North Florida TPO

Myrtle Avenue Corridor Study

October 2022

Myrtle Avenue Corridor Study

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Introduction

The North Florida Transportation Planning Organization (TPO) partnered with the City of Jacksonville to conduct the Myrtle Avenue Corridor Study. This study is intended to examine existing conditions and build on previous completed planning efforts to identify improvements designed to further the City of Jacksonville's desire to create a safer and more pleasurable walking and biking experience along Myrtle Avenue.

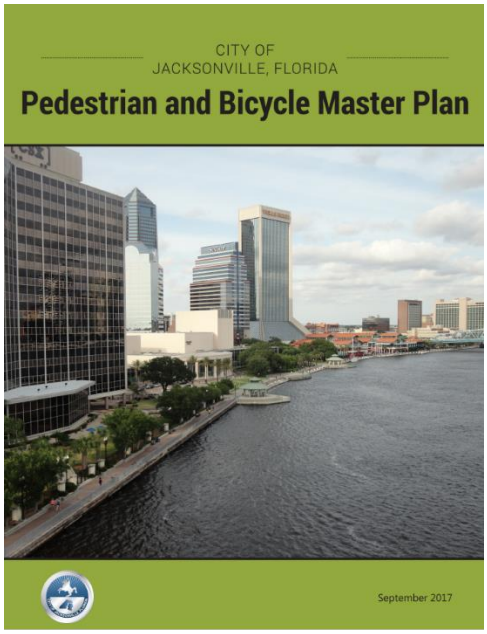
Myrtle Avenue, near 13th Street

Myrtle Avenue at 15th Street

Background

City of Jacksonville Pedestrian and Bicycle Master Plan (2017)

The City of Jacksonville Pedestrian and Bicycle Master Plan provides a roadmap to transform Jacksonville into a city that is recognized as one of the most walkable and bike-friendly in the Southeast. The Pedestrian and Bicycle Master Plan identified four key goals to lead the transformation of the city.



Goal 1: Create a Roadmap for Change

The Pedestrian and Bicycle Master Plan articulates a series of guiding principles that establish the importance of dramatically improving the walking and bicycling environment in Jacksonville, to save lives and to ensure a bright and sustainable economic future for the community. Building upon recent and current efforts the Plan offers a series of benchmarks and measures that define what success really means, and to which the City can hold itself accountable.

Goal 2: Identify Action Items

While the Master Plan identified concrete actions, it also recognizes that while engineering issues and solutions are critical in improving the environment for walking and bicycling, there must be a more holistic approach that identifies action items and needs in education, enforcement, encouragement, and evaluation. In summary, the Plan calls for creating a Strategic Neighborhood Action Plan for Pedestrians to systemically improve the pedestrian environment and improve accessibility and safety, implement Targeted Roadway Improvements for Pedestrian Safety to address high crash locations, implement a prioritized bikeway network, install enhanced pedestrian crossings, and immediate action on a series of high priority projects to demonstrate the city's commitment to making Jacksonville more walkable and bike-friendly.

Goal 3: Develop Specific Strategies in Key Areas

Working with its partners the City will work to update and adopt roadway design standards that reflect the most current bikeway and pedestrian design safety features; coordinate on implementing plans, projects, and programs to maximize the effective use of funding; and work to increase funding levels to implement pedestrian and bicycle projects in the City.

Goal 4: Establish Benchmarks and Performance Measures

The success of the Pedestrian and Bicycle Master Plan will be determined by the ability to establish meaningful, measurable targets that guide decisions that result in fewer traffic fatalities and crashes and more walking and bicycling. The plan established to overarching

goals that are to be met by 2030: walking and bicycling should account for 10% of all trips and there should be no pedestrian or bicyclists killed or seriously injured in traffic crashes.

Pedestrian Safety Action Plan

Identified by the Federal Highway Administration (FHWA) as a Pedestrian Safety Focus City, the City of Jacksonville has embraced, developed, and implemented a Pedestrian Safety Action Plan (PSAP) to address pedestrian safety issues. Completed as part of the Pedestrian and Bicycle Master Plan, the PSAP provided the city with a data-driven approach that could be tailored to meet the city's local needs. The PSAP identified three key elements that also became the cornerstones of the Pedestrian and Bicycle Master Plan. One element proposes a strategic approach to tackling the chronic lack of basic pedestrian infrastructure, accessible sidewalks and crosswalks, throughout the community. A second element identifies design changes for high-crash and high-demand corridors on city streets, using five common street types found throughout the city. The third element is based on a preferred countermeasure, rectangular rapid flashing beacons (RRFB), and recommended locations where they can be most effectively deployed to reduce pedestrian crashes.

Systemic Neighborhood Action Program for Pedestrians (SNAPP)

A component of the PSAP is SNAPP, modeled after the City's stormwater management program, is designed to strategically address sidewalk needs while maximizing efficiency. The plan recommends an approach to improving sidewalks and crosswalks throughout the city that tackles all maintenance needs, as well as minor installation projects, i.e., filling in a missing section of sidewalk, in a defined neighborhood or area in one concentrated effort, rather than in a reactive, piecemeal approach in individual locations all over the city. The SNAPP approach identified several recommended steps to implement:

- Create maps of priority areas using council district boundaries
- Establish priority neighborhoods in each council district
- Convene a neighborhood assessment walk
- Establish sidewalk prioritization
- Complete sidewalk repairs, replacement, and infill immediately

Additionally, the SNAPP approach identified three important elements to designing for pedestrian safety and comfort in residential areas:

- Sidewalk width
- Sidewalk buffers
- Curb radii

Targeted Roadway Improvements for Pedestrian Safety (TRIPS)

A common occurrence is the lack of adequate infrastructure for safe, convenient, and accessible travel by foot. The Master Plan study team found that only two of the five typical street types have basic sidewalk and crosswalk facilities in place. To address this issue the PSAP and Master Plan created the Targeted Road Improvements for Safety (TRIPS) Guidelines, which are designed to address more complex solutions and target different roadway types with context-appropriate improvements all with the goal of improving pedestrian safety, mobility, and comfort.

To help better target countermeasures, five different streets contexts were identified. These included Residential, Neighborhood Collectors, Downtown, Neighborhood Commercial, and Major Arterials/Regional-Serving Corridors. Within each street type common design elements and appropriate countermeasures were identified. The following provides and overview of the five street context types, their design elements, and potential solutions to improve pedestrian safety, mobility, and comfort.

Residential Neighborhoods

Residential neighborhood streets serve the transportation needs of every resident every time they leave their homes. As such, it is especially important that residential streets are safe and comfortable for all users including people who walk and bicycle. Most crashes take place close to home and those crashes often involve Jacksonville's most vulnerable users such as children walking to school. A complete sidewalk network is vital to any pedestrian safety strategy and addressing motor vehicle speeds are the key to enhancing safety.

Typical Design Elements:

- Two lane roadways
- Limited sidewalks
- Wide buffer areas
- Limited curb ramps and ADA-compliant truncated domes
- Wide curb radii
- No marked crosswalks

Safety Enhancements:

- Install sidewalks where missing and increase sidewalk widths
- Continue to provide ample sidewalk buffers
- Reduce curb radii at intersections
- Mark crosswalks along routes which should expect high numbers of pedestrians
- Install traffic calming, including chicanes, mini-traffic circles, and humps, bumps, and speed tables

Neighborhood Collector Streets

Collector streets provide access to and through neighborhoods and provide cross town connections. As such, they often have high volumes of bicyclist and pedestrians and can create barriers for those who need to cross. When these roadways are designed with a focus on motorized vehicles, crashes are likely to occur. In the Jacksonville area, neighborhood collector streets are the location of a high number of pedestrian and bicycle crashes.

Typical Design Elements:

- Four-lane roadways, two-lane roadways with on-street parking, or three-lane roadways with a center turn-lane
- Limited or no marked crosswalks
- Limited or no pedestrian median-islands
- Wide curb radii
- Fast speeds and speed limits
- And, less frequently:
  - Missing sidewalks
  - Sidewalks located adjacent to the roadway (with no buffer)

Safety Enhancements:

- Fill sidewalk gaps and install sidewalks across driveways
- Include buffers from the roadway when installing new sidewalks and retrofitting existing sidewalks
- Prioritize lane reductions and road diets on four-lane or two-lane roadways with parking
- Install high visibility crosswalks with frequency
- Install center median islands with frequency
- Reduce curb radii
- Identify locations for and install RRFB
- Ensure all major arterials have sidewalks of sufficient width that are buffered from the roadway

Downtown

Downtown Jacksonville is one of the city's major commercial hubs its street design can create an atmosphere that attracts new services and employment opportunities as well as places to dine, shop, and live. Employers and residents are attracted to downtowns that are attractive to pedestrians and bicyclists, include transit access to other parts of the city, and have great public spaces. Providing access for all modes including those walking, bicycling, and using transit can accommodate the greatest number of users for the least cost. As new commercial and residential hubs emerge in Jacksonville, the attributes of the downtown may extend into new regional centers which are also best served by a variety of transportation options.

Typical Design Elements:

- Narrow sidewalks
- Limited or no space for sidewalk cafes and outdoor dining
- No bicycle facilities
- Multi-lane one-way streets
- Automatic pedestrian signals

Safety Enhancements:

- Convert one-way streets to two-way
- Consider lane reductions/road diets
- Widen sidewalks
- Create a bicycle network throughout downtown
- Add outdoor seating through the creation of parklets or on widened sidewalks
- Install sidewalks across driveways and limit driveway width
- Keep curb radii narrow
- Add mid-block crossings

Neighborhood Commercial Streets

Jacksonville is served by a plethora of neighborhood-serving commercial districts. While attractive to residents from afar, these commercial areas consist of small enterprises with a focus on serving the needs of the immediate neighborhood. Neighborhood commercial streets in Jacksonville could be made safer and more comfortable for patrons, most of who live a short walk or bicycle-ride away.

Typical Design Elements:

- Narrow, interrupted, and indirect sidewalks often with obstacles
- Some outdoor retail space (for seating, signage, etc.)
- Abundant vehicular parking including front-in diagonal parking
- Limited bicycle parking and accommodation

Safety Enhancements:

- Repair, replace, and install sidewalks with a clear pedestrian zone, outdoor seating areas, and buffers from the roadway
- Reduce driveway widths and remove parking that has replaced the original sidewalk area
- Install curb extensions
- Realign diagonal parking from front-in to back-in
- Reduce curb radii
- Install traffic calming measures such as raised crosswalks and raised intersections

Major Arterials and Regional-Serving Retail Centers

Major arterials are typically focused on quickly moving cross-town vehicular traffic. They have higher speeds and higher volumes than other roadways and often include multiple lanes. To accommodate through movements, cross-traffic is limited. Because major arterial roadways allow quick access from across the region, retail centers that serve a regional clientele are often positioned along them and located on large parcels. Their placement is typically vehicle-oriented and include large parking lots at the front of buildings, no bicycle facilities, and no or limited pedestrian connections. However, many regional retail centers are also destinations for adjacent residents – providing both jobs and places to shop – who arrive by foot or bicycle. The vehicle-oriented design of major arterial roadways and adjacent regional retail centers has resulted in a very high number of crashes along these corridors. These major arterial roadways are often the routes of cross-town bus service. Bus stops along the roadway further attract pedestrians. Most of the roadways are managed by FDOT, requiring special state-level approval to install safety measures.

Typical Design Elements:

- High-speed multi-lane roadways
- Limited locations for crossing
- Large driveway widths and turn radii
- Large blocks
- Limited pedestrian connections
- No (or basic/minimum) bicycle facilities

Safety Enhancements:

- Consider lane reductions/road diets where possible
- Include pedestrian phasing, no right turns on red, and automatic over actuated signals at signalized intersections
- Use high visibility marked crosswalks at all crossing locations
- Reduce curb radii at signalized and unsignalized intersections
- Identify locations and install rectangular rapid flashing beacons (RRFB)
- Provide frequent opportunities to cross the roadway
- Install medians which reduce conflicts by creating right-in and right-outs
- Reduce driveway widths and driveway curb radii
- Create safe and attractive connections to adjacent neighborhoods
- Realign buildings to front the roadway
- Ensure all major arterials have sidewalks of sufficient width that are buffered from the roadway

Recommended Locations for Rectangular Rapid Flashing Beacons

The PSAP addresses general issues of pedestrian safety and accessibility in neighborhoods (SNAPP), and targeted improvements on typical streets in the city (TRIPS). The third approach to address pedestrian safety is to review individual crashes or high priority locations with specific countermeasures. The city identified RRFBs as one countermeasure to supplement standard uncontrolled pedestrian crossings and help enhance pedestrian safety. The city identified areas with high concentrations of senior residents and school-aged children as priority populations. The PSAP identified a three-step approach to completing the RRFB assessment:

- Conduct a review of national and regional best practices for RRFB installation
- Complete a demand analysis to understand where pedestrian activity is expected and identify general corridors where pedestrian activity may benefit from installing RRFBs
- Analyze corridor-based data to identity and prioritize a list of recommended locations for RRFB installation

A Roadmap for Change

The Pedestrian and Bicycle Master Plan is an important and valuable stand-alone document but recognized that implementation will be a group effort. The Master Plan provides an approach and actionable project list that will help to address the safety and mobility needs of the city's citizens while working to improve conditions for walking and biking as part of a broader quality of life strategy.

To address the issues identified in the Master Plan and solidify the commitment to improving safety for people walking and biking a bold step is needed. To further demonstrate a commitment to improving pedestrian and bicycle safety, the Plan recommends that the city adopt a bold Vision Zero policy that places pedestrian and bicycle safety in the context of a much broader commitment to eliminate all traffic fatalities and serious injuries in the city by 2030. The benefits of this approach are:

- Walking and bicycling issues are still somewhat marginalized within the City and public perception. Vision Zero is an initiative that explicitly benefits all road users (and thus the entire community) and uses a data-driven approach to focus on particularly vulnerable populations and road users. In this context, improving the safety of pedestrians and bicyclists shifts from being a special interest issue, as it is sometimes perceived, to an issue that is firmly in the public interest.
- The singular focus of a Vision Zero approach ensures a coordinated multi-agency, multi-disciplinary approach that can harness the demonstrated commitment of numerous City departments and partner agencies to collaborate in improving traffic safety.
- The Vision Zero and Safe Systems approach eliminates the tendency we all have to accept traffic crashes as an inevitable part of daily life, and to explain away crashes by blaming the victims, especially in relation to pedestrian and bicyclist crashes. A significant cultural change is needed in Jacksonville (and throughout the country) to shift perceptions about poor pedestrian and bicyclist behavior and to address inadequate roadway design and

enforcement that enables speeding, aggressive, distracted, and impaired driving to create unsafe and unpleasant conditions.

The Pedestrian and Bicycle Master Plan identified several other key recommendations aimed at improving walking and bicycling safety and mobility throughout the city, the following are an overview of these key recommendations:

- The city will sustain an annual funding commitment, to be determined by the City Council and Administration, to implement pedestrian and bicycle projects in the Master Plan, as well as incorporating incidental projects into the ongoing work of the city and partner agencies.
- The city commits to immediately pursue four Statement Projects emerging from the Master Plan as a demonstration of the city's commitment to implement the plan and achieve the goals set out in the document.
- The city will establish a regular (every six months) director-level meeting to coordinate the work programs and planning activities of the Planning, Public Works, and Parks departments, the JTA, DIA and to the extent possible the FDOT.
- The City of Jacksonville and partner agencies should update their roadway design standards and guidance to reflect the most current bikeway and pedestrian design treatments applicable to urban roadways.
- The city or a partner agency should implement a comprehensive facility planning and design training program as soon as these new guidance documents are complete. Within six months, training should be delivered to engineers, planners, and landscape architects (urban designers) working for all area public agencies including FDOT, COJ, North Florida TPO, JTA, and DIA. Consultants working for these agencies should be expected to have attended this training program.

Benchmarks and Performance Measures

The ultimate success of the Master Plan relies on the ability to establish meaningful, measurable targets that guide decisions that result in fewer traffic fatalities and crashes and more walking and bicycling in Jacksonville. The two key benchmarks established by the Plan, that are to be met by 2030, are:

- Walking and bicycling should account for 10% of all trips (up from less than 2% in 2014)
- There should be no pedestrians or bicyclists killed or seriously injured in traffic crashes (Vision Zero)

Additional benchmarks and performance measures identified in the Plan include:

- Annual number of pedestrian and bicycle fatalities, serious injuries, and crashes
- Participation in walking and bicycling in the City of Jacksonville
- Designate Jacksonville in national benchmarking studies
- Pedestrian and bicycle-related outputs, e.g., miles of sidewalk and bikeways completed, number of training course participants, number of RRFBs installed, etc.

JTA Mobility Works Plan

The Jacksonville Transportation Authority (JTA) is committed to developing and enhancing multimodal transportation along key transit routes throughout Jacksonville. JTA has initiated a Complete Streets program (Mobility Works) to address all travel modes with consideration to potential redevelopment that is planned or envisioned. The 8th Street, Myrtle Avenue and Moncrief Road study was completed to identify potential improvements that would create complete streets along these critical and diverse corridors.

Community Engagement

The Mobility Works study included significant input from the community regarding transportation needs, as well as safety and operational concerns related to various travel modes. Beyond receiving input on concerns and problem areas, the study's outreach sought to gain insight into the community's future vision for the community at large and for the subject corridors. A charrette process was used to solicit input from the various community stakeholders and included a walkthrough of the corridors, opportunities for input and collaboration, and the development of concepts and strategies for improvements within the study area. In addition to the charrette, an open house and public workshop were held. When the public input process was completed, the study team worked to combine the public's input and observations into a series of sketches and concepts. Multiple solutions including roundabouts, streetscaping, signage, enhanced crosswalks, upgraded intersections, bike facilities, and aesthetic improvements were explored. The ideas were then blended and evaluated against physical and fiscal constraints and prioritized into categories of most need.

Area-Wide Recommendations

Through the various public outreach and engagement events JTA synthesized a community vision for the study area, and while some variations are based on location and context of the street, the central theme for the study corridors was to enhance safety, accessibility, and connectivity for people walking and riding bicycles, while still enabling motor vehicle movement. In essence, the

desire is to create a multi-modal context where all users feel safe and comfortable no matter what travel mode they choose.

To make this vision a reality, the study identified opportunities for a mix of land uses, improved trail connectivity, and improving the relationship of buildings to the corridor. Thematically, the plan calls for the desire to create a multimodal corridor with enhanced safety, accessibility, and connectivity for people biking or walking. Some major improvements identified included:

- ***Lower motor vehicle operating speeds***, lower operating speeds increase safety for people walking and riding bikes and are consistent with design elements that support a walkable corridor.
- ***An evenly balanced streetscape***, to create balance between the roadside and the area where motor vehicles operate.
- ***Dedicated facilities for bicyclists***, the 8th Street and Moncrief Road corridors will continue to function as arterials. Shared-lane use is not appropriate for most bicyclists. Dedicated bicycle facilities, such as lanes or parallel paths, are necessary.
- ***Wide sidewalks***, especially within the commercial areas along the corridors, sidewalks should be wider than the minimum standard. They should provide for adequate spacing from adjacent buildings and permit individuals to comfortably pass each other walking in opposite directions.
- ***Sidewalk buffer***, there should be a physical buffer between the sidewalk and the travelled way, whether it be on-street parking, street trees or a planting strip.
- ***Building placement***, buildings should be oriented towards the street with minimum setbacks. Large parking areas between buildings and the street should be avoided.
- ***Improved pedestrian-scale lighting***, except for Myrtle Avenue, almost the entire study area is devoid of pedestrian-scale lighting. What lighting does exist is designed for vehicular traffic but does not provide an adequate level of lighting for other roadway users which makes the roadside uncomfortable and unsafe for pedestrians.
- I***nstall Rectangular Rapid Flashing Beacons (RRFB)*** and other crossing enhancements to S-Line crossing.

Other identified design elements for the corridors include the following:

- ***Lane Width*** – Currently, lane widths vary from less than 11 feet to as high as 20 feet. For all corridors, lane widths for travel lanes are recommended to be between 10 and 11 feet. The narrowing of lane widths achieves two purposes:
    - Encourage appropriate motor vehicle speeds
    - Frees up additional right-of-way for other design elements, such as bicycle lanes, on-street parking, wider sidewalks, etc.
- ***Curb-Radii*** – The size of curb radii has a direct influence on the character of a roadway. Currently all corridors have wide curb radii at most street intersections, ranging from 25 to 30 feet to as high as 75 feet. When reconstructing curbs in the corridor, the smallest practical curb return radii is recommended. This will encourage vehicles to turn at

appropriate speeds, increase pedestrian accessibility and reduce the amount of pavement that must be crossed on foot.

In most cases, a curb radius of 15 feet at cross-streets and 5-feet at driveways is appropriate. However, at locations where larger vehicles, such as JTA buses, frequently turn, a radius of 25 feet may be used; if larger vehicles are turning onto a roadway with multiple receiving lanes into which they can safely encroach, a radius of 15 feet is recommended.

In locations where a bicycle lane is located between the outside motor vehicle travel lane and the curb, the "effective radius" should be used. This is the distance from the edge of the outside lane to the edge of the receiving outside lane, not the physical curb, which can have a much smaller radius.

- ***Mid-Block Crossings*** – The corridor assessments found that the corridors have long stretches with no signalized crossing, forcing pedestrians to travel out of direction or cross at undesignated locations. Trail crossings on 8th Street and Myrtle Avenue bring elevated levels of people walking and riding bikes to what are typically automobile-dominated streets.

  Adding crossings with a raised median island shall be considered on sections that have more than two travel lanes and traffic volumes greater than 15,000 vehicles per day. Raised median crossings have several benefits, including:
  - Creating a safe refuge for pedestrians
  - Breaking one long, complex crossing into two shorter ones
  - Encouraging appropriate motor vehicle speeds through horizontal deflection
  - Providing an opportunity for landscape enhancements

Site-Specific Recommendations

While several improvements should be made throughout the three-corridor study area, the different corridors have unique and specific needs. The Mobility Works study noted that Myrtle Avenue is a primary north-south route for the area. It recommends shared lane markings, but no other significant changes to the corridor were noted. The intersection of Myrtle Avenue, Moncrief Road, and 26th Street was evaluated for improvements, the following is a summary of the evaluation and recommendations.

The Myrtle/Moncrief/26th intersection is an important intersection that serves a high level of activity. In addition to being a high activity intersection, the intersection has several challenges. Moncrief and Myrtle intersect at a skew, resulting in a large expanse of pavement, resulting in poor pedestrian connectivity, with only one marked crosswalk across one leg of the intersection.

The study team was challenged with proposing a solution that would better integrate the intersection with the surrounding land uses, make it a focal point of the community, allow for safe vehicular and pedestrian movement, and facilitate continued private investment. The

team explored several options, but ultimately a roundabout at the northern part of the intersection was recommended. A roundabout would eliminate the large pavement expanse by removing the southern approach of Myrtle Avenue between 25th and 26th Streets while maintaining the southern leg of Moncrief Road, consistent with its state road designation (SR 210). The design would create a more walkable environment through manageable pavement widths at each approach while keeping motor vehicle traffic moving at a slow, steady pace. It would further support the intensifying Myrtle Avenue, which has recently experienced only minor private investment in the past few decades.

To construct the proposed roundabout (Figure 1), some property must be acquired, including the structure at the north side of the Moncrief/Myrtle intersection. Additional analysis will be necessary to determine the traffic and property impacts, but initial evaluations show that the roundabout design could perform better that the existing traffic signal in terms of motor vehicle delay and level of service, while also improving overall network connectivity, non-motorized activity, and sense of place.

Figure 1: Proposed Myrtle Avenue, Moncrief Road, and 26th Street Roundabout

Other Planning, Program, and Project Efforts

In addition to the City's Pedestrian and Bicycle Master Plan and JTA's Mobility Works Complete Streets Study recent and ongoing efforts are aimed at improving safety and mobility. These efforts include the following:

- City of Jacksonville Capital Improvement Program (CIP)
- City of Jacksonville Comprehensive Plan, including plans for the Emerald Trail and S-Line
- University of Florida Health Campus Plan
- JTA Ultimate Urban Circulator
- JTA Transit Oriented Development (TOD) Pilot Program

An overview of these planning and transportation-related efforts are included in Appendix A.

Existing Conditions

Myrtle Avenue is a north-south street located northwest of downtown Jacksonville. The corridor extends from south of Kings Road to Moncrief Road (Figure 2) and serves the Durkeeville, New Town, Mid-Westside, 29th & Chase, and Moncrief Park neighborhoods. This approximately 1.5-mile corridor is defined as a Neighborhood Collector street by the city's Pedestrian and Bicycle Master Plan TRIPS classification. Some key points of interest and destinations along the corridor include:

- S-Line Urban Greenway Trailhead
- James P Small Park
- Dallas James Graham Library
- Stanton College Preparatory School
- B&Sun Arts and Culture Center
- Shopping and Restaurants

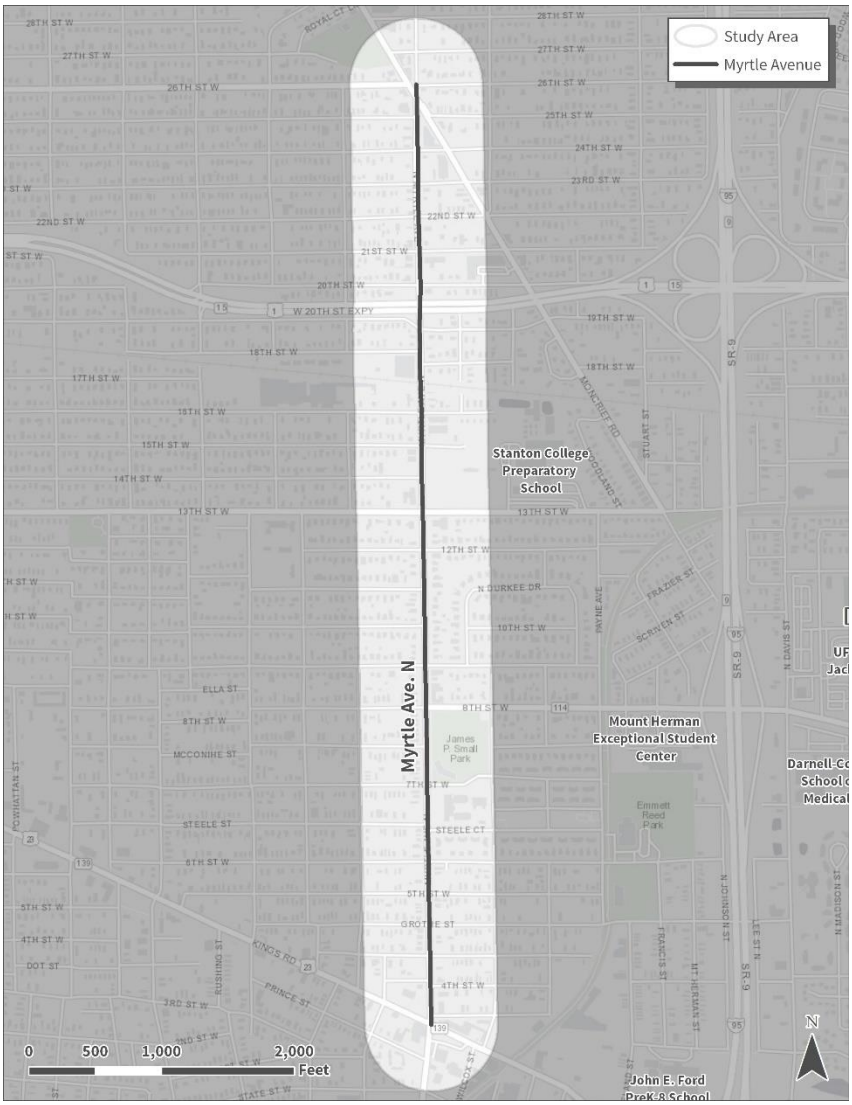


Figure 2: Myrtle Avenue Corridor Study Area

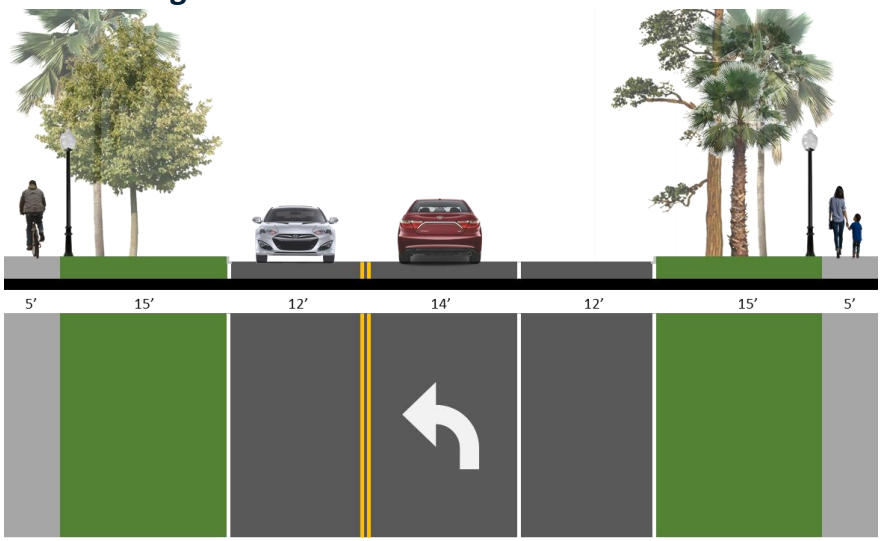
Typical Section

There are three primary street configurations throughout the Myrtle Avenue corridor, moving south to north these sections include:

- Myrtle Avenue from South of Kings Road to 8th Street
- Myrtle Avenue from 8th Street to US 1/Martin Luther King Jr. Parkway
- Myrtle Avenue from US 1/Martin Luther King Jr. Parkway to Moncrief Road/26th Street

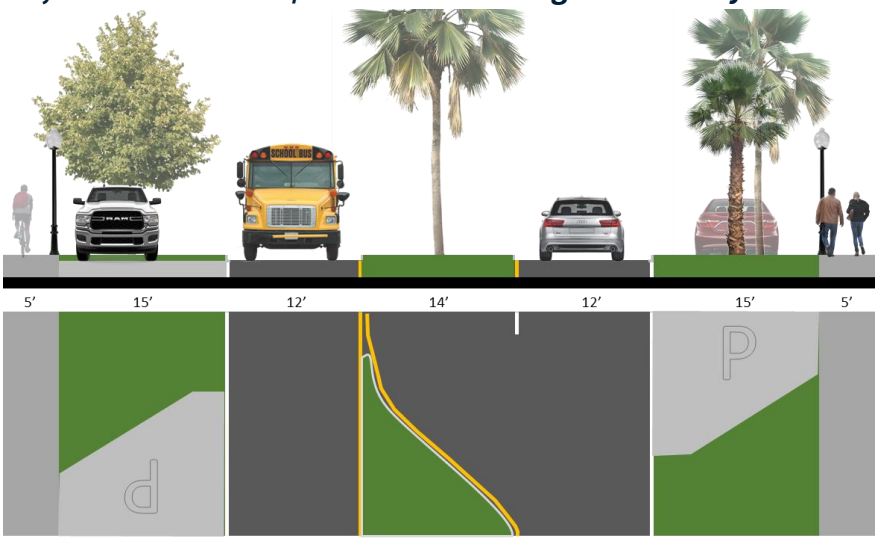
The following pages provide an overview of the three primary street configurations.

Myrtle Ave South of Kings Road to 8th Street



Travel Lanes	Travel Lane Width(s) Ft	Median	Posted Speed Limit (MPH)	On-Street Parking
2	12'	None (Directional Left Turn Lanes)	30	Yes
Existing Sidewalks	**Existing Bicycle Facility**	**Lighting**	**TRIP Roadway Type**	**Primary Land Use**
Yes – 5' both sides	None	Yes - Pedestal	Neighborhood Collector	Mix – Residential and Commercial

Myrtle Avenue, 8th Street to US 1/Martin Luther King Jr. Parkway



Travel Lanes	Travel Lane Width(s) Ft	Median	Posted Speed Limit (MPH)	On-Street Parking
2	12’	Raised	30	Yes
Existing Sidewalks	**Existing Bicycle Facility**	**Lighting**	**TRIP Roadway Type**	**Primary Land Use**
Yes – 5’ both sides	None	Yes - Pedestal	Neighborhood Collector	Mix – Commercial and Residential

Myrtle Avenue, US 1/Martin Luther King Jr. Parkway to Moncrief Road/26th Street

Travel Lanes	Travel Lane Width(s) Ft	Median	Posted Speed Limit (MPH)	On-Street Parking
2	12'	Two-Way Left Turn Lane	30	None
Existing Sidewalks	**Existing Bicycle Facility**	**Lighting**	**TRIP Roadway Type**	**Primary Land Use**
Yes – 6' both sides	None	Yes – Pedestal	Neighborhood Collector	Mix – Residential and Commercial

Signalized Intersections and Crossings

Protected pedestrian crosswalks are present along the corridor at the following signalized intersections:

- Kings Road
- 8th Street
- 13th Street
- US 1/Martin Luther King Jr. Parkway
- Moncrief Road/26th Street

There are two unsignalized marked crossings at 15th Street and 16th Street. Figure 3 shows the locations of crossings along the corridor.

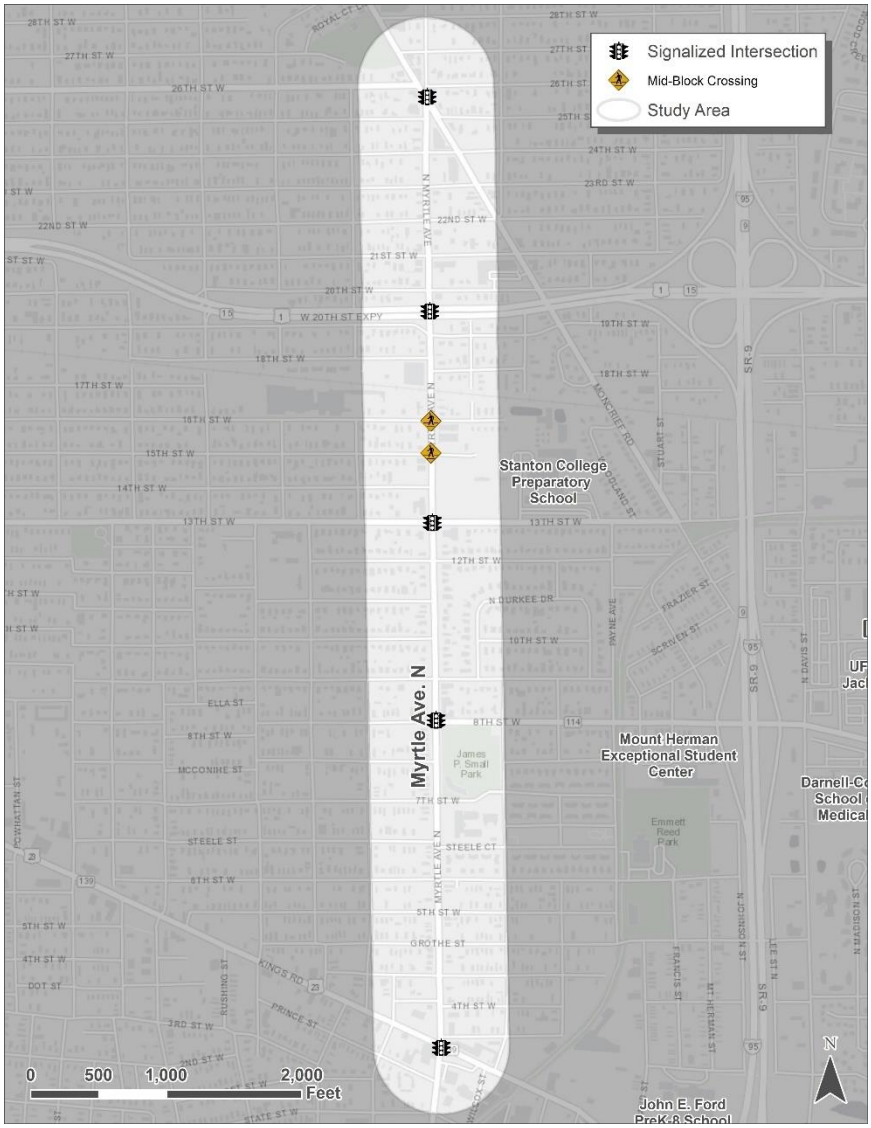


Figure 3: Pedestrian Crossing Locations

Environmental Justice

Environment Justice is the public policy goal of ensuring that the adverse human health or environmental effects of government activities do not fall disproportionately upon minority populations or low-income populations. From a transportation standpoint, environmental justice seeks to ensure that both equitable access to transportation services and equitable protection from the environmental hazards of infrastructure development are maintained.

Eight demographic indicators for the corridor were summarized using U.S. Census Bureau (source) block group data. As shown, approximately 93% of the population within the block groups along the corridor are minorities, 35% of the households are low income, and 27% of the households have no regular access to a motor vehicle. Figure 4 shows the outcomes of an equity analysis that

generates assignment of equity area scores to geographies in the study area. The methodology to calculate the equity areas include:

- Calculate the countywide average threshold for each indicator
- Assign indicator categories to block groups on the standard deviation of the indicator's dataset
- Calculate the comparative score for each indicator
- Calculate the equity composite score
- Assign the equity composite score category to each block group

The equity area assignment is based on the block group's final composite score relative to the average score for all block groups in the county:

- Low – less than average composite score for all block groups
- Medium – equal to or greater than countywide average but less than +1 standard deviation from average composite score for all block groups
- High – equal to or greater than +1 standard deviation but less than +2 standard deviation from average composite score for all block groups
- Very High – equal to or greater than +2 standard deviation from average composite score for all block groups

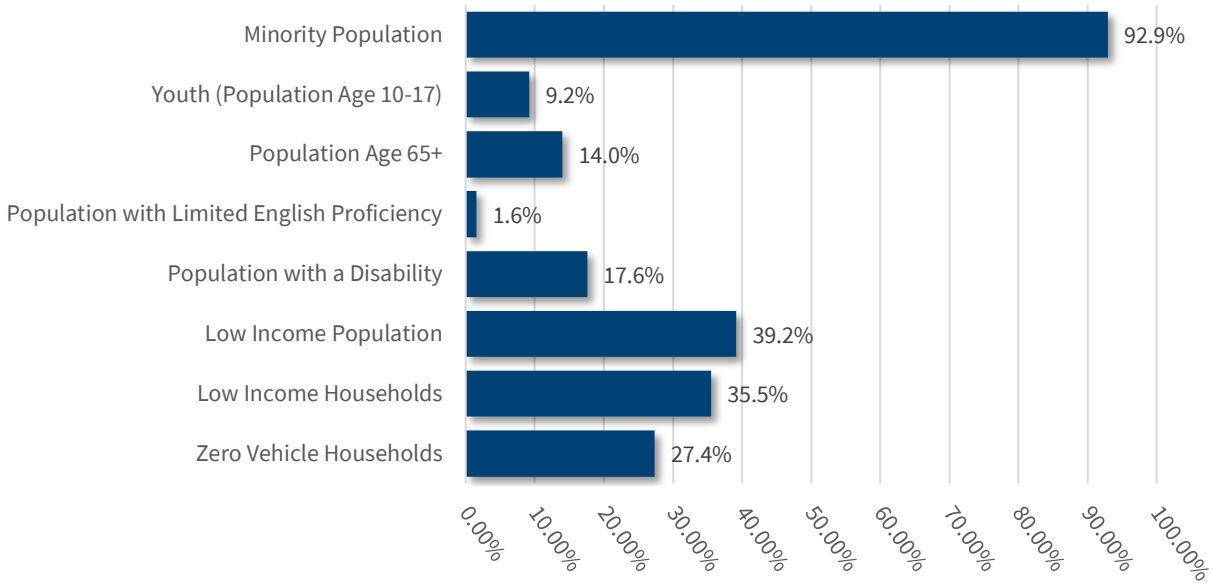


Figure 4: Corridor Demographic Indicators

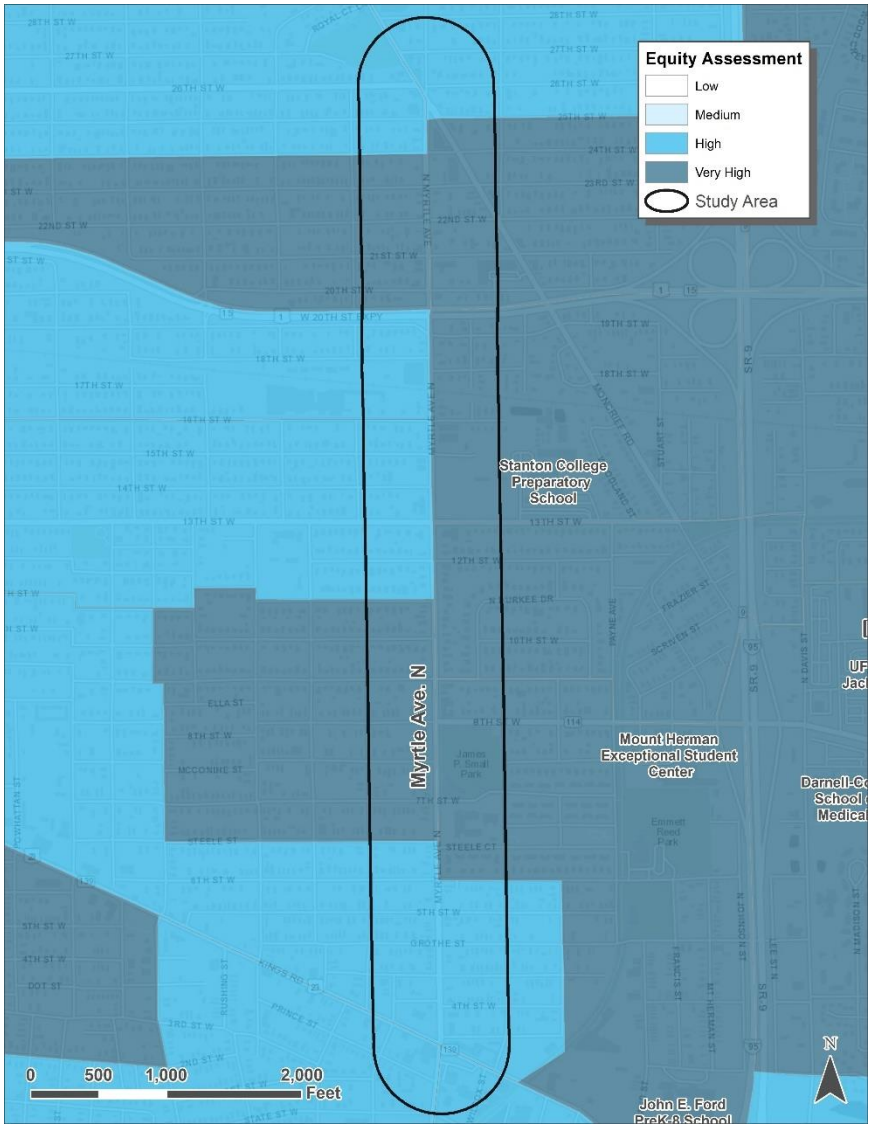


Figure 5: Environmental Justice Composite Rankings

Historical Crash Review

Crash data along the study corridor was obtained through Signal Four Analytics. A review of crash data was completed for a six-year period from January 1, 2015 to December 31, 2020. Although a five-year review of crashes is typical, a six-year analysis was performed to account for the unusual trends that arose during the height of the Covid-19 pandemic in 2020. A review of total crashes and pedestrian and bicycle crashes was conducted.

Total Crash Review

There were 460 total reported crashes during the crash review period. Of the 460 total crashes, approximately 68% (313) of the crashes were property damage only crashes or crashes that didn't result in an injury or possible injury. There were no fatal traffic crash during the review period, but six incapacitating/serious injury crashes occurred, Figure 6. Figure 7 shows the annual distribution of total crashes throughout the corridor; as shown, 2018 recorded the most crashes with 96, and while the 74 crashes in 2020 are an improvement from the high mark, the number of crashes in 2020 were higher than the number of crashes (55) at the beginning of the review period in 2015.

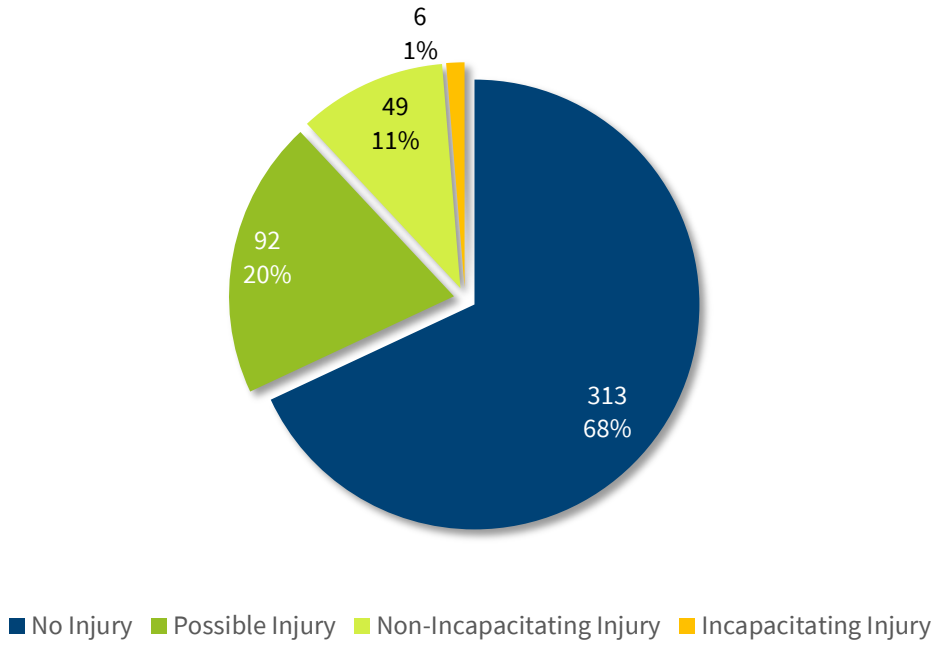


Figure 6: Crash Injury Severity Summary

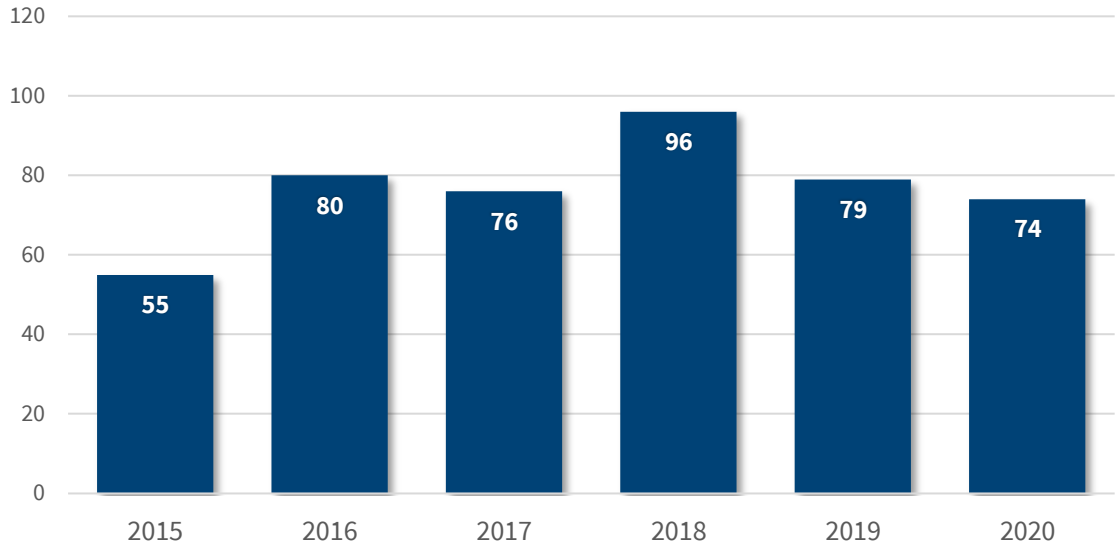


Figure 7: Total Crash Annual Distribution

Further examining the temporal crash trends, crashes by month of the year, day of the week, and hour of the day were analyzed. Figure 8 shows that total crashes were highest in December, with a noted sustained higher frequency in the late summer and fall months between August and October. Figure 9 shows crashes by day of the week, Thursday had the most crashes with 84, followed by Friday and Tuesday with the highest frequency of crashes. Sunday and Monday had the fewest crashes. There is a noted rise in crashes between 1 p.m. and 5 p.m. (Figure 10) with the 5 p.m. hour having the most crashes, 41. Approximately 37% of the crashes occurred during this five-hour period.

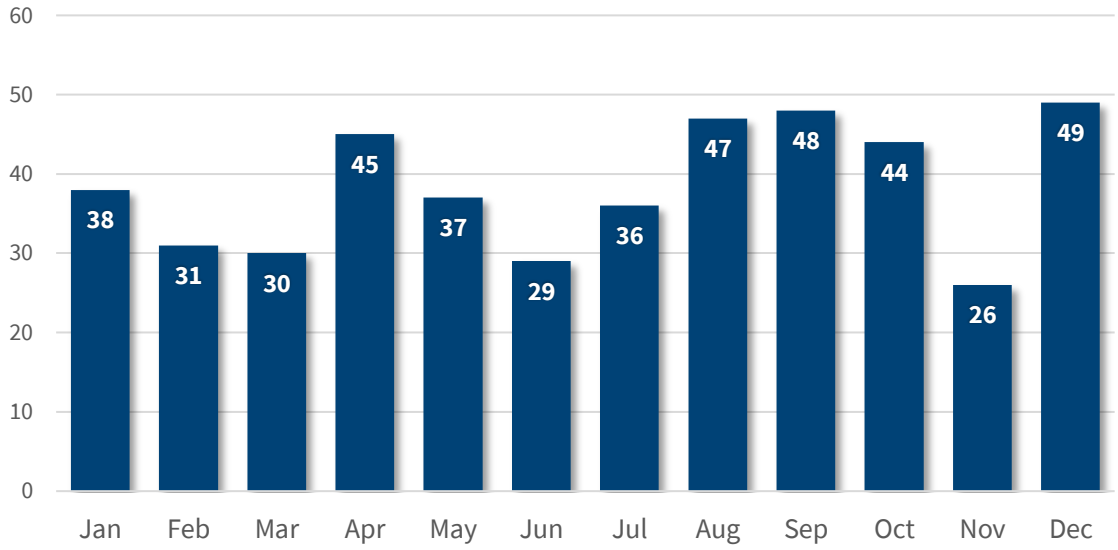


Figure 8: Total Crashes by Month

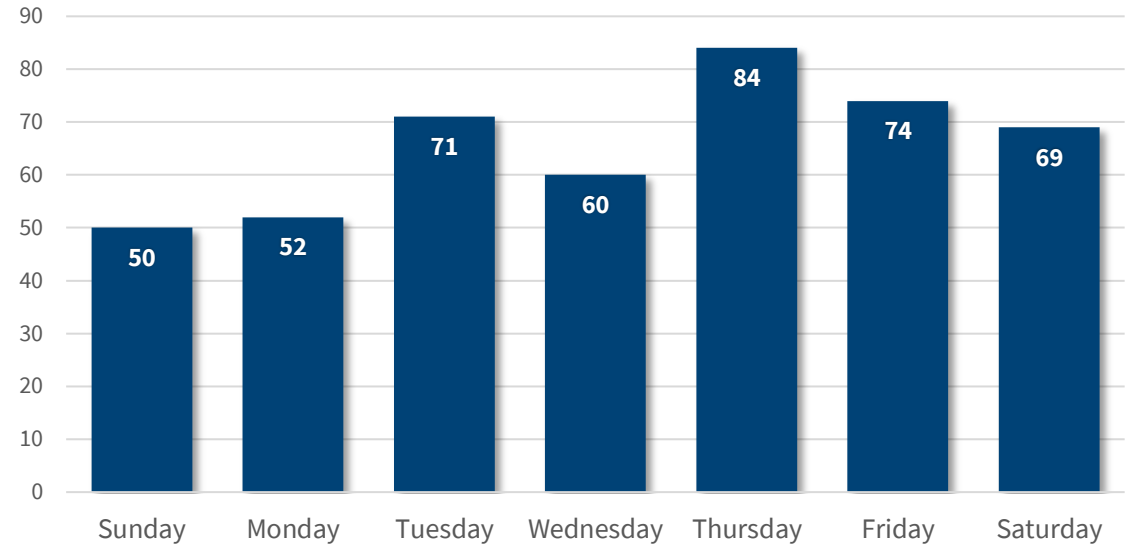


Figure 9: Total Crashes by Day of the Week

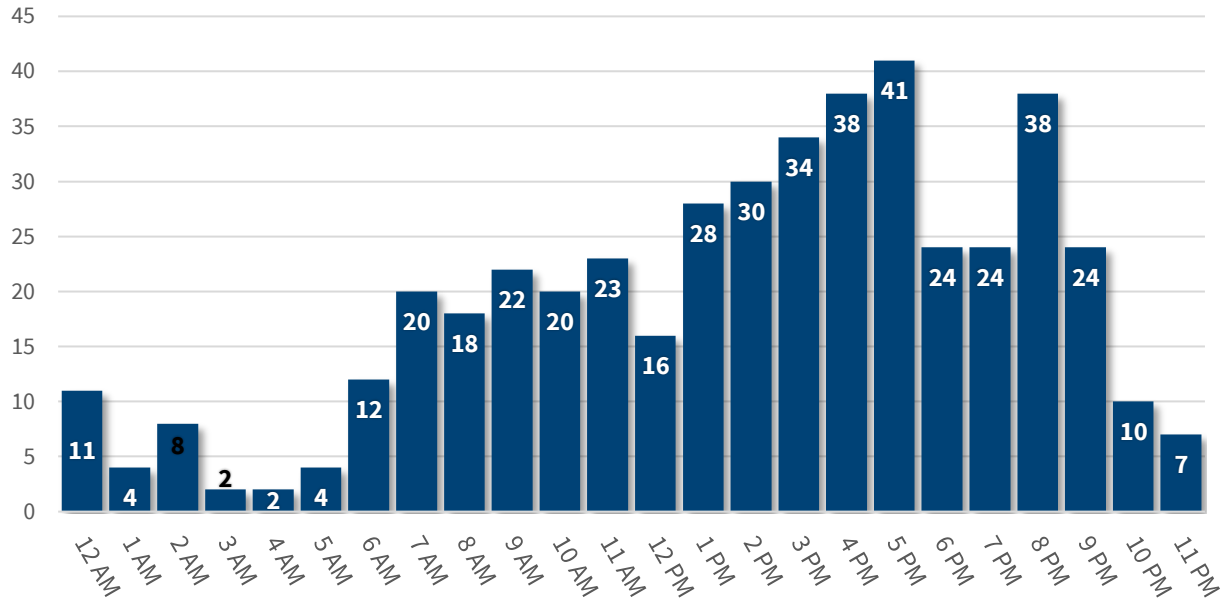


Figure 10: Total Crashes by Time of Day

Additional contributing crash factors were evaluated to better understand the conditions and locations where crashes have occurred. Figure 11 shows total crashes by lighting condition, as shown 64% of the crashes occurred during daylight conditions. Figure 12 shows total crashes by weather conditions, 78% of the crashes occurred during clear weather conditions, with 10% occurring during rainy conditions. Figure 13 shows total crashes based on the location of the crash in relation to an intersection. As shown, over half (52%) of the total crashes along Myrtle Avenue occurred at or near an intersection.

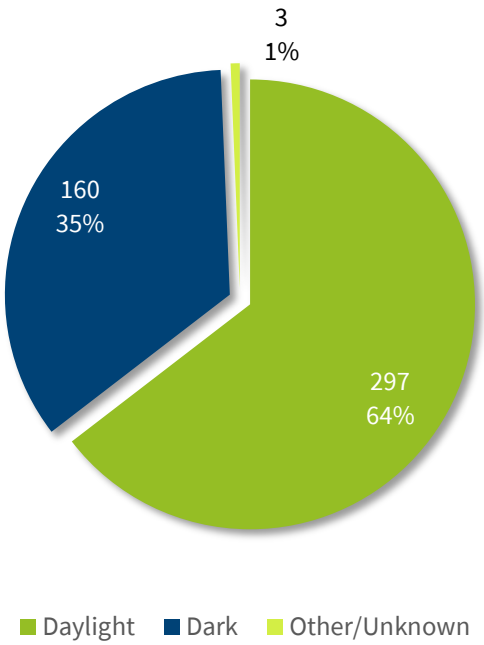


Figure 11: Total Crashes by Lighting Conditions

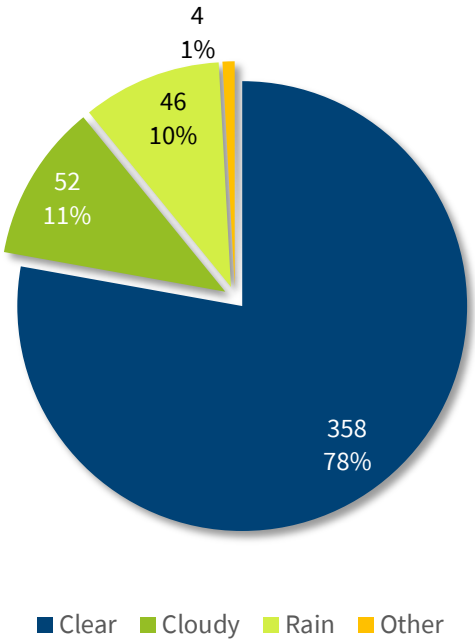


Figure 12: Total Crashes by Weather Conditions

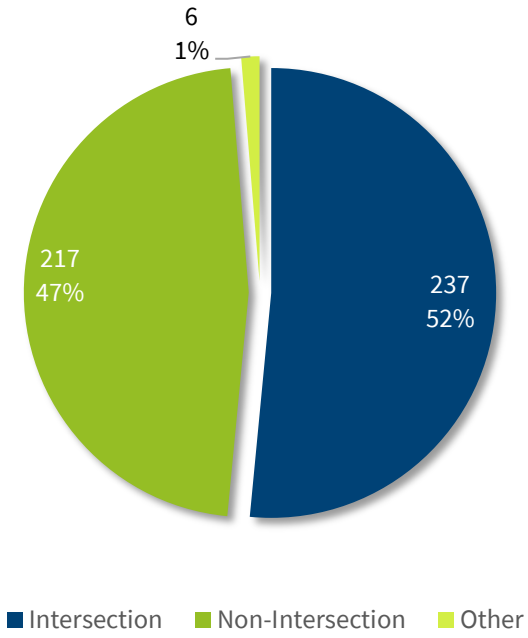


Figure 13: Total Crashes by Location

Total crashes by crash type were evaluated, Figure 14 shows total crashes by crash type. As shown, Rear End crashes were the most frequent with 130 crashes (28%). Angle and Left Turn crashes, which are often associated with intersections, were the next most frequent with 102 crashes or about 22%. Pedestrians were involved in 17 crashes or about 3.7% of the total crashes. Bicyclists were involved in 9 crashes (2%) during the six-year review period.

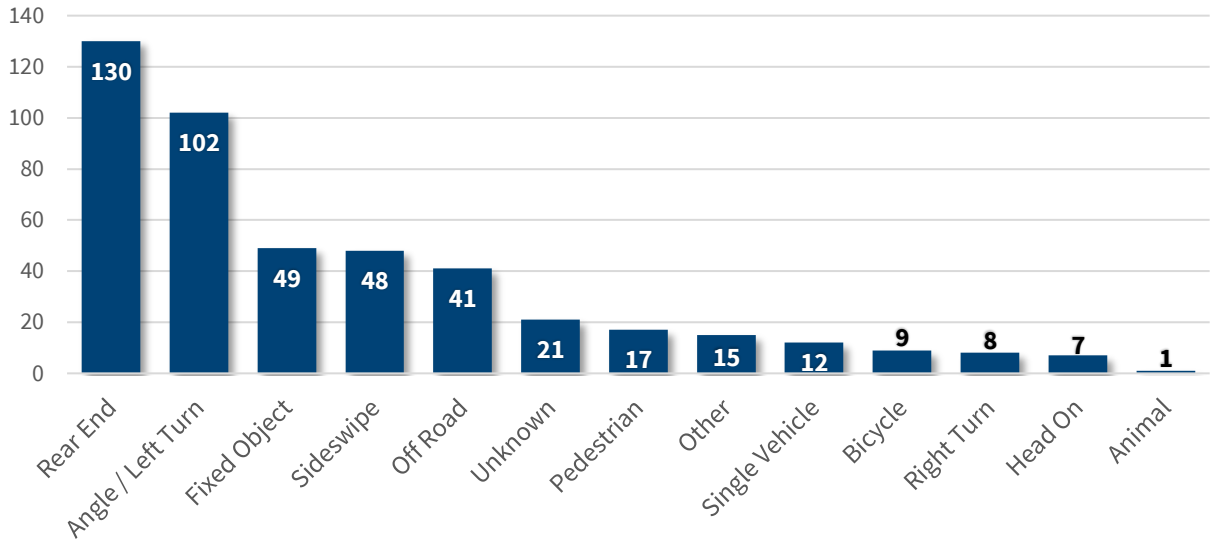


Figure 14: Total Crashes by Crash Type

Finally, the crashes along the corridor were mapped. This process used a cluster-based analysis that grouped crashes based on their proximity to each other to form crash frequency clusters. As shown in Figure 15, the areas along the corridor with the highest frequency of crashes are at the intersections of Kings Road and US 1/Martin Luther King Jr Parkway. Approximately 47% of the crashes along the corridor occurred at or near these two intersections. Other higher frequency crash locations included the area just north of Kings Road, the intersection of 8th Street, and the intersection of Moncrief Road.

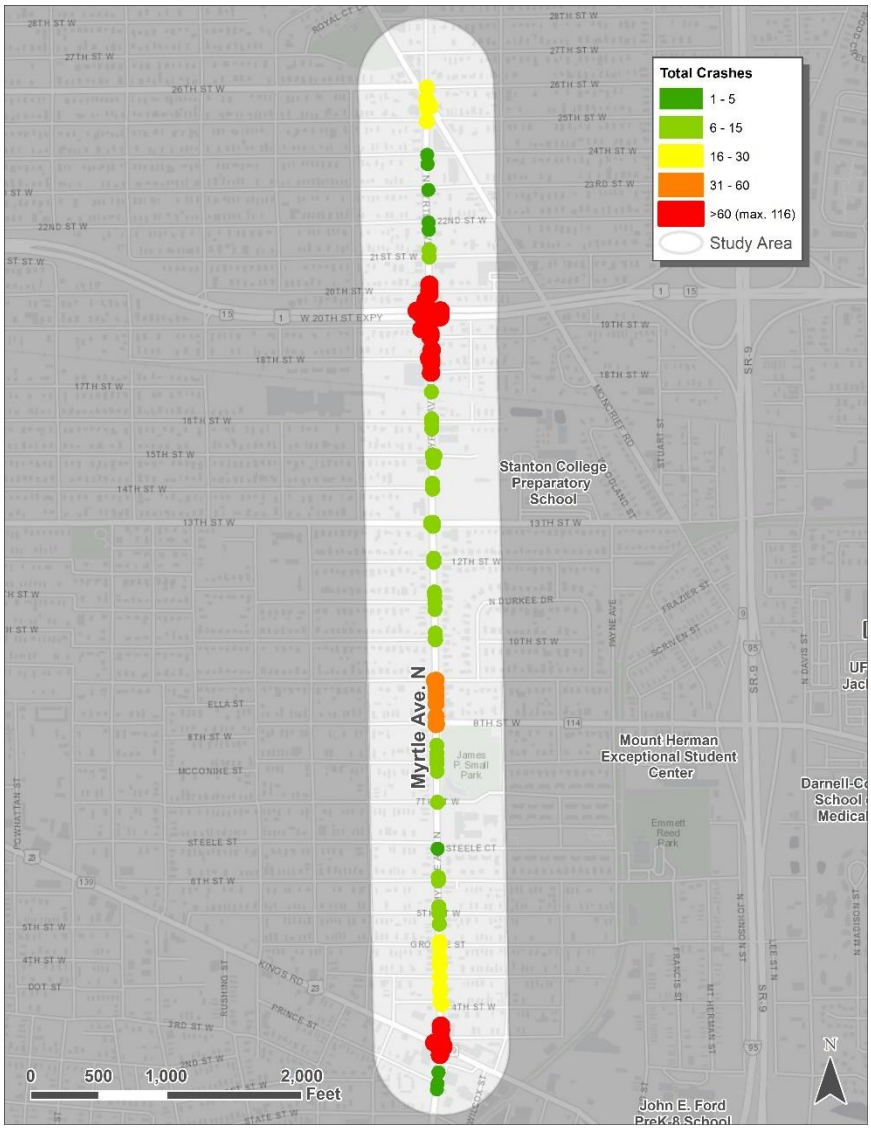


Figure 15: Total Crash Locations and Frequency

Pedestrian and Bicycle Crash Review

While improving overall safety is a Study goal, the primary objective is to improve safety and mobility for people walking and riding bicycles along the corridor. A review of pedestrian and bicycle crashes was conducted to better understand the trends, factors, and locations where pedestrian and bicycle crashes have occurred.

Figure 16 shows annual pedestrian and bicycle crashes along Myrtle Avenue. Through the six-year review period there were 28 pedestrian and bicycle involved crashes, 2019 and 2020 showed a downward trend with four and two crashes respectfully compared to the six crashes per year in 2016, 2017, and 2018. Figure 17 shows the distribution of pedestrian and bicycle crashes; 20 of the 28 (71%) pedestrian and bicycle crashes involved a pedestrian, with eight (29%) of the crashes involving a bicyclist.

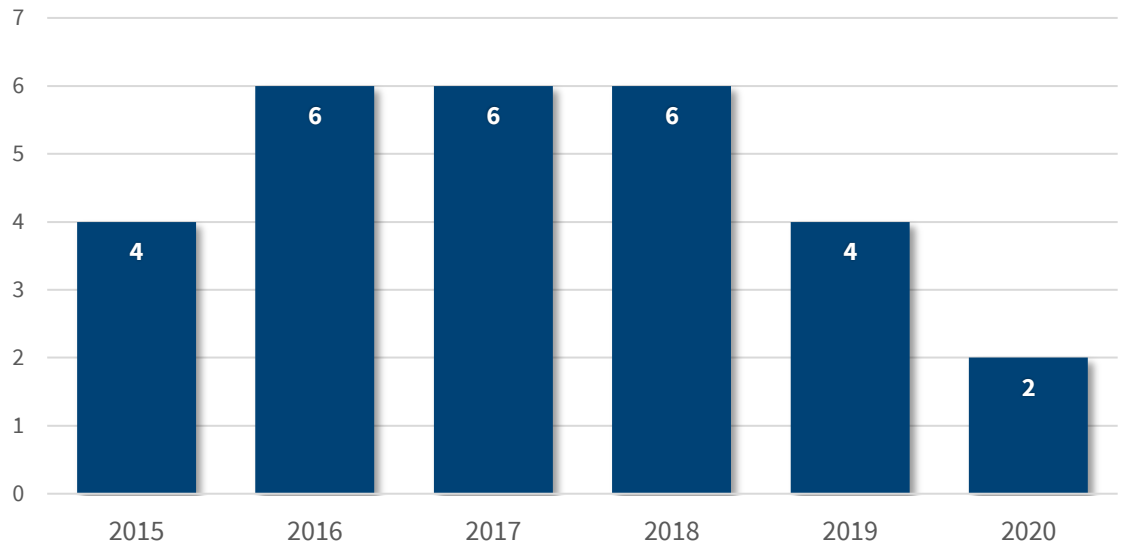


Figure 16: Pedestrian and Bicycle Crash Annual Distribution

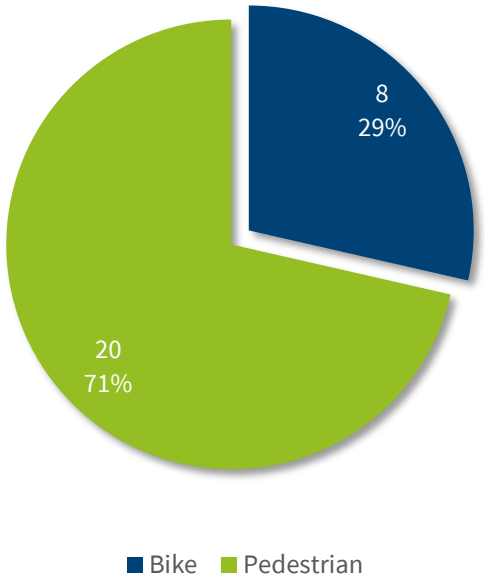


Figure 17: Pedestrian and Bicycle Crash Distribution

Unlike total crashes, where 68% of the crashes resulted in no injuries, only 11% of the pedestrian and bicycle crashes were property damage only crashes that didn't have a reported injury (Figure 18). Three of the crashes resulted in a serious/incapacitating injury, while 43% resulted in a non-incapacitating injury and 39% as a possible injury.

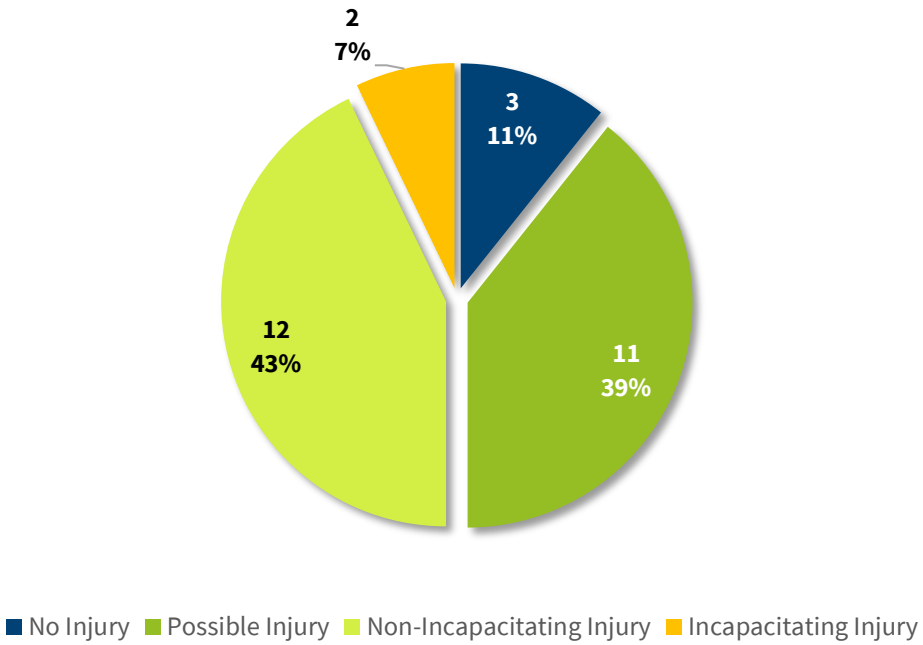


Figure 18: Pedestrian and Bicycle Crash Injury Severity Summary

Pedestrian and bicycle crashes by month (Figure 19), day of the week (Figure 20), and time of day (Figure 21) were reviewed. The months of April and October had the most crashes, each with five. Unlike many roads in Florida where there is generally a pattern of increased pedestrian and bicycle crashes during the winter and early spring months, most crashes along Myrtle Avenue generally occurred during the mid/late spring, summer, and early fall. Monday had the most pedestrian and bicycle crashes with seven, Friday and Saturday had the second most, each with five. As for time of day, crashes are generally spread from the early morning hours through the midnight hour, but a slight increase occurred in the evening and early night hours, with the 6 p.m., 9 p.m., and 12 a.m. hours having the most crashes, each with three.

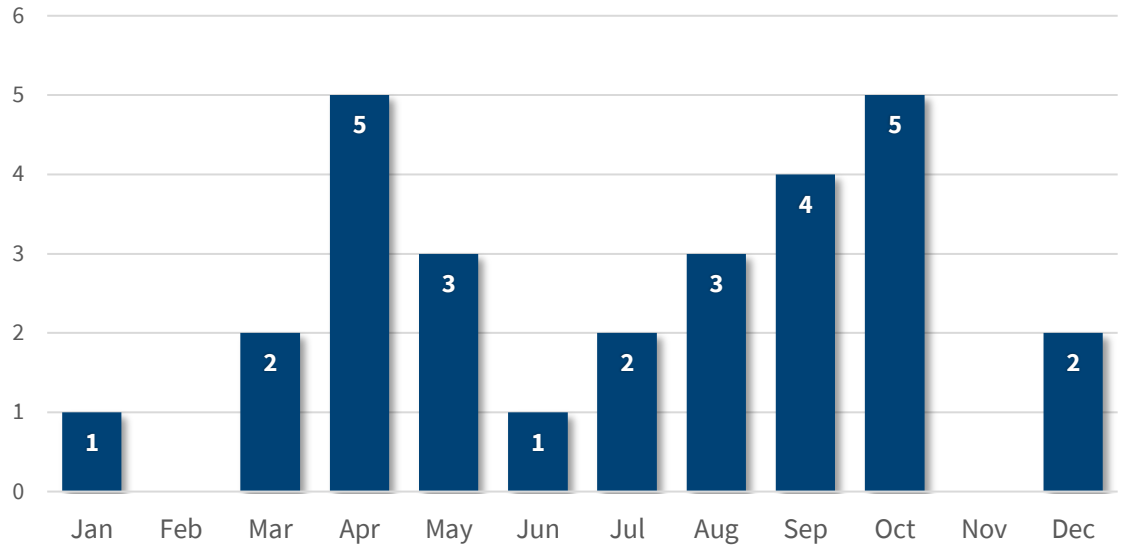


Figure 19: Pedestrian and Bicycle Crashes by Month

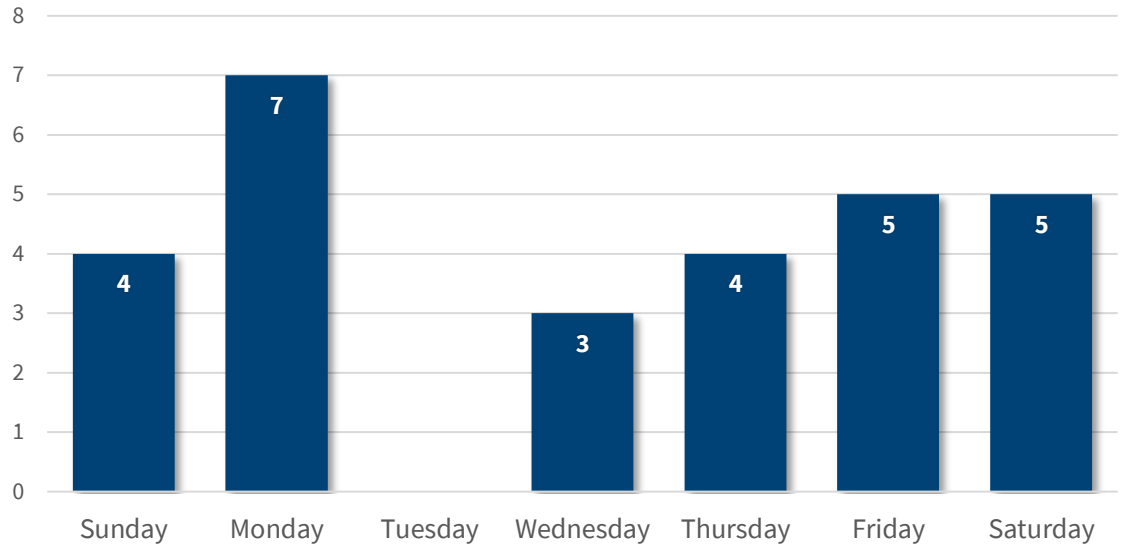


Figure 20: Pedestrian and Bicycle Crashes by Day of the Week

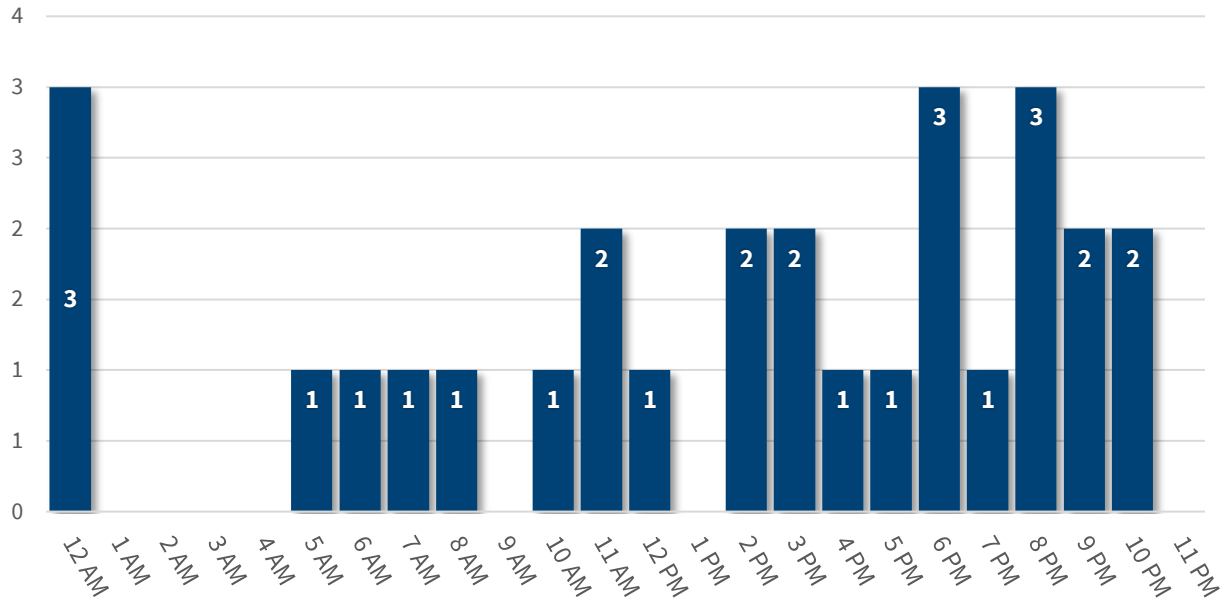


Figure 21: Pedestrian and Bicycle Crashes by Time of Day

57% of the pedestrian and bicycle crashes occurred during daylight conditions, with 43% occurring during dark conditions (Figure 22). Figure 23 shows crashes based on weather conditions; 89% occurred during clear conditions. Unlike the total crash distribution, where crashes were almost evenly split between intersection and non-intersection locations, pedestrian and bicycle crashes have a greater tendency to occur at non-intersection locations (Figure 24), with 61% of the pedestrian and bicycle crash occurring away from an intersection.

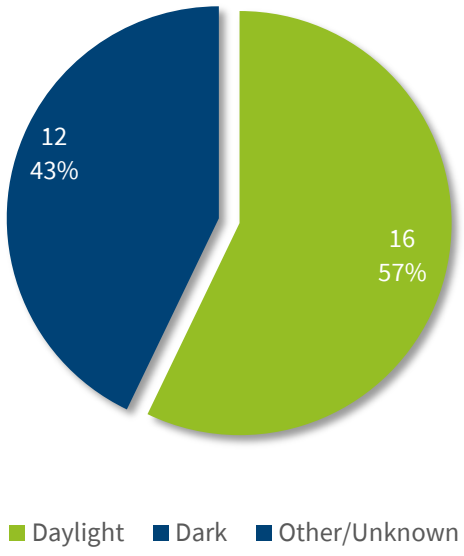


Figure 22: Pedestrian and Bicycle Crashes by Lighting Conditions

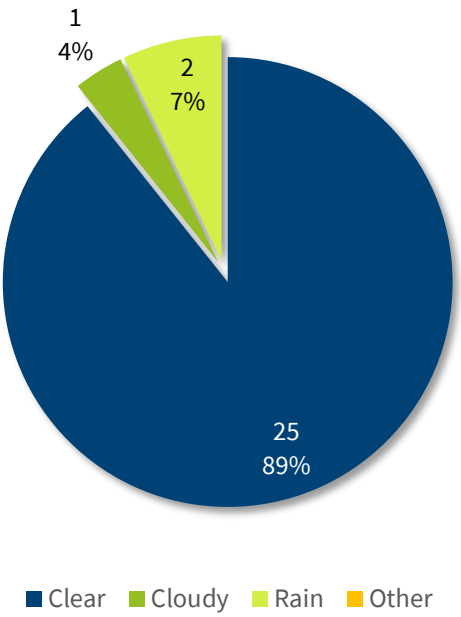


Figure 23: Pedestrian and Bicycle Crashes by Weather Conditions

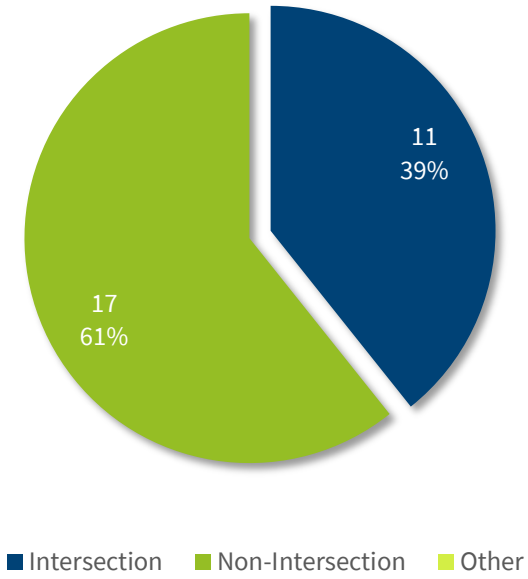


Figure 24: Pedestrian and Bicycle Crashes by Location

Using the cluster-based analysis process, pedestrian and bicycle crashes along the corridor were grouped and summarized to show locations with higher frequencies of crashes. As shown in Figure 25, pedestrian and bicycle crashes were clustered near the intersections of Myrtle Avenue and Kings Road and Myrtle Avenue and US 1/Martin Luther King Jr. Parkway.

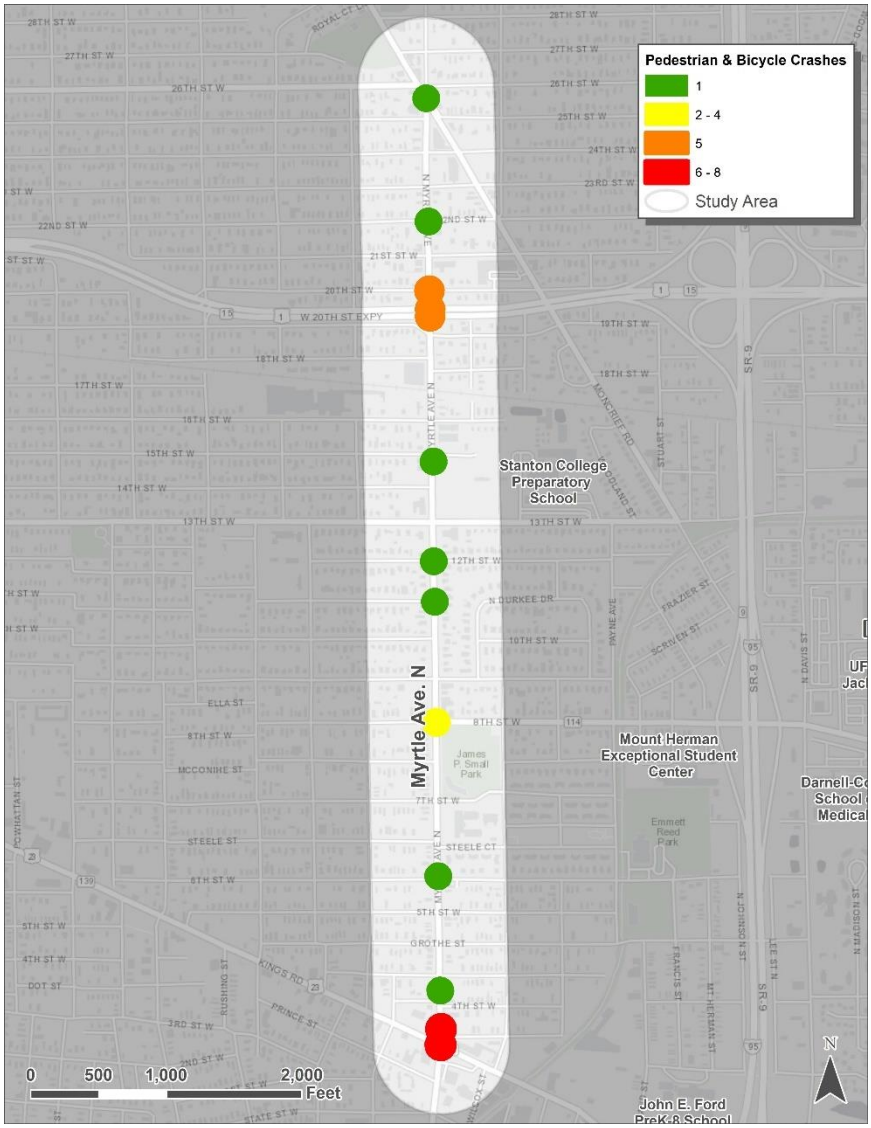


Figure 25: Pedestrian and Bicycle Crash Locations and Frequency

Recommendations

As earlier mentioned, the Myrtle Avenue corridor has been identified, according to the City of Jacksonville's TRIPS guidance, as a Neighborhood Collector street. Neighborhood collector streets are supposed to serve provide access to and through neighborhoods and provide cross-town connections. They often have more higher volumes of people walking and riding bikes but can also be barriers to connections and mobility. Throughout the City, neighborhood collector streets have the largest number of pedestrian and bicycle crashes. The city's Pedestrian and Bicycle Master Plan recommends the following tools to address pedestrian and bicycle safety and mobility on neighborhood collector streets:

- Install high visibility crosswalks with frequency
- Reduce curb radii
- Identify locations for and install rectangular rapid flashing beacons (RRFB)

The JTA Mobility Works Complete Streets study evaluated the Myrtle Avenue corridor. The consensus of the project team and public stakeholders was that Myrtle Avenue sufficiently met the traveling public's needs and the improvements mainly focused on general overall enhancements to the Myrtle Avenue and Moncrief Road/26th Street intersection. As discussed earlier in this report, the recommendation for the Myrtle Avenue and Moncrief Road/26th Street intersection is a roundabout that would help to calm traffic, improve access, and provide opportunities for an enhanced streetscape.

Proposed Improvements

A set of proposed corridor improvements were developed based on review and evaluation of existing plans, crash history, and existing conditions evaluation. The identified improvements are proposed to help make Myrtle Avenue a safe, comfortable, and accessible street for users of all ages and abilities. The City of Jacksonville's TRIP guidance and the JTA Mobility Works Complete Streets study were the basis for the proposed improvements in this document.

While an attempt to identify fatal flaws that would make a proposed improvement unfeasible was taken, it is important to note that the improvements identified in this study represent potential opportunities and are not necessarily recommendations; rather, they are suggestions for further consideration and evaluation. In many instances, the identified improvements will require additional evaluation, analysis, and/or engineering design to determine the full feasibility of each potential improvement.

Myrtle Avenue, South of Kings Road to 5th Street

ID	Location	Potential Improvement
1	Myrtle Ave at S-Line Trailhead	Consider installing a mid-block crossing to improve access to the S-Line Trail on the east side of Myrtle Ave.
2	Myrtle Ave, S of Union St to Kings Rd	Consider marking the side street crossings along Myrtle Ave.
3	Myrtle Ave, S of Union St to Kings Rd	Consider constructing a shared use path along the east side of Myrtle Ave from the S-Line to Kings Rd.
4	Myrtle Ave, S of Union St to Kings Rd	Conduct a sidewalk illumination evaluation and consider installing pedestrian-scale pedestal lighting along Myrtle Ave.
5	Myrtle Ave, Kings Rd to 6th St	Evaluate the potential to construct small raised median islands with landscaping (if feasible) between the north-south left turn lanes throughout this portion of the corridor.

Figure 26: Illustration of Concept #1

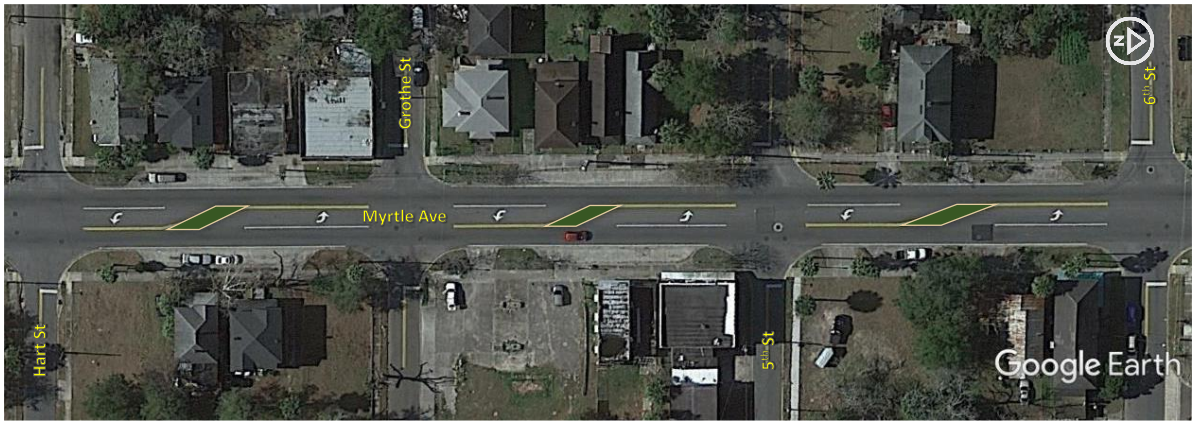


Figure 27: Illustration of Concept #5

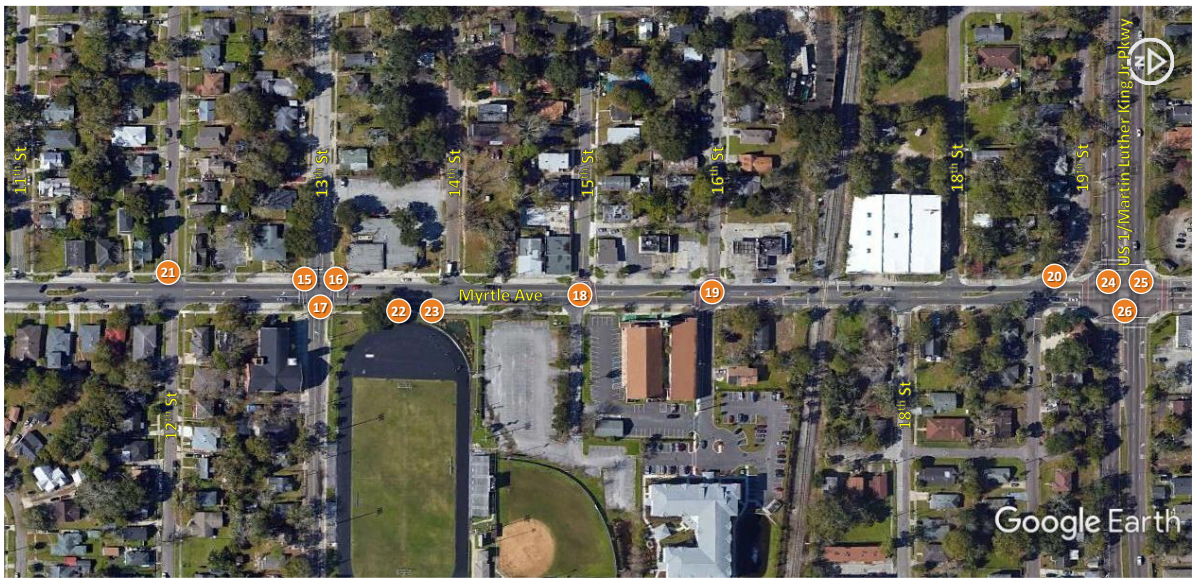
Myrtle Avenue, 5th Street to 11th Street

ID	Location	Potential Improvement
6	Myrtle Ave at 6th St	Consider installing a mid-block crossing that includes high visibility crosswalk markings, signage, RRFBs, stop line pavement markings, and enhanced overhead lighting.
7	Myrtle Ave at 7th St	Consider installing a mid-block crossing that includes high visibility crosswalk markings, signage, RRFBs, stop line pavement markings, and enhanced overhead lighting.
8	Myrtle Ave at 8th St	Enhance crosswalk markings to high-visibility/special emphasis crosswalk markings. Further to the east is Emmett Reed Park.
9	Myrtle Ave at 8th St	Evaluate the existing signal mast-arm structure to determine if they could support a 3-section signal head and 4-section signal head in place of the existing 5-section signal heads on Myrtle Ave and the 3-section heads on 8th St. If feasible, consider installing a 4-section flashing yellow-arrow signal head assembly to control the protected/permissive left turn movements. Additionally, consider programming the left turn movement to protected only during higher traffic volumes periods and synchronizing the signal to protected only when the pedestrian push button has been activated, potentially reducing conflicts between turning vehicles and crossing pedestrians and bicyclists.
10	Myrtle Ave at 8th St	Consider installing flexible retroreflective backplates on all signal heads.
11	Myrtle Ave at 8th St	Evaluate existing intersection and crosswalk illumination and consider installing overhead lighting to supplement the existing pedestal lighting.

ID	Location	Potential Improvement
12	Myrtle Ave, Kings Rd to 8th St	Consider marking the side street crossings along Myrtle Ave.
13	Myrtle Ave at 9th St	Consider installing a mid-block crossing that includes high visibility crosswalk markings, signage, RRFBs, stop line pavement markings, and enhanced overhead lighting if 9th St received bicycle boulevard treatments (see the 8th Street Corridor Study).
14	Wilcox St, Kings Rd to 9th St	Consider bicycle boulevard treatments along Wilcox St, including but not limited to shared lane markings, signage, and intersection treatments. Evaluate the potential for neighborhood traffic circles at the intersections along Wilcox St as a longer term investment.

Figure 28: Flashing Yellow Left Turn Arrow with Yellow Retroreflective Backplate

Myrtle Avenue, 11th Street to US 1/Martin Luther King Jr Parkway



ID	Location	Potential Improvement
15	Myrtle Ave at 13th St	Enhance crosswalk markings to high visibility/special emphasis crosswalk markings.
16	Myrtle Ave at 13th St	Evaluate the existing mast arm structures to determine if the 5-section signal heads can be replaced with a 4-section flashing yellow arrow assembly. If feasible replace the 5-section signal heads with 4-section flashing yellow arrow signal head assembly.
17	Myrtle Ave at 13th St	Consider installing flexible retroreflective backplates on all signal heads.
18	Myrtle Ave at 15th St	Enhance crosswalk markings to high visibility/special emphasis markings. Consider installing RRFBs, supplemental signage, and advance stop lines.
19	Myrtle Ave at 16th St	Enhance crosswalk markings to high visibility/special emphasis markings. Consider installing RRFBs, supplemental signage, and advance stop lines.
20	Myrtle Ave at 19th St	Evaluate the existing intersection operations and consider closing access to 19th St at Myrtle Ave, at a minimum consider eliminating the westbound movement onto 19th St from Myrtle Ave.
21	Myrtle Ave, 8th St to Martin Luther King Jr Pkwy	Consider marking the side street crossings along Myrtle Ave.
22	Myrtle Ave, 8th St to Martin Luther King Jr Pkwy	Evaluate opportunities to widen the existing sidewalks to a minimum of 8'.
23	Myrtle Ave, 8th St to Martin Luther King Jr Pkwy	Consider opportunities to repurpose some of the right-of-way to provide wide sidewalks, landscaping, and an overall enhanced streetscape.

ID	Location	Potential Improvement
24	Myrtle Ave at Martin Luther King Jr Pkwy	Enhance crosswalk markings to high visibility/special emphasis crosswalk markings; incorporate high visibility markings into the existing decorative markings on the north and south legs of the intersection.
25	Myrtle Ave at Martin Luther King Jr Pkwy	Evaluate the existing mast arm structures to determine if the 5-section signal heads can be replaced with a 4-section flashing yellow arrow assembly. If feasible replace the 5-section signal heads with 4-section flashing yellow arrow signal head assembly.
26	Myrtle Ave at Martin Luther King Jr Pkwy	Consider installing flexible retroreflective backplates on all signal heads.

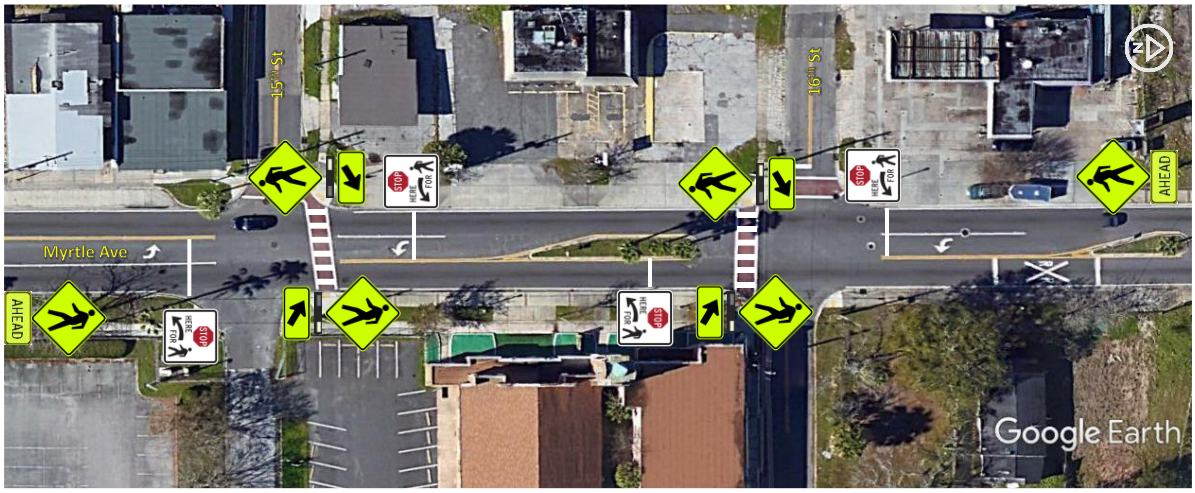


Figure 29: Illustration of Concepts #18 and #19

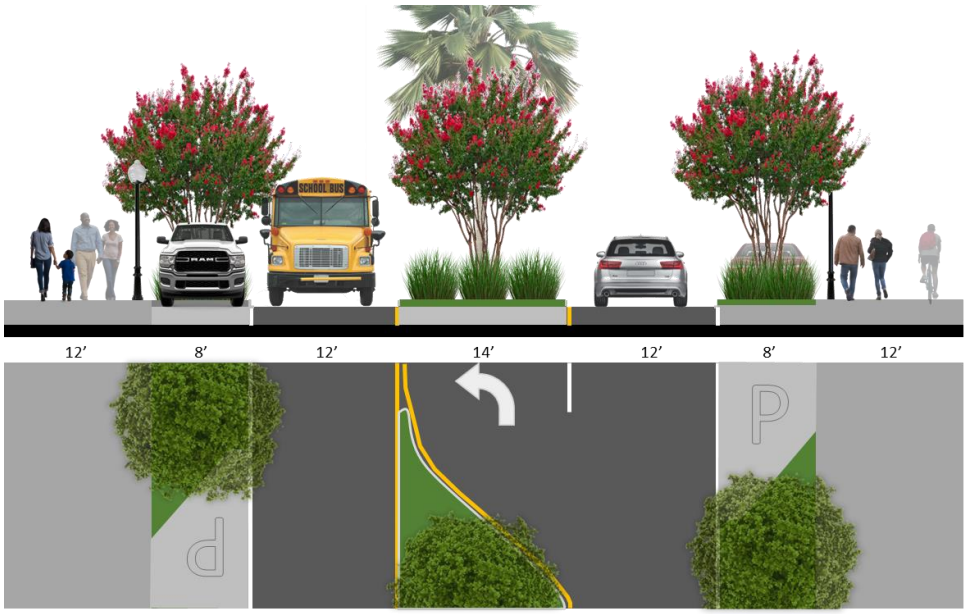
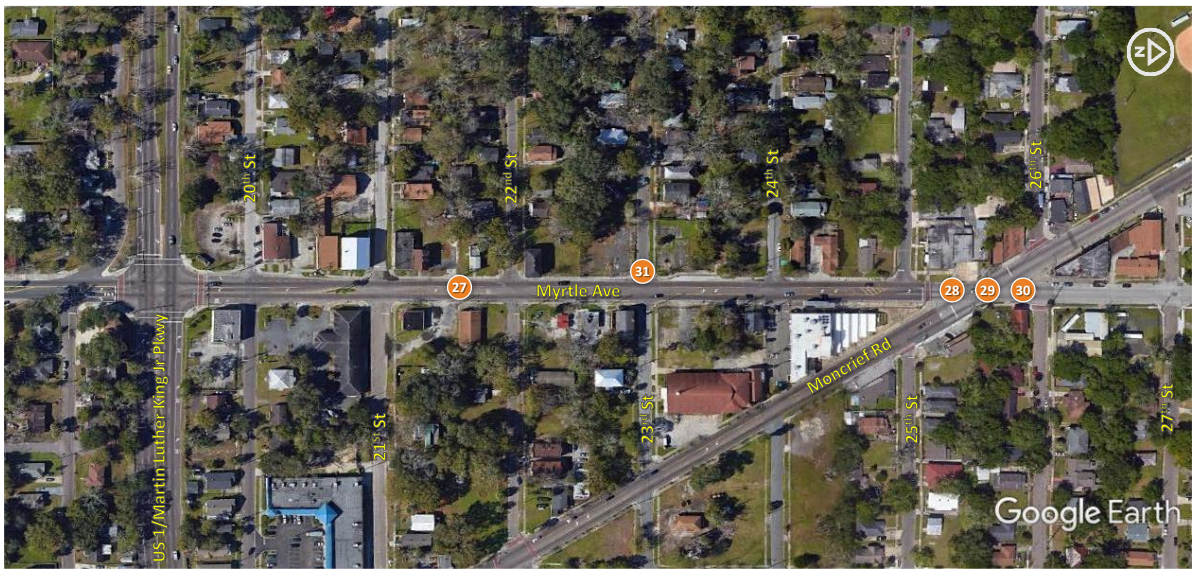


Figure 30: Potential Reallocation of Corridor Right-of-Way

Myrtle Avenue, US 1/Martin Luther King Jr Parkway to Moncrief Road/26th Street



ID	Location	Potential Improvement
27	Myrtle Ave, 21st St to 25th St	Consider constructing raised landscaped median islands and converting the two-way center left turn lane into directional left turn lanes.
28	Myrtle Ave at Moncrief Rd/26th St	Enhance crosswalk markings to include high visibility/special emphasis crosswalk markings.
29	Myrtle Ave at Moncrief Rd/26th St	Consider installing flexible retroreflective backplates on all signal heads.
30	Myrtle Ave at Moncrief Rd/26th St	Consider moving forward with evaluating the roundabout concept developed as part of JTA's Mobility Works Complete Streets Study.
31	Myrtle Ave, Martin Luther King Jr Pkwy to Moncrief Rd/26th St	Consider marking the side street crossings along Myrtle Ave.

Source: JTA Mobility Works Complete Streets Study

Figure 31: Myrtle Avenue at Moncrief Road/26th Street Roundabout Concept

Myrtle Avenue Corridor-Wide

ID	Location	Potential Improvement
32	Myrtle Ave, S of Kings Rd to Moncrief Rd	Install speed feedback signs (SFS)/dynamic speed displays to alert drivers of their speed related to the posted speed limit. Consider incorporating technology within the signage to capture SFS readings to enhance the availability of speed related data along the corridor.
33	Myrtle Ave, S of Kings Rd to Moncrief Rd	Evaluate existing signal timing plans to determine if automatic recall for the pedestrian signal could be accommodated, at a minimum at the pedestrian signals for people walking along Myrtle Ave.
34	Myrtle Ave, S of Kings Rd to Moncrief Rd	Evaluate opportunities to initiate a leading pedestrian interval (LPI) at the signalized intersections along the corridor to help pedestrians better establish their presence in the crosswalk.

Figure 32: Speed Feedback Signage Example

Implementation Plan

Implementing potential improvements along the Myrtle Avenue corridor will require coordination between various jurisdictions, government agencies and departments, and community stakeholders. Key players along Myrtle Avenue include:

- North Florida TPO
- City of Jacksonville
- Jacksonville Transportation Authority (JTA)
- Florida Department of Transportation (FDOT)

Effective coordination and collaboration will be required from all involved parties. This study is a guide towards improvements that are designed to make Myrtle Avenue a safe, accessible, comfortable, and inviting street that supports the community's overall initiatives and goals. To help facilitate coordination and implementation, a list detailing the proposed improvements was developed into an implementation plan. This (Appendix B) can be used to help track the next steps for the proposed improvements and the coordinating with responsible agencies throughout the implementation process.

Cost Estimates

As part of the implementation plan development, high-level planning cost estimates were developed for the identified potential improvements. The cost estimates are based on costs from recently completed projects, FDOT historical average costs, and FDOT per mile cost estimates. Unless specifically mentioned, the cost estimates do not include additional evaluation, engineering feasibility, or design. **Error! Reference source not found.** provides a summary of the estimated costs for specific treatments and Table 2 provides a summary of the estimated costs associated with the potential improvements identified within this report.

Table 1: Cost Estimate Basis

Item	Estimated Cost	Unit
Sidewalk	$275,000	Per Mile
Shared Use Path (12 feet wide)	$350,000	Per Mile
Crosswalk Markings (High-Visibility)	$1,000	Per Crossing
Bicycle Boulevard Treatment	$35,000	Per Mile
Mid-Block Crossing (RRFB)	$50,000	Per Location
Speed Feedback Signs	$5,000	Each
Intersection Lighting Enhancement	$15,000	Per Intersection
Corridor Lighting Enhancement	$300,000	Per Mile
FYA 4-Section Signal Head	$3,000	Each
Retroreflective Signal Backplates	$250	Per Signal Head
Leading Pedestrian Interval	$1,500	Per Intersection
Signal Timing Adjustment	$3,000	Per Intersection
Raised Median Islands	$50,000	Per 100 Linear Feet

Table 2: Corridor Planning-Level Cost Estimate Summary

Improvement Category	Estimated Cost
Crosswalk markings, realignment, and enhancements	$58,000
Mid-block crossings	$300,000
Signal enhancements (Left turn flashing yellow arrows, backplates, pedestrian signal recall, leading pedestrian intervals)	$98,500
Medians	$200,000
Intersection reconstruction	$100,000
Bicycle enhancements	$480,000
Lighting enhancements	$35,000
Roundabout Study (Myrtle Ave at Moncrief Rd)	$150,000
Other	$530,000
Corridor Improvements Total Cost Estimate	**$1,951,500**

Appendix A – Recent and Ongoing Plan, Program, and Project Review

Capital Improvement Plan

A review of the FY2021 to 2025 Capital Improvement Plan was completed to identify any upcoming projects that impact the corridor, including major facilities and generators along the corridor. The following capital projects were identified in Table A-1.

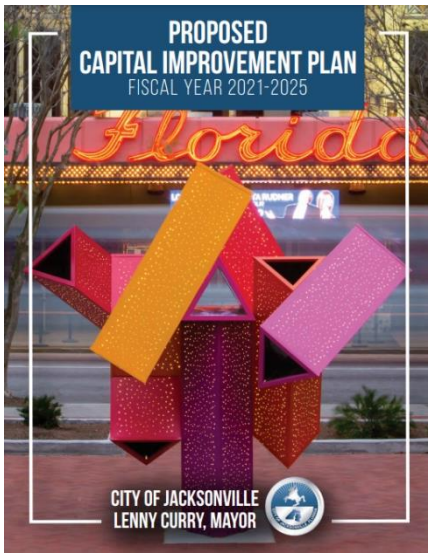


Table A-1: Planned Capital Improvements

Program Area	Project ID	Project Name	Scope	Location	Total Cost	Year of Expenditure
Roads/ Infrastructure/ Transportation	376	McCoy's Creek Outfall Improvements with Riverwalk	Stormwater improvement from Myrtle to the outfall as well as opening the mouth of McCoy's Creek to support access to the creek, and improved recreational opportunity associated with McCoy's	Myrtle east to St Johns River	$56 Million	Ongoing through 2025
Parks/ Preservation Land/Wetland	548	JP Small Park	The project will replace the field turf and sports lighting.	1701 Myrtle Ave	$0.6 Million	Beyond 2025
Roads/ Infrastructure/ Transportation	466	Emerald Trail - Northwest Connector	The Northwest Connector is proposed as a series of side paths and neighborhood greenways connecting the City of Jacksonville's northwest neighborhoods of New Town, College Gardens, and Durkeeville.	New Town, College Gardens and Durkeeville	$4.8 Million	2024 and beyond 2025

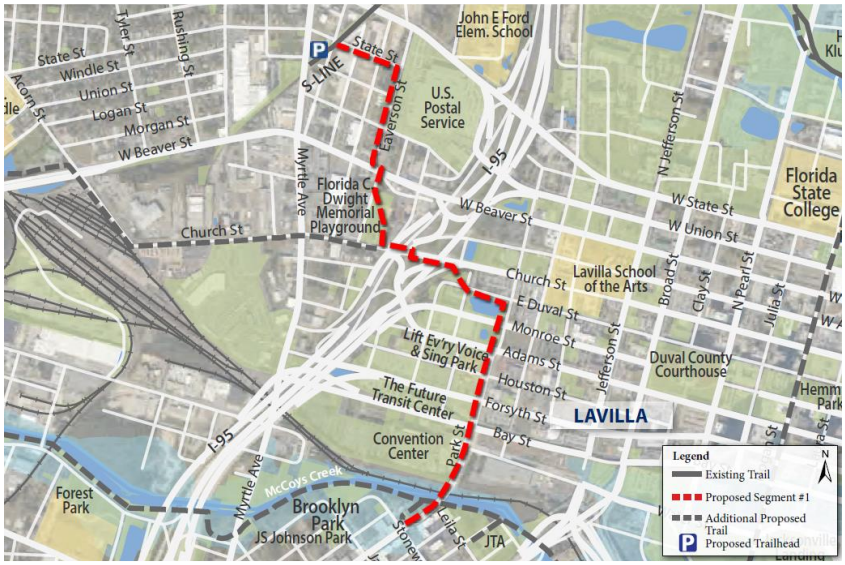
Comprehensive Plan

Emerald Trail & S-Line

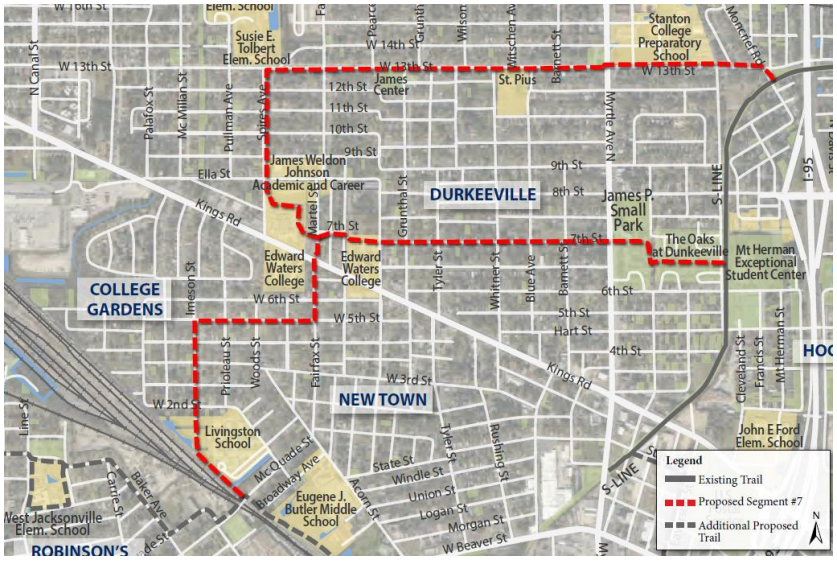
The Emerald Trail, with a guiding plan last updated in August 2021, is a planned 19.7 mile trail encircling Downtown Jacksonville to be completed by 2029. Approximately six miles of the Emerald Trail are already in place, including the 1.5-mile S-Line Trail that bisects and connects the subject corridor. The plan identified 13 segments, including programmed segments, breaking each into one of two funding priority tiers.

Two segments of the Emerald Trail intersect with or influence the mobility of the study corridor:

S-Line to Stonewall Street (Tier 1)



Northwest Connector (Tier 2)



Appendix B – Improvement Implementation Plan

ID	Location	Improvement (Short)	Improvement (Long)	Justification	Initial Responsibility	Time Frame	Cost
1	Myrtle Ave at S-Line Trailhead	Mid-block crossing	Consider installing a mid-block crossing to improve access to the S-Line Trail on the east side of Myrtle Ave.	The S-Line Trailhead is located on the east side of Myrtle Ave.	City of Jacksonville	Short-Term	$50,000
2	Myrtle Ave, S of Union St to Kings Rd	Side street crossings	Consider marking the side street crossings along Myrtle Ave.	The side street crossings along Myrtle Ave are unmarked.	City of Jacksonville	Short-Term	$4,000
3	Myrtle Ave, S of Union St to Kings Rd	Shared use path	Consider constructing a shared use path along the east side of Myrtle Ave from the S-Line to Kings Rd.	No existing bicycle facilities are along Myrtle Ave. While there appears to be sufficient pavement width along Myrtle Ave for an on-street facility, the existing pavement width at the intersection of Kings Rd is not enough to accommodate on-street bike lanes, travel lanes, and a turn lane.	City of Jacksonville	Long-Term	$60,000
4	Myrtle Ave, S of Union St to Kings Rd	Enhance lighting	Conduct a sidewalk illumination evaluation and consider installing pedestrian-scale pedestal lighting along Myrtle Ave.	Overhead lights are mainly along the west side of Myrtle Ave. While these may be sufficient for motor vehicle traffic, they may not provide sufficient sidewalk illumination.	City of Jacksonville	Long-Term	$20,000
5	Myrtle Ave, Kings Rd to 6th St	Median islands	Evaluate the potential to construct small raised median islands between the north-south left turn lanes throughout this portion of the corridor.	There are concurrent north-south left turn lanes along the corridor.	City of Jacksonville	Mid-Term	$80,000
6	Myrtle Ave at 6th St	Mid-block crossing	Consider installing a mid-block crossing that includes high visibility crosswalk markings, signage, RRFBs, stop line pavement markings, and enhanced overhead lighting.	6th St provides access to Emmett Reed Park and the Emmett Reed Gymnasium.	City of Jacksonville	Mid-Term	$50,000

ID	Location	Improvement (Short)	Improvement (Long)	Justification	Initial Responsibility	Time Frame	Cost
7	Myrtle Ave at 7th St	Mid-block crossing	Consider installing a mid-block crossing that includes high visibility crosswalk markings, signage, RRFBs, stop line pavement markings, and enhanced overhead lighting.	Small Park, commercial retail, including a grocery market, and multi-family residential are located along the east side of Myrtle Ave.	City of Jacksonville	Mid-Term	$50,000
8	Myrtle Ave at 8th St	High-visibility crosswalk markings	Enhance crosswalk markings to high visibility/special emphasis crosswalk markings. Further to the east is Emmett Reed Park.	The existing crosswalks are marked using standard/parallel crosswalk markings.	City of Jacksonville	Short-Term	$4,000
9	Myrtle Ave at 8th St	Left turn flashing yellow arrow	Evaluate the existing signal mast-arm structure to determine if they could support a 3-section signal head and 4-section signal head in place of the existing 5-section signal heads on Myrtle Ave and the 3-section heads on 8th St. If feasible, consider installing a 4-section flashing yellow-arrow signal head assembly to control the protected/permissive left turn movements. Additionally, consider programming the left turn movement to protected only during higher traffic volumes periods and synchronizing the signal to protected only when the pedestrian push button has been activated, potentially reducing conflicts between turning vehicles and crossing pedestrians and bicyclists.	Existing left turn operations are conducted through a protected/permissive signal phase utilizing a 5-section signal head assembly (on Myrtle Ave) and a 3-section signal head assembly (on 8th St).	City of Jacksonville	Short-Term	$15,000
10	Myrtle Ave at 8th St	Yellow retroreflective backplates	Consider installing flexible retroreflective backplates on all signal heads.	The existing signal heads do not have retroreflective backplates.	City of Jacksonville	Short-Term	$2,000
11	Myrtle Ave at 8th St	Intersection lighting	Evaluate existing intersection and crosswalk illumination and consider installing overhead lighting to supplement the existing pedestal lighting.	Overhead light is along the south side of 8th St east of the intersection and pedestal lighting along Myrtle Ave, but no overhead lights are located at the intersection.	City of Jacksonville	Short-Term	$15,000

ID	Location	Improvement (Short)	Improvement (Long)	Justification	Initial Responsibility	Time Frame	Cost
12	Myrtle Ave, Kings Rd to 8th St	Side street crossings	Consider marking the side street crossings along Myrtle Ave.	The side street crossing along Myrtle Ave are unmarked.	City of Jacksonville	Short-Term	$15,000
13	Myrtle Ave at 9th St	Mid-block crossing	Consider installing a mid-block crossing that includes high visibility crosswalk markings, signage, RRFBs, stop line pavement markings, and enhanced overhead lighting if 9th St received bicycle boulevard treatments (see the 8th Street Corridor Study).	9th St has been identified as a potential bicycle boulevard.	City of Jacksonville	Mid-Term	$50,000
14	Wilcox St, Kings Rd to 9th St	Bicycle boulevard	Consider bicycle boulevard treatments along Wilcox St, including but not limited to shared lane markings, signage, and intersection treatments. Evaluate the potential for neighborhood traffic circles at the intersections along Wilcox St as a longer-term investment.	No dedicated bike facilities are along Myrtle Ave, Wilcox St runs parallel to Myrtle Ave and is a low volume, low speed, and low stress residential street that could provide an alternative route for people riding bikes.	City of Jacksonville	Mid-Term	$20,000
15	Myrtle Ave at 13th St	High visibility crosswalk markings	Enhance crosswalk markings to high visibility/special emphasis crosswalk markings.	The existing crosswalk markings are marked using standard/parallel crosswalk markings.	City of Jacksonville	Short-Term	$4,000
16	Myrtle Ave at 13th St	Left turn flashing yellow arrow	Evaluate the existing mast arm structures to determine if the 5-section signal heads can be replaced with a 4-section flashing yellow arrow assembly. If feasible replace the 5-section signal heads with 4-section flashing yellow arrow signal head assembly.	Existing left turn operations are conducted through a protected/permissive signal phase utilizing a 5-section signal head assembly.	City of Jacksonville	Short-Term	$25,000
17	Myrtle Ave at 13th St	Yellow retroreflective backplates	Consider installing flexible retroreflective backplates on all signal heads.	The existing signal heads do not have retroreflective backplates.	City of Jacksonville	Short-Term	$2,000
18	Myrtle Ave at 15th St	Enhance crossing	Enhance crosswalk markings to high visibility/special emphasis markings. Consider installing RRFBs, supplemental signage, and advance stop lines.	Existing mid-block crosswalk with stamped asphalt and standard/parallel crosswalk markings.	City of Jacksonville	Short-Term	$50,000

ID	Location	Improvement (Short)	Improvement (Long)	Justification	Initial Responsibility	Time Frame	Cost
19	Myrtle Ave at 16th St	Enhance crossing	Enhance crosswalk markings to high visibility/special emphasis markings. Consider installing RRFBs, supplemental signage, and advance stop lines.	Existing mid-block crosswalk with stamped asphalt and standard/parallel crosswalk markings.	City of Jacksonville	Short-Term	$50,000
20	Myrtle Ave at 19th St	Intersection modification	Evaluate the existing intersection operations and consider closing access to 19th St at Myrtle Ave, at a minimum consider eliminating the westbound movement onto 19th St from Myrtle Ave.	19th St intersects Myrtle Ave at an angle approximately 60' south of Martin Luther King Jr. Pkwy. The intersection design, especially in proximity to the Martin Luther King Jr Pkwy intersection is a safety concern for both drivers and pedestrians.	City of Jacksonville	Mid-Term	$100,000
21	Myrtle Ave, 8th St to Martin Luther King Jr Pkwy	Side street crossings	Consider marking the side street crossings along Myrtle Ave.	The side street crossings along Myrtle Ave are unmarked.	City of Jacksonville	Short-Term	$14,000
22	Myrtle Ave, 8th St to Martin Luther King Jr Pkwy	Widen sidewalk	Evaluate opportunities to widen the existing sidewalks to a minimum of 8 feet.	The existing sidewalks are 5' wide, there is a landscape buffer and parking bays that separate the sidewalk from the travel lanes.	City of Jacksonville	Long-Term	$400,000
23	Myrtle Ave, 8th St to Martin Luther King Jr Pkwy	Redesigned street	Consider opportunities to repurpose some of the right-of-way to provide wide sidewalks, landscaping, and an overall enhanced streetscape.	Approximately 80' of right-of-way with approximately 15' of buffer/parking is between the travel lane and the sidewalks, which are 5' wide.	City of Jacksonville	Long-Term	$500,000
24	Myrtle Ave at Martin Luther King Jr Pkwy	High visibility crosswalk markings	Enhance crosswalk markings to high visibility/special emphasis crosswalk markings; incorporate high visibility markings into the existing decorative markings on the north and south legs of the intersection.	The north and south legs of the intersection are marked with a stamped asphalt decorative crosswalk marking with parallel white edge markings, the east and west legs are marked with standard/parallel crosswalk markings.	City of Jacksonville	Short-Term	$4,000

ID	Location	Improvement (Short)	Improvement (Long)	Justification	Initial Responsibility	Time Frame	Cost
25	Myrtle Ave at Martin Luther King Jr Pkwy	Left turn flashing yellow arrow	Evaluate the existing mast arm structures to determine if the 5-section signal heads can be replaced with a 4-section flashing yellow arrow assembly. If feasible replace the 5-section signal heads with 4-section flashing yellow arrow signal head assembly.	Existing left turn operations are conducted through a protected/permissive signal phase utilizing a 5-section signal head assembly.	City of Jacksonville	Short-Term	$27,000
26	Myrtle Ave at Martin Luther King Jr Pkwy	Yellow retroreflective backplates	Consider installing flexible retroreflective backplates on all signal heads.	The existing signal heads do not have retroreflective backplates.	City of Jacksonville	Short-Term	$2,500
27	Myrtle Ave, 21st St to 25th St	Median islands	Consider constructing raised landscaped median islands and converting the two-way center left turn lane into directional left turn lanes.	The existing median is a center two-way left turn lane.	City of Jacksonville	Mid-Term	$120,000
28	Myrtle Ave at Moncrief Rd/26th St	High visibility crosswalk markings	Enhance crosswalk markings to include high visibility/special emphasis crosswalk markings.	The existing crosswalks are marked with a stamped asphalt design with standard/parallel crosswalk markings.	City of Jacksonville	Short-Term	$3,000
29	Myrtle Ave at Moncrief Rd/26th St	Yellow retroreflective backplates	Consider installing flexible retroreflective backplates on all signal heads.	The existing signal heads do not have retroreflective backplates.	City of Jacksonville	Short-Term	$2,500
30	Myrtle Ave at Moncrief Rd/26th St	Roundabout study	Consider moving forward to evaluate the roundabout concept developed as part of JTA's Mobility Works Complete Streets Study.	JTA's Mobility Works Complete Street study recommended a roundabout for the Myrtle/Moncrief/26th intersection.	City of Jacksonville	Long-Term	$150,000
31	Myrtle Ave, Martin Luther King Jr Pkwy to Moncrief Rd/26th St	Side street crossings	Consider marking the side street crossings along Myrtle Ave.	The side street crossing along Myrtle Ave are unmarked.	City of Jacksonville	Short-Term	$10,000

ID	Location	Improvement (Short)	Improvement (Long)	Justification	Initial Responsibility	Time Frame	Cost
32	Myrtle Ave, S of Kings Rd to Moncrief Rd	Speed feedback signs	Install speed feedback signs (SFS)/dynamic speed displays to alert drivers of their speed related to the posted speed limit. Consider incorporating technology within the signage to capture SFS readings to enhance the availability of speed related data along the corridor.	The existing speed limit along 8th St is 30 mph. While this is an ideal speed for a pedestrian focused corridor and the context and character of the corridor, speed was identified as a concern during the outreach that was completed as part of the JTA study.	City of Jacksonville	Short-Term	$30,000
33	Myrtle Ave, S. of Kings Rd to Moncrief Rd	Automatic pedestrian signal recall	Evaluate existing signal timing plans to determine if automatic recall for the pedestrian signal could be accommodated, at a minimum at the pedestrian signals for people walking along Myrtle Ave.	Actuated pedestrian signals, where people need to push a button to get a walk signal, can lead to unnecessary pedestrian delay and can encourage people to cross against the walk signal or cross outside the intersection area to avoid that delay. Consistent and predictable walk conditions enhance pedestrian mobility throughout a corridor.	City of Jacksonville	Short-Term	$15,000
34	Myrtle Ave, S of Kings Rd to Moncrief Rd	Leading pedestrian intervals	Evaluate opportunities to initiate a leading pedestrian interval (LPI) at the signalized intersections along the corridor to help pedestrians better establish their presence in the crosswalk.	Half of the pedestrian and bicycle crashes along the corridor occurred at signalized intersections. LPIs are a proven countermeasure that can be used to improve pedestrian safety.	City of Jacksonville	Short-Term	$7,500