

# 2018

## Bicycle and Pedestrian Master Plan



City of Myrtle Beach

Bicycle and Pedestrian Committee



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We are grateful to Kathy Johnson, Horry County Schools; Patty Blum, AARP; Keely Muertos, MPH, Grand Strand Health Center; Mark Sowers and Cycloviva participants for their input.

We lost three devoted committee members and friends during the writing of this plan - Nate Johnson, Col Robert Bell and Roger Means. We miss their enthusiasm and dedication to make Myrtle Beach a safer place to walk and bike.







# Bicycle <sup>AND</sup> Pedestrian Master Plan



## Executive Summary

The City of Myrtle Beach Bicycle and Pedestrian Committee, established in 2014, has studied the issues of connectivity, public safety and infrastructure to produce a Bicycle and Pedestrian Master Plan. The plan targets immediate needs while addressing long-term goals that will add to the community's economy. Its vision is strategic, with a foundation that considers those issues that both pedestrians and bicyclists encounter daily, whether residents, commuters or visitors.

In its formative years, the Committee identified infrastructure gaps and conducted field studies to understand those gaps. The Committee was successful in securing a snapshot study of bicycle infrastructure along Ocean Boulevard with a US Federal Highway Administration "Bicycle Safety Audit." Committee members also worked with the National Association of REALTORS and Coastal Carolinas Association of REALTORS on a pilot "Walkability Workshop", conducted by nationally known walkability experts Dan Burden and Samantha Thomas from Blue Zones. The Walkability Workshop revealed the potential to improve walkability on Kings Hwy and adjacent avenues. The Committee has looked at intersection safety, measured sidewalk widths, and sought input from neighborhood groups. In cooperation with City Council and the Myrtle Beach Air Force Base History Committee, the Committee recommended naming conventions for new trail systems that have emerged throughout the Market Common.

Gaining familiarity with existing infrastructure and studying the successes of bicycle and walk friendly communities has aided the Committee in developing this Master Plan. The outcome is a Bicycle and Pedestrian Master Plan that sets guidance for short-term objectives while simultaneously establishing a vision for long-term prospects. The plan's objectives compliment sports tourism and set strategic objectives that create future economic opportunities for the city. For example, regional transportation initiatives that include walking and bicycling-present recreational opportunities that will extend trail systems beyond the city's geographical boundaries for bicyclists, pedestrians, and running enthusiasts. Consider for example the East Coast Greenway 10-mile segment between Myrtle Beach and North Myrtle Beach that parallels the Carolina Bays Parkway, and the potential for a rails-to-trails system that connects Myrtle Beach to Conway and follows the rail line running parallel to Hwy 501.

Short-term objectives work to improve public safety, education and infrastructure connectivity. For instance, the Committee set as a priority a recommendation to complete the 77<sup>th</sup> to 80<sup>th</sup> Avenue North along Ocean Boulevard safety gap by adding sidewalks and bicycle lanes to the two-lane road. Completion of this Ocean Boulevard segment improved both public safety and connectivity. Likewise, Committee members reinforced the Myrtle Beach Police Department's educational objectives of safe bicycle and walking practices for those students who visit Myrtle Beach under the US Department of State's J-1 Visa Exchange Program.

The Master Plan includes objectives to improve educational efforts that target pedestrians, bicyclists and motorists equally and describes how each group needs to operate within the Myrtle Beach transportation network. These educational objectives accompany engineering





objectives that complement infrastructure changes to improve both awareness and public safety.

Finally, long-range strategic goals are those that necessitate multi-jurisdictional collaboration and planning in the context of the region's multi-modal transportation plan. The Committee has adopted those existing initiatives and works to solidify community support of those goals. For example, while Myrtle Beach completed its segment of the East Coast Greenway (ECG), the City encourages the completion of segments that will link it with ECG segments to the north and south. The Horry County rail line provides an opportunity for a bicycle and pedestrian connection from the Historic Myrtle Beach Train Depot to Conway. In addition to venues that extend multi-purpose recreational trail systems outward, the plan calls for multi-modal interconnectivity within the city with a proposed Myrtle Beach Iconic Loop. The 26.4-mile iconic loop will encircle the city's commercial and entertainment districts while ensuring safe connectivity via bicycle and pedestrian transportation to commercial, entertainment and historic interests.

This plan prioritizes six strategies, three short-term and three long-term. The Committee based these strategies on its work to identify gaps in active living, public safety, connectivity and infrastructure, particularly those highlighted through bicycle safety and walkability audits discussed in Chapter 2.

#### Short-term high-priority strategies:

- Adopt and begin implementation of a bicycle and pedestrian master plan.
- Develop a program to aggressively fund new sidewalks to fill gaps in the existing network.
- Create a new set of guidelines driving the City's approach to signal timing and signalized intersection countermeasures.<sup>1</sup> Incorporate these countermeasures into the bicycle and pedestrian master plan.

#### Long-term high-priority strategies:

- Establish an ongoing public safety and education program with the resources to provide outreach to partner organizations.
- Recommend and support the establishment of the 26-mile Myrtle Beach Iconic Loop.
- Partner with neighboring jurisdictions, regional associations and bicycle and walk friendly groups to build an integrated multi-purpose trail network, to include:
  - The East Coast Greenway ECG).
  - The rails-to-trails multi-purpose trail system from Myrtle Beach to Conway.

The discussion surrounding the transformation of the downtown Superblock presents an additional opportunity to create a truly unique destination accessible by bicyclists and pedestrians with connections to the multi-purpose trail system. Sports tourism provides another opportunity. The Master Plan targets long-range strategies that will support bicycle and pedestrian tourism.

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<sup>1</sup> A countermeasure is an action or device intended to negate a threat or hazard. In this instance, a signalized traffic light with a timer will provide sufficient time for safe passage by a pedestrian crossing a vehicular lane.



The Myrtle Beach Bicycle and Pedestrian Master Plan presents a measured approach given available resources. As stated above, it addresses immediate issues concerning public safety, education of transportation users and infrastructure that supports those users. For maximum efficiency, infrastructure improvements will be coordinated with maintenance schedules and with larger public works projects.

The overarching goal of the plan is the designation as a bicycle and walk friendly community. The path to those designations is clear, concrete and accomplishable. An objective of the plan is to explore various scenarios and apply cost figures to determine target dates to accomplish those goals, establishing a cost-based analysis of plan goals. Chapter 3 lists seven implementation strategies based on existing funding resources.





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# Chapter 1: Introduction

## Plan Purpose

The purpose of the Master Plan is to establish guidance for the development of Myrtle Beach's bicycle and pedestrian transportation systems. The plan addresses education, public safety and infrastructure improvements to support bicycling and walking, and includes guidance for both short-term and long-term objectives that target engineering (infrastructure), education, encouragement and economics.

## Plan Rationale: Why Bicycling and Walking Matter

Walking and Cycling During Cycloviva



The Vision: Myrtle Beach is a destination beach community in which residents and visitors can park their cars or bicycles and spend the day strolling among blocks of shops, art galleries and cafes interspersed with relaxation on the beach.

The activities that visitors and locals enjoy in Myrtle Beach have much to do with walking and bicycling. They walk or bicycle on the beach, on the boardwalk, in neighborhoods, to restaurants and shops and just for the enjoyment of slowing down the pace of the hectic world they live in. People enjoy the sights and sounds of an oceanfront community. Visitors seek and return to walk friendly destinations where they socialize, learn the local culture and depart with an appreciation for the many leisure activities and amenities the community offers.

Leisure time matters and the challenge is to fully enjoy and know a community when transportation options are limited. Visitors and locals expect leisure exercise that is low impact. Walking and bicycling are perfect activities and have become considerations for visitors, whether their visit is a week or a weekend at an oceanfront condominium or a day trip. Safe, fun walking and cycling routes improve health and quality of life, and are important to all types of visitors. The leisure benefits to visitors return economic value to the community in the form of increased property values, lower crime, additional revenue for business owners and a healthy community.

Consider, for example, vacation budgets stretch significantly from walking and bicycling opportunities; real estate values rise along bike paths and improved pedestrian areas; and jobs in those areas result. Perhaps most significantly, the successful implementation of

Walking and Cycling on the Boardwalk





bicycle and pedestrian plans results in an influx of talented people from youthful generations who elect to live in bicycle/walk friendly communities.



In recent years, communities throughout the US and, in particular South Carolina have experienced a growing interest in the implementation of transportation infrastructure improvements that enhance walking and bicycling. Towns, cities, counties, and metropolitan planning organizations understand the need to plan, design, and implement non-motorized transportation options as well as increase opportunities for recreation. Advancing bicycle and pedestrian networks is essential to meeting safety, mobility, livability, environmental, and economic goals. Additionally, active transportation options provide a host of benefits to individual communities and larger regions by connecting destinations and

creating enjoyable transportation options that can improve the health of users.

The residents of Myrtle Beach, whether commuters, leisure enthusiasts or serious recreationalists, have embraced bicycling and walking as alternative forms of transportation and recreation. As Myrtle Beach grows, establishing a safe and comfortable network with bicycling and walking facilities will result in an increase in the number of users who seek those alternative facilities.

According to the Horry County Community Bicycling Survey conducted by Coastal Carolina University (CCU) in 2014:

- 94% of the Myrtle Beach respondents had ridden a bicycle at least once in the previous 12 months
- 14% ride a bicycle to commute to work
- 85% would ride a bicycle to run local errands if they felt that cycling was a safe alternative.

The study shows that bicycle and pedestrian facilities have evolved from serving as “alternative transportation” facilities to filling a critical gap in communities as one component of its transportation network. In the summer, both residents and visitors witness thousands of J-1 students commuting to work using bicycles. Previously, limited bicycle facilities forced bicyclists in or directly adjacent to vehicle travel lanes. While this approach met, and continues to meet the needs of confident cyclists, it does not attract new users or encourage the development of a broader bicycle-user culture.

### ***Plan Goal: A Bicycle and Walk Friendly Safe Community***

A study of factors characteristic of communities with notable bicycle and pedestrian infrastructure reveal a common goal: those communities pursued the guidance offered through organizations that advocate for bicyclists and pedestrians. As a result, the goal adopted by the Bicycle and Pedestrian Committee is that Myrtle Beach become a bicycle and walk friendly community as defined by the Safety Research Center, the Pedestrians and Bicycle Information Center and the League of American Bicyclists. A number of factors expected by



residents and visitors illustrate the advocacy for the establishment and promotion of bicycle lanes, sidewalk connectivity and trail systems:

- Connection with other people
- Activity that people with disabilities can enjoy
- Social interaction
- Happy and healthy people
- Reduced emissions from automobiles and the number of automobiles on the road
- Lowered cost of living and less reliance on cars
- A sense of community and place
- Neighborhood relationships
- Reduced obesity
- Reduced crime with eyes on the street
- Safety in numbers
- A sense of pride
- Increased property values
- Visitor attraction
- Economic opportunity

### *Economic Impact of Bicycling and Walking*

With the completion of the Myrtle Beach East Coast Greenway segment, Myrtle Beach joined the US Bicycle Route System.<sup>2</sup> With completion of this segment, planners can collaborate with neighbor jurisdictions, regional associations and bicycle and pedestrian advocates to fill gaps in the East Coast Greenway and connect Myrtle Beach inter-modally with the rest of the Grand Strand.

Research into the economic benefits of walkability demonstrate that in past decades the benefits of walking in contrast to using motor vehicles have been undervalued. Contemporary research reveals a number of benefits to communities that adopt proactive walkability options.<sup>3</sup> The analysis of data for the development of this Master Plan takes a look at recognized and well-established bicycle and pedestrian programs and the economic impact those programs had within those communities. The study looked at Charleston, Greenville, Wilmington and the Outer Banks. A study of bicycle and pedestrian infrastructure and its economic impact offer guidance to Myrtle Beach as it works to implement the objectives in the Master Plan.

The Charleston Region is in the process of constructing the East Cooper Trail, an 82-mile system that links Charleston to McClellanville.<sup>4</sup> The region will generate an estimated 2,230,000 additional bike trips; 1,392 more walk trips and \$83,808,000 in economic and tourism benefits per year. The health, fitness and wellness benefits to residents suggest healthcare savings of over \$176,000 per year and \$88,000 from reduced vehicle emissions.

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<sup>2</sup> The USBRS was established in 1978 by the [American Association of State Highway and Transportation Officials](#) (AASHTO), the same body that coordinates the numbering of [Interstate highways](#) and U.S. Routes. It consists of interstate [long-distance cycling routes](#) that use multiple types of bicycling infrastructure, including off-road paths, bicycle lanes, and low-traffic roads.

<sup>3</sup> Litman, T.A. (2004). Economic Value of Walkability. *Victoria Transport Policy Institute*. Retrieved from <http://atfiles.org/files/pdf/walkability.pdf>

<sup>4</sup> East Cooper Land Trust, (September 16, 2015). "Constructing the East Cooper Trail," Alta. Retrieved from <https://altaplanning.com/wp-content/uploads/East-Cooper-Trail-Health-and-Economic-Impact-Study-1.pdf>





Greenville touts the Greenville Health System Swamp Rabbit Trail system as offering significant economic benefits to its urban area. The Greenville News reported a 20% increase in trail users from July 2012 to June 2013<sup>5</sup> and tourists injected \$6.7 million into the local economy. The trail gets its name from the old railroad that once operated along the corridor called “The Swamp Rabbit Railroad.” In 1999, the Greenville County Economic Development Corporation purchased the 11.8-mile railroad route from downtown Greenville to Travelers Rest for \$1.3 million.<sup>6</sup> The trail has become so iconic that the entire community has adopted a rabbit as the official mascot. Today, the business community includes a number of enterprises that carry the name, including “Swamp Rabbit Café,” “Swamp Rabbit Brewery” and “Swamp Rabbit Inn.” However, it was the Greenville Health System’s pledge of \$100,000 a year for ten years that launched the Swamp Rabbit Trail into reality.

In 2004, the NC Department of Transportation Division of Bicycle and Pedestrian Transportation commissioned a study to examine the benefits of bicycle facility investments in the Outer Banks. Over a 10-year period, construction of off-road paths and widened paved shoulders along popular bicycle corridors cost an estimated \$6.7 million in public funds. The study revealed that the economic benefits to the region were an estimated \$60 million annually while creating and sustaining 1,400 jobs.<sup>7</sup> Equally important, those bicycle facilities draw tourists to the Outer Banks. Fifty-three percent of those surveyed report bicycling as a significant factor in their vacation decision.

The benefits of the trail destinations did not come about without setbacks along the way. Jurisdictional boundaries prevailed as well as the challenge to secure the mix of funds required to move forward with each notable concept. For example, the Swamp Rabbit Trail spent five years of discussions with the Surface Transportation Board (STB) to declare the rail line abandoned and, as a result, legally permit a trail. The STB is a federal independent agency charged by Congress to oversee rail transportation regulations, rates and service disputes as well as review proposed railroad mergers.<sup>8</sup> Issues of maintenance and related costs can add a further barrier to approval of sizeable and expensive trail system investments.

While marque trail systems attract individuals and families seeking bicycling and walking tourism venues, the marketplace for conventions and sports tourism are selecting destinations that have incorporated walk/bicycle friendly communities as an added value amenity. A new generation of decision makers seeks walk/bicycle friendly venues and select those destinations that provide amenities when all other variables are equal. For example, the Myrtle Beach Area Chamber of Commerce reported that in 2017, the Allegiant Airports Conference and its \$262,726 estimated economic impact selected an alternative walk friendly

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<sup>5</sup> Maxwell, T., (December 3, 2014). “Study confirms Swamp Rabbit Trail is a boon to businesses,” Greenville News. Retrieved from <http://www.greenvilleonline.com/story/news/local/2014/12/03/official-swamp-rabbit-trail-greenville-travelers-rest-good-businesses-according-recreation-district-study/19837599/>

<sup>6</sup> Greenville County Rec, (n.d.). “Connecting Schools, Parks and Local Businesses in Greenville County,” Retrieved from <https://greenvillerec.com/ghs-swamp-rabbit-trail/>

<sup>7</sup> National Trails Training Partnership, (n.d.). “Economic Impacts of Trails,” *AmericanTrails.org*. Retrieved from <http://www.americantrails.org/resources/economics/NCouterbanks.html>

<sup>8</sup> Surface Transportation Board (n.d.). About STB. Retrieved from <https://www.stb.gov/stb/about/overview.html>



community due to the downtown area of Myrtle Beach not being sufficiently walkable. The estimated lost business from the April 2019 conference is \$262,726 and 725 rooms.





## Chapter 2: Existing Conditions and Need Analysis

While a number of bicycle and pedestrian facilities exist in Myrtle Beach, opportunities persist to strengthen connectivity within individual neighborhoods and throughout the city. Planning and design of bike and pedestrian infrastructure build upon existing segments and networks to implement facilities that attract new users while linking destinations and improving accessibility. According to the Grand Strand Area Transportation Study (GSATS) plan for bikeways and walkways, planned improvements highlight the current gaps in the bike and pedestrian network.<sup>9</sup> The GSATS planned improvements address active transportation corridors<sup>10</sup> within Myrtle Beach but also connect to neighboring communities and illustrate how a regional network of bikeways and walkways exist, some of which correspond through high-use corridors.<sup>11</sup>

This chapter presents data and its analysis to include the demand for bicycle and pedestrian facilities, bike/pedestrian-related crash data and policy/program initiatives.

### *Demand for Bicycle and Pedestrian Facilities*

The addition and/or improvement of existing bicycle and pedestrian facilities by GSATS is based on demand by users for those facilities. GSATS measures demand in numerous ways using a variety of factors listed in Table 2.1. GSATS is the regional transportation authority and Myrtle Beach falls within GSATS's jurisdiction. In order to capture the previous efforts of the communities within the GSATS region as well as input received as part of public outreach for the *Metropolitan Transportation Planning Update*, GSATS used the factors presented in Table 2.1 to calculate demand for the region. The demand analysis considers weighted factors in order to illustrate where people bike and walk. They give the highest weight (30) to existing facilities in order to highlight current demand.

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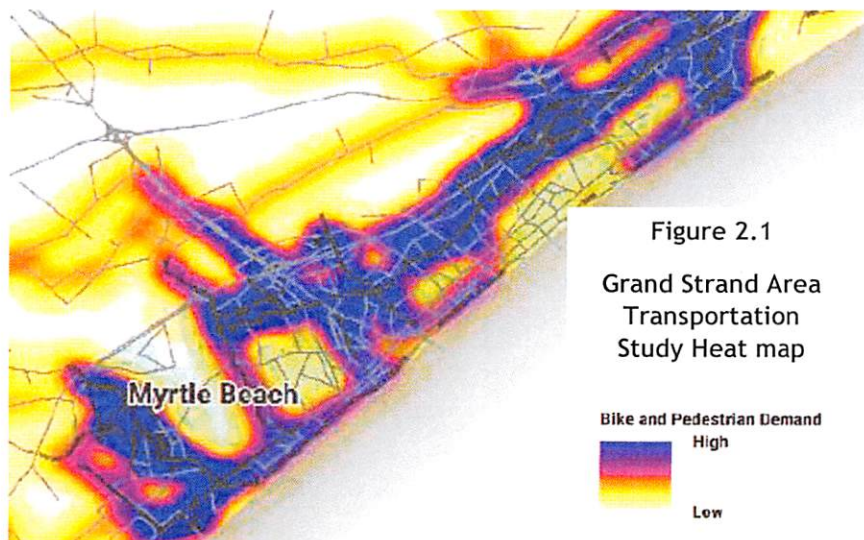
<sup>9</sup> Grand Strand Area Transportation System, "Appendix F – Pedestrian Walkways and Bikeways", Wilbur Smith & Associates, July 2011. Retrieved from [http://www.gsats.org/files/7213/2154/9488/GSATS\\_Apdx\\_F\\_-\\_Pedestrian\\_Walkways\\_Bikeways.pdf](http://www.gsats.org/files/7213/2154/9488/GSATS_Apdx_F_-_Pedestrian_Walkways_Bikeways.pdf)

<sup>10</sup> The phrase "active transportation" (corridor, facility or network) refers to those who use their own energy as a mode of transportation and includes pedestrians, bicyclists or even use either skateboards or in-line skates.

<sup>11</sup> High-use corridors in the city are those transportation corridors with conflict zones created by high-volume use by a mix of pedestrians, commuter bicyclists and motor vehicles due to an infrastructure not intended to support multi-modal transportation users.



Table 2.1 GRAND STRAND AREA TRANSPORTATION STUDY ACTIVE TRANSPORTATION DEMAND CRITERIA		
Input Factors	Description	Weight
Existing Bike and Pedestrian Facilities	Existing facilities include bike lanes, shared roads marked by sharrows, and shared-use or multi-purpose paths.	30
Planned Bike and Pedestrian Facilities	Planned facilities include any alignment or route that has been identified by previous municipal or regional plans.	20
Sidewalks	Sidewalks are existing and are primarily within municipal boundaries in the GSATS region.	10
Public Input	Input received from public meetings and the Wikimap include: <ul style="list-style-type: none"> <li>• Destinations</li> <li>• Routes currently biked/walked</li> <li>• Routes desired for biking/walking</li> <li>• Transit route needed</li> </ul>	20



Furthermore, the emphasis on existing facilities over that of other inputs illustrates the importance of connecting or extending the existing network along established routes. These same routes are those confirmed by public input, or routes that have existing sidewalks in close proximity. The “heat map” shown in Figure

2.1 depicts the analysis results. The “heat map” shows areas with varying degrees of demand for active transportation facilities. High demand for improvements along GSATS planned bike and pedestrian facilities is a result of public input supporting the future expansion of the active transportation network along these corridors. All projects should include active transportation facilities, with particular attention given to projects that fall within these high demand areas.



## Bicycle and Pedestrian Crash Analysis



In SC, from 2008 to 2012, there were 71 bicyclist fatalities (1.6% of total traffic deaths) and 353 severely injured bicyclists (2.1% of all traffic-related severe injuries).

Improper bicyclists' actions or behaviors account for nearly 30% of the contributing factors in fatal and severe injury collisions in which they were involved. Those bicyclist behaviors include failure to yield right-of-way, inattention, dark clothing, disregard of signs/signals, riding on the wrong side of the road, and being under the influence of alcohol

and/or drugs. These factors contribute to fatal and severe injury collisions.

Pedestrian fatalities account for, on average, 12% of all traffic-related deaths in SC. SC experienced a high number (271) of pedestrian-involved fatal and severe injury collisions in 2008. That number decreased by 12.5% the following year (2009). Since 2009, however, the number of pedestrian-involved fatal and severe injury collisions has increased each year, by 5.1% in 2010, 2% in 2011, and 9.1% in 2012.

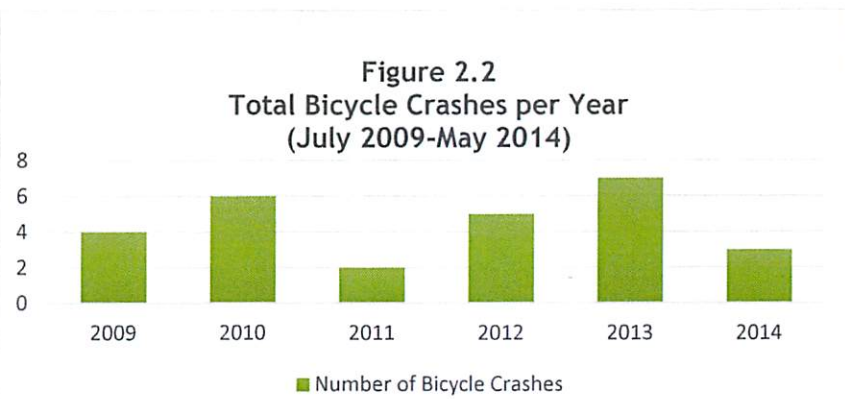
In pedestrian-involved fatalities and severe injury collisions, pedestrian behaviors contributed more than 65% of the time. Also, according to State data analysis, alcohol-impairment is high among pedestrians involved in fatal and severe injury collisions and has shown to have contributed to the collision. Pedestrians are often encountered by motorists at night on secondary roads where they are often inconspicuous to the driver due to dark clothing.

Crash data provided by the SC Department of Transportation (SCDOT) from July 2009 through May 2014 identified location and nature of bike-and pedestrian-related street crashes. During this period, there were 27 documented bicycle crashes in SC.<sup>12</sup>



<sup>12</sup> Target Zero Traffic Deaths – A Goal We Can Live With: SC's State Strategic Highway Safety Plan (SHSP) is a statewide, comprehensive safety plan that provides a coordinated framework towards eliminating traffic deaths and reducing severe injuries on SC's public roads.

As Figure 2.2 shows, bicycle crashes within Myrtle Beach were at a five-year low in 2011 with only two bicycle crashes. The number of collisions gradually increased to a 5-year high with seven bicycle crashes in 2013. In contrast, 2014 showed a greater decline with four bicycle crashes. It is of note that while 2010 through 2013 included a complete years' worth of data, 2009 and 2014 were only partial years.



Out of the 124 reported bike and pedestrian crashes in SC from 2011 to 2014, 35 resulted in fatalities. Crashes involving cyclists and pedestrians occurred in Myrtle Beach as shown in Figure 2-2.

### ***Bikeways and Walkways Infrastructure Inventory***

In 2017, the Bicycle and Pedestrian Committee inventoried the location of sidewalks in the city and measured the width of each segment. The results revealed 169.1 miles of sidewalks in the city with widths that vary from four feet to ten feet. The committee also looked at number of bike lanes and miles of multi-use paths. There are 20 miles of bike lanes and 27 miles of multi-use paths within the city limits.

To establish priorities for capital improvement projects, the committee identified high-use corridors versus low-use corridors based on usage by bicycle/pedestrian commuters, leisure recreationalists and the serious recreational enthusiast. For example, 21<sup>st</sup> Ave N from the Hwy 17 Bypass to Ocean Boulevard is a high-use corridor, especially in the summer when J1 students are working in the city. The 21<sup>st</sup> Ave N high-use corridor underscores the complexity of resolving public safety conflict zones by multiple users in dated transportation infrastructures when jurisdictional boundaries and authorities overlap. A road diet that would add bike lanes for commuter bicyclists, removing bicyclists from narrow sidewalks and used by pedestrians requires the coordination and cooperation by the City of Myrtle Beach (owns the conflict zone), SC Department of Transportation (road owner), and other funding sources with their own regulations that must comply with SCDOT. Based on this information the Committee makes yearly recommendations to Council on sidewalk, bike lane, and multi-use path improvements including new infrastructure that addresses gaps in connectivity. Figure 2.3 illustrates the current inventory.





Currently the City of Myrtle Beach has 72 bicycle racks installed in selected beach access areas, city parks, along the Boardwalk and throughout Market Common. The goal is to expand the bicycle rack inventory so that all 47 park, 140 beach access points, and 33 City-owned services buildings is equipped with a bicycle rack.

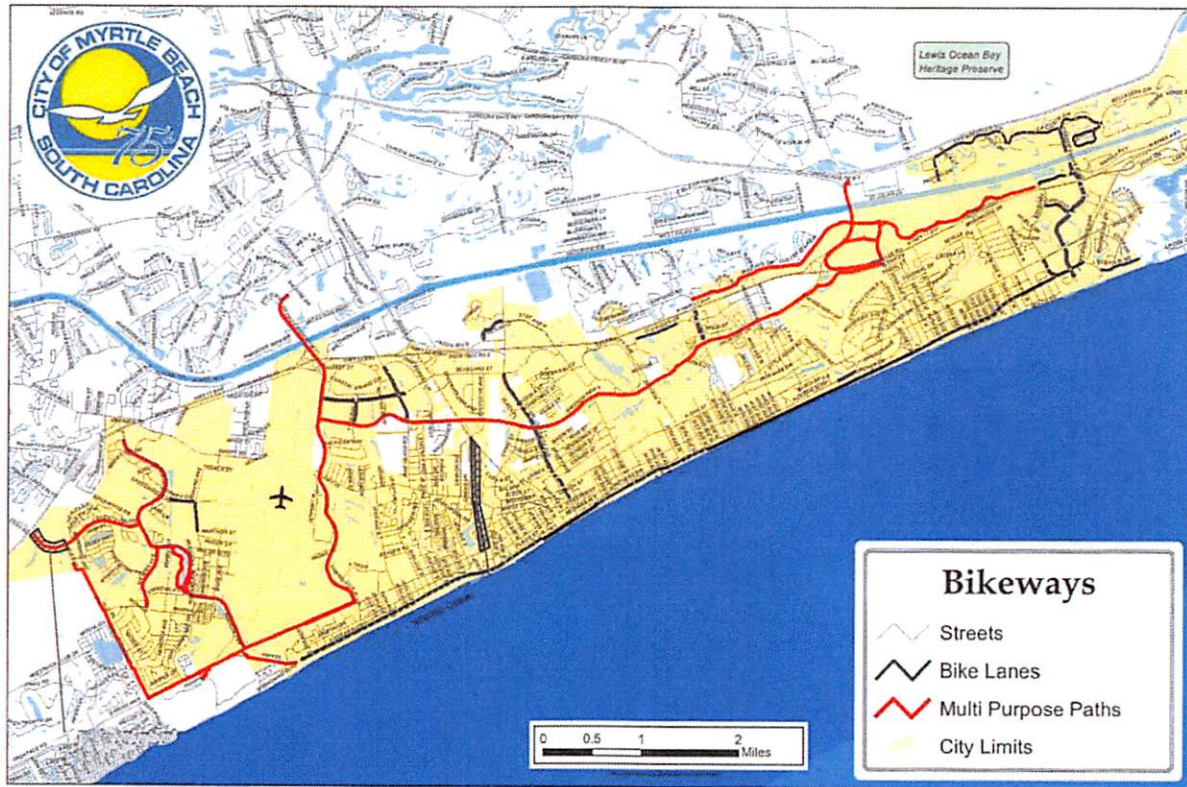


Figure 2.3 Bicycle and Pedestrian Infrastructure Inventory

## Policy and Program Initiatives

### Complete Streets

Complete Streets are streets for everyone, designed and operated to enable safe access for all users: pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from transit stations.

#### Communities Benefit From Complete Streets Given That:

- Complete Streets communities have the highest rates of walking and bicycling to work.
- Complete Streets communities improve access and safety for pedestrian commuters.
- Pedestrian fatality rates are lower in Complete Streets communities.

By adopting a Complete Streets policy, planners and engineers work to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or



mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists—making the city a better place to live.

One of the challenges Myrtle Beach faces as a tourist destination is the need to accommodate multi-modal users as the number of users swell from a permanent population of 30,000 to over 450,000 during the summer months. In late 2014, the City received a Voices for Healthy Kids: Active Places Technical Assistance grant from the Safe Routes to Schools Community Partnership Program. The City used this technical assistance to develop a complete streets policy, adopted by City Council on June 25, 2015. When the city undergoes infrastructure improvements, such as stormwater or roadway improvements, the City's Complete Streets Policy works to ensure each street in the community conforms to the complete streets policy guidance when feasible.



### *Safe Routes to School*

The Safe Routes to School (SRTS) program encourages schoolchildren to walk and bike to school through a variety of strategies. SRTS assists community groups and schools with planning and developing safe, dedicated bicycle and pedestrian facilities in the

direct vicinity of schools. Funding for SRTS is through the GSATS Transportation Alternatives Program (TAP) and is discretionary.

If additional or dedicated funding for SRTS projects is realized in the future, Myrtle Beach would benefit from pursuing more SRTS projects for its schools. Myrtle Beach schools are within close proximity to one another, to adjacent neighborhoods, to the Frank M. Beckham Recreation Complex, and to the East Coast Greenway.

### *East Coast Greenway*

The East Coast Greenway (ECG) is a planned urban trail system that links 25 major US cities from Calais, Maine to Key West, Florida. The main spine of the trail will stretch 3,000 miles along the east coast, with an additional 2,000 miles of alternate routes to provide connectivity to towns, cities, parks, and natural areas. The trail accommodates pedestrians, cyclists, and other non-motorized modes of transportation. According to the East Coast Greenway Alliance, "Of the 270-mile route through SC, 15% is complete on greenway trails, and another 20% is in development." Myrtle Beach actively participates on the SC ECG Steering Committee. Myrtle Beach is proud to be the first city in the country to have completed its segment of the ECG from city limit to city limit.





## *Mayor's Challenge: Safer People, Safer Streets*



The USDOT launched the Safer People, Safer Streets Initiative in early 2015 to address non-motorized safety issues and help communities create safer, better connected bicycling and walking networks. The Department challenged community leaders to raise the bar for bicyclist and pedestrian safety by joining the Mayors' Challenge for Safer People and Safer Streets effort. In March 2015, the Myrtle Beach City Council approved a motion to accept the USDOT Secretary's challenge to take significant action to improve safety for bicycle riders and pedestrians of all ages and abilities over the next year.

The City of Myrtle Beach embraced and participated enthusiastically in the US Department of Transportation (USDOT) Mayors' Challenge activities sending representatives to the first Mayors' Summit for Safer People and Safer Streets in March 2015; the Summit engaged representatives from 44 states to learn about improving safety. During the Summit, USDOT staff shared resources and tools to assist teams as they pursued the challenge goals. After their participation at the Summit, the City staff continued to work closely with the USDOT staff to ensure success. Staff participated in seven meetings, events, and webinars to learn from peers and experts with practical experience about bicycle and pedestrian safety. Through the City's collective efforts engaging in the Mayors' challenge activities, the City received the Mayors' Challenge Engagement Award.

**In 2016 City Councilman Randall Wallace accepts the Mayors' Challenge Engagement and Fixes Barriers Awards from US Department of Transportation Secretary Anthony Foxx**



At the 2016 Summit for Safer People, Safer Streets USDOT recognized the communities that demonstrated the most progress. Over 40 Mayors' Challenge communities reported taking steps to identify and address barriers to safe and inclusive transportation. The winning city for Challenge Fix Barriers was Myrtle Beach recognized

for meeting the Challenge by conducting bicycle safety and walkability audits and completing an inventory of its sidewalk network. These efforts included a road diet on three segments of a high-traffic area; repaired pavement around bike lanes; and improved bike lane gap signage.



## Kings Highway Walkability Audit with Dan Burden



## Walkability Audit

Community leaders of Myrtle Beach came together for a walkability workshop in June 2016. Myrtle Beach was the first community in the US to receive the grant award by the National Association of REALTORS for a pilot Walkability Workshop, due to the strong local partnership between the Coastal Carolinas Association of REALTORS and the City. Facilitated by Dan Burden,

national walkability expert, and Samantha Thomas of Blue Zones, LLC, Workshop participants worked together to strengthen their vision for Kings Hwy. Participants worked toward a vision where the highway is a public place that is safe, inviting to people of all ages and all transportation modes while encouraging healthy lifestyle choices, active living, thriving businesses, and an age-friendly community. The final walkability audit listed a number of recommendations with the following items targeted as high priority next steps:

1. Slow vehicular traffic and increase pedestrian activity to increase business. A study of the economic impact of the Boardwalk would support this theory.
2. Support efforts to change the State law that vehicular traffic is required to stop for pedestrians when they enter a crosswalk.
3. Install marked crosswalks on all sides of the intersection - use longitudinal markings (ladder style) for high visibility.<sup>13</sup> Utilize raised table crossings and pedestrian crossing islands to improve yielding behavior. Utilize "Z" crossing islands to provide greater crossing support (stops one direction of traffic at a time, more space to wait and people make eye contact with motorist). Study the feasibility of advanced yield markings, signs, and pulsing diodes.

## Walk Friendly Community



Walk Friendly Communities (WFC) is a national recognition program developed to encourage towns and cities across the US to establish or recommit to a high priority for supporting safer walking environments. The WFC program recognizes communities that are working to improve a wide range of conditions related to walking, including safety, mobility, access, and comfort. Federal Express sponsors the program as part of its commitment to improving road safety, operated by the UNC Highway Safety Research Center (USRC) and supported by the Pedestrian and

<sup>13</sup> See GSATS Appendix F – Pedestrian Walkways and Bikeways for discussion and illustration of longitudinal markings versus traverse style, pp 40-41. Retrieved from [http://www.gsats.org/files/7213/2154/9488/GSATS\\_Apdx\\_F\\_-\\_Pedestrian\\_Walkways\\_Bikeways.pdf](http://www.gsats.org/files/7213/2154/9488/GSATS_Apdx_F_-_Pedestrian_Walkways_Bikeways.pdf)



Bicycle Information Center (PBIC), a national clearinghouse on bicycling and walking efforts funded by the USDOT.

The Bicycle and Pedestrian Committee submitted a Walk Friendly Community application in 2014 and again 2016. Much has been accomplished during this timeframe. While there are many programs in the works that will help support the City's goal of becoming a Walk Friendly Community, the Walk Friendly review places the majority of the weight on existing programs and plans under implementation. The USRC encourages the City to consider submitting a reapplication upon completion of the high-priority steps below:

- Adopt and begin implementing a bicycle and pedestrian master plan.
- Develop a program that aggressively funds new sidewalks to fill gaps in the existing network.
- Create a new set of guidelines driving the City's approach to signal timing and signalized intersection countermeasures. Incorporate these countermeasures into the bicycle and pedestrian master plan.

Additional improvement recommendations are included in the objectives and strategies section of this plan.

### ***Bicycle Safety Audit***

As a participant in the USDOT's Mayors' Challenge, Myrtle Beach received assistance from the Federal Highway Administration (FHA) to conduct a bicycle safety audit of Ocean Boulevard. The audit, which utilized an analysis of data on traffic counts and crashes, produced short- and long-term recommendations. The value of the Bicycle Safety Audit has prompted its use as a model for additional corridors.



**Ocean Blvd Bicycle Safety Audit**

The audit listed several suggestions that would improve public safety, including:

- Improve pedestrian crosswalk safety by installing high visibility crosswalks and ensuring each is compliant with the Americans with Disabilities Act (ADA) requirements.
- Make signage that denotes the start and end of bike lanes consistent throughout the city.
- Repair pavement in bicycle lanes, as well as pavement that transitions through gutters and drainage grates.
- Use road diets to add bicycle lanes while improving public safety in high-use corridors.

## *Bicycle Friendly Community*



Bicycling is more than a practical, cost-effective solution to many municipal challenges. It is an opportunity to make the Myrtle Beach community a vibrant destination for residents and visitors — a place where people do not just live and work, but thrive. The League of American Bicyclists' Bicycle Friendly America (BFA) program provides a roadmap, hands-on assistance and recognition for states, communities, universities and businesses. The BFA<sup>SM</sup> program is a tool for communities to transform bicycling as a robust transportation and recreation option for all users, whether commuters, recreationalists or leisure seekers.

The Bicycle Friendly America program provides guidance to communities to improve the cycling experience among communities and across the country. The program guidance:

- sets standards for what constitutes a real bicycling culture and environment.
- affects decisions on how communities, businesses, universities and states grow.
- inspires action, involvement and coordination among people that want to improve conditions for bicyclists.
- guides progress by acting as a roadmap for what communities, businesses, universities and states should do next.
- rewards persistence as people respond to feedback, make changes and come back again and again to get recognition.
- raises expectations as to what really is expected and involved in making a great place for bicycling.

In 2016, the Myrtle Beach Bicycle and Pedestrian Advisory Committee submitted an application to be recognized as a Bicycle Friendly Community. As a result, Myrtle Beach received an Honorable Mention, which included a long list of recommendations to reach Bicycle Friendly certification. Below is a list of the high priority items; the complete list of recommendations is included in the objectives and strategies in Chapter 3.

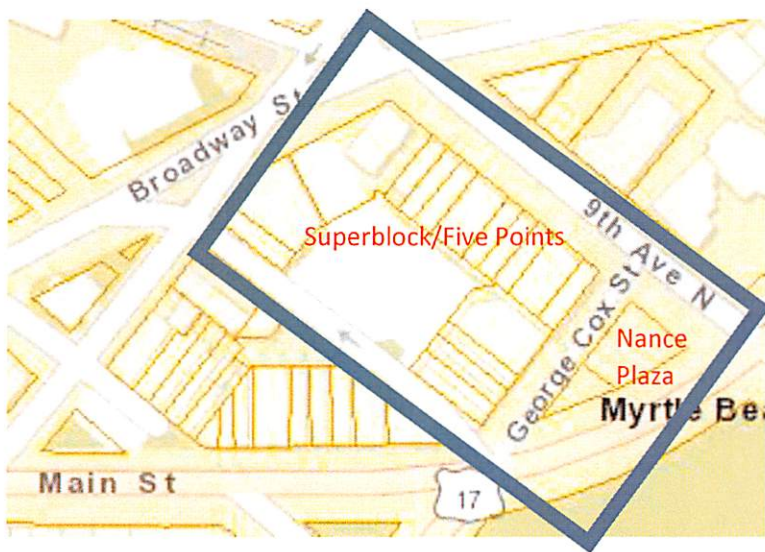
To achieve a Bronze status, the following items are high-priority next steps:

- Adopt and begin implementation of a bicycle and pedestrian master plan.
- Identify high speed and/or high volume roads that pose a barrier to bicycling in the community. Recommend strategies, such as road and/or lane diets that will act as methods to calm traffic while providing safe places for people to bike and walk.
- Work with local businesses to increase the amount of high quality bicycle parking throughout the community. Bike facilities strategically placed, community or business district bike racks, as well as off-street bike stops at park and beach access hubs will be helpful and encourage commuter bicycle usage.





## Superblock/Five Points Revitalization



The Bicycle and Pedestrian Committee set out to study the Superblock/Five Points area from the perspective of pedestrians and bicyclists. After an initial tabletop discussion, the committee conducted a field study, inviting City Council members, Downtown Redevelopment Board members and senior staff to walk the area and examine intersections, crosswalks and accessibility as well as general traffic conditions that could discourage access by

bicyclists or pedestrians. The study and subsequent analysis revealed the following strengths and weaknesses:

- The Superblock/Five Points area is a virtual island, a place to which it seems unsafe to drive, bike or walk.
- The through-lane from southbound Kings Hwy (Hwy 17 Business) onto Hwy 501 prevents pedestrians from crossing Kings Hwy, 8<sup>th</sup> Ave N, and Main St, and makes walking in Nance Plaza and on the Superblock/Five Points sidewalk feel unsafe.
- The “five-points” style intersection of Broadway, Oak, Terminal, and 9<sup>th</sup> Ave N makes crossing any of those streets to and from the Superblock/Five Points seem unsafe.
- Kings Hwy and Hwy 501 create virtual “walls” along the two most visible sides of the block. Pedestrians can see the Superblock/Five Points but cannot find a safe way to cross these two federal highways.
- Pedestrian signals and crosswalks are lacking at all corners except Kings Hwy and 9<sup>th</sup> Ave N.
- Broadway St is operating far below capacity.
- A preponderance of empty storefronts provides little reason for anyone to patronize the block.
- The Methodist Church across the street contributes to the “lifelessness” of 9<sup>th</sup> Ave N due to its utilization limited to one or two days per week.
- Nance Plaza is underutilized.
- Wide sidewalks offer opportunities for sidewalk cafes and pedestrian strolls.
- The area is a short walk from the Boardwalk, beach and several residential areas.
- The unused railroad right-of-way across the street from the Superblock/Five Points area is an untapped resource.
- There is one bike rack, located in Nance Plaza. The study team observed bicycles chained to trees along Main St.

The study team concluded that the downtown revitalization efforts provide a great opportunity to make all of downtown, and the Superblock/Five Points area specifically, walkable and bikeable. Specific recommendations are included in Chapter 3. In general, walk-friendly and bike-friendly standards should be the basis of revitalization plans. As it redevelops, the block should be internally walkable and bikeable, and should have pedestrian and cycling connections to the boardwalk and to nearby neighborhoods. In the long term, a rails-to-trails plan should be developed to pass through the Superblock/Five Points area and connect downtown Myrtle Beach to downtown Conway.





## Chapter 3: Goals, Objectives and Strategies

**Vision:** Myrtle Beach is a community where citizens and visitors may freely choose to walk or bicycle for pleasure, exercise, shopping and exploring amenities, whether recreating or commuting, in a safe, leisure-oriented and pleasant environment.

**GOAL:** The long-range goal adopted by the Bicycle and Pedestrian Committee is that Myrtle Beach become a bicycle friendly and walk friendly community as defined by the University of NC Highway Safety Research Center, the Pedestrians and Bicycle Information Center and the League of American Bicyclists' Bicycle Friendly America.

This Master Plan groups objectives and strategies using the seven E's of planning: evaluation, education, engineering and planning, enforcement, equity, economic benefits and encouragement. Each group lists an objective followed by a series of recommended strategies.

### EVALUATION OBJECTIVE AND STRATEGIES

**EVALUATION OBJECTIVE:** Monitor progress toward achieving Master Plan objectives by quantifying the impact of the other E's at the beginning of the planning process, during implementation, and as follow-up to implementation.



- Develop a walkability and cycling checklist to measure effectiveness of programs and projects.
- Implement pre- and post-evaluations for every pedestrian and cyclist project in order to develop a better understanding of how it has affected pedestrian safety, walkability, and cycling.
- Conduct a formal pedestrian and bicycle count at major intersections. Implement a regular count program to understand where people are walking and cycling to use with future improvement requests.
- Identify the different populations of pedestrians and cyclists and their origins, destinations, and desired

routes to evaluate alternative routes and their effectiveness. Using this information there are numerous methods or tools for evaluating alternative routes including, but not limited to, the Highway Capacity Manual 4, LOS+, FDOT LOSPLAN-Q/LOS, NCHRP Report 616 Models, Bicycle Compatibility Index, and the



Source: Boston Region MPO

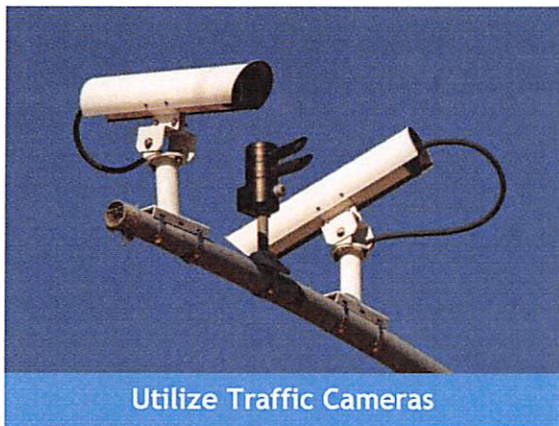




Bicycle Level of Stress Model. The route analysis can assist the City with determining which routes

should be selected for infrastructure treatments such as sidewalks, shared use paths, bike lanes, or shared lane markings. It is important to provide consistency and connectivity on these routes to increase expectancy for all roadway users.

- Utilize traffic camera images to count bicyclists and pedestrians where cameras exist.
- Purchase and place automated/electronic bicycle and pedestrian counters where needed to provide long-term data on bicycle/pedestrian use to provide periodic or before/after data related to changes in the road, bicycle, and sidewalk network. This data provides a good understanding of the prevalence of bicyclists and pedestrians and what affects facility use. Ensure that counts capture the gender of those counted, and that infrastructure improvements and targeted education and encouragement efforts address gender gaps.



Utilize Traffic Cameras

- Monitor changes in how people move around and create community goals related to active transportation.

- Measure the effectiveness of the efforts undertaken. Through partnerships with not-for-profits and advocacy groups, establish benchmarking programs. One such program would be recording bicycle and pedestrian counts on regular intervals. Counts will help in quantifying the success of implemented facilities and in determining areas of future demand.

- Continue to collect and analyze bicycle and pedestrian crashes, as understanding locations,

frequency, and causes of crashes will assist in determining appropriate education, enforcement, and infrastructure countermeasures to reduce such crashes.

- Continue to collect crash data with attention to injury severity and utilize crash analysis to understand where improvements are necessary. Host regular reviews of bicyclist and pedestrian crash data (both in the office and in the field).
- Continue to use pedestrian and bicycle road safety audits, especially in high crash areas to organize, develop and evaluate corridor or intersection plans.
- Develop a feedback mechanism to help the community meet goals for the implementation of this Bicycle and Pedestrian Master Plan. Regularly publish reports on traffic citation data to help the public understand traffic safety priorities and how

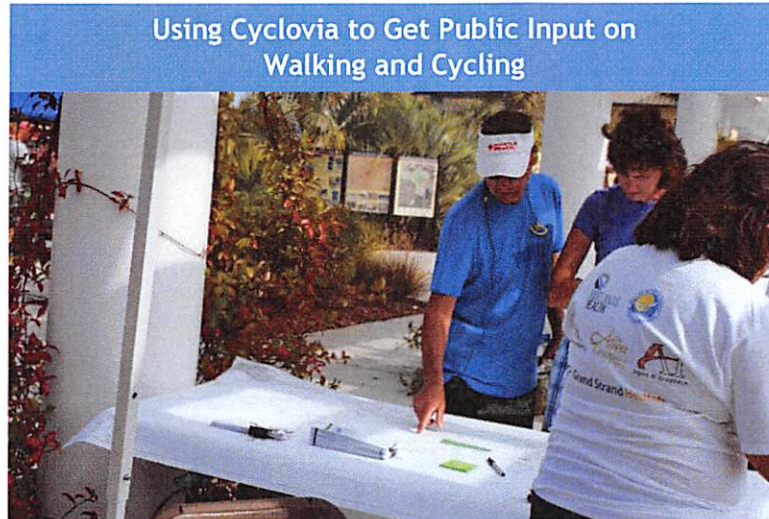


Source: <http://www.petoskeynews.com>



traffic enforcement furthers those priorities. Reports will highlight repeating safety issues so the City can focus on countermeasures.

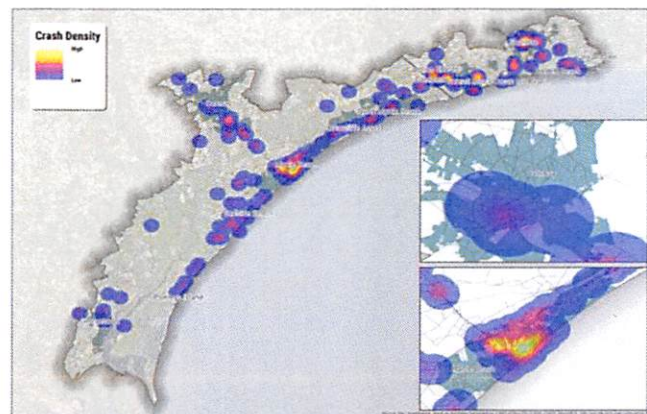
- Utilize accessible and innovative approaches to public input from all age groups



Using Cyclovia to Get Public Input on Walking and Cycling

including an online reporting system that allows residents and others who walk and bicycle in Myrtle Beach to easily and quickly report on current conditions that affect safety. By making it easier to report conditions, pedestrians and bicyclists are more likely to make reports and Myrtle Beach can control its response to conditions.

- Work with Coastal Carolina University to conduct regular statistically-valid community pedestrian and bicycle surveys to understand the needs of pedestrians and bicyclists in Myrtle Beach and what sort of investments might entice people to walk and bike more often or fix barriers that currently prevent them from walking and biking more often.
- Work with Coastal Carolina University to conduct a trip diary survey, or ensure that community over-sampling occurs in a national or state survey, in order to get a statistically valid understanding of how all residents move around Myrtle Beach. Encourage participants to use mobile video cameras to document conditions.
- Continue to document the amount of constructed and planned sidewalk, including an inventory of the width/condition of existing sidewalks and presence/condition of curb ramps.
- Establish a pre/post evaluation process for major pedestrian and bicycle-related road projects that involve types of infrastructure not previously used in Myrtle Beach or applications of infrastructure that are innovative for Myrtle Beach. Pre/post evaluation can help communicate the effects of these projects and leverage the experience gained for future planning and projects.
- Build steps in the plan that include routine evaluation as part of every project.
- Conduct a "Level of Traffic Stress" bicycle and pedestrian network analysis focusing on low-stress connectivity, defined as "the ability of a network to connect travelers' origins to their destinations without subjecting them to unacceptably stressful links." This type of analysis is suitable for all communities, but is particularly useful for communities that have goals to increase walking and bicycle use or encourage more "interested but concerned" pedestrians to bike or walk more



Expand GIS Capabilities





often. Targeting investments to increase low-stress connectivity is likely to address concerns of those "interested but concerned" pedestrian and increase their mobility to more community destinations.

- Expand the GIS capabilities to accommodate the spatial analysis needed to carry out these evaluation objectives.

## EDUCATION OBJECTIVE AND STRATEGIES

**EDUCATION OBJECTIVE:** Promote a bicycle-friendly, walk-friendly city by support of education programs that teach transportation users (i.e. motorists, cyclists and pedestrians) how to safely operate within the transportation network.



- Develop and implement a comprehensive Pedestrian and Bicyclist Safety Action Plan that includes a child safety program targeting drivers, parents, teachers, and students in a comprehensive pedestrian safety education program.
- Communicate the rules of the road and send a message to the community using high-visibility media campaigns that the city supports safety of all modes.
- Develop and communicate the rules for bicyclists and pedestrians when using multi-purpose paths.
- Establish Share the Road signage when needed and appropriate.
- Utilize vinyl wraps on traffic control boxes to provide wayfinding and safety information for walking and cycling.
- Rotate pedestrian and bicycle education in schools every few years to make sure every child receives training at least once.
- Tailor educational programs to specific audiences and to the behaviors we seek to modify including collaborating with the Chamber of Commerce and the Police Department to tailor safety messages to visitors, workers, and residents.
- Work with international students and other cyclists and walkers of the same age group to assist with the Police Department's J-1 student outreach efforts to reinforce safety messages.





- Work with cycling and other safety-based organizations to equip J-1 students and other cyclists and walkers with bicycle and wearable lights.
- Work with local bicycle rental shops to ensure that bicycles are equipped with lights to help keep riders safe during day and night.
- Continue to provide Cyclovia, bicycle rodeos, National Walking Day in April, National Cycling Month and Bike to Work Day in May and other safety related educational programs.
- Utilize the Safe Routes to Schools educational programs.
- Educate not only planning and engineering staff, but law enforcement, health professionals, and others with regard to pedestrian and bicycle accommodation and safety.
- Utilize public service announcements, social media, maps, brochures, websites, and apps for informational and safety campaigns.

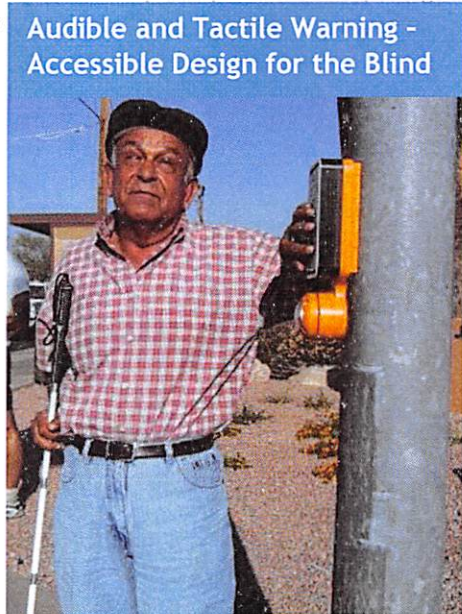
## ENGINEERING AND PLANNING OBJECTIVE AND STRATEGIES

**ENGINEERING AND PLANNING OBJECTIVE:** Enhance the active transportation network by providing safe, connected and comfortable infrastructure for walking and bicycling.



- Appoint a staff Bicycle and Pedestrian Coordinator to:
  - Review development proposals to ensure that local bicycle/pedestrian requirements are incorporated
  - Assess bicycling and walking impacts
  - Develop and implement educational and promotional programs
  - Write grant proposals
  - Serve as the public contact for bicycling/walking inquiries and complaints
  - Educate other staff about state and federal facilities standards and guidelines
  - Coordinate with neighboring cities, transit agencies and other departments to implement policies and projects.
- Work with Horry County Schools to gain data about children who walk and bike to school. Create a broad Transportation Demand Management Plan for Myrtle Beach schools. The plan would focus on all modes of school transportation (e.g., walking, biking, student drop-off/pickup by personal automobile, buses, etc.), and how best to coordinate those modes to allow for the most efficient internal and external transportation network. The plan will include the goals and strategies of the Seahawk District and development regulations that support Safe Routes to School initiatives.
- Mimicking the Safe Routes to School efforts, identify other destinations in need of a Transportation Demand Management Plan. Examples may include Safe Routes to Shop, Safe Routes to Sporting Events, Safe Routes to the Beach and Safe Routes to Parks.
- Develop and implement a connectivity policy breaking up long blocks and other less walk/bicycle-friendly features resulting from auto-driven development patterns.

- Advocate for the use of Surface Transportation Block Grant Program funding for bicycle and pedestrian projects, as they will have a legitimate transportation nexus.
- Require developers to consider how to accommodate bicyclists and pedestrians in a safe, convenient, and comfortable manner with all roadway, intersection and bridge projects.
- Recommend bicycle (bike lanes, shoulders, racks, crosswalks, etc.) accommodations during new development and redevelopment.
- Provide access to public transit and safe active transportation.
- Ensure that all new residential and commercial development will support pedestrian and bicycle connectivity between parcels.
- Ensure development and redevelopment projects provide pedestrian and bicycle access to healthy food sources within ½ mile.
- Provide opportunities for active recreation and transportation for all residents and visitors.
- Adjust speed limits to make pedestrians and bicyclists less vulnerable.
- Repair and replace hazardous sidewalks.
- Require new road or sidewalk construction and any sidewalk maintenance to include pedestrian signals (audible and vibró tactile warnings) with a cycle length of less than 90 seconds.
- Create an implementation schedule for adding sidewalks to legitimize and prioritize sidewalk construction, and ensure installation of a certain number of miles of sidewalk each year.
- Provide greater separation for pedestrians and bicyclists, making the environment more comfortable including buffered areas, separated bike lanes, shared-use paths, side paths, trails, and greenways.
- Consider separated facilities over SCDOT's standard cross sections often requiring less right-of-way than on-road bike lanes.
- Work with Coast RTA to develop a strong public transit system and bus stop/shelter system linked with walking and bicycling, with expanded hours to accommodate most service jobs.
- Identify opportunities where there is heavier transit use, trail activity, and similar locations where pedestrians need a walk signal during the signal phase. Pedestrian signals are not appropriate everywhere, but it is important to consider that signal warrants may not take into account future development and subsequent increases in pedestrian volumes.
- Remove yellow centerlines on streets with less than 6,000 vehicles per day and on east-west streets between Kings Hwy and Ocean Blvd.
- Make all sidewalks, curb ramps, and crosswalk interfaces ADA compliant including crosswalk pavement markings leading to ramps and extending through the bike lane.
- Mark crosswalks on all legs of intersections using longitudinal markings (ladder style) for high visibility.
- Utilize raised table and "z" crossing islands to improve yielding behavior while providing greater crossing support with advanced yield markings/signs and pulsing diodes.



**Audible and Tactile Warning -  
Accessible Design for the Blind**



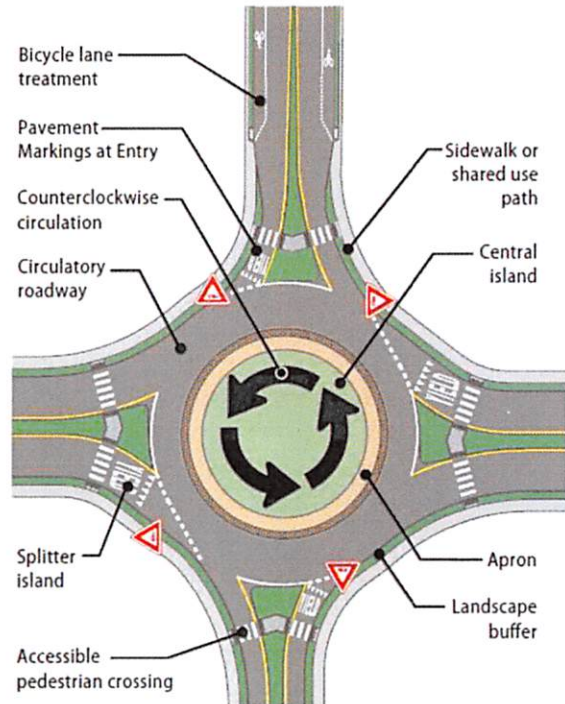
- Utilize roundabouts as a first approach to intersection improvements, which provide lower maintenance costs, improved aesthetics, increased capacity with reduced delays and lower speeds giving drivers more time to judge and react.

#### SCDOT RECOMMENDED ROUNDABOUT

- Install "Yield to Pedestrians" signs at all crosswalks.



- Create compact intersections with curb extensions that reduce crossing distance, reduce the speed of turning vehicles, prevent vehicles from parking at corners, and encourage pedestrians to cross at designated locations.
- Require automatic pedestrian "recall" cycles at high-volume locations where push buttons do not exist. Signals can be put in pedestrian "recall" for key time periods, such as school crossing times.
- Implement right-turn-on-red restrictions (by time-of-day or full-time) in high volume locations to reduce intersection conflicts with pedestrians.



### Leading Pedestrian Intervals (LPIs)

LPIs hold the red indication for drivers for 3-4 seconds while releasing pedestrians, (longer LPIs can be used) Primary purpose is to reduce conflicts between right turning vehicles and pedestrians



Source: Bicycle and Pedestrian Information Center

- Utilize the leading pedestrian interval (LPI) signals giving pedestrians an advance walk signal before the motorists get a green light, giving the pedestrian several seconds to start in the crosswalk where there is a concurrent signal.

<http://www.streetfilms.org/lpi-leading-pedestrian-interval/>

- Sign or otherwise mark the multipurpose paths to make it clear that bicycles are allowed.
- Add directional arrow pavement markings to the bike lanes.
- Adopt bicycle facility selection criteria that increases separation and protection of cyclists based on vehicle speed and volume.
- Trim or remove vegetation to improve drivers' visibility of other vehicles in the travel lane and particularly bicyclists in the bike lane.



- Trim or remove vegetation that has grown into or hangs over bike lanes, multi-use paths and sidewalks.
- Add multipurpose paths to the street cleaning schedule to remove sand and other debris.
- Review and assess sign placement from a cyclist's and pedestrian's perspective, and relocate or install additional scale-appropriate signage as necessary.
- Install pedestrian hybrid beacons and rectangular rapid flash beacons at locations with particularly high pedestrian volumes.

Rectangular Rapid Flash Beacons or RRFB are flashing yellow lights that alert drivers when a pedestrian is crossing at an uncontrolled crosswalk, i.e. where a normal traffic signal is not in operation. RRFBs do not regulate when pedestrians may cross, but increase the safety of their crossing. RRFBs are co-located with crosswalk signs, typically on both sides of the roadway and median. Activation of the beacons is accomplished by pedestrian pushbuttons or passive pedestrian sensors. Studies have shown that RRFBs increase motorist yielding rates.



Rapid Flashing Beacons

Hawk Beacon (High-Intensity Activated Crosswalk) looks like any other pedestrian signal to the pedestrian facing the crosswalk, but the vehicle driver sees no signal illumination until a pedestrian wants to cross the road. When the HAWK beacon is activated, the vehicle signal displays a succession of flashing and steady yellow then red indications prior to beginning the pedestrian phase. The vehicle signal returns to a flashing red during the pedestrian changeover and goes dark at the end of the pedestrian phase. HAWK beacons can be useful for improving the safety of pedestrian crossings at locations where pedestrian volumes do not warrant conventional traffic signals.

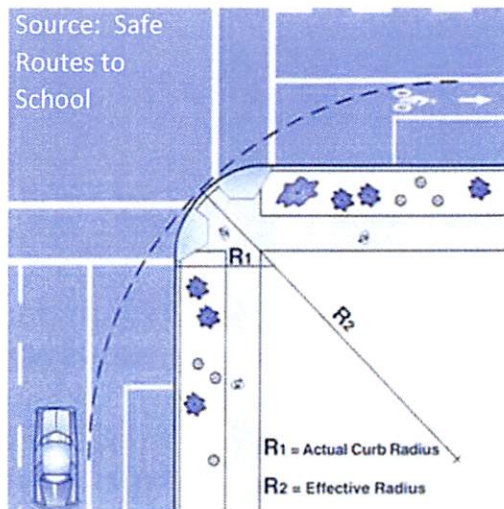


Federal Highway Administration Hawk Beacon

- Repair and maintain bike lane pavement to ensure smooth transitions at patched locations and between the asphalt and gutter pan. Replace damaged and bent drain grates as necessary.



- Install pavement markings that clearly identify the bike lanes and distinguish bike lanes from shoulders. Suggestions would include painting the bike lanes green or increasing the frequency of the bike lane stencil.
- Establish a series of iconic/themed loop bicycle and walking routes with related facilities (bike racks, benches, lighting) around the city, connecting commercial centers and schools to residential/visitor accommodations to improve safety and connectivity.

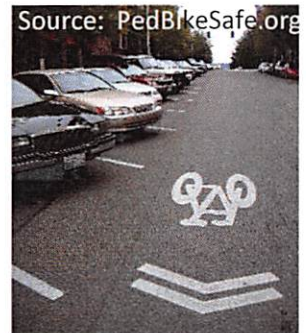


The effective radius that exists should include the width of parking lanes and bicycle lanes on both streets.

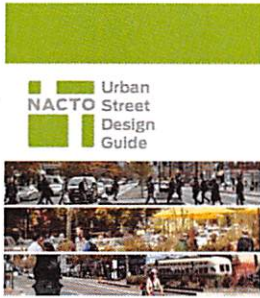
- Work with the Community Appearance Board providing guidelines for the placement of amenities in the right of way, e.g., street trees, lighting, benches, public art, etc. to ensure that walking/cycling environments are appealing, enhancing the pedestrian/cyclist experience, promoting more walking/bicycling and improving safety.



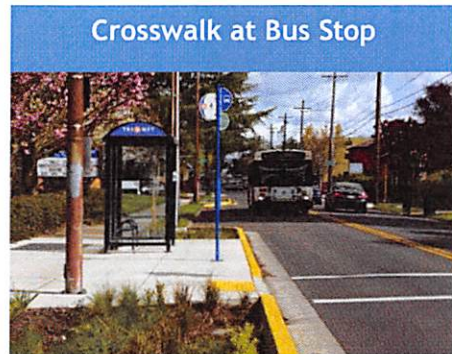
- Reduce curb radii to improve pedestrian safety. The reduction of a corner radius to produce a tighter turn results in decreases in turning speeds and improved motor vehicle and pedestrian site distances, and a shortened pedestrian crossing distance.
- Reverse the angle on angled parking so drivers back in instead of backing out, helping drivers to see and avoid conflicts with pedestrians and cyclists and allowing drivers to access their trunks while standing outside of the roadway.



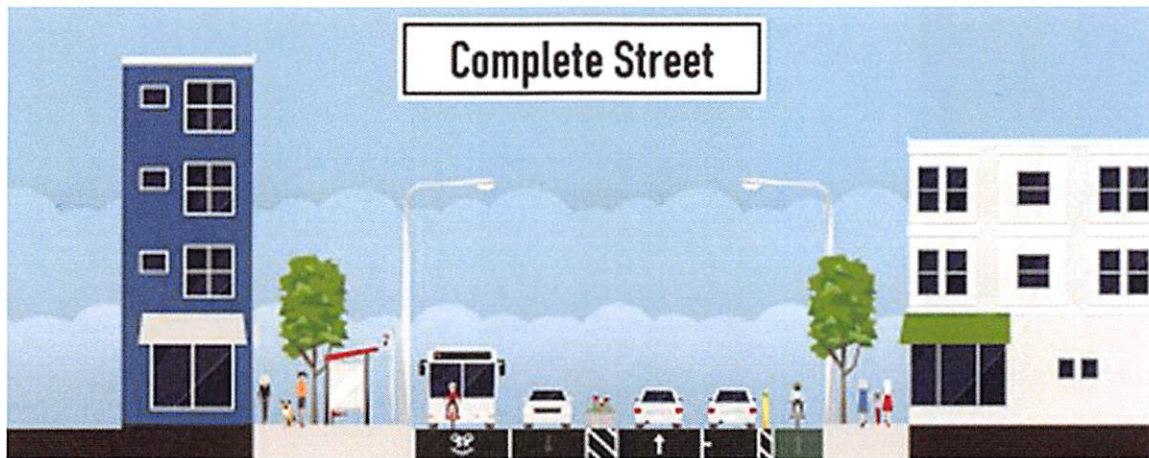
- Create a policy for crosswalks placement around bus stops and other transit locations and ensure that pedestrians can safely cross around bus stops.



- Create and implement design criteria for sidewalks, trails and paths incorporating consistent pavement markings and graphics utilizing guidelines from the MUTCD, AASHTO and NACTO Urban Street Design Guide for national guidance that incorporates the needs of pedestrians and bicyclists while developing solutions that apply flexibility in designs.



- Amend the Complete Streets Policy to include design guidelines for new development and transportation projects, requiring sidewalks on both sides of the street, including collectors and arterials.

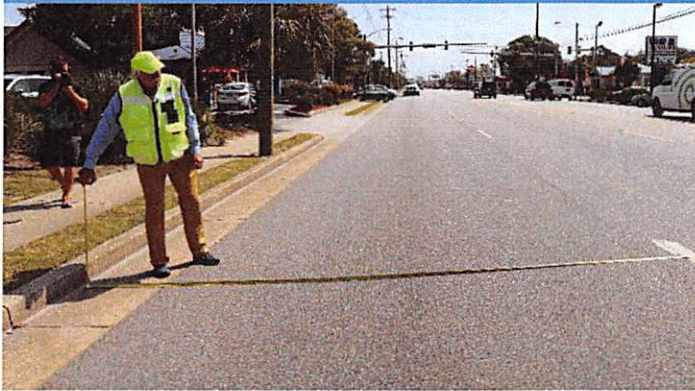


- Make improvements to Ocean Blvd:
  - Create right-sized travel lanes at a width of 10 feet and reduce speed limits to between 15-25 mph.
  - Reduce the number of access points along Ocean Blvd by combining existing driveways, using side streets or alleys for those properties along the western side of Ocean Blvd, and by changing access requirements for new construction. Reduce access points by incorporating a median and requiring right-in, right-out driveway access.
  - Relocate all driveways that are within dangerously close proximity to an intersection.
- Improve Kings Hwy with continuous and consistent bicycle and pedestrian facilities.
  - Conduct a traffic study to determine the feasibility of reducing the number of lanes on Kings Hwy and utilizing excess right-of-way for wider sidewalks, bike lanes, landscaping, and on-street parking.
  - Reduce speed limits to between 15-25 mph.
  - Construct a 10' wide multipurpose path along the east side between Ocean Blvd and 17<sup>th</sup> Ave S.



- Reduce travel lanes to 11' and install 5' bike lanes in both directions between Ocean Blvd/Farrow Pkwy and Cove Dr.
- At the intersection of Farrow Pkwy/Ocean Blvd/Kings Hwy, upgrade existing crosswalks to stamped asphalt or colored concrete crosswalks.

Dan Burden Measuring Travel Lane on Kings Hwy



- Fill in all sidewalk gaps between 17<sup>th</sup> Ave S and 67<sup>th</sup> Ave N.
  - Install high-visibility crosswalks and an on-demand pedestrian-only signal cycle on all four sides of the 8<sup>th</sup> Ave N intersection.
  - As the Burroughs and Chapin Pavilion Place redevelops, provide shade trees along the Kings Hwy sidewalk.
  - Expand the existing sidewalk to a 10' multipurpose path along the east side between 31<sup>st</sup> Ave N and Cove Dr.
  - Expand the existing sidewalk to a 10' multipurpose path along the west side between 67<sup>th</sup> Ave N and Cove Dr.
  - Consolidate curb cuts when installing sidewalks.
  - Between 31<sup>st</sup> Ave N and 67<sup>th</sup> Ave N install 8' landscape buffers along both sides between the sidewalk/multipurpose path and the roadway.
- Reconfigure Broadway St between Hwy 501 and Mr Joe White Ave to include continuous and consistent bicycle and pedestrian facilities. Reduce lanes to two, providing additional parking areas and plenty of space for extending the sidewalk down the east side of Broadway St and adding bicycle lanes.
  - Reconfigure Oak St/Pine Lakes Dr to include continuous and consistent protected bike lanes and pedestrian facilities.
    - Install a sidewalk on the east side between 21<sup>st</sup> Ave N and 38<sup>th</sup> Ave N.
    - Install high visibility crosswalks in all four directions at the intersections of 31<sup>st</sup> Ave N, 32<sup>nd</sup> Ave N, 33<sup>rd</sup> Ave N, 34<sup>th</sup> Ave N, 35<sup>th</sup> Ave N, 36<sup>th</sup> Ave N, and 37<sup>th</sup> Ave N to accommodate children walking to school.
  - Make improvements to Hwy 15:
    - Widen the existing 3' sidewalk to a 10' multi-purpose path to connect with the ECG at Harrelson Blvd.
    - Lower the speed limit to 25 mph.

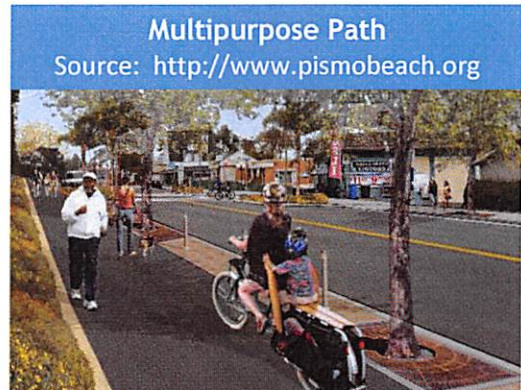
- Install high visibility crosswalks at Rosehaven Dr, Session St, Ellington St, Horn St, Kirkley St, Adams St, Dew St, Patrick St, Mobile St, Pinegrove Dr, Owen St, Page St, Pine Dr, Park Dr, Cannon Rd, and Owens Dr. These will alert drivers to increased pedestrian activity, and will allow those living in the adjacent neighborhoods to cross safely to the aforementioned multipurpose path.
- Install high visibility crosswalks across at 17<sup>th</sup> Ave., Periwinkle Pl, Pridgen Rd, 9<sup>th</sup> Ave S, 5<sup>th</sup> Ave S, and Boundary St, and ahead of each stop sign install a pedestrian crossing sign to facilitate safe travels along the multipurpose path.
- Program a pedestrian-only cycle into the traffic light at Pine Island Rd to be activated when the pedestrian button is pushed.



- Reconfigure Seaboard St to include continuous and consistent bicycle and pedestrian facilities.
  - Install a high visibility crosswalk at the intersection of 21<sup>st</sup> Ave N.
  - Install a multipurpose path along both sides between 21<sup>st</sup> Ave N and Mr Joe White Ave to accommodate workers coming to the area and shoppers trying to walk from one establishment to another across the road.
  - Install high visibility crosswalks at Commons Ave.
  - Install high visibility crosswalks at the Seaboard St intersection with the “frontage road” between Pier One and Sonic.
  - Add pedestrian signals to accommodate the three crossing movements at the intersection with Mr Joe White Ave where there is currently only one signalized pedestrian movement, on the east side of the intersection crossing Mr Joe White Ave. Crosswalks in all four directions already exist. Because of the frequency of turning movements at this intersection, include a pedestrian only cycle activated only when a pedestrian button is pushed.
  - Install bike lanes and sidewalks along both sides between Mr Joe White Ave and Hwy 501.
  - Install a sidewalk along the west side between Hwy 501 and Oak Forest Ln - a sidewalk already exists on the east side.
  - Install sidewalks along both sides between Oak Forest Ln and Pine Island Rd to continue existing sidewalks south of Pine Island Rd.
  - Install bike lanes along both sides between Hwy 501 and Pine Island Rd, to continue existing bike lanes south of Pine Island Rd.



- Install high visibility crosswalks and pedestrian signals in all four directions at the intersection of Hwy 501. Program a pedestrian only cycle activated only when a button is pushed.
- Install a continuous and consistent multipurpose path along Hwy 17 Bypass.
- Make improvements to 79<sup>th</sup> Ave N:
  - Fill in the sidewalk gaps along both sides between Beach Dr and Hwy 17 Bypass.
  - Add crosswalks and pedestrian signals to the three crossings including a pedestrian only cycle activated when any pedestrian button is pushed.
  - Install consistent pedestrian signals in all four directions at Hwy 17 Bypass. Currently the SW corner signalizes both north and east movements, the NW corner signalizes only the south movement, the SE corner signalizes only the west movement, and the NE corner does not signalize any movement. Install signals for all directions, including a pedestrian only cycle activated when any pedestrian button is pushed.



#### Make improvements to 62<sup>nd</sup> Ave N:

- Install a protected intersection per NACTO Guidelines at the intersection of 62<sup>nd</sup> Ave N and Hwy 17 Bypass. This intersection sees a lot of pedestrian and bicycle traffic due to its proximity to the ECG, YMCA, Horry County Bike and Run Park, and Barc Park.
- Install sidewalks and crosswalks along the south side between Ocean Blvd and Epps Dr.
- Install a sidewalk along the south side between Hwy 17 Bypass and Epps Dr.
- Install a fourth crosswalk and signals to accommodate pedestrian movement in all 4 directions, at the intersection of Kings Hwy, including a pedestrian-only cycle activated with the push of any pedestrian button.
- Install high visibility crosswalks in all four directions at Calhoun Rd.
- Install a sidewalk along the north side between Frontage Rd and Hwy 17 Bypass.
- Install high visibility crosswalks in all four directions at the Frontage Rd.
- Make improvements to 48<sup>th</sup> Ave N:
  - Between Kings Hwy and Ocean Blvd, 47th and 48th Ave N cross in an odd "X" configuration. Sidewalks through this intersection do not connect. Install sidewalks where lacking along both sides of both streets to continue existing sidewalks.
  - At Kings Hwy, install pedestrian signals in the remaining three directions (one currently exists on the south side of the intersection), and a pedestrian only cycle to be activated when any pedestrian button is pushed.
  - Install a ½-block sidewalk along the south side between Kings Hwy and Pine Lakes Dr to match up with the partial sidewalk that already exists.

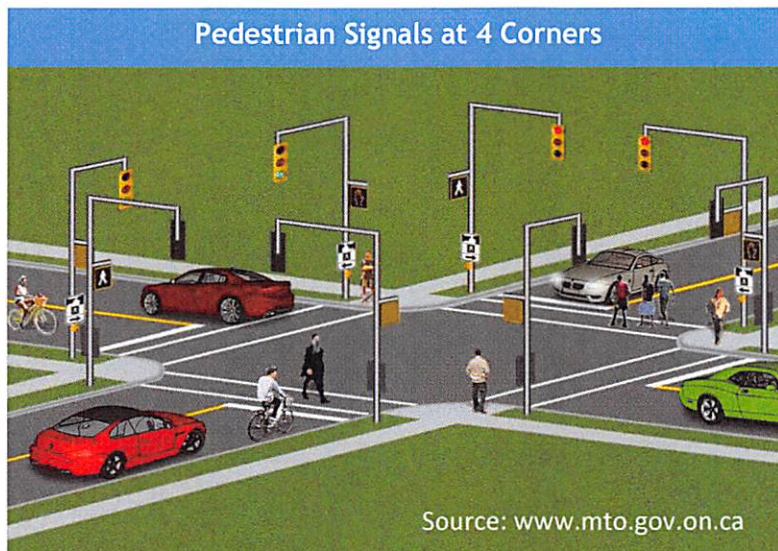




- Install a sidewalk along the north side between Kings Hwy and Robert Grissom Pkwy.
- Install sidewalks along both sides between Robert Grissom Pkwy and Hwy 17 Bypass.
- Install a sidewalk along the north side between Hwy 17 Bypass and Wild Iris Dr.
- Install high visibility crosswalks and pedestrian signals in all four directions at the intersection of Hwy 17 Bypass. Include a pedestrian only cycle activated when any pedestrian button is pushed.
- Improve 38<sup>th</sup> Ave N to include:
  - Installing continuous and consistent bike lanes and sidewalks between Robert Grissom Pkwy and N Kings Hwy.
  - Installing a high-visibility crosswalk on the south side of the intersection with Ocean Blvd.
  - Installing sidewalks or “walk lanes” on both sides between Kings Hwy and Ocean Blvd.



Sidewalks Both Sides of Street



- Installing pedestrian signals and buttons on all four corners, and leading in all four directions, at the intersection of Kings Hwy. Add a pedestrian-only cycle to the traffic light activated by the push of any pedestrian button.
- Install pedestrian signals and buttons on all four corners, and leading in all four directions, at the intersection of Oak St/Pine Lakes Dr.
- Add high visibility crosswalks in all four directions at the intersection of Hwy 17 Bypass. Install pedestrian signals in all four directions with a pedestrian only cycle activated by the push of any pedestrian button.
- Extend bike lanes across Hwy 17 Bypass onto Arundel Rd, with a ramped connection to the multipurpose path on Wild Iris Dr.
- Install sidewalks along both sides of 37<sup>th</sup> Ave N, 36<sup>th</sup> Ave N, 35<sup>th</sup> Ave N, 34<sup>th</sup> Ave N, 33<sup>rd</sup> Ave N, 32<sup>nd</sup> Ave N, and 31<sup>st</sup> Ave N between Kings Hwy and the school complex to accommodate children and families walking to school and to the City's recreational facilities.



- Reconfigure 29<sup>th</sup> Ave N to include continuous and consistent bike lanes and sidewalks.

- At the intersection with Kings Hwy, although there are crosswalks in all four directions, the only signalized pedestrian movements are across Kings Hwy. Add pedestrian signals that cross 29<sup>th</sup> Ave N, and include a pedestrian-only cycle activated when the pedestrian button is pushed.
- Program a pedestrian-only cycle at the intersection of Hwy 17 Bypass, activated when any pedestrian button is pushed.
- Fill in the sidewalk gaps along both sides between Ocean Blvd and Kings Hwy.
- Install a sidewalk along the south side between Kings Hwy and Robert Grissom Pkwy.
- Add an additional two crosswalks at Oak St and the signals to accommodate them, including a pedestrian-only cycle when a button is pushed.
- Add an additional two crosswalks at Resort Dr and the signals to accommodate them, including a pedestrian-only cycle when a button is pushed.

**Working to Improve Connectivity:  
In 2017 Mayor Rhodes cuts the  
ribbon on new bike lanes**



- Reconfigure 21<sup>st</sup> Ave N.



- Install sidewalks and bike lanes or sharrows along both sides of 21<sup>st</sup> Ave N Ext.
- Add sharrows between Kings Hwy and Ocean Blvd.
- Install protected intersections between Kings Hwy and Hwy 17 Bypass.
- Install protected bike lanes between Kings Hwy and Hwy 17 Bypass.
- Add a pedestrian-only cycle, activated by the push of a button, with diagonal crosswalks, at the Oak St intersection.

- Add a pedestrian-only cycle, activated by the push of a button, at the intersection of Hwy 17 Bypass.

- Make improvements to Mr Joe White Ave:

- Install sharrows between Kings Hwy and Ocean Blvd to accommodate cyclists traveling through the bike lanes that are west of Kings Hwy.
- Add bike lanes between Seaboard St and the end of Mr Joe White Ave near the Intracoastal Waterway to continue the bike lanes that already exist between Kings Hwy and Seaboard St. Consolidate driveways to make this segment less treacherous for everyone involved. Have a ramped connection to the multi-purpose path already in place along Ripkin Way.
- Add diagonal crosswalks and a pedestrian only cycle to the intersection of Ocean Blvd.
- At the intersection with Oak St, pedestrian signals are only currently in position to cross Oak St. Add pedestrian signals across Mr Joe White Ave to accommodate all movements,



including those parking in the public lot on the SE corner in order to walk to the Law Enforcement Center on the NW corner, for which there are already crosswalks in place.

- At the intersection with Seaboard St, the only pedestrian signal is to cross Mr Joe White Ave on the east side of the intersection. Install pedestrian signals to accommodate the other three crossing movements, for which there are already crosswalks in place.
- Make improvements to 9<sup>th</sup> Ave N:
  - Reconfigure the entire length of 9<sup>th</sup> Ave N with continuous and consistent bicycle and pedestrian facilities. Include a reconfigured intersection of 9<sup>th</sup> Ave N/Broadway St/Oak St that safely accommodates all modes of transportation.
  - Conduct a traffic study to determine the feasibility of closing 9<sup>th</sup> Ave N between Kings Hwy and Broadway St, and reconfiguring the right-of-way as a pedestrian plaza.
  - Install high visibility crosswalks at the intersection of 9th Ave N and Ocean Blvd, and rotate the pedestrian pushbutton on the northwest corner so that it is more easily accessed from the sidewalk than from the street.
- Install a multipurpose “Rails-To-Trails” or “Rails with Trails” within the railroad right-of-way between Broadway St and the Intracoastal Waterway. Include button-activated crossing signals at all major intersections.
- Advocate for a multi-purpose path to parallel the Hwy 501 bridge that crosses the Intracoastal Waterway to improve pedestrian and bicycle safety.
- Make improvements to 8<sup>th</sup> Ave N:
  - Reconfigure 8<sup>th</sup> Ave N from Kings Hwy to Broadway St to include continuous and consistent bicycle and pedestrian facilities.
  - Conduct a traffic study to determine the feasibility of closing 8<sup>th</sup> Ave N between Kings Hwy and Oak St, and reconfiguring the right-of-way as a pedestrian plaza.
- Make improvements to Hwy 501:
  - Reprogram the signal at the intersection with Robert Grissom Pkwy to include a pedestrian-only cycle activated when the pedestrian button is pushed. Make sure pedestrians have enough time to get across the very wide intersection.
  - There is currently no traffic light at Canal St. However, there is a significant amount of pedestrians crossing between the neighborhoods to the north and south, and from both neighborhoods to the Food Lion shopping center and Wal-Mart on Oak Forest Ln. Install a pedestrian-only signal activated only when a pedestrian button on any of 4 corners is pushed, and a high visibility crosswalk in all four directions.
  - Install a pedestrian-only signal at Cedar St activated only when a pedestrian button on any of 4 corners is pushed, and high visibility crosswalks in all four directions. There is currently no traffic light at Cedar St. However, there is a significant amount of pedestrians crossing between the neighborhoods to the north and south, and from both neighborhoods to the Food Lion shopping center.





- Install a pedestrian-only signal at Balsam St activated only when a pedestrian button on any of four corners is pushed, and high visibility crosswalks in all four directions. There is a significant amount of pedestrians crossing between the neighborhood to the south and businesses to the north.
  - Install a pedestrian-only signal at Alder St activated only when a pedestrian button on any of 4 corners is pushed, and high visibility crosswalks in all four directions. There is currently no traffic light at Alder St. This intersection is the gateway to the traditional downtown core. However, Hwy 501 bisects this gateway, making it impossible for pedestrians to walk between downtown, homes, shops and jobs.
  - Realign Hwy 501 with 7<sup>th</sup> Ave N between Broadway St and Kings Hwy, to include continuous and consistent bicycle and pedestrian facilities.
- Reconfigure Main St and its intersections with Oak St, 8<sup>th</sup> Ave N and Kings Hwy, upon completion of realignment, to prioritize pedestrian activity, reuniting the two traditional sections of downtown. Design should include bike racks as well as sidewalk and bicycle connectivity to nearby neighborhoods.
- Create south end connectivity along the avenues between Kings Hwy and Ocean Blvd.
- Make Improvements to 3<sup>rd</sup> Ave S:
  - Install sharrows in both directions between Kings Hwy and Ocean Blvd to accommodate cyclists coming from and going to the bike lanes west of Kings Hwy.
  - Reconfigure the intersection with Hwy 501 so that pedestrians do not find themselves stranded on a “merge island” with free-flowing traffic between them and the sidewalk. There is currently a pedestrian signal for the north/south movement. Add a pedestrian signal for the east/west movement and program a pedestrian-only cycle activated when any pedestrian button is pushed.
  - Program a pedestrian-only cycle into the traffic light at Highway 15 to activate only when a pedestrian button is pushed.
- Remove the fence along the Woodland Path and install a bicycle and pedestrian only connection between the Woodland Path and Moonlight Dr (referred to in the GSATS 2040 Metropolitan Transportation Plan as the “Pampas Dr” project).

## ENFORCEMENT OBJECTIVE AND STRATEGIES



**ENFORCEMENT OBJECTIVE:** Protect a cycle-friendly and walk friendly city by enforcement of the laws for all users to include motorists, bicyclists and pedestrians.

- Enact and enforce regulations that clearly allow and disallow specific users of sidewalks, multi-purpose paths and bicycle lanes. See Chapter 4: Sidewalks.
- Train all police officers in enforcing pedestrian and bicyclist safety laws.



- Inform the public about where and when pedestrian and bicycle enforcement activities will be, thereby creating public support and offsetting the complaints of those breaking the law.
- Consider targeted enforcement operations and progressive ticketing allowing officers to educate drivers more than penalize them.
- Utilize adult school crossing guards helping children safely cross the street at key locations while reminding drivers of the presence of pedestrians.
- Maintain landscaping so it does not interfere with the sidewalks, multi-use paths or bike lanes.
- Enact and enforce laws prohibiting vehicles from parking in the bicycle lanes, particularly during the high peak bicycle-crash period (10 am - 1 pm), allowing bicyclists to remain in the dedicated lanes.
- Explore automated technology to enforce both speed limits and red light running. Both of these issues are serious concerns for pedestrians, and research shows that speed enforcement technologies can reduce severe injury crash for all road users by 20-25% on average.

## EQUITY OBJECTIVE AND STRATEGIES

**EQUITY OBJECTIVE:** Increase access and opportunity for all residents, including disadvantaged, minority and low-income groups.

- Facilitate social and economic opportunities through equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved including low income, minority, elderly, limited English proficiency, or persons with disabilities.

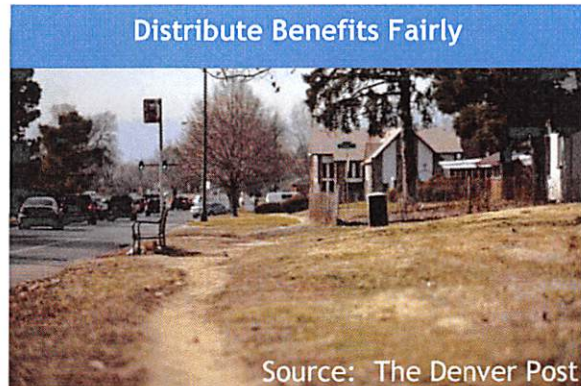


- Consider the unique circumstances impacting various community members' mobility and connectivity needs and use this information to determine the appropriate amount of resources to allocate to different people and places so that the transportation network more effectively serves all members.

- Work with low-income, minority, immigrants and international students who are more likely to have jobs that cause them to commute outside of

traditional 9-5 hours, often in the dark and when public transit is not operating. Most are more likely to travel by bicycle or walking but are often less likely to practice safe bicycling and walking techniques such as riding with traffic, walking against traffic, using lights, and wearing helmets and reflective clothing.

- Work to provide safe transportation alternatives for children, older adults, and individuals with physical or cognitive disabilities who may be unable to drive.



## ***ECONOMIC BENEFITS OBJECTIVE AND STRATEGIES***

**ECONOMIC BENEFITS OBJECTIVE:** Investment in bicycling and walking increases property values, creates new jobs, attracts tourists and provides mobility options for affordable transportation while decreasing traffic congestion, commute times, and improving air quality.



- Request the Wall School of Business conduct an economic impact study of the Conway to Myrtle Beach railroad line and its prospects for a rails-to-trails system.

- Work to create positive economic impact with walkability and bicycling as a cost-effective way to enhance shopping districts and neighborhoods, generate tourism and support business.

- Provide safe facilities for pedestrians and bicyclists where people can walk and ride more and spend less on transportation, meaning they have more money to save or spend on other things.
- Work with developers to increase connectivity to sidewalks and multi-use paths, resulting in a high Walk Score and leading to increased property values<sup>14</sup>.
- Continue to develop bicycling and walking projects, which create 11-14 jobs per \$1 million spent, compared to just 7 jobs created per \$1 million spent on highway projects.
- Promote the pedestrian-oriented mixed-use development option along Kings Hwy to architects and developers. Section 1904 of the City of Myrtle Beach Zoning Code offers development incentives for pedestrian-oriented design.

#### Walking and Cycling Bring Business



## BICYCLE FRIENDLY BUSINESS

([http://bikeleague.org/sites/default/files/BFB\\_App](http://bikeleague.org/sites/default/files/BFB_App))

- Encourage local businesses to gain League of American Bicyclists Bike Friendly Business designation by offering free links in the BikeMB App. Look into other incentives as well including subsidized bike racks, etc. Educate business owners on how bicycling means business.
- Add bike lanes and expanded multi-use paths to better connect residents to jobs, neighborhoods and great amenities to attract a new generation of talent.
- Promote the East Coast Greenway and other multi-use paths throughout the city.
- Build and brand bike and pedestrian facilities while creating destinations.
- Develop, promote, and cross-pollinate all types of bicycle and pedestrian tourism including day tours, bike sharing, bicycle overnights, special events such as Cyclovia, and multi-day tours.

<sup>14</sup> Walk Score measures the walkability of any address using a patented system. For each address, Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Amenities within a 5-minute walk (.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30-minute walk. Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. Data sources include Google, Education.com, Open Street Map, the U.S. Census, Localeze, and places added by the Walk Score user community. More information at [walkscore.com](http://walkscore.com).



- Connect with, educate, and utilize the Chamber of Commerce, Hospitality Association, Economic Development agencies, and Downtown Redevelopment Corporation.
- Encourage private investment with public infrastructure improvements while moving buildings closer to the street providing eyes on the street.
- Create incentives for residential developers to install bicycle and pedestrian infrastructure in their roadways and open space. These may include bike racks, bottle filling stations, and sidewalks and multipurpose paths that connect to existing infrastructure.
- Support the goal of a sports tourism destination by incorporating training and recreational routes and trails.

## ENCOURAGEMENT OBJECTIVE AND STRATEGIES

**ENCOURAGEMENT OBJECTIVE:** Foster a culture that supports and encourages active transportation. An encouragement culture will be achieved by adoption and promotion of activities that are fun and interesting activities, promotion of active transportation events (e.g. Cycloviva), and opportunities that demonstrate that bicycling and walking are wholesome forms of transportation.



- Continue to support the work of the Bicycle and Pedestrian Committee with a commitment of funding while advancing pedestrian and bicycle safety infrastructure and programs.
- Allocate annual funding to implement the prioritized the goals and strategies of this Bicycle and Pedestrian Master Plan.
- Provide a full-time staff person to work on bicycle and pedestrian issues including advocating for street design improvements, education and encouragement measures, and for increased enforcement of pedestrian-supportive laws.
- Encourage the Mayor and Council to sign the International Charter for Walking - Walk 21 to demonstrate their commitment to enhancing walkability and pedestrian safety.<sup>15</sup>



<sup>15</sup> The International Charter for Walking is a common policy reference that cities, organizations, neighborhood groups and individuals can sign up to and encourage more everyday walking and greater walkability. The Charter was developed during the Walk21 conference series, starting in Portland in 2003 led by Daniel Sauter from Urban Mobility Research and launched in Melbourne in 2006. It is informed by experts from more than 35 countries, identifies the needs of people on foot and provides a common framework to help authorities focus their policies, activities and relationships to create a culture where people choose to walk. To date the Charter has been signed by more than 5,000 people including 500 Mayors



- Become a designated a Walk Friendly Community.
- Improve our League of American Bicyclists' Bicycle Friendly Community designation from "Honorable Mention" in 2016 to "Gold" by 2023.



- Encourage participation in the Safe Routes to School program by working with local schools and utilizing the creation of the Seahawk District to support the Safe Routes to Schools initiatives.
- Work with Horry County Schools to create a Transportation Demand Management Program that addresses walking, bicycling, student drop/off and pick up by autos and buses.
- Promote cycling and walking as a recreation activity.
- Promote cycling and walking as alternative transportation.
- Promote walking, running and cycling as part of the City's Sports Tourism programs.
- Implement community bicycle rides and walking events/tours.
- Support the American Heart Association's National Walking Month.

In 2018 Walk with the Mayor and Council



- Support National Bicycling Month.

2017 Pedal with the Mayor



- Create a culture of walking and bicycling in the city through wayfinding signs and maps with an increased emphasis on safety, comfort, convenience, distance, and visual interest in the route.
- Encourage more walking and bicycling by showing how easy it is (or can be) to get from one destination to another without having to drive.
- Encourage inter-departmental communication on bicycle and pedestrian safety.
- Continue a giveaway of lights or reflective materials program each spring/summer for J1 International Students and other bicyclists and walkers.
- Encourage more walking and bicycling by creating a "Comfort Level Bicycle and Walking Map" to provide easy to understand information that allows cyclists and walkers to make better-informed decisions regarding route choice.



## Arlington, Virginia Bicycle Comfort Level Map ([www.arlnow.com](http://www.arlnow.com))



### IMPLEMENTATION OBJECTIVE AND STRATEGIES

**IMPLEMENTATION OBJECTIVE:** Successfully implement the Bicycle and Pedestrian Master Plan.

- Coordinate the implementation of the Master Plan through capital improvement projects, grant opportunities and other public or private funding sources.
- Be project-ready to make use of new funding and grant opportunities for education, public safety and infrastructure improvements.
- Many of the improvements listed in the Engineering and Planning section of this plan are also included in other approved plans, including Ride III, the Kings Hwy Corridor Study, and the GSATS Long Range Transportation Plan. Collaborate and coordinate with the various organizations that oversee those plans to take advantage of funding opportunities and economies of scale.
- Conduct on-going public engagement by maintaining the Bicycle and Pedestrian Committee as an advisory group that continues its connections to user groups.
- Conduct an annual review of physical infrastructure conditions with input from users and provide an annual update to City Council.

The Master Plan recognizes that there are funding, staffing, regulatory and jurisdictional limitations to carrying out the strategies listed. The Master Plan aims to build partnership opportunities that will expand, enhance and support the active transportation network through cooperative efforts and/or funding opportunities.

## Chapter 4: Policy Support and Recommendations

The Myrtle Beach Bicycle and Pedestrian Committee supports policy positions that promote active living. The vision adopted by the Committee and included in this Master Plan states:

Myrtle Beach is a community where citizens and visitors may freely choose to walk or bicycle for pleasure, exercise, shopping, exploring amenities whether recreating, or commuting in a safe, leisure-oriented and pleasant environment.

Health and well-being are influenced by the communities where people live, work, play, and learn, through the interplay of a community's physical, social, and cultural environment.<sup>16</sup> Over the past decade, research has demonstrated links between the built environment and eating and physical activity behaviors, which in turn affect health outcomes. Active living is a way of life that integrates physical activity into daily routines. Increasing physical activity is a powerful way to prevent chronic disease and promote health among children and adults. Active living is a multi-disciplinary approach that brings together practitioners, advocates, and policy-makers to create healthier communities that support active lifestyles.

To support the vision, the Bicycle and Pedestrian Committee recommends policy adoption that will result in programs that educate, encourage and enable an active-living lifestyle.

- ✓ Bicycle and pedestrian connectivity policies promote and encourage physical activity.
- ✓ Access to open space, parks and trails encourages users to visit beautiful places by foot or bicycle, thus encouraging physical activity.
- ✓ Safe routes to school policies create, ensure and encourage children to walk and/or bike to school, thus encouraging a new generation to enjoy physical activity.
- ✓ Land use and multi-modal transportation design policies can make a significant impact on the beautification of communities while affecting the health of its citizens and visitors.
- ✓ Support facilities, policies and programs beyond infrastructure and public safety improvements, make walking and biking a convenient choice through encouragement, education and policy. Thus, the Master Plan includes a number of strategies to support bicycle/pedestrian improvements. For example, these strategies include an increase in the bike rack inventory and encourage bicycle friendly businesses.
- ✓ Active living implementation and evaluation policies must move beyond vision, goals and strategies and into action. The Bicycle and Pedestrian Committee, in its advisory role, encourages City Council to adopt policy positions that are bold, proactive and forward thinking. This strategy will transform Myrtle Beach into a community where citizens and visitors may freely choose to walk or bicycle for pleasure, exercise, shopping or exploring amenities.

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<sup>16</sup> SC Department of Health & Environmental Control, (2017). SC Healthy Toolkit: Policy Guide for Active Living (pp 55-87). Retrieved from <http://eatsmartmovemore.org/pdf/SCHealthyToolkit.pdf>





Chapter 2 introduced and discussed a number of bicycle and pedestrian-related policy and program initiatives. In addition, the Bicycle and Pedestrian Advisory Committee makes the following policy recommendation:

Policy Recommendation: The Committee recommends revision to Chapter 12 Article V Division 1 Sec 12-160, that describes sidewalk use and prohibits bicycles as follows:

Chapter 12 Article V Division 1 Sec 12-160 Definitions includes the following:

Sidewalk: A sidewalk is a paved or hard surface path along a street that is located within the right-of-way. Sidewalks are generally four to six feet in width and cross driveways and intersections, and are separated from the roadway by a raised curb and/or a planting strip of varying widths. Sidewalks are intended to serve pedestrians and powered chair/wheelchair users and are the principal component of a pedestrian network. EPAMD are permitted on sidewalks, while bicycles, small wheels' conveyances, motor vehicles and non-motorized vehicles greater than three feet in width are prohibited from sidewalk use.

#### Recommended Change

Sidewalk: A sidewalk is a paved or hard surface path along a street that is located within the right-of-way. Sidewalks are generally four to six feet in width and cross driveways and intersections, and are separated from the roadway by a raised curb and/or a planting strip of varying widths. Sidewalks are intended to serve pedestrians and powered chair/wheelchair users and are the principal component of a pedestrian network. (EPAMD) are permitted on sidewalks, while motorized vehicles other than EPAMD's are not.

Bicycles/tricycles/recumbents may use sidewalks under the following circumstances.

1. Bicycles/tricycles/recumbents must yield the right-of-way to pedestrians at all times by slowing down, stopping, or dismounting as needed.
2. Bicycles/tricycles/recumbents must give a pedestrian or bicycle traveling in the same direction an audible warning. They must use prudence when riding in pedestrian congested area.



## Summary

Bicycle and pedestrian facilities add important modes of public access to destinations, and businesses while promoting tourism and economic development. Walk- and Bike-Friendly methods increase access and support consumer engagement with area businesses limited by vehicular traffic. For example, sidewalks create space that serves several functions whether it's outdoor dining, window-shopping, or social interaction while simultaneously sharing the community's history as exhibited throughout the Market Common district and the many tributes to the former Air Force base. The Myrtle Beach Boardwalk equally illustrates a creative solution that creates a safe space for pedestrians while increasing access to businesses and providing oceanfront leisure activities.

The Market Common district serves as a model for bicycle and pedestrian access, connectivity, and safety. Older residential and commercial districts present a challenge due to heavy vehicular congestion and the lack of safe space for bicyclists and pedestrians. Pedestrians compete with vehicles for access while limited space is encroached by utility poles and boxes, signage, etc.

This Master Plan embraces policy-driven redevelopment efforts that improve bicycle and pedestrian facilities. Planning efforts of a broader scope fall outside the role of the Bicycle and Pedestrian Committee but the Committee is readily available to assist with planning initiatives on the larger scale.

