



Castle Hayne Community Plan



**A plan for the future growth of the
Castle Hayne Community in
New Hanover County, N.C.**

**Created by the New Hanover County Planning Department with assistance from the residents
and business owners in Castle Hayne**



Introduction

Castle Hayne is an unincorporated community located in northern New Hanover County, less than ten miles from the heart of Wilmington. The residents of Castle Hayne cling to a rich history, a rural heritage, beautiful trees, an attractive riverfront and many more attributes that make this community unique from the rest of New Hanover County. When asked why they live in Castle Hayne, many of the residents point to the lack of traffic, large lots, abundance of open space, small community feel, location to the Cape Fear River, and general idea that they are only a few miles up the road from Wilmington in a community that still feels rural in nature.

While New Hanover County is the second smallest County in North Carolina, it is also the second most densely populated. Development in New Hanover County as a whole continues to occur at a rapid pace, and the amount of developable land is quickly diminishing. Until recently, Castle Hayne remained one of the few areas of the County that had not kept up with this trend of development. The lack of water and sewer infrastructure in the community and the presence of some of the County's only rural zoning districts made Castle Hayne less appealing to developers. However, this slow rate of growth in Castle Hayne is starting to change. With some of New Hanover County's largest remaining expanses of undeveloped land, developers are prospecting the Castle Hayne area for what remains of the County's dwindling developable land at an increasing rate.

Many residents of Castle Hayne realize that development will occur, however they do not want to lose sight of the unique characteristics of their community that appeal to them most. While most residents have not embraced the idea of change, they do want to see improvements and realize that development can bring this. They talk about the lack of jobs and lack of local income, and they fear that businesses will pass them by for other areas of New Hanover and

Pender Counties. They want to see the aesthetics of their community improved, but they do not want to lose sight of the small community feel they have grown to cherish.

With these conflicting points of view in mind, it quickly became apparent to the staff of the New Hanover County Planning Department that a plan was needed for the long term growth of the Castle Hayne community. In order to create a plan that encompassed the ideas and concerns of the members of the community, it was important that planning staff engaged the residents of Castle Hayne. Through numerous meetings and lengthy discussions with residents of the community, a plan began to take shape.

The Castle Hayne Plan is part of a larger effort to create area plans for the entire unincorporated portion of New Hanover County. This plan is the fifth to be created for unincorporated New Hanover County, and the first in over fifteen years. For New Hanover County, the Coastal Area Management Act (CAMA) Land Use Plan, which is updated every six years and sets forth goals, policies and strategies for meeting the long-term social, economic, environmental and land use needs of the County, is a guiding document for development in the entire county. Small area plans or community plans are strategic planning documents for specific areas of the County. Both the CAMA Land Use Plan and the community plans are part of a planning hierarchy which relies on citizens, dedicated staff, appointed and elected officials for implementation.

Mutually supporting goals, objectives, policies and implementing actions contained in the CAMA Land Use Plan and this plan provide for optimum planning effectiveness and benefits for the residents of the Castle Hayne community. In particular, this plan reflects current and anticipated conditions in the Castle Hayne area and advances planning goals, objectives, policies, and implementation considerations to guide decision-making in the region in the future. Implementation of the goals, objectives and policies in this plan are defined by specific recommendations. The plan will be used to guide various regulatory processes, including zoning, subdivision, and special use permit and rezoning reviews.

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Timeline for the Castle Hayne Planning Initiative:

- **July 2007** – Resolution passed by New Hanover County Board of Commissioners recognizing the Castle Hayne Planning Process as a priority for the New Hanover County Planning Department
- **August 2007** – Survey mailed to all residents in Castle Hayne study area inquiring about existing conditions and the need for services
- **September 13, 2007** – First public meeting held at Cape Fear Community College-North Campus for all residents in the Castle Hayne study area
- **October 2007** – Castle Hayne Task Force formed of area residents to help steer the County Planning Department through the planning process
- **October-February 2008** – Castle Hayne Task Force met to discuss the major issues facing the community
- **November-January 2008** – Subcommittees formed to further discuss the major issues facing Castle Hayne
- **February 2008** – Final Castle Hayne Task Force Meeting – Draft recommendations presented at this time
- **May 2008** – Completion of Draft Castle Hayne Plan
- **June 12, 2008** – Second public meeting held at Castle Hayne Community College-North Campus for all residents in the Castle Hayne study area
- **October 2008** – Castle Hayne Plan Finalized
- **November 2008** – Castle Hayne Plan presented to New Hanover County Planning Board
- **December 2008** – Castle Hayne Plan presented to New Hanover County Commissioners

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A Brief Look into Castle Hayne's History

Castle Hayne is a historic pocket of the Northeast Cape Fear River, having once housed two ferryboat vessels ("Blossom's Ferry") on the river that borders New Hanover and Pender Counties. The ferries were stored one mile upstream of the present day Commercial Corridor's center, and nine miles north of Wilmington, NC, the metropolitan core of New Hanover's population. Wilmington, established as a town in 1740, continued to develop in great part due to the settlement of towns along the Cape Fear and Northeast Cape Fear Rivers. During the eighteenth century, the region's needs generated the growth of naval stores and increased agricultural activity, ample enough to justify the operation of a ferry serving the road that connected Duplin County (to the northeast) to what would become the port of Wilmington.

In 1731, Captain Roger Haynes bought 1000 acres from naturalized citizens who had been granted the land by the King of England. The property, bordered to the north by the river and to the south by Prince George's Creek, was known as the Castle Haynes Plantation, and the home that was built there was called Haynes Castle. Captain Haynes' father-in-law owned property across the road to the east, and soon built another plantation home with highly crafted gardens that was referred to locally as The Hermitage. Soon after, other plantations were built along the river (i.e., Rocky Run, Rose Hill, and Cedar Grove). In the 1760's, a 30 foot mechanical drawbridge, intended to accommodate travelers, was erected at Blossom's Ferry, and was later destroyed by British soldiers during Cornwallis' occupation of Wilmington in the 1780's. The bridge was rebuilt after the American Revolution ended, but the duration of its survival and use is not clear. George Averitt purchased the ferry property in 1859, with the deed listing "a bridge or ferry", indicative of some confusion about what actually existed on the property, but he appears to have operated the ferry throughout the Civil War. By the time the property was sold in 1866, there was no longer a bridge. In 1922, Samuel and Margaret Blossom purchased the ferries and operated them until 1926, when service was discontinued as the result of the construction of a state-maintained bridge, bringing nearly 200 years of ferry service to an end.

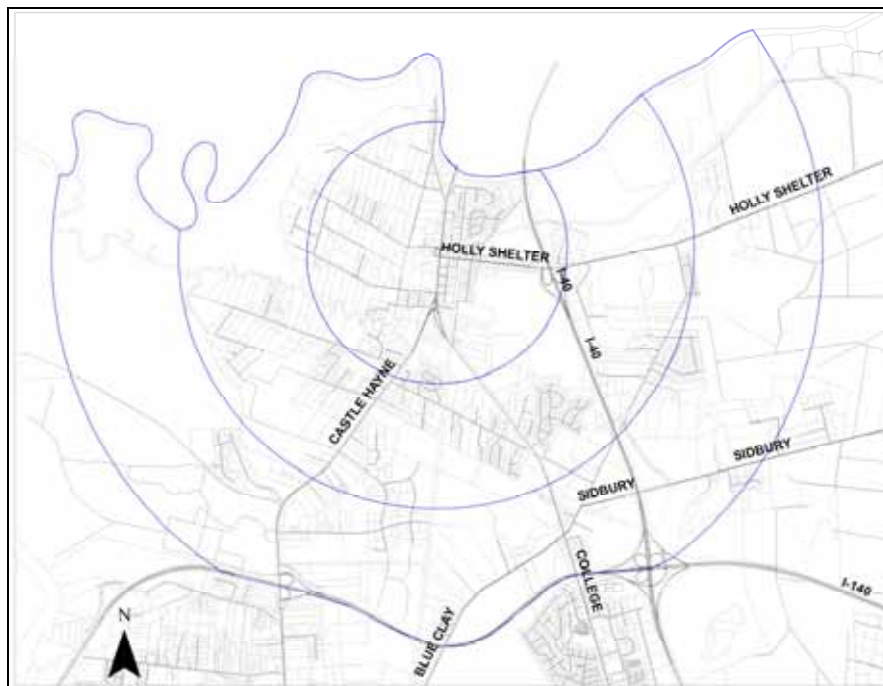
In 1889 Hugh MacRae bought 16,000 acres of land, including Grandfather and Grandmother Mountains, from Walter Lenoir, and founded the Linville Improvement Co. to develop a tourist spot. By the end of the century, MacRae had become president of his father's company, Wilmington Cotton Mills, and the Wilmington Gas Light Company. In 1905, MacRae, wanting to continue running agricultural experiments in the Pender County vicinity, attracted European and North American residents to the Northeast Cape Fear area to establish six agricultural communities. Two of those were settled in Castle Hayne. The property once owned by Roger Haynes became known as Castle Hayne Colony, and the Rocky Run plantation was renamed Marathon Colony. MacRae segregated the two colonies by nationality, with the Castle Hayne Colony populated by Dutch immigrants and the Marathon Colony by Greek immigrants. Eventually, both colonies became ethnically diverse and flourished, financially. Many of the original 10 acre tracts settled by MacRae are still in existence, and some of the land continues to be farmed. Many of the descendants of these twentieth century immigrant families have

remained residents of Castle Hayne. Present residents of Castle Hayne treasure these significant historical events that took place in their area and many feel that this history can still be glimpsed in the existing character of the community.

Creating a Plan for the Castle Hayne Community

The Castle Hayne Planning Area

For the purpose of this planning initiative for the Castle Hayne community, the planning area was separated into three concentric circles. The northern and southern boundaries of the study area extended to the Interstate 140 interchange on the south and the New Hanover-Pender County line on the north. The three circles represent the core of the community and two outer areas of influence that create the primary market area from which to encourage and sustain new business opportunity. The core area or inner circle includes a commercial corridor along US Highway 117 from the New Hanover County-Pender County line running south to the confluence of US Highway 117 and NC Highway 133. This area has been considered the commercial center of the community and today, contains a mixture of small, daily-needs businesses. The second and third circles of the planning area are primarily residential. The majority of housing is single-family, however multi-family development and mobile homes are scattered throughout. Other land uses include office and institution, industrial, commercial, forestry and agriculture.



The three circles of the study area determined by the New Hanover Planning Department and used for the Castle Hayne Community Planning Initiative

The illustration above displays the core area, or inner circle, and the two outer circles of influence utilized for the planning initiative. For purposes of this plan, population and demographic estimates were captured for each of the three designated circles in the planning area and then combined to create estimates, as three of the census blocks are both within and outside of the planning area. Population estimates show about 32.4% of the population is within the inner circle; 52.3% resides in the second circle and the remaining 15.3% lives in the third circle. The third circle is heavily influenced by industrial zoning districts and large areas of swamp forest along the river.

Even under current zoning patterns, the study area has impressive potential for future growth. Nearly 60% of the total acres are currently vacant land. The table below shows a purely mathematical build-out potential. It does not fully account for conservation resource areas or the lack of water and sewer services to support such growth, and should only be viewed as a very rough approximation of potential.

Current Zoning	Total Lots	Total Acres	Average Size (acres)	Vacant Lots	Total Vacant Acres	Average Size (acres)	Residential-Allowed Density	Residential-Potential New Res. Units
Industrial	280	4,017.49	14.35	136	1,943.81	14.29	n/a	n/a
R-10/R-15	1,541	3,116.73	2.02	535	1,799.62	3.36	2.5	4,500
RA-Res.Ag.	654	4,176.46	6.39	156	2,939.84	18.85	1.5	2,235*
Business	165	341.09	2.07	64	263	4.11	n/a	n/a
TOTAL	2,640	11,651.77	4.41	891	6,946.27	7.8		6,735

Therefore, assuming ideal conditions for development, with no changes in zoning the population of the overall planning area at build-out could be as much as 20,000 persons.

Land classification data was also calculated for the study area using the land designations assembled for the CAMA land use plan (see appendix C for the land classification map). According to the land classification map, 80% of the study area is comprised of environmentally sensitive land including aquifer resource protection (39%), conservation (25%), and wetland resource protection areas (16%). The remaining land is comprised of community (15%), rural (3%), and transition land (2%).

The People Who Reside in Castle Hayne

Demographics, Projections and Current Housing

New Hanover County has the ninth largest population in the State with 2% of North Carolina's total residents. The population in unincorporated New Hanover County in 2000 was 75,591.¹ By 2006, the estimated population in unincorporated New Hanover County had decreased to 75,084, primarily as a result of annexations by the City of Wilmington. In 2000, the estimated population within the Castle Hayne planning area was approximately 4,182 persons, or 5.5% of the unincorporated County. An estimate of the 2006 population in the study area was roughly 4,431, or 5.9% of the unincorporated area. Future projections that are based on historic trends, suggest that by 2020, if growth continues at a moderate rate, the population within the study area will be around 7,250 persons. Estimates for the unincorporated County depend to a large degree on the aggressiveness of Wilmington's annexation policies and the availability of public water and sewer in outlying areas. Utilizing the CAMA Land Use Plan projections, unincorporated population in 2020 under a moderate growth trend will be about 92,000 persons. Therefore, the significance of the Castle Hayne population to the unincorporated County will build over time as the percent of population increases to nearly 8%.

The median age for all households in the Castle Hayne planning area is 33 years. School aged population (ages 6-19) accounts for about 2.5% of the population, and elder ages (55-74) account for 15.7%. Another 3.6% of the population is 75 or older. There are 1,598 housing units in the planning area. Utilizing Census 2000 data, there were 1598 housing units in the plan area, with 1500 occupied, 98 vacant, and 5 seasonal dwellings. Of those units, 1189 (79.3%) were owner-occupied and 311 were rental units (20.7%). The median household size for owner occupied units was 2.52, and the median household size for rental units was 2.00. In addition, there were 78 people living in non-institutionalized group quarters, and 17 living in institutionalized group quarters.

Figure 1: Study Area Household Demographics (2000 census)

Household Demographic	Number	Percentage
Single	275	18.3%
Family	1138	75.9%
Non-family	87	5.8%
Male - Single Parent	31	2.1%
Female - Single Parent	108	7.2%
Household with Children	606	40.4%
Household with Elderly	251	16.7%
Single Elderly Household	73	4.9%

¹ U.S. Census Bureau

Figure 2: Study Area Household Gender, Race and Ethnicity (2000 census)

Gender	Number	Percentage
Male	2023	50.3%
Female	1998	49.7%
Race		
White	3176	79.0%
Black	711	17.7%
American Indian	53	1.3%
Asian	7	0.2%
Hispanic	102	2.5%
Other	28	0.7%
Reported Two Races	46	1.1%

The following table indicates median and average sales prices in the plan area for single family residences and vacant residential land transactions in 2005, 2006 and through October of 2007.

Figure 3: Single Family Home and Unimproved Land Sales for 2005-2007

Year	Median SF Sales Price	Average SF Sales Price	Median Land (residential, per acre) Price	Average Land (residential, per acre) Price
2005	\$128,500	\$140,698	\$43,356	\$68,782
2006	141,750	155,060	35,233	49,882
2007	151,500	183,306	51,105	165,780

As shown in Figure 3, recent sale prices have demonstrated a gradual increase over the last three years. The highest sale price in 2007 for a single family dwelling was \$800,000, and the lowest sale price was \$2000. In 2006, the highest single family sale price was \$370,000, and the lowest was \$12,000. In 2007, the highest sale price per acre was \$762,162, and the lowest was \$40,323 per acre. In 2006, the highest sale price per acre was \$157,143, and the lowest was \$14,023. The impact of recent nationwide economic downturns in 2008 have not been determined as this plan is being completed, however, it can be presumed that sales and values have followed the same downward trends as elsewhere in the Country. In July 2008, the median price of homes sold in this region was down nearly 6% from a year earlier, and conditions have declined since the summer of 2008.

Survey Results from the Castle Hayne Community

In order to learn more from the residents within the study area, a community survey was mailed to 1608 land and property owners within the Castle Hayne study area boundaries. Duplicate owner and address records were researched and deleted accordingly. The purpose of the survey was to retrieve demographic information and to find out what the residents of the community felt was most important to the current status and future growth of their community.

Requested return date – September 21, 2007
Actual return cutoff date – October 1, 2007
Overall Response Rate: 24%
Usable Response Rate: 21%

- Total number of surveys returned by mail: 387
- Number of mailed surveys ineligible because of blank address: 34
- Number of mailed surveys ineligible because of return date: 8
- Number of mailed surveys “Return to Sender”: 1
- Number of surveys returned online: 28
- Number of online surveys ineligible because of blank address or duplicate of paper address: 8

Respondent Location

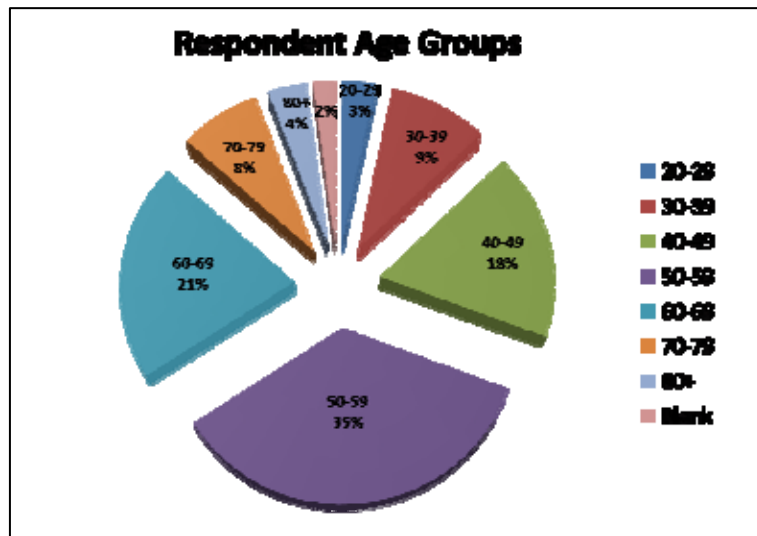
	% of Survey Responses
Inner Circle	35.7%
Circle 2	43.2%
Circle 3	13.7%
Residence outside of plan area	7.4%

88.4% of respondents were current residents of Castle Hayne and 11.3% were not current residents. 94.6% of respondents were property owners, 1.2% were renters (4.2% did not answer the question). 69.6% of resident respondents had lived in Castle Hayne for 5 or more years, 10.4% had resided in Castle Hayne for one to three years, 9.5% for three to five years, 1.8% had lived in Castle Hayne for less than one year and 5.7% had never lived in Castle Hayne.

Respondent Information

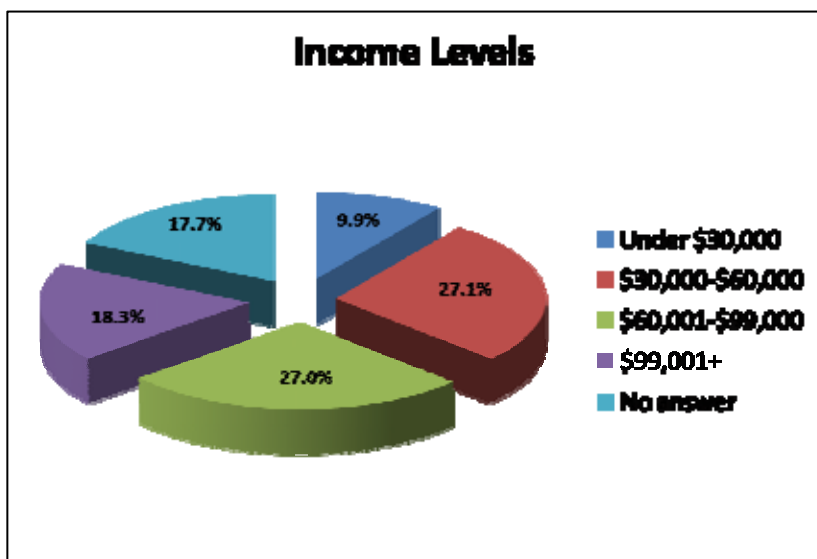
Age, Gender, Race, Ethnicity, Citizenship, and Marital Status

- The largest age group represented in the survey was 50-59 at 35.1%
- The majority of respondents (67.2%) were 50 or over
- 47.1% of respondents reported their gender as female, 52.9% male
- 90.4 % of respondents reported their race as White, 8.98% as Black or African American, and 0.62% as Native American.
- 74.2% of respondents identified themselves as married, 10.6% single, 6.7% divorced, and 8.5% widowed



Employment Status and Income Level

48.8% of respondents who answered the employment status question identified themselves as employed, 14.3% as self-employed, 4.2% as unemployed, and 22.9% as retired. The majority of the respondents reported a household income of over \$99,000. 43.8% of respondents reported receiving social security, private pension or VA pension benefits. 6.0% of respondents reported receiving Medicaid, and 5.4% disability income.



Respondent Ratings - Current Quality of Life

	Streets & Roads	Traffic Congestion	Parking in Business Area	Pedestrian Safety in Business Area	Police Protection	Crime Prevention	Fire Department
Good	24%	17%	43%	19%	29%	21%	76%
Fair	57%	49%	38%	33%	40%	40%	10%
Poor	16%	30%	13%	39%	14%	18%	2%
Never Experienced	1%	2%	3%	7%	16%	19%	11%
Blank	1%	1%	2%	1%	1%	3%	1%
	Garbage Collection & Disposal	Water Supply	Septic System	Sewer System	Flood Control/ Drainage	Parks & Playgrounds	Recreation for Teenagers
Good	63%	29%	37%	16%	13%	36%	6%
Fair	22%	21%	24%	10%	27%	37%	14%
Poor	3%	30%	18%	17%	51%	16%	48%
Never Experienced	9%	18%	15%	48%	6%	9%	29%
Blank	4%	3%	6%	10%	2%	2%	3%
	Recreation for 12 & under	Recreation for Adults	Overall community appearance	Appearance of businesses	Variety of Businesses	Neighborhood Friendliness	Local Government Interest
Good	8%	8%	15%	17%	11%	52%	9%
Fair	21%	24%	49%	51%	42%	38%	30%
Poor	42%	49%	33%	29%	43%	5%	38%
Never Experienced	25%	16%	2%	1%	2%	3%	18%
Blank	4%	3%	1%	2%	2%	2%	5%
	Community Interest	Availability of MDs	Availability of DDS	Availability of Care for Children	Availability of Care for Elderly	Availability of Care for Disabled	Availability of Affordable Housing
Good	16%	7%	14%	9%	7%	4%	13%
Fair	46%	16%	22%	18%	25%	16%	39%
Poor	23%	61%	50%	36%	33%	37%	24%
Never Experienced	12%	14%	13%	35%	32%	40%	20%
Blank	3%	2%	1%	3%	3%	3%	4%
	Appearance & Condition of Housing	Number & Quality of Eating Places	Variety & Quality of Goods in Stores	Banking	Community Media Coverage & Recognition	Hotel, Motel or B&B Accommodations	Churches
Good	14%	6%	9%	18%	5%	2%	43%
Fair	56%	26%	49%	35%	27%	3%	40%
Poor	20%	63%	37%	40%	53%	69%	6%
Never Experienced	5%	2%	2%	5%	12%	22%	9%
Blank	4%	2%	3%	2%	4%	4%	3%

	Family Oriented Activities						
Good	6%						
Fair	26%						
Poor	50%						
Never Experienced	16%						
Blank	3%						

Respondent Ratings - Future Benefits

	Attract new Industries	Revitalize & Beautify Business Area	Retail & Commercial Development	Expand Parks & Recreation	Develop Tourism	Develop Retirement Services	Expand & Develop Locally Owned Business
Highly Beneficial	35%	59%	44%	51%	33%	36%	52%
Somewhat Beneficial	38%	26%	35%	37%	39%	44%	36%
Not At All Beneficial	21%	8%	15%	9%	24%	16%	8%
Blank	7%	7%	6%	3%	4%	4%	4%
	Maintain Technical Support Group	Rehab Existing Residential	Build New Affordable Communities (Income-Based)	Renovate Existing Stores and Homes	New Retail Construction at Holly Shelter and NC 117	Add Public Schools	Add Library
Highly Beneficial	56%	42%	32%	54%	43%	44%	58%
Somewhat Beneficial	30%	41%	36%	35%	34%	33%	31%
Not At All Beneficial	10%	12%	28%	9%	20%	20%	9%
Blank	4%	5%	3%	3%	3%	3%	2%
	Develop Farmers Market	Develop Park and Rec. Facilities with Emphasis on Cape Fear River	Develop Family Oriented Entertainment Facilities	Add Public Transport to City at Peak Times	New Home/Rental within Walking Distance of Business	Incorporate Affordable Housing into New Development	Consider Visual and Environmental Factors with Building Design
Highly Beneficial	56%	48%	49%	44%	43%	31%	55%
Somewhat Beneficial	34%	37%	39%	35%	32%	35%	29%
Not At All Beneficial	8%	14%	9%	18%	21%	30%	9%
Blank	2%	2%	3%	2%	3%	4%	7%
	Redesign 117/132	Preserve Trees and Natural Areas	Develop Pedestrian Amenities in Commercial Corridor	Develop Bike Lanes and Pedestrian Trails			
Highly Beneficial	65%	78%	63%	55%			
Somewhat Beneficial	23%	17%	25%	30%			
Not At All Beneficial	8%	2%	8%	11%			
Blank	4%	4%	4%	4%			

An important segment of any population is the youth. There was concern that the thoughts and opinions of the youth in Castle Hayne would not be adequately represented through the community survey. Understanding this, youth from the planning area were recruited to serve on a Castle Hayne “Next Generation” committee. The committee met twice at the Riverside Park Community Center. At the initial meeting, the participants were asked the following two questions. Following each question are the responses.

Question #1 - What do you think about Castle Hayne as it exists today?

- Great. It is not over commercialized; traffic is more desirable than that in Wilmington, but we need more aesthetic appeal.
- Needs more of a town feeling and less of just a drive-through area.
- Commercial area is great size for the size of the area but should be less of a drive-through.

Question #2 - What changes would you like to see occur?

- Need more recreation opportunities including a picnic area overlooking the river, soccer fields at the park, and more pedestrian friendly and more pedestrian opportunities.
- Need better after-school opportunities.
- Community center at Riverside Park should be utilized more.

At the second meeting, the results of the Castle Hayne Community Survey were discussed. The following is a summary of the amenities that committee members would like to see in their community in the future:

- More of a town feeling, and less of just a drive through area – enhance commercial area
- Community Appearance needs sprucing up
- More trees and flowers planted
- More pedestrian friendly
- Farmers Market
- Library
- Litter cleanup
- Better upkeep of parks
- Visitor’s center
- Coffee shop or destination in CH that CFCC students could use during class breaks, etc.
- Child care facility with after-school opportunities
- Better use of Community Center
- Picnic area overlooking the river
- Soccer and baseball fields
- Outdoor skating rink
- Outdoor concerts and movies
- Kayaking

- Annual fair or carnival
- Family-oriented restaurants, banks, drycleaners and Laundromat
- Media attention is lacking

Issues and Recommendations

While a great deal of information was generated from residents who returned the Castle Hayne community survey, to further discuss and identify issues that the residents in the Castle Hayne community found most important, planning staff requested that residents apply to a Castle Hayne task force. The resultant Castle Hayne task force (Task Force) was comprised of residents that represented each circle of the Castle Hayne study area. The task force met on six occasions from October 2007 to February 2008. Members included:

Barbara Branch, Marcus Conklin, Steve Gause, Daryl Grady, Betty Hudson, Jay Hudson, Ruth Lawrence, Shirley Mazzeo, John Parker, Elaine Parker, Mary Phelps, Annie Sidberry, John Still, Gerald Urban, Rosemary Watkins

Through the task force, subcommittees were formed to discuss particular issues that were of greatest concern within the community. The subcommittees were represented by members of the task force, additional interested members of the Castle Hayne community and County and Wilmington Metropolitan Planning Organization (WMPO) staff. A subcommittee was formed to discuss each of the following issues and generate recommendations for future growth in each of these areas:

- Commercial Corridor
- Water and Sewer Infrastructure
- Stormwater and Drainage
- Parks, Recreation and Community Enhancement
- Environment and Groundwater
- Transportation and Pedestrian Access

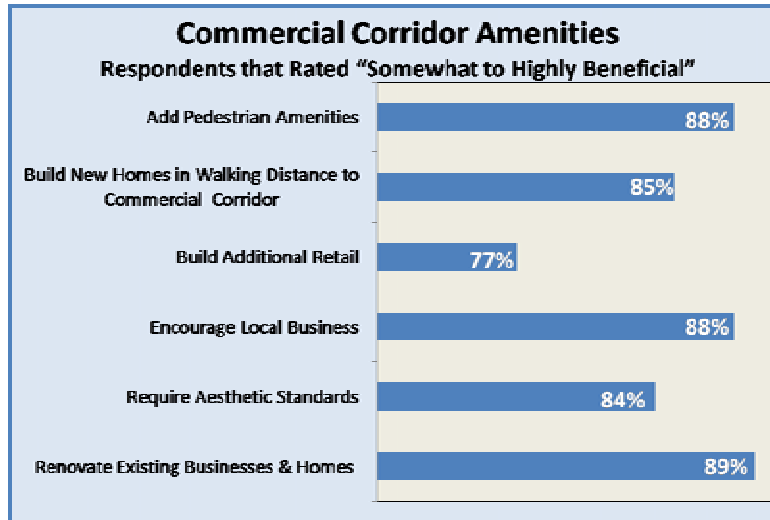
Throughout the following sections of the plan, the issues and recommendations that were generated as a result of the community survey, as well as the discussion generated by the task force and associated subcommittees, are outlined. A draft list of the recommendations for each issue area was then presented at the second community meeting, which was held on June 12, 2008 at the Cape Fear Community College-North Campus. Attendees were asked to rank the importance of each recommendation and add any additional recommendations that they believed were omitted. Staff then took those rankings and comments and prepared a final draft of the recommendations for this plan.

Full implementation of the recommendations generated by this planning process will require considerable investments of time, additional staff and monetary commitment from the public and private sectors. Within the realities of the County's competing economic demands, budgetary constraints, and political pressures, a phased approach to implementation is the most logical. The Castle Hayne plan should be periodically reviewed to assure its continuing validity. The status of implementation should also be reviewed every 3 to 5 years. By far, the strongest and most effective force for implementation of this plan will be the residents themselves as they organize and promote the Castle Hayne community.

In order for the Castle Hayne Community Plan to be a meaningful tool and for the plan to be implemented effectively and efficiently, a strategy for implementation has been developed. The strategy that was developed was to separate recommendations into two categories: (1) recommendations that can be completed by 2012 or (2) recommendations that are either ongoing or cannot be implemented prior to 2012. In order to track implementation of the recommendations, an “I” or “O” has been listed beside each recommendation with these letters representing the following:

- | | |
|-----------|--|
| I: | Recommendation implemented or plan adjusted by 2012 |
| O: | Implementation is ongoing or implementation will occur after 2012 |

Issue #1: Castle Hayne Commercial Corridor



The existing commercial corridor has developed along Castle Hayne Road from a point immediately south of the intersection of US Highway 117 and NC Highway 133 to the Pender County line. Presently, the commercial corridor is a mix of land use types and intensities with single family lots of varying sizes on all sides of the corridor. Most of the surrounding residential community to the west of the commercial corridor is low density residential development and farmland or pastures. To the east of the commercial corridor, the land use is single family development at a density of three to four units per acre. A new middle school and a new elementary school are under construction within the central core area of the plan to the east of the commercial corridor.



A view from a current segment of the commercial corridor in Castle Hayne.

The community survey results showed strong public opinion on the topic of business within the Castle Hayne community. Eighteen items in the "Quality of Life" section of the survey were rated as "poor" by the respondents. Ten of those items relate to business in the community. Additionally, twenty items on the "Future Benefits" portion of the survey were rated as "highly beneficial." Eight of those ratings were attached to business opportunity and design. Though not directly linked to business, it is noteworthy that "Preserve trees and natural areas" received the highest percentage of "highly beneficial" ratings. As design standards are adopted for the corridor, landscaping and tree preservation will be incorporated.

A subcommittee of the Castle Hayne task force was formed to discuss issues specifically related to the commercial corridor. The subcommittee met on November 7, 2007, December 12, 2007, January 10, 2008 and February 14, 2008. It was made up of

residents, property owners, and commercial realtors. The mission was to define the corridor boundaries and to narrow and refine a range of use and appearance preferences for the corridor to be presented for consideration by the larger task force, corridor property owners and the public at large. Ideas for the future of the commercial corridor attempted to blend elements of Castle Hayne's traditional rural crossroads character with a vision for a thriving commercial and mixed use district to serve the daily needs and future demands of the community. The vision requires substantive transportation improvements, new housing potential, image enhancements and a reinvented regulatory framework. Water and sewer infrastructure is also critical to moving the vision from plan to reality.

In the Fall of 2006, an Urban Design Study was developed by the North Carolina Division of Community Assistance for the Castle Hayne Commercial Corridor. Using information collected from the community over several years, that study offered images of neo-traditional design for infill development along Castle Hayne Road and a portion of Holly Shelter Road as well as practical suggestions for image enhancements on existing commercial buildings. Conceptually, new buildings would be drawn to the front of lots, keeping parking in the rear or on the sides. Pedestrian scale and public spaces for people to gather and interact in the commercial corridor were encouraged. Façade improvements for existing buildings were suggested. Upper story residential uses were contemplated. Sidewalks and streetscapes were emphasized, as well as further development of a grid street pattern. The study was well received by the Castle Hayne Steering Committee, and County Planning staff felt the study was an excellent tool for incorporation into the neighborhood plan if it is truly representative of the community's current vision. Planning Staff felt the range of participants in the decision-making process needed to be as broad as possible before endorsing regulatory changes to facilitate a particular direction, so once again, efforts were made to explore the community's wishes for the commercial corridor.

The surveys and the task force input for this plan have produced very similar results as to the community's preferences for the commercial corridor. All of those results were compiled, and Cline Design, a professional urban design firm, drafted them into an illustrative corridor plan, showing a potential scenario of what the community might look like if the corridor recommendations are implemented. The following illustrations are those created by Cline Design to serve as examples for future development within the commercial corridor. Illustration A and B show an improved traffic pattern and gateway entrance on northern and southern extent of the commercial corridor. Illustrations C and D show both a mixed use shopping and living scenario for Highway 117 and a bungalow shopping district on Blossom Street. Illustrations E and F show community enhancement projects that include a community kiosk, park and ride lot and farmers market within the commercial corridor. The relative locations of these cross-sections correspond to the letter on the overall map that follows the illustrations. These illustrations may also be found in Appendix III.



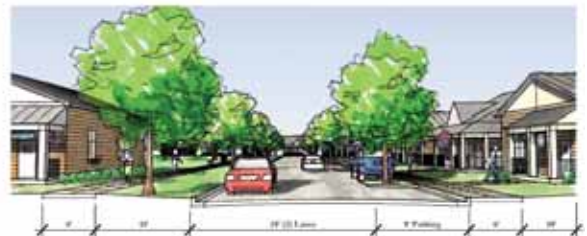
A. North Gateway



B. South Gateway



C. Castle Hayne Road



D. Blossom Street

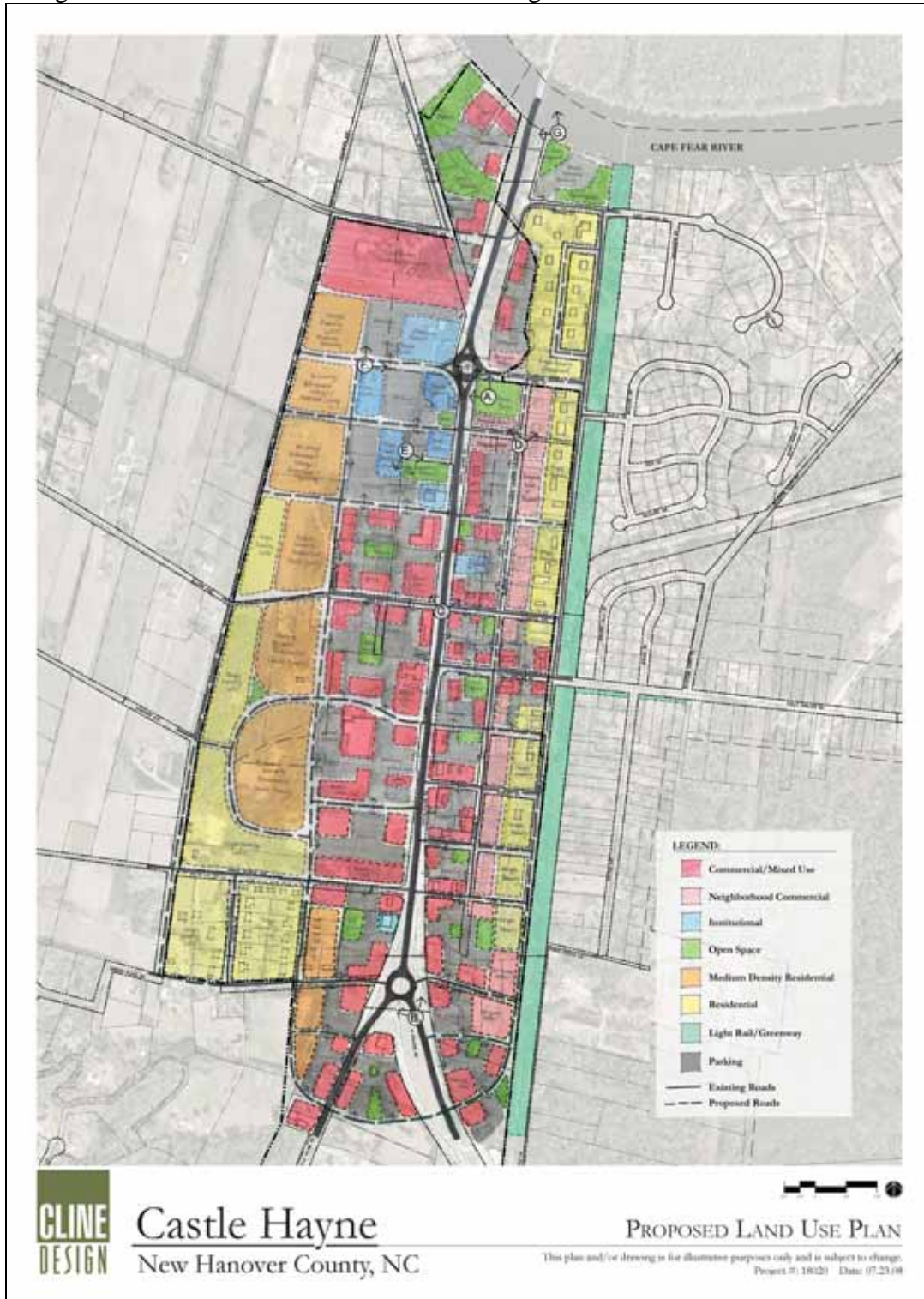


E. Community Kiosk



F. Park & Ride/ Farmers Market

In order to facilitate new and improved development as desired by the community, it is likely that zoning district changes must occur. A new district will be recommended for approval that will set up the design standards and use preferences described in the plan. The following illustration shows an example of a new land use map designed by Cline Design that could be used to create a new zoning district for the commercial corridor.



The tax implications of zoning changes were explored at the February subcommittee meeting, and it was explained that when zoning is changed, the Tax Administrator reviews the change to see if values have been influenced. Any changes in value would not take effect until January 1 of the next year. Values are typically based on the highest and best use of the land and on the sales history for similar properties in the area. Generally speaking, residential uses on commercial property are viewed as a liability to the property and so the value would be based mostly on the land and not the structure where a parcel is used as a residence. Also, owners of any farm or timber or horticultural land that meets certain criteria can apply to be “use valued” as long as it is in production. The Homestead Exemption is another tax relief mechanism which could be useful to elderly and disabled property owners on fixed incomes under \$25,000. Over time, property values will inevitably rise whether the plan is implemented or not.

Discussions and preferences by the corridor sub-committee are reflected in the following list of issues:

BARRIERS/CHALLENGES

- Lack of defined identity
- Difficult to build due to the following issues:
 - Water/sewer lacking
 - Street access/circulation poor
 - Heavy pass-through traffic/congestion
 - Pedestrian access lacking
 - Haphazard development patterns
 - Drainage problems
 - Mostly small lots on east side of Castle Hayne Road
- Need to clean up image – appearance and quality of offerings
- Wrong mix of commercial uses -Residents are shopping elsewhere
- Commercial area is not linked to river assets

OPPORTUNITIES

- New growth in northern New Hanover County and southern Pender County already passing through
- General Electric expansion of employment base
- New County middle and elementary school being built for 2009
- Availability of land
- An adopted plan and vision

BROAD OUTCOMES DESIRED

- Expand commercial to address daily needs and draw from surrounding market area – “Community Destination” will attract more customers to support business.
- Pay more attention to environment
- Limit signs and make them more consistent
- Keep green space-enhance landscaping
- No “superstores”

USES MOST DESIRED OR APPROPRIATE

Dine-In Restaurants	Apparel Shops
Banks & Other Financial	Book Store
Dance School	Dry Cleaners
Gifts/Crafts	Hotel/B&B
Library	Medical Clinic/Hospital/Urgent-Care
Nursing Home/Personal care	Taxi Shelter
Offices – Medical, general, etc	
Outdoor Recreation	
Post Office	
Water Sports on River	

DESIRABLE EXISTING USES

Gas Station	Grocery
Hardware	Pharmacy

POTENTIALLY APPROPRIATE USES

Adult Daycare	Auto/Boat Repair
Barber/Beauty/Salon/Spa	Business Service/Printing
Bus Terminal	Childcare
Computer/Appliance/Electrical repair	Church
Dancing/Cabaret	Jewelry
Martial Arts/Music Training	School
Senior Housing/Workforce Housing/Mixed use	
Specialty Contractor w/Outside Storage in Rear	
Theater	

A field survey in October 2008 indicates that existing uses in the corridor area are largely oriented toward daily needs goods and services. Two of the eight eating places in the corridor appeared to be closed.

The following are recommendations developed for the commercial corridor from the survey results and the subcommittee discussions. The listing order is the priority order expressed at the larger community meeting held on June 12, 2008 at the northern campus of Cape Fear Community College.

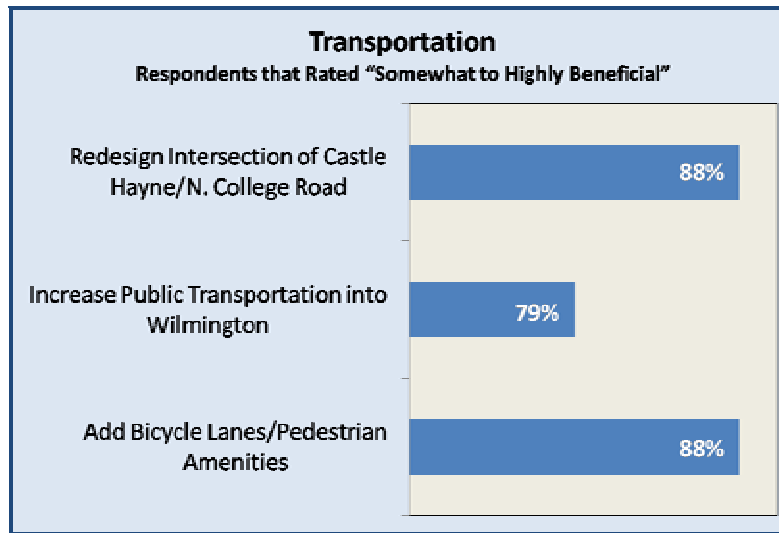
Recommendations:

1. Aesthetic improvements to existing buildings are encouraged. (O)
2. Recommend working with the Cape Fear Public Utility Authority to secure adequate water and sewer infrastructure capacity to support development in the commercial corridor. (I)
3. Opportunities should be created for the development of commercial or mixed use projects with primary access from new collector streets. Projects should be designed with internal driveways, parking areas and public gathering spaces to bring people to the commercial area for a community experience and to enhance the community image through sensitive urban design. (O)

4. Link the commercial corridor and residential destination points with a network of sidewalks and bicycle paths. (O)
5. Recommend that the County or other public entity anchor the commercial corridor with a civic or cultural facility such as a library or post office. (O)
6. Advocate for North Carolina (NC) Department of Transportation and developer investment in a variety of transportation improvements, including dedication of new routes; completion of planned improvements to NC 117/NC 133 intersection, and paving of currently unimproved rights-of-way to establish a new pattern of traffic circulation that draws traffic off of Castle Hayne Road and enhances vehicular and pedestrian access around commercial or mixed use development. (O)
7. The east side of the commercial corridor – along Blossom Street – should be enhanced. A tree-lined right of way should be enhanced with sidewalks and small businesses that celebrate Castle Hayne’s past by reusing existing bungalows for offices or small arts and crafts businesses or add new construction that preserves a small town atmosphere. (O)
8. The building height should remain at a maximum of three stories. (I)
9. Create a new zoning district within the commercial corridor to facilitate appropriate development within the corridor. (I)
10. Recommend the establishment of a farmers’ market in the commercial corridor. (O)
11. The properties west of the Sycamore Street within the commercial corridor should remain as low-density residential properties and be protected from higher density or intensity uses. (I)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Issue #2: Transportation and Pedestrian Access



Traffic and Roadway Improvements

Residents of the Castle Hayne community expressed concern over the status of the roads in their community through the survey as well as the participation at both the task force and transportation subcommittee meetings. With substantial growth projected for this area, including new elementary and middle schools, traffic will continue to increase. In order to improve the status of the roadways in Castle Hayne, several objectives will need to be addressed. Of these, the most important include the improvement of existing intersections and the encouragement of connectivity. As a result, a subcommittee of the Castle Hayne Task Force was formed to further discuss transportation and pedestrian issues in the community.

Several locations within the study area were identified by residents as “areas of concern” for transportation planning purposes. The areas of concern are listed and mapped below, and include locations in both the first and second circles of the planning area.

1. Castle Hayne Road-North College Road
2. Parmele Road-North College Road
3. Parmele Road-Castle Hayne Road
4. Holly Shelter Road-Castle Hayne Road



Transportation “areas of concern” within Castle Hayne study area.

The primary area of concern identified by the community is the confluence of Castle Hayne Road and North College Road. Presently, this intersection is confusing and dangerous – the result of which has been several documented accidents and injuries in recent years. The following is vehicular crash data received from the Wilmington-Metropolitan Planning Organization (WMPO) for this intersection from January 2002-December 2006:

- 36 total crashes
- 1 fatal crash
- 40 total injuries
- 9.32 on the Severity Index which takes into account severity of injuries and property damage. (*This is considerably higher than most of the intersections analyzed in the 2006 WMPO Crash Report)
- 26 angle crashes (the most dangerous type of crash with regards to personal and property damage)
- 25 crashes occurred during the daylight hours
- Majority of the crashes occurred on a Wednesday or Saturday
- 98.58 Vehicle Exposure Rate (of 1 million vehicles entering the intersection, approximately 99 would be involved in a crash)
- Estimated value of property damage from all 36 crashes (vehicle and roadway damage only) = \$259,375

The North Carolina Department of Commerce, Division of Community Assistance (DCA), created a design for a roundabout at this intersection as part of a study completed for the entire commercial corridor. The WMPO stated that they can support an option similar to this, but would recommend a traditional round-a-bout without the “pass-through lane” proposed by the DCA. Currently any improvement to the intersection is unfunded by the N.C. Department of Transportation (NCDOT).



The current confluence of N. College & Castle Hayne Rd.



Roundabout design created by NC DCA.

In order to ensure the livelihood of the commercial corridor and to ease traffic on existing roads, Planning staff worked with the Wilmington Metropolitan Planning Organization to develop a collector street plan for the Castle Hayne study area (appendix II). A collector road system provides drivers with a safer and more efficiently planned transportation system to meet the daily needs of residents. By removing traffic off the major thoroughfares, collector streets help maintain required traffic speeds, promote safety, and enhance the aesthetic quality of the area. The purpose of a collector street system is to move traffic more efficiently. Collector streets serve as a buffer between a local street and a thoroughfare. The purpose of the collector street is to designate streets to provide safe and efficient access to major roads, thereby preserving neighborhood vitality by reducing cut-through traffic on local streets and preserving neighborhood vitality. A collector street plan identifies streets that provide safe and efficient access to major roads and better serve future development. The collector street plan developed for the Castle Hayne study area includes the connection of several roads within the commercial corridor that run parallel to Castle Hayne Road in an effort to move traffic off of Castle Hayne Road and onto secondary collector streets.

Below is a list of recommendations developed from the survey results and meeting discussions.

Recommendations:

1. Recommend incorporating the collector street plan developed by the WMPO and County Planning staff into all future development projects in the community. (O)
2. Recommend establishing a gateway at the entrance to the commercial corridor on the north, south and east. (I)

3. Recommend reducing the speed limit on Castle Hayne Road in the commercial corridor to provide a safer environment for pedestrians. (I)
4. Roadway improvements are recommended at the following locations: (O)
 - Castle Hayne Road-North College Road
 - Parmele Road-North College Road
 - Parmele Road-Castle Hayne Road
 - Holly Shelter Road-Castle Hayne Road
5. Recommend the creation of a traditional roundabout at the intersection of Castle Hayne Road and North College Road. Recommend researching the addition of a roundabout at the intersection of Old Bridge Site Road and Castle Hayne Road or some other traffic calming feature. Both roundabouts could create gateways to the commercial corridor as well as create a traffic calming device on both the northern and southern boundary of the commercial corridor. (I)
6. Recommend removing the US 117 designation from Castle Hayne Road and North College Road. The federal US 117 designation on Castle Hayne Road currently limits the ability to modify the existing road cross-section to promote slower speeds and a pedestrian-oriented town center in Castle Hayne. (I)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Public Transportation

Public transportation options are very important for communities in order to present opportunities for alternative transportation. On March 31, 2008, the Cape Fear Public Transportation Authority (WAVE transit) completely restructured its entire fixed-route bus system. As part of this restructuring, a new route, the *207 Castle Hayne*, was introduced. This route runs every hour, Monday through Friday, between the hours of 6:30am and 9:30pm. The route travels via North College Road and Castle Hayne Road and connects the Castle Hayne business district with Cape Fear Community College – North Campus, downtown Wilmington, General Electric (GE), New Hanover County Detention Center, Northchase and Wrightsboro. Currently, transfers to other WAVE Transit bus routes are available in downtown Wilmington.

The following are recommendations developed from the survey results and the subcommittee discussions.

Recommendations:

1. Support increased frequency and expanded service hours on the *207 Castle Hayne* route. (I)
2. Recommend that the community implement an adopt-a-shelter program in the commercial corridor. (I)
3. Recommend the establishment of a park-and-ride lot in the commercial corridor near a transit stop for carpooling and bus ridership. (I)
4. Establish a location for transit passes to be sold locally. (I)
5. Post WAVE Transit bus schedules and system maps in area businesses. (I)

6. Continue to express support for the long-range implementation of railroad transit from Raleigh to Wilmington with a station in Castle Hayne. (O)
7. Limit driveway access off of Castle Hayne Road. (O)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Pedestrian Access

In a small community where a downtown corridor exists, access for pedestrians is essential. Currently, within the Castle Hayne commercial corridor, there are no sidewalks or bicycle lanes, and pedestrian accommodations are minimal. Safety is a major concern for pedestrians and bicyclists in the community. The lack of safe areas for walking and biking discourages the residents from participating in these activities.

Castle Hayne residents have expressed an overwhelming desire to establish pedestrian and bicycle accommodations within the commercial corridor as well as neighborhoods, schools and parks. Within the commercial corridor, retail establishments are located on either side of Castle Hayne Road – making an ideal environment for pedestrians to park and shop. However, with the lack of sidewalks and crosswalks, inevitably what happens is that the patron drives and parks for each retail establishment they are visiting. Not only does this negate the idea of a healthy, walking community, it also increases the amount of cars on Castle Hayne Road, thus increasing traffic and the likelihood for accidents with people pulling in and out of stores. Lack of adequate bicycle and pedestrian facilities create mobility barriers and safety issues for individuals without access to private automobiles. Often times, these mobility barriers can lead to social and economic disadvantages.

The following are recommendations developed from the survey results and the subcommittee discussions.

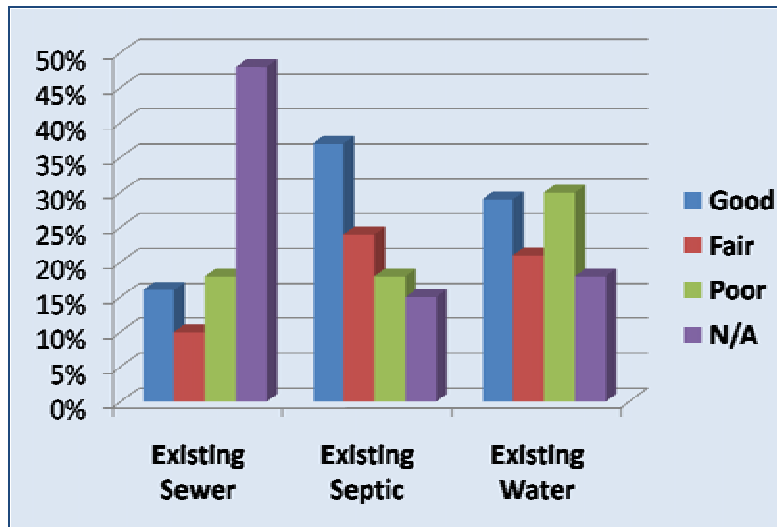
Recommendations:

1. Encourage NCDOT to include bicycle and pedestrian accommodations in all new roadway projects within the Castle Hayne area. (O)
2. Work with the WMPO, NCDOT and ILM to implement the recommendations of the Blue Clay Road Bicycle Facilities Study. The preferred alternative will serve as a main bicycle corridor, connecting the Castle Hayne area to Wilmington. (O)
3. Require sidewalks in all new subdivisions and along the frontage of all redevelopment projects. This recommendation shall apply to residential, commercial, as well as office and institutional developments. (O)
4. Work with NCDOT and the Wilmington MPO to develop high-visibility crosswalks or pedestrian refuge islands in these areas in order to facilitate the safe movement of pedestrian and bike traffic. (O)
5. Plan for pedestrian connectivity within a one-half mile radius of the new school. Require implementation of those plans through the planning and zoning review processes for new projects within the one- half mile area. (O)

6. Construct sidewalks in the commercial corridor. (I)
7. Connect the proposed Blue Clay Road corridor multi-use path to the commercial corridor along Holly Shelter Road. (O)
8. Incorporate pet waste stations into pedestrian areas. (O)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Issue #3: Water and Sewer Infrastructure



The majority of Castle Hayne is not currently serviced by public water or sewer facilities. As a result, most of the residents in Castle Hayne depend on wells and septic tanks for their water and sewer needs. The public sewer infrastructure within the Castle Hayne planning area is isolated to a small area clustered around the commercial corridor (see figure). While water infrastructure covers a somewhat larger area, the majority of the residents remain on wells. In July 2008, the Cape Fear Public Utility Authority (CFPUA) assumed all water and sewer responsibilities for New Hanover County. The CFPUA is a non-profit public agency organized under the provisions of the North Carolina Water and Sewer Act. Starting in July, the Authority was authorized to construct and operate all new water and sewer systems in New Hanover County. The decisions that will be made regarding future expansions of water and sewer to the Castle Hayne community will originate with this newly-formed Authority.



Current water and sewer infrastructure within the Castle Hayne study area

While there are no plans to extend water and sewer to the entire community, there are several developments underway that could possibly create opportunities for water and sewer expansion. One of those opportunities is the new schools that are being constructed off of Holly Shelter Road. Water and sewer lines will be extended to this new school and a sewer pump station will be constructed in association with this project. There currently are no plans to extend sewer lines outside of this project, however, it is predicted that the capacity of the new pump station would be enough to sewer much of the community. Any sewer extension outside of the schools project currently has not been budgeted by the CFPUA and would have to be paid for by a third party entity.

Because water and sewer expansions are not currently budgeted for the entire study area, other financing options have been explored. There is no dispute that the need to expand and maintain infrastructure strains the resources of many cities, towns and counties and New Hanover County is no different. As a result, the County continues to look for alternatives to traditional methods of financing, building and managing infrastructure. One alternative is Project Development Financing (PDF) or more commonly known as Tax Increment Financing (TIF).

In 2003, the North Carolina General Assembly enacted TIF, noting that local governments in other states have succeeded in creating jobs and investment in designated development areas through incentive packages that included infrastructure funded by project development bonds. In 2007, legislation expanded the scope of the financing act. TIF is a method of increasing the overall property value in an area that is currently blighted, depressed, or underdeveloped. Using the development financing designation, a county or city then borrows money to fund public improvements in a community area with the goal of attracting private investment. The debt incurred by funding the improvements is repaid and secured by tax increment revenue – the additional property taxes that the new development will generate.

North Carolina TIF statutes also permit local governments and individual property owners within the development financing area to enter into agreements establishing minimum assessed values for properties. The County tax assessor will assess property at the agreed upon value if it is higher than the market value of the property. If the property has a market value higher than the minimum agreed upon value, the higher value will be used for assessment purposes. During the bond repayment period (typically 30 years), the base value of property in a development financing district, preceding creation of the district, will not increase in subsequent reevaluation years nor include the value of any improvements made to the property after the district is created. During repayment years, all revenue resulting from the increased property value must first fund repayment of the bond before being deposited in the county's general fund. Because a County may place only 5% or less of its total land area into a development financing district, this should not significantly hinder a locality's ability to provide countywide services.

The following are recommendations developed from the survey results and the subcommittee discussions. The listing order is the priority order expressed at the larger

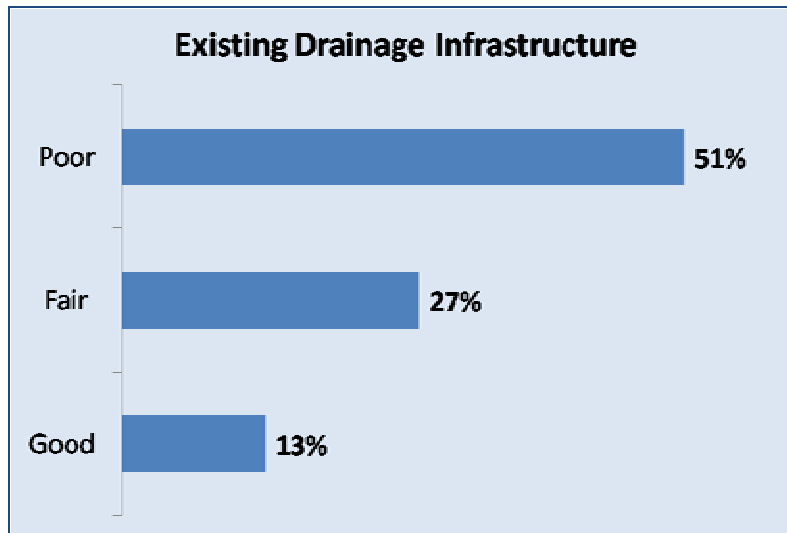
community meeting held on June 12, 2008 at the northern campus of Cape Fear Community College.

Recommendations:

1. Recommend the extension of water and sewer within the commercial corridor. (O)
2. Recommend prioritizing the commercial corridor as a Tax Increment Finance (TIF) district. (O)
3. Discourage the expansion of water and sewer in the area of Castle Hayne that is zoned Rural Agriculture (RA) unless needed to abate health issues. (O)
4. Recommend the extension of water in areas of concern due to well contamination as determined by County Environmental Health staff. (O)
5. Recommend that the CFPUA make priority the majority of the areas of Castle Hayne lacking sewer and water for future expansion of the Authority's water and sewer systems. (O)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Issue #4: Drainage and Stormwater

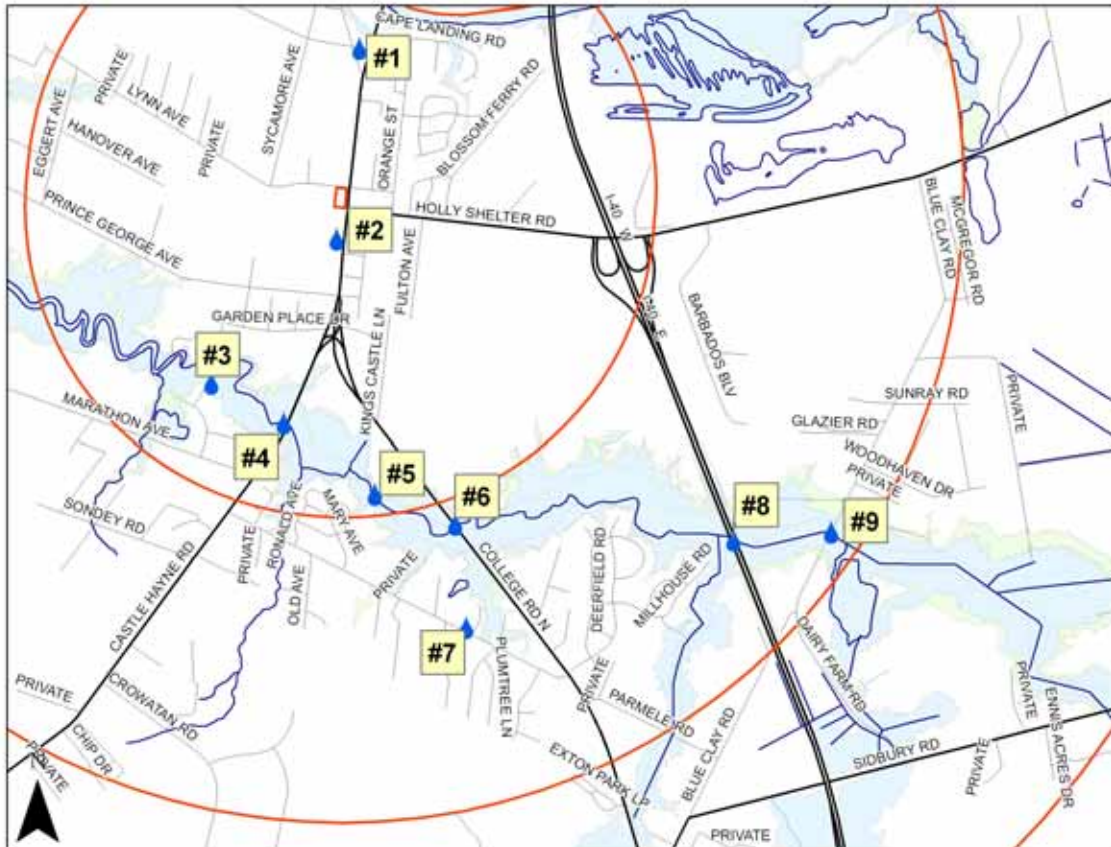


Flooding and drainage issues are present throughout New Hanover County, and the Castle Hayne community is no different. While the water within the Cape Fear River and Prince George Creek provide residents in the Castle Hayne community with an outstanding natural resource, the community's proximity to these two water bodies also increases the community's likelihood of flooding. Additionally, blocked streams and inoperable drainage ditches have only exacerbated the occurrences of flooding in the community. As a result, many areas of Castle Hayne continually experience flooding or significant drainage problems during minimal rain events.

The New Hanover County Engineering Department is charged with enforcing the County's Stormwater Ordinance. Engineering staff review new development projects to ensure that they meet the requirements put forward in the County's Stormwater Ordinance. In addition, staff responds to citizen complaints about drainage issues. While County residents are responsible for the maintenance of drainage ditches on their property, often drainage problems are much larger than those that can be remedied by an individual property owner. In particular, the Prince George Subdivision has experienced a great deal of drainage issues. Engineering staff has been working to resolve the major drainage problems in the subdivision, and presently 90% of the required work has been completed to open neglected drainage systems and alleviate flooding problems in the subdivision. In addition, the area surrounding Northeast Avenue has experienced a great deal of drainage problems in recent years. Engineering staff has accomplished the majority of work needed to alleviate these drainage problems as well.

In addition to the Prince George Subdivision and area surrounding Northeast Avenue, the following locations were identified by the members of the Castle Hayne Drainage and Stormwater Subcommittee as areas of concern in the Castle Hayne planning area. All areas of concern are located within the first and second circles of the study area, with the majority of the drainage problems in or near the commercial corridor and in the immediate vicinity of Prince George Creek.

1. Old Bridge Site Road and Northeast Avenue
2. Castle Hayne Road at Go-Gas
3. Castle Lakes Road at Prince George Creek
4. Castle Hayne Road at Prince George Creek
5. Tom Road at Prince George Creek
6. College Road at Prince George Creek
7. Parmele Road near Creekstone Lane
8. I-40 at Prince George Creek
9. Blue Clay Road at Prince George Creek



This map indicates the primary drainage concerns reported by the Drainage/Stormwater Subcommittee for the Castle Hayne Task Force. Each blue raindrop indicates a primary drainage concern for subcommittee members.

The following are recommendations developed from the survey results and the subcommittee discussions. The recommendations are listed by the priority given by the attendees at the June 12, 2008 meeting.

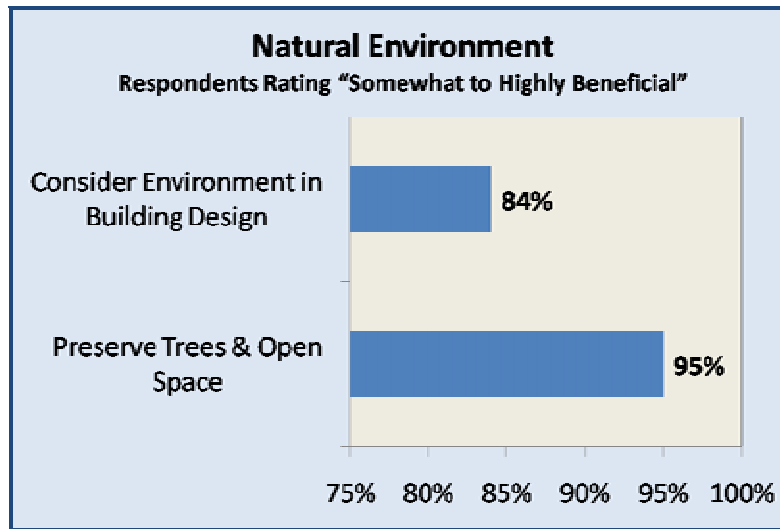
Recommendations:

1. Encourage the United States Department of Agriculture's (USDA) involvement with beaver dam removal within blocked drainage corridors in the Castle Hayne study area. (O)
2. Map drainage corridors in the Castle Hayne study area. (I)
3. Encourage developers to assist with drainage issues on adjacent properties during the development process. (O)

4. Recommend that County Engineering staff document and track all drainage and stormwater complaints within the Castle Hayne study area and collaborate with Planning staff to research possible solutions. (O)
5. Pursue grant opportunities for stream restoration and drainage projects in the Prince George Creek watershed. (O)
6. Create a public information brochure about drainage and flooding and disseminate to the Castle Hayne community. (I)
7. Utilize Tax Increment Financing (TIF) to cover the costs of stormwater, drainage and flood control improvements. (O)
8. Acquire a new easement at McClure Circle to improve the improper elevation of the existing exit drainage point. (I)
9. Target the two existing exit drainage points to relieve stormwater in the Castle Hayne commercial corridor. (I)
10. Recommend that the County Engineering Department continue to be proactive in identifying drainage concerns associated with proposed development sites. (O)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Issue #5: Environmental Concerns



Groundwater

In New Hanover County, the primary aquifer system consists of a composite aquifer system of the Castle Hayne Limestone and the underlying Pee Dee Sandstone. Groundwater is provided to Castle Hayne residents via these aquifers, which then serves as the primary groundwater resource for well water in Castle Hayne. The aquifer itself is made up of the following vertical sequence of conditions: (1) fine sand water-table aquifer at the land surface that absorbs the recharge water from precipitation; (2) an underlying thin layer of finer sand or clay that generally separates the shallow water-table aquifer from the underlying; (3) Castle Hayne Limestone aquifer; (4) clay separation zone; (5) Pee Dee Sandstone Aquifer.² Water is replenished into the Castle Hayne Aquifer via primary recharge areas which correspond with high positions of the water levels within the aquifer.

Historically, the groundwater system has not been impacted by a great deal of pollutants; however, growing concerns about the quality of the groundwater have increased. Groundwater quality continues to be monitored by the New Hanover County Environmental Health Department. Some contamination has been detected and remediated as a result of leaking fuel tanks from a local service station. Elevated levels of iron and sulfides have also been detected in some well samples. Concerns also stem from a nearby superfund site. Additionally, as a result of the shallow nature of the Castle Hayne aquifer, the aquifer is sensitive to contamination via septic tank systems. The aquifer is moderately to highly permeable in most places and can be contaminated locally if wells and septic tanks are spaced too close together. In addition, farming practices such as the piling of manure in the vicinity of a well can also threaten the quality of water in the well.

² New Hanover County Aquifer Management Program, New Hanover County Planning Department, 1982.

The following are recommendations developed from the survey results and the subcommittee discussions that have been prioritized based on community comment.

Recommendations:

1. Protect the primary recharge area by locating industrial uses away from this critical area to avoid the occurrence of contamination. (O)
2. Work with Environmental Health to determine areas of concern for groundwater contamination and formulate a plan of action for how to deal with these concerns (i.e. track pollution source and alleviate the source or refer the area to the Cape Fear Public Authority for County water infrastructure). (I)
3. Encourage extension of water infrastructure to areas with poor groundwater. (O)
4. Coordinate an educational campaign for residents with wells in order to help them understand the impacts of their actions on groundwater quality. (I)

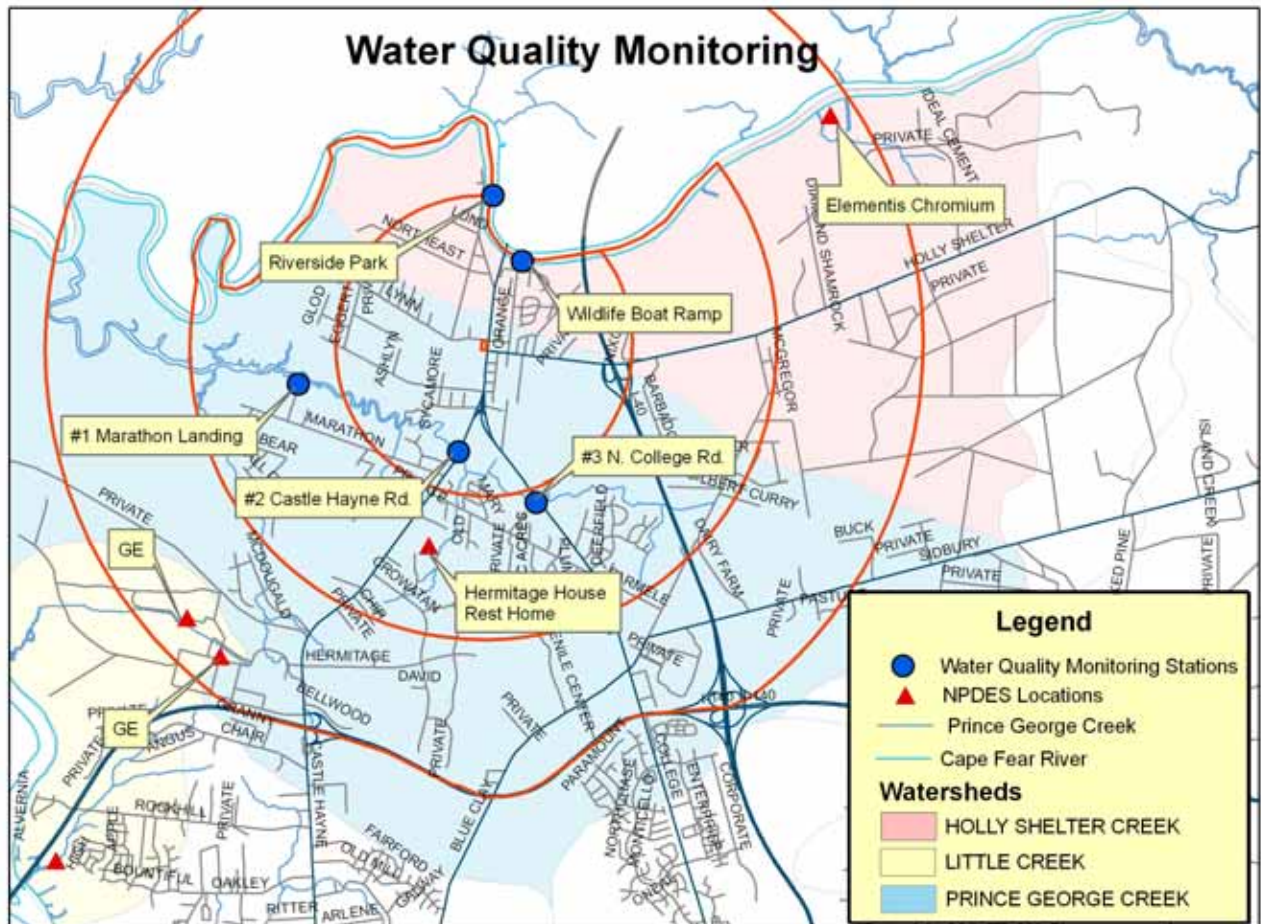
I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Surface Water Quality

Castle Hayne is surrounded by surface water. The community is located within the Prince George, Holly Shelter, and Little Creek watersheds – all of which drain into the Cape Fear River. Surface water is important to the community for a variety of purposes including swimming, boating and fishing. In addition, several industries rely on the surface water in the Castle Hayne community to discharge water from their processes through the National Pollutant Discharge Elimination System (NPDES). The NPDES permit program controls pollution by regulating point sources that discharge pollutants into surface water. There are four active NPDES permits within the Castle Hayne study area. The NPDES permits include Elements Chromium and Hermitage House Rest Home (located within the second circle of the study area) and two permits belonging to General Electric (located within the third circle of the study area). These permits are regulated at the state level through the North Carolina Department of Environment and Natural Resources and at the federal level through the Environmental Protection Agency.



Old Railroad trestle on the Cape Fear River near Riverside Park.



Map of watersheds, water quality monitoring stations and NPDES permit locations in the Castle Hayne study area.

The community has expressed their concern about the quality of the surface water in the community. In order to identify the quality of water in the Cape Fear River and Prince George Creek and to protect public health, surface water quality is monitored in the Cape Fear River and in Prince George Creek by several different agencies.

Cape Fear River

Water quality is currently being monitored in the Cape Fear River by several agencies, including the North Carolina Division of Water Quality - Surface Water Section, UNCW-Lower Cape Fear River Program, and the New Hanover County Health Department. Through the North Carolina Division of Water Quality and the University of North Carolina at Wilmington (UNCW)-Lower Cape Fear River monitoring programs, samples are taken at the Wildlife Resource Commission Boat Ramp on a monthly basis. Water quality samples are analyzed for physical, biological (including bacteria) and chemical criteria through the Lower Cape Fear River Program (LCFRP). The monitoring results have shown generally low dissolved oxygen levels in the Northeast Cape Fear River. These low oxygen levels are likely due to the “black water” conditions that prevail in the Northeast Cape Fear River. The black water conditions occur as a result of the river water passing through swamp conditions and picking up decaying vegetation

along the way. This decaying debris thrives on oxygen and depletes the overall oxygen levels of the water in the Northeast Cape Fear.³ Additionally, according to the most recent report presenting the LCFRP data, the mean bacteria level at the boat ramp fell within the State's standard for human contact. Water quality samples are also taken at the boat ramp and analyzed for bacteria on a monthly basis through the North Carolina Division of Water Quality, Surface Water Program.

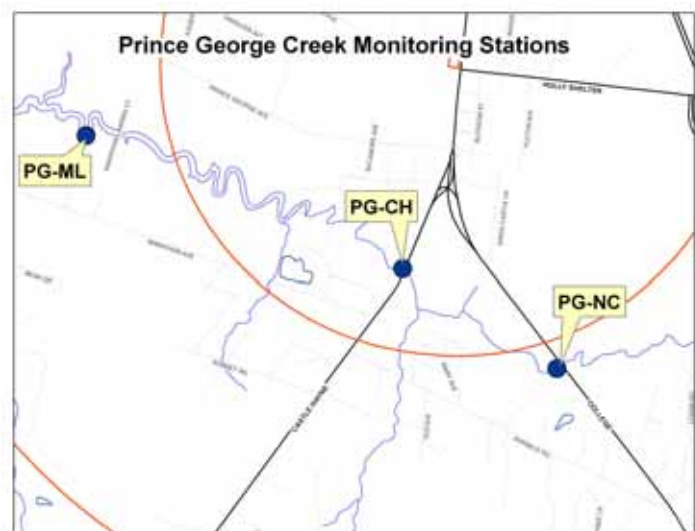
Research students with the Center for Marine Sciences at UNCW have also been sampling sediment in the area of Riverside Park to measure the amount of bacteria present within the sediment. As a result, in response to concerns about bacteria pollution in the Cape Fear River at Riverside Park, the New Hanover County Health Department began monitoring bacteria levels in the water column of Cape Fear River in the vicinity of the park in November 2007. A sign was posted by County Health Department staff at Riverside Park, alerting people of the possibility of the presence of bacteria pollution in the area. At present, County staff and UNCW representatives continue to meet in attempt to determine a possible source for recorded bacteria contamination in the area and County Health Department staff continues to monitor bacteria levels in the water column.

Prince George Creek

The Prince George Creek watershed, which drains approximately 11,300 acres, is located predominately within the three circles of the Castle Hayne study area. The headwaters of Prince George Creek begin east of I-40 and Blue Clay Road and extend westward until the creek eventually drains into the Cape Fear River.

To determine the overall health of Prince George Creek and identify areas of potential pollution in the watershed, the County began monitoring water quality in Prince George Creek in November 2007.

Currently, water quality is monitored on Prince George Creek in three locations, the first location being near the commercial corridor in the first circle of the study area and the second two being in the second circle of the study area. The three monitoring stations include: (1) Prince George Creek at North College Road; (2) Prince George Creek at Castle Hayne Road; and (3) Prince George Creek at Marathon Landing Court (see figure). In order to assess the overall health of the creek, water quality is monitored on a monthly basis at each location.



Water quality monitoring stations in Prince George Creek.

³ Mallin, M.A., M.R. McIver and J.F. Merritt. 2007. *Environmental Assessment of the Lower Cape Fear River System*, 2006.

While the general quality of water in Prince George Creek classified as “good,”⁴ low levels of dissolved oxygen have been recorded at the monitoring locations at North College Road and Castle Hayne Road. There are several locations within this section of the creek that are partially blocked, preventing adequate movement of the water. The lack of movement in the water could be a reason for the low dissolved oxygen levels. Additionally, the banks of this stretch of the creek are broad and shallow, creating somewhat of a swamp-like setting. Dissolved oxygen levels are traditionally low in swamp conditions. In addition, high bacteria levels have been reported at the Marathon Landing Court monitoring location after rain events. The high bacteria levels could potentially be a result of the farming practices in the area, but no conclusive source has been located. All other water quality parameters measured at the three monitoring stations have been within the State’s acceptable levels.

The following are recommendations developed from the survey results and the subcommittee discussions and prioritized by community comment.

Recommendations:

1. Continue water quality monitoring in Prince George Creek at North College Road, Castle Hayne Road and Marathon Landing Court. (O)
2. Continue water quality monitoring in the Cape Fear River. Coordinate County monitoring efforts with those of UNCW, NCDENR, DWQ, and the Lower Cape Fear River Program. (O)
3. Continue work with UNCW and New Hanover County Health Department to track pollution sources in the Cape Fear River in the vicinity of Riverside Park. (I)
4. Implement a campaign for water quality education in the Castle Hayne area that could include public information dissemination, a public watershed meeting, and presentations about water quality. (I)
5. Encourage waterway cleanups in Prince George Creek and the Cape Fear River. (O)
6. Track pollution sources in Prince George Creek and implement a source reduction campaign to improve water quality within the watershed. (O)
7. Create a Prince George Creek watershed plan that could include: an overview of watershed conditions, threats and opportunities; ways to improve, restore and protect water quality and the habitat in the Prince George Creek watershed; and a means to educate residents, businesses, and developers about the watershed. (I)
8. Encourage an adopt-a-stream program within the Prince George Creek Watershed. (O)
9. Identify opportunities for best management practices (BMPs) and restoration projects within the Prince George Creek watershed to stabilize stream banks and improve the quality of water. (I)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

⁴ Rosov, B., 2008. *New Hanover County Water Quality Monitoring Program: Final Report*. New Hanover County, North Carolina: Coastal Planning & Engineering of North Carolina, Inc. 51p.

Tree Preservation and Enhancement

Several large hardwood trees can be spotted throughout the Castle Hayne community. Trees are regulated within Section 67 of the New Hanover County Zoning Ordinance. During the development process, all trees must be identified within the project boundaries. As stated in Section 67 of the Zoning Ordinance, trees that are considered “Significant,” must be protected to the greatest extent practical.⁵ If significant trees are to be removed, they must be mitigated on site with twice the caliper width of the trees that were removed. If trees cannot be mitigated on site, a donation for the total amount of the mitigated trees and installation costs must be contributed to the County’s Tree Fund in order to plant trees in locations across the County.

While Section 67 of the Zoning Ordinance may deter people from removing large trees, it does not preclude them from doing so. In order to protect the large trees that are present throughout the Castle Hayne community and ensure that they are not removed during the development process, additional measures, such as the establishment of a Heritage Tree Program, would have to be taken. Through a grassroots effort such as a Heritage Tree Program, a local citizen-based group could identify large “majestic-quality” trees and catalogue the location of these trees.



A large oak tree near the intersection of Holly Shelter Road and Blossom Ferry Road.

While there are areas of Castle Hayne that contain stands of large trees, there are also several areas of the community that have little to no trees or vegetation. In particular, much of the commercial corridor was constructed prior to the establishment of the tree and landscaping requirements within the County’s Zoning Ordinance. As such, trees and landscaping is lacking within the commercial corridor.

The following are recommendations developed from the survey results and the subcommittee discussions and prioritized by community comment.

Recommendations:

1. Reduce or eliminate the indiscriminate removal of or damage of large trees in the Castle Hayne community. (O)
2. Identify and catalogue specimen trees within the Castle Hayne community. (I)

⁵ Significant Trees: “Hardwood and conifer trees at least 24” DBH, and dogwoods, American Hollies and flowering trees at least 8” DBH, anywhere on the site shall be considered protected, and must be preserved or their removal mitigated as hereinafter provided, regardless of location on the site...”

3. Create a Heritage Tree Program for the Castle Hayne community. A Heritage Tree program could include a listing of specimen trees, trees of historical significance, and landmark trees, and management strategies for these trees. (I)
4. Recommend the supplementation of trees and landscaping within the commercial corridor. (O)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

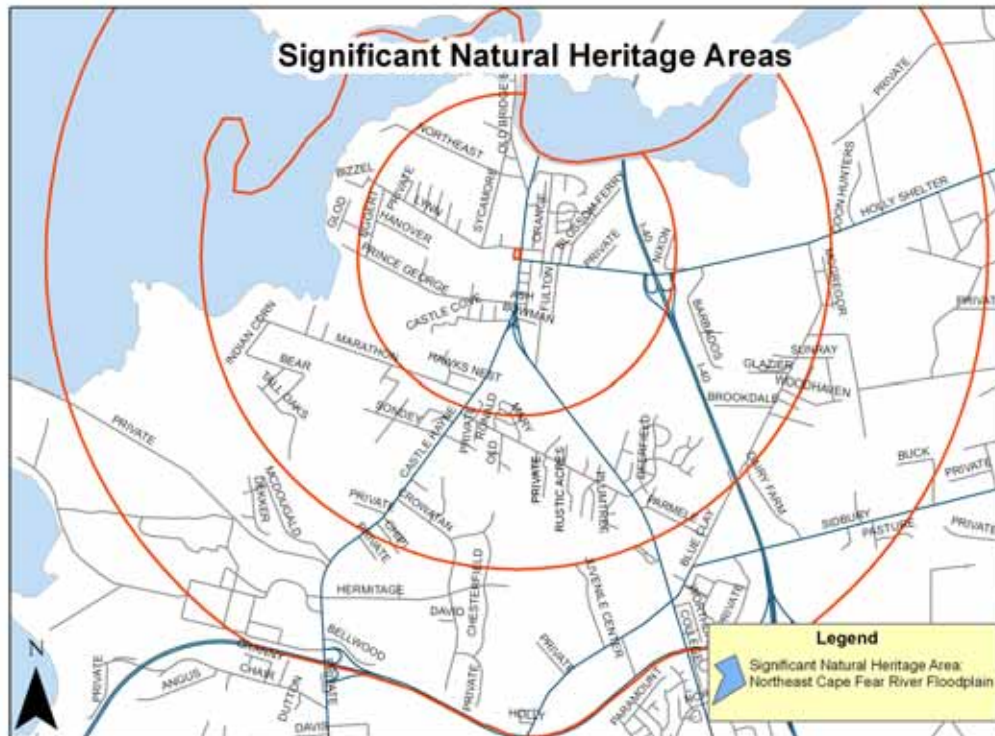
Natural Heritage Areas

Throughout North Carolina, terrestrial and aquatic locations have been identified as areas of especial biodiversity significance. A location's significance may be due to the presence of rare species, rare or high quality natural communities, or other important ecological features as determined by the Natural Heritage Program Office within the North Carolina Department of Environmental and Natural Resources. The North Carolina Natural Heritage Program has listed the entire Northeast Cape Fear River floodplain as a significant natural heritage area. Much of this floodplain is contained within the Castle Hayne study area.

Specifically within the Northeast Cape Fear River floodplain, a recognized tidal cypress-gum swamp community along the Cape Fear River contains some of the oldest stands of longleaf pine and thirteen communities of rare plants, including some federal species of concern. This area provides a unique and important conservation opportunity for New Hanover County. In order to maintain the national significance of this area, the land must be preserved and the habitat must be protected to maintain water quality, provide flood control, promote recreational uses, and protect rare plant species.

The land classification map within the 2006 update of the CAMA Land Use Plan identifies this area as "Conservation Area." The purpose of the Conservation class is to provide for effective long-term management and protection of significant, limited or irreplaceable natural resources while also protecting the rights of the property owner. While the lands within the Conservation class are generally appealing to the development community as a result of their proximity to scenic views and natural resources, these lands are generally less suitable for development because they are fragile, hazardous or the natural resources are deemed as being too valuable to be endangered by development.

The CAMA Land Use Plan encourages that lands within the Conservation class be preserved in their natural state. Recreation and open space areas are deemed to be the most appropriate uses of these areas.



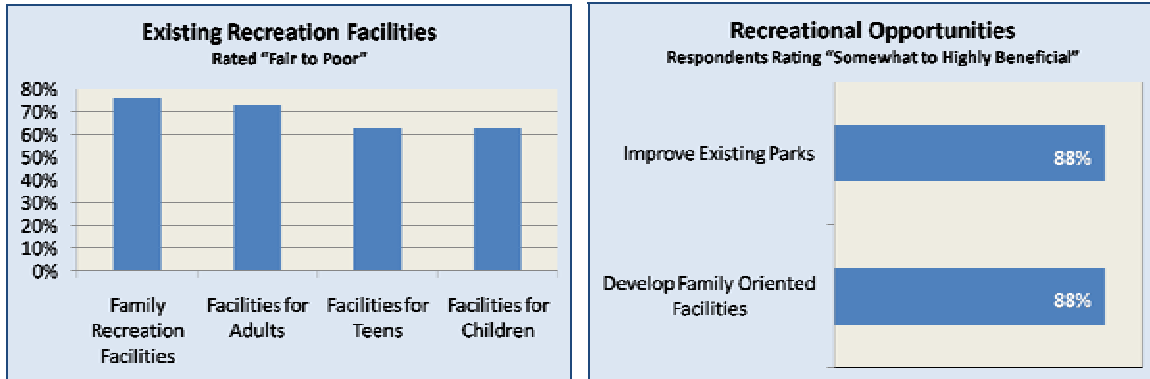
Map of significant natural heritage area in Castle Hayne study area.

Recommendations:

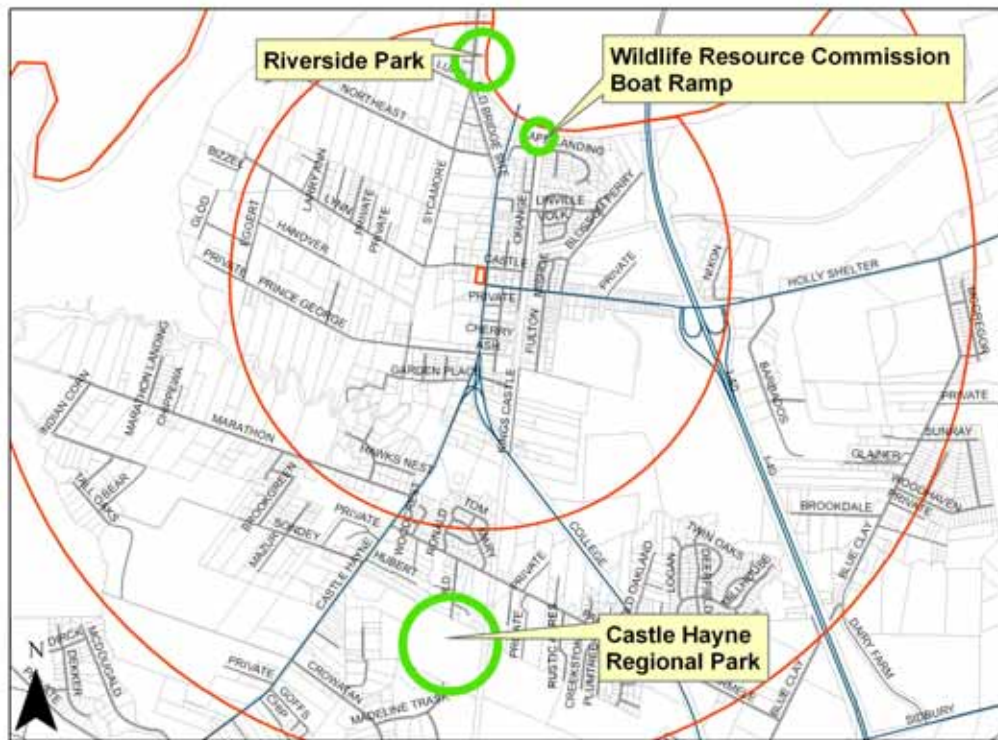
1. Recommend the continued preservation of lands located within the Castle Hayne determined to be significant natural heritage lands for the continued enjoyment of residents and for the land's contribution to the community today and for future generations. (O)
2. Encourage the further acquisition of natural heritage land by local agencies and land trusts for the purpose of placing these lands in permanent conservation easement. (O)
3. Protect this area as a natural greenway and incorporate in a natural area master plan to be created for the entire County. (O)
4. If development is to occur in this area, allow only exceptional developments that preserve natural features and are sensitively designed to be in harmony with the land's natural features and functions to be allowed. (O)
5. Limit impervious coverage in this area to 12% (as referenced in the N.C. Coastal Stormwater Rule) and preserve a natural buffer along the Cape Fear River. (O)

I:	Recommendation implemented or plan adjusted by 2012
0:	Implementation is ongoing or implementation will occur after 2012

Issue #6: Parks and Recreation



Through the Castle Hayne community survey, as well as the task force, residents of the community expressed a distinct interest in family-oriented recreational and entertainment opportunities. While there are several opportunities that currently exist for the community to recreate in a public setting, residents of the community believe that these facilities could be improved, or additional facilities could be constructed, in order to provide more diverse forms of recreation.



A map of the current public recreation facilities in the Castle Hayne study area.

Castle Hayne Regional Park is the largest park within the Castle Hayne study area and is located within the the second circle of the study area. The park is owned and operated by New Hanover County and provides several opportunities for the community to recreate in a public setting. Amenities at the Castle Hayne Regional Park include

playground facilities, picnic shelters, ball fields, tennis courts, restrooms, and a frisbee golf course. While this park presents diverse opportunities for recreation, community members also feel improvements could be made to make this park more appealing to area residents.

With much of the Castle Hayne community located at the water's edge, several water-dependent activities are possible for residents of Castle Hayne. Currently, there are



Observation dock at Riverside Park on the NE Cape Fear River.

two opportunities for the public to access the water within the Castle Hayne community. The first opportunity is Riverside Park. This County-owned and operated park is located on the banks of the Cape Fear River. Riverside Park offers an excellent opportunity for the public to be at the water's edge in a public setting. While there are no established areas for the community to physically access the water (i.e. wade into the water or launch a boat), the park offers wonderful opportunities for members of the community to enjoy the scenery of the Cape Fear River. Current park amenities include an observation pier overlooking the Cape Fear River for onlookers and fishing opportunities, a grass lawn for picnicking and enjoying the views of the river, and a community center and associated parking facility.

The other opportunity for public water access in the Castle Hayne community is a regional boat launch owned and operated by the North Carolina Wildlife Resource Commission. The boat launch offers one of the only opportunities for boaters in New Hanover County to access the Cape Fear River at a public location. The boat launch is heavily utilized not only by residents of the Castle Hayne community, but by residents from all over New Hanover County and Pender County.

While these public recreation facilities currently exist in the Castle Hayne planning area, residents identified several recommendations for the improvement or expansion of these facilities, as well as the creation of new opportunities in the community. The following is a list of recommendations developed from the survey results and the subcommittee meetings and ranked accordingly at the public meeting held on June 12, 2008 at the Cape Fear Community College- North Campus.

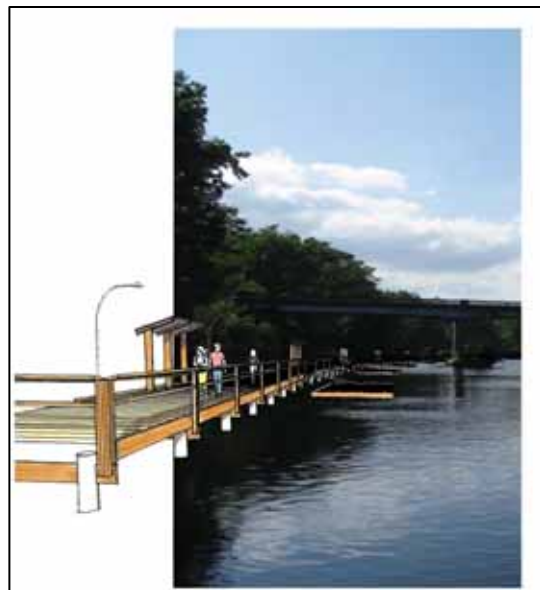


Illustration of potential riverwalk along Cape Fear River near Riverside Park. Illustration created by Cline Design.

Recommendations:

1. Establish a restroom facility at Riverside Park. (I)
2. Explore opportunities for enhancements at Riverside Park including: a boardwalk along river, expansion to the area north of the park, addition of picnic shelters, addition of playground facility, addition of pet waste stations. (I)
3. Encourage enhancements to Castle Hayne Regional Park including a walking trail around the park, pet waste stations, and a designated area for special events such as movies or small concerts in the park. (I)
4. Establish better signage for both Riverside and Castle Hayne parks. (I)
5. Improve lighting and add gravel to parking lot at community center at Riverside Park. (I)
6. Establish a recreation center for teens in the community. (O)
7. Encourage water access opportunities including “blueway” or canoe and kayak trails on the Cape Fear River and Prince George Creek. (I)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Issue #7: Community Enhancements

Community Appearance

A resounding 92% of the respondents of the Castle Hayne survey rated the overall community appearance as either fair or poor. 80% of the respondents rated the appearance of the businesses as either fair or poor. Additionally, during meetings with the Castle Hayne Task Force and Subcommittees, the consensus was that the overall community's appearance needed improvement.

In Fall 2007, Planning staff began compiling a list of properties that negatively impact the quality of life in Castle Hayne. The goal was to encourage property owners to clean up or demolish vacant dilapidated houses and clean up lots that were in violation of the County's ordinance (s). This is being achieved through the enforcement of the County's existing ordinance (s). To date, several properties have been brought into compliance.

There are many ways to improve the appearance of a community, most of which depend on the desire of the property or business owner. If the property or business owner is not willing to improve the appearance of their property, there is not an opportunity for this to occur. The only opportunity for regulators to become involved is when a code has been violated for things such as abandoned vehicles or excessive trash.

In order to improve the appearance of the community as a whole, a community cleanup could be organized. Working cooperatively to address the needs and problems of the area creates a sense of community and pride among residents and gets them interested and involved. The importance of a community cleanup is to improve the overall appearance of the community, to attract perspective residents, businesses and service providers to the area, reduce the breeding sites of rodents and mosquitoes and create a sense of community pride.

Farmers Market

The Castle Hayne community is one of the few areas of New Hanover County where agriculture and farming practices still exist. Many of the residents of the community list this trait as the number one reason why they chose Castle Hayne as their residence. To enhance this cherished symbol of the community, the concept of a farmers market was presented to residents. When asked if a farmers market would be desirable within the Castle Hayne Community, an overwhelming 90% of the survey respondents considered the development of a farmers' market in their community as either highly beneficial or somewhat beneficial.

In recent years, there has been growing consumer demand to buy foods that are locally grown and produced, thus increasing the need for more markets. As such, the number of farmers markets across the county has increased dramatically. A growing interest in high quality and/or organic foods is fueling the demand for locally grown

products. By helping farmers expand the types of food products they raise and market and by helping create inviting places for social interaction, farmers markets continue to grow and expand in number. By keeping the focus on the farmer, on the food, and on the unique local values, farmers markets are important outlets for both farmers' and shoppers. Farmers markets serve many purposes and find valuable support from many places. One group of people with a special affinity for America's farmers markets is area chefs. As more chefs come to appreciate the value of locally-grown food, regional specialties, and seasonal produce, they are finding that farmers markets are an invaluable source of high quality ingredients for their menus.

The benefits to the community can be numerous. A farmers market often serves as a community and the benefits to the community can be numerous. The market offers direct marketing opportunities for farmers, and the presence of a market within a community can often increase the community's recognition and attract visitors from outside the community, thereby creating a source of revenue for the community.

In order for a market to exist, there must be an active group that oversees the operation of the market. Across the nation, organizations that are often referred to as "friends of the market" are assembled to take an active role in operating and seeing the success of the market. In many cities, the "friends" organizations take the leading role in developing the promotional and educational programs at the markets. Arranging for the entertainment and organizing special market day features and cooking demonstrations are just some of the activities carried on by "friends of the market" groups. The organizations can also provide important political and citizen support for markets, helping insure government leaders appreciate how important the markets are for local residents. In New Hanover County, the downtown farmers market has been a tremendous success. The North Carolina Cooperative Extension has worked with the City of Wilmington to develop the market. A tool-sheet for developing a farmers market was developed as a result of the establishment of the downtown market and is found in Appendix I of this document.

Recommendations

1. Recommend the community utilize the "Planning a Community Cleanup and Beautification Project guide." (O)
2. Utilize existing New Hanover County Ordinances to cleanup illegal dump sites, dilapidated housing, and vacant lots. (O)
3. Recruit volunteers to organize a community cleanup. (I)
4. Recommend that the community establish an "Adopt a Neighborhood Leaf Raking Program" or "Adopt a Lawn Mowing Program" to assist residents who are physically unable to do these activities themselves or cannot afford to hire someone to do these services. (O)
5. Utilize the expertise of Keep America Beautiful of New Hanover County to assist with community cleanup efforts. (O)
6. Establish a voluntary program to assist with the cleanup of materials that cause unsafe, unsightly or unsanitary conditions. (O)

7. Establish a committee to research grants and funding opportunities that can be applied to organize a community cleanup and/or community beautification projects. (I)
8. Discourage litter within the community through signage. (I)
9. Encourage the dissemination of the services listed in the “Waste Disposal and Recycling Information for Castle Hayne Residents” brochure. (I)
10. Recommend the community establish a farmers market within the commercial corridor. (O)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Issue #8: Housing

Although housing was not a specific issue addressed by the subcommittees, it is an important element to sustain and/or enhance the quality of life in the Castle Hayne community. Decent, stable housing is a prerequisite to a family's full participation in education, employment, and civic affairs- the "quality of life" issues that make a community healthy and attractive. More than 70% of the respondents from the survey felt that it would be either highly beneficial or somewhat beneficial to attract new industries and an overwhelming 88% indicated that locally owned businesses should be expanded and developed. When new industry or businesses locate to a community, jobs are created. When jobs are created, housing is needed to accommodate new members of the community.



Examples of existing housing within Castle Hayne study area.

According to the survey results, more than 60% of those responding to current quality of life issues felt that the availability of affordable housing was either fair or poor. Sixty-six percent of the respondents considered as either highly beneficial or somewhat beneficial that a future benefit to the community would be to incorporate in development affordable home/rental opportunities, and nearly 70% considered building new affordable home (income based) communities a future benefit to the community.

Workforce housing provides alternative living options and a mix of housing styles and values to accommodate future change and growth in the community. Also with the community experiencing job growth, diverse housing will support economic development by retaining existing residents and attracting new people from various social and economic backgrounds.



Examples of workforce housing in other communities.

Workforce Housing is a somewhat new term that is defined by four principal factors:

- **Affordability:** Based on criteria established by mortgage lenders, the United States Department of Housing and Urban Development (HUD) it is maintained that no more than 30% of household income should be allocated to housing, Principal, Interest, Taxes and Insurance (PITI). Workforce housing pricing calculations use 30% of household income as the maximum limit of affordability.
- **Homeownership:** Workforce implies single-family detached homes for sale at prices that workforce families can afford.
- **Critical workforce:** Workforce housing refers to housing intended for major segments of the workforce such as teachers, police officers, firefighters, nurses and medical technicians, office and retail workers, etc.
- **Proximity:** Workforce housing is typically located in or near employment centers.

The goal of workforce housing is to satisfy the housing needs of family household earning 50% to 150% of median household income in a given Standard Metropolitan Statistical Area (SMSA). In New Hanover County, the 2008 median income for a family of four is \$56,600.

The following recommendations are those generated by County Planning staff and then listed in the order of priority given by the attendees at the June 12, 2008 meeting held at the Cape fear Community College- North Campus.

Recommendations

1. Encourage programs that educate the public about workforce housing development to support economic development and business growth. (O)
2. Encourage the adoption of inclusionary zoning with the goal of diversifying the residential base by constructing house at all affordability levels. This could be supported by density bonuses, reduced impact fees and a simplified development approval process. (I)

3. Evaluate the need for market rate and affordable Senior Housing ranging from age-restricted apartments with no services to assisted living facilities. (I)
4. Request legislators to introduce and /or support legislation that provide financial and regulatory incentives for the development of workforce housing for major segments of the County's labor force. (O)
5. Develop a partnership among major employers in Castle Hayne, workers and County government to develop workforce housing.(I)
6. Focus immediate efforts and funds on the preservation, rehabilitation and replacement of affordable housing in the community. (I)
7. Consider mixed-use development that incorporate workforce housing along with commercial development to accommodate the demand for this type housing that is in close proximity to job growth. (O)
8. Tax Increment Financing (TIF) should be considered to fund the construction of workforce housing. TIF is an effective tool to offset the amount of subsidy that may be needed. (O)
9. Tax incentives used to attract business and industry should also be applied to encourage workforce housing construction in Castle Hayne. (O)
10. Encourage the use of green building techniques in all new construction in the Castle Hayne community. Recommend following the criteria from programs such as N.C. Healthy Built Homes and LEED for Residential Communities in order to incorporate green design into new construction. (I)
11. Recommend the use of Low Impact Development (LID) techniques in all new housing developments. Recommend referring to the New Hanover County-City of Wilmington Joint LID Manual for information about incorporating LID into new and existing development projects. (I)

I:	Recommendation implemented or plan adjusted by 2012
O:	Implementation is ongoing or implementation will occur after 2012

Implementation of the Castle Hayne Plan

The Castle Hayne Community Plan serves a variety of functions for the residents of the Castle Hayne community and provides a blueprint for future growth in the community. Collectively, the recommendations provide guidance for both short and long range planning decisions and directions as well as decisions made within other instrumental departments.

It is envisioned that the recommendations in this document will also help to guide the decisions and actions of the elected and appointed officials and the staff to the County government as well as supporting agencies. The County Planning Board and Board of County Commissioners will use the plan and its policies to determine the consistency of project plans and development proposals with the community issues and recommendations. The recommendations in the plan will provide a layer of guidance for decisions on whether to grant or deny requests for items such as ordinance amendments, special use permits, or approval of project plans.

Staff within the County's Planning Department and Zoning Division of the Inspections Department will use the recommendations when reviewing site plans and development proposals. Other County departments such as Engineering and Environmental Health will use the recommendations to guide proposals for projects and plans. The Plan will also be used by the Cape Fear Public Water and Sewer Authority when planning for extensions of water and sewer infrastructure, as well as the North Carolina Department of Transportation and Wilmington Metropolitan Planning Organization when forming plans for transportation improvements within the Castle Hayne community.

Additionally, the plan will be of great use to a variety of community members. The Plan will be a tool for developers who are planning projects within the Castle Hayne community. **Importantly, the plan will also be a tool for the residents of the Castle Hayne community, since the document was largely created with the community's input.**

As stated previously, many of the recommendations within the plan require significant funds to be fully implemented. County funding priorities are driven by need and decisions are made based on the priorities as perceived by our elected officials. In order for the plan to be implemented successfully, it may be necessary to explore outside funding sources including bonds, grants, gifts, donations and alternative financing projects such as Tax Increment Financing.

In order to keep the plan current, County Planning staff must review the recommendations of the plan over time and make periodic adjustments based on budgetary considerations, emerging issues or to coordinate with unforeseen issues or needs. As needed, the plan may need to be amended to reflect the emerging issues that inevitably will need to be reflected within this plan. It is recommended that a report be generated with regard to the implementation of this plan on a four year cycle with the

first report generated in 2013. It will be the responsibility of County Planning staff to assemble and distribute this report to the public.

Appendix A

Farmers Market Information

Suggestions for Starting a Farmers Market

(Adapted from a document created by the North Carolina Cooperative Extension)

Finding the Market

1. Create an organizing committee that is responsible for establishing rules and regulations such as vendor fees and the appropriate day and time of operation for the market.
2. Get buy-in from the residents, government and businesses.
3. Understand the demographics of your community and surrounding communities.
4. Consider locating a permanent market facility within the commercial corridor.

Finding the Location

1. When choosing a location, important considerations are accessibility and parking.
2. The location should be highly visible.
3. The location is important to draw people from outside the community.

Soliciting Vendors

1. A minimum of 10 vendors are needed for a sustainable market.
2. There needs to be a good mix of products.
3. A long-term commitment from the vendors is essential.

Marketing the Market

1. Use all free outlets for getting the word out about the market
2. Investigate advertising in school or neighborhood newsletters.
3. Advertise in the local newspaper Wednesday food section.
4. Plan food, gardening, and etc. demonstrations that promote the market.
5. Add atmosphere by having live music.
6. Provide entertainment for children.

Securing Funding

1. Seed money is needed for advertising, market signs, etc.
2. Explore grant opportunities for the market.
3. Understand that it usually takes three to five years to fully establish the market and customer base.

Additional Tips for a Successful Market

1. Get buy-in from the Community
2. Create an organizational committee and invite potential vendors to start up meetings to discuss guidelines, management, site needs, etc. They have the expertise to help shape the market.
3. Location, Location, Location: will you have adequate parking, shade, visibility, access to electrical outlets or generators for vendors needing refrigeration, etc.
4. Will your market be volunteer driven or sponsored by a local organization? For example, the Riverfront Farmers Market is sponsored by the City of Wilmington and is governed by a Market Steering Committee that consists of participating vendors and city staff.

5. It's important to have a Market Manager to enforce the rules, regulations and vendor guidelines (voluntary or salaried).
6. Market the Market: create a logo, advertise - try to secure \$2000 in seed money, but take advantage of the freebies.
7. Decide on a fee setup. For example, will you have both an annual fee and weekly space fee, or just one? Will vendors be required to participate regularly or will there be advance space reservations each week?
8. Establish a high standard for goods from the beginning.
9. Have at least 10 vendors offering different kinds of goods to start the market.
10. Use only locally developed or grown products.
11. Don't overwhelm the market with non-food items.
12. Add live music, children's entertainment, food and gardening demonstrations, etc.

Sample Rules and Regulations to Avoid Squabbles, Legal Troubles and Other Common Operational Problems with a Farmers Market

(From the Riverfront Farmers Market in Wilmington)

Eligibility

- All persons who are the original producers of the fruits, vegetables, plants, herbs, flowers, eggs, meats, baked goods, pickled items, cheeses, jellies, jams, honey, art and craft work, seafood and/or other products that they intend to sell at the market
- If a vendor wishes to sell any product other than what was initially applied for, the vendor must get prior approval from the Market Committee.

Fees

- Seller must pay a \$50 annual membership fee to participate in the market. This fee must accompany a seller application.
- A non-refundable monthly fee for 1 vendor space of \$50 will be collected on the first market day of each month. For Farmers'/Producers, one space encompasses the length of a vehicle, approximately 20' and width of a vehicle plus a 10' x 10' space adjacent to the vehicle. Arts and Crafts vendor spaces are 10' x 10'. You may request and pay for up to 2 spaces.

Attendance

- The market will operate rain or shine. Vendors must give 24 hour notice to the Market Committee if they will be unable to attend a market that they have reserved space for.
- Sellers are required to remain on site for the entire duration of the market. Conversely, any vendor who is not on site by the start time of the market will not be allowed to set up.

Display and Set Up

- Spaces will be assigned alphabetically based on the farm or business name. As this is an open-air market with several entrance points, we do not anticipate "priority" spaces.
- All products produced under certification, such as organic, licensed meat, poultry, dairy products, or products requiring inspection, such as baked goods, preserves, or seafood, must include a copy of certification or license with the market application. Licenses shall be displayed at the market as well.
- Vendors may not sublease their spaces. Vendors must provide their own tables and displays. Canopies, tents or umbrellas are encouraged.

Miscellaneous

- If the Market committee believes the number of vendors offering the same or similar products is excessive, duplicate products may be denied entry.

Violations

Violations of any of the above rules will result in a verbal warning to the offender for the 1st offense, a written warning and 2 market day suspension for a 2nd offense, and removal from the market for a 3rd offense. Appeals may be made in writing to the Market Committee.

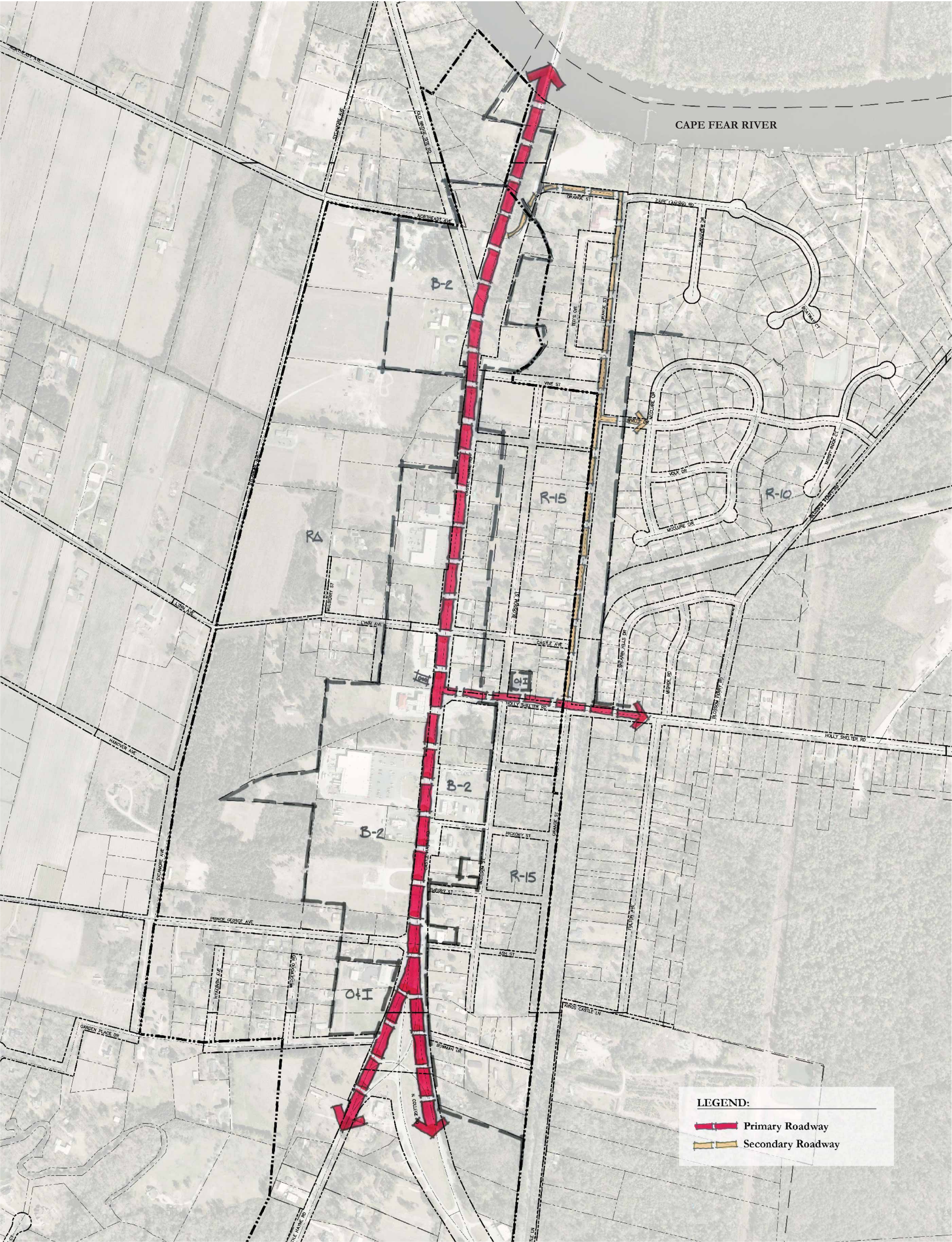
Hold Harmless Clause and Insurance

Participating vendors are required to provide a signature in acknowledgement of this clause on their vendor application.

Appendix B

Castle Hayne Illustrations



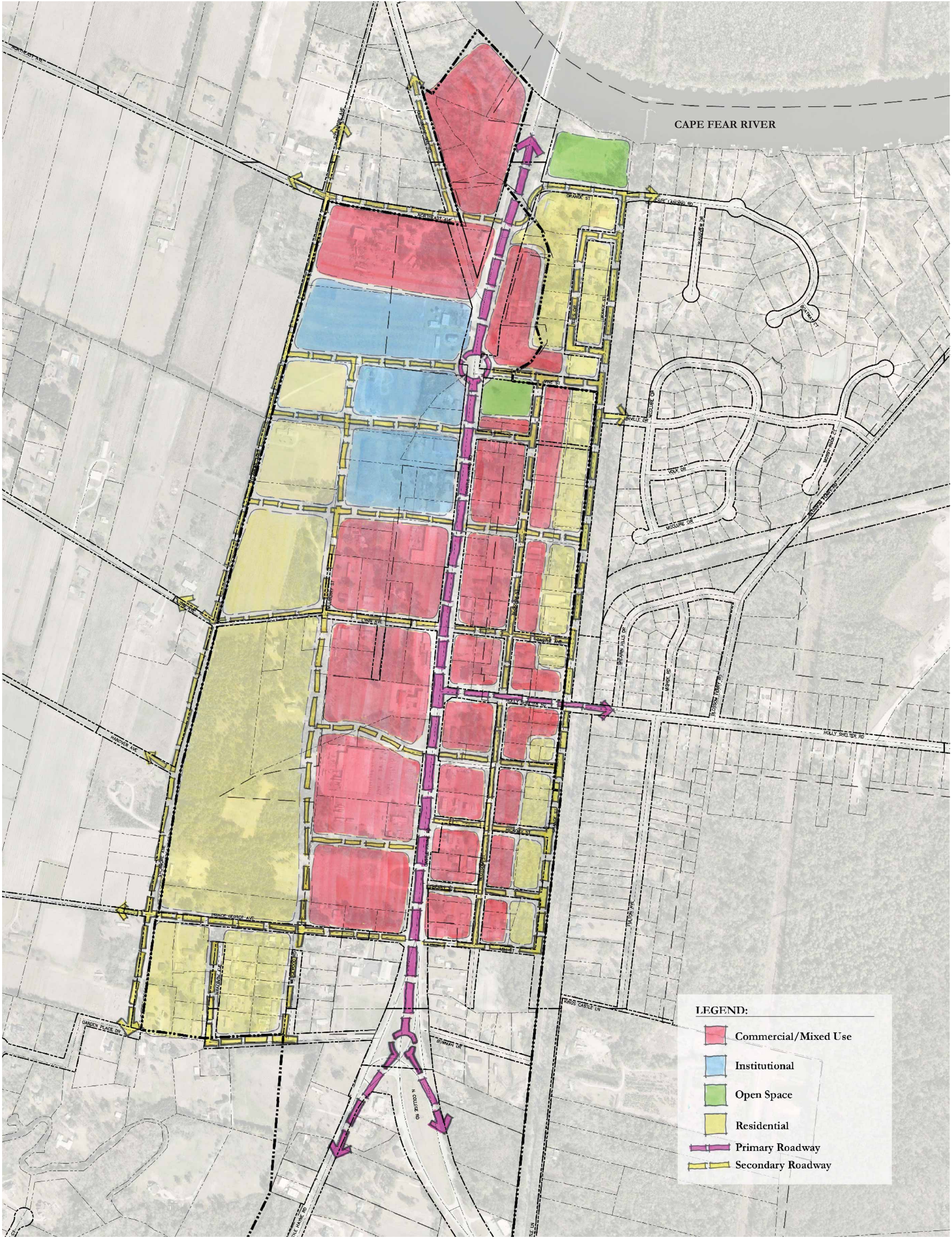


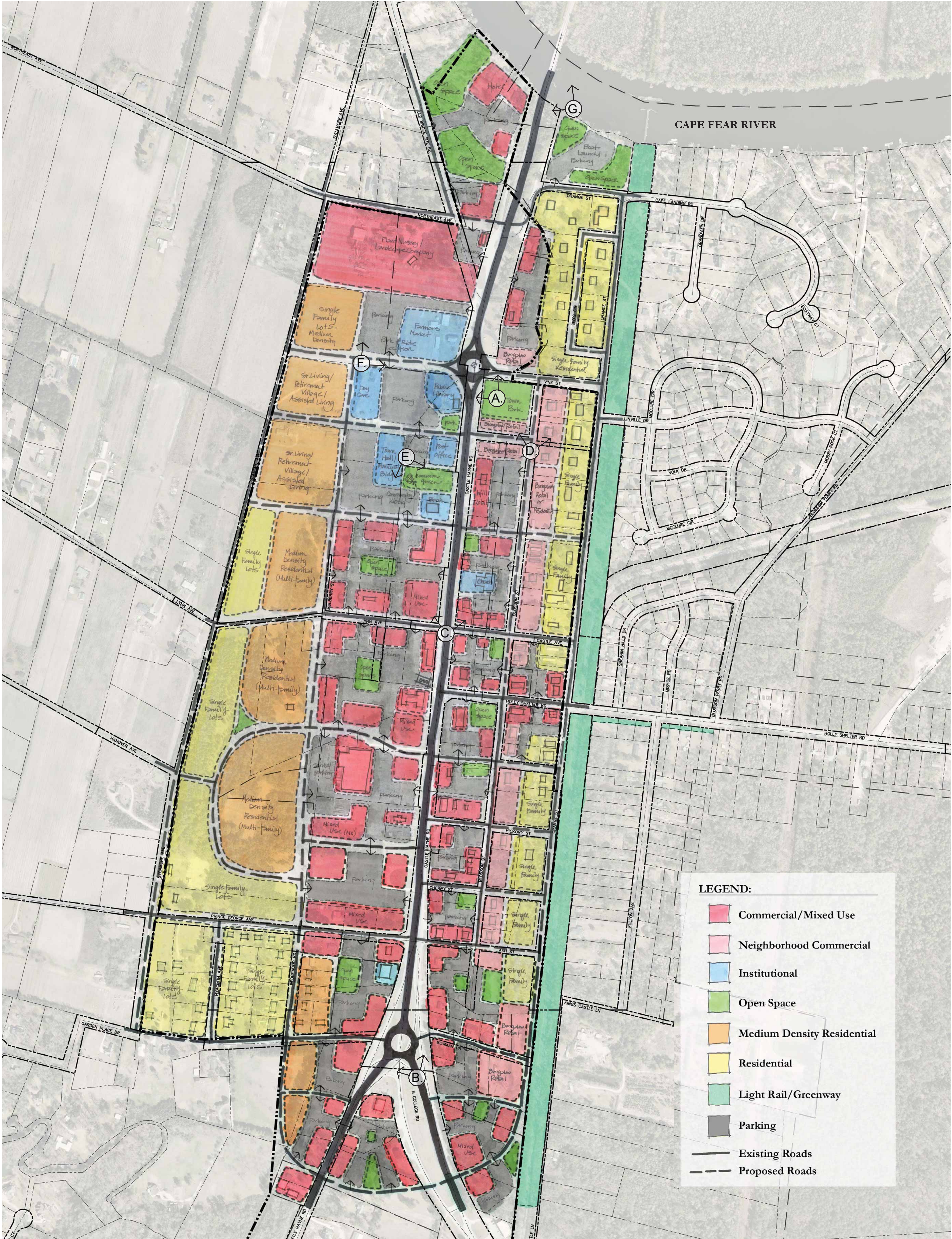
Castle Hayne

New Hanover County, NC

EXISTING ZONING & CIRCULATION

This plan and/or drawing is for illustrative purposes only and is subject to change.
Project #: 18020 Date: 07.23.08



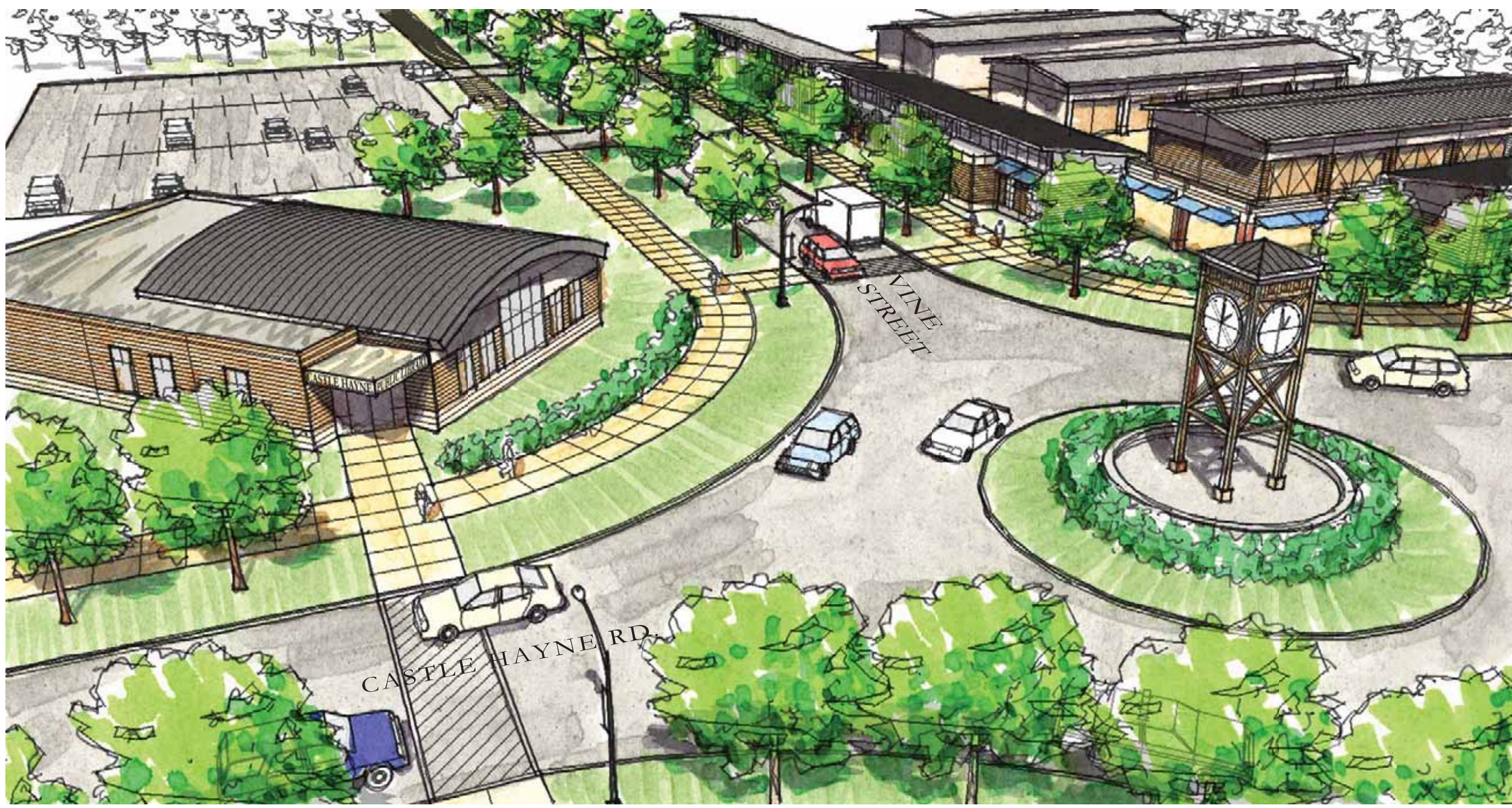


Castle Hayne

New Hanover County, NC

PROPOSED LAND USE PLAN

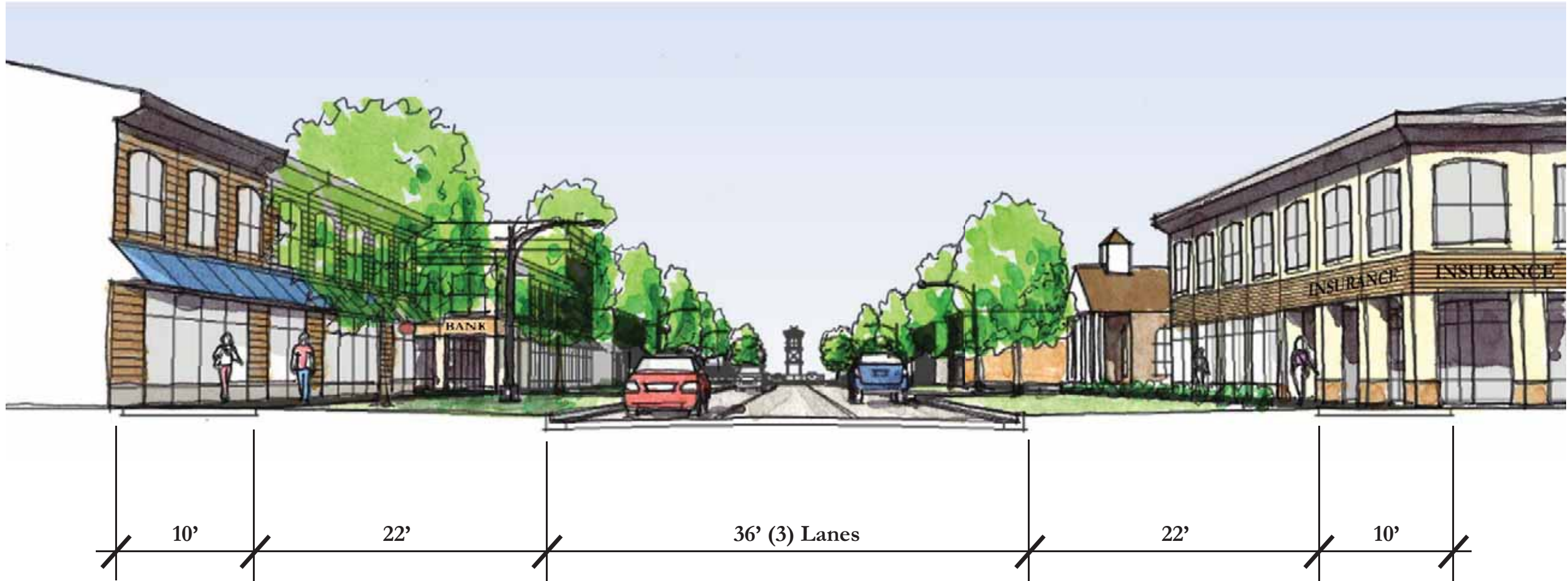
This plan and/or drawing is for illustrative purposes only and is subject to change.
Project #: 18020 Date: 07.23.08



A. North Gateway



B. South Gateway



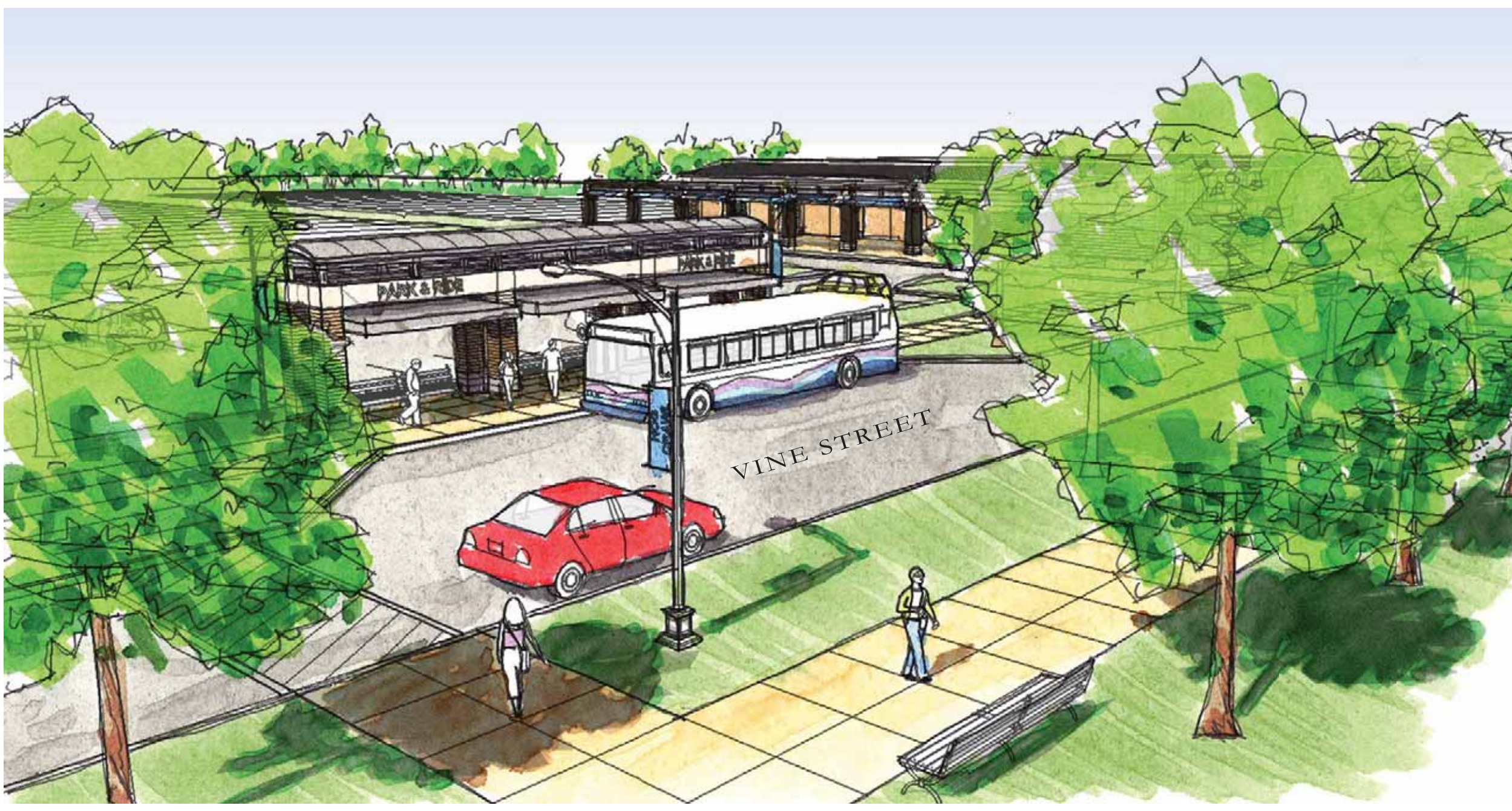
C. Castle Hayne Road



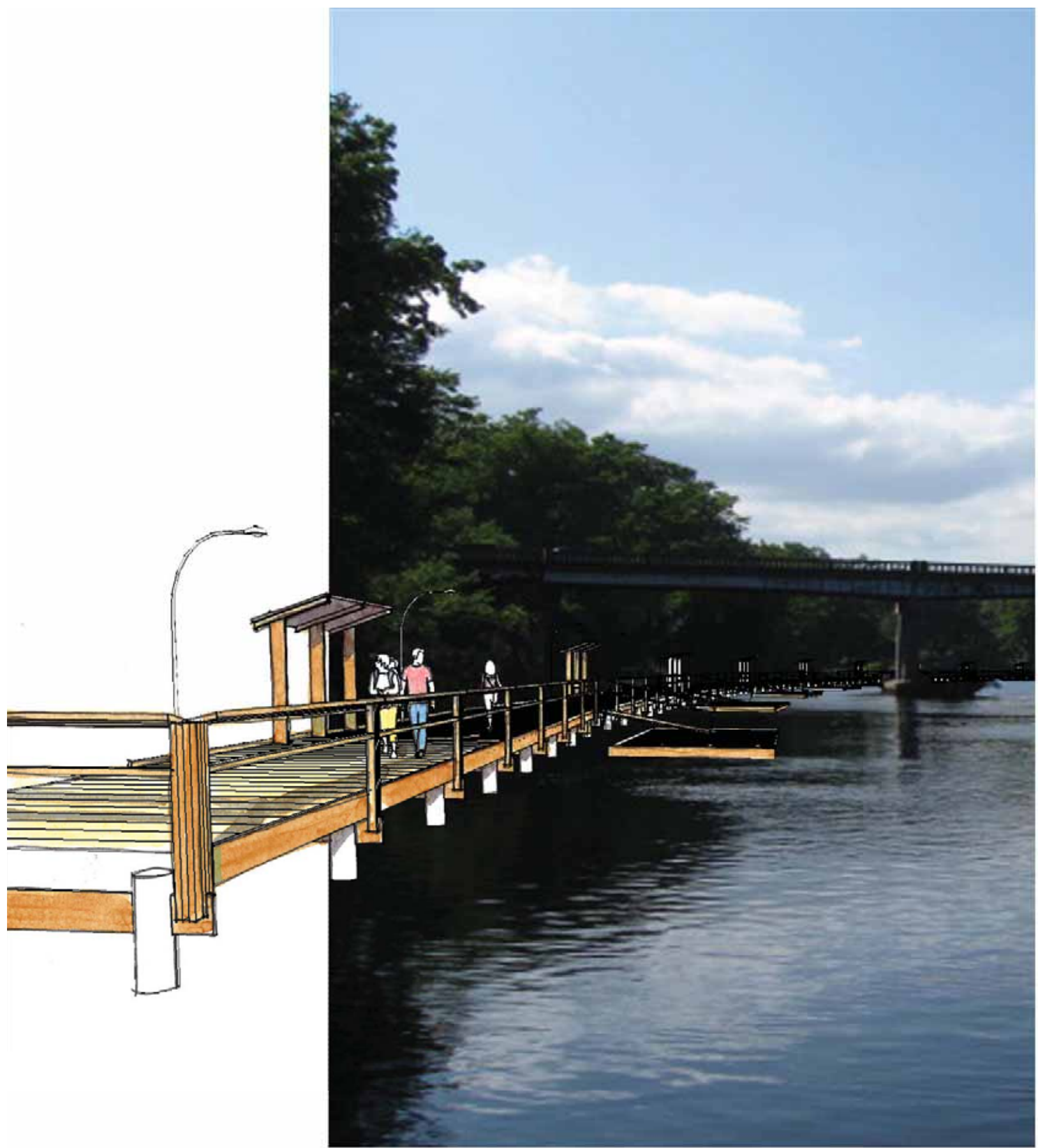
D. Blossom Street



E. Castle Hayne Community Kiosk



F. Park and Ride at the Farmers Market



G. River Walk

Appendix C

Castle Hayne Maps



Castle Hayne Zoning Map

Legend

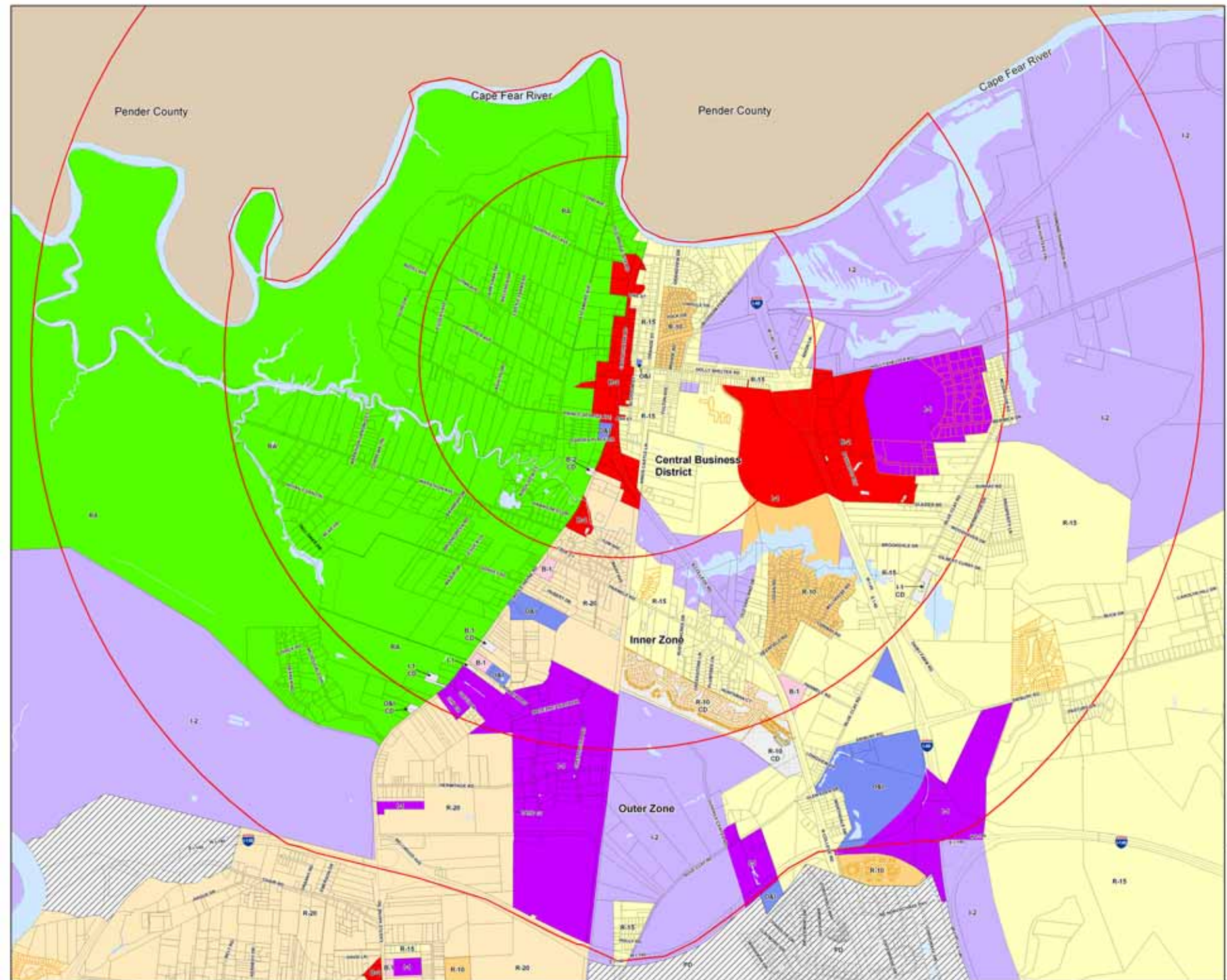
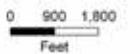
- Castle Hayne Study Area Boundaries
- Proposed Subdivisions

Zoning Classifications

- B-1
- B-2
- I-1
- I-2
- O&I
- PD
- R-10
- R-15
- R-20
- RA
- Conditional Zoning

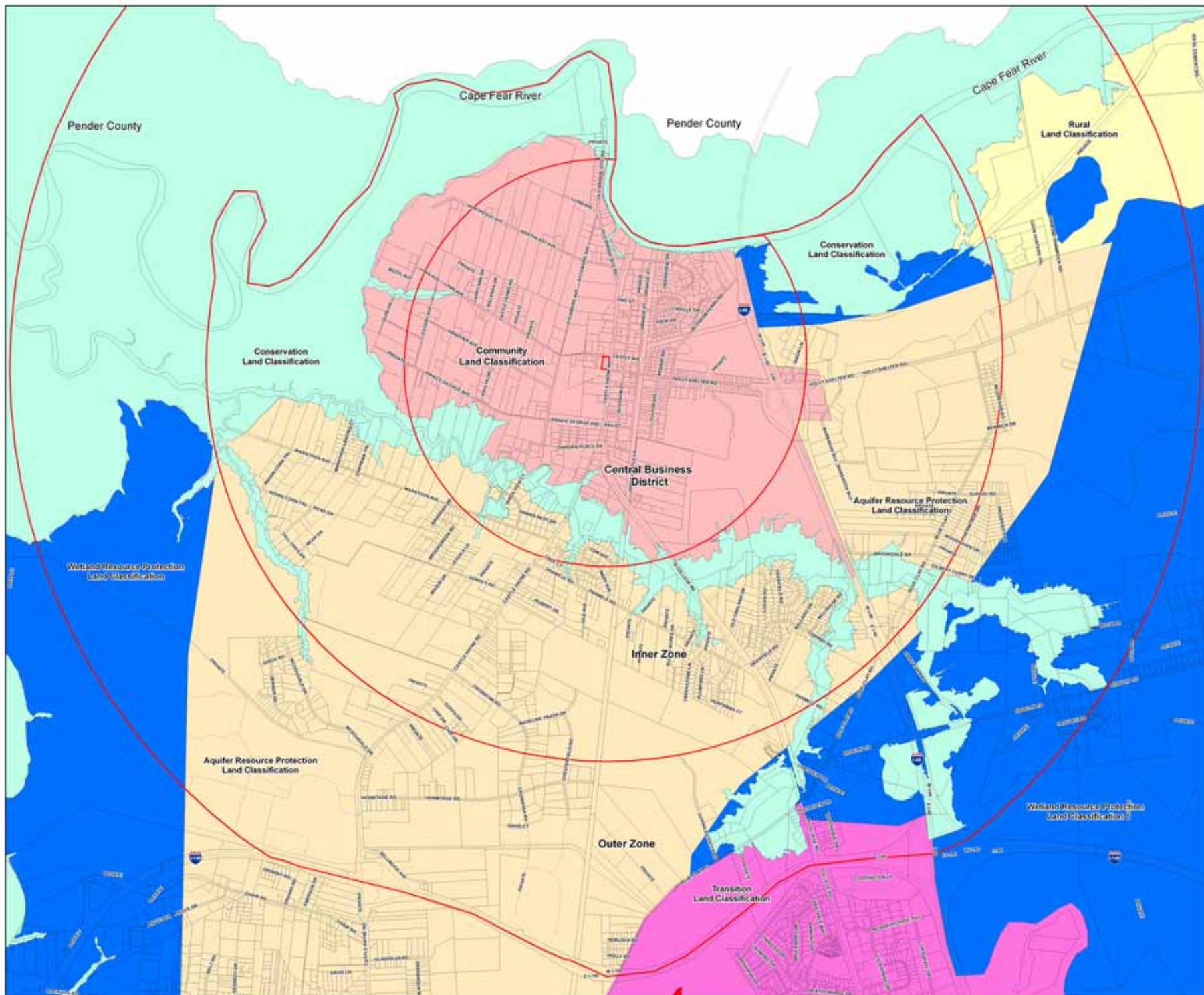


1 inch equals 900 feet





Castle Hayne Land Classification Map

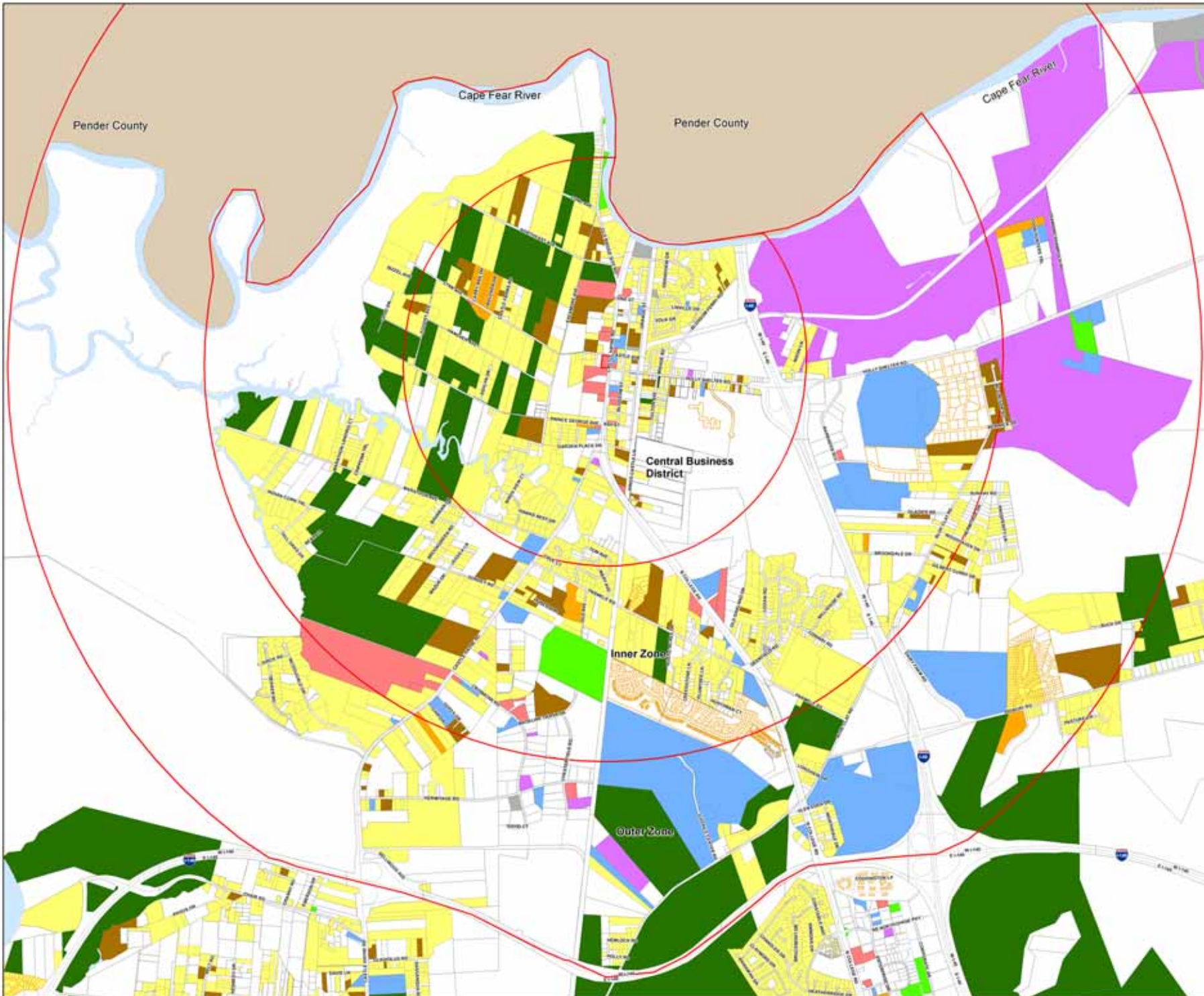


- Legend**
- Castle Hayne Boundary
 - Study Area Boundary
 - Land Classifications**
 - Conservation
 - Community
 - Transition
 - Aquifer Resource Protection
 - Wetland Resource Protection
 - Watershed Resource Protection
 - Rural



1 inch equals 900 feet

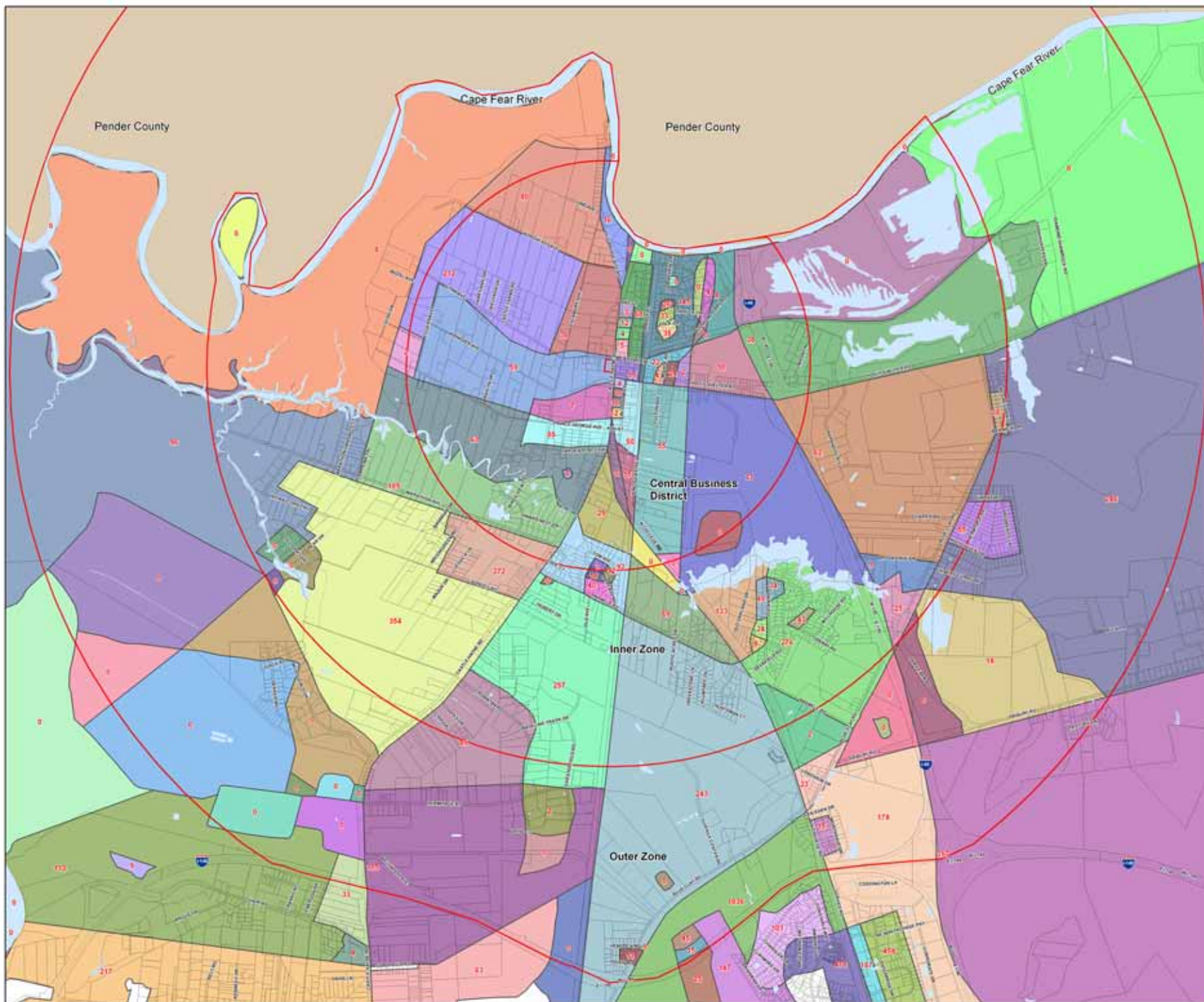
0 900 1,800
Feet



Castle Hayne Land Use

- Legend**
- Castle Hayne Study Area Boundaries
 - Proposed Subdivisions
 - Land Use Classifications**
 - Single Family Residential
 - Multi Family Residential
 - Mobile Home
 - Commercial
 - Industrial
 - Office & Institutional
 - Utilities and Transportation
 - Forestry & Agriculture
 - Recreational
 - Undeveloped





Castle Hayne Population Map

Legend

○ Castle Hayne Study Area Boundaries

This is a map of Census Blocks. The population of each block is denoted by the red number

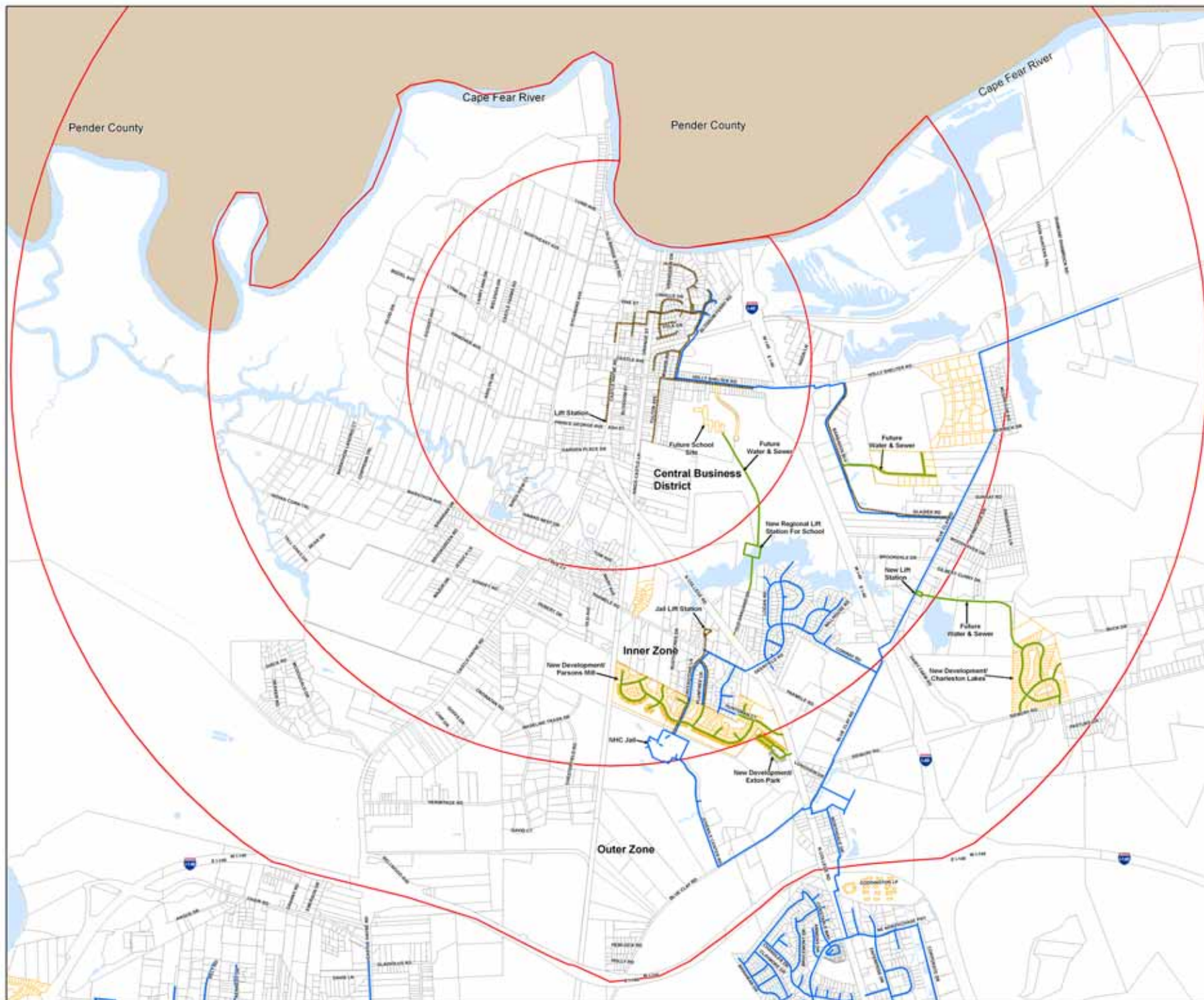


1 inch equals 900 feet

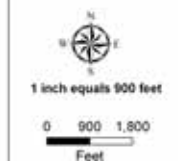
0 900 1,800
Feet



Castle Hayne Water & Sewer Map



- Legend**
- Castle Hayne Study Area Boundaries
 - Proposed Subdivisions
 - Sewer Pipes
 - Water Pipes
 - Future Water & Sewer





Castle Hayne Collector Streets



Legend

Castle Hayne Study Area

Collector Streets

Functional Classification

- Arterial
- Collector Street (Existing)
- Collector Street (Future)
- Commercial Corridor Streets (Existing)
- Commercial Corridor Streets (Future)
- Neighborhood Collector (Existing)
- Neighborhood Collector (Future)
- Local Street

Bicycle/Pedestrian Improvements

Identified Needs

- Collector Intersection Improvements
- Intersection Improvements
- Bicycle and Pedestrian Improvements
- Potential Park-and-Ride Location



1 inch equals 900 feet

0 900 1,800
Feet