

December 2024

CHARLOTTE COUNTY-PUNTA GORDA

COMPREHENSIVE SAFETY ACTION PLAN



Key terms

Crash – An occurrence where a road user collides with another road user, such as a car or truck, motorcyclist, bicyclist, pedestrian, animal, road debris, or other moving or stationary obstruction, such as a tree, pole, or building, that may result in injury or loss of life, trauma, and/or property damage. Crashes can involve a single-party or multiple parties.

High Injury Network – A collection of streets where a disproportionate number of crashes that result in someone being seriously injured or killed occur.

Kinetic Energy –In the safety context, Kinetic Energy refers to the combination of mass and speed of a vehicle or other road user, like a bicyclist, involved in a collision. Depending on the angle of the crash, the higher the combination of mass and speed, the more likely the crash is to result in a serious injury or death, with the impact severity increasing exponentially as vehicle speed increases.

Disadvantaged Community – A U.S. Department of Transportation (USDOT) designation for communities where people experience greater transportation inequities to access jobs, housing, food, health care, education, and other destinations due to overlapping factors, including demographics, features of the built environment, and in some instances a lack of prior investment in the transportation system.

Safe System Approach – A guiding safety approach that builds and reinforces multiple layers of protection to both prevent crashes from occurring and minimize the harm caused to those involved when a crash does occur.

Serious injury – May also be referred to as an incapacitating injury. Serious injuries may include broken bones, severed limbs, etc. These injuries usually require hospitalization and transport to a medical facility.

Vision Zero – A road safety philosophy which states that no loss of life or incapacitating injury due to traffic crashes is acceptable.

Vulnerable road user – For the purposes of this Safety Action Plan, a person outside of a car or truck, which includes pedestrians, bicyclists, or motorcyclists. This also includes people in wheelchairs and on e-mobility devices, like scooters.

List of abbreviations

- ADA** – Americans with Disabilities Act
- ATP** – Active transportation plan
- CAC** – Citizen’s Advisory Committee
- CAV** – Connected and autonomous vehicle
- CBO** – Community-based organization
- CIP** – Capital Improvement Plan
- DUI** – Driving under the influence
- EMS** – Emergency medical services
- ETC** – Equitable Transportation Community
- FDOT** – Florida Department of Transportation
- FHP** – Florida Highway Patrol
- FHWA** – Federal Highway Administration
- HIN** – High Injury Network
- ITS** – Intelligent Transportation Systems
- KSI** - Fatal or serious injury crash
- LPI** – Leading Pedestrian Interval
- NHTSA** – National Highway Traffic Safety Administration
- PHB** – Pedestrian hybrid beacon
- RRFB** – Rectangular rapid-flashing beacon
- SRTS** – Safe Routes to School
- TAC** – Technical Advisory Committee
- USDOT** – United States Department of Transportation

EXECUTIVE SUMMARY

This Comprehensive Safety Action Plan (CSAP) sets a path forward for the Charlotte County-Punta Gorda Metropolitan Planning Organization (CC-PG MPO) to work with their partners and the community to reach the goal of zero fatalities and serious injuries due to traffic crashes by the year 2045.

The CC-PG MPO developed this CSAP due to above-average traffic fatalities and injuries. Funded by the U.S. Department of Transportation’s (USDOT) Safe Streets and Roads for All (SS4A) program, the plan sets a roadmap for local agencies to work together to create the necessary change to save lives on the roads in Charlotte County and Punta Gorda.

In the **Build Phase**, the project team utilized a data-driven approach to identify the top 14 corridors in Charlotte County and Punta Gorda for future safety improvements. This process involved an in-depth analysis of crash data to pinpoint areas with the highest incidence of traffic-related fatalities and injuries. By examining variables such as crash frequency, severity, and patterns, as well as considering demographic factors, the CC-PG MPO now has a list of prioritized interventions. This strategic focus will help ensure resources are allocated efficiently to the most hazardous corridors, maximizing the impact of targeted safety measures and ultimately enhancing road safety across the region.

PLAN DEVELOPMENT PROCESS

The CSAP was developed following a **Build - Listen - Apply approach**, creating a data-informed, community-driven framework to reduce traffic-related fatalities and injuries. The process included both quantitative and qualitative assessments to identify the most hazardous roads, laying the groundwork for targeted safety interventions in the near (2030), medium (2040), and long-term (2045).

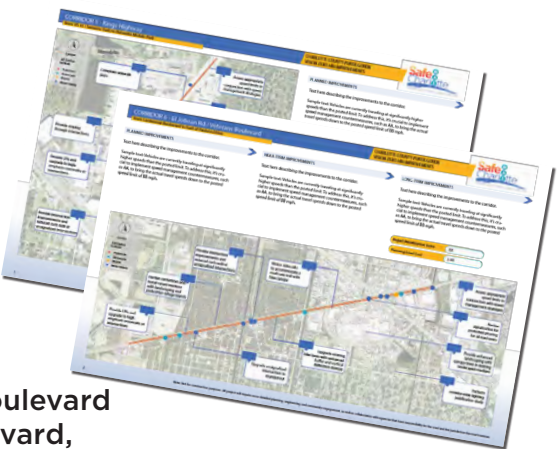
In the **Listen Phase**, robust public outreach was conducted, engaging residents and stakeholders through surveys and community meetings. These efforts highlighted significant concerns, such as aggressive and distracted driving, and a need for improved infrastructure, including better lighting, clearer signage, and more pedestrian-friendly pathways. The insights gathered were instrumental in aligning the plan’s strategies with the community’s lived experiences and expectations.



In the **Apply Phase**, the project team worked with key stakeholders including Charlotte County, City of Punta Gorda, and FDOT staff to make specific recommendations on the most dangerous corridors, as well as changes in policy and educational needs. Pulling from nationally recognized FHWA guidance and other resources on recommended safety countermeasures, infrastructural improvements include an array of solutions to protect vulnerable road users. The plan also promotes stricter enforcement of traffic laws and educational campaigns to foster safe driving behaviors across all age groups.

Overall, the CSAP’s multifaceted approach, backed by federal funding from the USDOT Safe Streets and Roads for All (SS4A) program, underscores a holistic and proactive commitment to improving road safety. Through infrastructural enhancements, rigorous traffic law enforcement, and targeted educational initiatives, the plan aims to reduce road incidents and ensure the safety and well-being of all road users in Charlotte County and the City of Punta Gorda.

The following section outlines a sample of the recommended engineering countermeasures. These are also shared later in the CSAP as a series of cut-sheets that show the location of the HIN corridor, along with call-outs where specific recommendations are made and associated write-ups for near (2030), mid (2040), and long-term (2045) improvements.



**HIN COUNTY-WIDE CORRIDORS 1 - 4:
US 41 (TAMIAMI TRAIL)**

from Midway Boulevard to Conway Boulevard, from Conway Boulevard to Melbourne Street, from Veterans Boulevard to Midway Boulevard, and from W Retta Esplanada to Carmalita Street (HIN City Corridor 1)

- Conduct a Road Safety Audit
- Assess appropriate speed limits in conjunction with speed management strategies
- Review signal phasing, timing, and yellow change intervals, as well as pedestrian crossing times
- Provide Flashing Yellow turn phase/ Advanced Dilemma Zone Detection at signalized intersections
- Evaluate the potential closure/consolidation of driveways
- Upgrade faded crosswalks and lane markings
- Evaluate the need to install additional signalized pedestrian crossings at strategic locations
- Propose lane narrowing to 10-11 feet accommodate buffered bike lanes and control speeds along the corridor
- Provide green conflict striping in bike lane conflict areas
- Provide Leading Pedestrian Intervals (LPIs) at signalized intersections
- Consider adding additional pedestrian refuge islands
- Perform corridor-wide lighting justification study
- Conduct a pedestrian crossing study
- Evaluate access management along the corridor

HIN COUNTY-WIDE CORRIDOR 5: KINGS HIGHWAY

from US 41 (Tamiami Trail) to Palmetto Mobile Park

- Review signal phasing, timing, and yellow change intervals to reduce queuing and congestion-related crash types
- Review striping through intersections for all left-turn movements, noting that both intersections have skewed alignments
- Review access spacing and consider directionalization or closure of the full access median openings along the corridor to reduce left-turn conflicts
- Extend the raised median on the north leg of the Kings Highway at Harborview Road intersection
- Evaluate left-turn lane offsets at intersections to provide positive offset, noting that the left-turn lanes on US 41 are negatively offset
- Assess appropriate speed limits in conjunction with speed management strategies
- Provide enhanced landscaping with canopy trees in existing raised medians to reduce travel speeds
- Provide lane narrowing to reduce travel speeds
- Provide wider edge lines to reduce off-road crashes
- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Provide gateway feature with low-cost, quick-build pedestrian safety improvements
- Upgrade crosswalks to provide high-visibility crosswalks on all legs of intersections



PRIORITIZED SAFETY COUNTERMEASURES

To address the most dangerous corridors in the county and city, the plan identifies a range of countermeasures carefully tailored to help mitigate crashes on the identified High Injury Network (HIN). For example, near-term solutions might include enhanced signage, the installation of temporary speed reduction measures, and increased law enforcement presence. Mid-term solutions reflect continued investment in safety solutions with the completion of sidewalks with associated crossings and signalization, access modifications, and/or lighting justification studies. In contrast, long-term strategies could encompass significant investment in infrastructure such as the redesign of high-risk intersections, the deployment of advanced traffic management systems, and the construction of protected bike lanes and pedestrian paths. These recommendations not only provide immediate safety benefits, but also lay the groundwork for future demonstration or implementation funding under the SS4A program, ensuring sustained efforts to create safer roads throughout the community.

Routine performance tracking will continue to be crucial, as recommended improvements identified along the HIN are anticipated to create the necessary changes to establish safer streets, enabling the identification of additional roads throughout the county for further capital improvement projects. In addition to engineering countermeasures, policy plays a pivotal role in effecting safety solutions by ensuring that the implementation of best practices in new developments becomes a standard procedure, thereby embedding safety enhancements into the community’s infrastructure from the outset. Furthermore, educational campaigns are essential in raising a culture of awareness among residents, and fostering responsible driving habits and heightened vigilance, which collectively contribute to a safer and more informed community.

HIN COUNTY-WIDE CORRIDOR 6:
SR 776 (EL JOBEAN ROAD) / VETERANS BOULEVARD

from Centennial Boulevard to East of Paulson Drive

- Assess appropriate speed limits in conjunction with context-appropriate speed management strategies, based on the future Westport development
- Provide advance road name and overhead lane use signage on approach to the major intersections at Murdock Circle (W), US 41, and Murdock Circle (E)
- Provide rumble strips along the non-curbed sections to combat off-road crashes
- Provide signalization along the corridor with LPIs and high-emphasis crosswalks on all approaches, focusing on connectivity between the commercial (Charlotte Town Center), recreational (Charlotte Sports Park, Centennial Park), and retail/residential developments
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands
- Provide intersection improvements and reduced curb radii at unsignalized intersections serving areas with high pedestrian and bicyclist traffic
- Widen sidewalks to accommodate a multi-use trail with tree canopy
- Upgrade existing bike lanes with enhanced buffer and vertical deflection devices
- Perform corridor-wide lighting justification study
- Provide retroreflective backplates on signal heads
- Provide enhanced landscaping with canopy trees in existing landscaped median
- Review signalization for protected phasing and safety-optimized clearance intervals for all road users
- Evaluate pavement condition for high-friction surface treatment to improve braking performance (note the western section of the corridor was recently repaved)

HIN COUNTY-WIDE CORRIDOR 7: KINGS HIGHWAY

from Veterans Boulevard to East of Sandhill Boulevard

- Refresh faded pavement guidance markings on Kings Highway east of I-75
- Review signal phasing, timing, and yellow change intervals to reduce queuing and congestion-related crash types
- Refresh striping through intersections for all left-turn movements
- Assess appropriate speed limits in conjunction with speed management strategies
- Provide enhanced landscaping with canopy trees in existing raised medians to reduce travel speeds
- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Consider opportunities for additional improvements at I-75 ramp termini by performing an Interchange Operations Analysis Report Study
- Review signal coordination along the Kings Highway corridor between Veterans Boulevard and Sandhill Boulevard to reduce congestion related crashes
- Perform corridor-wide lighting justification study
- Provide additional overhead lane-use signs to guide access to Kings Highway and Veterans Boulevard
- Provide advance oversize cross street name signs to improve clarity and context for drivers coming off of I-75

HIN COUNTY-WIDE CORRIDOR 8: MIDWAY BOULEVARD

from Lakeview Boulevard to Harbor Boulevard

- Review the two-way-left-turn median for opportunities for access modifications to reduce left-turn conflicts at high crash intersections
- Conduct a corridor-wide lighting justification study
- Assess appropriate speed limits in conjunction with speed management strategies
- Evaluate lane narrowing to accommodate buffered bike lanes and control speeds along the corridor
- Provide rumble strips along the non-curbed sections of the corridor to combat off-road crashes
- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization
- Widen sidewalks to accommodate a multi-use trail with tree canopy
- Provide enhanced landscaping with canopy trees in existing raised medians to reduce travel speeds
- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Coordinate with Arbor Day Foundation to implement residential street tree program
- Install speed feedback signs



HIN COUNTY-WIDE CORRIDOR 9: EDGEWATER DRIVE

from Midway Boulevard to Conreid Drive NE

- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Evaluate intersections for opportunities to provide roundabouts for reduced vehicular conflicts
- Raised crosswalks at roundabouts to serve as traffic calming, including a raised crosswalk and traffic control device at S. Waterway Drive
- Speed feedback signs
- Oversized signs along corridor

HIN COUNTY-WIDE CORRIDOR 10: OLEAN BOULEVARD

from US 41 (Tamiami Trail) to Key Lane

- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization
- Conduct Road Safety Audit to identify safety improvements for all road users
- Install low-cost quick-build solution with bicycle signage and pavement markings such as sharrows east of Easy Street
- Review access spacing and consider directionalization or closure of the open median along the corridor to reduce left-turn conflicts
- Propose lane narrowing to accommodate buffered bike lanes and control speeds along the corridor
- Address sidewalk gaps on the north side of the corridor
- Provide LPIs and upgrade to high-emphasis crosswalks on all legs at intersections
- Provide striping for left-turn movements at the Aaron Street and Harbor Boulevard intersections
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands
- Assess appropriate speed limits in conjunction with speed management strategies
- Install backplates with retroreflective borders at signal heads

HIN CITY CORRIDOR 2: COOPER STREET

from E Olympia Avenue to Burland Street

- Conduct Road Safety Audit to identify safety improvements for all road users
- Install low-cost quick-build solution with bicycle signage and pavement markings such as sharrows in areas with school and residential land uses
- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization
- Evaluate gaps in sidewalk (east side of corridor) and trail connectivity, focusing on the area near the South County Regional Park
- Review sight distance for skewed intersections along the northwest side of the corridor
- Consider realignment or cul-de-sac treatment for the Mary Street intersection
- Conduct a corridor-wide lighting justification study
- Provide dedicated left-turn lanes at high crash intersections
- Assess appropriate speed limits in conjunction with speed management strategies

HIN CITY CORRIDOR 3: MARION AVENUE

from Henry Street to Chasteen Street

- Conduct Road Safety Audit to identify safety improvements for all road users
- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization
- Evaluate gaps in sidewalk on the north side of the corridor
- Propose lane narrowing to accommodate buffered bike lanes and control speeds along the corridor
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands
- Conduct a corridor-wide lighting justification study
- Assess appropriate speed limits in conjunction with speed management strategies
- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations, and bike/ped access to adjacent neighborhoods to reduce travel demand due to local trips
- Assess appropriate speed limits in conjunction with speed management strategies

THE IMPORTANCE OF VISION ZERO

Vision Zero is a transformative strategy aimed at eliminating all traffic fatalities and serious injuries, while simultaneously increasing safe, healthy, and equitable mobility for all. Originating in Sweden in the 1990s and now gaining traction in major American cities, Vision Zero represents a significant shift in roadway safety philosophy. It is based on the fundamental belief that severe traffic crashes are preventable and that traditional approaches to road safety need to be rethought.

A key aspect of Vision Zero is the Safe System approach, which focuses on altering the traffic environment to accommodate human error and prevent non-survivable physical forces during crashes. This includes implementing infrastructure improvements like narrower streets, better lighting, separated bike lanes, and protected intersections to reduce the likelihood of fatalities and serious injuries when inevitable human errors occur. By adopting this holistic approach, Vision Zero not only aims to prevent deaths and serious injuries but also promotes a culture of safety and responsibility, making streets safer for everyone.

Vision Zero is different from traditional road safety because it:

1. Reframes traffic deaths as preventable.
2. Integrates human failing into the approach.
3. Focuses on preventing fatal and serious crashes rather than eliminating all crashes.
4. Aims to establish safe systems rather than relying on individual responsibility.
5. Applies data driven decision making.
6. Establishes road safety as a social equity issue.



ESTABLISHMENT OF BRAND AND PUBLIC ENGAGEMENT STRATEGY

Public Engagement Strategy

At the onset of the project, the CC-PG MPO established a Public Engagement Strategy to help guide outreach needs toward the development of the CSAP. The strategy outlines needs for three main components in support of stakeholder engagement, community outreach, and digital campaigns. The following outlines the goals of the Public Engagement Strategy to inform plan development:

- **Stakeholder Engagement:** Forge partnerships with local stakeholders, solicit their input in plan development, and empower them to act as plan ambassadors, initiating sustained efforts and awareness campaigns within their respective spheres of influence;
- **Community Outreach:** Facilitate opportunities for the general public to receive education and provide valuable feedback on areas of necessity and strategies; and,
- **Digital Campaigns:** Develop ongoing strategies for accomplishing Vision Zero objectives through digital communication and by training leaders and stakeholders to become plan ambassadors.



Branding

The CSAP was designed to tailor local safety needs unique to the Charlotte County and City of Punta Gorda community and as such, a Vision Zero brand was made with the intention of reflecting the local community and its values. The colors and design elements selected for the safety plan materials reflect Charlotte County as a coastal community with colors such as Sunset Red, Sunset Yellow, Ocean Blue, Wave Blue, and Tag Grey. The logo “Safe Charlotte”

is branded in an easy-to-understand way and includes palm trees, along with various modes of transportation: driving, biking, and walking to reflect the many modes of transportation the community uses. Continued use of this logo through the CC-PG MPO’s correspondence and engagement materials will help to establish lasting impact by raising awareness and promoting a culture of safety within the community.

Logo Usage



Color Palettes



CRASH TRENDS HIGHLIGHTS

The following summarizes key findings from the crash analysis:

Between 2018 and 2022, approximately 29 people on average were killed per year in traffic crashes on roadways within the CC-PG MPO Planning area, and another 144 people on average were severely injured per year in traffic crashes. This means more than 3 people each week are killed or seriously injured (KSI) on roadways in Charlotte County.

In terms of Transportation Disadvantaged Communities, crash trends generally align with or are slightly less than countywide trends related to crash by mode and injury severity, alcohol and drug involved crashes, hit and run, and commercial vehicle involvement except for pedestrian-involved crashes. Pedestrian-involved crashes have a higher rate of fatality (26.3%) within Transportation Disadvantaged Communities compared to countywide pedestrian-involved fatal crashes (17.4%).

Fridays have the highest number of crashes, but Saturdays have the most KSI crashes, regardless of mode, except for bicyclists. Most bicycle crashes, including KSI, occur on Tuesdays. It is important to note that given the limited dataset of bicyclist crashes, this finding may not be statistically significant.

Most crashes occurred between noon and 3 PM and closely behind between 3 – 6 PM; most KSI crashes for vulnerable road users (VRU) occurred between 3 – 6 PM (motorcyclists), 6 – 9 PM (pedestrians), and noon to 3 PM (bicyclists).











Overall, motor vehicle crashes comprise most of the crashes in the MPO, but crashes involving people walking, biking, or riding a motorcycle have a disproportionately higher chance of a crash resulting in a KSI.

Rear-end crashes are the most common, but off road and right-angle crashes are the most common when the crash resulted in a KSI.

Drivers in their 20s were most likely to be involved in speeding related KSI crashes, while drivers in their 30s were most likely to be involved in impairment related (e.g., alcohol or drug involved) KSI crashes.



| | IMPLEMENTATION PLAN CORRIDOR RANK (PRIORITIZATION SCORE) | | | | | | | | | | | | | | |
|---|---|---|---|--|---|---|--|--|--|--|---|---|--|--|--|
| | 1 (91.25) | 2 (84.17) | 3 (82.92) | 4 (80.83) | 5 (77.50) | 6 (70.83) | 7 (61.17) | 8* (60.00) | 9 (56.25) | 10 (55.83) | 11 (52.92) | 12 (51.67) | 13 (49.58) | 14 (43.33) | |
| | 6B | 1 | 4 | 2 | 3 | 5 | 6A | 13 | 8 | 7 | 9 | 11 | 10 | 12 | |
| NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030) | | VETERANS BLVD from US 41 (Tamiami Trail) to East of Paulson Drive | US 41 (TAMIAMI TRAIL) from Midway Boulevard to Conway Boulevard | US 41 (TAMIAMI TRAIL) from W Retta Esplanada to Carmalita Street | US 41 (TAMIAMI TRAIL) from Conway Boulevard to Melbourne Street | US 41 (TAMIAMI TRAIL) from Veterans Boulevard to Midway Boulevard | KINGS HIGHWAY from US 41 (Tamiami Trail) to Palmetto Mobile Park | SR 776 (EL JOBEAN ROAD) from Centennial Boulevard to US 41 (Tamiami Trail) | US 41 (TAMIAMI TRAIL) from W Retta Esplanada to Airport Road | MIDWAY BOULEVARD from Lakeview Boulevard to Harbor Boulevard | KINGS HIGHWAY from Veterans Boulevard to East of Sandhill Boulevard | EDGEWATER DRIVE from Midway Boulevard to Conreid Drive NE | COOPER STREET from E Olympia Ave to Burland Street | OLEAN BOULEVARD from US 41 (Tamiami Trail) to Key Lane | MARION AVENUE from Henry Street to Chasteen Street |
| | Appropriate speed limit assessment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| | Speed feedback signs | | | | ✓ | | | | | ✓ | | | | | |
| | Wider edge lines | | | | | | ✓ | | | | | | | | |
| | Leading Pedestrian Intervals (LPIs) | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | ✓ | ✓ | | ✓ | |
| | Review of signal phasing, timing, and yellow change intervals | ✓ | | | | | ✓ | | | | ✓ | | | | |
| | Backplates with retroreflective borders on signal heads | ✓ | ✓ | | | | | ✓ | ✓ | | | | | ✓ | |
| | Flashing Yellow turn phase / Advance Dilemma Zone detection at signalized intersections | | ✓ | | | | | | | | | | | | |
| | Oversized advance intersection and lane use signage | ✓ | ✓ | | | | | ✓ | | | ✓ | | | | |
| | Signal coordination analysis | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | | |
| | Striping through intersections for all left-turn movements | ✓ | | | | | | ✓ | | | ✓ | | | ✓ | |
| | Interchange Operations Analysis Report Study | | | | | | | | | | ✓ | | | | |
| | Refresh of faded pavement guidance markings | ✓ | | | | | | | | | ✓ | | | | |
| | Sight distance analysis | | | | | | | | | | | | | ✓ | |
| | Refresh of intersection crosswalks and pavement markings | | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | | ✓ |
| | Gateway feature with low-cost, quick-build pedestrian safety improvements | | | | | | ✓ | | | | | | | | |
| | High-emphasis crosswalks on all legs of intersections | ✓ | | ✓ | | | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| | Sidewalk and trail connectivity study | | | | | | | | | | | | | ✓ | ✓ |
| | Bicycle signage | | | | | | | | | | | | | ✓ | |
| | Bicycle pavement markings such as sharrows | | | | | | | | | | | | | ✓ | ✓ |
| | Enhanced bicycle buffer (green pavement) and green conflict striping in high activity zones | | ✓ | | ✓ | | | ✓ | | | | | | | |
| | Residential street tree program | | | | | | | | | ✓ | | | | ✓ | |
| | Road Safety Audit | | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| 2030 Planning Level Cost | | \$248,920 | \$1,150,385 | \$121,900 | \$376,640 | \$171,900 | \$540,900 | \$531,380 | \$286,660 | \$218,220 | \$578,860 | \$121,900 | \$332,250 | \$250,920 | \$259,400 |

| IMPLEMENTATION PLAN CORRIDOR RANK (PRIORITIZATION SCORE) | | 1 (91.25) | 2 (84.17) | 3 (82.92) | 4 (80.83) | 5 (77.50) | 6 (70.83) | 7 (61.17) | 8* (60.00) | 9 (56.25) | 10 (55.83) | 11 (52.92) | 12 (51.67) | 13 (49.58) | 14 (43.33) |
|--|--|---|--|---|--|--|--|--|---|--|---|---|--|--|--|
| SAFETY SCORE RANK /CORRIDOR CUT SHEET | | 6B | 1 | 4 | 2 | 3 | 5 | 6A | 13 | 8 | 7 | 9 | 11 | 10 | 12 |
| | | VETERANS BLVD from US 41 (Tamiami Trail) to East of Paulson Drive | US 41 (TAMAMI TRAIL) from Midway Boulevard to Conway Boulevard | US 41 (TAMAMI TRAIL) from W Retta Esplanada to Carmalita Street | US 41 (TAMAMI TRAIL) from Conway Boulevard to Melbourne Street | US 41 (TAMAMI TRAIL) from Veterans Boulevard to Midway Boulevard | KINGS HIGHWAY from US 41 (Tamiami Trail) to Palmetto Mobile Park | SR 776 (EL JOBEAN ROAD) from Centennial Boulevard to US 41 (Tamiami Trail) | US 41 (TAMAMI TRAIL) from W Retta Esplanada to Airport Road | MIDWAY BOULEVARD from Lakeview Boulevard to Harbor Boulevard | KINGS HIGHWAY from Veterans Boulevard to East of Sandhill Boulevard | EDGEWATER DRIVE from Midway Boulevard to Conreid Drive NE | COOPER STREET from E Olympia Ave to Burland Street | OLEAN BOULEVARD from US 41 (Tamiami Trail) to Key Lane | MARION AVENUE from Henry Street to Chasteen Street |
| MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040) | | | | | | | | | | | | | | | |
|  | Lane narrowing | ✓ | ✓ | | ✓ | | ✓ | | | ✓ | | | | ✓ | ✓ |
| | Re-assessment of appropriate speed limit following implementation of other countermeasures | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
|  | Rumble strips | | | | | | | ✓ | | ✓ | | | | | |
|  | Mast arm design at signalized intersections | | ✓ | | ✓ | ✓ | | | | | | | | | |
| | High-friction surface treatment | ✓ | | | | | ✓ | ✓ | | ✓ | ✓ | | | | |
| | Access modifications to reduce left-turn conflicts | | | | | | | | | ✓ | | | | ✓ | |
| | Dedicated left turn lanes | | | | | | | | | | | | ✓ | | |
| | Directionalization or closure of full access median openings | | ✓ | | ✓ | | ✓ | | | | | | | | |
|  | Realignment of intersection or cul de sac | | | | | | | | | | | | ✓ | | |
| | Extend raised median / median nose | | ✓ | | | | ✓ | | | | | | | | |
| | Evaluation of left-turn lane offsets at intersections | | | | | | ✓ | | | | | | | | |
| | Reduced curb radii at unsignalized intersections / driveways | ✓ | ✓ | | ✓ | | | | | | | | | | |
| | Access management evaluation | | | | ✓ | ✓ | | | | | | | | | |
| | Road upgrades to include paved shoulders and drainage improvements | | | | | | | | | | | | ✓ | | ✓ |
| | Mid-block crossings with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK) | | | | | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | Shared-use path with tree canopy | ✓ | | | | | | ✓ | | | | | ✓ | | ✓ |
|  | Completion of sidewalk gaps | | | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| | Pedestrian crossing study | | ✓ | | ✓ | | | | ✓ | | | | | | |
| | Raised crosswalk | | | | | | | | | | | ✓ | ✓ | | |
| | New buffered bike lanes | ✓ | | ✓ | ✓ | | ✓ | | | ✓ | | | | ✓ | ✓ |
|  | Enhanced buffer for existing bike lanes | ✓ | | | | | | | | | | | | | |
| | Vertical separation of bike lanes | | | ✓ | | | | | | | | | | | |
| | Enhanced landscaping with canopy trees in existing raised medians | ✓ | | | | | ✓ | ✓ | | ✓ | ✓ | | | ✓ | |
|  | Hardened centerlines and raised medians with landscaping and pedestrian refuge islands | ✓ | | | | | | ✓ | | | | | ✓ | ✓ | ✓ |
| | Signalize intersections with LPis and high-emphasis crosswalks | | | | | | | ✓ | | | | | | | |
| | Lighting justification study | ✓ | ✓ | | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ | | ✓ |
| LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045) | | | | | | | | | | | | | | | |
|  | Roundabout or signalization of intersection(s) | | | | | | | | ✓ | ✓ | | | ✓ | | ✓ |
| | Conversion of channelized right turns to improve sight distance | | ✓ | | ✓ | | | | | | | | | | |
|  | Assessment of SUN Trail facilities for additional safety treatments | | | | | ✓ | | | | | | | | | |
| | Elimination of on-street bike lanes | | ✓ | | ✓ | | | | | | | | | | |
| | Multiuse trail or Shared-use path with tree canopy | | | | | | | | ✓ | ✓ | ✓ | | | | |
|  | Future Land Use and Zoning revisions | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | ✓ | | | ✓ |

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INTRODUCTION

The CSAP for Charlotte County and the City of Punta Gorda is a strategic initiative designed to assist the MPO in reaching its 2045 target goal of eliminating traffic-related fatalities and serious injuries by leveraging the principles of Vision Zero. This Action Plan focuses on three critical areas to enhance road safety and foster a safer community for all road users.

- 1. **Crash Trends.** Firstly, it thoroughly examines crash trends, using a data-driven approach to identify the most hazardous corridors and the underlying factors contributing to crashes.
- 2. **Public Outreach.** Secondly, it emphasizes extensive public outreach, engaging residents, stakeholders, and local organizations to gather valuable insights and community-specific safety concerns.
- 3. **Recommendations.** Lastly, the CSAP outlines a series of targeted recommendations specific to the top corridors of the HIN, encompassing near-term, mid-term, and long-term countermeasures, to address identified risks and improve overall roadway conditions. This section outlines the systemic analysis used to identify recommendations and phased implementation plan to offer both quick-build and long-term improvements.

Through these focused topic areas, the CSAP aims to create a safer, more resilient transportation system for Charlotte County and Punta Gorda.

OVERVIEW OF THE SAFE SYSTEM APPROACH AND VISION ZERO CORE ELEMENTS

This CSAP was designed following the core elements of the FHWA Safety System Approach and Vision Zero, both nationally recognized approaches to deliver safe streets and roads for all.

Safe System Approach

Designed by the FHWA, the Safe System Approach is a holistic and proactive philosophy of transportation safety that aims to eliminate fatal and serious injuries on the road. This is a shift from a conventional safety approach because it focuses on both human mistakes and human vulnerability and designs a system with redundancies in place to protect everyone. The Safe System Approach has five core objectives: safer people, safer roads, safer vehicles, safer speeds, and post-crash care.

These objectives are interrelated and mutually reinforcing, and require a collaborative effort from various stakeholders, including transportation agencies, law enforcement, health care providers, educators, and community members.



SAFER PEOPLE

Educating and encouraging road users to follow traffic rules and to behave responsibly on the road, as well as enforcing laws that deter risky behaviors such as speeding, distracted driving, or impaired driving.

SAFER ROADS

Designing and maintaining road infrastructure that reduces conflict points, encourages appropriate speeds, accommodates the needs and abilities of different road users, and provides clear and consistent guidance through signage, markings, and signals.

SAFER VEHICLES

Ensuring vehicles are equipped with safety features that protect occupants and other road users in the event of a crash, assists in avoiding or mitigating crashes, encourages safe driving, and are appropriate for the contexts in which they operate.

SAFER SPEEDS

Speed limits and road design practices that encourage speeds that are appropriate for the road context and the level of risk, that reflect the limitations of human perception and reaction, and that minimize the impact forces.

POST-CRASH CARE

Providing timely and effective emergency response and medical care to crash victims, as well as psychological and legal support to survivors and families, and collecting and analyzing crash data to identify and address the causes and consequences of crashes.

Vision Zero Core Elements

Vision Zero is a widespread movement that aims to eliminate all traffic fatalities and serious injuries, while increasing safety, healthy, and equitable mobility for all. The movement has 10 Core Elements grouped into three priority areas which are described below.

LEADERSHIP AND COMMITMENT

- Public, High-Level, and Ongoing Commitment: The City of Punta Gorda Mayor and key County and City leaders commit to the goal of eliminating traffic fatalities and serious injuries within a specific timeframe.
- Authentic Engagement: Meaningful and accessible community engagement toward Vision Zero strategy and implementation is employed, with a focus on equity.
- Strategic Planning: A Vision Zero Action Plan is developed, approved, and used to guide work. The Plan includes explicit goals and measurable strategies with clear timelines, and it identifies responsible stakeholders.
- Project Delivery: Decision-makers advance projects and policies for safe, equitable multi-modal travel by securing funding and implementing projects, prioritizing roadways with the most pressing safety issues.

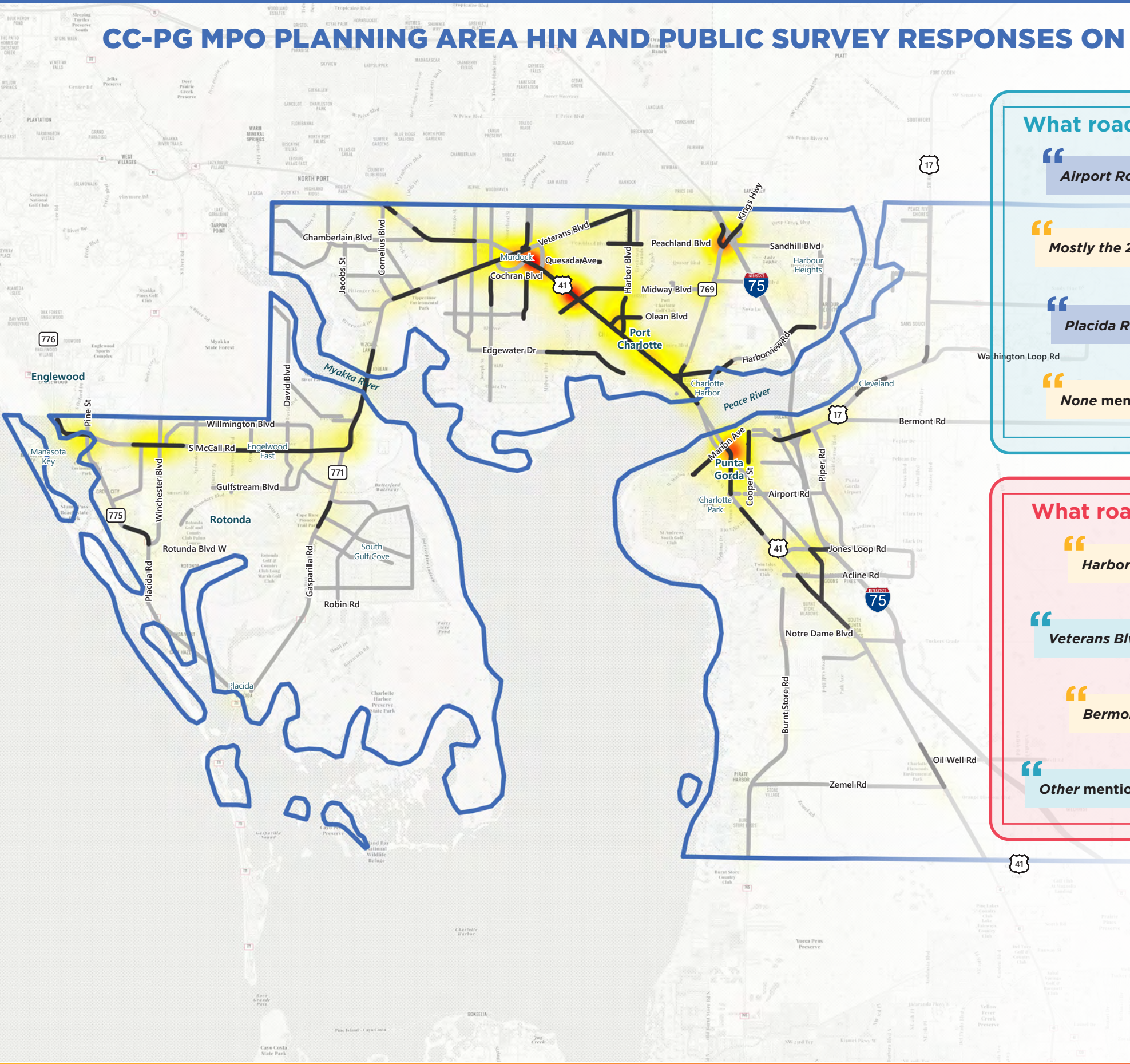
SAFE ROADWAYS AND SAFE SPEEDS

- Complete Streets for All: Complete Streets concepts are integrated into communitywide plans and implemented through projects that encourage a safe, well-connected transportation network for people using all modes of transportation.
- Context-Appropriate Speeds: Travel speeds are set to achieve safe conditions for the roadway context and to protect all roadway users. Proven speed management policies and practices are prioritized to reach this goal.

DATA-DRIVEN APPROACH, TRANSPARENCY, AND ACCOUNTABILITY

- Equity-Focused Analysis and Programs: Commitment is made to an equitable approach, including prioritizing engagement and investments in underserved communities and adopting equitable enforcement practices.
- Proactive, Systemic Planning: A proactive, systems-based approach to safety is used to identify and address top risk factors and mitigate potential crashes and crash severity.
- Responsive, Hot Spot Planning: A map of the community’s fatal and serious injury crash locations is developed, regularly updated, and used to guide priority actions and funding.
- Comprehensive Evaluation and Adjustments: Routine evaluation of the performance of all safety interventions is made public and shared with decision makers to inform priorities, budgets, and updates to the CSAP.

CC-PG MPO PLANNING AREA HIN AND PUBLIC SURVEY RESPONSES ON DANGEROUS AND COMFORTABLE ROADS



What roads do you feel most comfortable on in Charlotte County?

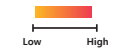
- Airport Road mentioned 59 times
- Edgewater Drive mentioned 63 times
- Mostly the 2 lane roads feel safer than the 4 lane roads
- Riverside mentioned 3 times
- Placida Road mentioned 2 times
- Midway Boulevard mentioned 69 times
- None mentioned 9 times
- All multiuser trails
- Piper Road mentioned 68 times

What roads do you feel most dangerous on in Charlotte County?

- Harborview Road mentioned 13 times
- Taylor Road mentioned 41 times
- Veterans Blvd mentioned 21 times
- All roads without wide sidewalks or well marked bike pathways are life threateningly dangerous
- Bermont Road mentioned 9 times
- Burnt Store Road mentioned 42 times
- Other mentioned 75 times
- Kings Hwy mentioned 8 times
- US 41 mentioned 123 times

LEGEND

Charlotte County High Injury Network Density of All Crashes





CRASH TRENDS

Several datasets were used to aid in the understanding of crash trends within the region, including data from Signal 4 Analytics (Signal 4) and USDOT data to understand where there are higher concentrations of socially vulnerable groups. Together these datasets helped to understand contributing factors leading to crashes within the analysis years of 2018 - 2022 and furthermore, develop CSAP recommendations made to improve transportation safety in the CC-PG MPO region.

CRASH DATASET

The detailed analysis was completed based on crash data reflective of 2018 to 2022 for the CC-PG MPO, downloaded from Signal 4 Analytics as of October 2023.

All data from Signal 4 was mapped based on the geolocation associated with each crash record, which revealed some crashes with incomplete or incorrect information, such as crashes that did not actually occur in the CC-PG MPO region. After removing

incorrectly geolocated crashes (i.e., those not actually located within the region), a total of 22,608 crashes, including 132 that resulted in a fatality, 542 that resulted in a serious injury (also referred to as incapacitating injury), 4,610 that resulted in some injury, and 17,324 that resulted in no injury were considered in the analysis. Additionally, total crashes are used as the unit of measurement (as opposed to total number of people involved), unless otherwise stated.

TRANSPORTATION DISADVANTAGED DATASET

To understand the impact of crashes on transportation disadvantaged populations, the USDOT Equitable Transportation Community (ETC) online explorer tool and data was used to understand locations in the CC-PG MPO region that experience transportation disadvantage. The tool and metric were developed by USDOT to identify communities that experience transportation insecurity through transportation disadvantage. Transportation disadvantage occurs when people are unable to access the needs of their daily life regularly, reliably, and safely. There are five main components of transportation disadvantage with the indicators used to identify communities summarized below:

1. **Transportation Insecurity** occurs when people are unable to get to where they need to go to meet the needs of their daily life regularly, reliably, and safely. Nationally, there are well-established policies and programs that aim to address food insecurity and housing insecurity, but not transportation insecurity. A growing body of research indicates that transportation insecurity is a significant factor in persistent poverty. This indicator uses measures related to transportation cost burden, access, and safety.

2. **The Environmental Burden** component of the index includes various measuring factors such as pollution, hazardous facility exposure, water pollution, and the built environment. These environmental burdens can have far-reaching consequences such as health disparities, negative educational outcomes, and economic hardship.

3. **Social Vulnerability** is a measure of socioeconomic indicators that have a direct impact on quality of life. This set of indicators measure lack of employment, educational attainment, poverty, housing tenure, access to broadband, and housing cost burden as well as identifying household characteristics such as age, disability status, and English proficiency.

4. **The Health Vulnerability** category assesses the increased frequency of health conditions that may result from exposure to air, noise, and water pollution, as well as lifestyle factors such as poor walkability, car dependency, and long commute times.

5. **Climate and Disaster Risk Burden** reflects sea level rise, changes in precipitation, extreme weather, and heat which pose risks to the transportation system. These hazards may affect system performance, safety, and reliability. As a result, people may have trouble getting to their homes, schools, stores, and medical appointments.

Each indicator is comprised of multiple factors. Additional information can be found on the USDOT website: <https://www.transportation.gov/priorities/equity/justice40/etc-explorer> and a summary of the Transportation Disadvantaged Community data for the CC-PG MPO Region is provided in Table 1. Additional funds may be available for transportation safety projects in Transportation Disadvantaged communities.

Table 1: Transportation Disadvantaged Summary Statistics – CC-PG MPO Region

| | TOTAL TRANSPORTATION DISADVANTAGED POPULATION (TOTAL POPULATION) | TRANSPORTATION DISADVANTAGED POPULATION AS A PERCENT OF TOTAL | PERCENT OF CENSUS TRACTS DESIGNATED AS TRANSPORTATION DISADVANTAGED |
|--------------------|--|---|---|
| CC-PG MPO ETC Data | 60,400 (185,900) | 33.0% | 30.0% |

Source: USDOT Equity Transportation Community (ETC) Explorer

The following sections summarize crash data from **2018 through 2022** to provide statistical trends by year, mode, and severity.

CRASHES BY YEAR

The number of crashes by year by severity on all facilities in the CC-PG MPO is summarized in Table 2 for reported crashes from 2018 through 2022 in the region. The number of crashes by year by severity in facilities only within a Transportation Disadvantaged Community are highlighted in red. The severity level reflects the maximum injury severity of any crash participant and is reflected as:

- **No Injury** – crashes where no persons were reported to be injured. Also known as property damage only crashes.
- **Injury** – crashes where there is a possibly injury or a non-incapacitated injury which may or may not require hospitalization.
- **Serious Injury** – crashes where there is an incapacitating injury, such as burns, lacerations, or broken bones that require hospitalization.
- **Fatality** – crash results in a fatality within 30 days.

Table 2: Crash Summary by Year - CC-PG MPO Region

| YEAR | NO INJURY | INJURY ¹ | SERIOUS INJURY ² | FATALITY | TOTAL | KSI RATE ¹ |
|------|---------------|---------------------|-----------------------------|-----------|-------|-----------------------|
| 2018 | 2,903 (73.8%) | 909 (23.1%) | 94 (2.4%) | 25 (0.6%) | 3,931 | 3.0% |
| | 1,868 (74.7%) | 561 (22.4%) | 61 (2.4%) | 12 (0.5%) | 2,502 | |
| 2019 | 3,366 (77.2%) | 898 (20.6%) | 76 (1.7%) | 20 (0.5%) | 4,360 | 2.2% |
| | 2,144 (79.1%) | 513 (18.9%) | 42 (1.6%) | 10 (0.4%) | 2,709 | |
| 2020 | 2,961 (76%) | 836 (21.4%) | 76 (1.9%) | 25 (0.6%) | 3,898 | 2.6% |
| | 1,774 (77.3%) | 465 (20.3%) | 43 (1.9%) | 14 (0.6%) | 2,296 | |
| 2021 | 3,885 (77.5%) | 986 (19.7%) | 113 (2.3%) | 28 (0.6%) | 5,012 | 2.8% |
| | 2,375 (77.9%) | 584 (19.2%) | 70 (2.3%) | 19 (0.6%) | 3,048 | |
| 2022 | 4,209 (77.8%) | 981 (18.1%) | 183 (3.4%) | 34 (0.6%) | 5,407 | 4.0% |
| | 2,632 (79.6%) | 563 (17%) | 92 (2.8%) | 21 (0.6%) | 3,308 | |

1. The KSI rate reflects the percentage of total crashes that resulted in a serious injury or fatality.

In 2018 and 2019, the total average number of reported crashes was 4,146. In 2020, the number of reported crashes decreased by about 6 percent. This reduction in total crashes, but with a slight increase in fatal or severe injury crashes, was likely influenced by the COVID-19 pandemic. The pandemic led to a significant reduction in overall travel for a portion of 2020, an increase in severe crashes occurred, and an overall decrease in reporting for non-injury crashes related to social

distancing. Since the pandemic, the total number of annual crashes has increased and surpassed pre-pandemic numbers, including an increase in KSI crashes in absolute terms and as a percentage of total crashes. The rate of KSI crashes in 2022 increased significantly compared to the 2018 baseline year. Like the crashes across the region, overall crashes, and particularly serious injury and fatal crashes have increased since the pandemic in Transportation Disadvantaged Communities.

Additionally, crashes disproportionately occur in Transportation Disadvantaged Communities, as shown in Table 3. While 33% of the population lives in a Transportation Disadvantaged Community, 57% of serious injury and 58% of fatal crashes occur within the boundaries.

Table 3: Percent of Crashes that Occur by Year within Transportation Disadvantaged Communities - CC-PG MPO Region

| YEAR | NO INJURY | INJURY ¹ | SERIOUS INJURY | FATALITY | TOTAL |
|-------|-----------|---------------------|----------------|----------|-------|
| 2018 | 64.3% | 61.7% | 64.9% | 48.0% | 63.6% |
| 2019 | 63.7% | 57.1% | 55.3% | 50.0% | 62.1% |
| 2020 | 59.9% | 55.6% | 56.6% | 56.0% | 58.9% |
| 2021 | 61.1% | 59.2% | 61.9% | 67.9% | 60.8% |
| 2022 | 62.5% | 57.4% | 50.3% | 61.8% | 61.2% |
| Total | 62.3% | 58.3% | 56.8% | 57.6% | 61.3% |

CRASHES BY MODE

Table for both all crashes and crashes located in a disadvantaged community (highlighted in red). summarizes crashes by injury severity and mode. Motor vehicle crashes accounted for 94.4% of total crashes. This is expected as most trips in the region are typically made by motor vehicle. Motorcyclists, pedestrians, and bicyclists were each involved in about 1-3% of the total crashes.

While motor vehicle (car and truck) crashes accounted for the largest share of both overall crashes and KSI crashes, when vulnerable road users were involved in a crash (defined

for the purposes of this memorandum as someone outside a car or truck, including a pedestrian, bicyclist or motorcyclist), the risk of death or serious injury increases disproportionately; crashes involving vulnerable road users accounted for about 5.6% of overall crashes, 36.6% of serious injury crashes and 46.9% of fatal crashes. The rate of **pedestrian-involved fatal crashes was higher in Transportation Disadvantaged Communities (26.3%) compared to countywide (17.4%).**

Table 4: Crash Summary by Mode - CC-PG MPO Region

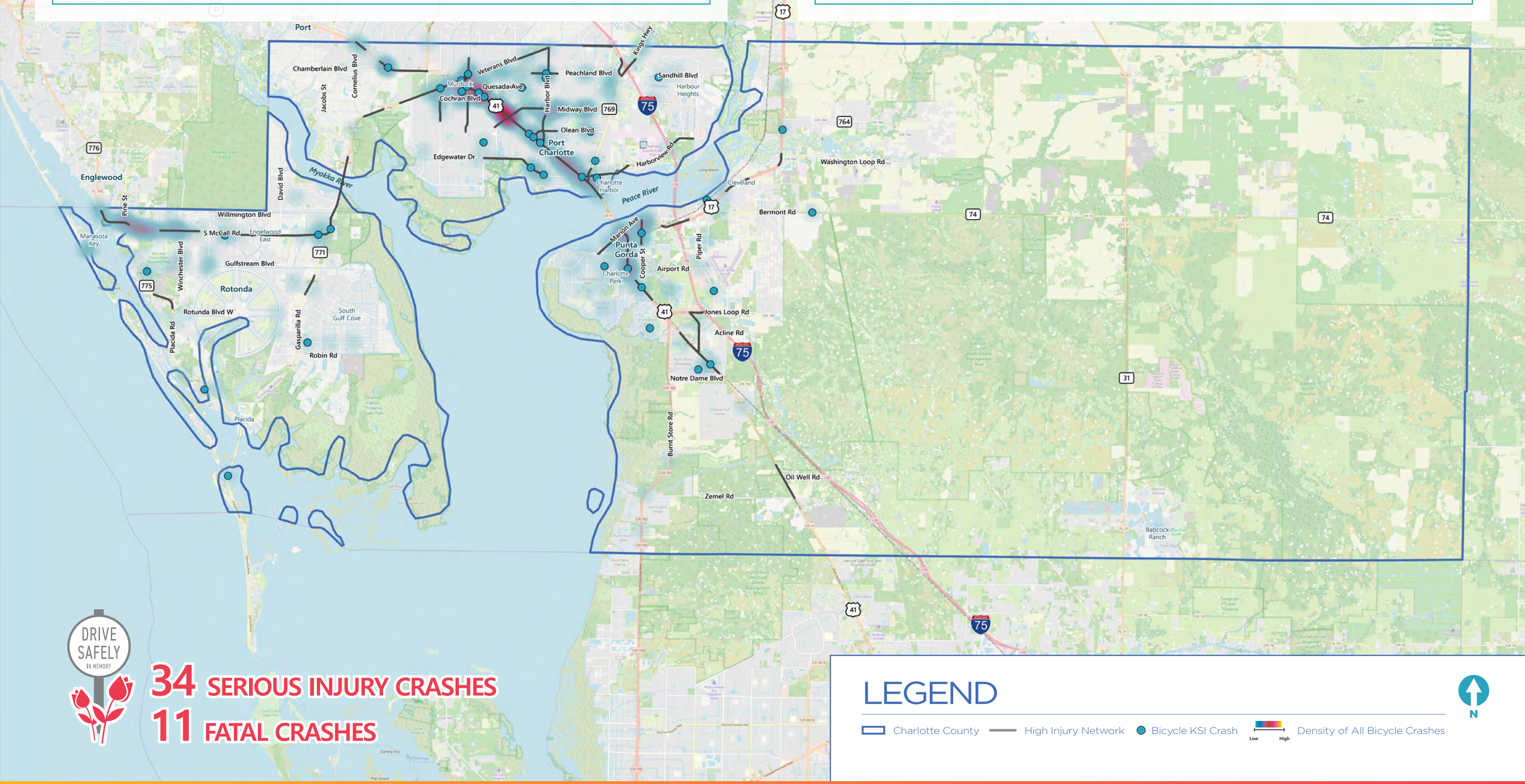
| MODE | NO INJURY | INJURY | SERIOUS INJURY | FATALITY | TOTAL |
|---------------|----------------|---------------|----------------|------------|----------------|
| Bicycle | 65 (0.4%) | 212 (4.6%) | 34 (6.3%) | 11 (8.3%) | 322 (1.4%) |
| | 36 (0.3%) | 119 (4.4%) | 21 (6.8%) | 7 (9.2%) | 183 (1.3%) |
| Pedestrian | 172 (1.0%) | 140 (3.0%) | 48 (8.9%) | 23 (17.4%) | 383 (1.7%) |
| | 93 (0.9%) | 74 (2.8%) | 29 (9.4%) | 20 (26.3%) | 216 (1.6%) |
| Motorcycle | 135 (0.8%) | 284 (6.2%) | 116 (21.4%) | 28 (21.2%) | 563 (2.5%) |
| | 82 (0.8%) | 157 (5.8%) | 56 (18.2%) | 12 (15.8%) | 307 (2.2%) |
| Cars & Trucks | 16,952 (97.9%) | 3,974 (86.2%) | 344 (63.5%) | 70 (53.0%) | 21,340 (94.4%) |
| | 10,582 (98.0%) | 2,336 (87.0%) | 202 (65.6%) | 37 (48.7%) | 13,157 (94.9%) |
| Total | 17,324 | 4,610 | 542 | 132 | 22,608 |
| | 10,793 | 2,686 | 308 | 76 | 13,863 |



BICYCLISTS

People bicycling were involved in about 1.4% of all crashes, 6.3% of crashes that resulted in a serious injury, and 8.3% of crashes that resulted in a fatality. It is likely that crashes involving a bicyclist where the person bicycling was unharmed are underreported.

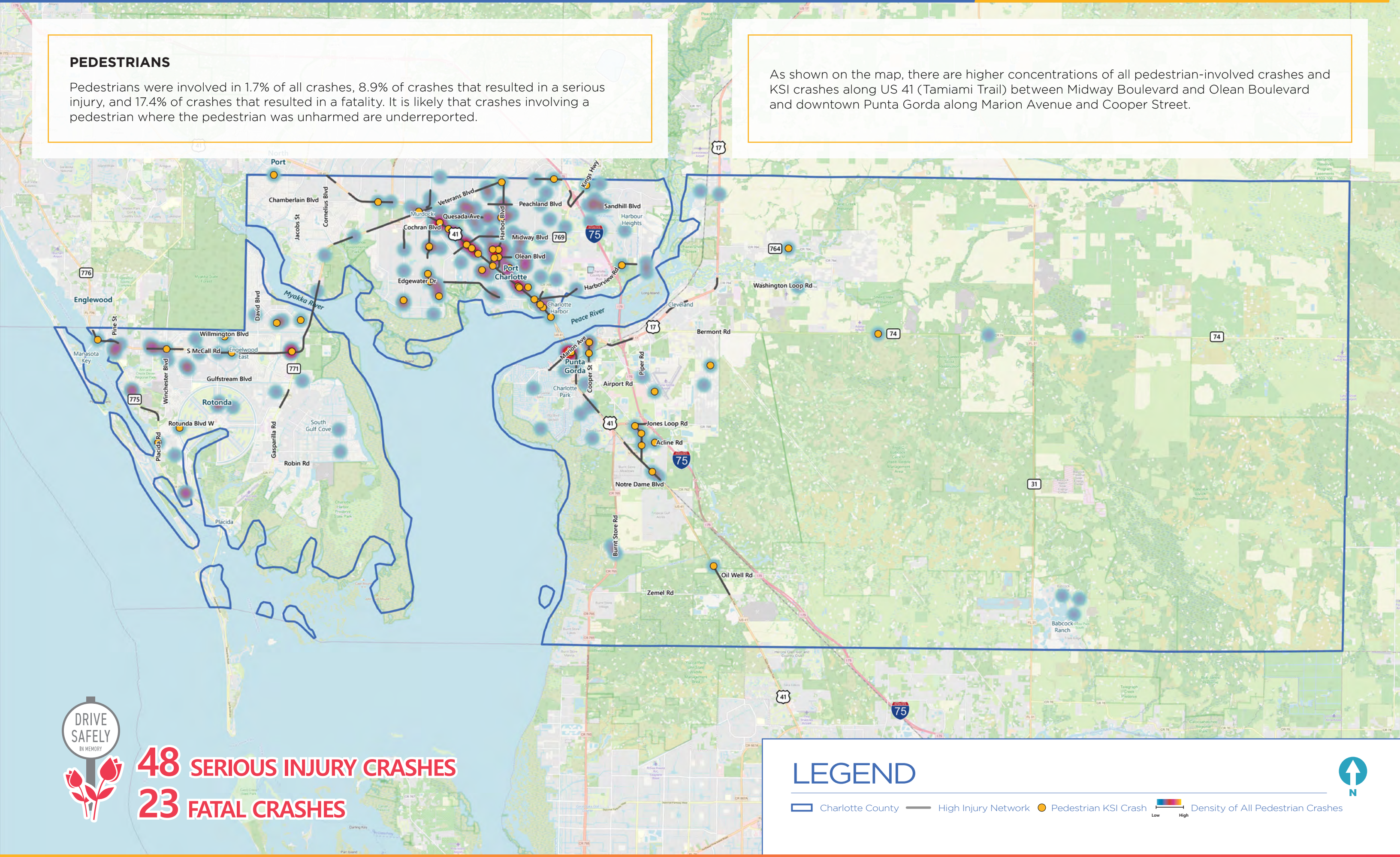
As shown on the map, there are higher concentrations of all bicycle crashes and KSI crashes along US 41 (Tamiami Trail) between Murdock Circle and Harbor Boulevard, as well as in downtown Punta Gorda.



PEDESTRIANS

Pedestrians were involved in 1.7% of all crashes, 8.9% of crashes that resulted in a serious injury, and 17.4% of crashes that resulted in a fatality. It is likely that crashes involving a pedestrian where the pedestrian was unharmed are underreported.

As shown on the map, there are higher concentrations of all pedestrian-involved crashes and KSI crashes along US 41 (Tamiami Trail) between Midway Boulevard and Olean Boulevard and downtown Punta Gorda along Marion Avenue and Cooper Street.



48 SERIOUS INJURY CRASHES
23 FATAL CRASHES

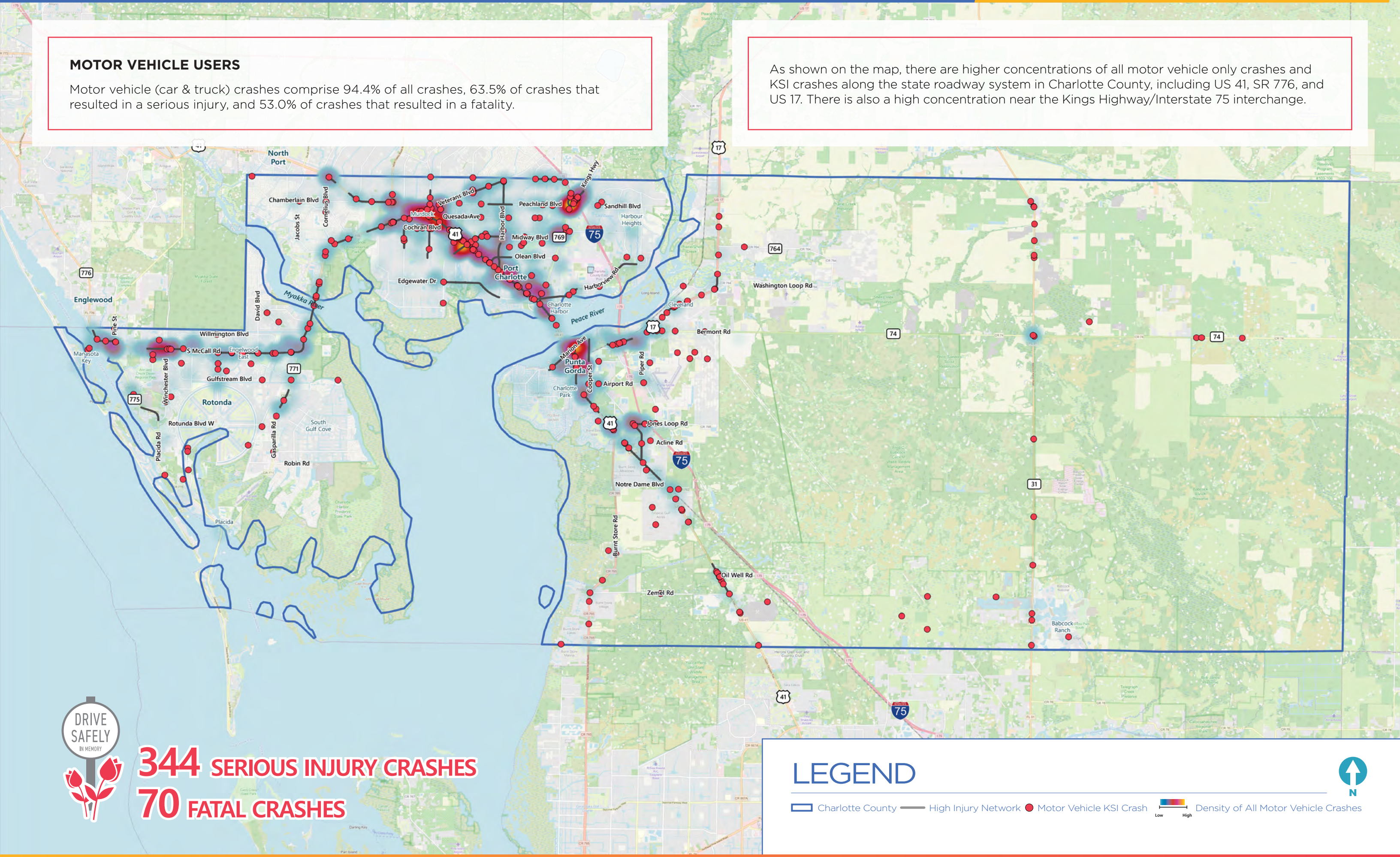
LEGEND

- Charlotte County
- High Injury Network
- Pedestrian KSI Crash
- Density of All Pedestrian Crashes

MOTOR VEHICLE USERS

Motor vehicle (car & truck) crashes comprise 94.4% of all crashes, 63.5% of crashes that resulted in a serious injury, and 53.0% of crashes that resulted in a fatality.

As shown on the map, there are higher concentrations of all motor vehicle only crashes and KSI crashes along the state roadway system in Charlotte County, including US 41, SR 776, and US 17. There is also a high concentration near the Kings Highway/Interstate 75 interchange.



344 SERIOUS INJURY CRASHES
70 FATAL CRASHES

LEGEND

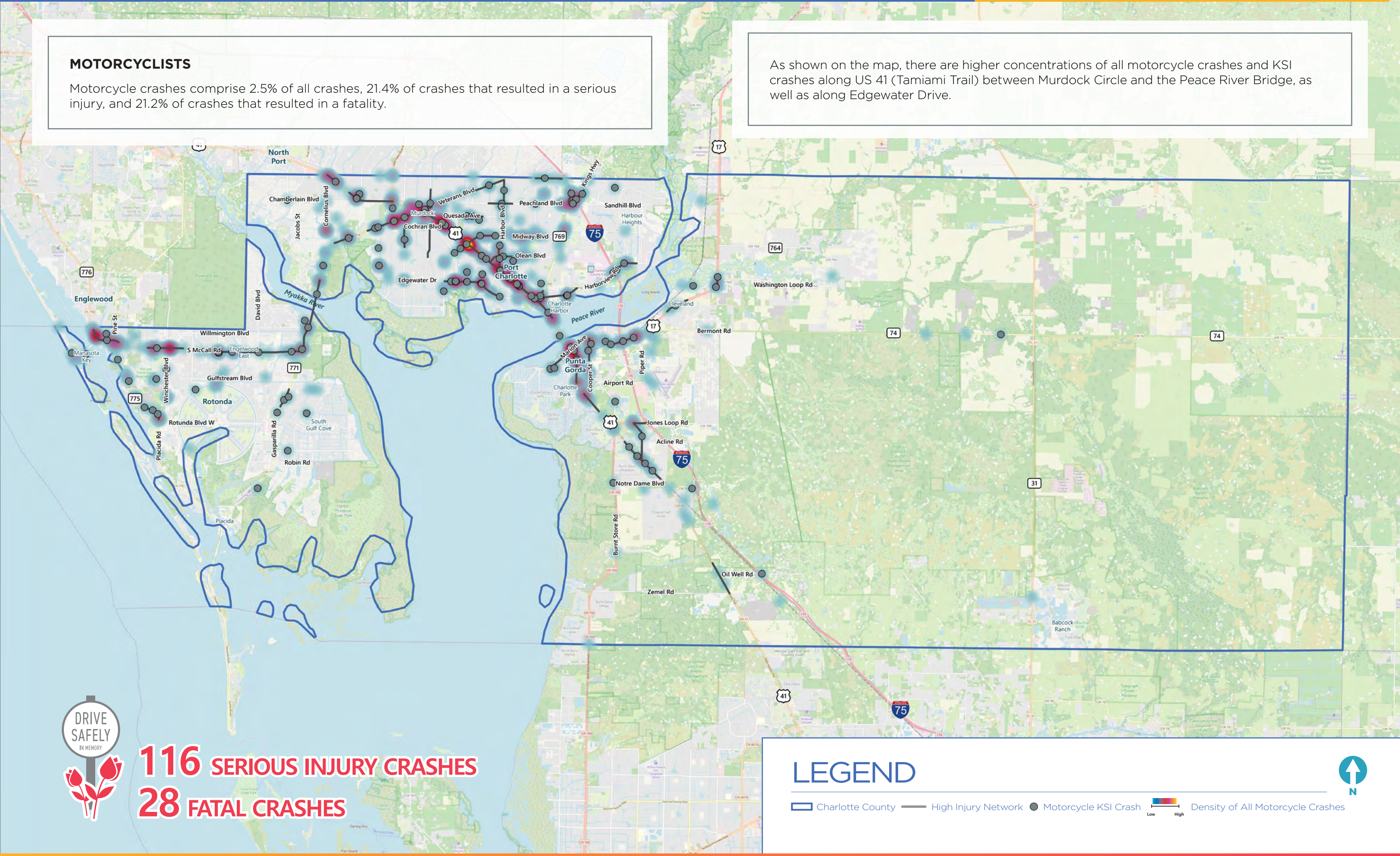
- Charlotte County
- High Injury Network
- Motor Vehicle KSI Crash
- Density of All Motor Vehicle Crashes



MOTORCYCLISTS

Motorcycle crashes comprise 2.5% of all crashes, 21.4% of crashes that resulted in a serious injury, and 21.2% of crashes that resulted in a fatality.

As shown on the map, there are higher concentrations of all motorcycle crashes and KSI crashes along US 41 (Tamiami Trail) between Murdock Circle and the Peace River Bridge, as well as along Edgewater Drive.



116 SERIOUS INJURY CRASHES
28 FATAL CRASHES

LEGEND

- Charlotte County
- High Injury Network
- Motorcycle KSI Crash
- Density of All Motorcycle Crashes



Commercial Motor Vehicles

Commercial motor vehicles (CMVs) include those with a gross vehicle weight greater than 26,001 pounds or have three or more axles regardless of weight. Of all the reported crashes in the region, 7.8% involve a CMV (Table 5), and about 8.6% of KSI crashes involve a CMV (Table 6). Motor vehicles are

more likely to be involved in crashes with CMVs, including when the crash results in a fatality or serious injury. Within Transportation Disadvantaged Communities (**highlighted in red** in Table 5), commercial motor vehicle crashes align with countywide trends, except for bicycle involved CMV crashes.

Table 5: All Crash Summary Commercial Vehicles by Mode - CC-PG MPO Region

| COMMERCIAL VEHICLE INVOLVED? | ALL CRASHES | CARS & TRUCKS | MOTORCYCLIST | PEDESTRIANS | BICYCLISTS |
|------------------------------|--------------|---------------|--------------|-------------|------------|
| Yes | 1,756 (7.8%) | 1,712 (8.0%) | 10 (1.8%) | 22 (5.7%) | 12 (3.7%) |
| Yes | 1,119 (8.1%) | 1,099 (8.4%) | 4 (1.3%) | 13 (6.0%) | 3 (1.6%) |

Table 6: KSI Crash Summary Commercial Vehicle by Mode - CC-PG MPO Region

| COMMERCIAL VEHICLE INVOLVED? | ALL CRASHES | CARS & TRUCKS | MOTORCYCLIST | PEDESTRIANS | BICYCLISTS |
|------------------------------|-------------|---------------|--------------|-------------|------------|
| Yes | 58 (8.6%) | 47 (11.4%) | 4 (2.8%) | 5 (7.0%) | 2 (4.4%) |

CMV Crashes are More Serious

CMVs, including large trucks and buses, are significantly more likely to result in fatalities or serious injuries when involved in crashes compared to other vehicle types. In 2020, 4,998 large trucks and buses were involved in fatal crashes, representing a slight decrease from 2019. However, fatalities involving these vehicles per 100 million vehicle miles traveled increased from 0.162 to 0.177, underscoring the high risk associated with CMV crashes. This data highlights that, despite advancements in road safety, crashes involving large trucks often have more severe outcomes due to the sheer size and weight of these vehicles. The Federal Motor Carrier

Safety Administration (FMCSA) emphasizes that over 70% of deaths in large-truck crashes are occupants of other vehicles, reflecting the disproportionate danger these crashes pose to non-truck drivers.

This statistic points to the heavy toll CMV crashes take on public health and safety. The FMCSA and other safety organizations continue to focus on reducing these risks through various measures, including stringent safety regulations, improved vehicle design, and enhanced driver training programs to mitigate the high impact of CMV-related crashes.



CRASHES BY PEOPLE INVOLVED

The data in the prior section reflects crashes, which may involve multiple vehicles, people traveling by other modes, and result in numerous people in each crash being hurt or severely injured. Table 7 summarizes the number of people involved crashes by injury severity by year. The trend shows that the number of people being killed or severely injured in the CC-PG MPO Region is rising significantly, with the highest outcomes

occurring most recently in 2022. 144 people were killed in crashes between 2018 and 2022 and 15,492 people sustained an injury of some level.

The most vulnerable roadway users are pedestrians and motorcyclists, whom have a likelihood of being seriously injured or killed if involved in a crash, of 15.7% and 16.6%, respectively.

Table 7: Injury Summary by Year - CC-PG MPO Region

| YEAR | NON-SERIOUS INJURY | SERIOUS INJURY | FATALITY | TOTAL | KSI RATE |
|-------|--------------------|----------------|----------|--------|----------|
| 2018 | 2,919 | 113 | 27 | 3,059 | 4.6% |
| 2019 | 2,689 | 95 | 22 | 2,806 | 4.2% |
| 2020 | 2,641 | 85 | 26 | 2,752 | 4.0% |
| 2021 | 3,087 | 167 | 30 | 3,284 | 6.0% |
| 2022 | 3,435 | 261 | 39 | 3,735 | 8.0% |
| Total | 14,771 | 721 | 144 | 15,636 | 5.5% |

Time of Day

Overall, crashes are most likely to occur between noon and 3 PM, as that time typically reflects the busiest periods on roads. While crashes involving motorists and motorcyclists are also high during this period, crashes involving motorcyclists and bicyclists are highest between 3 PM and 6 PM. Crashes involving pedestrians are highest between 9 AM and noon.

Crashes that result in a serious injury or fatality are more likely to occur between 3 PM and 9 PM across most modes. KSI crashes involving motorcyclists are highest from 3 PM to 6 PM, while pedestrian involved KSI crashes are highest between 6 PM and 9 PM. Bicyclists KSI crashes are most likely to occur between noon and 3 PM.

TIME OF DAY



DAY OF WEEK



Day of Week

Overall, crashes are most likely to occur on Fridays. Crashes involving pedestrians or motorcyclists are highest on Saturday. Crashes involving bicyclists are highest on Tuesday.

Crashes that result in a serious injury or fatality are most likely to occur on Saturday. KSI crashes most likely occur on Saturday for people walking and riding a motorcycle.

Crashes by Type

Table 8 summarizes crashes based on the recorded crash type for all crashes where a crash type is known and Table 9 summarizes the contributing action of the first driver for

the crash categories that disproportionately result in KSIs. The most notable contributing factors are highlighted in bold, blue text throughout this analysis.

Table 8: Crash Summary by Type – CC-PG MPO Region

| CRASH TYPE | NO INJURY | INJURY | SERIOUS INJURY | FATALITY | TOTAL | PERCENT OF TOTAL CRASHES | PERCENT OF KSI |
|--------------------------|-----------|--------|----------------|----------|--------|--------------------------|----------------|
| Animal | 137 | 25 | - | - | 162 | 0.7% | 0.0% |
| Backed Into | 1,272 | 23 | - | - | 1295 | 5.7% | 0.0% |
| Bicycle | 34 | 104 | 19 | 10 | 167 | 0.7% | 4.3% |
| Head-On | 199 | 94 | 25 | 10 | 328 | 1.5% | 5.2% |
| Left Entering | 438 | 310 | 42 | 12 | 802 | 3.5% | 8.0% |
| Left-Leaving | 172 | 130 | 17 | 6 | 325 | 1.4% | 3.4% |
| Left-Rear | 241 | 134 | 18 | 1 | 394 | 1.7% | 2.8% |
| Off-Road | 2,041 | 503 | 85 | 17 | 2,646 | 11.7% | 15.1% |
| Opposing Sideswipe | 209 | 32 | 1 | 2 | 244 | 1.1% | 0.4% |
| Other | 720 | 158 | 19 | 2 | 899 | 4.0% | 3.1% |
| Parked Vehicle | 1852 | 81 | 11 | 2 | 1,946 | 8.6% | 1.9% |
| Pedestrian | 45 | 185 | 46 | 21 | 297 | 1.3% | 9.9% |
| Rear-End | 5,188 | 1,424 | 79 | 10 | 6,701 | 29.6% | 13.2% |
| Right-Angle | 1,375 | 776 | 80 | 17 | 2,248 | 9.9% | 14.4% |
| Right/Left | 36 | 3 | - | - | 39 | 0.2% | 0.0% |
| Right/Through | 128 | 29 | 2 | - | 159 | 0.7% | 0.3% |
| Right/U-Turn | 1 | - | - | - | 1 | 0.0% | 0.0% |
| Rollover | 133 | 150 | 49 | 8 | 340 | 1.5% | 8.5% |
| Same Direction Sideswipe | 2,204 | 175 | 16 | 3 | 2,398 | 10.6% | 2.8% |
| Single Vehicle | 469 | 175 | 28 | 9 | 681 | 3.0% | 5.5% |
| Unknown | 430 | 99 | 5 | 2 | 536 | 2.4% | 1.0% |
| Grand Total | 17,324 | 4,610 | 542 | 132 | 22,608 | 100% | 100% |



Animal crashes involve an animal, which could be a small animal such as a cat or dog, that would be unlikely to cause significant injury to heavier animals, such as deer or bears. Overall, animals are involved in 0.7% of all crashes and 0.0% of KSI crashes.



Backed into crashes involve a person driving backing into another roadway user. This crash type reflects 5.7% of all crashes and 0.0% of KSI crashes.



Bicycle crashes involve someone bicycling and another motorized roadway user, typically someone in a motor vehicle, but sometimes a motorcycle. Crashes between two people bicycling are not included in the dataset. This crash type reflects 0.7% of all crashes and 4.3% of KSI crashes. When people bicycling are involved in a crash, they are more likely to be seriously injured or killed. The top contributing factors in KSI bicycle involved crashes are **failure to yield right-of-way (14.8%)** and **ran stop sign (7.4%)**. For 70.4% of bicycle involved KSI crashes, no contributing action is noted for the first driver, which is typically the motor vehicle driver involved in the crash.



Head-on crashes occur when two vehicles travelling in the opposite direction collide head-on. This crash type reflects 1.5% of all crashes and **5.2% of KSI crashes**. The top contributing factors in KSI head-on crashes are **wrong side or wrong way (37.1%)** and **operating the motor vehicle in careless or negligent manner (20.0%)**.



Left-turn crashes including **left-entering**, which are crashes that occur when a vehicle turning left collides with a through vehicle in the opposite direction of travel with both vehicles traveling on the same roadway in opposite directions prior to the crash, **left-leaving**, which are crashes that occur when a vehicle turning left collides with a through vehicle on the other roadway, and **left-rear**, which are crashes that occur when one vehicle is making a left-turn onto the same street as an approaching through vehicle. Overall, left-turn related crashes comprise about 6.6% of all crashes and **14.2% of KSI crashes**, with the left-entering crash type being the most prevalent. The top contributing factors in KSI left-turn related crashes are **failure to yield the right-of-way (65.6%)** and **ran stop sign (11.5%)**. **16.7% of motorcyclist KSI crashes are left-turn related**.



Off-road crashes occur when the vehicle leaves the roadway; this crash type may also be referred to as a roadway departure. This crash type reflects **11.7% of all crashes and 15.1% of KSI crashes**. The top contributing factor in KSI off-road crashes are **operating the motor vehicle in a careless or negligent manner (51.0%)** and **ran off roadway (16.3%)**.



Sideswipe crashes occur between vehicles traveling in the same or opposite direction and involves an impact between the sides of the vehicles with no significant involvement of the front or rear of the vehicle. The impact then swipes along the surface of the vehicle parallel to the direction of travel. Opposite direction sideswipe crashes represent about 1.1% of total crashes, and 0.4% percent of KSI crashes. Same direction sideswipe crashes represent about **10.6% of total crashes**, and 2.8% of KSI crashes. **Failure to keep in the proper lane was the most common contributing factor at 40.9% of KSI sideswipe crashes**. About 3.9% of motor vehicle KSI crashes and 4.2% of motorcyclist KSI crashes are related to sideswipes.




Parked vehicle crashes occur when a vehicle collides with a parked vehicle. These account for 8.6% of total crashes and 1.9% of KSI crashes.




Pedestrian related crashes occur between a person driving a motor vehicle, including motorcycles, and a person walking. This crash type reflects 1.3% of all crashes and **9.9% of KSI crashes**. **Operating a motor vehicle in a careless or negligent manner (11.3%)** and **failure to yield right-of-way (11.3%)** are top contributing factors in pedestrian KSI crashes. No contributing action is noted in 69.4% of pedestrian KSI crashes.




Rear-end crashes occur when a vehicle collides into the vehicle in front of it. This crash type reflects **29.6% of all crashes and 13.2% of KSI crashes**. Rear-end crashes are the most common crash type in the MPO. **68.2% of rear-end KSI crashes are caused by people operating the motor vehicle in a careless or negligent manner**, including driver inattention or distraction. **12.0% of motorcyclist KSIs and 17.0% of motorist KSIs are rear-end related**.




Right-angle crashes are when two vehicles traveling perpendicularly collide, such as a person driving across an intersection colliding with a vehicle traveling on the other street. Some right-angle crashes may be referred to as a T-bone crash. This crash type reflects 9.9% of all crashes and **14.4% of KSI crashes. Failure to yield right-of-way (41.7%) and ran stop sign (36.5%)** are top contributing factors to right-angle KSI crashes.



Right-turn crashes include right/left crashes where a right-turning and left-turning vehicle were entering the same roadway in the same direction, right/through when a right-turning vehicle turns in front of a vehicle traveling through, with both vehicles traveling in the same direction after then respective maneuvers, right/U-turn, when a vehicle is turning right at the same time a vehicle is making a U-turn into the same lane. Overall, right-turn related crashes comprise about 0.9% of all crashes and 0.3% of KSI crashes.



Rollover crashes occur when a vehicle tips on its side or roof during a crash. Depending on the force of the crash, a vehicle may roll just once, or it may roll multiple times before coming to a stop. Rollover crashes represent about 1.5% of total crashes, and **8.5% of KSI crashes.** The top contributing factor leading to rollover crashes was **operating a motor vehicle in a careless or negligent manner (57.9%).**



Single-vehicle crashes involve only one vehicle. Single-vehicle crashes account for about 3.0% of total crashes and **5.5% of KSI crashes.** About 9.0% of motorcyclist KSI crashes are single-vehicle crashes.

Table 9: KSI Crash Summary by Contributing Action of First Driver - CC-PG MPO Region

| CRASH TYPE | BICYCLE | HEAD ON | LEFT TURN | OFF ROAD | PEDESTRIAN | REAR END | RIGHT ANGLE | ROLLOVER | SIDESWIPE |
|---|---------|---------|-----------|----------|------------|----------|-------------|----------|-----------|
| Exceeded Posted Speed | 0.0% | 0.0% | 0.0% | 5.1% | 1.6% | 1.2% | 1.0% | 0.0% | 0.0% |
| Drove Too Fast for Conditions | 0.0% | 0.0% | 0.0% | 5.1% | 0.0% | 1.2% | 1.0% | 3.5% | 0.0% |
| Failed to Keep in Proper Lane | 3.7% | 11.4% | 0.0% | 4.1% | 0.0% | 2.4% | 1.0% | 0.0% | 40.9% |
| Failed to Yield Right-of-Way | 14.8% | 8.6% | 65.6% | 0.0% | 11.3% | 4.7% | 41.7% | 1.8% | 0.0% |
| Followed Too Closely | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 8.2% | 0.0% | 0.0% | 0.0% |
| Improper Backing | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Improper Passing | 0.0% | 8.6% | 1.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% | 9.1% |
| Improper Turn | 0.0% | 0.0% | 2.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 9.1% |
| No Contributing Action | 70.4% | 0.0% | 5.2% | 9.2% | 69.4% | 2.4% | 3.1% | 19.3% | 4.5% |
| Operated MV in Careless or Negligent Manner | 0.0% | 20.0% | 5.2% | 51.0% | 11.3% | 68.2% | 7.3% | 57.9% | 27.3% |
| Operated MV in Erratic, Reckless or Aggressive Manner | 0.0% | 2.9% | 1.0% | 0.0% | 0.0% | 1.2% | 0.0% | 0.0% | 4.5% |
| Other Contributing Action | 0.0% | 2.9% | 2.1% | 3.1% | 4.8% | 9.4% | 2.1% | 5.3% | 0.0% |
| Over-Correcting/Over-Steering | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Ran Off Roadway | 0.0% | 8.6% | 0.0% | 16.3% | 0.0% | 0.0% | 0.0% | 8.8% | 0.0% |
| Ran Red Light | 3.7% | 0.0% | 5.2% | 2.0% | 0.0% | 0.0% | 6.3% | 1.8% | 0.0% |
| Ran Stop Sign | 7.4% | 0.0% | 11.5% | 1.0% | 0.0% | 0.0% | 36.5% | 0.0% | 4.5% |
| Swerved or Avoided | 0.0% | 0.0% | 0.0% | 2.0% | 0.0% | 1.2% | 0.0% | 1.8% | 0.0% |
| Wrong Side or Wrong Way | 0.0% | 37.1% | 1.0% | 0.0% | 1.6% | 0.0% | 0.0% | 0.0% | 0.0% |

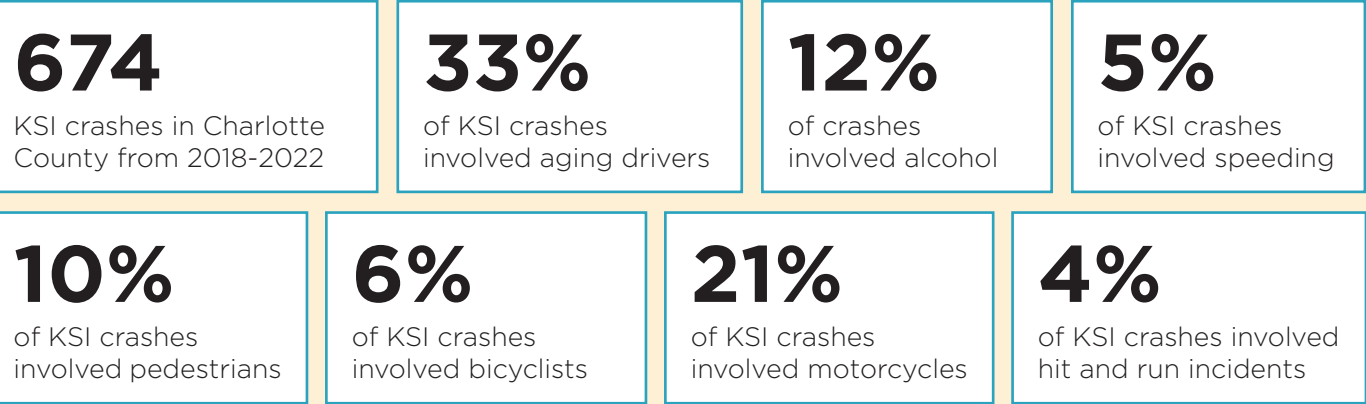
SAFE CHARLOTTE VISION ZERO DASHBOARD

In coordination with the development of the HIN, the Project Team developed a Vision Zero Dashboard, compiling reported crash data from **2018-2022** in the CC-PG MPO region.

The dashboard allows for a comprehensive overview of those crashes that resulted in a fatality or serious injury also known as KSI. The dashboard also maps out where KSI crashes have happened across Charlotte County, giving the opportunity to shape road safety policy through geospatial data. This type of data will continue to raise awareness to the public on Vision Zero needs by visually

highlighting patterns and areas of concern regarding traffic-related incidents and fatalities, thereby emphasizing the critical importance of improved safety measures. Use of the dashboard also has the potential to enhance policy by letting local governments know where the most need in traffic safety policy may be needed.

Key takeaways from data shared on the dashboard include:



BEHAVIORAL FACTORS

This section provides an overview of behavioral factors that contribute to crashes, including alcohol and drug impairment, aggressive driving, speeding, and distracted driving. This analysis recognizes that in many crashes, multiple behavioral factors can be present. For example, a person driving under the influence of drugs may also be distracted and/or driving aggressively. However, the intersectionality of these factors is not analyzed in this report. Table 10 summarizes crashes caused by various behavioral factors.

Alcohol Impairment

These crashes include both when the alcohol level was reported as over the legal limit (blood alcohol level of 0.08 or more) as well as when alcohol use was listed as a contributing crash factor in the crash report. Most crashes (97.4%) did not include an alcohol impaired driver or non-motorist. With about 2.6% of crashes that involved alcohol impairment, alcohol involved crashes account for 12.8% of crashes where someone was severely injured or killed in the MPO Region. Trends are generally the same when the crash occurred in a Transportation Disadvantaged Community.

Drug Impairment

This finding is made when a drug test of a driver is positive, or a driver refused a test. Most crashes (99.3%) did not include a drug impaired driver. Despite about 0.7% of all crashes involving drug impairment, drug impaired KSI crashes account for 9.0% of crashes where someone was severely injured or killed in the CC-PG MPO Region.

Occupant Protection

These are crashes where an unrestrained occupant was noted in the crash report related to occupants in motorized vehicles. In total, 316 crashes involved an unrestrained occupant; of which 11.6% resulted in a serious injury and 18.9% resulted in a fatality.

Aggressive Driving

The 902 crashes that involved aggressive driving comprise about 4.0% of all crashes; of the crashes listed as aggressive-driving related, 5.9% resulted in a serious injury and 12.9% resulted in a fatality.

Distracted Driving

The approximately 2,413 crashes that involved distracted driving comprise about 10.7% of all crashes; of the crashes listed as distracted-driving related, 18.6% resulted in a serious injury and 14.4% resulted in a fatality.

Speeding

These include crashes where either exceeding the speed limit or driving too fast for the conditions was noted in the crash report. The 576 crashes where speeding was noted as a factor made up about 2.5% of all crashes; however, 4.6% of the crashes listed as speeding-related resulted in a serious injury and 7.6% resulted in a fatality. As it can be difficult to prove speeding, the number of KSI crashes attributable to speeding is likely an undercount.

Hit and Run

A hit and run crash is defined as the act of causing a traffic crash and failing to remain at the scene of the crash afterwards. Of all the reported crashes in the CC-PG MPO Region, 10.1% are classified as a hit and run, with that percentage doubling for crashes involving pedestrians (at 20.6%).



The Impacts of Distracted and Agressive Driving

Throughout the public outreach conducted as a part of this effort, residents expressed sincere concern over both distracted and aggressive driving. Charlotte County residents are not alone in expressing increasing concern of crashes resulting in fatalities or serious injuries due to either driver behavior, which is a growing trend all across the U.S. Distracted driving, which includes activities such as texting, talking on the phone, eating, or using in-car technologies, contributes substantially to roadway accidents. According to the National Highway Traffic Safety Administration (NHTSA), in 2021 alone, 3,522 people died in crashes involving distracted drivers, marking a sharp increase from previous years. Drivers engaging in these activities have a higher likelihood of not noticing important road signals or changes in traffic conditions, thereby increasing the risk of high-speed and other severe crashes. This alarming trend is accentuated by the proliferation of smartphone use and in-car entertainment systems, which divert drivers' attention away from the road.

Aggressive driving, encompassing behaviors such as speeding, tailgating, and unsafe lane changes, is another major contributor to the rise in serious crashes. NHTSA reported that in 2022, about 26% of all traffic fatalities involved at least one driver who was speeding, and a significant proportion of accidents were attributed to aggressive driving behaviors. Aggressive drivers often exceed speed limits, drive recklessly, and show little regard for traffic laws, thereby elevating the likelihood of devastating crashes. This increase in aggressive driving incidents correlates with a heightened sense of urgency and impatience among drivers, exacerbated by congested roadways and stress. As such, addressing these issues requires comprehensive measures, including stricter enforcement of traffic laws, public awareness campaigns, and the integration of advanced driver-assistance systems in vehicles to mitigate the risks posed by distracted and aggressive driving.

Table 10: Crash Summary - CC-PG MPO Region

| BEHAVIORAL FACTOR | NO INJURY | INJURY | SERIOUS INJURY | FATALITY | TOTAL |
|------------------------|--------------|-------------|----------------|------------|---------------|
| Alcohol | 319 (1.8%) | 182 (3.9%) | 48 (8.9%) | 38 (28.8%) | 587 (2.6%) |
| Drugs | 60 (0.3%) | 48 (1.0%) | 22 (4.1%) | 36 (27.3%) | 166 (0.7%) |
| No Occupant Protection | 101 (0.6%) | 127 (2.8%) | 63 (11.6%) | 25 (18.9%) | 316 (1.4%) |
| Aggression | 596 (3.4%) | 257 (5.6%) | 32 (5.9%) | 17 (12.9%) | 902 (4.0%) |
| Distracted | 1,668 (9.6%) | 625 (13.6%) | 101 (18.6%) | 19 (14.4%) | 2,413 (10.7%) |
| Speeding | 369 (2.1%) | 172 (3.7%) | 25 (4.6%) | 10 (7.6%) | 576 (2.5%) |

Navigating the Road Ahead:
Addressing Safety Concerns for Aging Drivers in Charlotte County

As the population in Charlotte County, Florida continues to age, it will be crucial to implement targeted safety countermeasures for older drivers. A significant percentage of the county’s population is 65 and over, with a notably high number of drivers in this age group holding a valid drivers license.

Older drivers can pose a danger on the streets for several reasons. Declining vision, slower reaction times, and health conditions such as arthritis can impair driving abilities. In Charlotte County, the Elder Needs Index reveals that a substantial proportion of the population aged 65 and older experiences one or more disabilities. This suggests that many older adults continue driving despite potential risks.

Studies have shown that aging drivers have higher incidences of vehicle crashes. The data on the next page shows how a notable

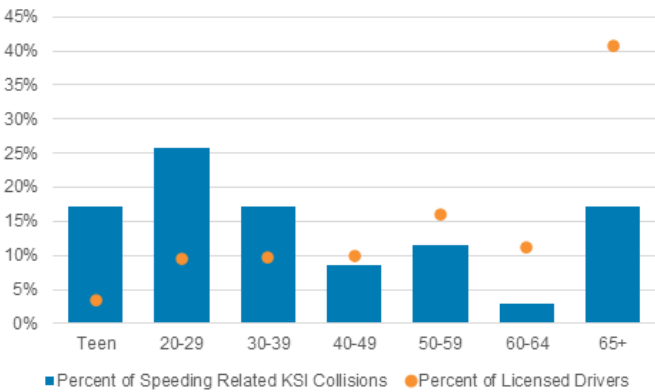
number of crashes involve drivers aged 65 and over in Charlotte County. The AARP emphasizes the importance of community initiatives, such as AARP’s Driver Safety program, which offers educational resources and courses designed to help older drivers stay safe on the road. Moreover, local policies should focus on regular health assessments for driving fitness and creating more efficient public transit systems to reduce reliance on personal vehicles. Initiatives like these will be instrumental in mitigating the risks associated with aging drivers and improving overall road safety in Charlotte County.

Ensuring road safety for aging drivers involves creating more age-friendly communities with enhanced public transport options, implementing road design changes like clearer signage and better lighting, and offering refresher driving courses tailored to older adults.

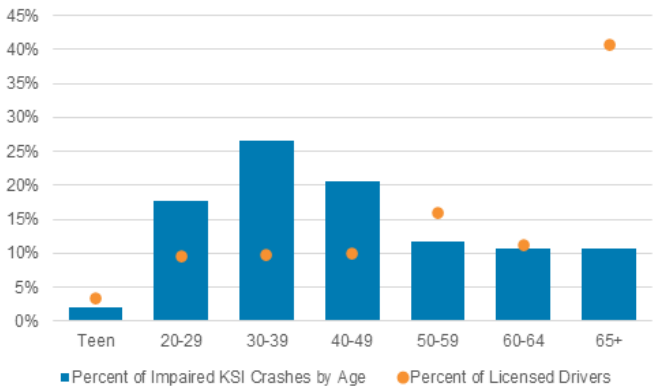
Crashes by Age

A crash analysis of speeding and impaired drivers by age was conducted, with the results presented in the figures below. The results are compared to the percentage of licensed drivers in Charlotte County as of January 2022.

Speeding Related KSI Crashes by Age - CC-PG MPO Region



Impaired Driving Related KSI Crashes by Age - CC-PG MPO Region



Consistent with statewide and national data¹, younger drivers are more likely to be involved in speeding related and impaired crashes. Drivers in their 30s were most likely to be involved in impaired driving KSI crashes despite only accounting for 10% of the licensed drivers in Charlotte County.

1. Teen-Safe-Driving-Coalition-Fact-Sheet_2023_v4_FINAL.pdf and CDC - Website Temporarily Unavailable



PUBLIC OUTREACH

In-person community outreach was vital in establishing the CC-PG MPO Vision Zero campaign and identifying recommendations outlined in the CSAP.

A crucial component of the CSAP is extensive public outreach designed to engage the community and gather valuable input on road safety concerns. The CSAP included the creation of a dedicated Task Force comprising diverse subject matter experts such as transportation engineers, city planners, public health officials, law enforcement representatives, and community advocates. This Task Force convened regularly to provide critical insights and guide the

development of the plan. Additionally, various public outreach methods were deployed, including pop-up events, public surveys, and workshops, to directly interact with residents and stakeholders. These engagements were instrumental in identifying the community’s top safety concerns and opportunities for improvement. By incorporating local knowledge and experiences, these outreach efforts ensured the CSAP recommendations were well-informed and community-driven.

POP-UP EVENTS

Pop-up events offer tabling opportunities at pre-existing community events, such as Farmers Markets, First Fridays, and public health events. These pop-up events are particularly useful for public engagement as they are located in areas with increased visibility and likelihood of public engagement. Through the public outreach campaign process completed as a part of the plan development process, the project team attended the local Pedal & Play in Paradise and Port Charlotte High School Bicycle Rodeo events, reaching target vulnerable roadway users for this safety campaign with local youth and bicyclists. The project team used these events as an opportunity to direct people to the open public survey to provide their feedback on their safety concerns and activities, as well as raise awareness on forthcoming public workshops.

March 23, 2024
Pedal & Play in Paradise

April 12, 2024
Port Charlotte High School Bicycle Rodeo

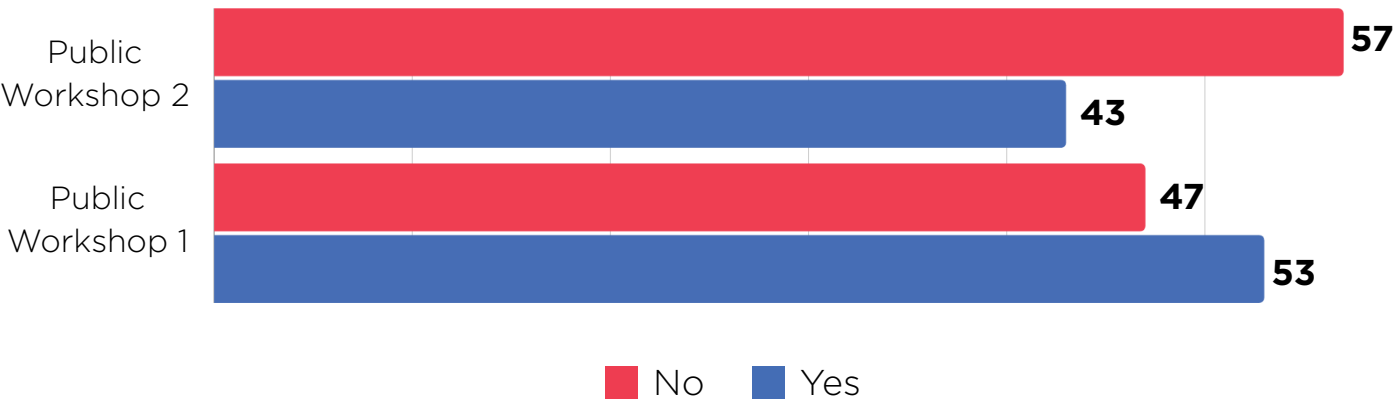
PUBLIC WORKSHOPS

Public workshops included a formal presentation, live polling and open discussion with the community, and an array of public engagement activities hosted at four stations at each event venue, as outlined below. Through the presentation, workshop attendees were provided an opportunity to hear an overview of the scope of services involved in the CSAP project, as well as key takeaways from the crash analysis to help provide insight on information that could be provided by the community to effectuate the change needed to reach the goal of zero serious injuries or fatalities as a result of a crash. A series of two questions were asked of attendees to provide live results, followed by open discussion on these questions:

- 1. Have you or a loved one been involved in a fatal or serious injury crash?
- 2. What are your top transportation safety concerns here in Charlotte County?

Results of these exercises are shared on the following pages.

Have you or a loved one been involved in a fatal or serious injury crash?



Resources provided at each public workshop station highlighted high-level trends from the crash analysis and opportunities to improve safety through both non-engineering and engineered solutions.

**Station 1:
Welcome Table and Safe Charlotte Overview**

The collection of materials at this table introduced attendants to the CSAP, which included the intent, mission, and goals for the transportation safety initiative, available resources, and information on how to stay informed and involved.

**Station 2:
Identification of Safety Concerns**

At this interactive station, attendants could participate in a sticky note exercise in which they identified safety issues, using different colors to represent different modes of transportation: Walk, Bike, Motorcycle, Drive, and Other. Participants could also review a selection of Crash Heat Maps by Mode to provide feedback on what factors may have led to these unsafe conditions. Participants were able to provide personal stories about specific incidents and propose possible solutions to help achieve the goals of Vision Zero.

**Station 3:
Identification of Countermeasures**

At this station, attendants familiarized themselves with proven countermeasures as they interacted with the Level of Comfort Boards, providing feedback on preferred bike and pedestrian strategies. They then identified specific areas on a district-specific aerial map where these countermeasures might be used. Additional free response feedback was provided around equity, education, and enforcement strategies.

**Station 4:
Hands-on Activities**

At this station, attendants had the chance to participate in hands-on activities related to Vision Zero safety concerns and countermeasure strategies. This station included kid-friendly activities such as the FDOT Guardians of Roadway Info Posters & Comics, and Guardians of the Roadway Coloring Sheets. Interactive activities for people of all ages included a Cone of Vision Hat & Board, Roundabout Board with matchbox cars, and Drunk Goggles with a “Pin the Sticky on the Mail Truck” board for people to feel the effects of driving while intoxicated.

As seen below, through the polling questions, participants mentioned concerns including but not limited to traffic and congestion, aggressive drivers, the impact of tourists on safety and seasonal trends, the effects of an aging population on driving, and what the driving under the influence (DUI) process could look with potential legalization of

July 10, 2024

**Charlotte Harbor Event and
Conference Center (South/Mid County)**

What are your top transportation safety concerns in Charlotte County?




In the various stations at the workshop, participants noted the following:

- High crash areas in the north-central area of the County
- Road obstructions and faulty crosswalk infrastructure causing traffic disruptions in the central area of the County near the river line on the east side
- Countywide, there are areas without bike lanes that pose general danger to bicyclists


- At the south side of the County, golf carts and lack of bike infrastructure were noted as potential safety concerns
- Attendees spoke to personal bicycling activity, with normal bicycle trips for reasons such as commute to work and school, and exercise. Bike trips were noted to be between 3-4 and 5+ miles
- Countermeasures such as designated bicycle lanes, crosswalk visibility enhancements, appropriate speed limits, and road diets were popular options to consider in CSAP recommendations

WALKING LEVEL OF COMFORT BOARD



When a crash occurs, pedestrians involved in that crash are more likely to be killed or seriously injured than when a vehicle is driven in Charlotte County, nearly 1 in 5 crashes involving a pedestrian result in a fatality or serious injury. As such, creating safe walking conditions is a primary focus of the CCPMGOP Comprehensive Safety Action Plan.






Provide feedback on your walking habits, concerns, and identify safety countermeasures below.



How often do you walk in an average week?

| | | | | |
|---|---|---|---|--|
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">0</div> <p>TIMES PER WEEK</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">1-2</div> <p>TIMES PER WEEK</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">3-4</div> <p>TIMES PER WEEK</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">5-6</div> <p>TIMES PER WEEK</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">7+</div> <p>TIMES PER WEEK</p> |
|---|---|---|---|--|






Why do you walk? (Select all that apply)

| | | | | |
|---|---|---|---|---|
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>TO RETURN WORK</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>TO MEET ONLY NEEDS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>TO/FROM SCHOOL</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>TO/FROM GROUP FOR SOCIAL INTERACTION</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>FOR EXERCISE</p> |
|---|---|---|---|---|








On average, how long are your walks?

| | | | | |
|--|--|--|---|---|
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">0</div> <p>MINUTES</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">1-3</div> <p>MINUTES</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">3-5</div> <p>MINUTES</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">5+</div> <p>MINUTES</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">?</div> <p>OR HOURS</p> |
|--|--|--|---|---|

How comfortable do you feel walking in your neighborhood?

| | | | | |
|---|---|---|---|--|
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>NOT COMFORTABLE AT ALL</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>SOMEWHAT UNCOMFORTABLE</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>NO OPINION</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>SOMEWHAT COMFORTABLE</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>COMFORTABLE</p> |
|---|---|---|---|--|

Select the top three countermeasures that you think would be most beneficial to improve walking safety on Charlotte County roads.

| | | | | | | |
|--|---|--|--|--|---|--|
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>LIGHTING IMPROVEMENTS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>WALKWAYS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>CROSSWALKS, VISIBILITY IMPROVEMENTS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>WARNING AND PAVEMENT MARKINGS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>RECTANGULAR ROAD MARKINGS, ROAD SIGNS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>ROAD SIGNS</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">  </div> <p>OTHER</p> |
|--|---|--|--|--|---|--|



Participants noted specific countermeasures such as ensuring clean roadway shoulders used by cyclists as debris poses a risk of causing tire safety hazards. Aggressive drivers as well as distracted drivers were also mentioned frequently as a major safety hazard.

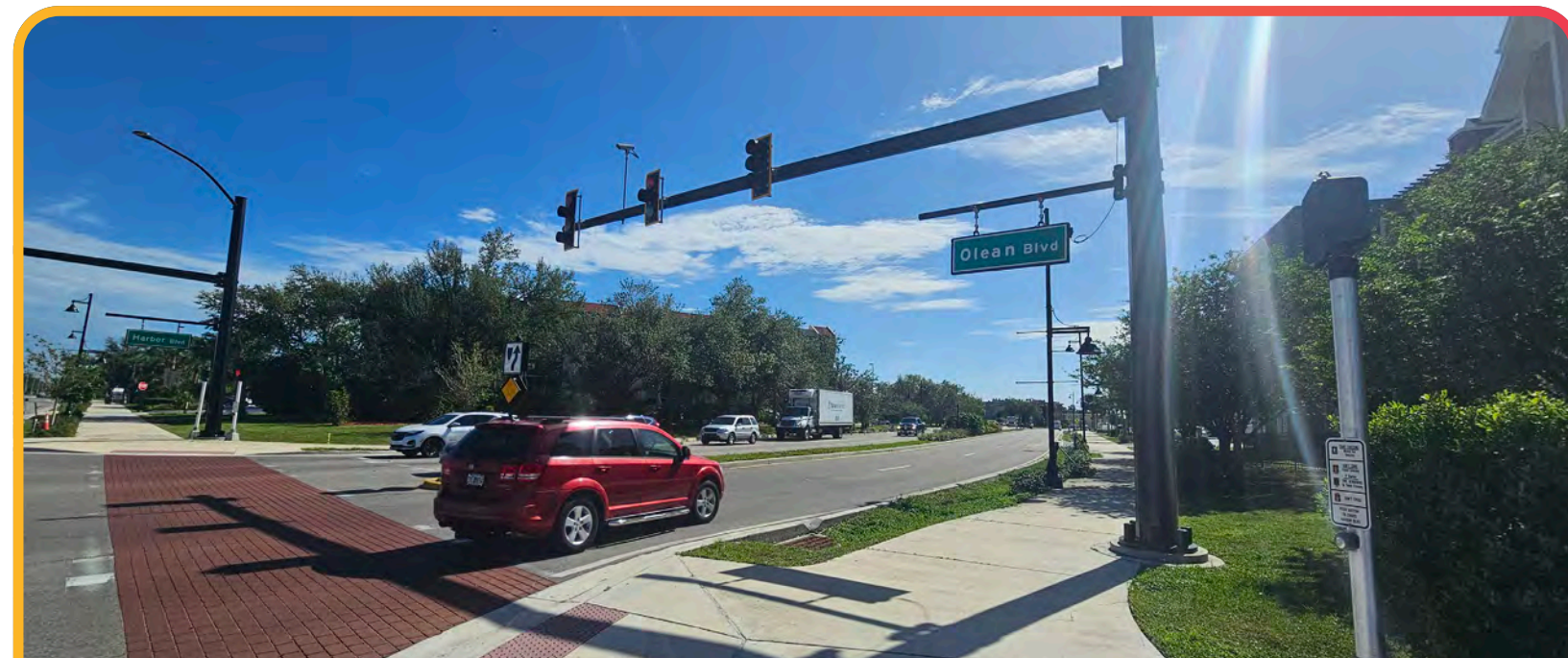
August 22, 2024
Charlotte County Tringali
Recreation Center (West County)

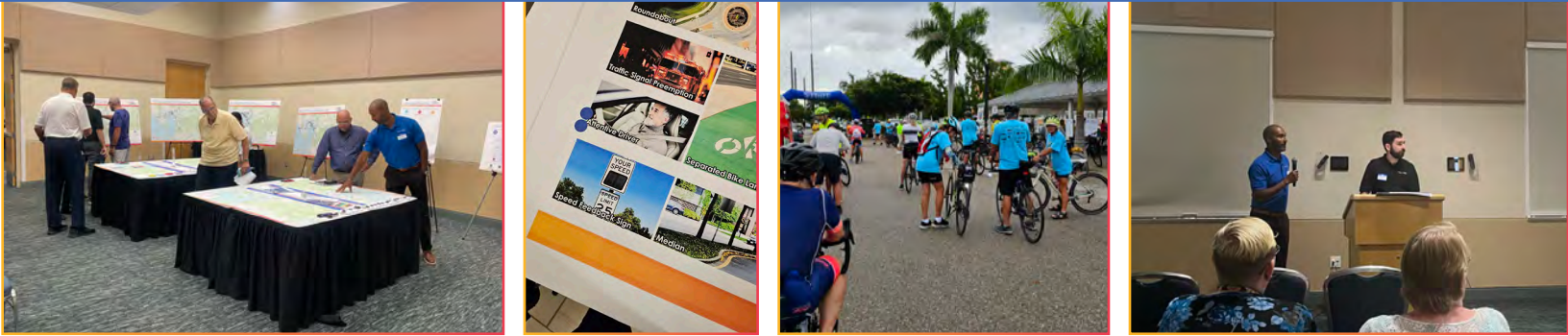
What are your top transportation safety concerns in Charlotte County?



In the various stations at the workshop, participants noted the following:

- A variety of areas are prone to water hazards and lack of paved shoulders with gutters, which increases the likelihood of a crash during unsafe weather conditions
- Hotspots for distracted drivers using their phones
- Areas lacking Americans with Disabilities Act (ADA) compliance and infrastructure
- Areas lacking pedestrian crossings and incomplete sidewalk
- Countermeasures identified include the need for appropriate speed limits for all road users, lighting and roadside design improvements at curves, routine maintenance to clean shoulders and bridges, and the addition of bicycle lanes. Additional specific needs included dedicated turn lanes, traffic signals, and more pedestrian infrastructure in areas with high rates of pedestrian travelers





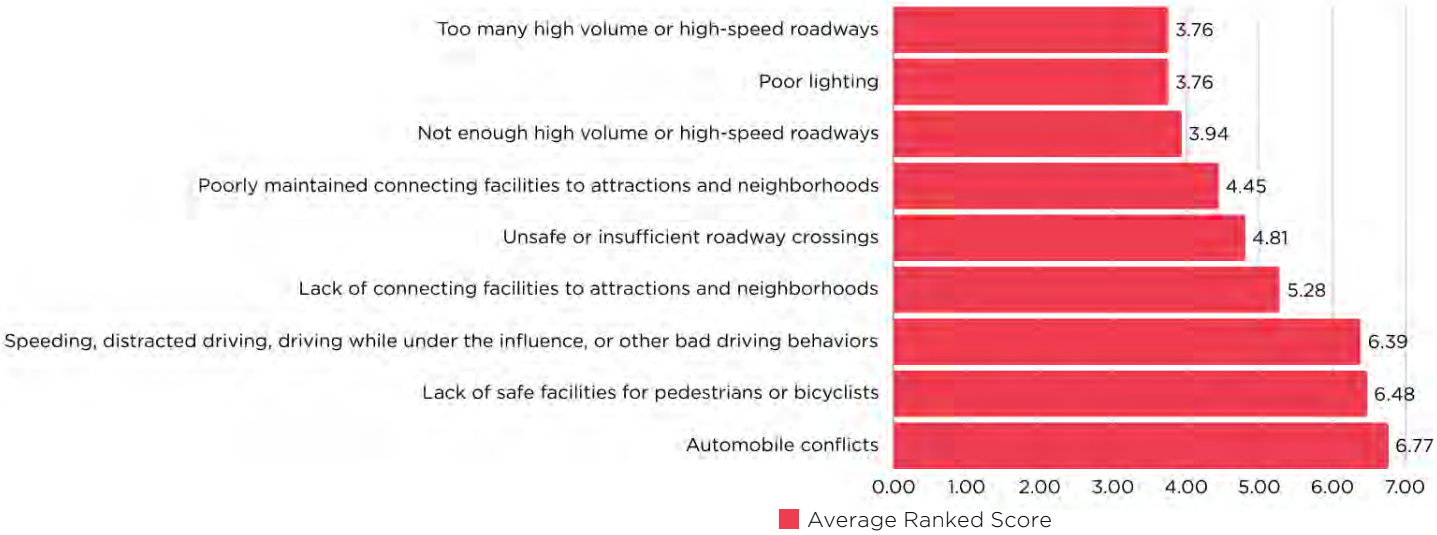
KEY TAKEAWAYS FROM PUBLIC SURVEY RESULTS

To better understand the community and local needs regarding Charlotte County’s transportation system, a public survey was conducted to gain important insights on attitudes of residents.

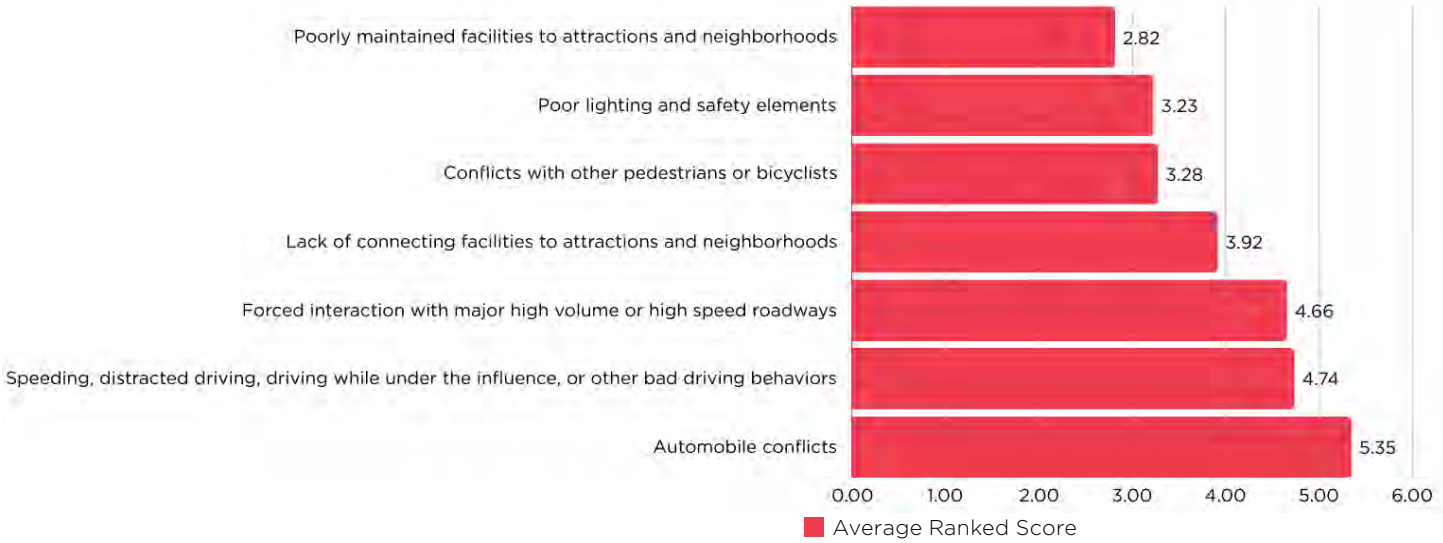
In total, 192 people took the public survey, with participants from the following zip codes representing the top areas represented: 33952 (17.0%), 33950 (15.9%), 33948 (12.6%), and 33982 (9.8%). Approximately 9.3% of the survey respondents do not live in Charlotte County. Various questions were asked

including questions on community concerns and perceived dangers in the transportation system, along with what transportation improvements the community would like to see. The figures below reveal the final results of the public survey.

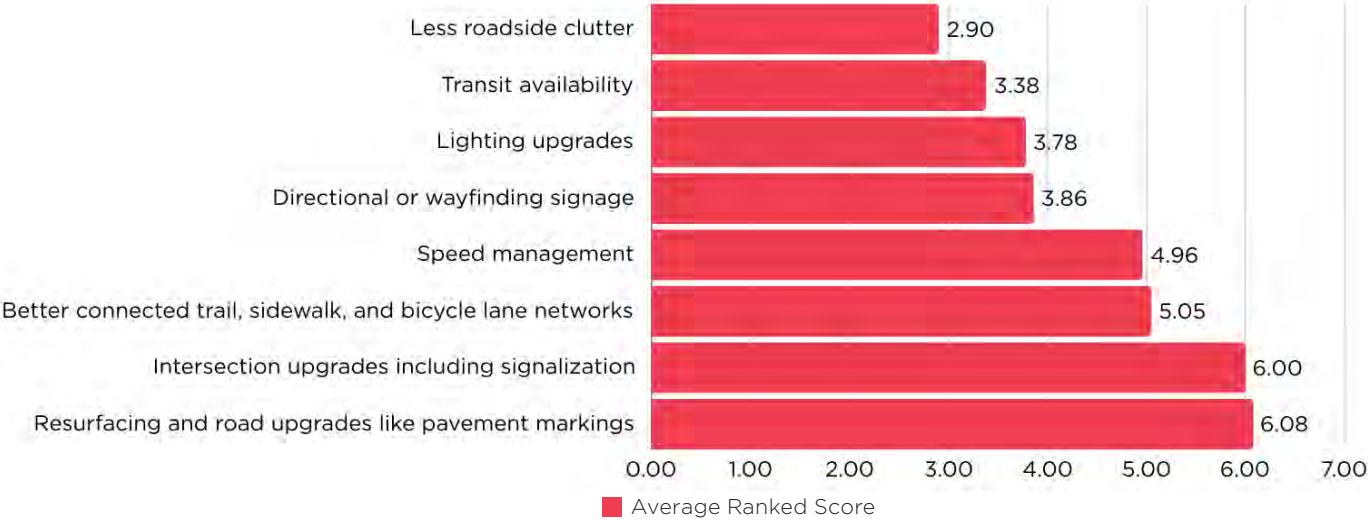
Please indicate the most concerning elements of Charlotte County’s transportation system.



Please indicate the most concerning elements of walking or using a bicycle in Charlotte County.



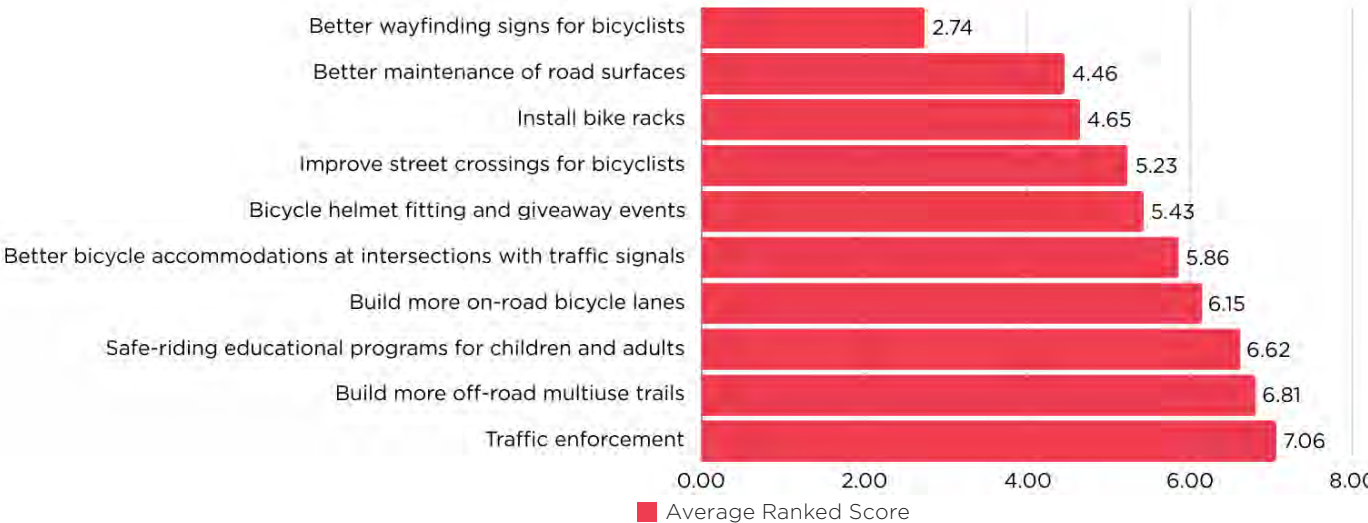
Please indicate your priorities when it comes to the type of transportation improvements you would like to see implemented in Charlotte County.



If you were in charge of investing in pedestrian projects in your neighborhood, how would you prioritize the following options?

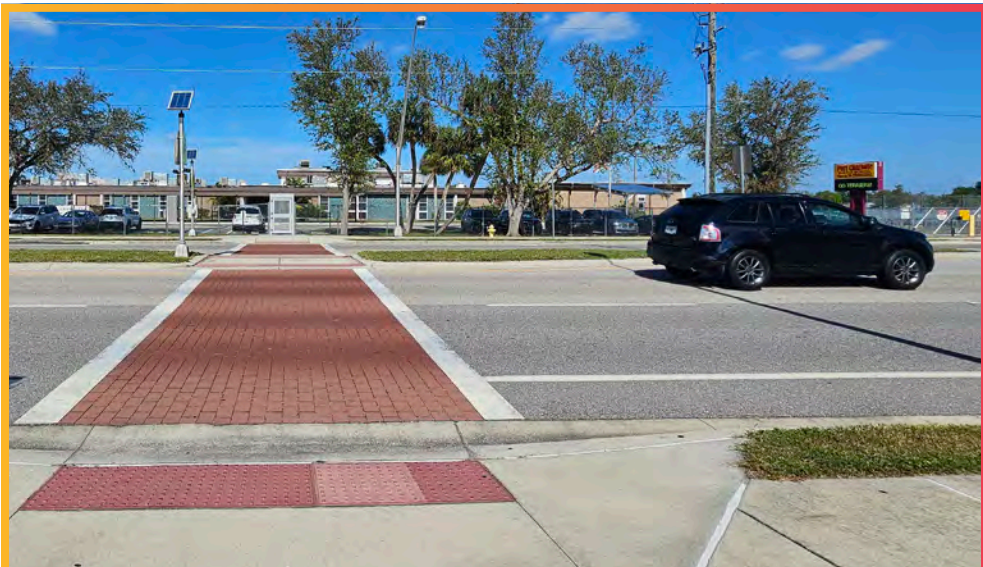


If you were in charge of investing in bicycle projects in your neighborhood, how would you prioritize the following options?



Public survey results will help policymakers, local law enforcement, bike/ped advocacy groups, and local government staff have a deeper understanding of local needs, along with how community members would like to see transportation needs addressed. Key themes of the survey included:

- When asked about the most concerning element of Charlotte County’s transportation system, respondents drew focus to automobile conflicts, lack of safe facilities for pedestrians and bicyclists, as well as bad driving behavior.
- Bad driving behavior was highlighted as the most concerning element of walking and biking in the county.
- The most comfortable road in Charlotte County was identified as Midway Boulevard and Piper Road. Conversely, the most dangerous road is perceived to be US 41 with Veterans Boulevard and Harborview Road mentioned frequently as well.
- Transportation improvements the public would like to see implemented ranged from resurfacing and road upgrades, intersection upgrades including signalization, and better-connected multimodal networks.
- Pedestrian projects that respondents would like to invest in include traffic enforcement, better pedestrian accommodations at intersections, and improving unsignalized crossings.
- In prioritizing bicycle projects, traffic enforcement also ranked number one with building more off-road multiuse trails, and safe-riding education programs as highly desired.



KEY TAKEAWAYS FROM TASKFORCE MEETINGS

Throughout the project, stakeholders who served as part of the Charlotte County-Punta Gorda CSAP Task Force, held various meetings to coordinate work efforts, receive project updates, and provide feedback on CSAP needs.

As part of the Vision Zero initiative for Charlotte County and the City of Punta Gorda, a dedicated Task Force was established to guide the development of the CSAP. This Task Force brings together diverse subject matter experts essential to the Vision Zero effort, including transportation engineers, city planners, public health officials, law enforcement representatives, and community advocates. Their collective expertise provided a holistic approach to road safety, addressing various factors that contribute to traffic-related injuries and fatalities.

The Task Force was convened in three working sessions to provide insight on safety conditions, review crash data, and share best practices from successful Vision Zero projects. Their role encompasses evaluating potential interventions, prioritizing projects based on data-driven criteria, and facilitating community engagement to gather input from residents and stakeholders. By involving experts with varied perspectives and specialties, the Task Force was instrumental in ensuring that the safety action plan is not only comprehensive and well-informed but also tailored to the unique needs and conditions of Charlotte County and the City of Punta Gorda.

Decemeber 2023

Confirm Task Force Members

February 1, 2024

Project Kick-off Meeting

April 11, 2024

HIN, Crash Trends, and Public Engagement Strategies

September 19, 2024

Meeting on Collision Profiles, Countermeasures, and Project Prioritization

Through regular meetings and collaborative discussions, the Task Force aimed to identify effective strategies to mitigate high-risk areas, enhance roadway infrastructure, and promote safer driving behaviors. Their guidance and feedback play a pivotal role in shaping policies, developing targeted countermeasures, and ensuring that the Vision Zero goals of eliminating serious and fatal traffic injuries are met. The Task Force’s contributions are vital to creating a safer, more resilient transportation network for all road users in the region. Some key discussions that were had during the taskforce meetings include:

- Thoughts on community feedback given through public surveys, how this feedback translates to action and policy.
- Roles and responsibilities different stakeholders have throughout the process and how different tasks connect to each other.
- There are a variety of things that MPOs can engage legislators with that are noted in the results of safety action plans. MPOs are not allowed to lobby.
- Once the CSAP is submitted, then it is up to the City and County agencies to go after SS4A implementation dollars. Additionally, an updated plan is required every five years after CSAP adoption.
- Funding is not the sole solution, but enforcement of laws, including having law enforcement officers increase patrol areas of higher incidence of crashes and dangerous areas for local youth such as schools and parks.

FDOT

- John Kubicki - Traffic Safety and Service Program Engineer
- Theresa Chestnut - Community Traffic Safety Program Coordinator
- Tanya Merkle - Intermodal Systems Development Bike-Ped Coordinator
- Mengya “Amy” Ao - Bike-Ped Safety Specialist
- Pam Barr - MPO Liaison

CC-PG MPO Advisory Boards

- Dr. Mary Ellen Kiss, CAC Representative
- Pauline Klein, CAC Representative
- Laura Rossi, BPAC Representative

Charlotte County

- Richard Lisenbee - Signal System Specialist
- Robert Fakhri - Transportation Engineer
- Ravi Kamarajugadda - Project Manager
- Elizabeth Nocheck - Planner
- Ellen Pinder - Emergency Management Coordinator
- April Santos - Grants Analyst
- Heidi Maddox - Transit Operations Manager
- Tracy Doherty - Communications Specialist
- Karlene McDonald - Public Works Operations Supervisor
- Shaun Cullinan - Planning and Zoning Official
- Shirley Ciampi - Transit Operations Coordinator

City of Punta Gorda

- Brittany Metzler - Planner
- Mitchell Austin - Planning Manager

FlyPGD

- Brett White - Director of Projects

- Corey Elijah - Assistant Project Manager

Charlotte County Public Schools

- Tony Conte - Transportation Director

- Andrew Mitchell - Routing Analyst

- Mel Hazeltine - Teacher

Charlotte County Sheriff’s Office

- Dustin Paille - CTST LawE

Florida Highway Patrol (FHP)

- Derek Daniels

Punta Gorda Chamber of Commerce

- Val Johnson-Edmunds

Veterans Affairs

- Richard Russell

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CSAP RECOMMENDATIONS

Building on the insights derived from crash data analysis and public engagement, the CSAP outlines a series of targeted recommendations aimed at enhancing road safety on prioritized segments of the HIN.

These include near-term, mid-term, and long-term countermeasures, such as improving signage, refining traffic signal timings, enhancing pedestrian crossings, and investing in substantial infrastructural changes to support safer biking and walking. The recommendations are tailored








to address the specific needs of the region’s road users and are designed to create a safer, more resilient transportation system for Charlotte County and Punta Gorda, while providing diverse opportunity to utilize future SS4A funding received.

COUNTERMEASURES OVERVIEW

These countermeasures cover a broad range of strategies, designed not solely to respond to crashes but to prevent them. They encompass various aspects such as engineering changes, educational programs, policy modifications, and enforcement techniques. These strategies may include infrastructural modifications like lane narrowing, speed humps, pedestrian refuge islands, rumble strips, and road diets which have proven successful in reducing speeds and crashes. Lighting improvements, signal coordination, and improved signage and pavement markings could also form part of the countermeasures.

In addition to built-environment enhancements, it’s important to consider behavioral countermeasures which encourage safe road usage, such as enhanced driver education programs, public awareness campaigns around dangers such as distracted driving, speeding or drunk driving, and strengthened traffic law enforcement.

Countermeasures Categories

-  **Engineering**
-  **Speed Management**
-  **Roadway Departure**
-  **Signalization**
-  **Intersections and Roadways**
-  **Pedestrian Facilities**
-  **Bicycle Facilities**
-  **Crosscutting**
-  **Education and Policy**
-  **Emergency Management**
-  **Enforcement**

Modal Safety Emphasis

Closely related to the Categories is the “Modal Safety Emphasis” which represents the user group that predominantly benefits from the implementation of the countermeasure. The Modal Safety Emphasis areas include the following user groups:

- Pedestrian
- Bicyclist
- Motorcyclist
- Automobiles
- Commercial Motor Vehicles

Safe System Strategy

Following the Safe System Approach Framework, how we plan, construct, and operate our roadways should anticipate human error and consider human vulnerabilities. The most effective strategies include removing conflicts and minimizing hazards, and where that is not feasible, better management of the conflict through speed reductions and managing conflicts in time.

These principles provide a system with built-in redundancies to eliminate or greatly reduce the likelihood of death or serious injury when a crash occurs. However, strategies have varying levels of effectiveness, feasibility, and implementation timeframes. Building on this philosophy, the FHWA has further developed a draft Safe System Solutions Hierarchy within the Safe System elements of Safe Roads, as described below. Within that framework, the most effective strategies include removing conflicts and minimizing hazards, and where that is not feasible, better management of the conflict through speed reductions and managing conflicts in time.

- **Remove Conflicts:** Eliminate the most severe conflicts between roadway users, such as through the relocation of a utility pole, construction of a roundabout or provision of a median barrier.
- **Manage Vehicular Speeds:** Reduce the speed of vehicles to align with the context of the roadway, the hazards, and conflicts between roadway users; includes horizontal and vertical deflection elements.
- **Manage Conflicts in Time:** Where conflicts cannot be removed, can they be separated in time, through signal timing strategies or providing dedicated space for other roadway users.
- **Increase Attentiveness and Awareness:** Where conflicts cannot be removed, improve the visibility of the conflicts. Implement
- **Enforcing Features to Slow Traffic:** Similar to managing vehicular speeds, these are roadway features that help enforce the desired speed.

Applicable Facility Type

Some safety treatments are more appropriate for use on urban arterial streets with higher traffic volumes and a mix of different users, while others are better used on rural roads where speeds tend to be higher. In order to understand which treatments are applicable in differing built environments, the Project Team looked to the FDOT Context Classification, which determines key design criteria for all non-limited access state roadways based on context classifications established for different types of roadways. The Context Classification Guide serves as a reference document and establishes best practices for designing roadways that incorporate multiple modes of travel and consider the needs of various users; thus, promoting transportation safety. As seen in Table 11, similar to the Congress of New Urbanism (CNU)/Smartcode Transect System approach, the context classification process classifies roadways along a land use intensity spectrum from least intensive, “C1-Natural”, to most intensive, “C6-Urban Core”. The determination of a roadway’s context classification involves a complex process which generally considers the land use, built environment, and transportation characteristics of an area. The applicable facility types represent general characteristics for land use and users where each countermeasure might be appropriate.

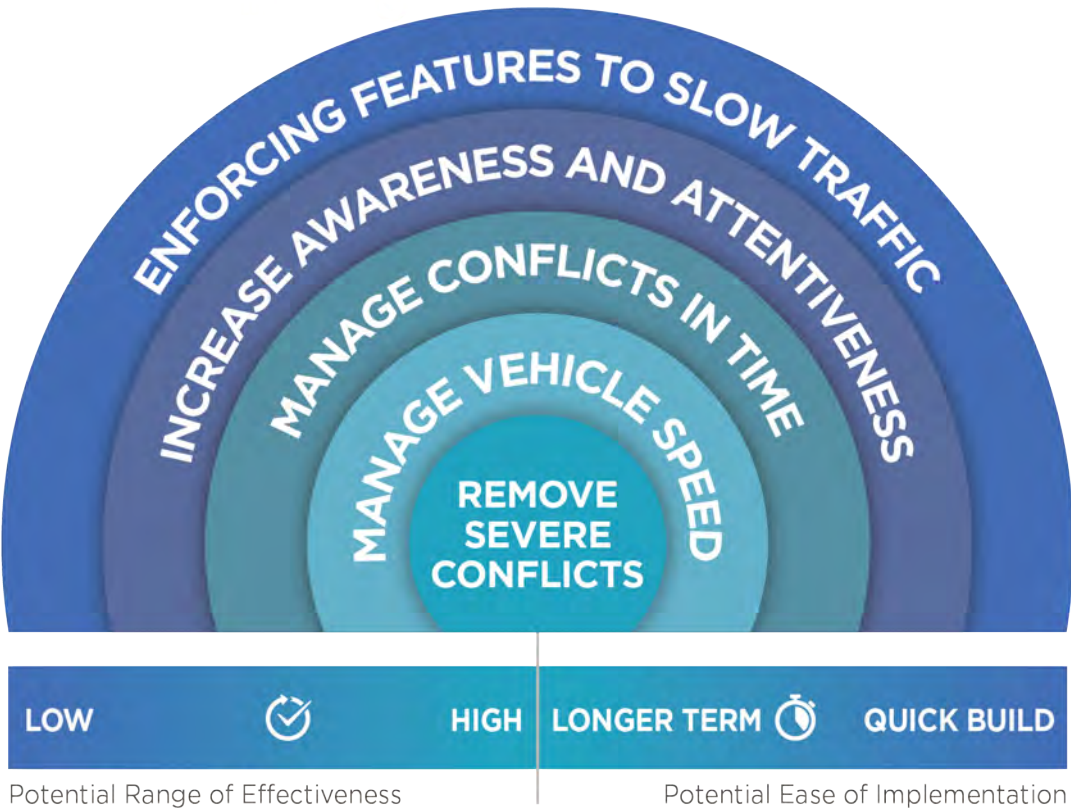


Table 11. Facility Type based on FDOT Context Classification and Context-Based Design Speeds

| FACILITY TYPE | CONTEXT CLASSIFICATION | ALLOWABLE DESIGN SPEED RANGE (MPH) |
|---------------|------------------------|------------------------------------|
| Rural | C1 Natural | 55-70 |
| | C2 Rural | 55-70 |
| | C2T Rural Town | 25-45 |
| Suburban | C3 Suburban | 35-55 |
| Urban | C4 Urban General | 25-45 |
| | C5 Urban Center | 25-35 |
| | C6 Urban Core | 25-30 |

Choosing the best tool for a location will depend on location-specific characteristics like number of travel lanes, geometry, vehicle speeds, and volumes. Understanding context is important when assessing an appropriate target speed and associated speed reduction countermeasures. Design or “feels like” speeds is lowered and bicycle and pedestrian level of comfort is increased with the implementation of specific countermeasures. Such recommendations may include more frequent controlled crossings, vertical deflection, terminated vistas, raised crosswalks, shared lanes with sharrows, street trees, lane narrowing, wide sidewalks, separated bicycle lanes, green pavement markings, and intersection refuge islands. These elements are critical for consideration in the identification of effective transportation safety countermeasures.

Crash Reduction Effectiveness

The potential effectiveness of each countermeasure was based on published research, including information from the FHWA’s Crash Modification Factor (CMF) Clearinghouse, FHWA’s Proven Safety Countermeasures, and other published references (see complete list of references at end of this section). The CMF Clearinghouse provides peer reviewed studies and a link to the applicable study. The efficacy of various treatments was summarized into the following categories:

- Unknown
No quantitative data is available
- Low
Expected Crash Reduction ≤ 30%
- Medium
31% ≤ Expected Crash Reduction ≤ 60%
- High
Expected Crash Reduction ≥ 61%

The expected crash reduction represents a multiplicative factor indicating the proportion of crashes that are expected to be reduced after the implementation of a countermeasure with the reduction only applying to crashes affected by the countermeasure.

The MPO should continue to track crash data trends given the implementation of countermeasures to track unique pre- and post-conditions and measure the effectiveness of projects and programs in their ability to reduce crashes.

Capital Costs and Maintenance Costs

Cost information shared in the dashboard is meant to convey an overall order of magnitude assessment of up-front capital costs and routine maintenance costs to help compare potential strategies. Importantly, the Project Team recognizes that most countermeasures would not likely be implemented as a standalone project but incorporated into a larger corridor enhancement project with cross-cutting countermeasures implemented in appropriate contexts along the corridor and/or as a necessary synergistic project need. For example, installation of a Rectangular Rapid Flashing Beacon (RRFB) to support safe pedestrian crossing would likely occur with other crosswalk visibility enhancements, lighting improvements, and/or speed reduction measures. These cross-cutting measures are better reflected in the Implementation Plan prepared as a part of the CSAP for each segment of the HIN. Other factors such as the need to acquire additional right-of-way (ROW) or other easements may also affect countermeasure implementation.

The assigned cost ratings for countermeasures are as follows:

- Low (\$)
Typically, \$10,000 or less
- Medium (\$\$)
Typically, \$10,000 to \$100,000
- High (\$\$\$)
Typically, \$100,000+

Implementation Timeline

This field represents the typical time to implement the countermeasure. It should be noted that there may be some variability in implementation timeline based on whether the countermeasure can be implemented using “Quick Build” materials or permanent materials. The assigned timeline thresholds for implementation are as follows:

- Quick Build
Typically, within 1 year
- Near
Implementation by 2030
- Mid
Implementation by 2040
- Long
Implementation by 2045



ENGINEERING COUNTERMEASURES



Speed Management

Addressing speed is fundamental to the Safe System Approach to making streets safer, and a growing body of research shows that speed limit changes alone can lead to measurable declines in speeds and crashes. The first step to identifying appropriate speeds involves identifying potential conflicts on the road and appropriate context classification. Considerations may include sharp bends, high-traffic zones, location of community assets such as schools, or areas with a large number of vulnerable roadway users. Once these potential safety concerns have been identified, comprehensive analyses need to be carried out to identify appropriate design speed and target speed.

Determining safe speeds can be implemented through continuous observation of roads, conditions, and speeds, and making necessary adjustments, thus ensuring careful and considerate driving. Continuous monitoring and enforcement may be undertaken, making sure that the selected speed is suitable for the circumstances. Regular reviewing of the effectiveness of the speed choice is essential, as it will assist in identifying necessary amendments to be made.

Table 12: Prioritized List of Speed Management Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS CRASH PROFILE(S) | SAFE SYSTEM STRATEGY |
|---|--|-------------------------|-----------------------|---------------|----------|------------------------|------------------------|---|
| Appropriate Speed Limits for All Road Users | States and local jurisdictions should set appropriate speed limits to reduce the significant risks drivers impose on others—especially vulnerable road users—and on themselves. When setting a speed limit, agencies should consider a range of factors such as pedestrian and bicyclist activity, crash history, land use context, intersection spacing, driveway density, roadway geometry, roadside conditions, roadway functional classification, traffic volume, and observed speeds. | 0.86 (2928, 4-Star) | All | \$ | Near | All | Speed | Manage Vehicular Speeds |
| Lane Narrowing | Lane narrowing can encourage motorists to travel at slower speeds, which can reduce the severity of crashes. These traffic calming measures reduce the width of a section of roadway in a gradual manner. The effect of this measure is to reduce speed and discourage nonlocal traffic. Motorists react to this measure with slower speed because of a concern of a limited travel path. | 0.58 (7827, 3-Star)l | All | \$\$ | Medium | C3R, C3C, C4, C5 | Speed | Manage Vehicular Speeds, Implement Enforcing Features to Slow Traffic |



Roadway Departure

Engineering countermeasures play a vital role in preventing roadway departures, where a vehicle unintentionally strays away from its designated lane. Roadway departures account for over half of all traffic fatalities in the United States. If drivers cannot clearly identify the edge of the travel lanes and see the road alignment ahead, the risk of roadway departure may be greater.

Tools such as roadside barriers, which include guardrails and median barriers, play an essential role in preventing vehicles from colliding with fixed objects or veering off

steep slopes. Furthermore, the utilization of rumble strips or wider edge lines offer effective methods to alert possibly distracted or fatigued drivers when their vehicle begins to divert out of its lane and space to react accordingly. Creating defined zones free from obstacles can also substantially decrease the severity of roadway departures, offering a safe area for a vehicle to rest in case it leaves the road. Implementation of skid-resistant pavements can contribute to preventing departures caused by slipping or skidding during unfavorable weather conditions by providing additional traction.

Table 13: Prioritized List of Road Departure Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|--|---|------------------------|--|---------------|----------|------------------------|-------------------------|--------------------------|
| Wider Edge Lines | Wider edge lines enhance the visibility of travel lane boundaries compared to traditional edge lines. Edge lines are considered “wider” when the marking width is increased from the minimum normal line width of 4 inches to the maximum normal line width of 6 inches. | 0.64 (4737, 4-Star) | Automobiles, Motorcycles, CMVs, and Bicycles | \$ | Near | C1, C2, C2T, C3R | Head-On and Off-Road | Manage Conflicts in Time |
| Longitudinal Rumble Strips and Stripes | Pavement treatments that create noise and vibration inside the vehicle that alert a driver as they cross the center or edge line to get the attention of a distracted or drowsy driver or under low visibility conditions. | 0.75 (7267, 5-Star) | Automobiles | \$\$ | Medium | C1, C2 | Head-On and Off-Road | Manage Conflicts in Time |
| Median Barriers / Raised Median | Barriers in the center of the roadway that physically separate opposing vehicular traffic and controls access to and from side streets and driveways, reducing conflict points. Raised barriers in the center portion of the street or roadway are appropriate in some locations and not appropriate in others. They also provide a pedestrian benefit, because they can serve as a place of refuge for pedestrians who cross a street midblock or at intersections. They provide space for street trees and other landscaping which, in turn, can help reduce speeds by changing the character of a street. They also have benefits for motorist safety when they replace center turn lanes. | 0.14 (72, 3-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Medium | All | All | Remove Severe Conflicts |



Signalization

Improvements in signalization are a significant factor in ensuring safer roadways. Enhancing elements of traffic control can considerably impact driver behavior, reducing confusion, uncertainty, and errors that may lead to crashes. Safe roadways rely heavily on clear, visible signage and signalization.

Updated signs providing drivers with information about road conditions, speeds, and directions are crucial in helping them make informed decisions. Implementing dynamic signs that change based on real-time conditions, such as digital warning signs can further enhance safety.

Table 14: Prioritized List of Signalization Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|---|---|-------------------------|-----------------------|---------------|----------|------------------------|-------------------------|--|
| Leading Pedestrian Interval and Pedestrian Recall | This is a modification to existing signal timing that allows pedestrians to enter intersections before vehicles are given a green indication allowing them to better establish their presence and increase their visibility. | 0.90 (559, 5-Star) | Pedestrian | \$ | Near | C4, C5, C6 | Pedestrian | Manage Conflicts in Time |
| Midblock Pedestrian Signal (MPS) | The MPS supports “complete streets,” a transportation policy and design approach that calls for roadways to be consistently designed and operated with all users in mind: bicyclists, public transportation users, drivers, and pedestrians of all ages and abilities. | 0.82 (11181, 4-Star) | Pedestrian | \$\$ | Near | C3C, C4, C5, C6 | Pedestrian | Manage Conflicts in Time, Increase Attentiveness and Awareness |
| Exclusive Pedestrian Phasing | The exclusive pedestrian phase stops all vehicular movement and allows pedestrians access to cross in any direction at the intersection, including diagonally. This allows for better movement of vehicles and permits pedestrians to cross without vehicle interference, thereby reducing the potential for auto/pedestrian conflicts and collisions. | 0.65 (330, 3-Star) | Pedestrian | \$ | Medium | C4, C5, C6 | Pedestrian | Manage Conflicts in Time |
| Bicycle Signal / Exclusive Bike Phase | A separate bicycle phase including in signalization reduces conflicts between motor vehicle, transit vehicles, and pedestrian movements. | N/A | Bicycle | \$ | Medium | C4, C5, C6 | Bicycle | Manage Conflicts in Time |
| Backplates with Retroreflective Borders | Retroreflective Signal Back Plates can be added to a traffic signal to improve the visibility of the illuminated face of the signal by introducing a controlled-contrast background. Signal heads that have backplates equipped with retroreflective borders are more visible in both daytime and nighttime conditions, reducing visibility issues for motorists. | 0.90 (277, 5-Star) | All | \$ | Near | All | Intersection-related | Increase Attentiveness and Alertness |



Intersections and Roadways

Intersection enhancements are a crucial aspect of enhancing road safety since intersections frequently serve as points of conflict among pedestrians, cyclists, and motorized vehicles. Measures such as enhancing lighting, using larger or reflective signage, creating high visibility crosswalks, and removing sight obstructions at intersections

can significantly minimize crashes. The geometric design of the intersection, too, plays a pivotal role in road safety. Configurations such as roundabouts, traffic islands, raised intersections, and adequate turning lanes streamline traffic flow and minimize points of conflict.

Table 15: Prioritized List of Intersection Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|--|---|-------------------------|------------------------------------|---------------|----------|---------------------------|-------------------------|--|
| Access Management/ Reduce Driveway Density | Access management can improve safety by reducing the number of conflict points—particularly those involving unsignalized left turns from driveways. In specific situations, access management can also reduce delay by separating conflicting movements. Possible strategies to reduce the number of driveways over time include the use of shared access to serve more than one property, or the planning and development of additional roadways to provide connectivity and complementary mixed uses to minimize the need for multiple parking areas. | N/A | All | \$\$\$ | Long | All | Intersection-related | Remove Severe Conflicts |
| Dedicated Left- and Right-Turn Lanes at Intersections | Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Right-turn lanes have been widely implemented as an effective countermeasure of reducing traffic delay and number of conflicts between vehicles at signalized intersections. As drivers enter the right-turn lane, they can easily see pedestrians crossing or about to cross the right-turn lane. | 0.53 (269, 4-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Medium | All | Intersection-related | Remove Severe Conflicts |
| Change Right-Turn Lane Geometry to Increase Line of Sight (Intersection Level) | These modifications improve safety by increasing the line of sight of approaching through traffic. Changes made to study approaches include: sharpening the flat approach angle typical in the traditional design, reducing the radius, adjusting the stop/yield bar position, and/or modifying the corner island. | 0.56 (8428, 4-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Medium | C2T, C3R, C3C, C4, C5, C6 | Intersection-related | Remove Severe Conflicts |
| Reduced Left-Turn Conflict Intersections (RCUT) | The RCUT intersection design modifies the direct left-turn and through movements that drivers make from cross-street approaches. In an RCUT design, cross-street vehicles make a right turn followed by a U-turn at a designated location before continuing in the desired direction, reducing conflict points. | 0.80 (10382, 4-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Long | C2T, C3R, C3C, C4, C5, C6 | Intersection-related | Manage Conflicts in Time, Increase Attentiveness and Awareness |

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|---|--|-------------------------|------------------------------------|---------------|----------|------------------------|-----------------------------|--|
| Roundabouts | Roundabouts are a type of intersection in which vehicles travel around a central island almost continuously. Roundabouts offer a lower-maintenance solution with improved safety performance over comparable intersections, especially in reducing the number of severe crashes. | 0.21 (10435, 4-Star) | All | \$\$\$ | Medium | All | Intersection-related | Remove Severe Conflicts, Manage Vehicular Speeds |
| Systemic Application of Multiple Low-Cost | This systemic approach to intersection safety involves deploying a package of multiple low-cost countermeasures, including enhanced signing and pavement markings, at a large number of stop-controlled intersections within a jurisdiction. These countermeasures increase driver awareness and recognition of the intersections and potential conflicts. | 0.81 (8893, 4-Star) | All | Varies | Varies | All | Intersection-related | Remove Severe Conflicts, Manage Vehicular Speeds, Increase Attentiveness and Awareness |
| Centerline Hardening | Physical elements on the centerline, like bollards and rubber curbs encourage slower vehicle turns. A hardened centerline creates physical separation between travel directions, guides motorists, and reduces their turning speed. Centerline hardening may be accomplished with rubber curbs or bollards installed on the yellow center line near an intersection and continued past a crosswalk. | N/A | All | \$ | Near | C4, C5, C6 | Intersection-related, Speed | Manage Vehicular Speeds, Increase Attentiveness and Alertness |
| Median U-Turn Intersection (MUT) | A full MUT intersection reroutes both major street and minor street left-turning vehicles through one-way median openings located several hundred feet from the main intersection, offering increased capacity and safety. This eliminates all left turns from the main intersection, reducing conflict points. It also allows two-phase signal controls at the intersection and the signalized U-turn crossovers. | 0.65 (629, 5-Star) | Vehicles | \$\$\$ | Short | All | Intersection-related, Speed | Increase Attentiveness and Alertness, Manage Vehicular Speed |
| Modify Skewed Intersections (Less than 75 Degrees) to a Right Angle | The intersection angle between two roadways has a significant influence on the safety and operation of an intersection. Intersection angles are to be as close to 90 degrees as practical. Intersection angles less than 75 degrees should be modified to a right angle. | 0.55 (549, 3-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Medium | All | Intersection-related | Remove Severe Conflicts |
| TWLTL (Two-Way Left Turn Lane) with Raised Median | Two-way left turn lanes provide for left turns in both directions of travel, except near signalized intersections where the center turn lane transitions to a conventional left-turn lane for one direction of travel. TWLTLs generally result in an overall crash reduction of approximately 33 percent as compared to undivided roadways. | 0.70 (10375, 4-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Medium | C1, C2 | Intersection-related | Manage Conflicts in Time |



Pedestrian Facilities

Pedestrian safety countermeasures are crucial in creating safe roadways for all users. The implementation of engineering solutions such as crosswalk enhancements (high-visibility crosswalk markings, raised crosswalks, pedestrian refuge islands), signal improvements (pedestrian countdown timers, lead pedestrian intervals) together will help to save lives. The introduction of suitable signage and lighting to enhance visibility and

integration of advanced technology can also support ongoing pedestrian safety. Alongside these, education programs and enforcement of traffic laws contribute to cultivating safer behaviors among drivers and pedestrians alike. These countermeasures, when executed in a comprehensive and context-sensitive manner, can significantly improve pedestrian safety on our streets.

Table 16: Prioritized List of Pedestrian Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|---|---|-----------------------|------------------------------------|---------------|----------|------------------------|-------------------------|--|
| Crosswalk Visibility Enhancements | Poor lighting conditions, obstructions such as parked cars, and roadway curvature can reduce the visibility of people using crosswalks. For multilane roadway crossings where vehicle volumes are in excess of 10,000 Annual Average Daily Traffic (AADT), a marked crosswalk alone is typically not sufficient to ensure safe crossing. Three main crosswalk visibility enhancements help make pedestrians, bicyclists, wheelchair and other mobility device users, and transit users using crosswalks more visible to drivers. These enhancements can also assist users in deciding where to cross. | 0.60 (280, 2-Star) | Pedestrian | Varies | Varies | All | Pedestrian | Manage Conflicts in Time, Increase Awareness and Attentiveness |
| Rectangular Rapid Flashing Beacons (RRFB) | A RRFB is a pedestrian-activated flashing light with signage to alert motorists of a pedestrian crossing. It improves safety by increasing the visibility of marked crosswalks and provides motorists a cue to slow down and yield to pedestrians. This is a low-cost countermeasure to increase driver compliance in yielding to pedestrians at midblock locations. | 0.31 (652, 4-Star) | Pedestrian | \$\$ | Near | C4, C5, C6 | Pedestrian | Manage Conflicts in Time, Increase Awareness and Attentiveness |
| Medians and Pedestrian Refuge Islands | A median is the area between opposing lanes of traffic, excluding turn lanes. Medians in urban and suburban areas can be defined by pavement markings, raised medians, or islands to separate motorized and non-motorized road users. A pedestrian refuge island (or crossing area) is a median with a refuge area that is intended to help protect pedestrians who are crossing a road. | 0.14 (502, 3-Star) | Automobiles, Motorcycles, and CMVs | \$\$\$ | Medium | All | Intersection-related | Remove Severe Conflicts |

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|--|---|-------------------------|-----------------------|---------------|----------|------------------------|---|--|
| Pedestrian Hybrid Beacons or High-Intensity Activated Crosswalk (PHB or HAWK) | The PHB or HAWK notifies oncoming motorists to stop with a series of red and yellow lights. Unlike a traffic signal, the PHB rests until a pedestrian activates it via pushbutton or other form of detection. This traffic control device is designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections. The beacon head consists of two red lenses above a single yellow lens that activate in a flashing sequence to direct motorists to slow and stop and provides the right-of-way to the pedestrian to safely cross the roadway. | 0.88 (611, 5-Star) | Pedestrian | \$\$\$ | Near | C4, C5, C6 | Pedestrian | Manage Conflicts in Time, Increase Awareness and Attentiveness |
| Add Walkways / Sidewalks | Adding sidewalks provides a separated and continuous facility for people to walk along the roadway, providing safe distance for people walking with conflicting vehicle travel. | 0.60 (665, 4-Star) | Pedestrian | \$\$\$ | Near | C3R, C3C, C4, C5, C6 | Pedestrian | Remove Severe Conflicts |
| Horizontal Deflection (Curb Extensions, Bulb Outs, or Edge Islands) | These are traffic calming measures that extend sidewalks at crossing locations. Curb extensions shorten the crossing distance, and provide additional space at intersections, allowing pedestrians to see and be seen before entering a crosswalk. | N/A | Pedestrian | \$ | Near | C4, C5, C6 | Pedestrian, Intersection-related, Speed | Manage Vehicular Speeds, Manage Conflicts in Time |
| Install/Upgrade Pedestrian Crossing at Uncontrolled Locations, Adding Crosswalks on All Approaches | Marked crossings can channelize pedestrian travel and alert drivers that people may be crossing the roadway. Crosswalks occur at all intersections and the marking of crosswalks on all approaches helps drivers better identify the intersection and guides pedestrians to the best crossing location. | 0.82 (11181, 4-Star) | Pedestrian | \$ | Near | C3R, C3C, C4, C5, C6 | Pedestrian | Increase Attentiveness and Alertness, Manage Conflicts in Time |
| Raised Crosswalk | Raised crosswalks are typically elevated 3-6 inches above the road or at sidewalk level and improve safety by increasing crosswalk and pedestrian visibility and slowing down motorists. The crosswalk is demarcated with paint and/or special paving materials. These crosswalks act as traffic-calming measures that allow the pedestrian to cross at grade with the sidewalk. | 0.70 (14, 3-Star) | Pedestrian | \$ | Near | C3R, C3C, C4, C5, C6 | Pedestrian, Speed | Manage Vehicular Speeds, Increase Attentiveness and Awareness |
| Advance Warning Signage and Yield Markings | Advance pedestrian warning signs and pavement markings are used where pedestrian crossings may not be expected by motorists. A yield line placed in advance of pedestrian crossings to indicate where a vehicle stop is intended, increasing visibility of pedestrians and reducing crossing encroachment. | 0.65 (81, 1-Star) | Pedestrian | \$ | Near | C4, C5, C6 | Pedestrian | Manage Vehicular Speeds, Increase Attentiveness and Awareness |

| | | | | | | | | |
|--|---|-----------------------|------------------------|--------|------|------------|------------------------|---|
| Increase Crosswalk Density / Midblock Crossing | Midblock crossings are installed near the midpoint of longer blocks, offering a more convenient location for crossing a roadway. Midblock crossings should have proper markings, signage and/or pedestrian signals to alert drivers. Refuge islands can also be paired with midblock crossings to improve pedestrian safety and comfort, requiring them to only cross one direction of traffic at a time. Traffic calming measures can be implemented on the roadway to further improve safety and comfort for pedestrians using the midblock crossing. | 0.82 (656, 4-Star) | Pedestrian | \$ | Near | C4, C5, C6 | Pedestrian | Manage Vehicular Speeds, Increase Attentiveness and Awareness |
| Grade Separated Pedestrian/ Bicycle Crossings | A grade-separated crossing provides continuity of a bicycle/pedestrian facility over or under a barrier. A bicycle/ pedestrian crossing structure may be either a bridge or an underpass. | 0.70 (14, 3-Star) | Pedestrian and Bicycle | \$\$\$ | Long | All | Pedestrian and Bicycle | Remove Severe Conflicts |
| Short Blocks with Marked Crosswalks | If used in conjunction with marked crosswalks, short blocks of less than 500 feet reinforce low-speed and pedestrian-supportive contexts. | N/A | Pedestrian and Bicycle | \$\$\$ | Long | C4, C5, C6 | Pedestrian and Bicycle | Manage Vehicular Speed, Increase Attentiveness and Alertness |



- ❖ Pedestrian scale lighting
- ❖ Appropriate design speed
- ❖ Landscaping strip and tree canopy
- ❖ Multi-use path with crosswalk improvements
- ❖ Pedestrian refuge
- ❖ Restricted left turns and vertical deflection



Bicycle Facilities

Ensuring bicycle safety is an essential part of building safer roads. Deploying countermeasures such as the creation of dedicated bike lanes, bike boxes, and bicycle-specific traffic signals can help cater to the need of cyclists on the road and better protect them from harm. Intersection improvements, enhanced signage, and protected paths particularly along popular biking routes are

important to ensure good visibility for both cyclists and motorists. Innovative technology and regular road maintenance together can also help to ensure direct, smooth and obstacle-free bike travel to substantially foster safer bike travel. By incorporating these bicycle safety improvements in a comprehensive transportation safety framework, Charlotte County can become more bike-friendly and safer for all road users.

Table 17: Prioritized List of Bicycle Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|--|---|-------------------------|------------------------|---------------|---------------|------------------------|-------------------------|---|
| On-Road Bicycle Lanes (Not Buffered) | Bicycle lanes located on both sides of the road. Since bicyclists must periodically merge with motor vehicle traffic, bike lanes should not be separated from other motor vehicle lanes by curbs, parking lanes, or other obstructions. Bicycle lanes are the preferred bicycle facility type on curbed roadways with a design speed ≤ 45 mph. Placement of road signs and pavement markings along roadways that do not have separated bicycle facilities should consider the roadway context, traffic volumes and prevailing speeds. | 0.44 (618, 4-Star) | Bicycle | \$\$ | Medium | C3R, C3C, C4, C5, C6 | Bicycle | Remove Severe Conflicts, Manage Conflicts in Time |
| Bicycle Lanes with Buffer or Vertical Separation | A bike lane that is separated is a cycling path located either on the road or beside it, which is physically divided from motor vehicle lanes using vertical structures like bollards, flexible posts, raised markers, planters, concrete dividers, or parked vehicles. The term "separated bike lane" is officially acknowledged by the FHWA. "Vertical separation" is also a major factor in reducing "Level of Traffic Stress" for bicyclists, per the latest FDOT Multimodal Quality/Level-of-Service Handbook. | 0.64 (10435, 4-Star) | Bicycle | \$\$ | Medium | C3R, C3C, C4, C5, C6 | Bicycle | Remove Severe Conflicts, Increase Attentiveness and Alertness |
| Buffer for Existing Bicycle Lanes | Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. | N/A | Bicycle | \$\$ | Medium | C3R, C3C, C4, C5, C6 | Bicycle | Remove Severe Conflicts, Increase Attentiveness and Alertness |
| Shared Use Path | Shared use paths are paved facilities physically separated from motorized vehicular traffic by an open space or barrier. Shared use paths are used by bicyclists, pedestrians, skaters, runners and others. | 0.75 (515, 2-Star) | Bicycle and Pedestrian | \$\$\$ | Medium - Long | C3R, C3C, C4, C5, C6 | Bicycle and Pedestrian | Remove Severe Conflicts |

THE IMPORTANCE OF TRAILS

Throughout Charlotte County, there are a variety of trails designed for safe biking and walking, making it an attractive destination for outdoor enthusiasts. Well-known trails include the Cape Haze Pioneer Trail; which provides a scenic route along the western coast of the county, the Punta Gorda Linear Park; which offers a paved path through the heart of Punta Gorda; and connected trail systems through the Babcock/Webb Wildlife Management Area, which offers ample opportunity to view Florida wildlife. These trails, among others, cater to both recreational cyclists and walkers, providing a safe and enjoyable way to experience the natural beauty of the area without conflict of vehicles.

Looking to the future, funding for trail development and maintenance in Charlotte County is anticipated through FDOT's Shared-Use Nonmotorized (SUN Trail) Network program. This program allocates resources to develop regional trail systems that are safe and accessible for all users. The MPO's LRTP highlights a commitment to expanding bicycle and pedestrian infrastructure, which aligns with local advocacy efforts by groups like the Coastal Cruisers Bicycle Club and the Peace River Riders Bicycle Club. These groups not only advocate for improved trail systems but also work promoting safe cycling practices and organizing regular rides that cover various distances and speeds.

Overall, the collaborative efforts between local advocacy groups, the MPO, and the FDOT SUN Trail program ensure a focused approach toward creating a safer and more extensive network of trails in Charlotte County. These initiatives will continue to enhance the cycling and walking experiences for residents and visitors, promoting a healthier and more active community.



Crosscutting Engineering Countermeasures

Cross-cutting transportation safety countermeasures are broad approaches that enhance safety across multiple modes of transport, addressing the needs of motorists, cyclists, and pedestrians alike. These countermeasures, implemented in an integrated manner, can contribute significantly to making transportation systems safer and more efficient.

Table 18: Prioritized List of Crosscutting Engineering Countermeasures

| COUNTERMEASURE | DESCRIPTION | CMF | MODAL SAFETY EMPHASIS | CAPITAL COSTS | TIMELINE | CONTEXT CLASSIFICATION | FOCUS COLLISION PROFILE | SAFE SYSTEM STRATEGY |
|---|--|-----------------------|-----------------------|---------------|----------|------------------------|--------------------------------|---|
| Intersection and Roadway Lighting | Lighting improves safety by increasing visibility of all road users, and is most effective at reducing or preventing collisions at night. Adequate lighting (i.e., at or above minimum acceptable standards) is based on research recommending horizontal and vertical illuminance levels to provide safety benefits to all users of the roadway environment. Adequate lighting can also provide benefits in terms of personal security for pedestrians, wheelchair and other mobility device users, bicyclists, and transit users as they travel along and across roadways. | 0.68 (433, 4-Star) | All | \$\$\$ | Medium | All | Lighting, Intersection-Related | Increase Attentiveness and Alertness |
| Pavement Friction Management / High Friction Surface Treatment (HFST) | Friction is a critical characteristic of a pavement that affects how vehicles interact with the roadway, including the frequency of crashes. Measuring, monitoring, and maintaining pavement friction—especially at locations where vehicles are frequently turning, slowing, and stopping—can prevent many roadway departure, intersection, and pedestrian-related crashes. Treatments, such as HFST, can be better targeted and help motorists maintain better control in both dry and wet driving conditions. | 0.76 (23, 4-Star) | Automobiles, CMVs | \$\$\$ | Medium | All | Off-Road, Intersection-Related | Increase Attentiveness and Alertness, Manage Conflicts in Time |
| Complete Streets | Complete Streets are streets designed and operated to provide safety and support mobility for ALL users. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Streets approaches will vary based on community context. They may address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. | N/A | All | \$\$\$ | Long | C4, C5, C6 | All | Manage Conflicts in Time, Manage Vehicular Speeds, Increase Attentiveness and Awareness |



ENFORCEMENT COUNTERMEASURES

Enforcement countermeasures in this CSAP work hand-in-hand with other components to form a holistic strategy aimed at ensuring everyone’s safety on Charlotte County’s streets. These tactics target high-risk behaviors, including speeding, impaired driving, distracted driving, and non-compliance with yielding rules, among others. The emphasis is not solely on punishment, but rather on creating clear incentives for safe, legal behavior and a strong understanding of the consequences of unsafe actions. Data-driven enforcement, primarily focusing on high-incidence locations and high-risk times, is integral to this approach.

Continual monitoring and reevaluation of these countermeasures will also be crucial to ensure they remain effective and evolve over time. This requires close coordination with law enforcement agencies, traffic operations professionals, and the wider community. Furthermore, it will be crucial that identified passive and active enforcement measures treat all road users equitably, contributing to the overall goal of enhancing trust and cooperation between law enforcement and the communities they serve.

Table 19: Prioritized List of Enforcement Countermeasures

| COUNTERMEASURE | DESCRIPTION |
|--|--|
| Targeted Enforcement and Deterrence | Targeted enforcement and deterrence contribute significantly to the reduction of transportation crashes. The strategy involves the focused application of traffic laws’ enforcement on high-risk behaviors that are known to cause accidents, such as drunk driving, speeding, and neglect of safety gear like seat belts or helmets. Using data on accident hotspots and the common causes of crashes, law enforcement can increase their presence and check activities in these areas for greater deterrent effect. Furthermore, the implementation of penalties, such as fines, license suspension, or jail sentences, serve as strong deterrents to risky behavior. Through vigilant oversight and disciplinary measures, it is possible to discourage such behaviors, promote safe driving practices, and extensively reduce traffic crashes. |
| Road Ranger Service Patrol | Road Ranger Service Patrol generally consists of trained personnel who use specially equipped vehicles to patrol congested highways searching for and responding to traffic incidents. General services include pushing vehicles out of travel lanes, providing gasoline, changing flat tires, and providing minor repairs to help motorists safely drive their vehicle from the highway. The FDOT Road Ranger program also allows motorists two local phone calls if necessary. Road Ranger Service Patrol vehicles are equipped with warning lights or a variable message sign alerting traffic to move over. |
| Neighborhood Slow Zones | Implementing a neighborhood slow zone program to permit neighborhoods to request treatments to decelerate motor vehicles to 15 to 20 mph using traffic calming features, signs, and markings proves instrumental in improving transportation safety. The selected locations for this program are typically areas serving children, seniors, public transit users, and those engaged in commercial activities or pedestrian/bicycle movements. By reducing vehicle speed, the risk of severe injuries or fatalities in the event of a crash significantly diminishes, thus making the neighborhood safer. |
| Speed Safety Cameras | Enforcing safe speeds has been challenging; however, with more information and tools communities can make progress in reducing speeds. Agencies can use speed safety cameras (SSCs) as an effective and reliable technology to supplement more traditional methods of enforcement, engineering measures, and education to alter the social norms of speeding. SSCs use speed measurement devices to detect speeding and capture photographic or video evidence of vehicles that are violating a set speed threshold. |
| Speed Feedback Signs | Speed feedback signs notify drivers of their current speed, usually followed by a reminder of the posted speed limit, providing a cue for drivers to check their speed and slow down. |
| School Bus Cameras | With the passing of Florida Senate Bill 766, school buses are now being affixed with cameras that can detect when a person illegally passes a school bus in a vehicle. Several jurisdictions and school districts are piloting the technology, proving opportunity for enforcement and safety needs specific to local youth. |
| School Zone Speed Cameras | These smart devices detect people speeding in school zones. In accordance with Florida Senate Bill 657, tickets are sent in the mail to the registered owner of vehicles captured traveling more than 10 miles per hour over the posted school zone limit while the school zone is activated. Several communities and school districts are piloting the technology. |
| Occupant Protection Enforcement Training | Provide law enforcement officers training, tools, and resources to increase compliance with occupant protection and child passenger safety laws, including unattended passenger laws, and increase seat belt use among officers. This concept highlights the importance of equipping law enforcement officers with the necessary training, tools, and resources to effectively enforce occupant protection and child passenger safety laws, which include statutes against leaving passengers unattended. The primary aim is to increase compliance with these critical laws, thereby enhancing the overall safety of vehicle occupants. |
| Public Traffic Safety Professionals Training | The Florida Department of Transportation (FDOT) State Safety Office plays an instrumental role in promoting road safety education by providing subgrants to various local agencies. These subgrants primarily focus on enhancing the standard of training in areas such as the enforcement and prosecution of impaired driving, proficiency in pedestrian and bicycle laws, traffic crash investigation and documentation, and homicide investigation procedures. It also includes unique training for motor unit officers and improving expertise in speed measurement techniques. By investing in such education, the FDOT State Safety Office empowers Florida’s traffic safety professionals to deal effectively with traffic situations and promote safer roadways for all users. |



EDUCATION AND POLICY COUNTERMEASURES

Education countermeasures represent a pivotal component of the CSAP, aimed at fostering road safety awareness and instilling safe behaviors among all road users in Charlotte County. The overall goal of these educational strategies is to inform, engage, and influence road users, changing habits and attitudes about what is acceptable behavior on our roads. Acknowledging the importance of a proactive, preventive approach, these interventions specifically target the key factors that cause serious road injuries and fatalities.

Clear, current and enforced policies and regulations set the standard for safe behavior on the roads and are a key part of a comprehensive approach to roadway safety.

The initiatives range from public-awareness campaigns, school-based programs driver education, policy needs, workshops designed to educate around key areas such as distracted driving, impaired driving, speeding, pedestrian safety, and cycling safety. These programs harness various methods and platforms, including traditional media, social media, community events, and in-person training. Each of the education countermeasures should be closely integrated with enforcement, engineering, and policy efforts, creating a comprehensive approach to safety.

Countermeasures included herein also include the continued exploration of grant opportunities and the deployment of innovative countermeasures, such as low-cost, quick build demonstration projects in Charlotte County. Securing grants not only provides crucial funding to support our safety initiatives, but also helps us build strong partnerships with safety advocates, leverage additional resources, and implement evidence-based practices.

Maintaining a proactive approach in identifying and applying for grants and staying abreast of advancements in road safety infrastructure can help us leverage resources efficiently. Equally important is the continuous monitoring and evaluation of these initiatives. This allows for continued review of crash reduction effectiveness, make data-driven decisions, and if successful, incorporate these novel countermeasures into long-term planning.

Quick build demonstration projects offer an exciting avenue for testing new safety measures and offering an educational resource for community understanding of potential safety countermeasures. These short-term, low-cost interventions—using temporary materials to create traffic calming measures, protected bike lanes, pedestrian plazas, and more—can demonstrate the potential benefits of safety improvements in real-world conditions, raising community awareness, and support for permanent changes.

The success of educational countermeasures hinges on effective engagement with local communities, policymakers, stakeholders, and advocacy groups. These collaborations play a crucial role in customizing education efforts to cater to the local context, culture, and specific road safety challenges of Charlotte County. As such, the continued meeting of the Task Force as a part of the development of this Action Plan will be of fundamental use as countermeasures continue to be deployed and progress is tracked to the Vision Zero goal. Continued collaboration on Florida’s paid media campaigns can continue to support the following state education:

- **Alert Today, Alive Tomorrow**—increases awareness of and compliance with pedestrian and bicycle laws.
- **Drink + Ride = Lose**—reminds motorcyclists of the risks, as well as physical, legal, and monetary costs associated with riding impaired.
- **Put It Down**—educates motorists to not drive distracted.
- **Railroad Safety**—alerts motorists to look for trains at railroad crossings.
- **Ride Smart**—encourages motorcyclists to not drink and ride, make themselves more visible, always wear a helmet, ride within personal and legal limits, train regularly, and obtain a motorcycle endorsement on their license.
- **Share the Road**—reminds motorists to look for and share the road with motorcyclists.

- **Stop Speeding Before It Stops You**—prompts motorists to slow down and not exceed speed limits.
- **Work Zone Safety**—advises motorists to drive safely in active work zones

Continual evaluation and refinement of countermeasures implemented will better ensure that measures remain relevant, impactful, and build on best practices. Through these education countermeasures, FDOT aims to shape safer road-use behaviors and attitudes, bringing us closer to the goal of zero KSI crashes on our roads.

Education and outreach for youth can instigate a ripple effect; the safety awareness nurtured in them can then be disseminated within their families and communities.

As an important means of targeting educational opportunities where they may be needed the most, community spaces closest to the HIN, especially the Pedestrian and Bicycle HINs or in communities that exhibit higher may be prioritized. Additionally, given the review of socially vulnerable and/or transportation disadvantaged communities completed through the data driven analysis, public outreach campaigns, road safety audits may be targeted through continued implementation of the CSAP.



Table 20: Prioritized List of Education Countermeasures

| COUNTERMEASURE | DESCRIPTION |
|--|---|
| Update Policy and Regulation to Implement Roadway Safety | Updating policy and regulation is a crucial step to implement roadway safety. Regulatory changes could involve stricter enforcement of traffic laws, implementing new laws that cater to all road users including pedestrians and cyclists, or updating existing laws to match current road conditions and safety standards. Policies might include requirements for regular safety audits of infrastructure, guidelines for improved crash data collection, or frameworks to ensure the safe incorporation of new technologies such as autonomous vehicles on public roads. These changes must involve regular review processes to ensure their continued effectiveness and relevance as roadway and vehicle technologies evolve. |
| Safe Routes to School | Safe Routes to Schools events and Walking School Buses significantly improve transportation safety. These initiatives involve organizing a group of children who walk or bike to school together under the supervision of one or more adults. By creating a designated, safe route for children to follow, safety from transportation-related accidents is enhanced. Not only does it reduce traffic congestion around schools during drop-off and pick-up times, but it also increases awareness among motorists about the presence of young, vulnerable road users. These initiatives also instill good road safety habits at an early age, like using crosswalks, respecting traffic signals, and observing bicycle safety rules, which contributes towards a safer traffic environment in the long run. |
| Pilot Demonstration Safety Projects | Pilot or quick build projects play a crucial role in improving transportation safety. These are short-term, low-cost, and scalable interventions aimed at enhancing safety on the streets. They involve temporary changes like installing bollards or planters to create bike lanes, creating pedestrian plazas with seating and green space, or painting crosswalks to make them more visible. Pilot projects allow for quick implementation to immediately improve safety while gathering data and public feedback before making permanent infrastructure changes. They can positively reconfigure streets for all users - motorists, cyclists, and pedestrians alike. Such projects stimulate real-time community engagement in the planning process and offer important opportunities to identify pre- and post-crash outcomes and the effectiveness of crash modifications. |
| Educational Materials on New Roadway Design Changes | Temporary demonstrations, like pop-up installations, can physically showcase proposed safety infrastructure and emergency response to the public in a tangible way. Creating educational materials and a public outreach campaign focused on new types of roadway designs and pilot projects could direct community conversations for meaningful outcomes. |
| Education Campaigns Targeting Dangerous Roadway Behavior | Education campaigns targeting risky roadway behaviors can significantly improve transportation safety. These campaigns aim to change behaviors like distracted driving, speeding, drunk driving, not wearing seat belts, or neglecting pedestrian and bicycle safety rules, all of which are major contributors to road accidents. Through widespread public awareness efforts, which could include advertising campaigns, community events, educational programs in schools, or partnerships with local businesses and organizations, these initiatives strive to inform the public about the dangers of such behaviors. By promoting safer habits on the road, emphasizing the potential consequences of risky behavior, and appealing to personal responsibility for both personal safety and that of others, these educational campaigns can drive behavior change, reduce accidents, and consequently enhance overall road safety. |
| Education Campaigns for Vulnerable Groups | Education campaigns with vulnerable social groups significantly improve transportation safety. These campaigns spread awareness about potential risks and instill cautious road practices amongst groups such as children, the elderly, immigrants, or low-income populations who often face higher risks due to lack of information, access to safety equipment, or understanding of local traffic rules. By providing these groups with tailored educational materials, offering training on safe road use, or distributing safety equipment like helmets or reflective gear, education campaigns help in mitigating risks, reducing accidents, and ultimately enhancing overall road safety. |
| Bicycle Helmet Fittings | Bicycle helmet fittings play a critical role in improving transportation safety. Helmets reduce the risk of head and brain injuries in case of a crash, but for maximum protection, they need to fit correctly, not too tight or too loose. This safety gear plays an indispensable role in minimizing the impact of injuries during accidents, incredibly reducing cyclists' vulnerability to fatal injuries. |
| Youth Education | Outreach with youth is a key approach in improving transportation safety. Young people are often the most vulnerable on the roads, as pedestrians, bicyclists, and novice drivers. By targeting safety education to this group, we can instill safe habits early. This could involve school visits from traffic police or safety experts to provide interactive workshops and presentations on traffic rules, safe cycling, and pedestrian practices. Strategies could also include road safety related events or competitions, which not only educate but also engage youth in promoting safety. Collaborations with youth organizations can be instrumental in reaching young people with safety messages effectively. Additionally, safety campaigns on platforms favored by youth, like social media or popular apps, can greatly increase visibility and comprehension of safety measures. |

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| Safe Teen Drivers Campaign | This program involves the implementation of school policies that directly link safe, responsible driving practices among teens with student privileges. Privileges can range from parking permits, participation in extracurricular activities, to attendance at school events, which are granted on condition of demonstrating consistent and documented safe driving behavior. This program institutes a proactive, positive-reinforcement approach for cultivating safer driving habits among teens. |
| Bike/Ped Safety Events | Bicycle or pedestrian safety events are an effective measure to increase public awareness about safety matters. They can raise awareness of the importance of observing traffic rules, share knowledge of safety precautions, and create a culture of safety within the community. |
| Educational Materials on Traffic Safety Laws | Partnering with the Florida Highway Safety and Motor Vehicles department as well as the FDOT to develop materials to send to drivers upon renewal of their driver's license or vehicle registration related to new traffic safety laws, how to use traffic control devices, and sharing the dangers of driving under the influence of drugs or alcohol, or not wearing seatbelts or helmets. These materials could be customized at the regional level based on the most pressing crash issues. |
| Share the Road/Bicyclists May Use Full Lane Awareness Programs | The purpose of these programs is to increase drivers' awareness of bicyclists' rights and the need for mutual respect of bicyclists on the roadway in compliance with relevant traffic laws. These programs should be coupled with providing the appropriate signage and pavement markings depending on the roadway characteristics. Bicycles May Use Full Lane signs have been shown to be more effective in conveying to motorists that bicyclists may use the travel lane. |
| Ride Share Promotions | Work with local businesses and organizations to provide free rides or tows to people who are impaired, and provide associated visibility campaigns to those who do. Examples include the AAA Tow to Go Program that allows users to call a taxi or pre-programmed friend. In some communities or the Drunk Driving Prevention Program that serves military bases. |
| DUI Awareness Campaigns | <p>Crashes involving someone driving under the influence are more likely to result in a fatality or serious injury. Strategies generally fall under three categories:</p> <ul style="list-style-type: none">• Deterrence policies focus on raising the actual and perceived risk of detection of driving under the influence. These policies should be highly visible to increase awareness of the risks of driving under the influence. Publicized sobriety checkpoints, saturation patrols, and other forms of high-visibility enforcement are effective for safety outcomes.• Prevention and education policies focus on mobilizing and educating the community and intervening before driving under the influence takes place. According to NHTSA research, alcohol problem assessment and treatment programs, as well as alcohol intervention in settings such as a doctor's office, are highly effective strategies for improving safety outcomes.• Limited access policies focus on making underage access to alcohol and drugs more difficult and seek to limit excessive alcohol consumption. |
| Vehicle Maintenance Campaign | <p>A vehicle maintenance campaign can play a significant role in improving roadway safety. Many accidents each year result from vehicle related issues such as worn-out brakes, underinflated tires, malfunctioning lights, cracked windshields, or other equipment failures. A vehicle in poor condition not only increases the risk of a breakdown that could lead to a crash, but also compromises the driver's ability to respond effectively to emergencies.</p> <p>A well-devised vehicle maintenance campaign aims to educate drivers on the importance of regular vehicle checks and timely repairs. It informs motorists about the potential dangers of neglecting such maintenance, providing practical tips on how to keep their vehicles in safe, working condition.</p> |
| Promote Route Guidance Systems | Smart phones and in-vehicle information systems are used to provide turn-by-turn driving directions to enable drivers to get from origin to destination. Guidance is based on a centralized navigation database, digital maps and often takes into account current and prevailing traffic conditions. This is already being provided through Google and presently, many cars come standard with navigation systems. Maintaining and improving traveler information is important to all the FDOT District 1 stakeholders because the more informed the traveling public is, the less delay occurs, and the more traffic continuously flows. |



POLICY RECOMMENDATIONS

The policy review examined core policies, plans, guidelines, and standards related to local transportation and land use in Charlotte County and the City of Punta Gorda. The review also included federal, state, and local documents to ensure best practices and identify opportunities for data integration and continued performance tracking. The review outlined opportunities and perceived barriers in reaching zero fatal and severe traffic injuries in the MPO region and inform future policy decisions for MPO, Charlotte County, city of Punta Gorda staff. Documents reviewed, as outlined below, offer insight on a variety of contexts and needs. Different levels of planning and design from short-term to long-term perspectives were included to provide an insight on progress towards the goals set out in the CSAP.

Charlotte County

- Charlotte County Comprehensive Plan
- Charlotte County Land Development Regulations
- Charlotte County Bicycle-Pedestrian Master Plan

City of Punta Gorda

- City of Punta Gorda Comprehensive Plan
- City of Punta Gorda Land Development Regulations

Charlotte County-Punta Gorda MPO

- 2045 MPO Long-Range Transportation Plan (LRTP)

FDOT

- Strategic Highway Safety Plan (SHSP)
- US 41 Vision Plan
- Veterans Boulevard Corridor Planning Study
- SR 776 Corridor Planning Study
- FDOT Context Classification Guide
- FDOT Level of Service targets for the State Highway Systems
- FDOT Statewide and Regional Transportation Corridor Planning and Development
- FDOT Traffic Engineering Manual
- FDOT Access Management Guidebook
- FDOT Multimodal Q/LOS Handbook
- FDOT Speed Zoning for Highways, Roads and Streets in Florida
- FDOT D1 Desk Reference Guide

CITY OF PUNTA GORDA AND CHARLOTTE COUNTY

Vision Zero Benchmark Matrix

A part of the policy review was creating a Vision Zero benchmark matrix which assesses the city of Punta Gorda and Charlotte County’s existing policies and programs in relation to Vision Zero elements. Key takeaways include the following:

Strategic Planning

Both the city and the county are involved in agency collaboration toward the reduction of fatal and serious injury crashes. However, to bolster the commitment to reaching the Vision Zero Goal, the city and county should establish a goal and appropriate timeline to reach zero traffic fatalities and serious injuries, with opportunities to track continual progress through the strategic planning processes. This would start with the passing of a Vision Zero resolution among elected officials.

Project Delivery

The city and county both have policies that support transportation safety. These are primarily identified in the Comprehensive Plans and Land Development Code but could be bolstered in review of the comprehensive list of countermeasure recommendations provided through the adoption of the CSAP.

Roadway improvement projects performed both by the City of Punta Gorda and Charlotte County continue to involve safety countermeasures, including innovative intersection design, signalization upgrades, lighting, and bicycle/pedestrian improvements. As a recent example, complete street improvements were recently made to Olean Boulevard as an example that reflect a commitment in providing safe accessibility for all modes of transportation.

Additionally, the 2045 LRTP plans for specific bicycle/pedestrian improvements; however, this report could benefit from a more robust suite of countermeasure options and/or the prioritization of these improvements. There is also opportunity to explore quick-build projects, which were not included elsewhere.

Complete Streets for All

In 2014, the City of Punta Gorda adopted a Complete Streets Ordinance, which is covered in both the Future Land Use and Transportation Elements of the Comprehensive Plan; however, application of complete street elements could be better incorporated into planning practices and/or the land development regulations and/or a complete streets plan could be established. Adequate funding should be provided to support these projects. Charlotte County may consider amending its Comprehensive Plan to consider language specific to complete streets.

Context-Appropriate Speeds

The city and county both have speed management and traffic calming policies; however, these policies could be strengthened to reduce vehicle speeds and unsafe motorist behaviors. Suggestion may be made to adopt new policy that provides procedures on how residents are able to request a neighborhood traffic study through citizen request. A systemic application of speed management measures may be considered, inclusive of targeted enforcement measures in areas where design speed may not directly correlate with the posted speed limit.

Equity-Focused Analysis and Programs

It was not apparent if the city or county include the consideration of demographics or other equity considerations in their planning practices. An equitable approach is being utilized in the development of the CSAP that may be deployed in other countywide initiatives.

Proactive, Systemic Planning

The city routinely reports on crash trends and has used data to identify the most dangerous roads and intersections. A recommendation may be made to correlate data with bicycle and pedestrian improvements and to track progress toward intended goals over time. This includes an assessment of latent pedestrian demand, which is frequently overlooked in transportation decisions. The CSAP presents the opportunity to build upon this approach through greater incorporation of collision data.

Summary of Recommendations

The following offers an overview of recommendations to add or amend policy for the City of Punta Gorda and Charlotte County, for further discussion among both groups. These recommendations are made with the Vision Zero framework in mind. Both comprehensive plans from the City of Punta Gorda and Charlotte County were used to form these recommendations. Here are some examples of some of the policy recommendations:

- Incorporate Traffic Safety Considerations in Land Use Planning (New): Amend land use policies to explicitly include traffic safety assessments. This could involve integrating safety impact analyses into the planning process for new developments, ensuring that land use decisions contribute positively to road safety.
- Establish Guidelines for Pedestrian and Cyclist Safety in Development Plans (New): Develop specific guidelines within the land use element that require future developments to incorporate pedestrian and bicyclist safety features. This could include sidewalk width requirements, safe crossings, and dedicated bike lanes.
- Mandate Mixed-Use Development to Support Reduced Vehicular Traffic (City of Punta Gorda Policy 1.1.14.4 & 1.1.14.5 Modification): Strengthen existing policies to enforce mixed-use development more rigorously. This approach can reduce reliance on vehicles, thereby enhancing safety for all road users.
- Traffic Calming Measures in New Developments (New): Introduce a policy requiring the inclusion of traffic calming measures in new development projects, particularly in areas with high pedestrian activity. This could involve design elements like road narrowing, speed bumps, and raised pedestrian crossings.
- Create a Policy for Safe School Zones (New): Implement a new policy focused on enhancing safety around schools, including considerations for traffic flow, pedestrian crossings, and speed limits in future land use planning.
- Increased Public Engagement (New): Establish mechanisms for regular community input and feedback on street designs and safety improvements.
- Adopt a Complete Streets Policy (New): Create language that reflects complete streets design in both reconstruction projects and new development design standards, accommodating for safe travel for all roadway users.

Review of FDOT guidance and documentation reflects general alignment with the Safe System Approach and use of key countermeasures to reach zero fatalities and serious injuries on Charlotte County’s and Punta Gorda’s roadways, with opportunities for implementation in this CSAP. Key successes from the policy scan include:

- Between the FDOT Traffic Engineering Manual and the FDOT Access Management Guide, most FHWA Proven Safety Countermeasures are being recommended for use.
- Alignment with Vision Zero core elements are strongest for Project Delivery, Complete Streets for All, Strategic Planning, Context-Appropriate Speed, and Proactive and Responsive Planning. Most of the documents reviewed have been recently revised, meaning the institutionalization of these Vision Zero core elements is still ongoing.
- The FDOT Context Classification Guide, the FDOT Access Management Guidebook, the FDOT Traffic Engineering Manual, the FDOT Multimodal Q/LOS Handbook, have all been updated to include emerging and best practices to improve safety for all road users, provide comfortable and safe amenities for people walking and biking, and incorporating the land use and roadway characteristics to be context sensitive.

Additional opportunities to strengthen the connection to safety in routine practices and guidance are outlined in Table 21.

Table 21: FDOT POLICY REVIEW IDENTIFICATION OF BARRIERS AND OPPORTUNITIES

| DOCUMENT | BARRIERS | SOLUTIONS |
|--|--|---|
| US 41 Vision Plan | The current plan has beautification as something that will be prioritized in the short term in contrast with speed reduction, mode choice options, and corresponding safety solutions being made as midterm goals. | Expand the focus on the Safe System Approach, offering explicit strategies for safe vehicles and post-crash care and introduce clear measurable safety performance metrics for ongoing evaluation. |
| Veterans Boulevard and SR 776 Corridor Planning Studies | Some of the recommendations listed are to improve safety for all road users via the use of innovative yet easily implementable countermeasures and promote safer operating speeds within the corridors. | Strengthen focus on integrating pedestrian, bicycle, and transit safety in all improvement strategies. Enhance transparency in data analysis and make safety-related data more accessible to the public for better accountability. |
| FDOT Context Classification | User experience can be difficult as the guide is focused on assessment and existing statewide mapping effort is strictly focused on major roadways. | Consolidate the Context Classification Guide and the primary connecting documents into a concise single document or tool and expand upon the statewide mapping exercise. |
| FDOT Level of Service Targets for State Highway Systems | Difficult to determine triggers that establish an “appropriate Level of Service (LOS)” target vs using the minimum D threshold, especially when considering different capacities and multimodal facilities. | More clearly define when to establish LOS targets along multimodal corridors, develop trade-off to balance LOS and level of traffic stress, as Level of Traffic Stress (LTS) has no minimum threshold. |
| FDOT Statewide and Regional Transportation Corridor Planning and Development | Policy does not clearly correlate safety and operational improvements. | Break apart the guiding principles and further elevate safety improvements above maintaining efficient, reliable and predictably free-flowing transportation corridors. |
| FDOT Traffic Engineering Manual | Countermeasures are not as safety conservative as FHWA and not all FHWA countermeasures are addressed. | Use “median speed” and incorporate missing FHWA countermeasures, or if countermeasures are addressed in other FDOT materials such as the D1 Desk Reference, ensure documents are cross-referenced. |
| FDOT Access Management Guidebook | Difficult to assess how institutionalized the use of the guidebook is among FDOT staff or local jurisdictions. | Develop and distribute before/after case studies of guide usage to promote success and increased use of the guide among FDOT staff. |
| FDOT Multimodal Q/LOS Handbook | LOS minimums could be more safety conservative and no minimum LTS targets are set. | Consider implementing project-specific peak hour LOS thresholds that allow for LOS E in urbanized areas and D in non-urbanized areas. Consider setting LTS targets or developing trade-off thresholds between LOS threshold to improve LTS. |
| FDOT Speed Zoning for Highways, Roads and Streets in Florida | Speed variance for safety does not reflect safety concerns for different modes and use of the 85th percentile for speed. | Consider manual updates to better align with the Safe System Approach, such as median speed, focusing on fatal and severe crashes to inform decisions, and kinetic energy transfer. |

FDOT D1 Desk Reference Guide

The Desk Reference Guide serves as a crucial resource for all FDOT employees, particularly those who are new to the department’s Safe Systems approach. The guidebook is designed to help employees initiate projects that align with the goal of reducing serious injuries and fatalities, especially among vulnerable road users. Key areas covered in the guide include conducting a Road Safety Audit (RSA), utilizing crash data processes and resources, selecting “Gold Star Countermeasures,” and accessing other helpful resources like guidebooks and manuals. These sections collectively aim to improve consistency in decision-making processes involved in implementing roadway projects.

FDOT’s Safe System approach is geared towards eliminating fatal and serious injuries for all road users by adopting a comprehensive perspective of the road system. This approach anticipates human errors and ensures that the impact energy on the human body remains within tolerable levels, thereby emphasizing safety as an ethical responsibility for designers and owners of the transportation system. The guide provides essential information for FDOT employees to effectively implement the Safe System approach in their communities, underlining the importance of safety and systematic planning in roadway projects.



EMERGENCY RESPONSE
COUNTERMEASURES

Emergency response countermeasures play a vital role in both reducing the severity of injuries and improving survival rates when crashes do occur. Rapid, efficient, and effective emergency response can make a significant difference in the outcome of crashes and impact to the lives of people involved in those crashes. The aim of these countermeasures is to minimize the response time to accidents and enhance the quality of initial medical intervention.

This involves efficient coordination between various agencies including the police, fire and rescue services, and medical facilities. It also encompasses enhancements such as the strategic placement of emergency response units, adopting state-of-the-art communication technologies for prompt information flow, and training first responders in advanced trauma life support techniques. Regular drills and collaboration with area hospitals to ensure they’re

equipped to handle trauma cases are part of this process as well.

Moreover, a focus on post-crash care underscores the importance of infrastructure that allows for quick access to crash sites by emergency services. This could affect decisions about road design, signage, and maintenance. The synergistic effect of these emergency response countermeasures, combined with enforcement, engineering, education, and policy initiatives, contributes significantly to our Vision Zero goal. By prioritizing quick and efficient post-crash response, we can significantly improve the likelihood of survival and quicker recovery of those involved in road crashes.

Table 22: Prioritized List of Emergency Countermeasures

| COUNTERMEASURE | DESCRIPTION |
|--|--|
| Improved Response Time and Trauma Care | Effective emergency trauma care coordination can significantly increase crash survival rates and reduce fatalities. MetroPlan Orlando could work with local partners to identify funding sources to improve their existing infrastructure to be able to provide the highest care for victims. Recommended strategies to improve trauma care include providing funding for appropriate first responder equipment (e.g., hydraulic and pneumatic extrication tools), research for and adoption of technology aimed at reducing triage time (e.g., automatic vehicle reporting of severe crashes to EMS, EMS vehicle collision avoidance systems, and geolocation of nearest EMS vehicles), and promotion of federal- and state-certified training programs. |
| Fatal Crash Response Team | In the event of a traffic fatality, analysis and evaluation of relevant contributing factors are crucial in reducing the risk of a severe crash at that location. One strategy would be for the formation of a cross-agency group that mobilizes after each fatal crash, including law enforcement, transportation professionals, and public health officials. This would assist with accurate investigation and documentation of potentially relevant infrastructural and environmental crash factors, while identifying other additional factors that may have contributed to the fatal crash outcome. It can also expedite interventions to improve the crash location/circumstances and address similar risk factor locations and situations. |
| Traffic Incident Management | <p>Traffic crashes increase the likelihood of secondary crashes and pose a threat to the safety of incident responders as well as the traveling public. Crashes also affect travel reliability, commerce, and transportation system performance. Traffic Incident Management (TIM) consists of a planned and coordinated multi-disciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible. Effective TIM reduces the duration and impacts of traffic incidents; improves the safety of motorists, crash victims, and emergency responders; and reduces the frequency of secondary crashes. TIM is an integral component of USDOT’s National Roadway Safety Strategy (NRSS), and is specifically called out as a key element for the post-crash care objective.</p> <p>FDOT is primarily responsible for TIM in the region and utilizes their traffic management centers (TMCs) in each of their districts to manage traffic on the state highway system. Several local jurisdictions also have traffic management centers (TMCs). The incorporation of TIM on additional high crash corridors where systems are not currently deployed could also be considered. FDOT and the University of Central Florida are also working on traffic incident predictions that could provide advanced warnings to first responders when a crash may be imminent based on conditions to allow for first responders to stage closer to potential crash locations or to deploy enforcement teams to prevent the crash.</p> |

| | |
|--|--|
| Deploy Integrated Corridor Management (ICM) to Support Emergency Response | An ICM transportation system is the ultimate objective when it comes to operating and maintaining a complex multi-modal traffic network. ICM involves an integrated approach to transportation along a specific designated corridor or corridors. Multiple agencies and multiple modes are coordinated through the use of shared back office systems and the adoption of compatible strategies. Through an ICM approach, transportation professionals manage the corridor as a multimodal system and make operational decisions for the benefit of the corridor as a whole. Multiple roadway types within the corridor as well as transit and other types of transportation facilities are managed in a coordinated fashion to try to optimize transportation service delivery and align agency strategies. This strategy provides the ability to treat transportation as a single system, increase the operational efficiency of the whole transportation network and maximize the effect of transportation investments. An important aspect of this strategy is the balancing of the system appropriately between all possible roadways and, more importantly, the inclusion of all modes of transportation: the intricate network of arterials, freeways, transit, freight and rail. This would support statewide Transportation Systems Management and Operations (TSM&O) initiatives as well, where the use of technology is used to manage existing infrastructure, improving the transportation system with minimal investment and greater benefits to costs. |
| Improve medical response protocols specific to pedestrian and bicyclist injuries | Recognizing the unique nature and potential severity of such incidents, the aim is to streamline and specialize emergency response procedures to ensure quick and optimal medical attention. The initiative may encompass dedicated training for first responders, development of specialized treatment plans, improved coordination among healthcare providers, and public education on first aid for these specific injuries. Enhancement of these protocols would contribute significantly to reducing the fatality rate and improving recovery outcomes for pedestrians and bicyclists involved in traffic incidents. |



PRIORITIZATION OF CSAP RECOMMENDATIONS

CSAP recommendations to improve roadway safety were identified following a systematic approach that starts with the identification of the HIN, followed by a four-pronged assessment to identify specific engineering, enforcement, and educational countermeasures that together can deliver crash modifications and save lives. The top most dangerous corridors in Charlotte County and the City of Punta Gorda are shown to the right, with their corresponding Safety Score and number of KSI crashes.

Identification of the HIN

The goal of the CSAP, aligned with Vision Zero principles within the Safe System Approach, is to eliminate all serious and fatal injury crashes on local roadways. Under the philosophy that crashes are going to continue to occur, the identification of the HIN follows the Safety System Approach and places emphasis on fatal or serious injury (KSI crashes) and vulnerable roadway users, as outlined below.

Table 23: Crash Cost and Equivalent Property Damage Only (EPDO) Weight by Severity

| SEVERITY | CRASH COST | EPDO WEIGHT | MODIFIED EPDO WEIGHT |
|-------------------------------|--------------|-------------|----------------------|
| Fatal (K) | \$10,890,000 | 1,414 | 370 |
| Incapacitating Injury (A) | \$888,030 | 115 | |
| Non-Incapacitating Injury (B) | \$180,180 | 23 | 17 |
| Possibly Injury (C) | \$103,950 | 14 | |
| No Injury (O) | \$7,700 | 1 | 1 |

As detailed in Table 23, these weights are derived from the 2023 FDOT Design Manual's comprehensive crash costs, incorporating the Highway Safety Manual (HSM) Equivalent Property Damage Only (EPDO) weighting. Comprehensive crash costs include both economic costs—such as emergency services, medical care, productivity losses, insurance, legal expenses, traffic congestion impacts, and property damage—and monetized pain and suffering, which account for the lost quality of life and life expectancy. Applying the EPDO weighting results in different crash types receiving varied weight factors, with fatal crashes receiving significantly higher weights.

- 01

US 41 (Tamiami Trail) from Midway Boulevard to Conway Boulevard
10,313 Safety Score, 25 KSI Crashes
- 02

US 41 (Tamiami Trail) from Conway Boulevard to Melbourne Street
9,684 Safety Score, 24 KSI Crashes
- 03

US 41 (Tamiami Trail) from Veterans Boulevard to Midway Boulevard
9,463 Safety Score, 21 KSI Crashes
- 04 & 13

US 41 (Tamiami Trail) from W Retta Esplanada to Airport Road
7,881 Safety Score, 4 KSI crashes
- 05

Kings Highway from US 41 (Tamiami Trail) to Palmetto Mobile Park
7,757 Safety Score, 5 KSI crashes
- 06

6A. SR 776 (El Jobean Boulevard) from Centennial Blvd to E of Paulson Dr
6B. CR 776 (Veterans Boulevard)
7,292 Safety Score, 24 KSI crashes
- 07

Kings Highway from Veterans Boulevard to E of Sandhill Boulevard
6,406 Safety Score, 5 KSI crashes
- 08

Midway Boulevard from Lakeview Boulevard to Harbor Boulevard
6,100 Safety Score, 15 KSI crashes
- 09

Edgewater Drive from Midway Boulevard to Conreid Drive NE
5,895 Safety Score, 12 KSI crashes
- 10

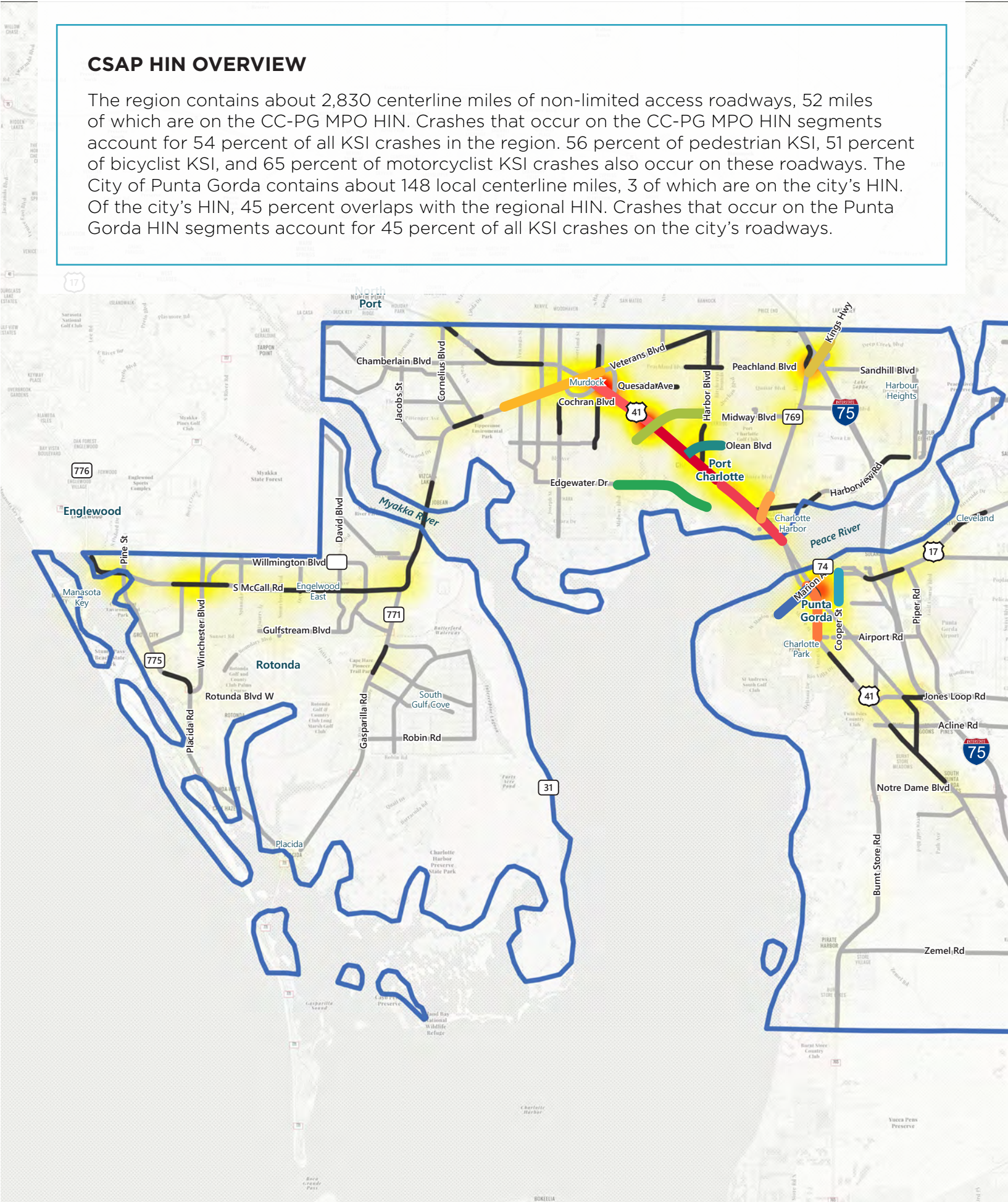
Olean Boulevard from US 41 (Tamiami Trail) to Key Lane
5,725 Safety Score, 5 KSI crashes
- 11

Cooper Street from Olympia Avenue to Burland Street
5,319 Safety Score, 3 KSI crashes
- 12

Marion Ave from Henry Street to Chasteen Street
2,582 Safety Score, 2 KSI crashes

CSAP HIN OVERVIEW

The region contains about 2,830 centerline miles of non-limited access roadways, 52 miles of which are on the CC-PG MPO HIN. Crashes that occur on the CC-PG MPO HIN segments account for 54 percent of all KSI crashes in the region. 56 percent of pedestrian KSI, 51 percent of bicyclist KSI, and 65 percent of motorcyclist KSI crashes also occur on these roadways. The City of Punta Gorda contains about 148 local centerline miles, 3 of which are on the city's HIN. Of the city's HIN, 45 percent overlaps with the regional HIN. Crashes that occur on the Punta Gorda HIN segments account for 45 percent of all KSI crashes on the city's roadways.



Additionally, a weight factor was applied to crash analysis based on the travel mode of crash victims, recognizing that pedestrians, bicyclists, and motorcyclists are disproportionately involved in KSI crashes. Data shows that while these road users make up only 5.6% of all reported crashes, they are involved in 47% of fatal crashes, 36.5% of severe injury crashes, 17% of injury crashes, and 2.1% of non-injury crashes. Consequently, a regional weight factor of 3 was developed, aligning with similar methodologies used by other jurisdictions to prioritize safety measures for vulnerable road users.

Information on the full 52 miles that comprises the countywide HIN, accounting for 54% of all KSI crashes in the region can be seen in Table 24. The city’s HIN is reflected in Table 25.

In addition to developing the HIN, the intersections with the highest crash weight were also identified based on a similar process as the HIN development. For this analysis, any crash that was within 250 feet of an intersection was considered as attributed to that intersection. The top 30 intersections for the CC-PG MPO HIN are also shown in Table 26; all of the top 30 intersections on the CC-PG MPO Region HIN.

Table 24: CC-PG MPO Region (Charlotte County) HIN

| ROAD NAME | FROM | TO | LENGTH (IN MILES) | SAFETY SCORE PER MILE | % OF HIN IN TDC |
|---------------|------------------------|---------------------------|-------------------|-----------------------|-----------------|
| Tamiami Trl | Midway Blvd | Conway Blvd | 2.16 | 10,313 | 100% |
| Tamiami Trl | Conway Blvd | Melbourne St | 2.24 | 9,684 | 100% |
| Tamiami Trl | Veterans Blvd | Midway Blvd | 2.22 | 9,463 | 100% |
| Tamiami Trl | W Retta Esp | Carmalita St | 0.59 | 7,881 | 100% |
| Kings Hwy | Tamiami Trl | Palmetto Mobile Home Park | 0.51 | 7,757 | 100% |
| El Jobean Rd | Centennial Blvd | E of Paulson Dr | 2.65 | 7,292 | 44% |
| Kings Hwy | Veterans Blvd | E of Sandhill Blvd | 0.77 | 6,406 | 100% |
| Midway Blvd | Lakeview Blvd | Harbor Blvd | 2.07 | 6,100 | 68% |
| Edgewater Dr | Midway Blvd | Conreid Dr NE | 2.38 | 5,895 | 38% |
| Olean Blvd | Tamiami Trl | Key Ln | 0.93 | 5,725 | 100% |
| Mccall Rd | Willmington Blvd | Gillot Blvd | 1.96 | 5,658 | 0% |
| Duncan Rd | Lavilla Rd | Bayswater Dr | 0.99 | 5,362 | 100% |
| S Mccall Rd | Faust Dr | Pennell St | 1.38 | 5,239 | 0% |
| Tamiami Trl | Acline Rd | E of St. Pierre Rd | 2.00 | 5,067 | 1% |
| Harborview Rd | Tamiami Trl | Rowland Rd | 1.75 | 5,048 | 100% |
| Harbor Blvd | Tamiami Trl | Gibraltar Dr | 1.04 | 4,979 | 100% |
| Tamiami Trl | Sarasota County Border | Dahigren Ave | 0.42 | 4,883 | 0% |
| Veterans Blvd | Orlando Blvd | Loveland Blvd | 1.01 | 4,813 | 2% |
| Cooper St | E Marion Ave | Carmalita St | 0.84 | 4,656 | 100% |
| S Mccall Rd | E Bay Heights Rd | W of Manor Rd | 1.22 | 4,496 | 0% |
| Tamiami Trl | Longley Dr | Toledo Blade Blvd | 1.78 | 4,423 | 0% |
| Veterans Blvd | Macada Ln | Kings Hwy | 0.69 | 4,396 | 100% |
| Prineville St | Paulson Dr | Jefferson Ave | 0.73 | 4,238 | 100% |
| Quesada Ave | Forrest Nelson Blvd | Yates St | 1.00 | 4,031 | 91% |
| Taylor Rd | Jones Loop Rd | Tamiami Trl | 1.55 | 4,004 | 57% |
| Duncan Rd | Washington Loop Rd | Shell Creek Ct | 0.42 | 3,889 | 100% |
| Placida Rd | Coco Bay Blvd | Winchester Blvd | 0.91 | 3,805 | 0% |
| Veterans Blvd | Atwater St | Harbor Blvd | 1.27 | 3,781 | 0% |

Table 24 Continued: CC-PG MPO Region (Charlotte County) HIN

| ROAD NAME | FROM | TO | LENGTH (IN MILES) | SAFETY SCORE PER MILE | % OF HIN IN TDC |
|-------------------|--------------------------|------------------|-------------------|-----------------------|-----------------|
| Harborview Rd | W of I-75 | Discovery Dr | 1.24 | 3,728 | 25% |
| Oceanspray Blvd | E of Sunnybrook Blvd | Willmington Blvd | 2.11 | 3,655 | 0% |
| El Jobean Rd | Cornelius Blvd | Bonito Way | 0.74 | 3,597 | 0% |
| Duncan Rd | Cleveland Dr | Villaview Dr | 0.92 | 3,413 | 100% |
| Harbor Blvd | Veterans Blvd | Peachland Blvd | 0.92 | 3,274 | 0% |
| Tamiami Trl | W of Sun N Shade RV Park | Zemel Rd | 1.34 | 3,239 | 0% |
| Tamiami Trl | Cooper St | W of Monaco Dr | 0.89 | 3,165 | 100% |
| El Jobean Rd | Gillot Blvd | Weeksonia Ave | 1.89 | 3,109 | 0% |
| Jones Loop Rd | Taylor Rd | Piper Rd | 0.93 | 3,086 | 100% |
| Gasparilla Rd | Rotonda Blvd E. | Chalet Rd | 0.74 | 3,033 | 0% |
| Collingswood Blvd | Cochran Blvd | Shirley Ave | 0.74 | 2,970 | 100% |
| Peachland Blvd | Yorkshire St | Bounds St | 0.91 | 2,916 | 0% |
| Pellam Blvd | Cochran Blvd | Terra Ave | 1.15 | 2,359 | 100% |

Table 25: City of Punta Gorda HIN

| ROAD NAME | FROM | TO | LENGTH (IN MILES) | SAFETY SCORE PER MILE | % OF HIN IN TDC |
|--------------|---------------|-------------|-------------------|-----------------------|-----------------|
| Tamiami Trl | W Retta Esp | Airport Rd | 1.46 | 5,432 | 100% |
| Cooper St | E Olympia Ave | Burland St | 0.69 | 5,319 | 100% |
| W Marion Ave | W Henry St | Chasteen St | 0.64 | 2,582 | 100% |

Table 26: CC-PG MPO Region Top Intersections¹

| INTERSECTION AND RANK | SAFETY SCORE | INTERSECTION AND RANK | SAFETY SCORE |
|---|--------------|---|--------------|
| 1. Edgewater Dr at Port Charlotte Blvd | 5,691 | 16. David Blvd at S Mccall Rd | 2,544 |
| 2. Coliseum Blvd at Pinedale Dr | 4,862 | 17. S Mccall Rd at Gulfstream Blvd | 2,436 |
| 3. Tamiami Trl at Chamberlain Blvd | 4,511 | 18. Torrington St at Veterans Blvd | 2,419 |
| 4. Midway Blvd at Tamiami Trl | 4,413 | 19. Harborview Rd at Laverne St | 2,400 |
| 5. El Jobean Rd at Collingswood Blvd | 4,104 | 20. Conway Blvd at Tamiami Trl | 2,361 |
| 6. Harborview Rd at Tamiami Trl | 4,066 | 21. Gardner Dr at Tamiami Trl | 2,290 |
| 7. Tamiami Trl at Cochran Blvd | 4,022 | 22. Edgewater Dr at Edgewater Dr | 2,252 |
| 8. S Mccall Rd at Oceanspray Blvd | 3,808 | 23. Kings Hwy at Tamiami Trl | 2,251 |
| 9. Toledo Blade Blvd at El Jobean Rd | 3,648 | 24. Peachland Blvd at Waterside St | 2,245 |
| 10. Edgewater Dr at Lakeview Blvd | 3,579 | 25. Veterans Blvd at Tamiami Trl | 2,241 |
| 11. Payne St at Tamiami Trl | 3,372 | 26. El Jobean Rd at Tea St | 2,231 |
| 12. Tamiami Trl at Murdock Cir | 3,181 | 27. Cousley Dr at Edgewater Dr | 2,221 |
| 13. Elkcam Blvd at Tamiami Trl | 2,743 | 28. Limberlos Ave at Pellam Blvd | 2,221 |
| 14. Westchester Blvd at Tamiami Trl | 2,678 | 29. El Jobean Rd at Biscayne Dr | 2,189 |
| 15. Veterans Blvd at Yorkshire St | 2,567 | 30. Olean Blvd at Tamiami Trl | 2,085 |

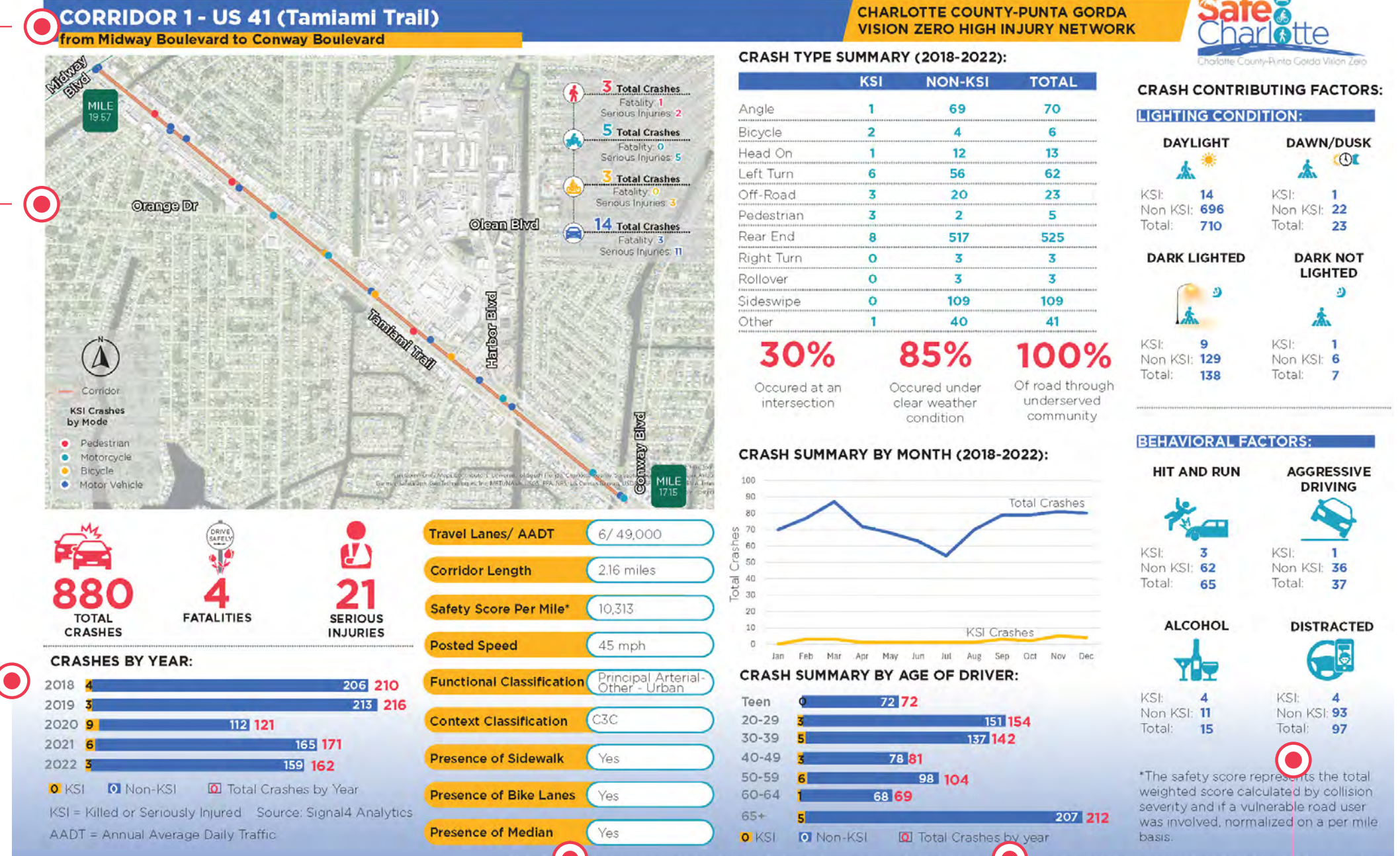
1. Top intersections within or along the boundary of a disadvantaged community are in bold blue.

As part of the CSAP development process, crash profiles were developed for each of the city's and county's most dangerous corridors. These profiles provide detailed data on crash histories and roadway characteristics, pinpointing specific locations where interventions are most urgently needed. Shared as easy-to-read "cut sheets", these profiles were and will continue to be instrumental in soliciting feedback from the Task Force and facilitating community discussions. At the request of Task Force members, these crash profiles highlight regionally-specific trends such as the age of drivers involved and the seasonality of crashes. This specific information helps to identify underlying factors contributing to the crashes while in conversation about safety concerns, thereby informing targeted strategies to enhance roadway safety effectively.

MAP OF THE HIN CORRIDOR WITH LOCATIONS OF KSI CRASHES BY MODE

OVERVIEW OF ROADWAY CHARACTERISTICS

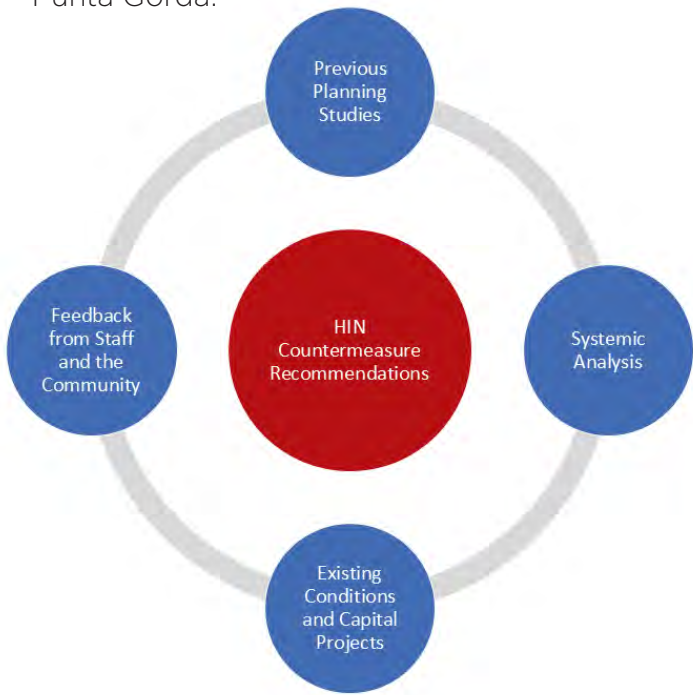
ANALYSIS OF CONTRIBUTING FACTORS SUCH AS LIGHTING CONDITIONS AND BEHAVIORAL FACTORS



*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

Refinement of Specific Countermeasures

Once the crash profiles were identified, the suite of final recommended countermeasures were identified through an iterative process to recognize already-planned improvements, correlation of best practices to crash factors, and conversations with state, county, and city staff. This allowed for the confirmation of near-, mid-, and long-term strategies vetted by those professionals who would seek implementation. This approach provided a holistic assessment of effective countermeasures tailored to the unique conditions of each high-risk corridor within Charlotte County and the City of Punta Gorda.



In addition to meetings with staff, the project team met with the MPO advisory boards, including the Bicycle and Pedestrian Advisory Committee (BPAC), Technical Advisory Committee (TAC), and Citizen’s Advisory Committee (CAC) to vet the feasibility and desire for recommended improvements to advance transportation safety.

PLANNED IMPROVEMENTS

In refining final recommendations shown on the next page, the project team pulled from existing resources analyzed as a part of the project’s Policy Review and pulled from additional resources such as the County’s Capital Improvement Program and FDOT D1’s 5-Year Work Program to assess opportunities to integrate safety improvements into already planned projects.

NEAR-TERM IMPROVEMENTS (BY 2030)

Near-term solutions focused on quickly implementable, cost-effective measures such as enhanced traffic signals, improved signage, and temporary speed reduction initiatives. These interventions can be executed swiftly to provide immediate safety benefits while longer-term solutions are being developed.

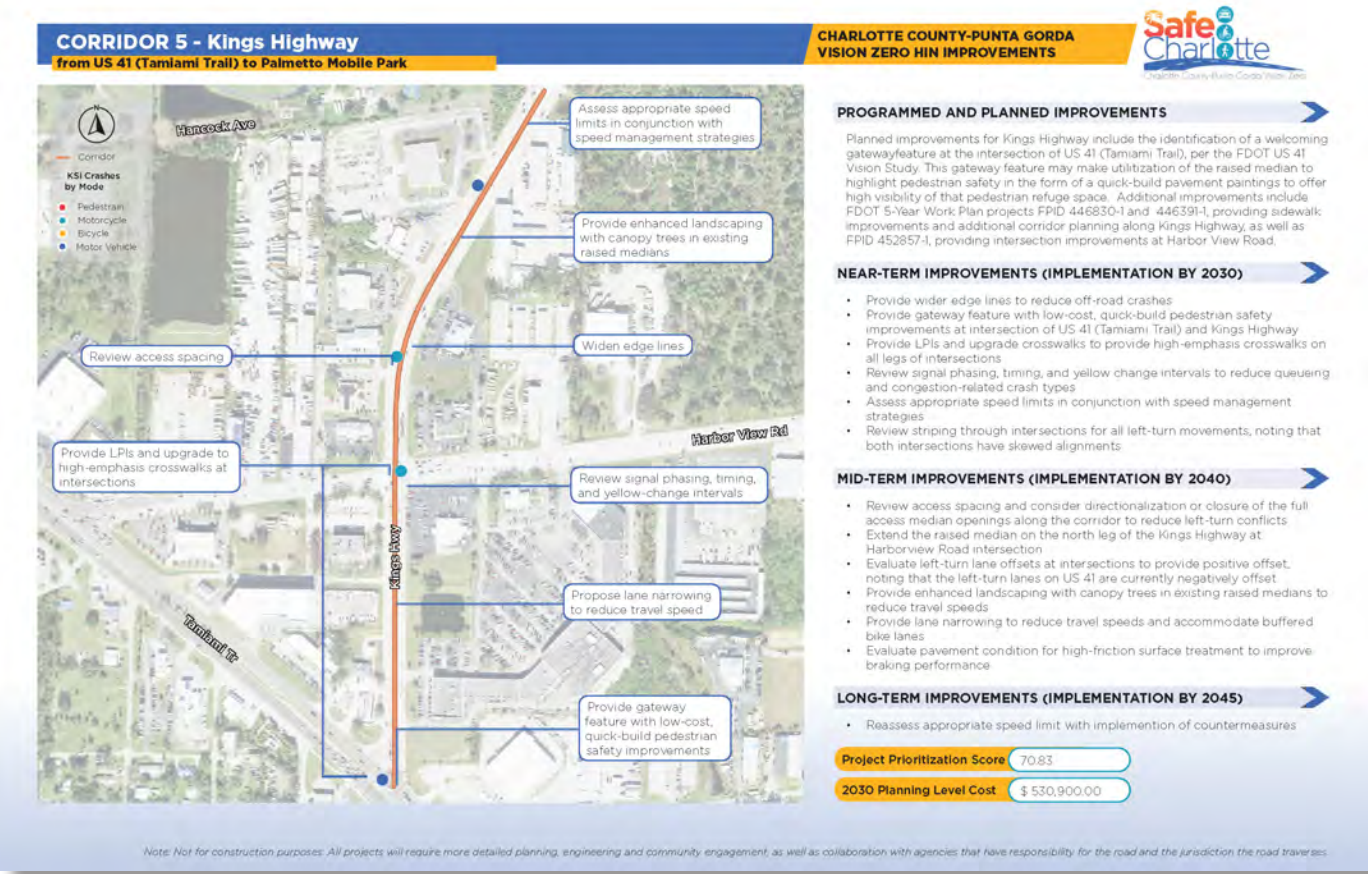
MID-TERM IMPROVEMENTS (BY 2040)

Mid-term strategies encompass more involved projects like the implementation of dedicated bike lanes and enhancements to pedestrian walkways to including pedestrian signalization, and intersection and roadway improvements to improve the safety of left-turn maneuvers. These projects, although requiring more time and resources, aim to significantly reduce crash risks through infrastructural improvements that address the specific factors contributing to crashes. For example, reconfiguring roadways and offering oversized signage to better accommodate the aging population and seasonal traffic fluctuations can considerably improve safety.

LONG-TERM IMPROVEMENTS (BY 2045)

Long-term strategies were identified through a collaborative effort involving state, county, and city officials, as well as input from the community and best practices from other jurisdictions. These comprehensive strategies might include the deployment of advanced traffic management systems, road realignments, and the construction of off-road improvements such as shared-use paths with tree canopy. Additional recommendations have been made to offer long-range land use planning to consolidate driveways and offer a mix of uses to reduce local vehicular trips and promote active transportation. These far-reaching initiatives are designed to fundamentally transform the traffic landscape, reducing crash occurrences and severity by addressing root causes systematically.

Throughout this process, the iterative refinement of countermeasures was crucial. Initially, the MPO team considered already-planned improvements and correlated them with identified crash factors to avoid redundancy and ensure synergy. Conversations with transportation experts and planners at various governmental levels helped to validate and adjust the proposed strategies, ensuring alignment with broader regional transportation policies and goals.



This collaborative approach ensures that the final suite of recommendations is both practical and forward-thinking, setting the stage for safer roadways across Charlotte County and the City of Punta Gorda.

PROJECT PRIORITIZATION SCORE

Following a best practice model established by MetroPlan Orlando, the CC-PG MPO developed a set of prioritization criteria that emphasizes safety and transportation disadvantage, as well as considers elements such as FHWA’s proven safety countermeasures, potential effectiveness, and regional impact. These criteria were chosen for their ease of analysis and replicability, ensuring that they can be effectively applied across various local plans to differentiate between projects and guide the selection of final near term recommendations.

NEAR-TERM PLANNING LEVEL COST

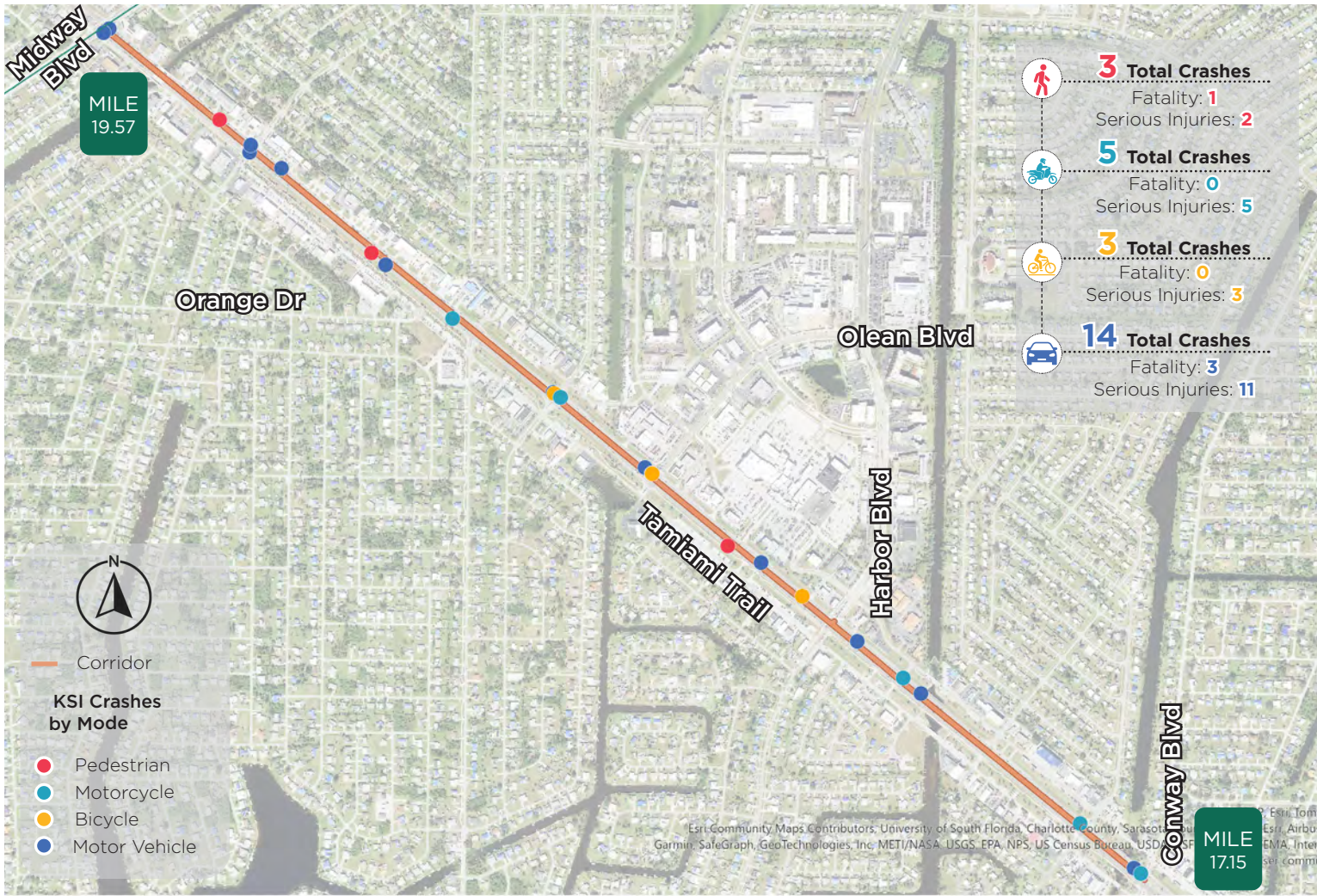
Comprehensive roadway safety improvements have been proposed to mitigate crashes, and order of magnitude

cost estimates for these improvements have been outlined to guide budgeting and planning needs. The CSAP considers diverse infrastructure enhancements such as sidewalk improvements, pedestrian crossings, bicycle infrastructure, and other traffic calming measures including speed feedback signs and curb extensions, as well as signalization and lighting upgrades. A cost estimate for each of these improvements has been provided in review of both national and local guidance toward the cost of planning, programming, design and construction, as appropriate. Each cost estimate includes a 25% contingency to address potential variances in material costs, labor rates, unforeseen site conditions, and design modifications. This contingency ensures a buffer for managing cost overruns and project complexities, aligning with best practices in project management and financial planning. These estimates serve as a foundational basis for future budgeting and planning as the MPO progresses towards achieving its Vision Zero goals with anticipated funding from the SS4A implementation grants.

CORRIDOR 1 - US 41 (Tamiami Trail)

from Midway Boulevard to Conway Boulevard

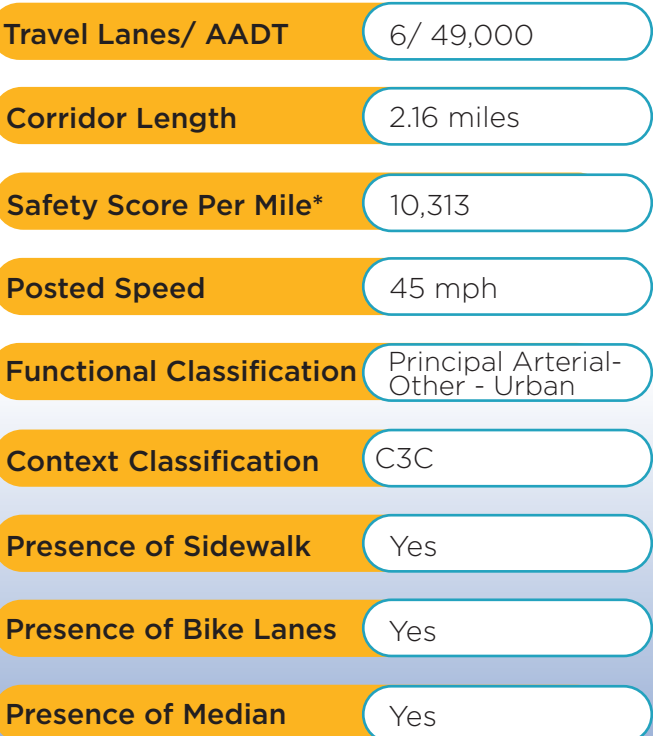
CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:

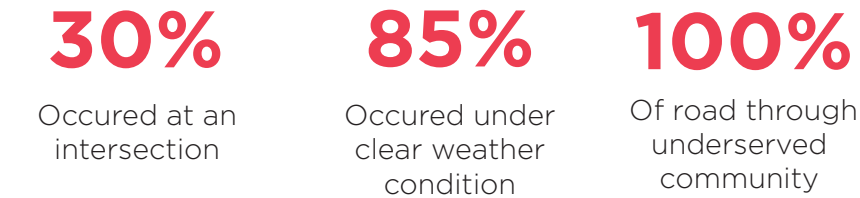


Source: Signal4 Analytics
AADT = Annual Average Daily Traffic



CRASH TYPE SUMMARY (2018-2022):

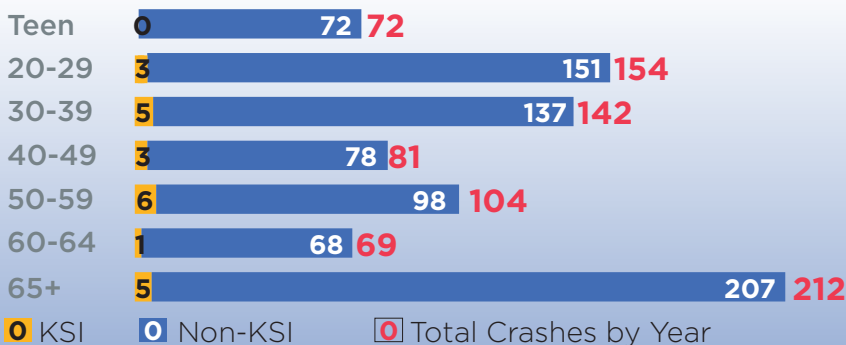
| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 1 | 69 | 70 |
| Bicycle | 2 | 4 | 6 |
| Head On | 1 | 12 | 13 |
| Left Turn | 6 | 56 | 62 |
| Off-Road | 3 | 20 | 23 |
| Pedestrian | 3 | 2 | 5 |
| Rear End | 8 | 517 | 525 |
| Right Turn | 0 | 3 | 3 |
| Rollover | 0 | 3 | 3 |
| Sideswipe | 0 | 109 | 109 |
| Other | 1 | 40 | 41 |



CRASH SUMMARY BY MONTH (2018-2022):

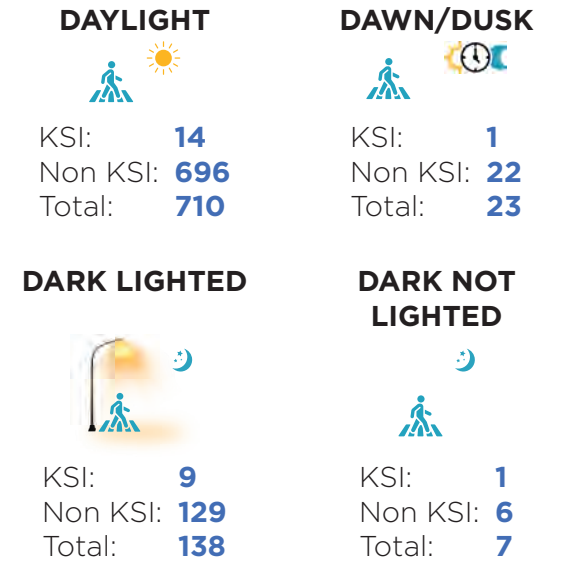


CRASH SUMMARY BY AGE OF DRIVER:

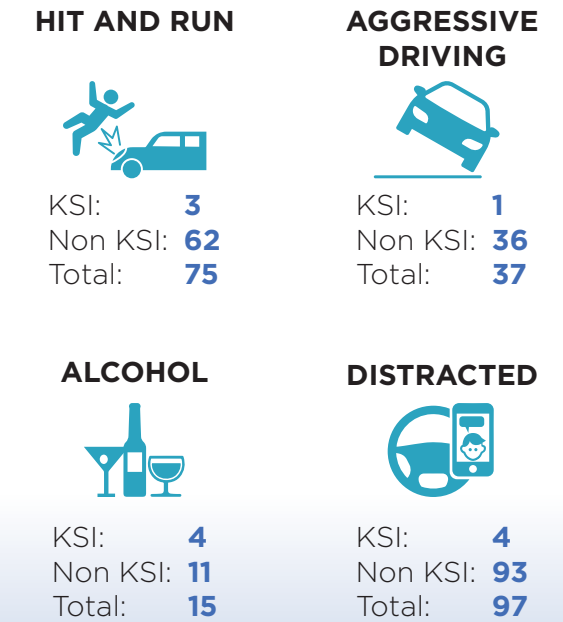


CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:



BEHAVIORAL FACTORS:



*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 2 - US 41 (Tamiami Trail)

from Conway Boulevard to Melbourne Street

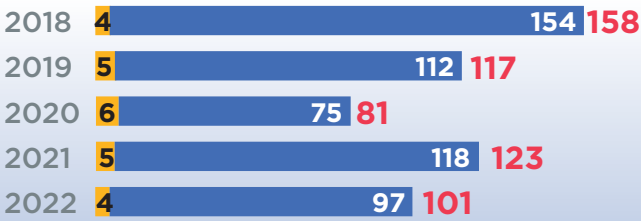
CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



| | |
|--|--|
| | 6 Total Crashes Fatality: 4 Serious Injuries: 2 |
| | 6 Total Crashes Fatality: 3 Serious Injuries: 3 |
| | 1 Total Crashes Fatality: 0 Serious Injuries: 1 |
| | 11 Total Crashes Fatality: 1 Serious Injuries: 10 |



CRASHES BY YEAR:



KSI Non-KSI Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

| | |
|---------------------------|----------------------------------|
| Travel Lanes/ AADT | 6/ 37,500 |
| Corridor Length | 2.24 miles |
| Safety Score Per Mile* | 9,684 |
| Posted Speed | 45 mph |
| Functional Classification | Principal Arterial-Other - Urban |
| Context Classification | C3C |
| Presence of Sidewalk | Yes |
| Presence of Bike Lanes | Yes |
| Presence of Median | Yes |

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 2 | 29 | 31 |
| Bicycle | 0 | 3 | 3 |
| Head On | 0 | 3 | 3 |
| Left Turn | 1 | 21 | 22 |
| Off-Road | 2 | 16 | 18 |
| Pedestrian | 6 | 3 | 9 |
| Rear End | 9 | 317 | 326 |
| Right Turn | 0 | 8 | 8 |
| Rollover | 0 | 4 | 4 |
| Sideswipe | 3 | 104 | 107 |
| Other | 1 | 31 | 32 |

44%

Occured at an intersection

83%

Occured under clear weather condition

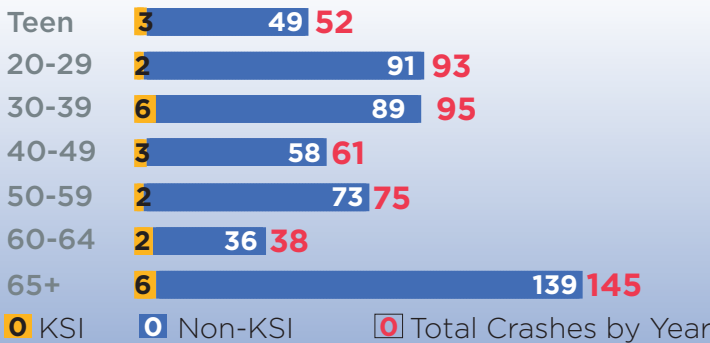
100%

Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 7
Non KSI: 456
Total: 466

DAWN/DUSK



KSI: 0
Non KSI: 21
Total: 21

DARK LIGHTED



KSI: 16
Non KSI: 73
Total: 89

DARK NOT LIGHTED



KSI: 1
Non KSI: 2
Total: 3

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 1
Non KSI: 40
Total: 41

AGGRESSIVE DRIVING



KSI: 2
Non KSI: 22
Total: 24

ALCOHOL



KSI: 3
Non KSI: 11
Total: 14

DISTRACTED



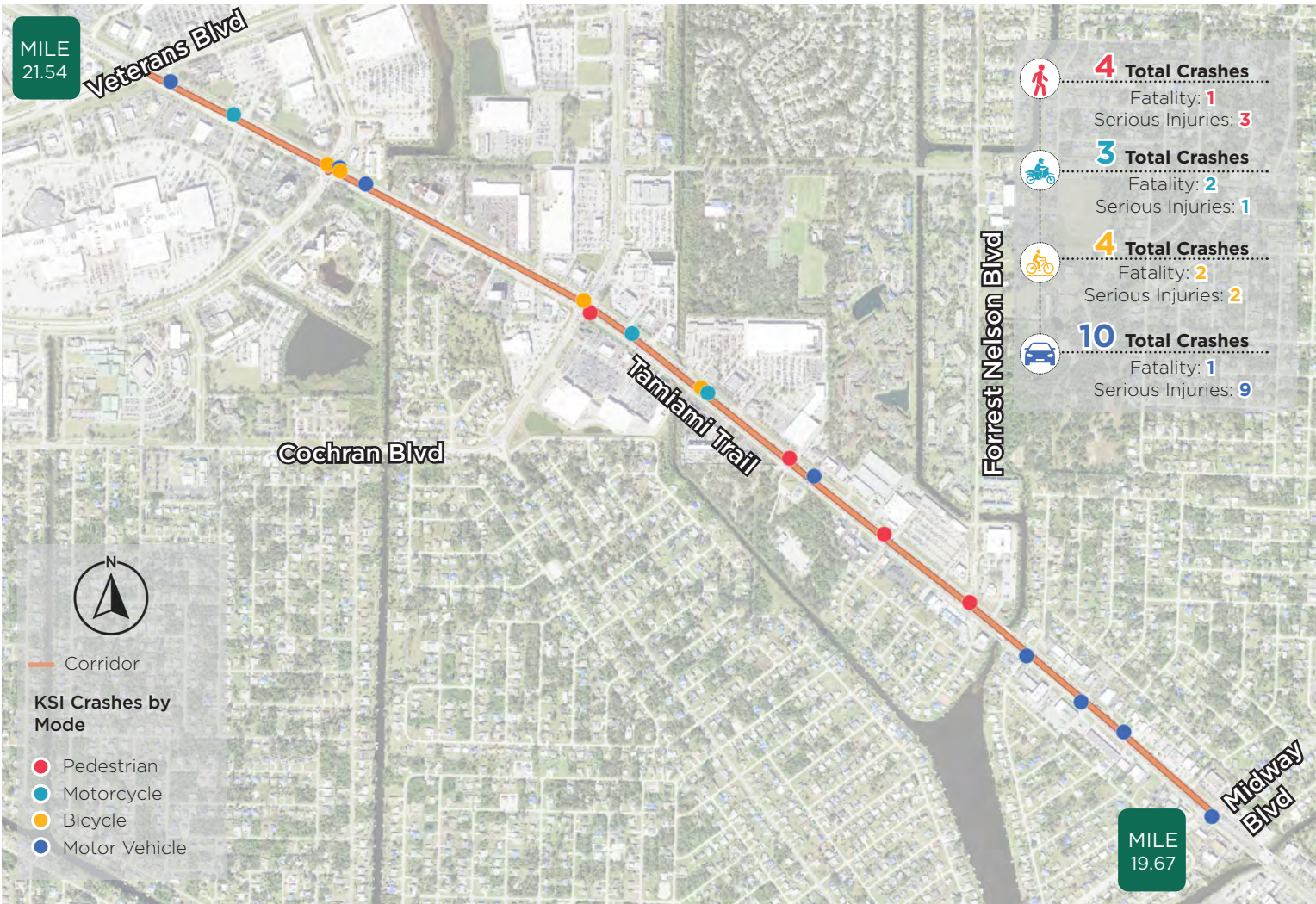
KSI: 3
Non KSI: 58
Total: 61

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

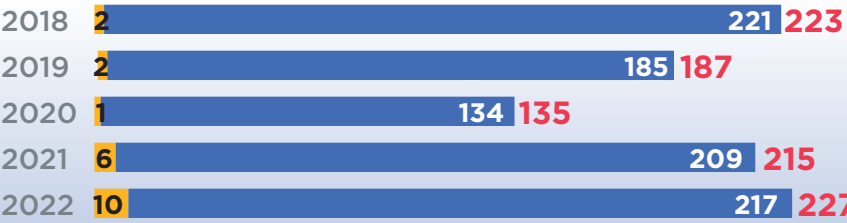
CORRIDOR 3 - US 41 (Tamiami Trail)

from Veterans Boulevard to Midway Boulevard

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:



Legend: ■ KSI ■ Non-KSI ■ Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

| | |
|---------------------------|----------------------------------|
| Travel Lanes/ AADT | 6/ 56,000 |
| Corridor Length | 2.22 miles |
| Safety Score Per Mile* | 9,463 |
| Posted Speed | 45 mph |
| Functional Classification | Principal Arterial-Other - Urban |
| Context Classification | C3C |
| Presence of Sidewalk | Yes |
| Presence of Bike Lanes | Yes |
| Presence of Median | Yes |

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 1 | 43 | 44 |
| Bicycle | 5 | 7 | 12 |
| Head On | 0 | 3 | 3 |
| Left Turn | 6 | 35 | 41 |
| Off-Road | 2 | 20 | 22 |
| Pedestrian | 4 | 6 | 10 |
| Rear End | 3 | 569 | 572 |
| Right Turn | 0 | 5 | 5 |
| Rollover | 0 | 2 | 2 |
| Sideswipe | 0 | 198 | 198 |
| Other | 0 | 49 | 49 |

47%

Occured at an intersection

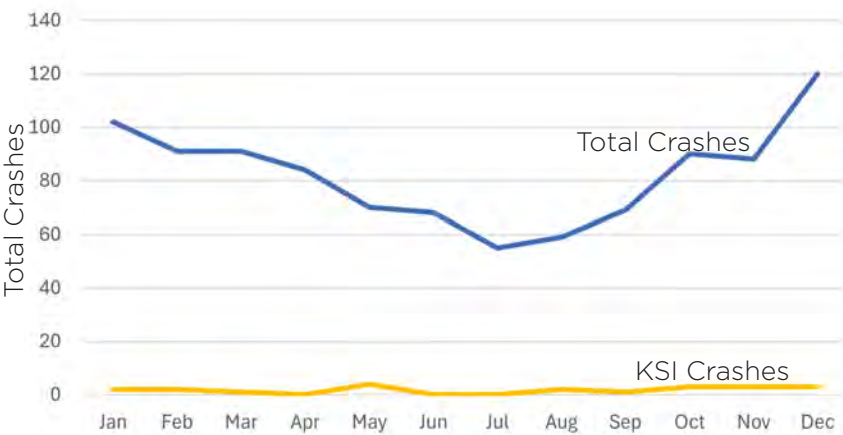
85%

Occured under clear weather condition

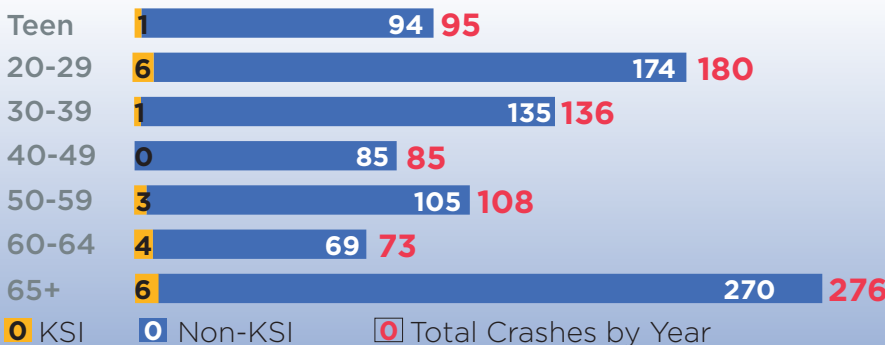
100%

Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 10
Non KSI: 787
Total: 797

DAWN/DUSK



KSI: 1
Non KSI: 33
Total: 34

DARK LIGHTED



KSI: 9
Non KSI: 133
Total: 142

DARK NOT LIGHTED



KSI: 1
Non KSI: 10
Total: 11

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 0
Non KSI: 61
Total: 61

AGGRESSIVE DRIVING



KSI: 2
Non KSI: 29
Total: 31

ALCOHOL



KSI: 2
Non KSI: 15
Total: 17

DISTRACTED

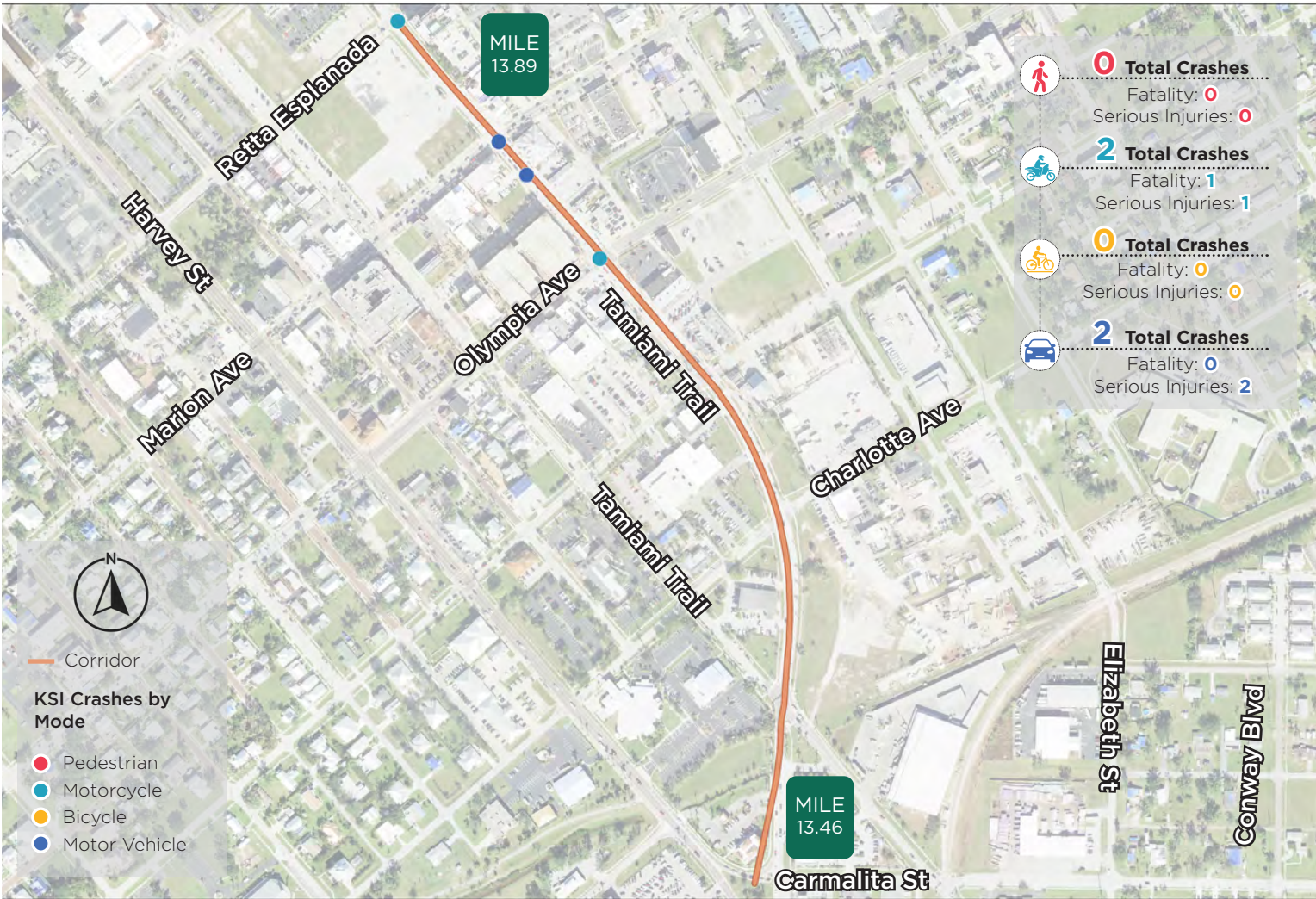


KSI: 2
Non KSI: 15
Total: 17

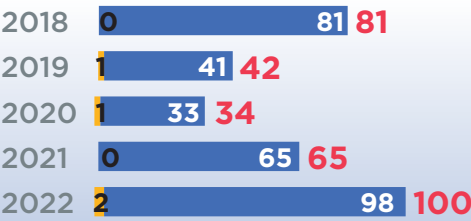
*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 4 - US 41 (Tamiami Trail)
from Retta Esplanada to Carmalita Street

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:



Legend: KSI (orange), Non-KSI (blue), Total Crashes (red)

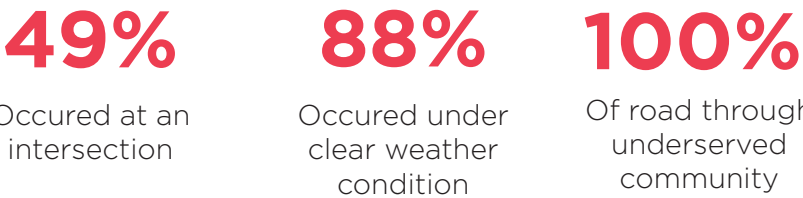
KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

| | |
|---------------------------|----------------------------------|
| Travel Lanes/ AADT | 3/ 25,500 |
| Corridor Length | 0.59 miles |
| Safety Score Per Mile* | 7,881 |
| Posted Speed | 30 mph |
| Functional Classification | Principal Arterial-Other - Urban |
| Context Classification | C3C, C5, C4 |
| Presence of Sidewalk | Yes |
| Presence of Bike Lanes | No |
| Presence of Median | No |

CRASH TYPE SUMMARY (2018-2022):

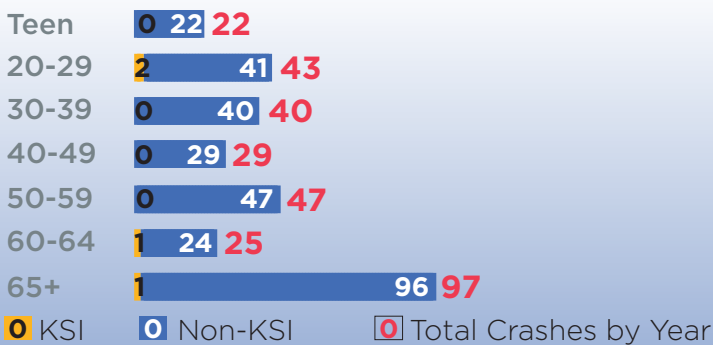
| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 2 | 56 | 58 |
| Bicycle | 0 | 2 | 2 |
| Head On | 0 | 1 | 1 |
| Left Turn | 0 | 14 | 14 |
| Off-Road | 0 | 7 | 7 |
| Pedestrian | 0 | 1 | 1 |
| Rear End | 1 | 106 | 107 |
| Right Turn | 0 | 3 | 3 |
| Rollover | 0 | 4 | 4 |
| Sideswipe | 1 | 74 | 75 |
| Other | 0 | 43 | 43 |



CRASH SUMMARY BY MONTH (2018-2022):



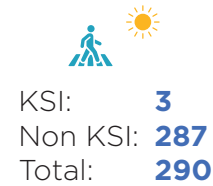
CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

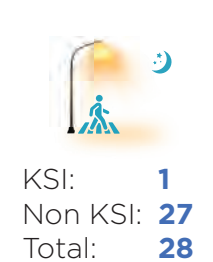
DAYLIGHT



DAWN/DUSK



DARK LIGHTED



DARK NOT LIGHTED



BEHAVIORAL FACTORS:

HIT AND RUN



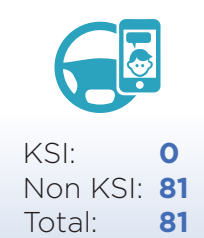
AGGRESSIVE DRIVING



ALCOHOL



DISTRACTED



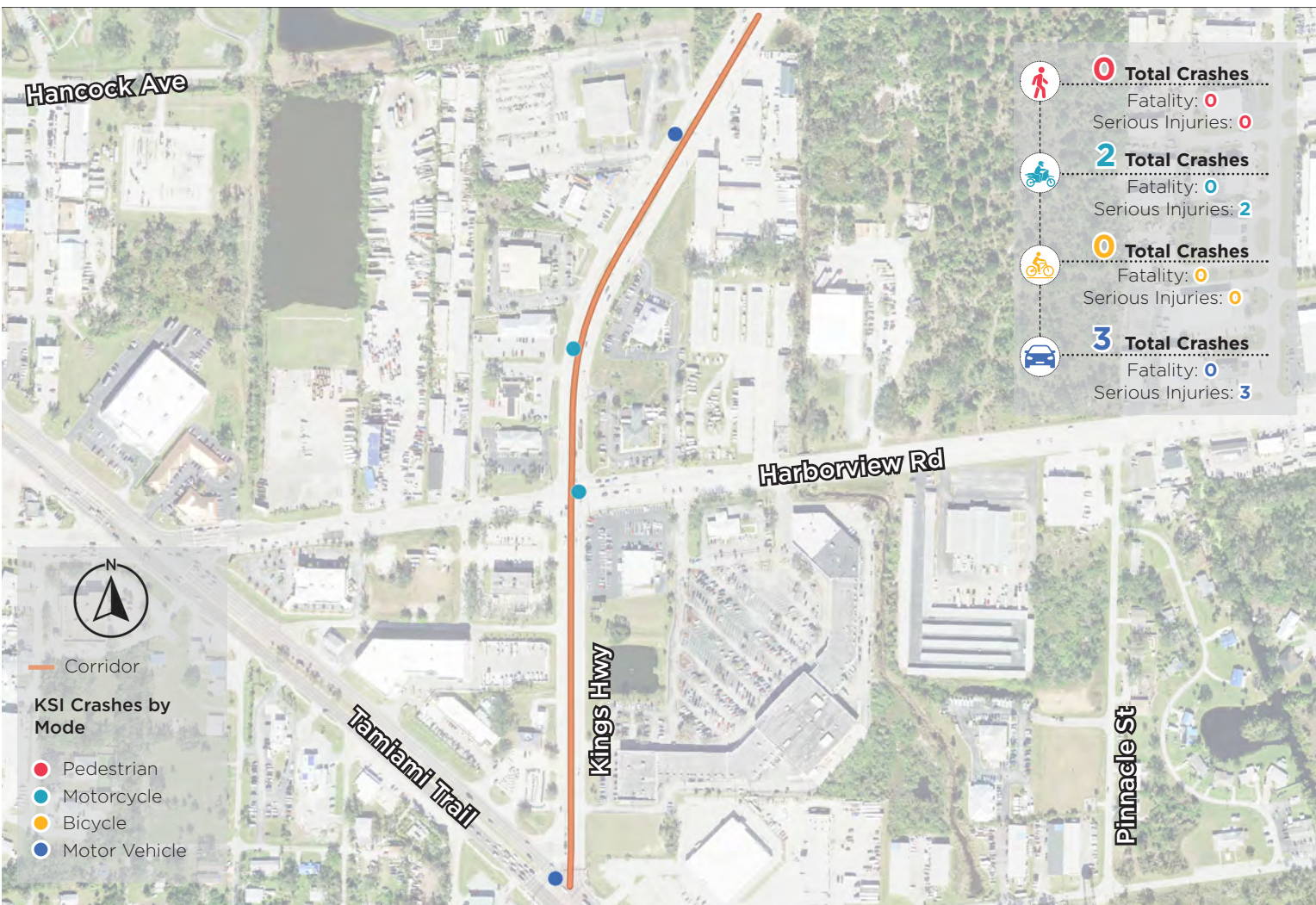
*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

Note: For crash type summaries and contributing factors, total may not sum to the total crashes as some crash records are incomplete and only top crash types are shown.

CORRIDOR 5 - Kings Highway

from US 41 (Tamiami Trail) to Palmetto Mobile Park

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



| | |
|--|--|
| | 0 Total Crashes Fatality: 0 Serious Injuries: 0 |
| | 2 Total Crashes Fatality: 0 Serious Injuries: 2 |
| | 0 Total Crashes Fatality: 0 Serious Injuries: 0 |
| | 3 Total Crashes Fatality: 0 Serious Injuries: 3 |



111

TOTAL
CRASHES



0

FATALITIES



5

SERIOUS
INJURIES

CRASHES BY YEAR:

| | | | |
|------|---|----|----|
| 2018 | 0 | 36 | 36 |
| 2019 | 1 | 14 | 15 |
| 2020 | 1 | 8 | 9 |
| 2021 | 3 | 18 | 21 |
| 2022 | 0 | 30 | 30 |

KSI Non-KSI Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

Travel Lanes/ AADT 4/ 15,800

Corridor Length 0.51 miles

Safety Score Per Mile* 7,757

Posted Speed 40 mph

Functional Classification Minor Arterial-Urban

Context Classification

Presence of Sidewalk Yes

Presence of Bike Lanes No

Presence of Median Yes

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 1 | 14 | 15 |
| Bicycle | 0 | 1 | 1 |
| Head On | 0 | 2 | 2 |
| Left Turn | 0 | 5 | 5 |
| Off-Road | 1 | 4 | 5 |
| Pedestrian | 0 | 1 | 1 |
| Rear End | 1 | 44 | 45 |
| Right Turn | 0 | 1 | 1 |
| Rollover | 0 | 2 | 2 |
| Sideswipe | 0 | 23 | 23 |
| Other | 2 | 6 | 8 |

56%

Occured at an
intersection

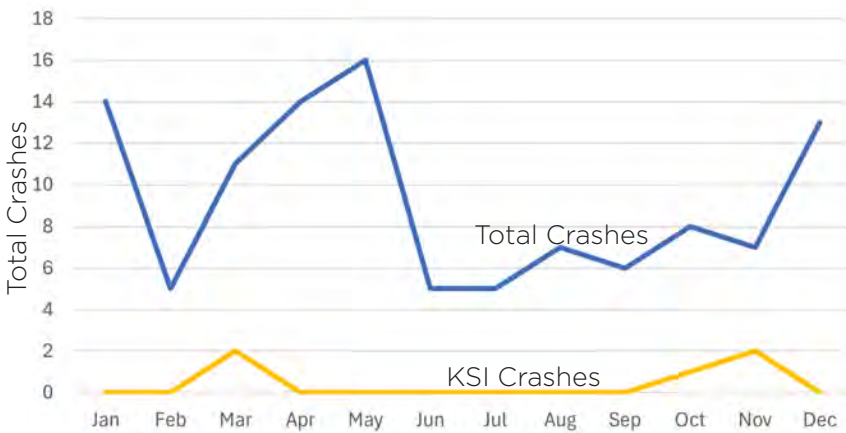
83%

Occured under
clear weather
condition

100%

Of road through
underserved
community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:

| | | | |
|-------|---|----|----|
| Teen | 0 | 9 | 9 |
| 20-29 | 1 | 10 | 11 |
| 30-39 | 2 | 12 | 14 |
| 40-49 | 0 | 10 | 10 |
| 50-59 | 1 | 15 | 16 |
| 60-64 | 0 | 7 | 7 |
| 65+ | 0 | 39 | 39 |

KSI Non-KSI Total Crashes by Year

CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 4
Non KSI: 91
Total: 95

DAWN/DUSK



KSI: 0
Non KSI: 3
Total: 3

DARK LIGHTED



KSI: 1
Non KSI: 12
Total: 13

DARK NOT
LIGHTED



KSI: 0
Non KSI: 0
Total: 0

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 1
Non KSI: 10
Total: 11

AGGRESSIVE
DRIVING



KSI: 0
Non KSI: 6
Total: 6

ALCOHOL



KSI: 0
Non KSI: 0
Total: 0

DISTRACTED



KSI: 1
Non KSI: 6
Total: 7

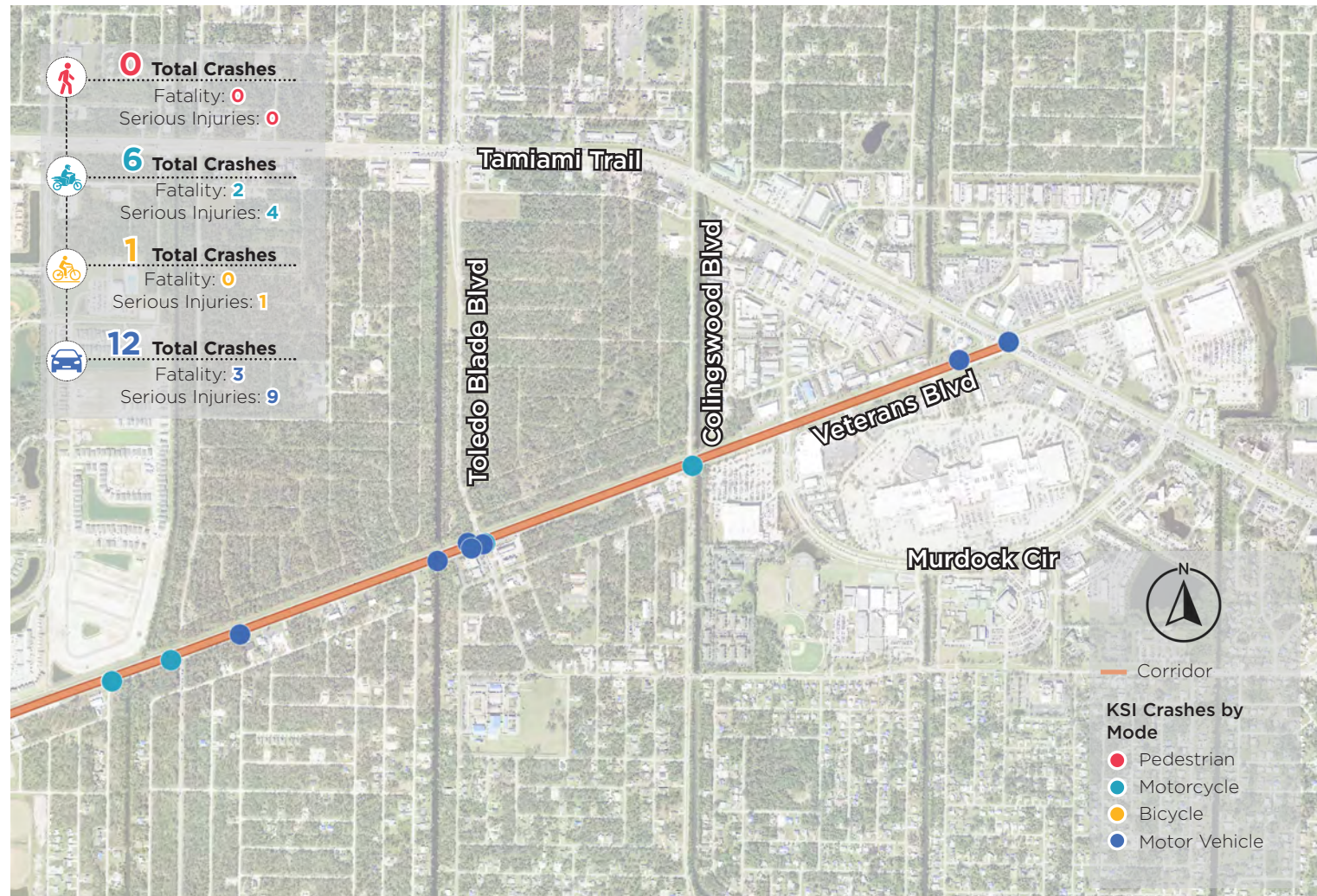
*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

Note: For crash type summaries and contributing factors, total may not sum to the total crashes as some crash records are incomplete and only top crash types are shown.

CORRIDOR 6A - Veterans Boulevard

from Centennial Boulevard to Tamiami Trail

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS

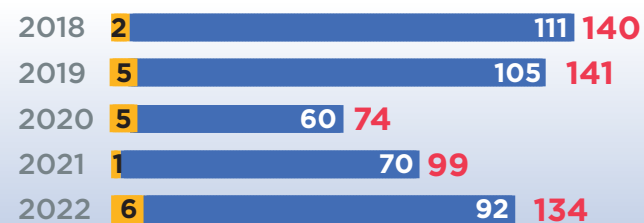


457*
TOTAL
CRASHES

5
FATALITIES

14
SERIOUS
INJURIES

CRASHES BY YEAR:



0 KSI 0 Non-KSI 0 Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

* The segment has higher total crashes due to potential double counting, as crashes within 100 feet of the intersection are included.

Travel Lanes/ AADT 4/ 38,000

Corridor Length 2.2 miles

Safety Score Per Mile* 6,915

Posted Speed 55 mph

Functional Classification Minor Arterial - Urban

Context Classification C3C

Presence of Sidewalk Yes

Presence of Bike Lanes Yes

Presence of Median Yes

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 2 | 35 | 37 |
| Bicycle | 2 | 0 | 2 |
| Head-On | 1 | 2 | 3 |
| Left-Turn | 5 | 40 | 45 |
| Off-Road | 3 | 16 | 19 |
| Pedestrian | 0 | 3 | 3 |
| Rear-End | 7 | 217 | 224 |
| Right-Turn | 0 | 8 | 8 |
| Rollover | 0 | 4 | 4 |
| Sideswipe | 0 | 64 | 64 |
| Other | 1 | 34 | 35 |

30%

Occured at an intersection

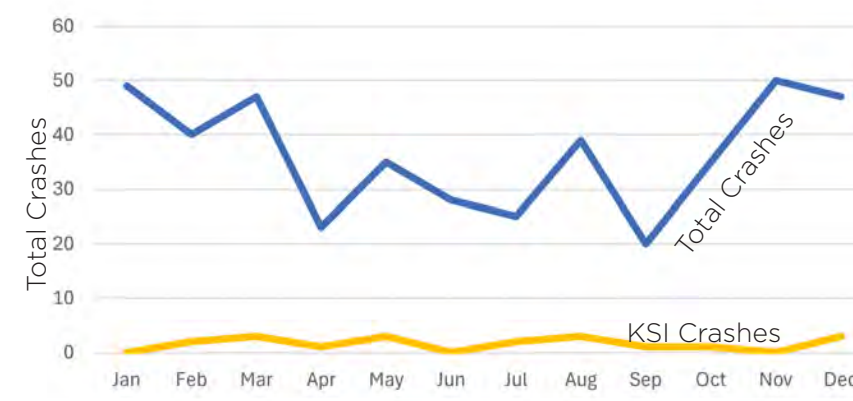
81%

Occured under clear weather condition

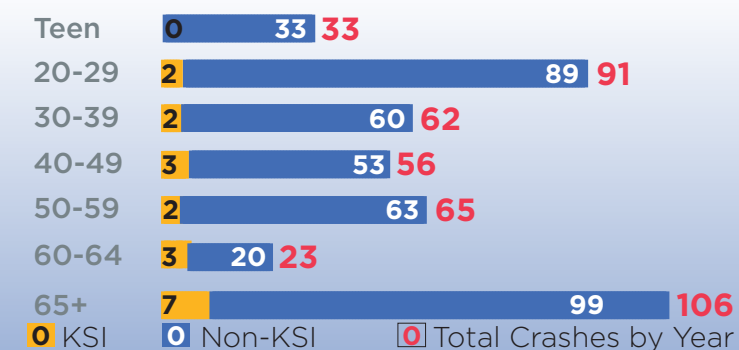
29%

Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 13
Non KSI: 339
Total: 352

DAWN/DUSK



KSI: 0
Non KSI: 15
Total: 15

DARK LIGHTED



KSI: 4
Non KSI: 64
Total: 68

DARK NOT LIGHTED



KSI: 2
Non KSI: 20
Total: 22

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 0
Non KSI: 23
Total: 23

AGGRESSIVE DRIVING



KSI: 0
Non KSI: 14
Total: 14

ALCOHOL



KSI: 1
Non KSI: 9
Total: 10

DISTRACTED



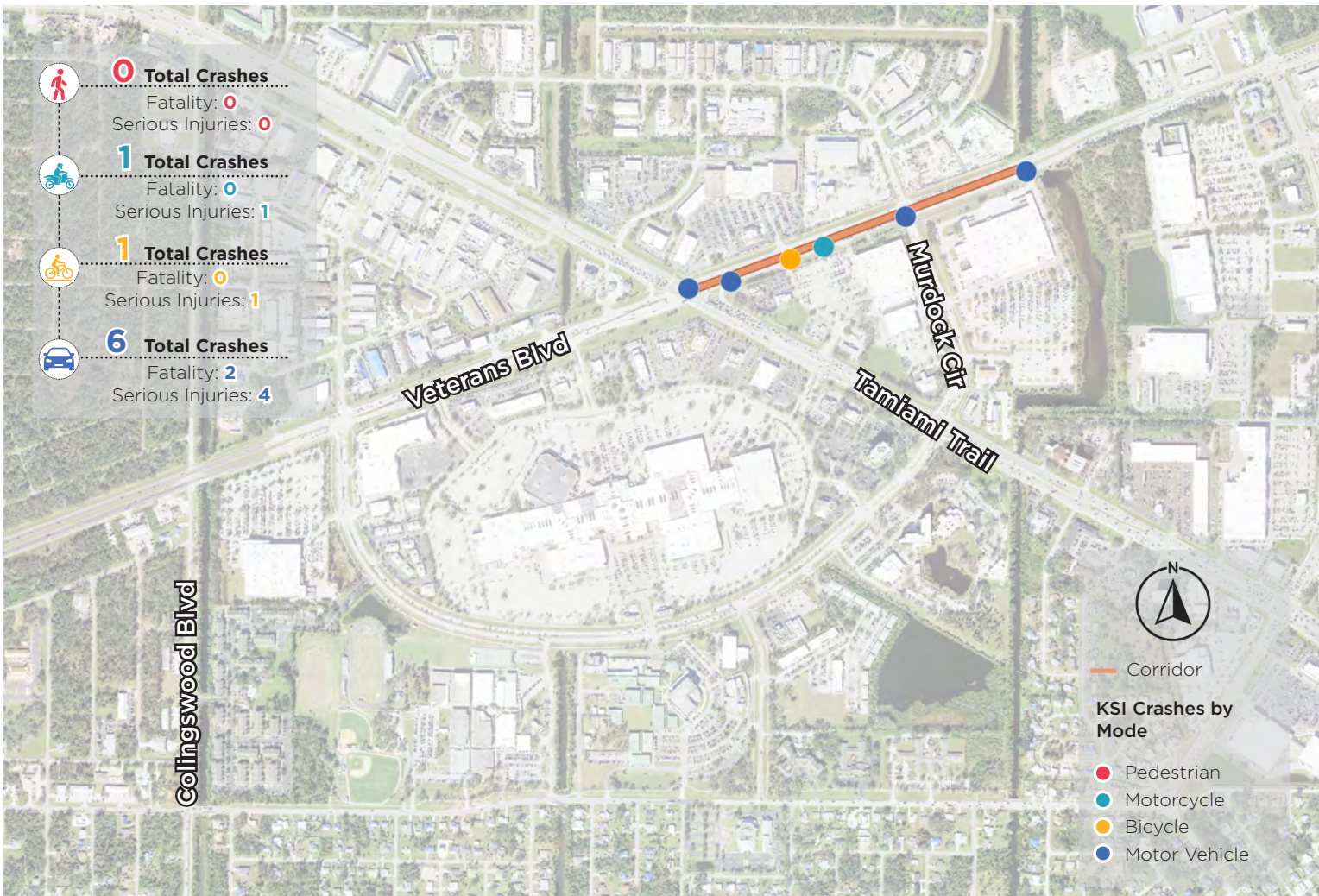
KSI: 3
Non KSI: 33
Total: 36

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

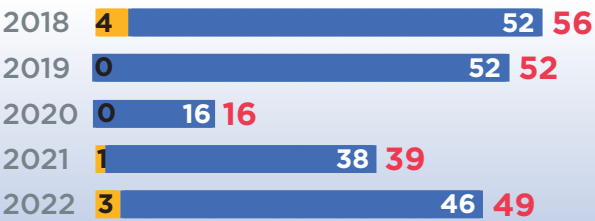
Note: For crash type summaries and contributing factors, total may not sum to the total crashes as some crash records are incomplete and only top crash types are shown.

CORRIDOR 6B - Veterans Boulevard
from Tamiami Trail to Murdock Circle

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:



Legend for crash types: KSI, Non-KSI, Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

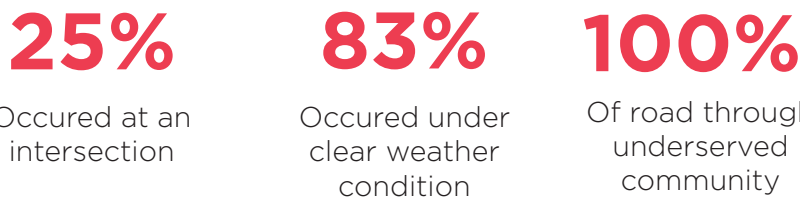
AADT = Annual Average Daily Traffic

* The segment has higher total crashes due to potential double counting, as crashes within 100 feet of the intersection are included.

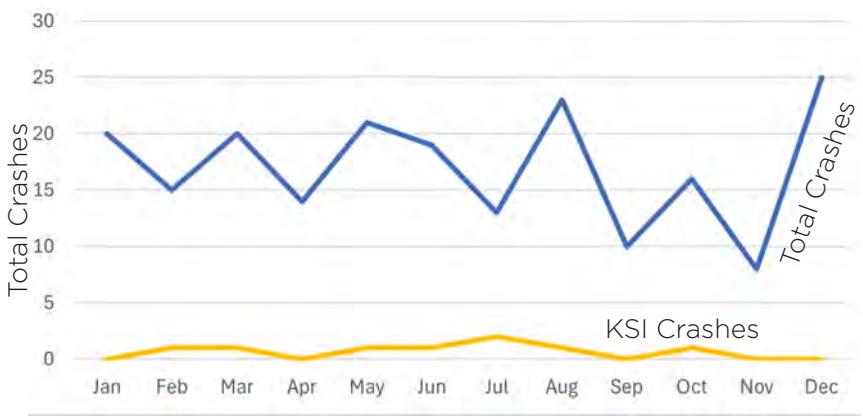
Table with 2 columns: Metric and Value. Metrics include Travel Lanes/ AADT, Corridor Length, Safety Score Per Mile*, Posted Speed, Functional Classification, Context Classification, Presence of Sidewalk, Presence of Bike Lanes, and Presence of Median.

CRASH TYPE SUMMARY (2018-2022):

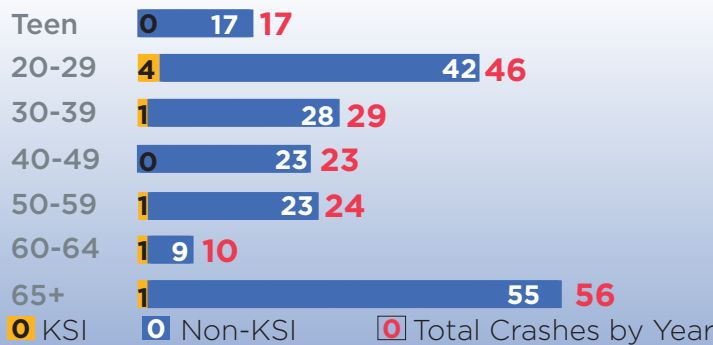
Table with 3 columns: Crash Type, KSI, NON-KSI, and TOTAL. Rows include Angle, Bicycle, Head-On, Left-Turn, Off Road, Pedestrian, Rear-End, Right-Turn, Rollover, Sideswipe, and Other.



CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 5
Non KSI: 162
Total: 167

DAWN/DUSK



KSI: 0
Non KSI: 9
Total: 9

DARK LIGHTED



KSI: 3
Non KSI: 30
Total: 33

DARK NOT LIGHTED



KSI: 0
Non KSI: 3
Total: 3

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 0
Non KSI: 10
Total: 10

AGGRESSIVE DRIVING



KSI: 1
Non KSI: 2
Total: 3

ALCOHOL



KSI: 0
Non KSI: 1
Total: 1

DISTRACTED



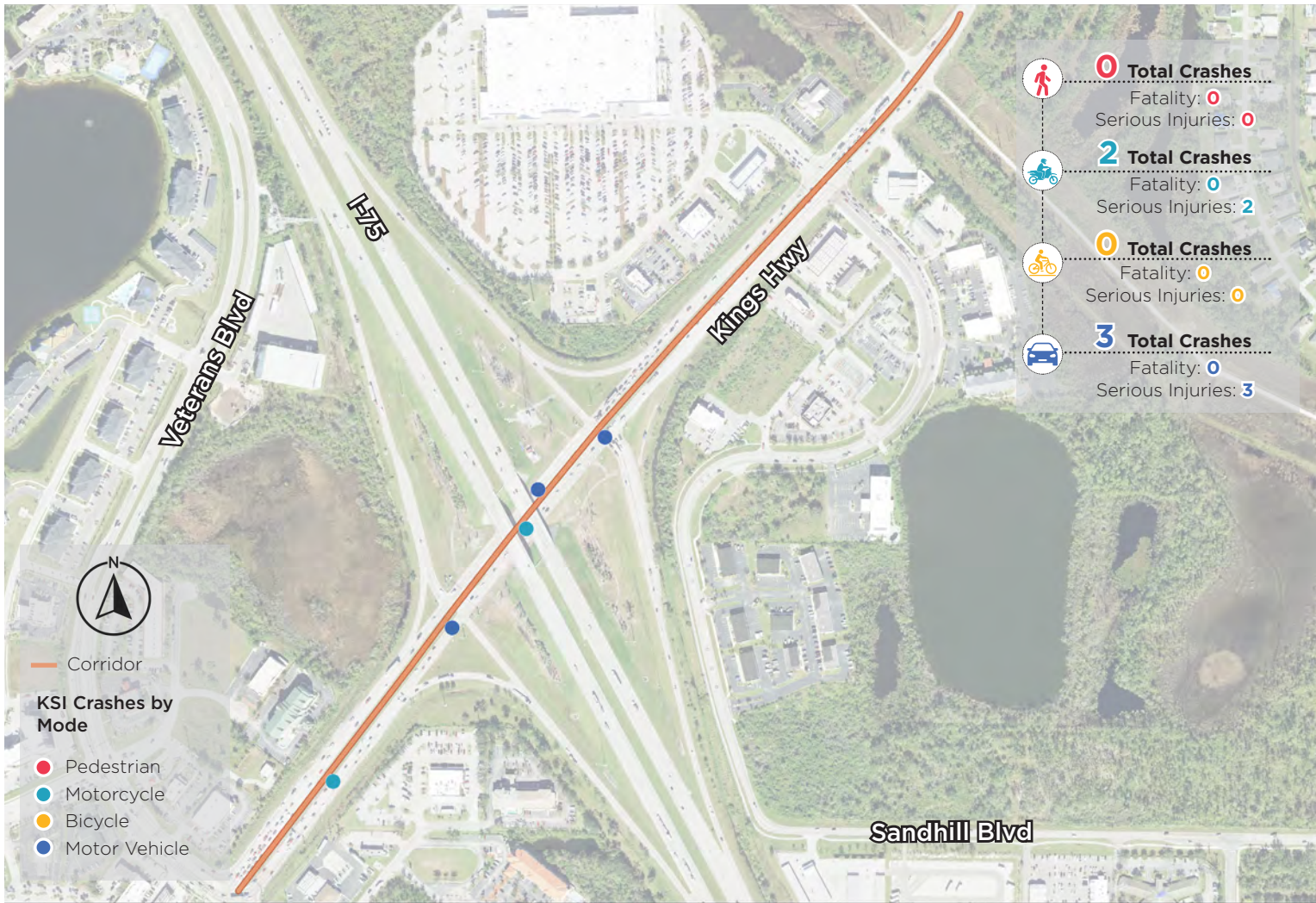
KSI: 0
Non KSI: 17
Total: 17

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

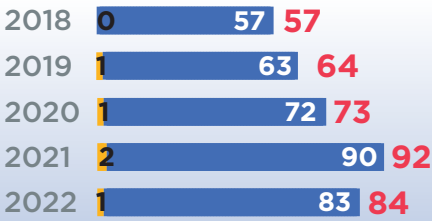
Note: For crash type summaries and contributing factors, total may not sum to the total crashes as some crash records are incomplete and only top crash types are shown.

CORRIDOR 7 - Kings Highway
from Veterans Boulevard to East of Sandhill Boulevard

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:

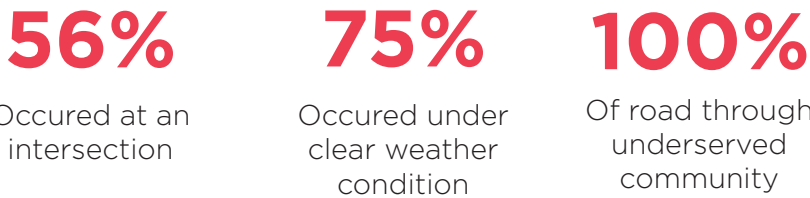


Legend for crash types and source information.

Table with 2 columns: Metric and Value. Metrics include Travel Lanes/ AADT, Corridor Length, Safety Score Per Mile*, Posted Speed, Functional Classification, Context Classification, Presence of Sidewalk, Presence of Bike Lanes, and Presence of Median.

CRASH TYPE SUMMARY (2018-2022):

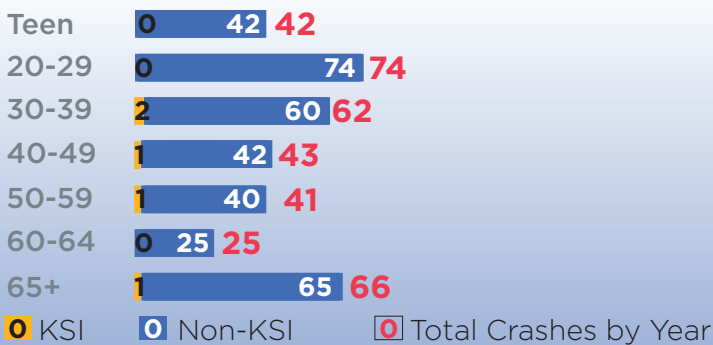
Table with 3 columns: Crash Type, KSI, NON-KSI, and TOTAL. Rows include Angle, Bicycle, Head On, Left Turn, Off-Road, Pedestrian, Rear End, Right Turn, Rollover, Sideswipe, and Other.



CRASH SUMMARY BY MONTH (2018-2022):

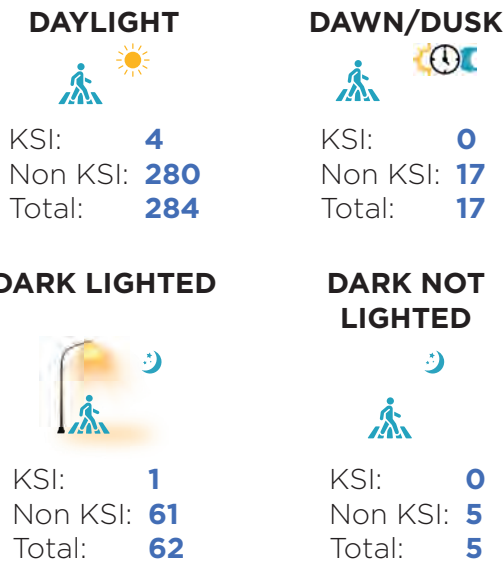


CRASH SUMMARY BY AGE OF DRIVER:

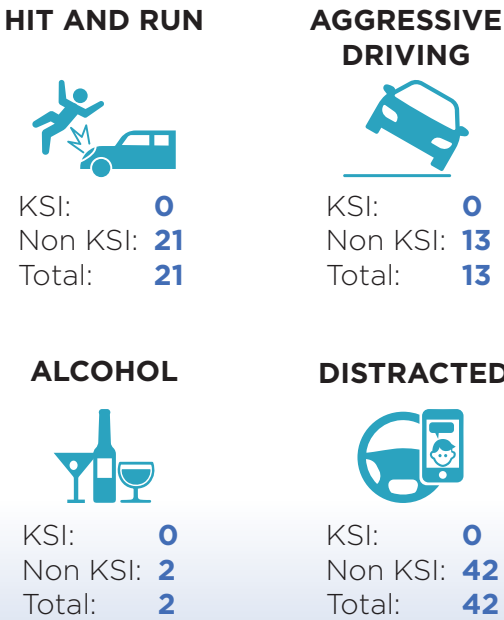


CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:



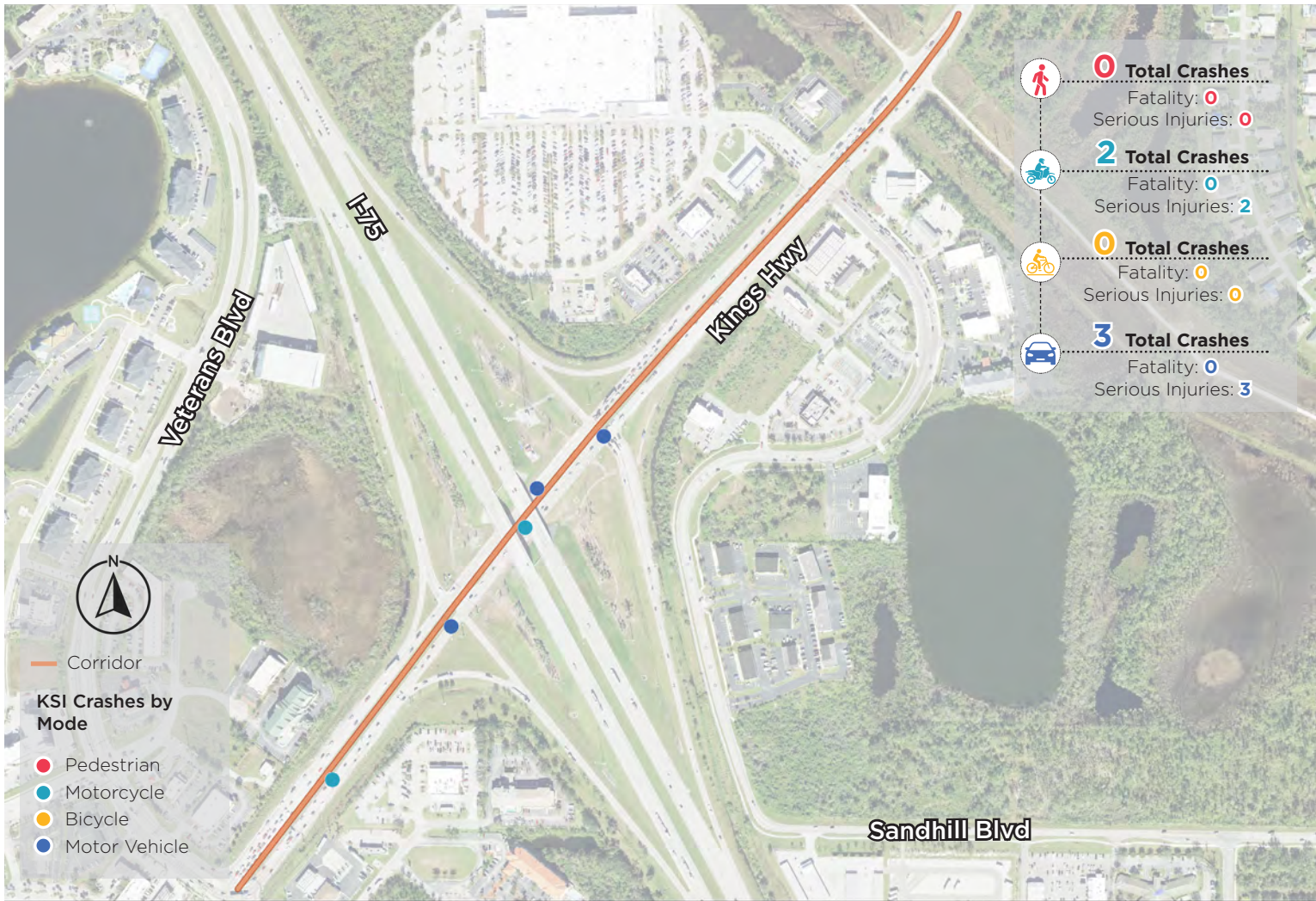
BEHAVIORAL FACTORS:



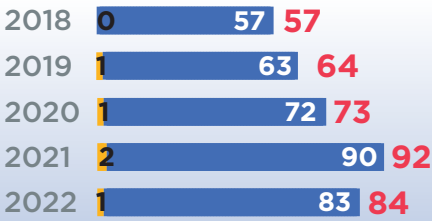
*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 7 - Kings Highway
from Veterans Boulevard to East of Sandhill Boulevard

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:

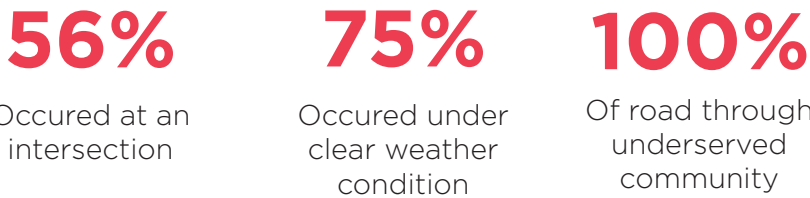


Legend for crash types and source information.

Table with corridor details: Travel Lanes/ AADT, Corridor Length, Safety Score Per Mile, Posted Speed, Functional Classification, Context Classification, Presence of Sidewalk, Presence of Bike Lanes, Presence of Median.

CRASH TYPE SUMMARY (2018-2022):

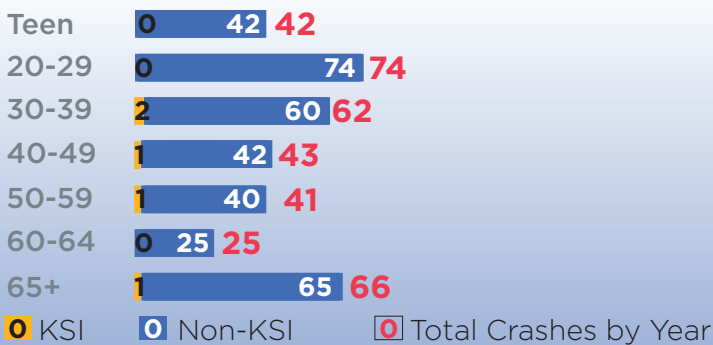
Table with 3 columns: Crash Type, KSI, NON-KSI, TOTAL. Rows include Angle, Bicycle, Head On, Left Turn, Off-Road, Pedestrian, Rear End, Right Turn, Rollover, Sideswipe, Other.



CRASH SUMMARY BY MONTH (2018-2022):

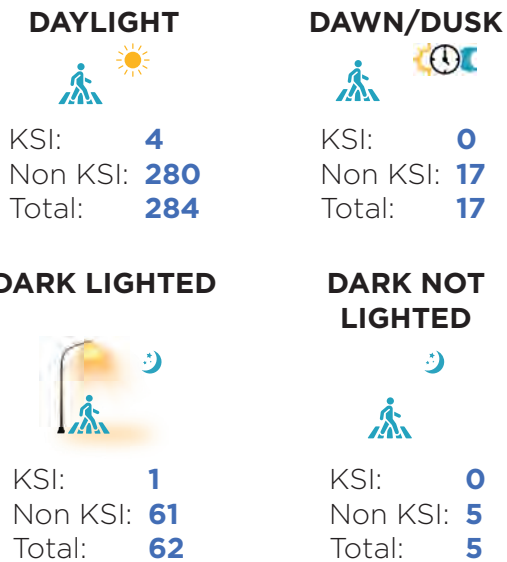


CRASH SUMMARY BY AGE OF DRIVER:

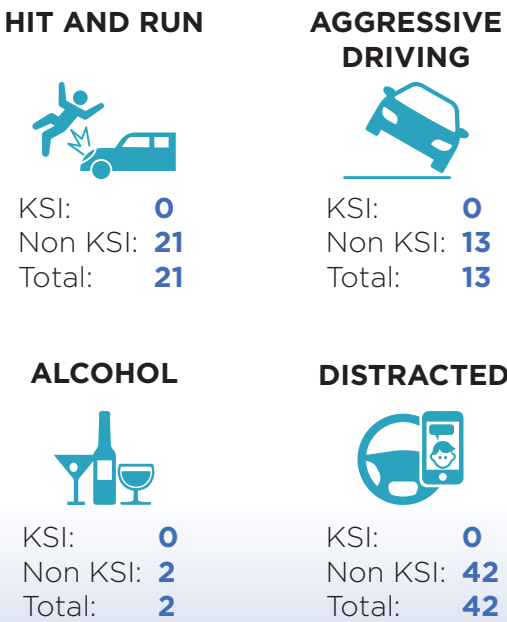


CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:



BEHAVIORAL FACTORS:



*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 8 - Midway Boulevard
from Lakeview Boulevard to Harbor Boulevard

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



436 TOTAL CRASHES
0 FATALITIES
15 SERIOUS INJURIES

CRASHES BY YEAR:
2018: 104 KSI, 108 Total
2019: 88 KSI, 90 Total
2020: 57 KSI, 58 Total
2021: 81 KSI, 82 Total
2022: 91 KSI, 98 Total

Legend: KSI (orange), Non-KSI (blue), Total Crashes (red)

Source: Signal4 Analytics

Travel Lanes/ AADT: 4/ 13,700
Corridor Length: 2.07 miles
Safety Score Per Mile*: 6,100
Posted Speed: 40 mph
Functional Classification: Minor Arterial - Urban
Context Classification:
Presence of Sidewalk: Yes
Presence of Bike Lanes: Yes
Presence of Median: No

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 4 | 36 | 40 |
| Bicycle | 0 | 6 | 6 |
| Head On | 0 | 5 | 5 |
| Left Turn | 6 | 79 | 85 |
| Off-Road | 1 | 12 | 13 |
| Pedestrian | 1 | 1 | 2 |
| Rear End | 2 | 173 | 175 |
| Right Turn | 0 | 7 | 7 |
| Rollover | 0 | 1 | 1 |
| Sideswipe | 0 | 50 | 50 |
| Other | 1 | 38 | 39 |

60% Occured at an intersection
86% Occured under clear weather condition
68% Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:

Teen: 39 KSI, 40 Total
20-29: 85 KSI, 88 Total
30-39: 63 KSI, 65 Total
40-49: 42 KSI, 42 Total
50-59: 56 KSI, 60 Total
60-64: 26 KSI, 27 Total
65+: 94 KSI, 98 Total

CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT: KSI: 8, Non KSI: 336, Total: 344
DAWN/DUSK: KSI: 0, Non KSI: 19, Total: 19
DARK LIGHTED: KSI: 7, Non KSI: 63, Total: 70
DARK NOT LIGHTED: KSI: 0, Non KSI: 3, Total: 3

BEHAVIORAL FACTORS:

HIT AND RUN: KSI: 0, Non KSI: 22, Total: 22
AGGRESSIVE DRIVING: KSI: 0, Non KSI: 11, Total: 11
ALCOHOL: KSI: 3, Non KSI: 9, Total: 12
DISTRACTED: KSI: 4, Non KSI: 23, Total: 24

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

Note: For crash type summaries and contributing factors, total may not sum to the total crashes as some crash records are incomplete and only top crash types are shown.

CORRIDOR 9 - Edgewater Drive

from Midway Boulevard to Conreid Drive NE

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



115
TOTAL
CRASHES



1
FATALITIES



11
SERIOUS
INJURIES

CRASHES BY YEAR:

2018 3 16 19
2019 2 17 19
2020 2 23 25
2021 2 21 23
2022 3 26 29

0 KSI 0 Non-KSI 0 Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

Travel Lanes/ AADT 4/ 14,600

Corridor Length 2.38 miles

Safety Score Per Mile* 5,895

Posted Speed 35 mph

Functional Classification Minor Arterial - Urban

Context Classification

Presence of Sidewalk Yes

Presence of Bike Lanes No

Presence of Median Yes

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 0 | 11 | 11 |
| Bicycle | 1 | 1 | 2 |
| Head On | 0 | 1 | 1 |
| Left Turn | 0 | 2 | 2 |
| Off-Road | 4 | 32 | 36 |
| Pedestrian | 0 | 2 | 2 |
| Rear End | 1 | 26 | 27 |
| Right Turn | 0 | 2 | 2 |
| Rollover | 2 | 1 | 3 |
| Sideswipe | 0 | 17 | 17 |
| Other | 4 | 7 | 11 |

45%

Occured at a roundabout

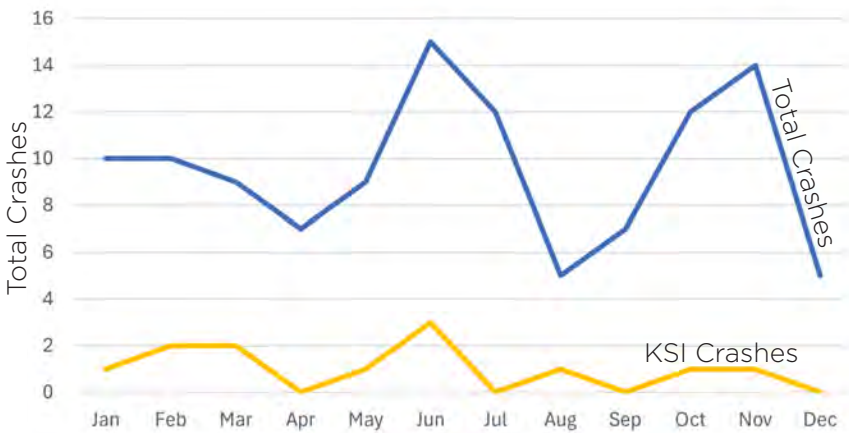
84%

Occured under clear weather condition

38%

Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:

Teen 0 5 6
20-29 1 13 14
30-39 3 20 23
40-49 0 9 9
50-59 1 10 11
60-64 4 6 10
65+ 2 22 24

0 KSI 0 Non-KSI 0 Total Crashes by Year

CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 9
Non KSI: 78
Total: 87

DAWN/DUSK



KSI: 1
Non KSI: 1
Total: 2

DARK LIGHTED



KSI: 2
Non KSI: 23
Total: 25

DARK NOT LIGHTED



KSI: 0
Non KSI: 0
Total: 0

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 1
Non KSI: 17
Total: 18

AGGRESSIVE DRIVING



KSI: 1
Non KSI: 7
Total: 8

ALCOHOL



KSI: 1
Non KSI: 3
Total: 4

DISTRACTED



KSI: 0
Non KSI: 9
Total: 9

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

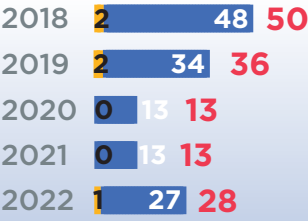
CORRIDOR 10 - Olean Boulevard

from US 41 (Tamiami Trail) to Key Lane

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



CRASHES BY YEAR:

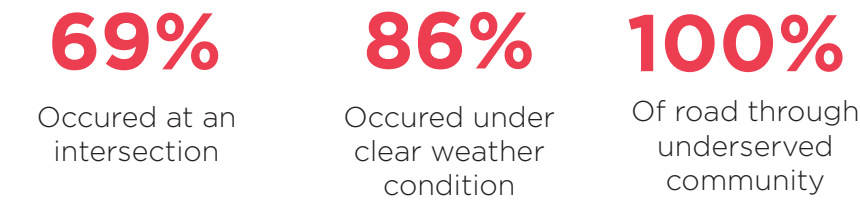


Legend: KSI, Non-KSI, Total Crashes by Year
KSI = Killed or Seriously Injured Source: Signal4 Analytics
AADT = Annual Average Daily Traffic

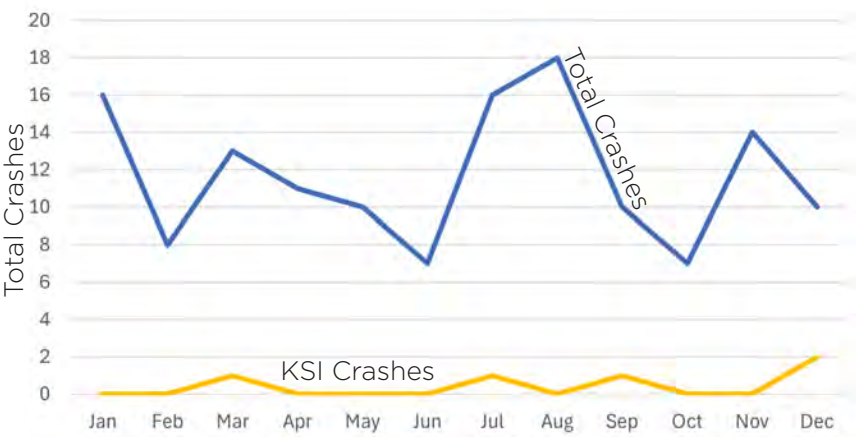
| | |
|---------------------------|-------------------------|
| Travel Lanes/ AADT | 2/ 11,900 |
| Corridor Length | 0.93 miles |
| Safety Score Per Mile* | 5,725 |
| Posted Speed | 35 mph |
| Functional Classification | Major Collector - Urban |
| Context Classification | |
| Presence of Sidewalk | Yes |
| Presence of Bike Lanes | No |
| Presence of Median | No |

CRASH TYPE SUMMARY (2018-2022):

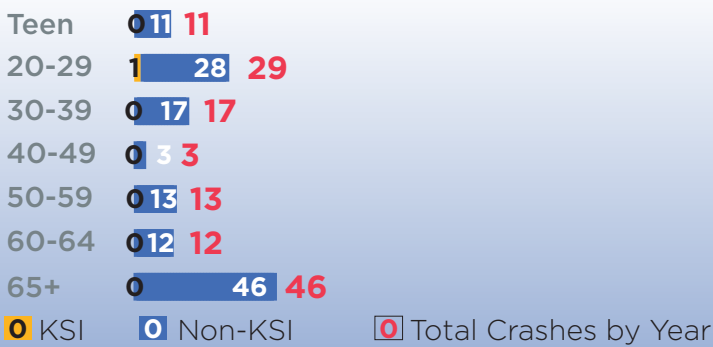
| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 1 | 24 | 25 |
| Bicycle | 1 | 0 | 1 |
| Head On | 0 | 1 | 1 |
| Left Turn | 0 | 13 | 13 |
| Off-Road | 1 | 6 | 7 |
| Pedestrian | 2 | 1 | 3 |
| Rear End | 0 | 50 | 50 |
| Right Turn | 0 | 3 | 3 |
| Rollover | 0 | 0 | 0 |
| Sideswipe | 0 | 20 | 20 |
| Other | 0 | 11 | 11 |



CRASH SUMMARY BY MONTH (2018-2022):

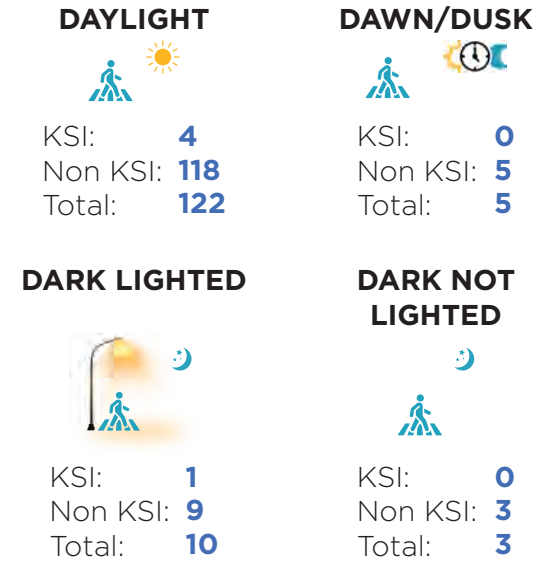


CRASH SUMMARY BY AGE OF DRIVER:

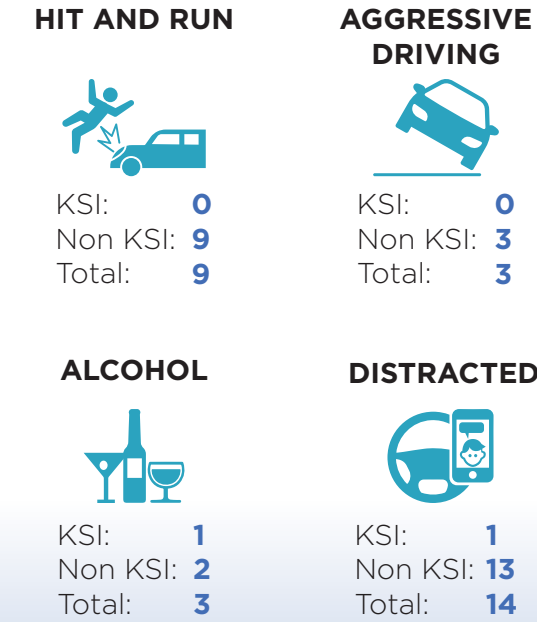


CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:



BEHAVIORAL FACTORS:

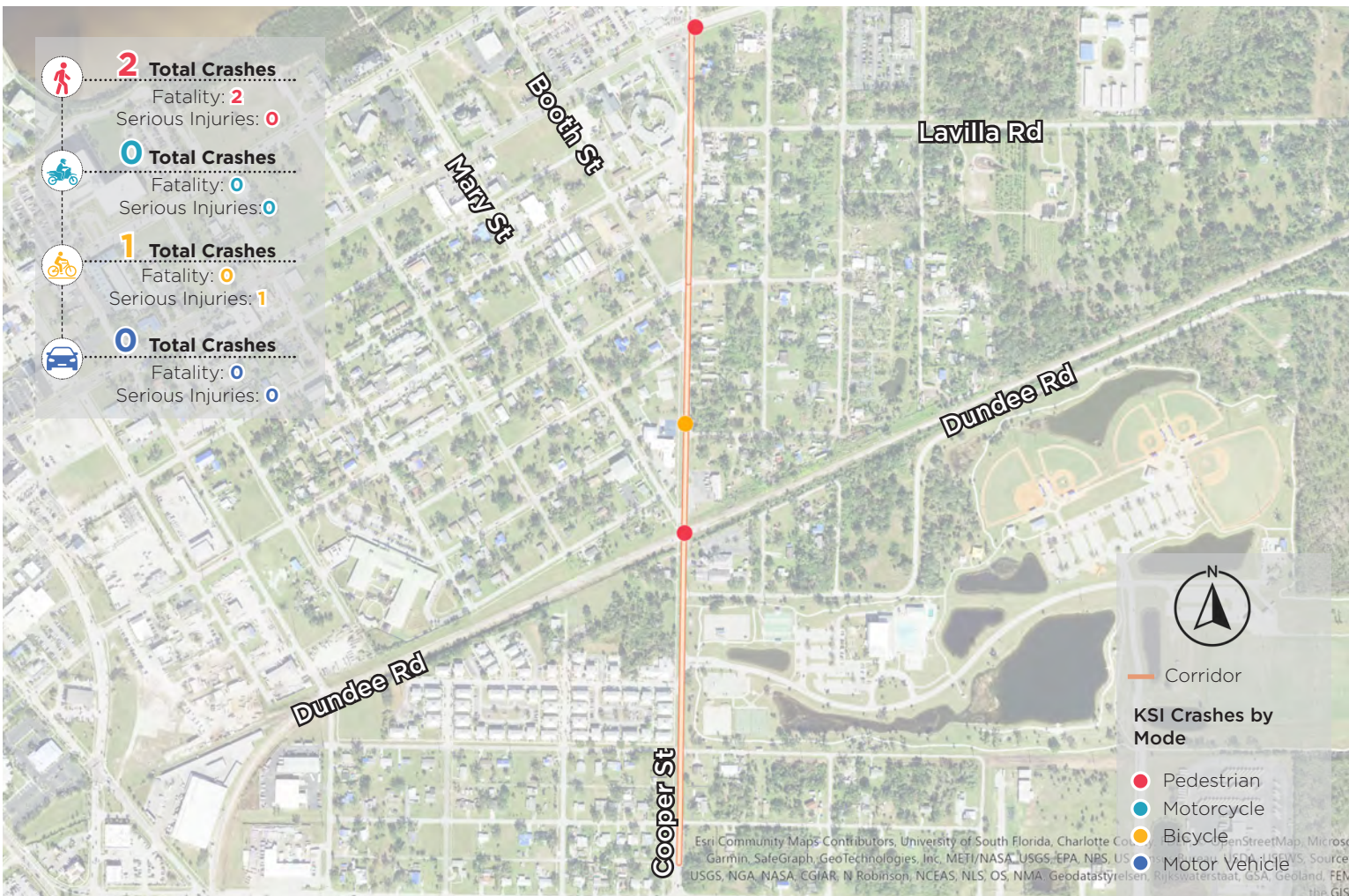


*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

Note: For crash type summaries and contributing factors, total may not sum to the total crashes as some crash records are incomplete and only top crash types are shown.

CORRIDOR 11 - Cooper Street
from E Olympia Avenue to Burland Street

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



39
TOTAL
CRASHES

2
FATALITIES

1
SERIOUS
INJURIES

CRASHES BY YEAR:

2018 0 10 10
2019 0 7 7
2020 0 7 7
2021 1 6 7
2022 2 6 8

KSI Non-KSI Total Crashes by Year

KSI = Killed or Seriously Injured Source: Signal4 Analytics

AADT = Annual Average Daily Traffic

Travel Lanes/ AADT 2/ 7,900

Corridor Length 0.69 miles

Safety Score Per Mile* 5,319

Posted Speed 30 mph

Functional Classification Major Collector - Urban

Context Classification

Presence of Sidewalk Yes

Presence of Bike Lanes No

Presence of Median No

CRASH TYPE SUMMARY (2018-2022):

Table with 3 columns: Crash Type, KSI, NON-KSI, TOTAL. Rows include Angle, Bicycle, Head On, Left Turn, Off-Road, Pedestrian, Rear End, Right Turn, Rollover, Sideswipe, and Other.

56%

Occured at an intersection

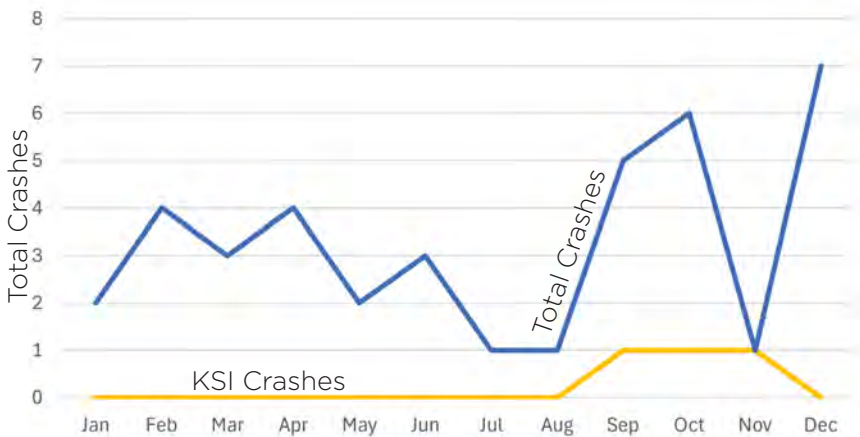
90%

Occured under clear weather condition

100%

Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:

Teen 1 6 7
20-29 1 6 7
30-39 1 2 3
40-49 0 2 2
50-59 0 8 8
60-64 0 2 2
65+ 0 8 8

KSI Non-KSI Total Crashes by Year

CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 0
Non KSI: 30
Total: 30

DAWN/DUSK



KSI: 0
Non KSI: 1
Total: 1

DARK LIGHTED



KSI: 1
Non KSI: 2
Total: 3

DARK NOT LIGHTED



KSI: 2
Non KSI: 3
Total: 5

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 0
Non KSI: 1
Total: 1

AGGRESSIVE DRIVING



KSI: 0
Non KSI: 1
Total: 1

ALCOHOL



KSI: 0
Non KSI: 1
Total: 1

DISTRACTED



KSI: 0
Non KSI: 9
Total: 9

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 12 - Marion Avenue

from Henry Street to Chasteen St

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



46

TOTAL
CRASHES



1

FATALITIES



1

SERIOUS
INJURIES

CRASHES BY YEAR:



KSI = Killed or Seriously Injured Source: Signal4 Analytics
AADT = Annual Average Daily Traffic

| | |
|---------------------------|-----------------------|
| Travel Lanes/ AADT | 2 / 5,900 |
| Corridor Length | 0.64 miles |
| Safety Score Per Mile* | 2,582 |
| Posted Speed | 30 mph |
| Functional Classification | Major Collector-Urban |
| Context Classification | Arterial |
| Presence of Sidewalk | Yes |
| Presence of Bike Lanes | No |
| Presence of Median | No |

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 1 | 9 | 10 |
| Bicycle | 0 | 0 | 0 |
| Head-On | 0 | 0 | 0 |
| Left-Turn | 0 | 1 | 1 |
| Off-Road | 1 | 3 | 4 |
| Pedestrian | 0 | 0 | 0 |
| Rear-End | 0 | 2 | 2 |
| Right-Turn | 0 | 0 | 0 |
| Rollover | 0 | 0 | 0 |
| Sideswipe | 0 | 14 | 14 |
| Other | 0 | 14 | 14 |

5%

Occured at an
intersection

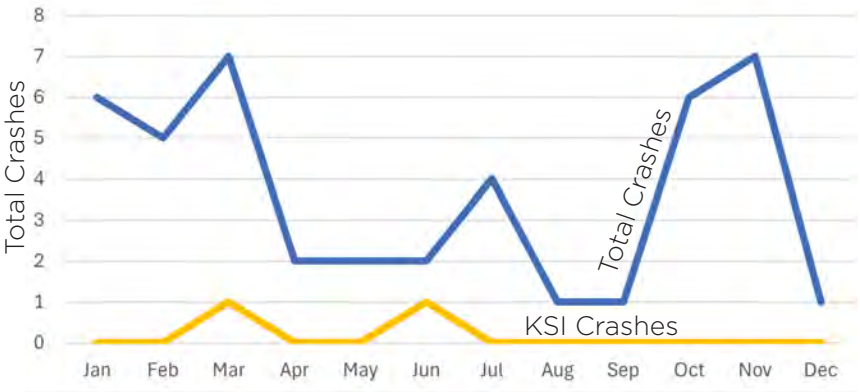
94%

Occured under
clear weather
condition

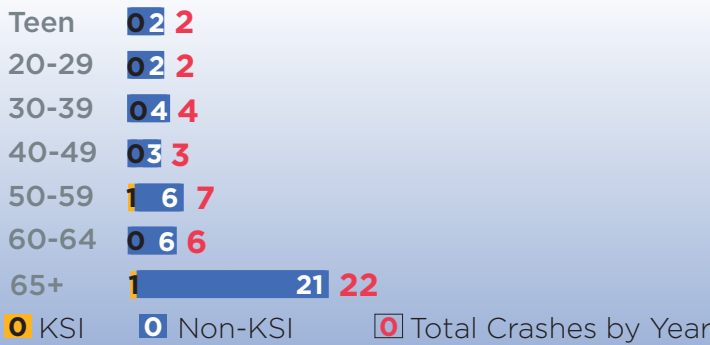
100%

Of road through
underserved
community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 2
Non KSI: 40
Total: 42

DAWN/DUSK



KSI: 0
Non KSI: 1
Total: 1

DARK LIGHTED



KSI: 0
Non KSI: 1
Total: 1

DARK NOT
LIGHTED



KSI: 0
Non KSI: 2
Total: 2

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 0
Non KSI: 3
Total: 3

AGGRESSIVE
DRIVING



KSI: 0
Non KSI: 1
Total: 1

ALCOHOL



KSI: 0
Non KSI: 1
Total: 1

DISTRACTED



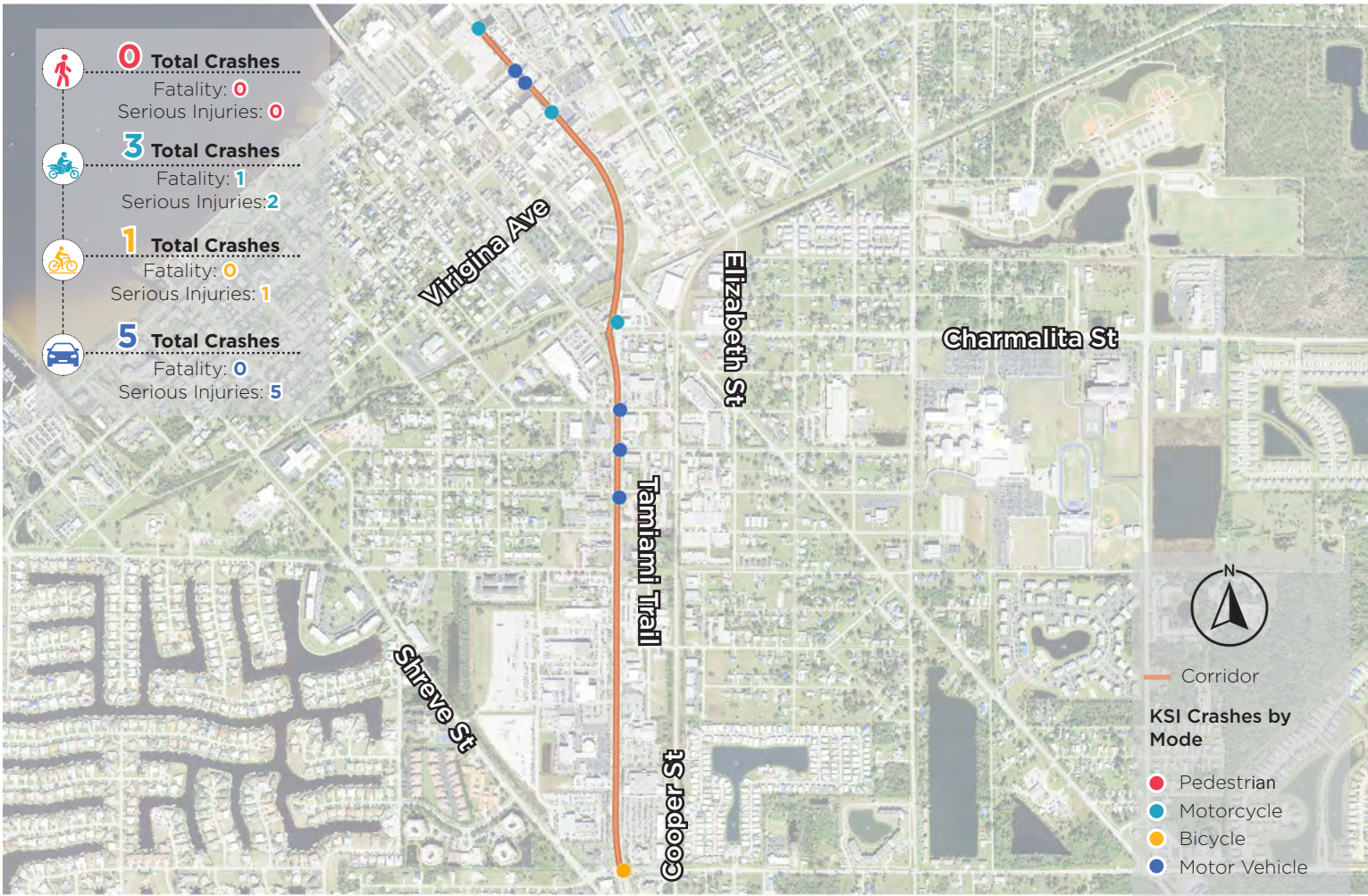
KSI: 0
Non KSI: 15
Total: 15

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 13 - US 41 (Tamiami Trail)

from Retta Esplanade to Airport Road

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS

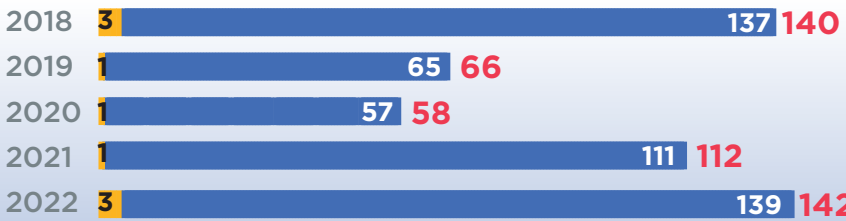


518
TOTAL
CRASHES

1
FATALITIES

8
SERIOUS
INJURIES

CRASHES BY YEAR:



Legend: KSI (yellow), Non-KSI (blue), Total Crashes (red)

KSI = Killed or Seriously Injured Source: Signal4 Analytics
AADT = Annual Average Daily Traffic

Travel Lanes/ AADT 2/ 35,000

Corridor Length 1.46 miles

Safety Score Per Mile* 5,432

Posted Speed 40 mph

Functional Classification Principal Arterial-Other - Urban

Context Classification C3C,C4,C5

Presence of Sidewalk Yes

Presence of Bike Lanes No

Presence of Median Yes

CRASH TYPE SUMMARY (2018-2022):

| | KSI | NON-KSI | TOTAL |
|------------|-----|---------|-------|
| Angle | 3 | 86 | 89 |
| Bicycle | 0 | 4 | 4 |
| Head-On | 1 | 2 | 3 |
| Left-Turn | 0 | 36 | 36 |
| Off-Road | 0 | 17 | 17 |
| Pedestrian | 2 | 3 | 5 |
| Rear-End | 2 | 167 | 169 |
| Right-Turn | 0 | 6 | 7 |
| Rollover | 0 | 7 | 7 |
| Sideswipe | 2 | 96 | 98 |
| Other | 1 | 70 | 71 |

56%

Occured at an intersection

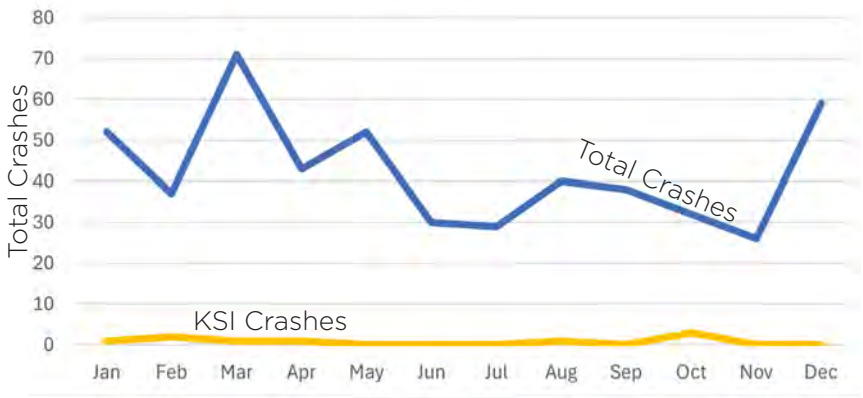
90%

Occured under clear weather condition

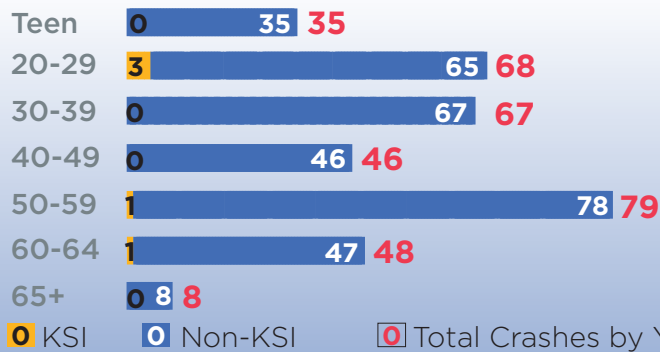
100%

Of road through underserved community

CRASH SUMMARY BY MONTH (2018-2022):



CRASH SUMMARY BY AGE OF DRIVER:



CRASH CONTRIBUTING FACTORS:

LIGHTING CONDITION:

DAYLIGHT



KSI: 6
Non KSI: 458
Total: 464

DAWN/DUSK



KSI: 0
Non KSI: 6
Total: 6

DARK LIGHTED



KSI: 3
Non KSI: 41
Total: 44

DARK NOT LIGHTED



KSI: 0
Non KSI: 4
Total: 4

BEHAVIORAL FACTORS:

HIT AND RUN



KSI: 1
Non KSI: 33
Total: 34

AGGRESSIVE DRIVING



KSI: 1
Non KSI: 31
Total: 32

ALCOHOL



KSI: 0
Non KSI: 6
Total: 6

DISTRACTED



KSI: 1
Non KSI: 132
Total: 133

*The safety score represents the total weighted score calculated by collision severity and if a vulnerable road user was involved, normalized on a per mile basis.

CORRIDOR 1 - US 41 (Tamiami Trail)

from Midway Boulevard to Conway Boulevard

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

FDOT has a sidewalk project planned along the east side of US 41 (438262-1). The project is currently funded for the design phase (PE) in 2025, with construction planned for 2027. It is being planned as an 8-foot wide multiuse recreational trail (MURT).

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Implement all planned FDOT projects
- Conduct Road Safety Audit to identify safety improvements for all road users
- Assess appropriate speed limit that considers a target speed of 40 mph in conjunction with speed management strategies
- Review intersection crosswalks and pavement markings to refresh faded paint
- Provide a Flashing Yellow turn phase/ Advanced Dilemma Zone Detection at signalized intersections
- Review signal coordination to encourage adherence to the posted speed limit
- Provide advance road name and overhead lane use signage on approach to the major intersections

- Provide green conflict striping in bike lane conflict areas
- Provide LPIs and upgrade to high-emphasis crosswalks on all legs at signalized intersections
- Add retroreflective backplates at signalized intersections where they are currently not provided

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Conduct a pedestrian crossing study to determine where additional signalized crossings would be appropriate, consider median pedestrian fencing at strategic locations to direct pedestrians to signalized crossings, and reduce pedestrian crossing distances
- Propose lane narrowing to 10-11 feet accommodate buffered bike lanes and control speeds along the corridor
- Upgrade wire span traffic signals to mast arm design
- Evaluate median nose extensions to provide pedestrian refuge (location shown below)
- Perform corridor-wide lighting justification study
- Evaluate potential closure/consolidation of driveways within intersection influence areas (all signalized intersections)

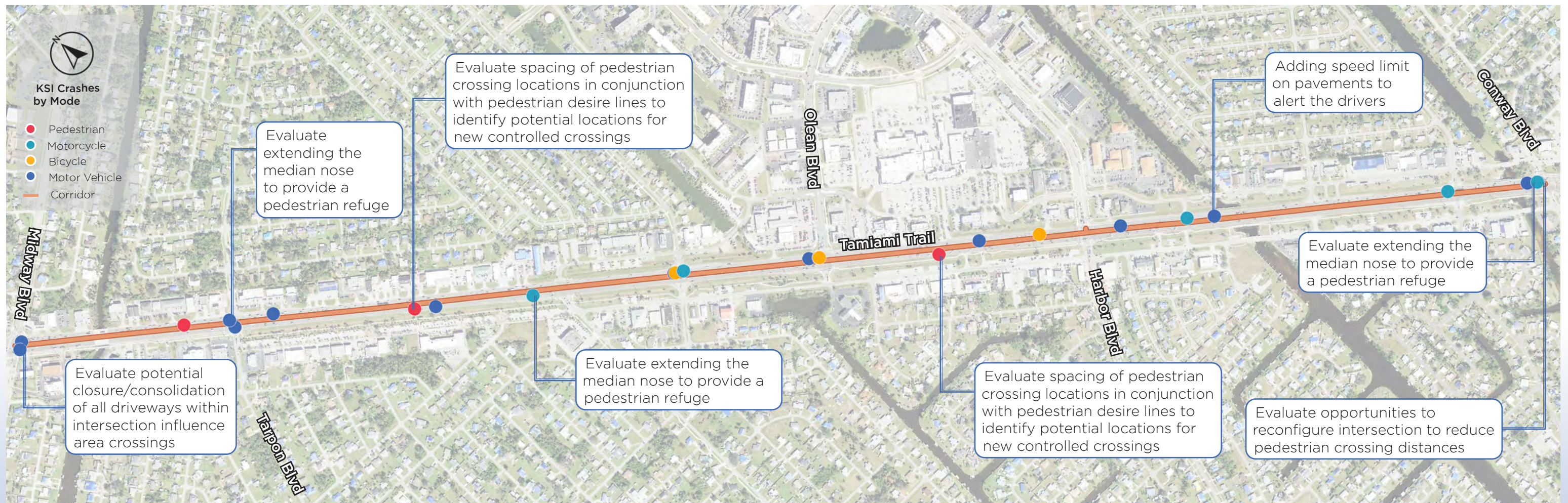
- Modify intersections and driveways to reduce curb radii
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Eliminate on-street bikes lane and provide wider multiuse recreational trail (10-foot minimum with 2-foot buffer on each side of the trail)
- Evaluate potential to convert existing channelized right turns to near perpendicular designs to improve sight distance and slow down turning vehicles
- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations, and bike/ped access to adjacent neighborhoods to reduce travel demand due to local trips

Project Prioritization Score 84.17

2030 Planning Level Cost \$1,150,385



CORRIDOR 2 - US 41 (Tamiami Trail)

from Conway Boulevard to Melbourne Street

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

FDOT has a sidewalk project planned with 8-foot sidewalk construction along east side of US 41 from Conway Boulevard to Kings Highway (446830-1). There is also another feasibility study on the corridor to accommodate multimodal aspects of complete street (446391-1). There was a proposed planning study of the corridor to identify multimodal improvements, but the planning study is on indefinite hold. The Charlotte County Bicycle-Pedestrian Master Plan includes a project that would add a crossing to Tamiami Trail at the intersection of Edgewater Drive/Harborview Road (Project 30). The crossing would include a pedestrian refuge island and potentially LPIs.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Implement all planned FDOT improvements
- Conduct Road Safety Audit to identify safety improvements for all road users
- Assess appropriate speed limit that considers a target speed of 35 mph in conjunction with speed management strategies
- Install speed feedback signs at Hancock Avenue

- Review intersection crosswalks and pavement markings to refresh faded paint and install high emphasis crosswalks
- Review signal coordination to encourage drivers to adhere to the posted speed limit
- Provide green conflict striping in bike lane conflict areas

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

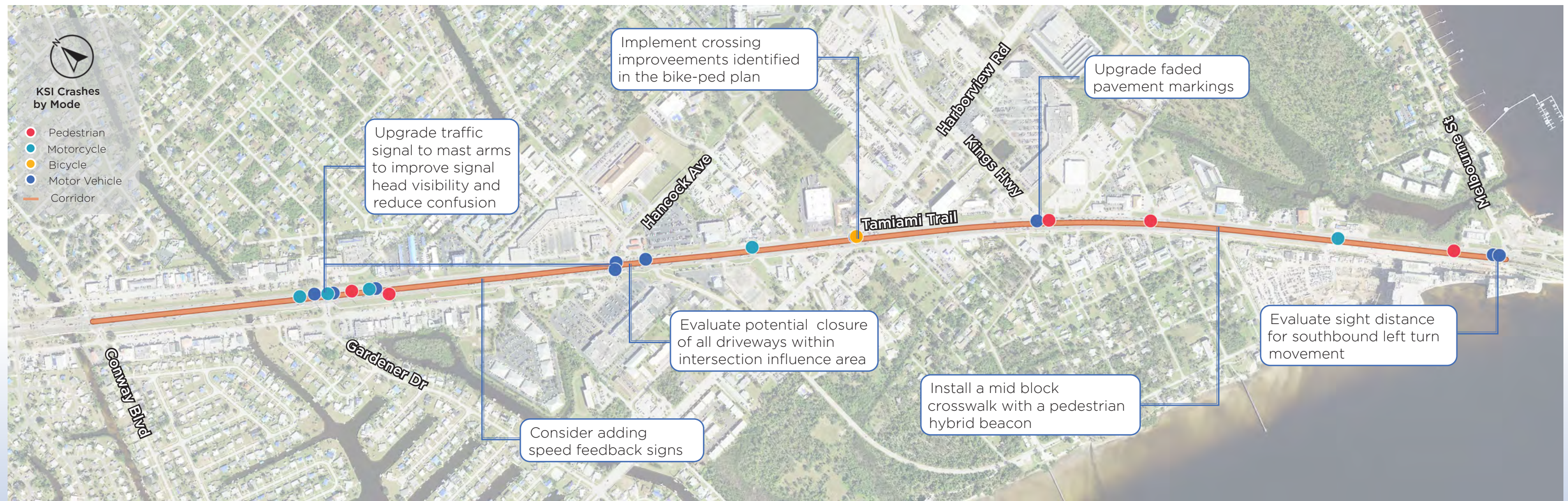
- Evaluate traffic signal design at Garder Drive as current span wire design can create visibility issues and conflicts
- Perform corridor-wide lighting justification study
- Conduct a pedestrian crossing study to determine where additional signalized crossings would be appropriate, and consider median pedestrian fencing at strategic locations to direct pedestrians to signalized crossings
- Provide lane narrowing to 10/11 feet to reduce travel speeds and accommodate buffered bike lane
- Evaluate potential closure/consolidation of driveways within intersection influence areas (all signalized intersections)
- Evaluate access management along the corridor to reduce potential conflicts and adhere to the latest FDOT standards
- Modify intersections and driveways to reduce curb radii

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Eliminate on-street bikes lane and provide wider multiuse recreational trail (10 foot minimum with 2-foot buffer on each side of the trail).
- Evaluate potential to convert existing channelized right turns to near perpendicular designs to improve sight distance and slow down turning vehicles
- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations, and bike/ped access to adjacent neighborhoods to reduce travel demand due to local trips

Project Prioritization Score 80.83

2030 Planning Level Cost \$376,640



CORRIDOR 3 - US 41 (Tamiami Trail)

from Veterans Boulevard to Midway Boulevard

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

FDOT has a sidewalk project planned along the east side of US 41 from Midway Boulevard to Paulson Drive (440442-1). The Charlotte County Bicycle-Pedestrian Master Plan includes a project that would construct a shared-use path on one side of Tamiami Trail between SR 776 and Midway Boulevard, filling in the gap in the SUN Trail network (Project 38). The Master Plan proposes to install pedestrian refuge islands and potentially LPIs at the intersection of Tamiami Trail at Murdock Circle (Project 29).

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Implement planned improvements
- Conduct Road Safety Audit to identify safety improvements for all road users
- Assess appropriate speed limit that considers a target speed of 35 mph around Murdock Circle in conjunction with speed management strategies
- Review signal coordination to encourage drivers to adhere to the posted speed limit

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Perform corridor-wide lighting justification study
- Evaluate providing additional bicycle and pedestrian crossing treatments such as protected intersection elements along with the closure of the SUN Trail gap.
- Consider replacing span wire signals with mast arms for improved visibility
- Evaluate access management along the corridor to reduce potential conflicts and adhere to the latest FDOT standards

- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK)
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Monitor use of the SUN Trail facility and implement additional treatments as necessary, such as grade separated crossings of major intersections

Project Prioritization Score 77.50

2030 Planning Level Cost \$ 171,900



CORRIDOR 4 - US 41 (Tamiami Trail)

from Retta Esplanade to Carmalita Street

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

There are improvements currently under construction on US 41 as a part of project 441524-1 between William Street and the Peace River Bridge. Improvements include adding dedicated turn lanes throughout the corridor, adding a roundabout at the intersection of Carmalita Street, adding a new traffic signal at Retta Esplanade, and implementing pedestrian/bicycle safety improvements. These improvements also include sidewalks along Tamiami Trail and a new mid-block pedestrian crossing and signal near Sacred Heart Catholic Church on southbound Tamiami Trail to connect to the Punta Gorda Pathways Linear Park. Additionally, through lanes will be shifted so drivers no longer have to switch lanes to drive through Downtown Punta Gorda. Completion of the roundabout is anticipated by May 2025. The project is anticipated to be completed by May 2026.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Implement planned FDOT projects
- Conduct Road Safety Audit to identify safety improvements for all road users
- Provide LPIs and upgrade to high-emphasis crosswalks on all legs at signalized intersections
- Review signal coordination to encourage drivers to adhere to the posted speed limit

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

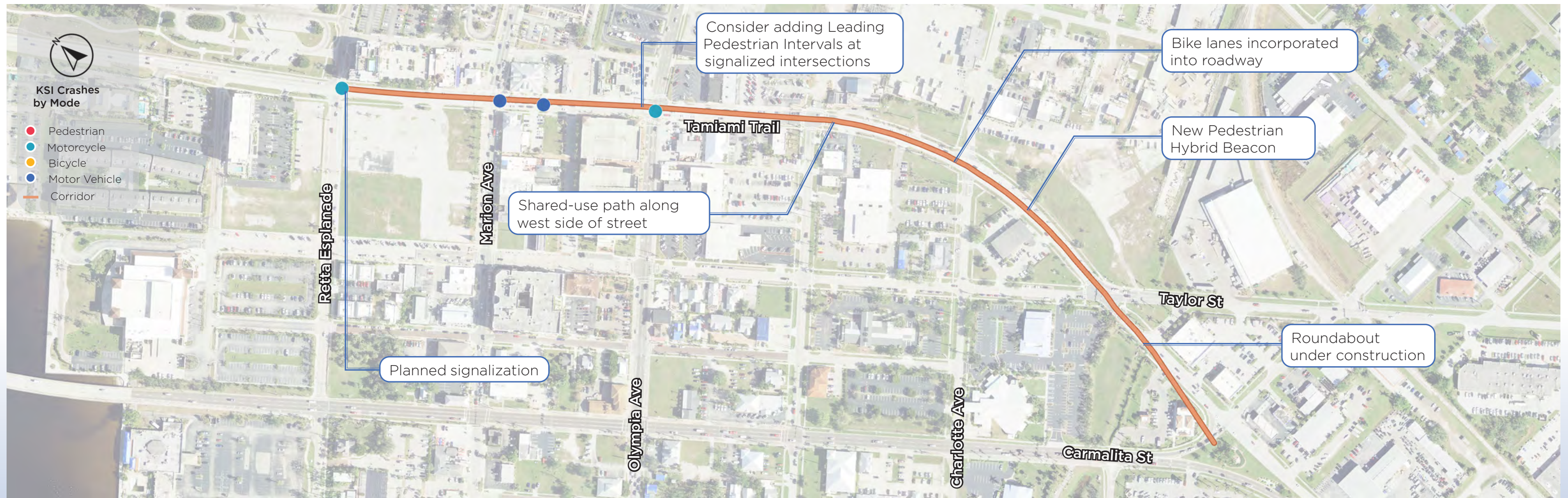
- Evaluate potential to provide on-street bike lanes in the northbound direction on US 41 to better accommodate bicycling in the area and reduce potential for wrong-way bicycling in northbound travel lanes
- Evaluate potential to provide vertical separation between the bike lane and travel lane where there is a low density of driveways
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Conduct a before / after study of the improvements currently under construction to document their safety benefit and identify additional potential countermeasures

Project Prioritization Score 82.92

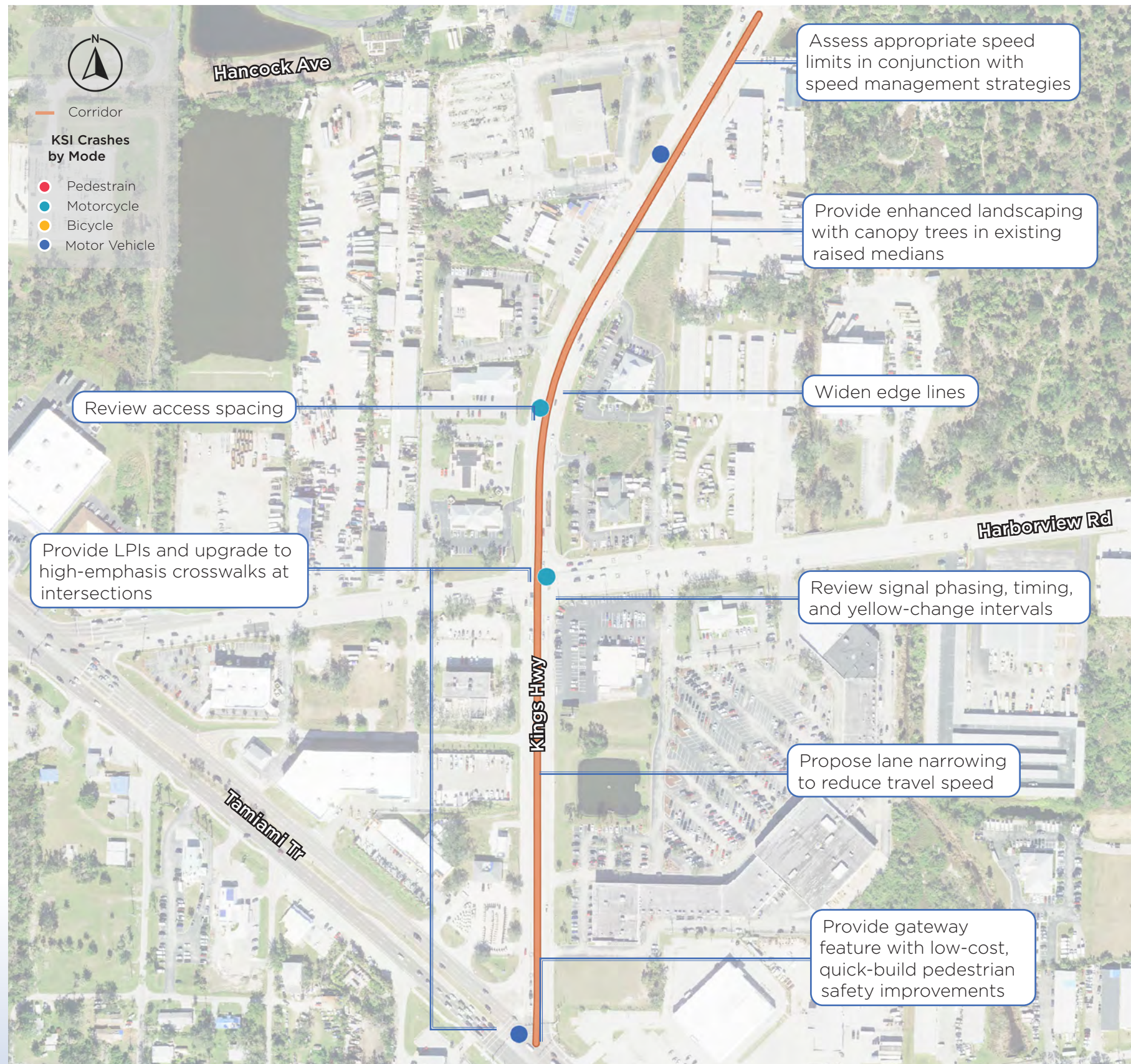
2030 Planning Level Cost \$121,900



CORRIDOR 5 - Kings Highway

from US 41 (Tamiami Trail) to Palmetto Mobile Park

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

Planned improvements for Kings Highway include the identification of a welcoming gateway feature at the intersection of US 41 (Tamiami Trail), per the FDOT US 41 Vision Study. This gateway feature may make utilization of the raised median to highlight pedestrian safety in the form of a quick-build pavement paintings to offer high visibility of that pedestrian refuge space. Additional improvements include FDOT 5-Year Work Program projects FPID 446830-1 and 446391-1, providing sidewalk improvements and additional corridor planning along Kings Highway, as well as FPID 452857-1, providing intersection improvements at Harborview Road.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Provide wider edge lines to reduce off-road crashes
- Provide gateway feature with low-cost, quick-build pedestrian safety improvements at intersection of US 41 (Tamiami Trail) and Kings Highway
- Provide LPIs and upgrade crosswalks to provide high-emphasis crosswalks on all legs of intersections
- Review signal phasing, timing, and yellow change intervals to reduce queueing and congestion-related crash types
- Assess appropriate speed limits in conjunction with speed management strategies
- Review striping through intersections for all left-turn movements, noting that both intersections have skewed alignments

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Review access spacing and consider directionalization or closure of the full access median openings along the corridor to reduce left-turn conflicts
- Extend the raised median on the north leg of the Kings Highway at Harborview Road intersection
- Evaluate left-turn lane offsets at intersections to provide positive offset, noting that the left-turn lanes on US 41 are currently negatively offset
- Provide enhanced landscaping with canopy trees in existing raised medians to reduce travel speeds
- Provide lane narrowing to reduce travel speeds and accommodate buffered bike lanes
- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Reassess appropriate speed limit with implementation of countermeasure

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations

Project Prioritization Score 70.83

2030 Planning Level Cost \$ 540,900

CORRIDOR 6A - SR 776 (El Jobean Road)

from Centennial Boulevard to US 41 (Tamiami Trail)

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

FDOT D1 conducted a SR 776 Corridor Planning Study, which lays the groundwork for several of the improvements identified between Centennial Boulevard and US 41 (Tamiami Trail). In addition to this planning study, there are several 5-Year Work Program Items for consideration, which include: 446340-1 (pedestrian safety improvements at Flamingo Blvd), 444907-1 (landscaping), right-turn lanes (at Jacobs St), and 443602-2 (extension of Cape Haze Pioneer Trail). Intersection improvements at US 41 have been identified under the Transportation Improvement Program (TIP).

Project Prioritization Score 61.17

2030 Planning Level Cost \$ 531,380

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Assess appropriate speed limits in conjunction with context-appropriate speed management strategies
- Provide advance road name and overhead lane use signage on approach to US 41 and W Murdock Cir (W)
- Provide retroreflective backplates on signal heads
- Upgrade bike lanes with enhanced buffer and green conflict striping
- Review intersection crosswalks and pavement markings to refresh faded paint at Flamingo Blvd, Toledo Blade Blvd, and Murdock Cir

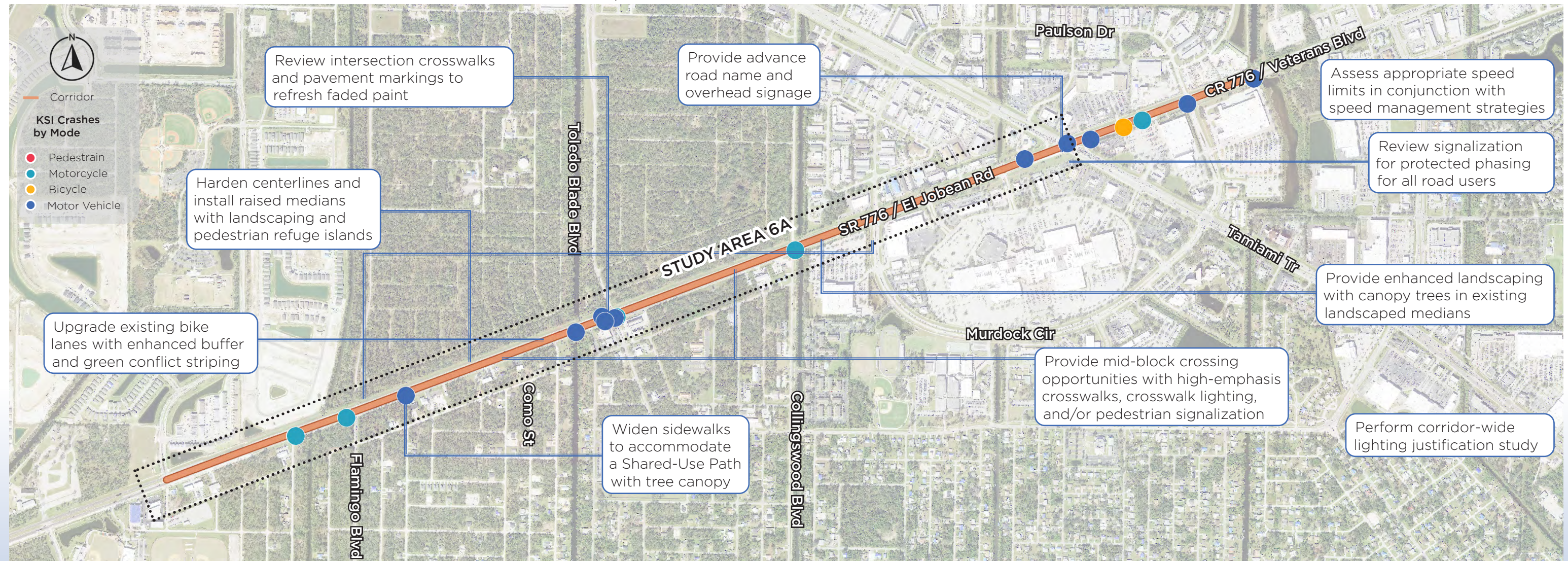
MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK)
- Perform corridor-wide lighting justification study
- Provide enhanced landscaping with canopy trees in existing landscaped median

- Widen sidewalks to accommodate a Shared-use Path with tree canopy
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands for the median east of Toledo Blade Blvd
- Evaluate pavement condition for high-friction surface treatment to improve braking performance east of Collingswood Blvd
- Provide signalization along the corridor with LPIs and high-emphasis crosswalks on all approaches, focusing on connectivity between the commercial (Charlotte Town Center), recreational (Charlotte Sports Park, Centennial Park), and residential developments
- Provide rumble strips along the non-curbed sections of the corridor to combat off-road crashes
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations



CORRIDOR 6B - CR 776 (Veterans Boulevard)

from US 41 (Tamiami Trail) to East of Paulson Drive

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

Intersection improvements at US 41 and Murdock Cir/Paulson Dr (both unfunded) have been identified under the County's TIP. FDOT also completed a Corridor Planning Study for Veterans Boulevard.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Review signal coordination phasing and safety-optimized clearance intervals for all road users
- Review signal phasing, timing, and yellow change intervals to reduce queueing and congestion-related crash types

- Provide LPIs and upgrade crosswalks to provide high-emphasis crosswalks on all legs of the US 41 and Murdock Circle/Paulson Drive intersections
- Provide retroreflective backplates on signal heads
- Assess appropriate speed limits in conjunction with context appropriate speed management strategies
- Refresh pavement markings and left-turn striping through the Paulson Drive/Murdock Circle intersection for all left-turn movements
- Provide advance road name and overhead lane use signage on approach to the major intersections at Murdock Circle (E)

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

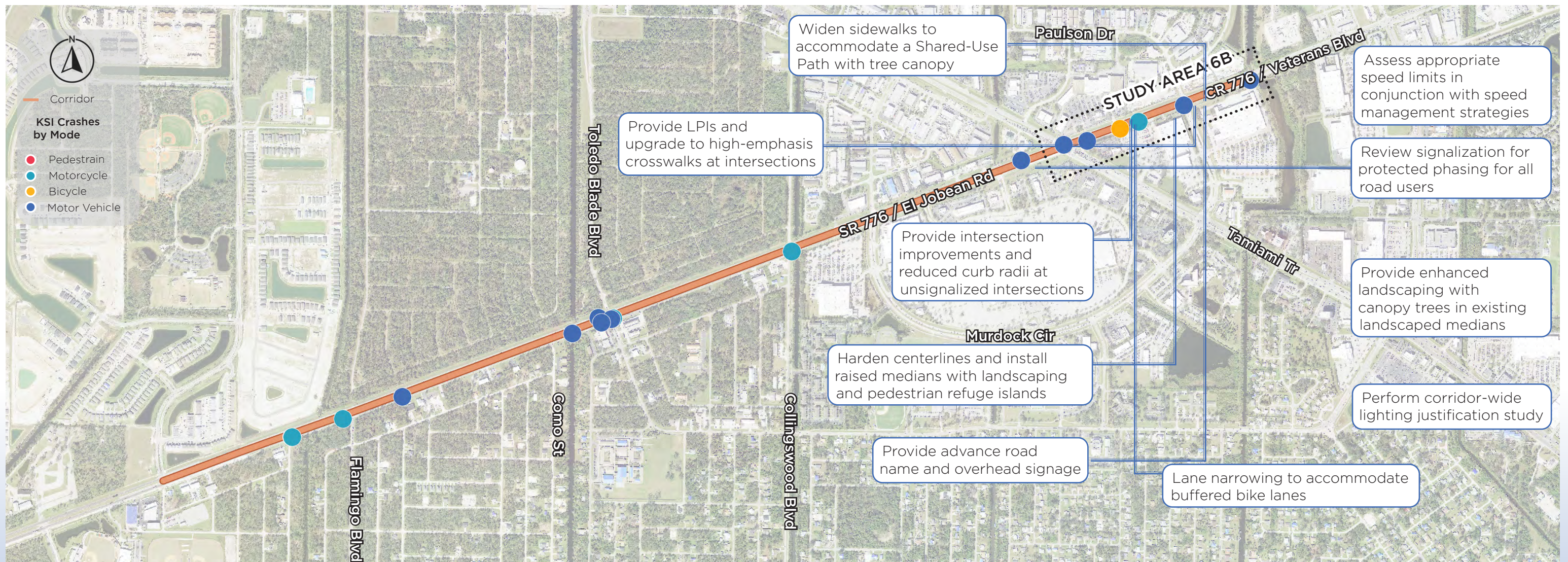
- Provide enhanced landscaping with canopy trees in existing landscaped median
- Provide intersection improvements and reduced curb radii at unsignalized intersections serving areas with high pedestrian and bicyclist traffic

- Widen sidewalks to accommodate a Shared-use Path with tree canopy
- Evaluate pavement condition for high-friction surface treatment to improve braking performance (note the western section of the corridor was recently repaved)
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands
- Perform corridor-wide lighting justification study
- Propose lane narrowing to accommodate buffered bike lanes and control speeds along the corridor
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations, and bike/ped access to adjacent neighborhoods to reduce travel demand due to local trips

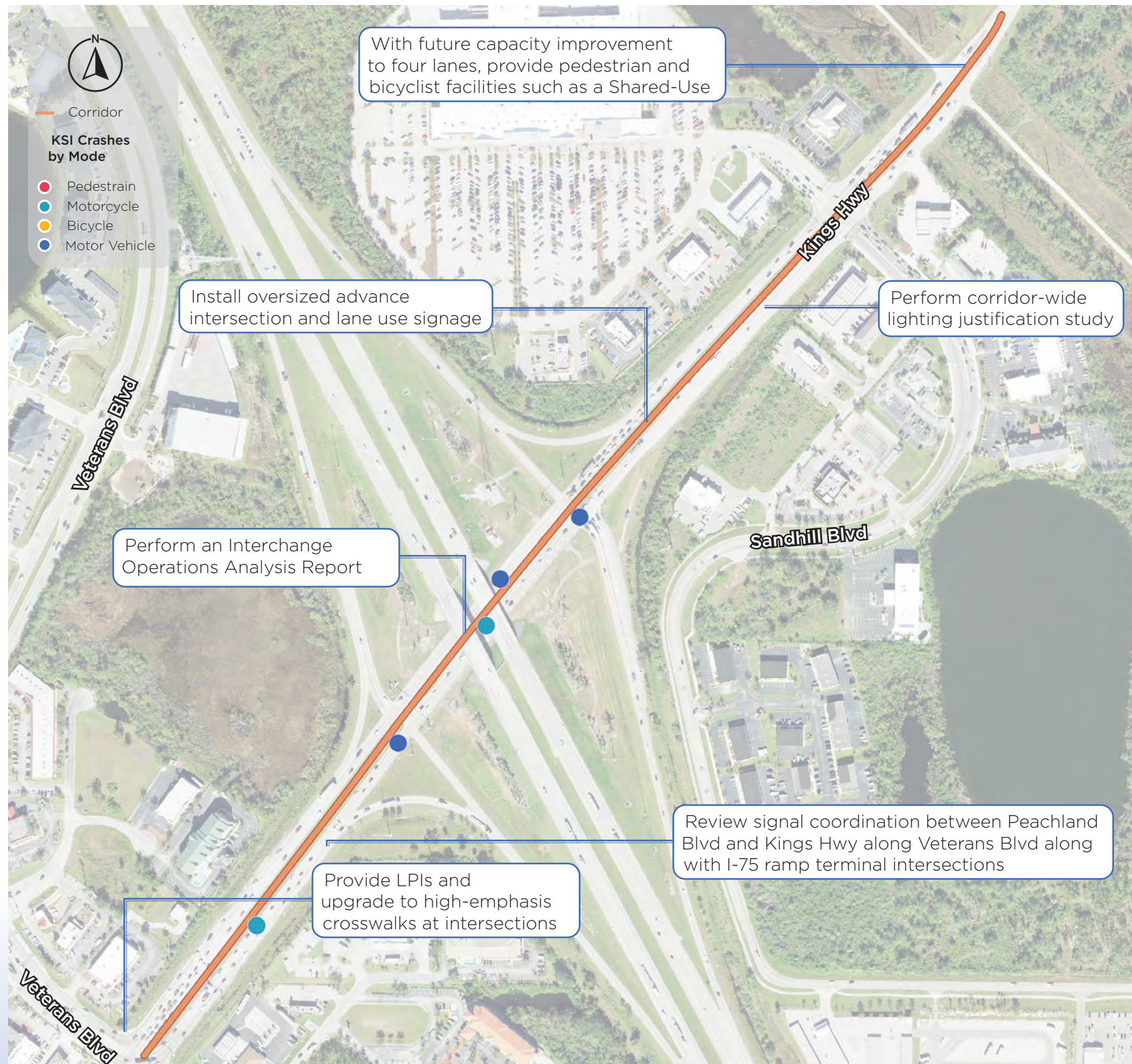
| | |
|------------------------------|-----------|
| Project Prioritization Score | 91.25 |
| 2030 Planning Level Cost | \$248,920 |



CORRIDOR 7 - Kings Highway

from Veterans Boulevard to East of Sandhill Boulevard

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

Major planned improvements long this corridor include the conversion of the Eastbound Single Left-turn To Dual Left-turn Lanes and Dual Receiving Northbound Lanes at the interchange, per the I-75 Corridor Master Plan. Additional projects identified in the Charlotte County TIP include turn lane improvements at the intersection of Veterans Boulevard to the west and a road widening project from 2-lanes to 4-lanes from Sandhill Boulevard to the DeSoto County line to the east.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Review signal phasing, timing, and yellow change intervals to reduce queueing and congestion-related crash types
- Refresh striping through intersections for all left-turn movements
- Consider opportunities for additional improvements at I-75 ramp termini by performing an Interchange Operations Analysis Report Study
- Provide LPIs and upgrade crosswalks to provide high-emphasis crosswalks on all legs of intersection at Veterans Boulevard
- Assess appropriate speed limits in conjunction with speed management strategies
- Refresh faded pavement guidance markings on Kings Highway east of I-75
- Review signal coordination along the Kings Highway corridor between Veterans Boulevard and Sandhill Boulevard to reduce congestion related crashes
- Install oversized advance intersection signage and overhead lane use signage

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Provide enhanced landscaping with canopy trees in existing raised medians to reduce travel speeds
- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Perform corridor-wide lighting justification study
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- With future capacity improvement to four lanes, provide pedestrian and bicyclist facilities such as a Shared-Use Path or bicycle lanes for connectivity with the communities east of Sandhill Boulevard

Project Prioritization Score 55.83

2030 Planning Level Cost \$578,860

CORRIDOR 8 - Midway Boulevard

from Lakeview Boulevard to Harbor Boulevard

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

While there are no planned projects specific to Midway Boulevard in the near future, there are several FDOT projects specific to US 41 (Tamiami Trail) that provide safety solutions along the corridor. Projects identified in the 5-Year Work Program include FPID 438262-1 and 440442-1 (multi-use recreational trail with 8-foot sidewalk, and 451358-1 (intersection improvements). These projects provide opportunity to create a connected system of bicycle and pedestrian improvements and improve safety.

Project Prioritization Score 56.25

2030 Planning Level Cost \$ 218,220

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Coordinate with Arbor Day Foundation to implement residential street tree program
- Install speed feedback signs
- Conduct Road Safety Audit to identify safety improvements for all road users
- Assess appropriate speed limits in conjunction with speed management strategies
- Review intersection crosswalks and pavement markings to refresh faded paint

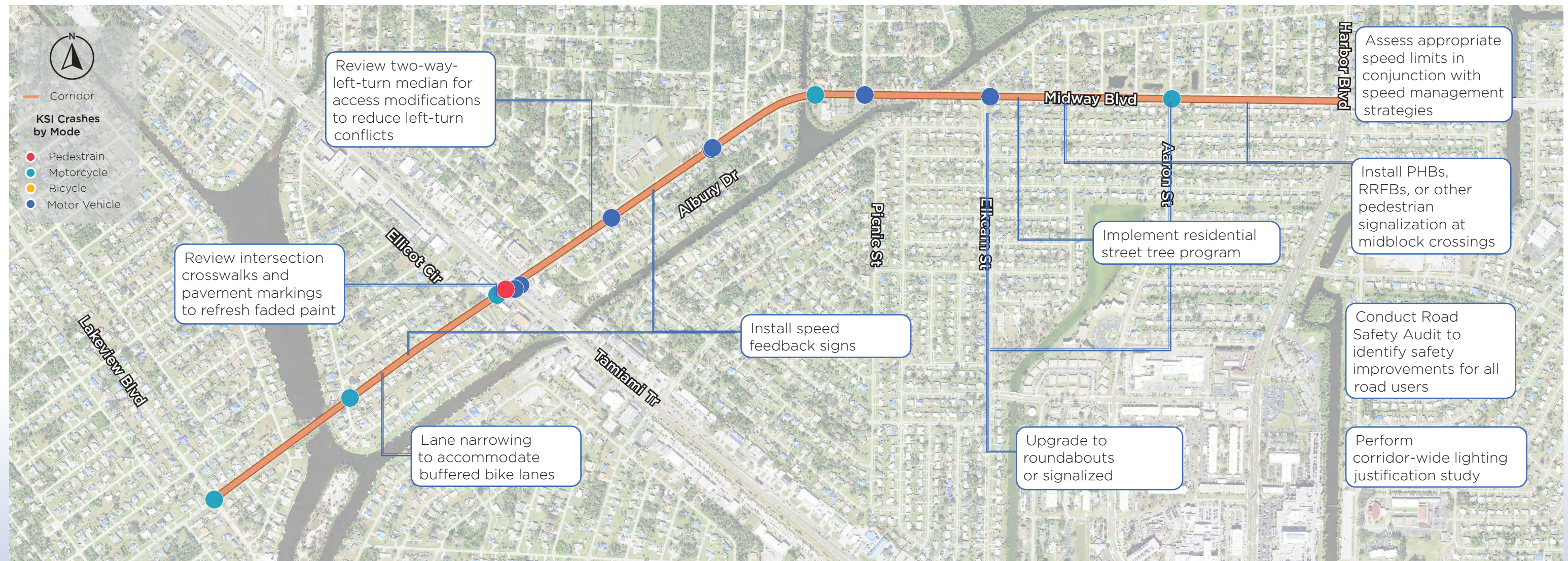
MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Review the two-way-left-turn median for opportunities for access modifications to reduce left-turn conflicts at high crash intersections
- Propose lane narrowing to accommodate buffered bike lanes and control speeds along the corridor

- Provide rumble strips along the non-curbed sections of the corridor to combat off-road crashes
- Provide enhanced landscaping with canopy trees in existing raised medians to reduce travel speeds
- Evaluate pavement condition for high-friction surface treatment to improve braking performance
- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK)
- Conduct a corridor-wide lighting justification study
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Widen sidewalks to accommodate a multi-use trail with tree canopy
- Upgrade to roundabouts or signalized intersection(s)



CORRIDOR 9 - Edgewater Drive

from Midway Boulevard to Conreid Drive NE

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

There is a project to widen Edgewater Drive west of Midway Boulevard to four lanes. Those widening plans should proactively incorporate safety countermeasures. Additionally, the current traffic volumes on the roadway (6,000 vehicles a day) are well within the capacity of a two-lane road and unless significant development is planned in this area, widening may not be warranted.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Conduct Road Safety Audit that includes following considerations:
 - Pavement friction through the roundabouts along the corridor
 - Raised crosswalks at roundabouts to serve as traffic calming
 - Speed feedback signs
 - Oversized signs along corridor
 - Design speed of roundabouts for motorcyclists
 - High visibility crosswalk markings at crossings along the corridor
- Provide LPIs and upgrade to high-emphasis crosswalks on all legs at the Harbor Boulevard intersection

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

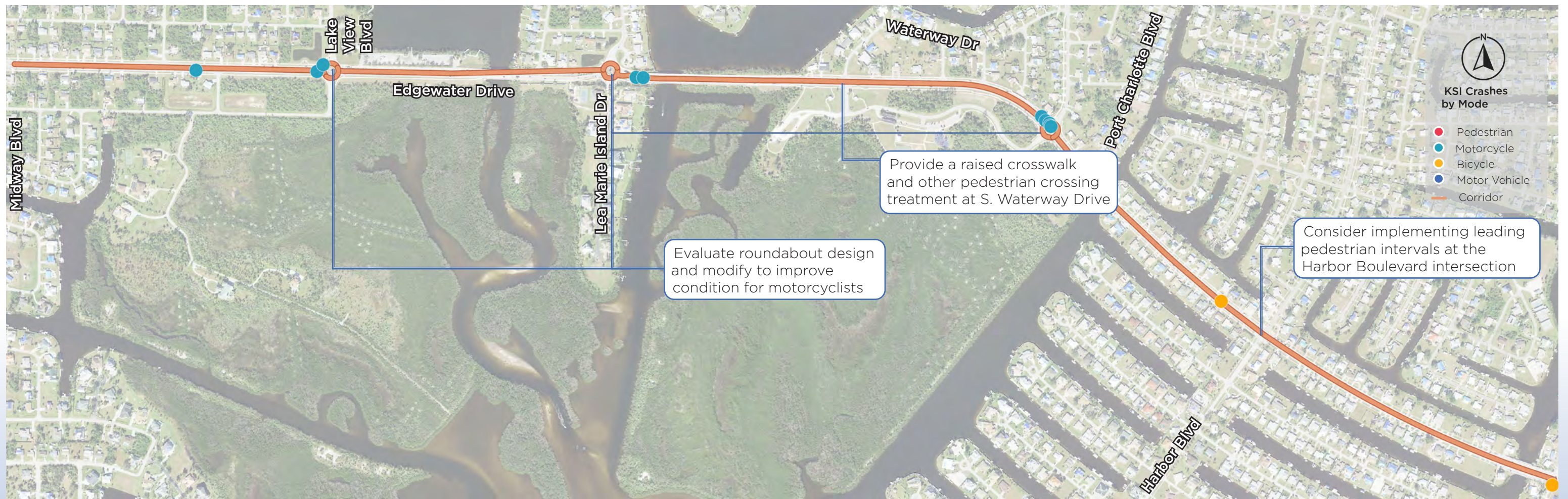
- Evaluate providing a raised crosswalk and other pedestrian crossing treatments at S. Waterway Drive

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Consider revisions to the Zoning and Future Land Use Maps to encourage multi-modal travel options and allow for mixed-use development on the developable parcels and to capture local traffic and reduce the load on the external roadway network

Project Prioritization Score 52.92

2030 Planning Level Cost \$121,900



CORRIDOR 10 - Olean Boulevard

from US 41 (Tamiami Trail) to Key Lane

CHARLOTTE COUNTY-PUNTA GORDA
VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

A complete street project was recently completed for Midway Boulevard, offering a multi-use path with pedestrian-scale lighting, landscaping buffer, pedestrian refuge, and high emphasis crosswalk enhancements along the south side of the corridor from US 41 to Easy Street. Recommendations proposed create continuity with these improvements to support safe transportation options for all modes of travel east of Easy Street in the residential portions of the corridor.

Project Prioritization Score 49.58

2030 Planning Level Cost \$250,920

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Conduct Road Safety Audit to identify safety improvements for all road users
- Install low-cost quick-build solution with bicycle signage and pavement markings such as sharrows east of Easy Street
- Provide LPIs and upgrade to high-emphasis crosswalks on all legs at US 41 and Easy St intersections
- Provide striping for left-turn movements at the Aaron Street and Harbor Boulevard intersections
- Install backplates with retroreflective borders at signal heads

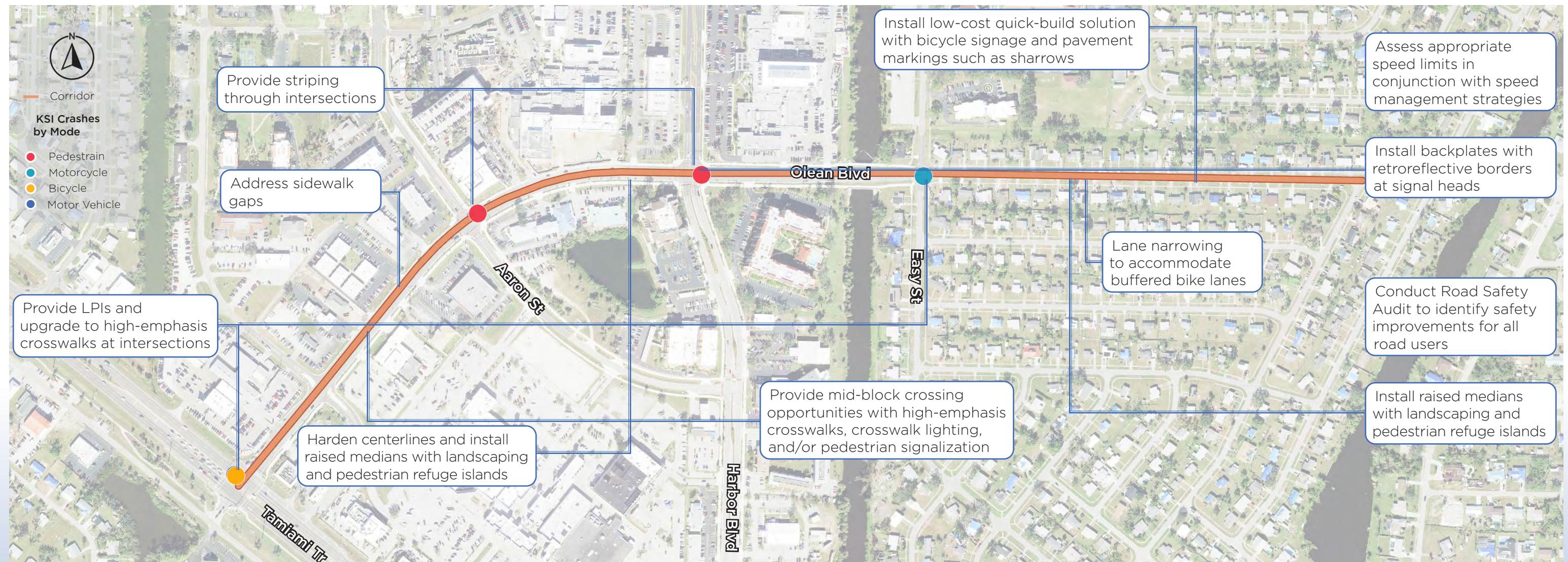
MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK)

- Review access spacing and consider directionalization or closure of the open median along the corridor to reduce left-turn conflicts
- Propose lane narrowing to accommodate buffered bike lanes and control speeds along the corridor
- Address sidewalk gaps on the north side of the corridor
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

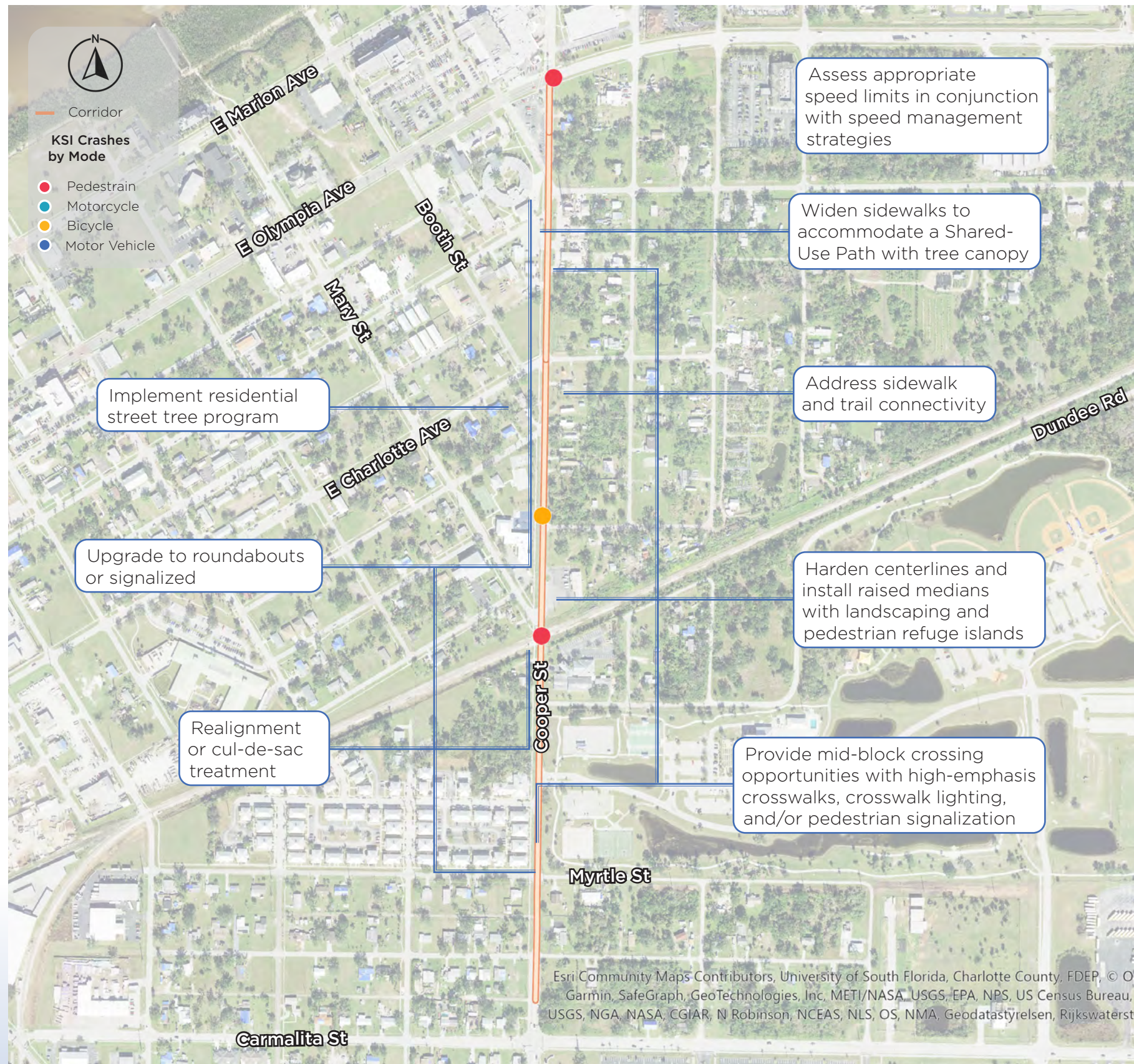
- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations, and bike/ped access to adjacent neighborhoods to reduce travel demand due to local trips



CORRIDOR 11 - Cooper Street

from E Olympia Avenue to Burland Street

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

Planned improvements for Cooper Street under FPID 452221-1 include the construction of a bike path/trail with complete streets features such as sidewalks, paved shoulders, or roundabouts along Cooper Street from Airport Road to E Marion Avenue, scheduled for completion in 2028. This initiative is intended to enhance pedestrian and bicyclist infrastructure and safety in the described area.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Assess appropriate speed limits in conjunction with speed management strategies
- Conduct Road Safety Audit to identify safety improvements for all road users
- Install low-cost quick-build solution with bicycle signage and pavement markings such as sharrows
- Evaluate sidewalk and trail connectivity near the South County Regional Park, Charlotte High School, and Sallie Jones Elementary School
- Review sight distance for skewed intersections along the northwest side of the corridor
- Coordinate with Arbor Day Foundation to implement residential street tree program
- Review intersection crosswalks and pavement markings to refresh faded paint

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Provide mid-block crossing opportunities with high-emphasis and/or raised crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK)
- Consider realignment or cul-de-sac treatment for the Mary Street intersection
- Perform corridor-wide lighting justification study
- Provide dedicated left turn lanes along Cooper Street at high crash intersections
- Address sidewalk gaps/connectivity on the east side of the corridor
- Widen existing sidewalks to accommodate a Shared-use Path with tree canopy
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands
- Upgrade road to provide paved shoulders and drainage improvements, with landscaped buffer zone adjacent to Shared-Use Path
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Upgrade to roundabouts or signalized intersection(s)

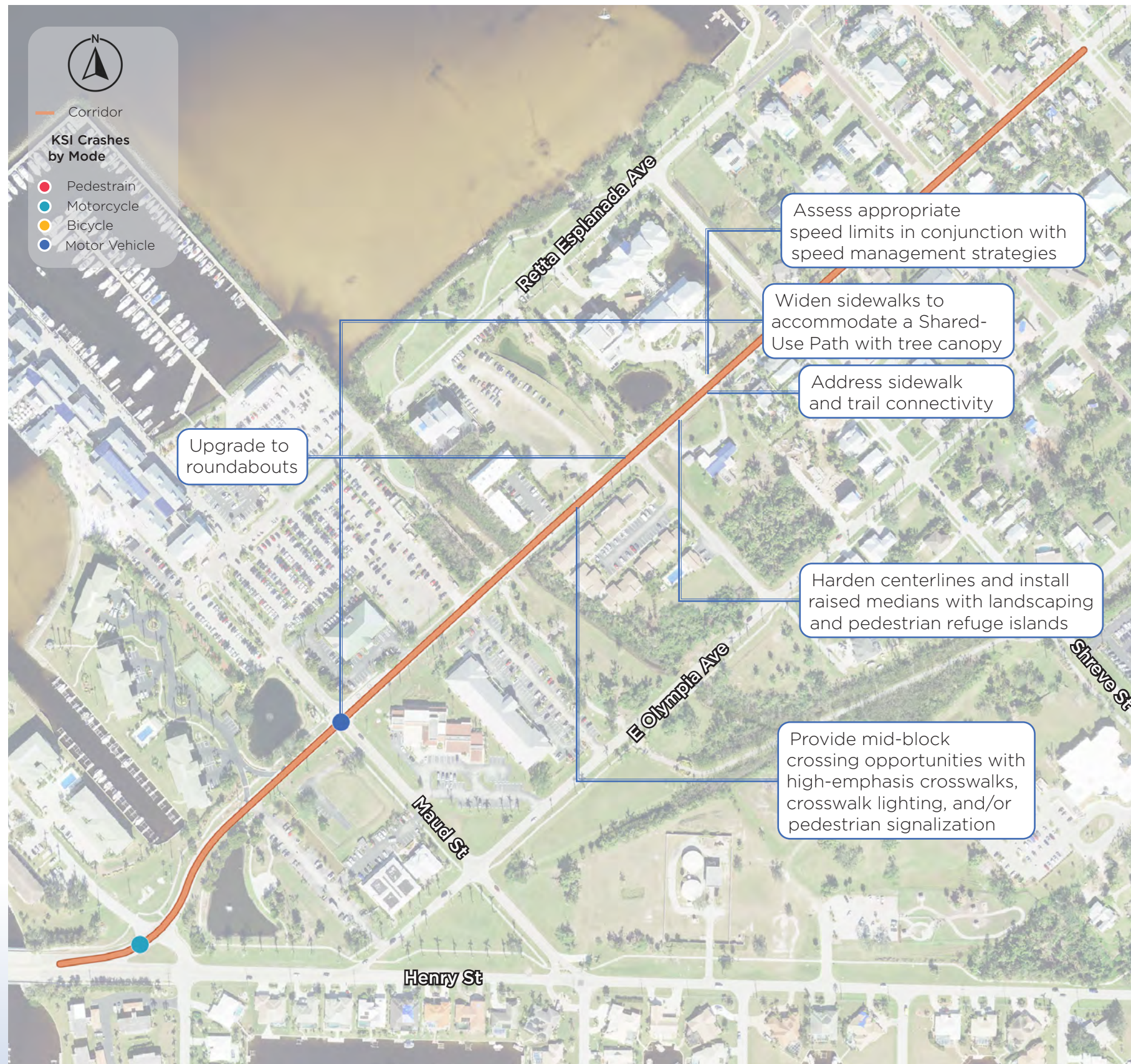
Project Prioritization Score 51.67

2030 Planning Level Cost \$332,250

CORRIDOR 12 - Marion Avenue

from Henry Street to Chasteen Street

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

There are no planned or programmed improvements for Marion Avenue.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Assess appropriate speed limits in conjunction with speed management strategies
- Conduct Road Safety Audit to identify safety improvements for all road users
- Evaluate sidewalk and trail connectivity near Gilchrest Park and other trail systems
- Review intersection crosswalks and pavement markings to refresh faded paint
- Upgrade to high-emphasis crosswalks at intersections

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Perform corridor-wide lighting justification study
- Propose lane narrowing to accommodate buffered bike lanes and control speeds along the corridor
- Widen existing sidewalks to accommodate a Shared-use Path with tree canopy
- Harden centerlines and install raised medians with landscaping and pedestrian refuge islands
- Address sidewalk gaps/connectivity on the south side of the corridor
- Upgrade road to provide paved shoulders and drainage improvements
- Provide mid-block crossing opportunities with high-emphasis and/or raised crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK)
- Reassess appropriate speed limit with implementation of countermeasures

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Upgrade to roundabouts or signalized intersection(s)
- Conduct a study on potential modification to the land development code to require cross access and driveway consolidations, and bike/ped access to adjacent neighborhoods to reduce travel demand due to local trips

Project Prioritization Score 43.33

2030 Planning Level Cost \$259,400

CORRIDOR 13 - US 41 (Tamiami Trail)

from W Retta Esplanade to Airport Road

CHARLOTTE COUNTY-PUNTA GORDA VISION ZERO HIN IMPROVEMENTS



PROGRAMMED AND PLANNED IMPROVEMENTS

Please see Corridor 4 for programmed improvements on the segment between Retta Esplanade and Carmelita Street. The City of Punta Gorda 2019 Citywide Master Plan and the Charlotte County Bicycle-Pedestrian Master Plan identify the segment of US 41 between Carmelita Street and Airport Road for a proposed multiuse trail for implementation by 2030, connecting to other existing and planned trail segments.

NEAR-TERM IMPROVEMENTS (IMPLEMENTATION BY 2030)

- Conduct a Road Safety Audit to identify how to incorporate a multiuse trail into the road cross section and identify other short-term improvements for all road users
- Assess appropriate speed limit that considers a target speed of 35 mph in conjunction with speed management strategies
- Provide LPIs and upgrade to high-emphasis crosswalks on all legs at McKenzie Street and Airport Road
- Install backplates with retroreflective borders to signal heads at McKenzie Street and Airport Road

MID-TERM IMPROVEMENTS (IMPLEMENTATION BY 2040)

- Add pedestrian refuge islands to the extended median nose at McKenzie Street and Airport Road
- Provide mid-block crossing opportunities with high-emphasis crosswalks, crosswalk lighting, and/or pedestrian signalization (PHB or HAWK) between McKenzie Street and Airport Road
- Evaluate potential for protected intersections where other bicycle and pedestrian facilities cross the corridor

- Conduct a bicyclist/pedestrian crossing study to determine where additional signalized crossings would be appropriate, and consider median pedestrian fencing at strategic locations to direct pedestrians
- Reassess appropriate speed limit with implementation of countermeasures to signalized crossings

LONG-TERM IMPROVEMENTS (IMPLEMENTATION BY 2045)

- Construct a multiuse trail along the corridor, connecting to planned bicycle and pedestrian improvements on connecting and intersecting corridors
- Evaluate potential opportunities to incorporate roundabouts along the corridor that could also serve as a gateway feature

Project Prioritization Score 60.00

2030 Planning Level Cost \$286,660

