians/bicyclist were attempting to cross Babcock Street between signalized intersections.

Additional details are provided in tabular and graphical format in **Appendix G**.

### ***Safety Crash Ratio Evaluation***

The corridor's safety crash ratio was calculated to compare the annual crash rates along the corridor to the critical crash rates of similar facilities throughout the State of Florida. This method has historically been used by the FDOT and some local agencies to identify high-crash locations. The method takes into account the traffic volume at specific sites, considers the variance in crash data by including regional or statewide averages, and classifies roadway types into categories for more applicable comparisons. However, the safety crash ratio method includes the following limitations:

- Does not account for "Regression-to-the-Mean" bias
- Assumes a linear relationship between traffic volume and crashes
- Does not consider crash severity

The safety crash ratio, calculated for each location annually, is equal to the location's actual crash rate divided by the statewide critical crash rate. **Table 6** and **Table 7** depict the annual statewide safety ratios for nine intersections and eight roadway segments.

The intersections at Palm Bay Road, Sun Lake Road, Eber Boulevard/Pirate Lane, Florida Avenue, University Boulevard, Melbourne Avenue, and US 192 have experienced crash rates higher than the state average over the study period. All roadway segments have experienced crash rates lower than the state average over the study period. The safety crash ratio was evaluated on the corridor as a general overarching indicator of safety and should be regarded as a supplementary measure to the other analyses presented in the Existing Conditions Analysis. More detailed documentation of the crash ratios can be found in **Appendix G**.

**Table 6: Statewide Safety Ratios – Intersections (2012-2016)**

Intersection	Analysis Year				
	2012	2013	2014	2015	2016
Babcock Street at Palm Bay Road	2.036	3.512	3.759	2.603	2.419
Babcock Street at Sun Lake Road	0.333	0.837	1.107	0.666	0.546
Babcock Street at Eber Boulevard/Pirate Lane	0.978	2.535	2.851	2.638	2.802
Babcock Street and Florida Avenue	1.864	2.485	2.331	2.281	2.528
Babcock Street at Lakewood Village	0.102	0.278	0.432	0.463	0.455
Babcock Street at University Boulevard	1.483	2.361	2.272	3.295	2.763
Babcock Street at Southgate Boulevard	0.216	0.499	0.974	0.418	0.319
Babcock Street at Melbourne Avenue	0.349	0.796	0.961	0.782	1.056
Babcock Street at US 192	1.474	2.841	2.254	1.066	1.634

0.75 to 1.0 (approaching state average)

> 1.0 (above state average)

**Table 7: Statewide Safety Ratios – Segments (2012-2016)**

Segment	Analysis Year				
	2012	2013	2014	2015	2016
Palm Bay Road to Sun Lake Road	0.367	0.465	0.675	0.468	0.159
Sun Lake Road to Eber Boulevard/Pirate Lane	0.218	0.099	0.152	0.174	0.184
Eber Boulevard/Pirate Lane to Florida Avenue	0.277	0.220	0.407	0.128	0.411
Florida Avenue to Lakewood Village	0.068	0.000	0.000	0.052	0.051
Lakewood Village to University Boulevard	0.150	0.182	0.380	0.420	0.522
University Boulevard to Southgate Boulevard	0.063	0.000	0.000	0.049	0.000
Southgate Boulevard to Melbourne Avenue	0.115	0.091	0.191	0.120	0.172
Melbourne Avenue to US 192	0.000	0.000	0.000	0.000	0.000

0.75 to 1.0 (approaching state average)

> 1.0 (above state average)

## 5. IDENTIFIED ISSUES

The existing conditions analysis combined with input received from the PVT and field observations point to the following key issues along the Babcock Street study corridor:

### *Traffic Operations*

- **Issue:** The roadway segment from Melbourne to US 192 is currently operating at FDOT’s LOS target (LOS D) but is approaching its daily service volume capacity.
- **Issue:** Three signalized intersections are operating at an overall LOS E in the peak hour(s):
  - At Palm Bay Road
  - At Florida Avenue
  - At US 192
- **Issue:** Stop-controlled movements at the Sun Lake Road intersection experience excessive delay during the AM and PM peak hours.

### *Safety*

- **Issue:** The study corridor has experienced 1,620 reported crashes from 2012 to 2016, of which 410 (25 percent) resulted in injury and three resulted in fatalities.
- **Issue:** Crash rates at five intersections on the corridor have consistently exceeded the statewide average for similar intersections, many by two to three times the statewide average:
  - At Palm Bay Road
  - At Eber Boulevard / Pirate Lane
  - At Florida Avenue
  - At University Boulevard
  - At US 192

### *Pedestrian/Bicycle*

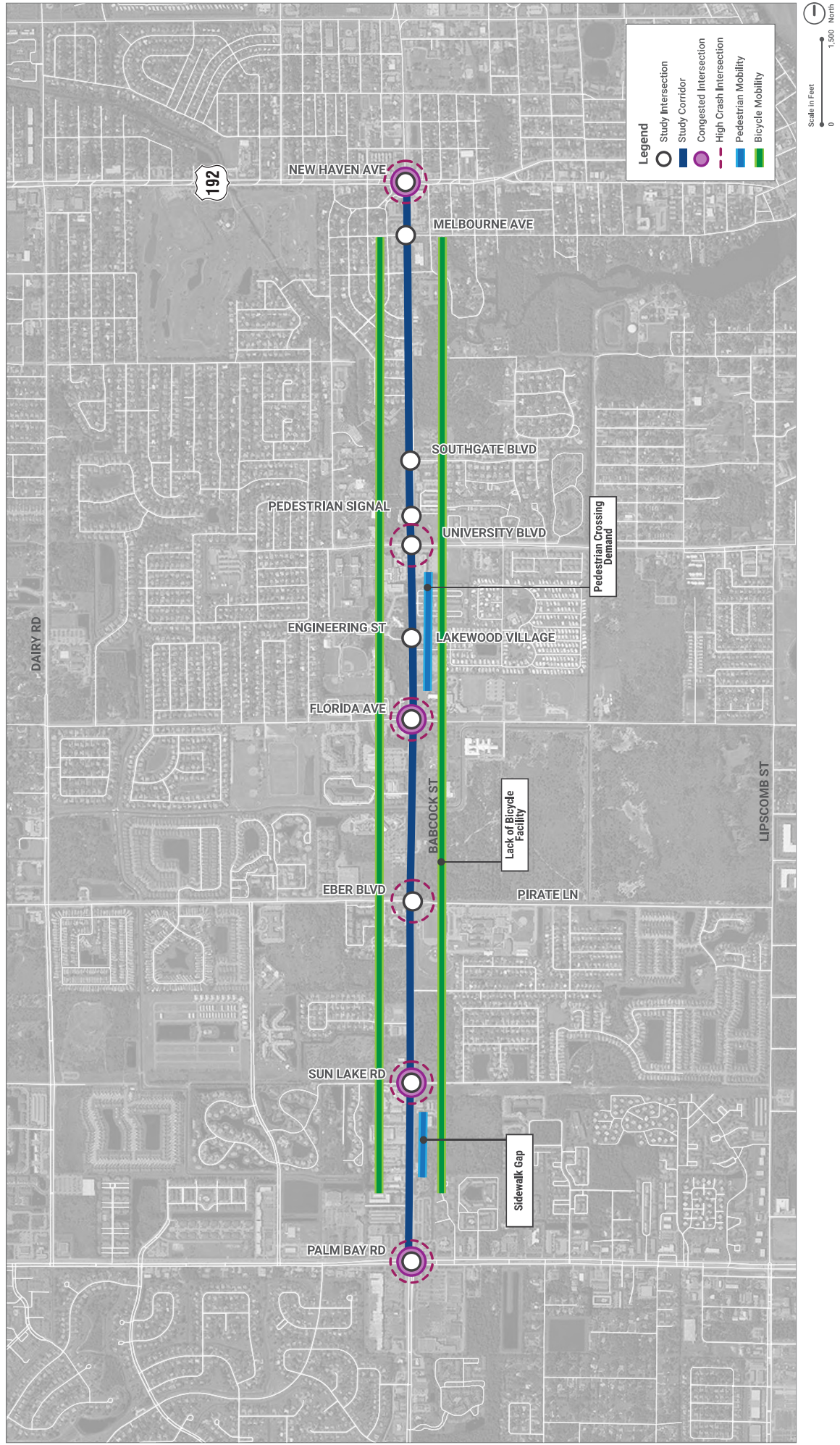
- **Issue:** There is a 1,600-foot sidewalk gap between Palm Bay Road and Sun Lake Road on Babcock Street’s east side and 1,000-foot deteriorating asphalt section on the Babcock Street’s west side.
- **Issue:** There is pedestrian and bicyclist demand for crossing Babcock Street between Florida Avenue and University Boulevard outside of designated crosswalks.
- **Issue:** The corridor has no bicycle facilities north of Palm Bay Road to Melbourne Street.
- **Issue:** Pedestrian and bicycle safety is a concern. Of the 46 pedestrian or bicycle-related crashes, 31 (67 percent) resulted in injury and one resulted in a fatality.
- **Opportunity:** Growth plans at FIT and in its vicinity will be an important piece of this corridor’s future land use and demand for pedestrian and bicycle mobility.

### *Transit*

- **Issue:** Many of the existing transit boarding and alighting pads are not ADA compliant.
- **Opportunity:** Zero-vehicle households in the southwest and northeast portions of the corridor may provide additional transit demand.

The above summary will help define the guiding principles and purpose and need for possible corridor improvements. **Figure 38** summarizes identified for the study corridor.





**Babcock Street Corridor Planning Study** FIGURE 38 | Identified Issues

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## APPENDIX A – PUBLIC INVOLVEMENT MATERIALS

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## APPENDIX B – PREVIOUS STUDIES AND FUTURE PROJECTS

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## APPENDIX C – FDOT STRAIGHT LINE DIAGRAMS

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APPENDIX D – SUNSHINE ONE CALL

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## APPENDIX E – RAW COUNT DATA

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## APPENDIX F – OPERATIONAL ANALYSIS DOCUMENTATION

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## APPENDIX G – CRASH DATA