



# TOWN OF INDIAN BEACH BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN

Adopted December 9, 2015





**TOWN OF INDIAN BEACH  
BICYCLE AND PEDESTRIAN TRANSPORTATION PLAN**

**ACKNOWLEDGEMENTS**

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## **EXECUTIVE SUMMARY**

### **SECTION 1 - INTRODUCTION**

#### **1.1 Scope and Purpose**

The purpose of the Indian Beach Bicycle and Pedestrian Transportation Plan is to connect the entire town and all of the destinations within the town and along Bogue Banks. It will also enable the Town to take advantage of grants and other funding opportunities to provide facilities and programs for pedestrian activities. The plan will encourage a healthy and active lifestyle for residents and visitors. Some of the lifestyle benefits include a safer community where more people will be on the streets, noticing their surroundings and in case of an incident, will be able to alert Police or Emergency Services. The program will allow the residents and tourists to take advantage of the natural beauty and pleasant weather in Indian Beach and surrounding neighborhoods.

Indian Beach has a permanent population of 119 and an estimated summer peak population of 7,500. The permanent population continues to increase at a modest rate and the tourist visitation has shown an increase almost every year for the last 15 years. With additional multi-use paths and sidewalks and other additions on Bogue Banks, we expect tourism visitation and property ownership to continue to increase.

Indian Beach draws the majority of its summer visitors from North Carolina and the remainder from all over the United States. The town was recently recognized by the Travel Channel as one of the top 10 most overlooked beaches in North Carolina. TripAdvisor.com named Indian Beach as a top trending destination. There are family reunions with people attending from various parts of the U S and internationally. Almost all of these visitors come by car, stay in houses and bicycling and walking is important to all or at least some of the group.

Because Indian Beach continues to grow and attract more visitors, there is a need for a Bicycle and Pedestrian Transportation Plan to address safety concerns, provide improved and additional transportation alternatives, and to create a desirable destination for bicycle enthusiasts. Additional bicycle and pedestrian facilities will make Indian Beach a safer and more desirable place to live and visit.

Statistics also support the notion that bicycle facility improvements should occur. According to the 2000 Statewide Survey on Bicycling and Walking, the NCDOT's Division of Bicycle and Pedestrian Transportation found that 46% of all North Carolina



households own bicycles and 75% of adult respondents believe their communities should spend more money to improve bicycling and bicycle facilities and safety. The benefits of bicycling and walking are significant to a community and its residents.

This document represents the results of numerous planning meetings, review of planning documents of other towns, and comments from the users of the current facilities. The preparers of the plan have contact with a wide variety of multi-use path and sidewalk users including permanent residents and visitors, youth, and adults of all ages.

## 1.2 Benefits of Cycling and Walking

Bicycling and walking is recognized to be an appealing alternative to traveling by car for the following reasons:

- ***It represents the “livability” of a community.*** Being able to reach a destination by bicycle or by foot (walking) gives people another alternative for choosing a travel mode. It combines the functionality of actually getting there with the benefits of exercise and recreation. In places where residents are regularly seen outside walking or bicycling, visitors feel a sense of community and safety. A town with great “livability” constantly attracts new residents and visitors.
- ***Bicycling and walking promotes good health practices.*** The United States Surgeon General advises Americans to get 30-60 minutes of exercise 4 to 6 times each week. Bicycling and walking is a low-impact way to exercise and can improve a person’s health by lowering blood pressure, strengthening muscles, lowering stress levels, increasing the size, strength, and efficiency of the heart and cardiovascular system, burning fat, and increasing metabolism.
- ***The economics of bicycling and walking make sense.*** According to a study by the Boston Foundation, in 2003, typical American households spent an average of \$7,125 on transportation costs, including insurance, repair, maintenance, fuel costs, taxes, and other fees — a significant annual investment. Choosing to ride a bicycle rather than traveling by vehicle will result in monetary savings.
- ***Bicyclists can avoid traffic congestion.*** Often, bicyclists can use dedicated bicycle lanes or multi-use paths, which allow for an even more efficient trip, which results in fewer vehicles on the road.
- ***It is easy.*** According to a 1995 National Personal Transportation Survey, analysts found that approximately 40 percent of all trips made are less than 2 miles in distance from origin to destination. Most bicyclists can make that level of trip in approximately ten minutes.
- ***Economic Impact.*** For many, places to bike and walk are an important determinant in where to vacation. According to a NCDOT case study of the

Northern Outer Banks, 43% of the visitors in the survey said that bicycling was an important factor in selecting the area for a vacation.

- ***It is efficient and environmentally friendly.*** Bicyclists power the machines themselves and do not use fossil fuels. Since bicycles do not release polluting emissions into the air and run on gears versus engine power, both air and noise qualities are improved.

### 1.3 History

The Town of Indian Beach was incorporated in 1973. A group of residents went to the legislature to request incorporation of the area with the idea of the town being named Salter Path. However, at the last minute Salter Path residents decided against the idea of incorporation. Those residents on either side of Salter Path saw the need and petitioned the General Assembly to incorporate the area around Salter Path. They decided on the name “Town of Indian Beach”. The name Indian Beach was based on evidence that suggests an Indian village was here at one time. Indian arrowheads were found on the beach and what appeared to be Indian burial mounds were found on the sound side. The General Assembly formally approved the incorporation and the town was chartered in 1973. Salter Path remains an unincorporated area within the Town of Indian Beach to this day.

### 1.4 Demographics

Summary Census	2010	2015	2020
Population	112	117	125
Households	66	70	74
Families	40	46	49
Average Household Size	1.70	1.67	1.68
Owner Occupied Housing Units	60	55	59
Renter Occupied Housing Units	6	14	15
Median Age	59.8	56.8	58.5
Trends: 2015 - 2020 Annual Rate	Area	State	National
Population	1.33%	1.10%	0.75%
Households	1.12%	1.13%	0.77%
Families	1.27%	1.03%	0.69%
Owner HHs	1.41%	1.05%	0.70%
Median Household Income	1.21%	2.85%	2.66%



**Households by Income**

	2015		2016	
	Number	Percent	Number	Percent
<\$15,000	6	8.7%	6	8.0%
\$15,000 - \$24,999	6	8.7%	5	6.7%
\$25,000 - \$34,999	4	5.8%	3	4.0%
\$35,000 - \$49,999	7	10.1%	7	9.3%
\$50,000 - \$74,999	21	30.4%	24	32.0%
\$75,000 - \$99,999	9	13.0%	11	14.7%
\$100,000 - \$149,999	6	8.7%	8	10.7%
\$150,000 - \$199,999	4	5.8%	5	6.7%
\$200,000+	6	8.7%	6	8.0%
Median Household Income	\$60,541		\$64,300	
Average Household Income	\$87,599		\$94,588	
Per Capita Income	\$43,110		\$47,357	

Population by Age	Census 2010		2015		2020	
	Number	Percent	Number	Percent	Number	Percent
0 - 4	1	0.9%	2	1.7%	2	1.6%
5 - 9	0	0.0%	3	2.5%	3	2.4%
10 - 14	1	0.9%	3	2.5%	3	2.4%
15 - 19	2	1.8%	5	4.2%	5	4.0%
20 - 24	2	1.8%	5	4.2%	4	3.2%
25 - 34	3	2.7%	7	5.9%	7	5.6%
35 - 44	4	3.6%	8	6.7%	9	7.2%
45 - 54	22	19.6%	21	17.6%	19	15.2%
55 - 64	37	33.0%	28	23.5%	30	24.0%
65 - 74	26	23.2%	29	24.4%	35	28.0%
75 - 84	11	9.8%	7	5.9%	7	5.6%
85+	3	2.7%	1	0.8%	1	0.8%

Census Race and Ethnicity	2010		2015		2020	
	Number	Percent	Number	Percent	Number	Percent
White Alone	109	97.3%	116	99.1%	123	99.2%
Black Alone	1	0.9%	0	0.0%	0	0.0%
American Indian Alone	0	0.0%	0	0.0%	0	0.0%
Asian Alone	1	0.9%	1	0.9%	1	0.8%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	0	0.0%	0	0.0%	0	0.0%
Two or More Races	1	0.9%	0	0.0%	0	0.0%
Hispanic Origin (Any Race)	0	0.0%	0	0.0%	0	0.0%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020.

## **1.5 Goals and Vision**

The Town of Indian Beach is a small Town with citizens and tourists who enjoy an active lifestyle based largely on walking in an attractive and safe setting. Our goal and vision is to provide safe multi-use paths and sidewalks that connect neighborhoods, beach accesses, restaurants and amusements parks. Multi-use paths and sidewalks along highway 58 with crosswalks provides a safe place to walk, ride bicycle and push strollers and connects with present and future walkways and multi-use paths. The walkways will be built so that they can easily be utilized and designed to be a cost effective form of transportation. Pedestrian facilities will contribute to the vivaciousness and ambience of Indian Beach.



## **SECTION 2 – EXISTING CONDITIONS**

### **2.1 General Overview**

The Town of Indian Beach is centrally located on Bogue Banks in southeastern Carteret County. Indian Beach is located between Pine Knoll Shores to the east and Emerald Isle to the west. Indian Beach is unique in that its corporate limits are split in the center by an unincorporated portion of Carteret County, Salter Path. Salter Path takes up roughly a 4,415 foot stretch of NC Highway 58 separating Indian Beach's eastern and western sides. Indian Beach has attempted to annex this land in the past, but was unable to reach an agreement with Salter Path residents. The eastern half of the island is occupied by Fort Macon State Park, Atlantic Beach, and Pine Knoll Shores. The B. Cameron Langston Bridge connects the western end of Bogue Banks to the mainland and the Atlantic Beach Bridge connects the eastern end of Bogue Banks to the mainland. The town consist of 1.467 miles.

Indian Beach is also centrally located for access by residents of several large urban centers throughout the state's coastal plain and Piedmont regions. This is one reason that the town is such a desirable tourist destination.

The Town of Indian Beach was incorporated in 1973. The town was mostly populated with trailers and a camp site with very little commercial activity. That has since changed and developed into a town consisting of several multi-family condominium complexes and single family neighborhoods. These developments consist of homeowners associations that manage neighborhood parks and water accesses. Effective 2010 the Indian Beach Board of Commissioners passed an ordinance requiring all future



development or the Hwy. 58 corridor to include multiuse paths or sidewalks as part of their submitted plans.

The town recognizes the significant impact that seasonal tourism has on Indian Beach as well as the region and will work to establish a stable future for both the economy and natural environment. Indian Beach views itself as a safe, clean, and friendly community and will maintain this image through provision of quality public services and logical development controls that will balance economic development with environmental protection.

The town has a permanent population of 112 (as of 2010 Census) which increases to about 10,000 in the summer months. Seasonal population increases are the result of

second home owners occupying vacationers renting overnight and groups, and people within coming for the day. Most overnight condominiums and stay for the



their beach homes, accommodations for families about a two hour drive visitors stay in houses or week.

The N. C. Department of Transportation Division of Bicycle and Pedestrian Transportation conducted a case study of the NC Northern Outer Banks in 2003. The results showed that bicycle and pedestrian facilities were an important factor in making vacation plans. They felt that the study results were relevant to other coastal and areas such as Indian Beach. The major findings were:

- Nearly two-thirds of respondents indicated that riding on bicycle facilities made them feel safer.
- More than 75% of all respondents indicated that additional bicycle facilities should be built.
- Nine out of ten respondents strongly agreed that state and/or federal dollars should be used to build more bicycle facilities.
- 17% of the visitors bicycle while in the area.
- A conservative estimate of the annual economic impact of bicyclists in the area is \$60 million.
- The annual return from bicyclists is nearly nine times the one-time expenditure of \$6.7 million of public funds to construct bicycle facilities in the region.
- 1,400 jobs are created and/or supported annually by bicyclist's expenditures.
- The quality of bicycling in the region has a positive impact on respondent's vacation planning
  - 12% report staying three to four days longer to bicycle.
  - 43% report that bicycling is an important factor in their decision to come to the area



- 53% report that bicycling will strongly influence their decision to return to the area in the future
- Almost half of the respondents earn more than \$100,000 per year.
- 87% earn more than \$50,000 per year

From the survey, it is very evident that bicycling and pedestrian facilities are in important factor in selecting a vacation spot.

National economic conditions have curtailed travel in many sections of the coast. Indian Beach is fortunate that tourism in Indian Beach did not decrease as much as it did in other coastal communities. We hope to keep adding amenities that will enable Indian Beach to remain a top notch tourism destination.



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## 2.2 Inventory of Existing Conditions

There is only one major thoroughfare running through the corporate limits of Indian Beach, NC Highway 58. This thoroughfare is a two-lane road with a shoulder lane available for pedestrians and cyclists. The remaining roads within the jurisdiction are considered by North Carolina Department of Transportation (NCDOT) to be collector and local access streets providing access to housing developments and multi-family complexes. The NCDOT performs maintenance on all public rights-of-way within the town. According to the NCDOT, there are approximately 8.7 miles of roadway located within the corporate limits of Indian Beach. The NCDOT performs average daily traffic counts (ADT) on an annual basis. According to NCDOT, the average daily traffic count within Indian Beach is 3,900 based on a 2004 survey.

The Town of Indian Beach currently has approximately .6 of a mile of sidewalks which are located on the north side of highway three foot wide paved shoulder for bikers throughout town. This area needs a than wide paved shoulders to bicycle and pedestrian usage, especially in



58. There is also a and pedestrians multi-use path rather accommodate the high the summer.

### 2.3 Existing Pedestrian Facilities



The beach is a popular public pedestrian facility in Indian Beach. It is accessible to residents that have properties with beach frontage or residents that live near neighborhood beach access both private and public. It connects the entire eastern side of Town except for times of abnormally high tides and storm events. It provides a safe location for residents and visitors to walk or bike for transportation, fitness and to enjoy beautiful scenery. A small section in Indian Beach have sidewalks. These are located in the vicinity of 1450 Salter Path Road.

### 2.4 Existing Pedestrian Destinations

The beach is a great pedestrian destination. It provides a safe location for residents to



walk, ride bicycles for family fun, pleasure riding, fitness, and access to both the beach and sound. For residents who do not live on the beach or belong to a homeowners association with a private access location, it can be difficult to reach these popular



destinations. Even though residents may live a short distance from a public beach access many are reluctant to walk to the beach access area because there are no pedestrian facilities along or across NC 58. Due to the increase in traffic they feel that walking along and across NC 58 is no longer safe.

Other pedestrian destinations include municipal buildings, private neighborhood parks, Pine Knoll Shores, Emerald Isle, restaurants, churches, convenience stores, amusement parks and other destinations on Bogue Banks. The town is bordered by the Atlantic Ocean on the south and Bogue Sound on the north. Kayakers, boaters, anglers, surf boarders, kite surfers, etc. make use of the surrounding waters.



## **SECTION 3            EXISTING PLANS, PROGRAMS, POLICIES, and ORDINANCES**

### **3.1     Croatan Bike and Trails Plan**

The purpose of the Croatan Regional Bicycle and Trails Plan is to identify multi-jurisdictional bicycle routes and trail corridors that will connect communities and destinations throughout the region. A network of bicycle routes and trails is sought that can be used by pedestrians and bicyclists of all comfort levels to provide for the needs and enjoyment of locals and visitors alike. Trail corridors through the Croatan National Forest and parts of the surrounding counties, including a preferred route and alignment for two major statewide and multi-state trails that intersect in this region: the North Carolina Mountains-to-Sea Trail and the East Coast Greenway. The broader purpose of this plan is based on the many benefits that a bicycle and trails system could bring to this region, as listed in the vision statement. (A copy of this plan is available in Town Hall.)



### **3.2     Town of Indian Beach – CAMA Core Land Use Plan**

In compliance with the 15A NCAC 7B requirements The Town of Indian Beach Board of Commissioners adopted the CAMA Core Land Use Plan on September 12, 2007 and it was certified by the Coastal Resources Commission of November 30, 2007. This plan is a comprehensive plan in setting goals and objectives for all aspects of the community. It is part of a continuous planning process that is timely and responsive to the needs and desires of the community and the legal basis for land use regulations and a guide for a capital improvements plan for town budgeting. The plan focuses on future development and conservation issues for the Town and region.

The Community Vision of the CAMA Core Land Use Plan is The Town of Indian Beach will maintain its resort residential character in an effort to continue serving as a desirable tourist destination for individuals throughout North Carolina. This focus will provide residences and businesses with improved public services. Significant efforts will be made to preserve the natural environment in and around Indian Beach through ongoing beach renourishment efforts and municipal storm water runoff controls. The town recognizes the significant impact that seasonal tourism has on Indian Beach, as well as the region, and will work with other communities along Bogue Banks to ensure that a





coordinated effort is made to establish a stable future for both the economy and natural environment. Indian Beach views itself as a safe, clean, and friendly community and will maintain this image through provision of quality public services and logical development controls that will balance economic development with environmental protection.

### **3.3 NCDOT Statewide Transportation Improvement Plan**

NCDOT prepares a Statewide Transportation Improvement Plan (TIP) every 2 years. The current plan covers 2015-2024. NCDOT prepares the plan based on input from many sources including but not limited to municipalities, county transportation committees, NCDOT staff observations, etc. NC 58 is the only NCDOT road in Indian Beach.

**3.4** The Town supports the designation of a sea turtle sanctuary on the beaches.

**3.5** The Town supports the activities of the North Carolina Division of Travel and Tourism.

**3.6** The Town opposes a third bridge to the main land.

**3.7** The Town amended their Code of Ordinances and Subdivision regulations to include sidewalk requirements for new subdivisions.



### **3.8 County Comprehensive Transportation Plan**

This is a plan that incorporates planning for all modes of transportation for all areas of the county. Each municipality in the county agrees to the plan and bicycle and pedestrian facilities are an integral part of the plan. This plan was adopted on January 9, 2014 and the Mayor and Town Manager were involved with the committees overseeing the development of the plan.

### **3.9 Community Usage and Concerns**

Bicycle usage varies throughout Indian Beach based on skill level and purpose. Most Indian Beach bicyclists are recreational users and more users are present during tourism season when automobile traffic is the heaviest. Distance bicyclists are frequently seen in Indian Beach and they prefer the shoulders of the road rather than



the multi-use paths. Recreational bicyclists much prefer to ride on the multi-use paths and sidewalks rather than on the shoulder of the road.

Many pedestrians use the multi-use paths and sidewalks for going to/from work, surfers going to the beach, shopping, lunch breaks and just for a place to walk. Several individuals in town are confined to wheel chairs and the multi-use paths will enable them to become much more active and will certainly improve their quality of life tremendously.

## SECTION 4      PLAN RECOMMENDATIONS

### 4.1      Standards

All facilities shall meet standards of the Americans with Disabilities Act. Facilities on North Carolina Department of Transportation rights of way shall meet their guidelines for planning within highway rights of way.

The requested site for the multi-use path is along highway 58 and will connect with the multi-use paths in Emerald Isle and the proposed multi-use path/sidewalk in Pine Knoll Shores. Sidewalks have been constructed along a small portion of highway 58 in Indian Beach. The multi-use paths will be sited to preserve native vegetation as much as feasible. The design standards will include adequate width for two-directional use by both cyclists and pedestrians, provision of good sight distance, avoidance of steep grades and tight curves that force bicyclists to make awkward movements, and minimal cross-flow by motor vehicles. The Town's standard width for multi-use paths is 8 to 10 feet. The pathways will vary in size due to street intersections, conflicts with utilities or other features in the right of way. Studies have shown that the components to follow in constructing a multi-use path is as follows.

- A multi-use pathway should have well-defined origin and destination.
- A multi-use pathway can be a safer type of facility for novice and child cyclists, if properly located and designed.
- Sidewalks should **never** be designated as multi-use pathways.
- An alignment with the fewest intersections with roadways should be chosen.
- Multi-use pathways need continuity with other facilities. A multi-use pathway should not just end, leaving bicyclists stranded with no nearby bikeway connection.

- Multi-use pathways are generally expensive to build because they are entirely separate facilities from the roadway. This is an important reason why a well-defined origin and destination would help in the implementation of a proposed multi-use pathway project. Multi-use pathways that are intended for transportation should be as direct as possible or many bicyclists will choose a shorter route, such as a nearby roadway.
- Multi-use pathways located adjacent to a highway may result in bicycle/motor vehicle conflicts at driveways and with turning traffic at intersections with roadways.
- Where significant pedestrian usage is anticipated, additional width should be provided.

The minimum paved width for a two-directional multi-use pathway is 8 feet; however, a path wider than 8 feet is very desirable when usage by both bicyclists and pedestrians is expected to be high. When a multi-use pathway must be located parallel to a highway due to a lack of an alternative location, a minimum separation of five feet should be provided between the roadway and multi-use pathways. If five feet of separation cannot be obtained due to limited rights of way, a suitable positive barrier between the roadway and multi-use pathway should be provided. The pathway should foremost have a transportation purpose, which does not exclude recreation.

## **SUMMARY**

Indian Beach is a rapidly growing small town. Because of this growing trend, it is important that the town provide facilities for its citizens and visitors. Multi-use paths help promote improved and additional transportation alternatives for pedestrians and bicycle enthusiasts. They also promote a safe and healthy lifestyle needed to insure a more desirable place to live and visit.









