





PRIME NATH CHARLESTON

COMPREHENSIVE PLAN Bright Ideas, Bold Action



ADOPTED JUNE 2020

ACKNOWLEDGMENTS



"Our City adapts to growth while protecting what makes North Charleston special. Investing in people is investing in our future."

- R. Keith Summey, Mayor

We wish to also acknowledge the public and officials below for their contributions to creation of PRIME North Charleston.

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PRIME NORTH CHARLESTON



A City Primed For Opportunity

INTRODUCTION

The Comprehensive Plan is rooted in the principle that if the City knows where it wants to go, it possesses better prospects of getting there. Prime North Charleston has a planning horizon of 20 years, and it is "comprehensive" in that it covers the entire City within its limits, encompasses all the functions that make a community work, and considers the interrelatedness of these functions. It is intended to generate community pride and enthusiasm about the future of the City, thereby ensuring that citizens are engaged in implementation of the plan.

The comprehensive plan provides a basis for evaluating future development, redevelopment and land use decisions within the City of North Charleston. The Plan is designed to:

- 1. Assist the community in achieving the development patterns its residents' desire;
- 2. Provide stable communities bolstered by infill development;
- 3. Strengthen a sense of place with mixed uses;
- 4. Support various transportation alternatives;
- 5. Protect natural resources; and
- 6. Accommodate economic growth.

Those elements of the community that were considered and evaluated in the development of this plan include, but are not limited to:

Population

Housing

Economic

- Natural Resources
- Cultural Resources
- Community Facilities

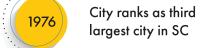
- Transportation
- Land Use

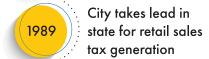
- Community i demines
- Priority Investments





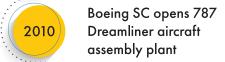














PURPOSE OF THE COMPREHENSIVE PLAN

A comprehensive plan provides a clearly-stated vision that describes the future of the community. It respects property rights and also encourages and supports economic development. The plan inventories the City's existing conditions and amenities and assesses their functionality and relationship to one another (Appendix A). This inventory enables the City to take stock of where it is today (strengths and weaknesses) and where it wants to go (opportunities and challenges).

The basis for the comprehensive planning process is in the SC Local Government Comprehensive Planning Enabling Act of 1994 (SC Code §6-29-310 through 6-29-1200), which repealed and replaced all existing state statutes authorizing municipal planning and zoning. The 1994 Act establishes the comprehensive plan as the first step of the planning process and mandates that the plan be systematically evaluated and updated. Elements of the plan must be reevaluated at least once every five years, and the entire plan must be updated at least every 10 years.

North Charleston spans three counties and both sides of the Ashley River, ranging from neighborhoods established prior to the Civil War to 20th century suburban subdivisions and 21st century mixed-use communities. As one of its leaders aptly described it, North Charleston's story is a "tale of two cities", with older, urbanizing areas and growing suburbs.

It is a city traversed by corridors that accommodate thousands of commuters (residents and nonresidents) moving between homes and employment centers throughout the City. Since North Charleston's last complete plan update in 2008, the City has further capitalized on its role as an employment and manufacturing hub within the region.

Several large manufacturing facilities, notably Boeing SC and Mercedes Benz, established and/or expanded operations within the City, Palmetto Railways cleared a 118-acre site on the former Navy Base in preparation for a future Intermodal Container Transfer Facility (ICTF), and a second major annexation of land west of the Ashley River increased the City's land area by another 2,200 acres. North Charleston is at its "prime" and yet it is "primed" for an even more successful future.

Prime North Charleston is not the City's first Comprehensive Plan. The City adopted its first comprehensive plan in 1999. It was subsequently updated in 2008 and reviewed in 2015. A number of other previous planning initiatives also have informed the development of Prime North Charleston, carrying forward goals that remain to be realized.

Lowcountry Alliance for Model Communities (LAMC) Plan (2010): A grass-roots planning effort led by seven environmental justice neighborhoods developed and adopted to address direct and indirect impacts of the State Ports Authority's new terminal. The LAMC Revitalization Plan proposed a set of investment strategies to bring additional housing and commercial activity into this core area of the City.

Partnership for Prosperity Neck Area Master Plan (2014): A framework for catalyst area developments, transportation improvements, land use and urban design principles to serve as a road map for the long-term redevelopment and revitalization of the "Neck" area.

"Yet no matter how good it may be, a plan by itself cannot bring about immediate transformation. Almost always, it is a spark that sets off a current that begins to spread"

-Jaime Lerner, Author Urban Acupuncture: Celebrating Pinpricks of Change that Enrich City Life

IDENTIFYING CHALLENGES AND OPPORTUNITIES

Prime North Charleston was developed through collaborative efforts involving citizens, the City of North Charleston Planning Commission, city leaders, and data research and analysis. The City of North Charleston's Comprehensive Plan update was initiated in the Fall of 2018 with an extensive program of activities to engage community groups, stakeholders, residents, and public officials in the process. A variety of outreach methods were used to ensure equitable access to participate in the planning process. Five **public open house events** were held over a two-week period across the City – including one in each of the City's Planning Areas. Numerous meetings were held with groups of **Stakeholders** representing community advocates, economic development specialists, educational and health institution representatives, real estate investors, and neighborhood residents. Additional meetings were held with individual council members, City department leaders and other public agencies.

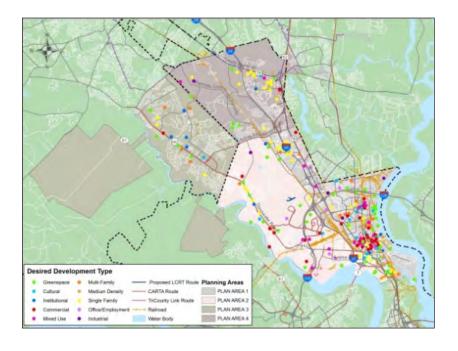
A project website – www.primenorthcharleston.com – was established with an **Online Survey** that residents could complete at their convenience. Over one thousand surveys were completed and submitted to the project team, with approximately 84% of respondents being North Charleston residents. Lastly, project team members interacted with residents at several community events, such as the Harvest and Latin American Festivals, to provide information about *Prime North Charleston* directing residents to additional resources encouraging them to further engage in the planning process. The public input gathered has been considered, in conjunction with a data-driven evaluation of conditions within the City related to demographics, housing, cultural and natural resources, public facilities and services, economics, transportation and land uses (Appendix I), to determine needs to be addressed in the comprehensive plan. In addition, many of the outstanding needs identified in previous plans have been integrated into this assessment to identify and define its vision, goals, policies, priorities and implementation strategies.

Participants were asked for input on how the City should accommodate growth. Attendees at almost all meetings ranked encouraging development of vacant and under-utilized property as the preferred means of accommodating growth.

In addition, participants in the workshops and online survey cited the following as key elements of their vision for the future of North Charleston:

- Housing attainability and affordable spaces for commerce,
- Planning for diverse land uses and preserving open spaces,
- · Ensuring equitable access to necessary goods and services, and
- Preservation of existing neighborhoods with adequate and improved infrastructure.

The input from participants has become the pillars for the guiding principles which form this Plan. Participants in the planning process are confident that the City can achieve its goals because of its commitment to residents and businesses.



VISION AND GUIDING PRINCIPLES

The City of North Charleston envisions its future as a sustainable and resilient community

-where the quality of life is enhanced by connected communities and equitable access to gathering places;
-where growth and development have been planned to respect natural systems and connect its people to nature;
-where a vibrant and diversified economy provides employment opportunities to all residents;
-where residents and visitors can move around and connect with necessary goods, services and activities using diverse transportation options.

As such, this Plan is based on the following Guiding Principles:

1. Livability and Quality of Life:

As the City grows, ensure a high quality of life city-wide by enhancing and connecting communities and building welldesigned neighborhoods, encouraging infill and redevelopment and providing accessible new gathering places within communities throughout the City

2. Sustainable Growth and Resiliency:

Balance growth impacts with the needs of the environment to ensure sustainability and resiliency

3. Economic Opportunity:

Support a vibrant and diversified economic climate that provides an equitable range of employment opportunities, retains existing businesses and attracts new businesses

4. Mobility and Connectivity:

Connect residents and visitors with employment, shopping, educational institutions and activity centers through safe and efficient multi-modal regional transportation systems

ASSETS, CHALLENGES AND OPPORTUNITIES

For many cities across the country, growth is an enviable situation to face. Yet along with growth comes challenges: accommodating growth while preserving existing neighborhoods, providing consistent and adequate public facilities and services, minimizing impacts on valuable cultural and natural resources and managing the movement of people and goods along principal corridors. Prime North Charleston looks at where the City is, what it wants to be, and how to get there to ensure the City is PRIME(D) for its future.

Our People, Our Neighborhoods, Our Housing

North Charleston is a city of many diverse neighborhoods, some of which were established a century before the City was incorporated. Each community has a distinct history and character. Residents within these neighborhoods look forward to opportunities that will maintain or enhance their quality of life and access to goods, services and economic opportunity. Yet at the same time, these same residents are concerned that the character and affordability of their neighborhoods are threatened by the possible impacts of new development encroaching into existing residential areas.

In the past eight years, the City's population has increased by over 13,400 people to approximately 111,000 residents in 2017. Much of the growth has been concentrated in specific areas of the city, principally within new developments along I-26 and along Dorchester Road within Dorchester County. Assuming the City continues to maintain the current average annual growth rate of 1.7%, another 50,000 people may call the City home by 2040.

The current population is diverse racially, ethnically, and economically. The population continues to be dominated by young adults (twenty and thirty-"somethings"), followed by very young children. At the same time, a higher proportion of residents are older adults (ages 50-75) than ten years ago which contributes to a slight increase in the median age of residents from 30.6 in 2010 to 32.5 years of age in 2017. The population is almost equally balanced between African Americans and Whites. Since the year 2000, the Latino community has doubled in proportion to comprise 10.4% of the population.

In light of a population that is growing and changing, the City seeks to preserve its diversity, celebrate its history, and ensure its neighborhoods retain their character while accommodating new development that will enhance infrastructure and community facilities that foster a sense of security and community pride.



Oak Terrace Preserve (photo credit - CTAR)

LIVABILITY AND QUALITY OF LIFE









As the City grows, ensure a high quality of life city-wide by enhancing and connecting existing communities and building well-designed neighborhoods, encouraging infill and redevelopment and providing accessible gathering places throughout the City.















Critical components of neighborhood sustainability are housing conditions and infrastructure. Newer and revitalized neighborhoods benefit from the security and stability that accompany increased property ownership resulting from more recent investments in the community. However, with 43.8% of the City's housing stock being over forty years old substandard – even dilapidated – housing is not uncommon in locations where the older housing stock is concentrated. Higher proportions of rental properties in these older areas have also been cited as a cause for properties not being maintained or attracting reinvestment. Efforts have been made to address these issues, including funding allocated through the City's Community Development Block Grant (CDBG) program, which has enabled over \$2.5 million of investment in rehabilitating 68 homes for eligible residents over the past 10 years.

While many of the newer communities have homeowner's associations ensure that properties and infrastructure are kept in acceptable condition, older neighborhoods, particularly those with higher proportions of rental and vacant properties, rely on property owners and the City to ensure physical elements are maintained. Preserving and enhancing existing neighborhoods throughout the City can be accomplished through collaborative planning efforts and programs created by neighborhoods and the City, such an establishment of Residential Improvement Districts. Such efforts would not only promote the stability of existing neighborhoods by monitoring conditions, but also could work to provide new gathering places, as well as improved infrastructure, green space and community facilities.



Home along South Boulevard near Quarterman Park

| LQ-GOAL 1: Promote the stability and maintenance of established residential neighborhoods | |
|--|---|
| LQ-1A | Continue to support neighborhood organizations |
| LQ-1B | Provide for a "Property Maintenance Inspector" position to address housing issues, including but not limited to, board ups, tear downs and blight removal and continue investment in building and code enforcement |
| LQ-1C | Encourage the continuation of the Police Department's landlord registration program |
| LQ-1D | Identify resources to assist in funding infrastructure improvements in older neighborhoods |
| LQ-IE | Establish standards to encourage preservation and rehabilitation of existing housing, and encourage reuse of existing, vacant housing (by, for example, allowing reestablishment of legally constructed duplexes, etc. and/or multiple independent units on a single lot regardless of zoning with sufficient proof of legal establishment) |
| LQ-1F | Support implementation of housing initiatives outlined in the 2010 LAMC Plan |

Livability extends beyond the physical construct of neighborhoods. Security and community pride have a synergistic relationship. Providing adequate lighting and addressing unsafe structures can help address blight and reduce crime in older neighborhoods. In addition to infrastructure such as lighting and sidewalks to ensure safe access to goods and facilities, the livability of neighborhoods can also be enhanced through public safety programs and services that are readily available to residents.

North Charleston's Police Department actively seeks to improve communications between neighborhoods and the City on an ongoing basis. Through increased visibility within neighborhoods, Neighborhood Resource Officers and monthly reports to the neighborhoods, the department has established greater community connections. Other organizations, such as Metanoia and Charleston Promise Neighborhood, work to establish community involvement and bolster education of the City's youth. The investment of time and support for such initiatives will enhance the foundation of "community" inherent within neighborhoods.



Chicora Community Garden

LQ - GOAL 2:

Foster a sense of security and community pride in neighborhoods and public spaces

| neignbornoods and public spaces | | |
|---------------------------------|-------|---|
| | LQ-2A | Continue police outreach efforts and programming that improve communications between neighborhoods and police and foster neighborhood pride, such as RECAP, roll calls, and CAPS |
| | LQ-2B | Support after-school and other programs which provide youth with constructive activities |
| | LQ-2C | Work with neighborhoods to identify infrastructure needs, including lighting and pedestrian improvements |
| | LQ-2D | Evaluate crime prevention techniques that can be achieved through environmental design, such as lighting design, landscaping, increasing pedestrian traffic, and street design |
| | LQ-2E | Continue and enhance the City's investment in code enforcement |



COPS Athletic Program

One component of sustainable communities is having a variety of housing types, sizes, and price-points. The City of North Charleston's housing inventory is diverse, with over 48% of all units being Single family detached and another 7% as Single-family attached residences (townhomes). Over the past 15 years, a majority of building permits issued have been for additional Single-family detached residences, followed by multi-family (apartment) units.

There is a greater number of renter-occupied units than owner-occupied homes and, while the number of vacant units has decreased since 2010, 11.6% of all existing units were vacant as of 2017. It is not clear why vacant units are proportionately high even though the total inventory is increasing. Likewise almost 10% of residential lots in the City are vacant - prime for redevelopment. Enacting policies that support reinvestment in these neighborhoods can increase the confidence of owners to redevelop available land and/or renovate vacant housing units to re-establish occupancy. These investments will not only benefit existing neighborhood residents, but also provide additional housing options for current and future residents.

With a median home value of \$155,900, North Charleston home values as reported by the US Census are lower than neighboring jurisdictions and the region in general. However, in the past decade the median home value in the City of North Charleston has increased at a much higher rate than other areas of the region. Average rents have also increased significantly, although not to the extent that rents have increased in other areas of the region.

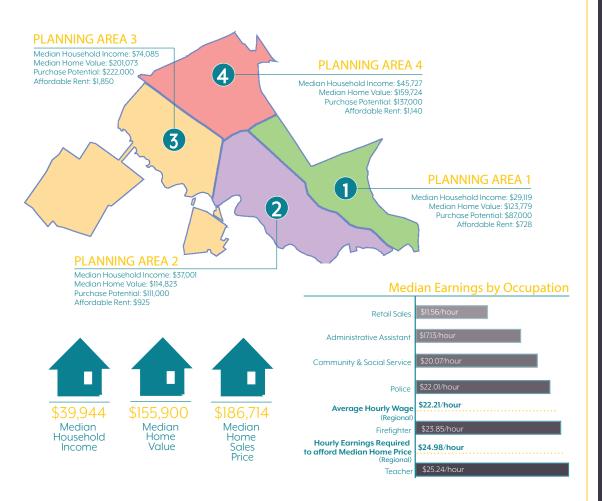
According to a regional study of housing affordability completed in 2015, the City of North Charleston's older neighborhoods, particularly those south of I-526, have the most affordable housing values and rents in the region. Given that these neighborhoods are located both where public transportation is available and closest to some of the region's employment hubs, the relative affordability of these neighborhoods is attracting new residents who are able to pay higher purchase or rent prices. Higher housing values can increase assessment values for others in the neighborhoods, generating higher taxes and/or rents, which can make it more difficult for existing residents to afford to stay.

Households spending greater than 30% of the household income are considered to be "cost burdened". Over 17,000 or 44% of the City's households spent more than 30% of the household income on housing costs in 2017. As depicted in Appendix 1, these cost burdened households are located throughout the city. Recent market studies confirm a regional need for rental units, with a preference for rental and for purchase units to be within mixed-income communities. In addition, citizens have noted needs for additional senior housing options in the City, which include opportunities to "age in place".

| LQ-GOAL 3: Support investment in sustainable neighborhoods, including expansion of homeownership opportunities, affordable housing, and infill development | |
|--|---|
| LQ-3A | Identify appropriate areas for infill development of affordable housing and amend regulations to incentivize development |
| LQ-3B | Accommodate and incentivize higher-density housing in appropriate areas to increase the potential for additional supply, through use of accessory dwelling units, allowing attached housing in traditionally detached Singlefamily areas, and other applicable incentives |
| LQ-3C | Collaborate with housing interests, including the North Charleston Housing Authority and regional housing groups, to find incentives and resources to increase homeownership, financial literacy and ownership retention |

Policies and programs that encourage reinvestment in neighborhoods, can increase homeownership opportunities and generate various types of housing that are affordable to a range of household incomes city wide.

HOUSING AFFORDABILITY



Source: US Census, CTAR, BCDCOG

WHAT'S "AFFORDABLE"?

Housing is considered "affordable" when costs do not exceed 30% of a household's combined annual income. Housing that is "affordable" to one household may not be considered affordable for another. The median household income in 2017 was \$39,944 (30% less than the regional median income), therefore housing less than \$120,000 or \$1,000/month in rent would be affordable to the majority of households. The City strives to ensure a variety of housing options are available so that affordable housing can be attained by anyone wishing to live within the City boundaries.

Housing affordability is a regional challenge. Charleston County has established an Affordable Housing Task Force to research and evaluate programs that can be adopted to maintain and generate housing that is financially attainable to a wide spectrum of households, both for homeownership and for rent. The City of North Charleston's participation on the task force should not limit its exploration of other methods for achieving the same goal for current residents to afford to staying in their current housing and new residents continuing to be attracted to live in the City.

The City's neighborhoods each have a unique character and identity. Each neighborhood within the City should be able to maintain its character and identity in the future as new residents move in and the population grows. New neighborhoods may often have design requirements to ensure future development is consistent with the established community character. Those communities that have evolved without such protections might opt to work with the City to identify what their character is and how to maintain or enhance their identities in the future through the development of specific neighborhood plans.









A "palette" of neighborhoods creates the City of North Charleston. Each neighborhood's character is unique and should be celebrated for its individuality.

Likewise not all commercial corridors or area within the City are alike. Therefore there is potential for identifying the character of each corridor and developing guidelines for new development and property re-investments to ensure compatibility with that character as areas redevelop.

| LQ-GOAL 4: Enhance the character, design, and identity of neighborhoods and corridors | | |
|---|---|--|
| LQ-4A | Establish gateways and districts and develop a cohesive branding program for each gateway, district, major commercial node and/or corridor including, but not limited to, wayfinding, gateway planning, and neighborhood branding | |
| LQ-4B | Develop and prioritize a list of improvements to public spaces, including streets and parks, which can serve to enhance visual character and improve the pedestrian environment | |
| LQ-4C | Continue to work with neighborhoods on the installation and maintenance of neighborhood identification signs | |
| LQ-4D | Update the Zoning Regulations to have a consistent sign code throughout the City, with branding for commercial corridors | |
| LQ-4E | Encourage use of design guidelines or performance requirements for new development, including but not limited to, minimum requirements and materials, as appropriate, and consider establishment of a commercial corridor design review board | |
| LQ-4F | Invest public funding in signage, streetscape improvements, etc. to spur private investment | |
| LQ-4G | Establish small area/neighborhood plans for traditional neighborhoods where fragmented land uses exist to develop a framework for future development, redevelopment, and public investment | |

SUSTAINABLE GROWTH AND RESILIENCY







Balance growth impacts with the needs of the environment to ensure sustainability and resiliency.



OUR ENVIRONMENT

North Charleston has an abundance of natural resources throughout the City. As the City grows, the demand for housing and employment centers challenge the preservation of these resources. There are opportunities for the City to further promote the conservation of larger tracts in partnership with various organizations while establishing or maintaining a balance between the natural and built environments within neighborhoods - a critical quality of life component. Green spaces provide a space for socialization and passive recreation within each neighborhood, particularly those where smaller lots mean more households with smaller yards. Brownfields can be re-used to generate additional open spaces in and around neighborhoods, in addition to revitalizing neighborhood commercial areas. Most importantly, City decisions on future development patterns and proposals can greatly influence having an appropriate balance between the natural and built environment throughout the city in the future.



Noisette Creek

| SG-GOAL 1: Maintain a balance between the natural and built environments to alleviate the effects of growth on the | | |
|---|--|--|
| natural env | vironment and quality of life | |
| SG-1A | Study and revise residential zoning districts to accommodate growth where there are existing resources and infrastructure, especially along transportation corridors, including development of vacant lots, assessing nonconforming provisions to encourage reuse and redevelopment, and incentivizing opportunities for redevelopment | |
| SG-1B | Continue collaborative efforts to identify and plan for redevelopment of brownfields, including grant funding to mitigate costs that potentially impede redevelopment of brownfields/grayfields | |
| SG-IC | Revise Zoning Regulations to include incentives for greater conservation of green spaces, increase requirements for accessible open spaces within new developments, and reduce permitted impervious lot coverage in certain districts | |
| SG-1D | Update development regulations to strengthen stormwater management (SWM) requirements, limit fill in flood zones, provide consistent riparian buffers, mitigate impacts of flooding, re-evaluate tree canopy and preservation requirements and develop standards to allow previous sidewalks and roadways and other methodologies to better utilize infrastructure in multi-faceted ways | |
| SG-1E | Re-evaluate Disaster Plan to ensure streamlined permitting requirements for post-disaster construction and incorporate regulations to accommodate temporary housing post-disaster | |

Green spaces are sometimes overlooked as an important piece of community infrastructure. Not only is green space an asset to communities within the City, but it can also play an integral part in stormwater management and mitigating increased demands on aging drainage systems. As the City grows, there is less previous surface to absorb stormwater. Without functioning storm drainage systems to accommodate increased impervious surfaces, coupled with increased storm activity, the City is at a greater risk of flooding.

Natural areas are the most cost-efficient stormwater management system to mitigate the impacts of development and assist with the absorption of rainfall and reduce rainwater runoff within neighborhoods. Continual updates to the City's stormwater plans to stay abreast of best management practices (BMPs) for stormwater management can be integrated into future developments to ensure low-impact designs and patterns that are ecologically friendly. Floodable green spaces can serve dual purposes for recreation and stormwater retention. Likewise, these provide an opportunity for residents to connect with nature and to offset potential impacts from an ever-changing climate.

A system of designated green spaces and buffer areas, along with undevelopable natural areas can function as "green infrastructure" that improves the City's resiliency to storms and other natural events, while mitigating potential flooding and protecting water quality. Creation of a green infrastructure plan will identify those areas to be conserved as development proposals are reviewed.



Quarterman Park near Park Circle

SG GOAL 2 Enhance natural resources as green infrastructure to build resiliency and protect water quality by minimizing impacts of stormwater and nuisance flooding SG-2A Develop and adopt a Green Infrastructure Plan for the City that addresses SWM requirements, encourages Low-Impact Development standards, limits fill in flood zones, and expands buffers to mitigate impacts of flooding SG-2B Work with various partners to identify, maintain, and conserve larger tracts of natural resources while requiring accessible open spaces within new developments SG-2C Continue protecting scenic corridors and natural viewsheds along the Ashley and Cooper Rivers, through use of a 50-foot citywide wetland/ riparian buffer, while allowing for stormwater facility and utility penetrations where appropriate SG-2D Revise parking requirements and provide for reductions as an incentive to encourage larger open

spaces, less impervious surface, and higher densities of development

Encourage eco-friendly and neo-

traditional development design to promote low-impact design, energy efficiency, and reduce sprawl

SG-2E

As the City becomes more urbanized, mixed-use and higher density development in designated locations and/or contexts can assist in mitigating the impacts on adjacent natural resources. Overlay standards and/or use of performance or form-based codes will provide the needed flexibility to accommodate higher densities, while ensuring compatibility and cohesiveness of design and placement that mitigate impacts such that new developments contribute to the City's sustainability. Many of the City's current land use and development regulations could benefit from updates to more performance and/or form-based codes to assist in balancing growth demands and encouraging environmental resiliency.



Mixson and The Factory at Garco as examples of mixed-use neighborhoods

| SG-GOAL 3: Use the Future Land Use Map to serve as the framework for sustainable land uses and development patterns, including mixed use, dense development | | |
|--|---|--|
| SG-3A | Reduce use of Planned Development zoning by establishing multi-layered, mixed-use zoning districts to implement land use designations on the Future Land Use Map | |
| SG-3B | Evaluate areas to accommodate mixed-use nodes/corridors and mixed-use pedestrian-oriented communities through use of overlay zoning that incorporate transit-oriented development guidelines and use of performance or formbased codes, conditional uses, and/or special exceptions | |
| SG-3C | Refine policies and land development regulations to consider requirements for pedestrian accessibility and connectivity within new developments in accordance with Complete Street design principles | |
| SG-3D | Adopt an "Official Map" that displays potential future roads, parks and public facilities in line with S.C. Code Section 6-29-340(B)(2)(c) | |

Residents, property owners, and businesses look to a jurisdiction for adequate public facilities and supportive infrastructure. However, the provision of these comes at a price. Newer subdivisions are required to include supporting infrastructure as they are developed, but many established neighborhoods lack sidewalks and/or adequate drainage systems. In addition to these obvious infrastructure deficiencies, there are aged water, sewer and utility lines. Planning and coordination are critical elements of ensuring the cost-efficient provision of adequate facilities and infrastructure. Each component of infrastructure is the responsibility of a unique agency or department, each with independent strategic plans. Increased coordination and collaboration to construct facilities and/or make necessary upgrades to infrastructure concurrently can mitigate costs and minimize the inconvenience to residents and businesses.

A tool used to frame coordination and collaboration on the provision of facilities and infrastructure improvements is a Capital Improvement Plan (CIP). A CIP sets forth projects required to implement plans which have been prepared and adopted, with an annual listing of priority project for consideration by governmental bodies responsible for implementation. The City can greatly benefit from the development of a CIP that is used as a blueprint for prioritization and budgeting of future public facilities and infrastructure.





N. Charleston Public Works Bldg. (top photo) and the new Athletic

Center

SG-GOAL 4:

Enable the provision of facilities and infrastructure to meet the needs of the existing and future population through coordination of land use planning with the availability of related infrastructure

| infrastructi | ure |
|--------------|--|
| SG-4A | Create and adopt a Facilities Master Plan/Capital Improvements Plan that addresses both the existing inventory of publicly-owned assets and future needed capital improvements |
| SG-4B | Continue to work with neighboring jurisdictions and applicable agencies to coordinate land development approvals with availability of infrastructure and reduce duplication of services |
| SG-4C | Develop an Annexation Policy for evaluation of potential annexations, associated impacts of concern and reasonable geographic connectivity as well as planning for provision of services and infrastructure |
| SG-4D | Continue to seek grants and consider alternative revenue sources to fund infrastructure improvements |
| SG-4E | Continue utilizing existing revenue sources, such as the City's sidewalk bank or tree mitigation bank, to fund infrastructure improvements, such as pedestrian connectivity between communities and park areas and streetscaping |
| SG-4F | Continue use of TIFs and other public funding to spur private capital investment |

ECONOMIC OPPORTUNITY



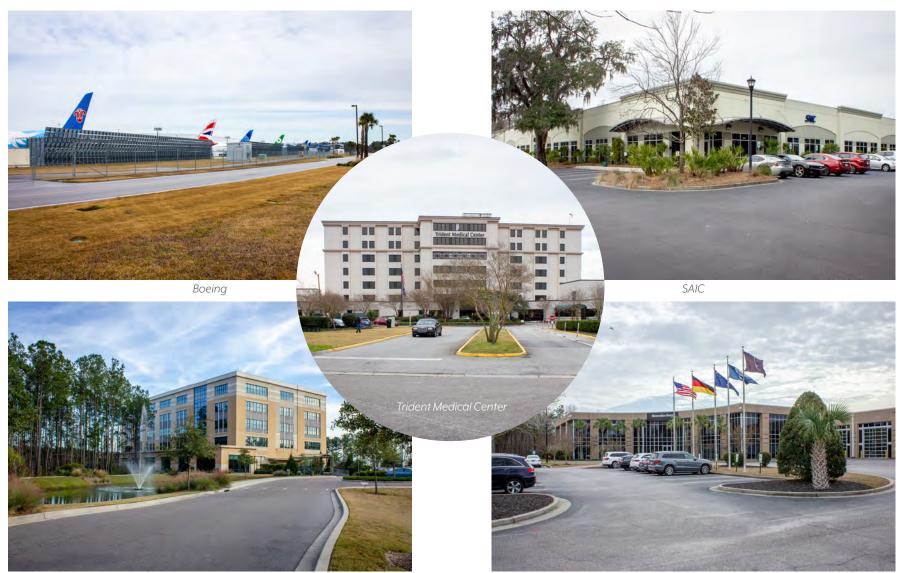








Expand a vibrant and diversified economic climate that provides a range of employment opportunities, retains existing businesses and attracts new businesses



Roper Hospital Office Park

Mercedes Benz

North Charleston has a strong economy based on its successes in commercial and industrial development. As such, it has continued to be a significant employment hub in the region which continues to grow. In 2018, an estimated 5,662 businesses in the City of North Charleston employed slightly fewer than 95,000 people. Principal industry groups in the City include Manufacturing, Transportation and Warehousing, Retail Trade, and Healthcare Services. Major employers located in the City include:

- Boeing SC
- Trident Medical Center
- Trident Technical College
- Mercedes-Benz Vans LLC
- Detyen's Shipyard
- Science Applications International Corporation (SAIC)
- Scientific Research Corporation
- Joint Base Charleston

While the City enjoys economic prosperity, it is important to recognize and continue the collaboration needed to sustain economic growth. Partnerships with both public and private sector interests will serve as the basis for economic sustainability and future growth.

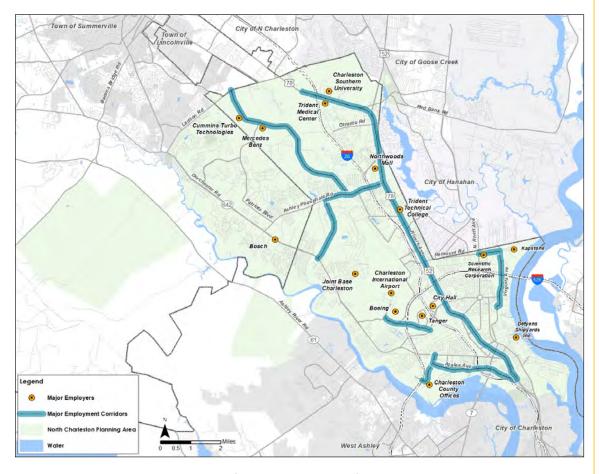
Approximately 95,000 people are employed by 5,662 businesses and industries located within the City of North Charleston – more employees and businesses than in either Berkeley or Dorchester Counties.



Joint Base Charleston Air Force Base main entrance

| | EO-GOAL 1: age economic activity that capitalizes on North ton's locational advantages and economic assets |
|-------|---|
| EO-1A | Continue to encourage the revitalization of North Charleston's commercial corridors and nodes by improving public infrastructure |
| EO-1B | Continue coordinating with the SC Ports Authority, Palmetto Railways, and the SC Department of Transportation in long range planning, including intermodal infrastructure advances and improvements, to support the City's role in the maritime industry |
| EO-1C | Capitalize on opportunities for additional port- related investment, including recruitment of import-export firms |
| EO-1D | Coordinate long range planning with universities, colleges, and medical institutions to attract spinoff investment in research and development and provide opportunities for training |
| EO-1E | Support and promote North Charleston as a business and cultural center of the region through continued marketing and recruitment activities |
| EO-IF | Develop a plan to ensure the vitality of the former Navy Base, capitalizing on its potential as an economic catalyst, including defining the southern base area for port supportive activities and creating a small area master plan for the northern area of the base to guide and direct public and private investment to implement the vision for a future downtown North Charleston |
| EO-1G | Continue support of airport expansion and supporting industries |
| EO-1H | Position the City to be competitive in future federal and state economic incentives and programs, such as brownfield funding, opportunity zones and small business incubation |

The key to economic stability is the synergy of co-location by commercial enterprises. For the most part, the City's current commercial economy is centered along principal transportation corridors. Growth of future commercial development should be guided to vacant and underdeveloped lots located along those same corridors where the infrastructure exists. These mixed-use corridors and employment areas are shown on the Future Land Use Map. Where needed, infrastructure in those corridors should be enhanced. Without question, the City should continuously evaluate ways to maintain its well-known "business-friendly" environment.



North Charleston Employment Corridors

| EO-GOAL 2: Locate intensive commercial and/or industrial uses where supportive infrastructure exists and impacts on neighborhoods can be mitigated | | |
|---|---|--|
| EO-2A | Develop a program of incentives to foster infill development of commercial and employment uses along transportation corridors that are easily accessible to residents, employees, and customers | |
| EO-2B | Enhance economic viability of commercial corridors as shown on the Future Land Use Map | |
| EO-2C | Invest in existing infrastructure to attract and retain businesses | |
| EO-2D | Evaluate the impact of City processes on doing business, including permitting, business licensing and other requirements, and modify where appropriate to support business investment | |

Despite its economic success and prosperity, as well as being the region's employment hub, some of the City's population groups continue to face greater challenges accessing employment within the City. While greatly improved since the recession, North Charleston has an unemployment rate of 8.4% - greater than any of its neighboring jurisdictions. With lower levels of educational attainment coupled with a higher proportion of households with no or limited access to vehicles, many residents are disadvantaged by a lack of education or training to gain employment, and/or face challenges in securing reliable transportation to job skills training or to work.

Equitable access to education, training, and/or jobs is needed to ensure that all residents have equal opportunity for employment. SC Works and other agencies provide connections between unemployed and underemployed members of the labor force to education and training and/or jobs so that a lack of skilled labor is not a challenge to continued economic growth. Likewise, there are opportunities for collaborations to support the retention and growth of small businesses desiring a City of North Charleston location and/or affordable commercial spaces.



Lowcountry Local First's Good Enterprises
Initiative Community Business Academy

Trident Technical College -Aeronautical Center

EO-GOAL 3:

Attract businesses that will provide increased opportunities for North Charleston's citizens to work within the City, thereby creating a strong local employment base

| EO-3A | Continue to support and work with the Charleston Metro Chamber of Commerce, the Charleston Regional Development Alliance, the counties' economic development departments, and other regional business organizations to retain existing businesses and recruit new employment opportunities |
|-------|--|
| EO-3B | Work with the Charleston County School District, the Dorchester School District Two, Trident Technical College, Charleston Southern University, Ready SC and the State Department of Education to improve education and development of a skilled labor force |
| EO-3C | Identify and adopt incentives for small businesses and work with partners to create "incubator" spaces or business districts for new commerce |









A BERKELEY-CHARLESTON-DORCHESTER COUNCIL OF GOVERNMENTS PROGRAM

Historical and cultural arts resources are another economic sector that is key to the City's quality of life. Cultural resources should be accessible to all residents.

This is **prime** time for the City to integrate spaces for permanent art exhibits and historic archives that are accessible to the public, whether in formal museum spaces or galleries or at public spaces. The future bus rapid transit system has the potential to bring cultural resources to the larger North Charleston area beyond I-526 expanding greater access to the community at-large. Due to the City's recent growth, the inventory of the City's historic properties, most recently conducted in the mid-1990s should also be updated.



City Arts Festival Exhibit

| EO-GOAL 4: Utilize North Charleston's cultural assets as a generator for the local economy | | |
|---|--|--|
| EO-4A | Identify funding sources to continue providing support for local arts organizations and establish a permanent cultural arts center/art gallery/museum to celebrate the City's diverse history and promote the arts | |
| EO-4B | Integrate public arts at all future bus rapid transit stations for branding and display purposes | |
| EO-4C | Conduct and maintain an updated Historical and Architectural Survey | |
| EO-4D | Expand farmer's market to other areas within the City | |

MOBILITY AND CONNECTIVITY



Connect residents and visitors with employment, shopping, educational institutions, and activity centers through safe and efficient multi-modal regional transportation systems





Palmetto Commerce Parkway



Sidewalk and bike lane along Spruill Avenue



CARTA provides transit service within the city

The mobility of residents and those who are employed in the City has a substantial impact on the quality of life within North Charleston. Those routes and/or corridors designed to accommodate higher volumes of flow and multiple modes (or options) for transportation along them are principal components of the City's mobility. The City's position within the region creates the need for these corridors to serve both regional "pass-through" traffic and local trips. The City is in the center of the Charleston Area Transportation Study (CHATS) planning area. CHATS initiatives facilitate regional efforts to address congestion and safety concerns along these routes. Likewise, there is opportunity for collaboration to address deficiencies in facilities by investing in transit, bicycle and pedestrian improvements.

Projects in the CHATS 2040 Long-Range Transportation Plan (LRTP) range from improvements to increase capacity along major corridors such as Dorchester Road to intersection improvements that address "hot spots" of congestion and accidents. As depicted on pages 102 and 103 of Prime North Charleston's Appendix 1, one-third of the projects in the CHATS LRTP's prioritized list for future federal funding are located within the City of North Charleston. As shown on the following page, over \$3 billion in transportation projects are currently being developed, including the Lowcountry Rapid Transit system proposed for construction along University Boulevard and Rivers Avenue.

Collaboration between the City, CHATS, Charleston and Dorchester Counties and SCDOT is critical to ensure the design of these transportation projects includes facilities that support use by multiple users. Construction of new bicycle and pedestrian facilities, identified in the regional WalkBike BCD plan or those to address safety issues should be integrated within these projects as well. Likewise, the city should continue efforts to seek improvements, such as overpasses, that reduce the interruption of mobility by the numerous rail crossings that exist to support the city and regional economy.

The City of North Charleston is poised to reap the greatest benefit of increased mobility and connectivity with development of the Lowcountry Rapid Transit (LCRT) system slated for operation in 2025.

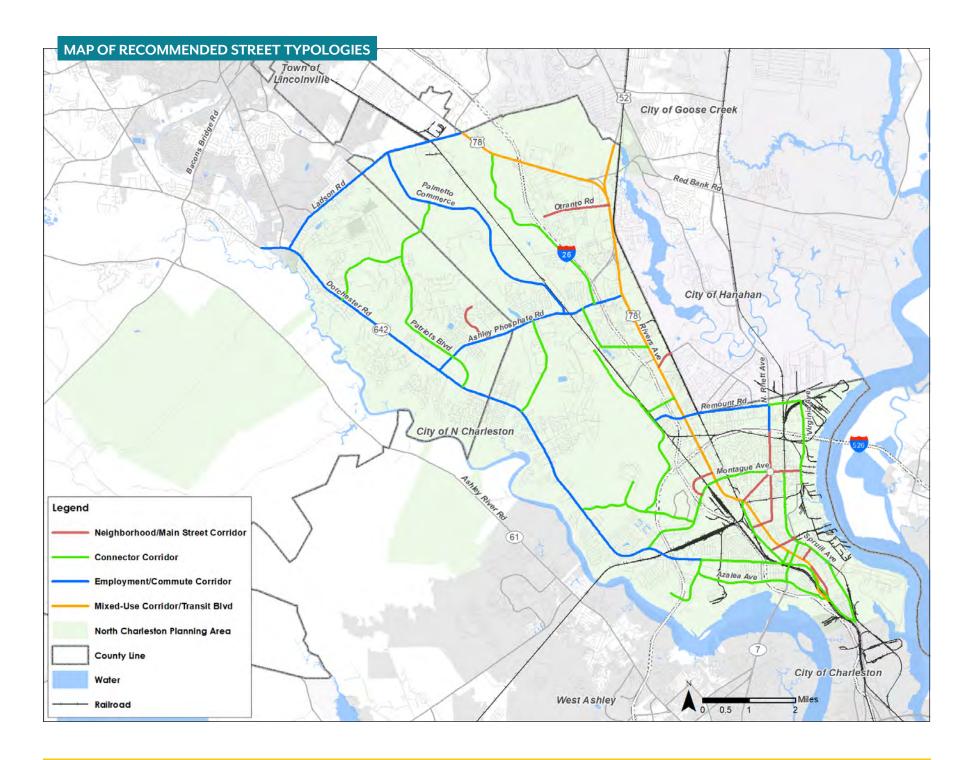


Source: Neck Area Master Plan: Partnership for Prosperity

| | MO-GOAL 1: a safe and reliable multi-modal ation system | |
|-------|--|--|
| MO-1A | Support and promote use of transit for improved mobility within the City, including the Lowcountry Rapid Transit (LCRT) and CARTA's traditional bus system | |
| MO-1B | Collaborate with DOT and CHATS to prioritize safety improvements based on accident data, and utilize congestion management techniques such as traffic demand and management modeling, signal timing, access management and other technological advances to optimize operations | |
| MO-1C | Work with CHATS to implement prioritized transportation improvements in the CHATS 2040 Long-Range Transportation Plan | |
| MO-1D | Coordinate with CARTA on enhancement of current and future transit service and facilities | |
| MO-1E | Require traffic impact analyses based on expected peak-hour trips for each development and establish a policy for traffic impacts and multi-modal connectivity | |
| MO-1F | Establish a traffic and transportation department and/or position to coordinate with various entities sponsoring \$3 billion in transportation projects under construction in the City over the next ten years | |
| MO-1G | Continue seeking state and federal funds to improve and expand the existing transit network | |

Planned transportation improvements with committed funding:

| PROJECT | SPONSOR | ESTIMATED START DATE | ESTIMATED COMPLETION DATE | BUDGET | FUNDING SOURCE(S) |
|---|-------------------------|-------------------------|--|----------------|---|
| I-526 widening (Lowcountry Corridor West – Virginia Avenue to Paul Cantrell Blvd in West Ashley) | SCDOT | 2022 | 2026-2028 | \$1.54 billion | Act 275 Federal Interstate Funding |
| I-26 widening and interchanges/Rivers improvements | SCDOT | 2026 | \$1.75 million Corridor Management Plan in development | | |
| Lowcountry Rapid Transit line (Rivers and University) | BCDCOG | 2023 | 2025 | \$360 million | Charleston County Transportation Sales Tax, Federal Transit Administration Capital Investment Grant |
| Port Access Road/ Local Port Access Road (Stromboli extension) | SCDOT (Design/Build) | 2016 | 2020 | \$340 million | Fed Earmark/ SC Ports Authority, SC Department of Transportation |
| ICTF improvements (NB roads and track, Cosgrove-McMillan) | SCPR/DOC | | | | |
| Palmetto Commerce Pkwy/I-26 interchange (Weber Dr) | Charleston Co. | 2020 | 2022 | \$53.3 million | Charleston County |
| Palmetto Commerce Parkway Phase3 | Charleston Co. | 2023 | 2025 | \$185 million | Transportation Sales |
| Airport Connector Road | Charleston Co. | 2022 | 2024 | \$43.2 million | Tax, SC Department of Commerce |
| Dorchester Road widening (Michaux Pkwy to Charleston/Dorchester county line) | Charleston Co. | | 2030 | \$71 million | Charleston County Transportation Sales Tax |
| Northside Drive realignment at Ashley Phosphate | Charleston Co. | | 2026 | \$40.5 million | Charleston County Transportation Sales Tax |
| US 78 improvements (US 52 to Charleston/Dorchester county line) | Charleston Co. | | 2026 | \$47.2 million | Charleston County Transportation Sales Tax |
| Overpasses (3; Rivers @ Harley Street, Rivers @ Durant, North Rhett @ I-526) | SCSPA/DOT | TBD | TBD | \$300 million | SC Department of Commerce |
| | | | Total: | \$3 billion | |



Neighborhood/Main Street Corridor

- 1-2 travel lanes (optional median)
- · Low Vehicle volumes and speeds
- Moves people through and between neighborhoods
- On-Street parking where appropriate
- Pedestrian and bicycle accommodated through slow vehicular travel speeds





Connector Corridor:

- 2-4 travel lanes
- Balances traffic flow and connectivity
- Landscaped medians; applied access management techniques
- Accommodates transit, pedestrian and bicycle through separated or dedicated facilities





Employment/Commute Corridor:

- 4-6 travel lanes
- · High vehicle volumes and speeds
- Landscaped medians; applied access management techniques
- Accommodates local truck/freight movement and transit
- Pedestrian and bicycle facilities (sidewalk, multi-use path)



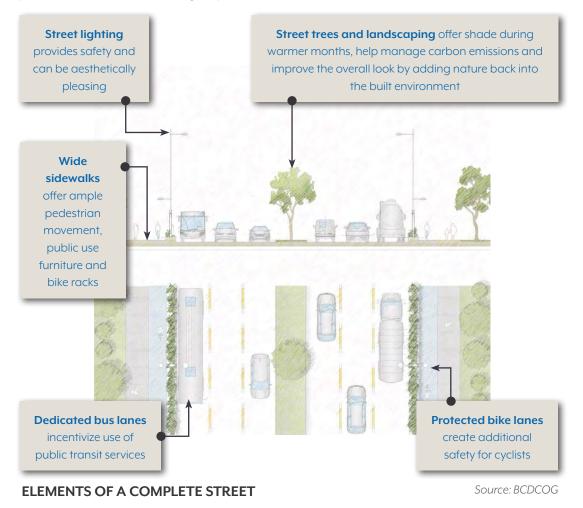


Mixed Use Corridor/Transit Boulevard:

- 4-6 travel lanes
- Landscaped medians; applied access management techniques
- High multi-modal accommodations transit shelters and facilities, sidewalks, bicycle lanes, multi-use path
- · High visibility crosswalks, pedestrian level lighting



Mobility for a city undergoing growth is dependent on a system of transportation options. Trails, sidewalks and pedestrian paths are crucial elements that provide connections to transit and roads ensuring accessibility for residents to parks, schools, shops and services. Making these facilities available within neighborhoods and across the City may be challenging, however it is not impossible and needed for the City to be livable and sustainable. Collaboration among agencies and departments in the implementation of improvements can have a profound impact on the effectiveness of principal corridors, as well as the use of alternative modes of transportation such as transit. The myriad of improvements needed to ensure the mobility of pedestrians, cyclists, cars, buses, and freight, along with the funding needed to make the improvements, can be best achieved by coordinated efforts among all parties



| MO-GOAL 2: Encourage connectivity of neighborhoods and increased mobility options while increasing safety measures | | |
|--|--|--|
| MO-2A | Adopt policies that support development of Complete Streets and evaluate regulations for design standards to require interconnectivity of roads, sidewalks and bike lanes | |
| MO-2B | Provide safe connections to transit corridors through the use of sidewalks, multi-use paths, crosswalks, etc. | |
| MO-2C | Prioritize safety improvements near schools, bus stops, and commercial corridors, including opportunities for Safe Routes to Schools grants | |
| MO-2D | Pursue opportunities for making non-vehicular improvements and connections across the City, including, but not limited to, reuse of former rail lines' right-of-way for trails | |
| MO-2E | Coordinate with the State Ports Authority, CSX, Norfolk Southern, Palmetto Railways (Department of Commerce) and trucking associations on development of facilities/ improvements to mitigate impacts of freight on neighborhoods/traffic flows | |
| MO-2F | Annually update and continually enforce the truck routing plan, including through the posting of truck prohibitions and police monitoring and enforcement | |
| MO-2G | Evaluate and implement traffic calming strategies such as pedestrian bump outs, speed bumps, lowering neighborhood street speed limits, and stop signs where appropriate in conjunction with transportation improvements or spot efforts to protect residential areas from impacts of inappropriate volumes of throughtraffic and/or excessive speed | |
| MO-2H | Improve access to neighborhoods and employment centers with traffic signage and signal enhancements, as well as roadway condition and intersection improvements | |

MO-COAL 2

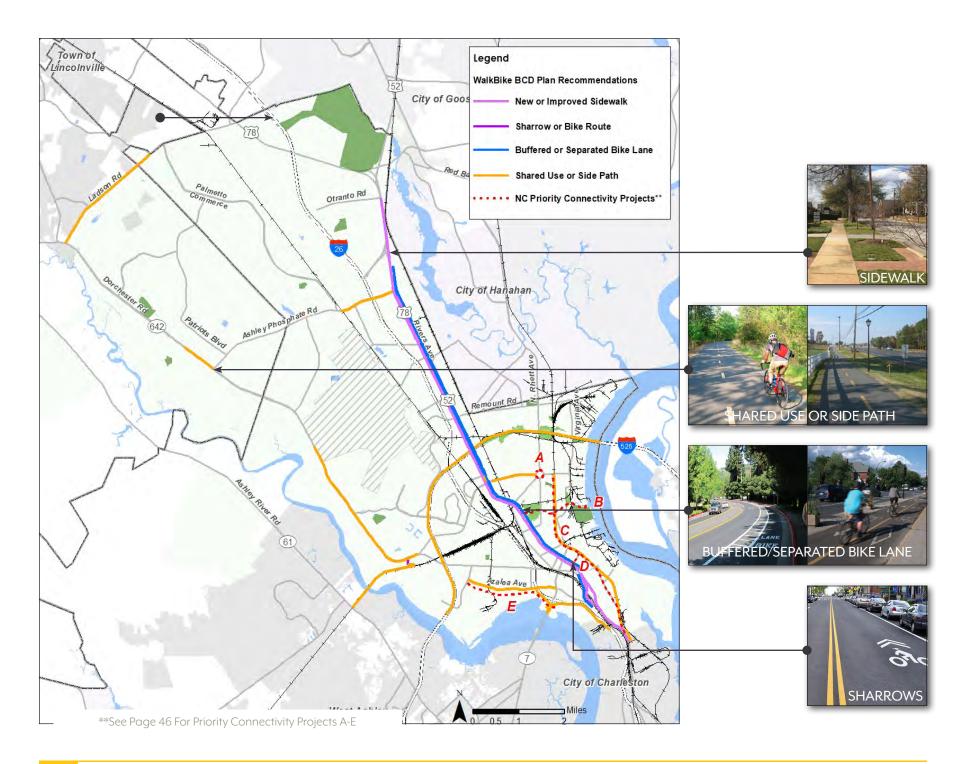
Patterns of land uses have a direct impact on the level of capacity, safety and connectivity benefits that are realized from prioritized improvements. Establishing zoning districts and design standards that support a variety of land uses and intensities within close proximity to one another, particularly along major corridors, can create opportunities for residents and employees looking to connect with transit and non-motorized modes of transport.

Improved access to varied land uses, in conjunction with shorter local trip/travel options to work/life/shopping/entertainment can promote healthier lifestyles. The synergistic benefit of these mixed-use land use patterns is less impervious surface, such as parking lots, resulting in reduced stormwater runoff while retaining natural spaces that contribute to the quality of life within the City.

WALKBIKE PROJECTS

| LOCATION | ALIGNMENT AND FACILITY TYPE | MILES | LOW COST EST. | HIGH COST EST. |
|---|--|-------|------------------|-------------------|
| I 526 Shared Use Path - Leeds Ave to Virgi | | 6.92 | \$2,768,090 | \$5,536,180 |
| BON AIRE BLVD/ SHARED USE PATH | Shared Use Path - Dorchester Rd to Ashley River Rd | 1.96 | \$733,126 | \$1,468,945 |
| E MONTAGUE AVE | Shared Use Path - Piedmont Ave to Buist Ave | 0.98 | \$392,224 | \$784,448 |
| SPRUILL AVE | Shared Use Path from E Montague Ave to Tuxbury Ln | 3.89 | \$1,554,998 | \$3,109,996 |
| US HWY 52 | Mix of New/Improvement to Existing Sidewalks, Shared Use Paths, and Separated or Buffered Bike Lanes - Otranto Rd to Tuxbury Ln | 16.79 | \$5,792,874 | \$29,301,367 |
| US HWY 78 | Mix of Improved Sidewalks and Buffered Bike Lanes - US 52 to Stromboli Ave | 0.77 | \$229,595 | \$1,378,799 |
| LADSON RD | Shared Use Path - Miles Jamison Rd to Dorchester Rd | 2.65 | \$1,058,258 | \$2,116,516 |
| DORCHESTER RD | Shared Use Path - Club Course Dr to Ashley Phosphate Rd | 0.78 | \$313,415 | \$626,830 |
| DORCHESTER RD/ MARGINAL ST | Shared Use Path - Fellow Rd to Bon Aire Blvd | 3.59 | \$1,434,943 | \$2,869,884 |
| ASHLEY PHOSPHATE RD | Shared Use Path - East of Spartan Blvd to Rivers Ave | 1.22 | \$486,789 | \$973,577 |
| AZALEA DR | Shared Use Path - Leeds Ave to Cosgrove Ave | 1.97 | \$789,348 | \$1,578,694 |
| HARVEY ST/SHARED USE PATH | Shared Use Path - Azalea Dr to Austin Ave | 2.36 | \$942,041 | \$1,884,084 |

| transit, inclu | MO-GOAL 3: Encourage land use patterns designed to support transit, including compact, walkable, mixed use developments | | | | | |
|----------------|--|--|--|--|--|--|
| MO-3A | Develop and adopt regulations, including overlay districts and design standards, to facilitate transit corridors and incentivize redevelopment along principal corridors, including reduction in required parking | | | | | |
| MO-3B | Evaluate principal corridors for opportunities and develop streetscape plans for safety as well as aesthetic and functional improvements, including lighting, crosswalks, sidewalks, improved pavement quality, wayfinding signage, etc. | | | | | |
| MO-3C | Implement projects identified in the 2017 WalkBike BCD plan | | | | | |
| MO-3D | In coordination with development of the Capital Improvements Plan, identify streets to take over from SCDOT for maintenance and fund streetscape improvements to catalyze reinvestment | | | | | |
| MO-3E | Revise subdivision regulations as needed to require connectivity between neighborhoods and to abutting commercial centers | | | | | |

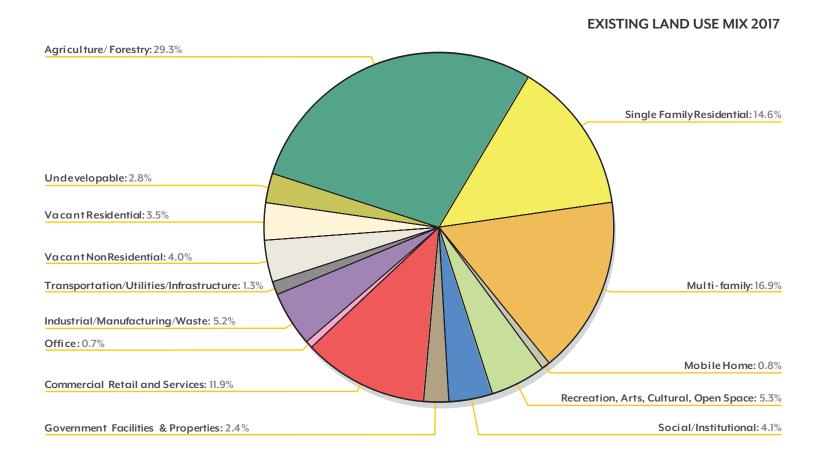


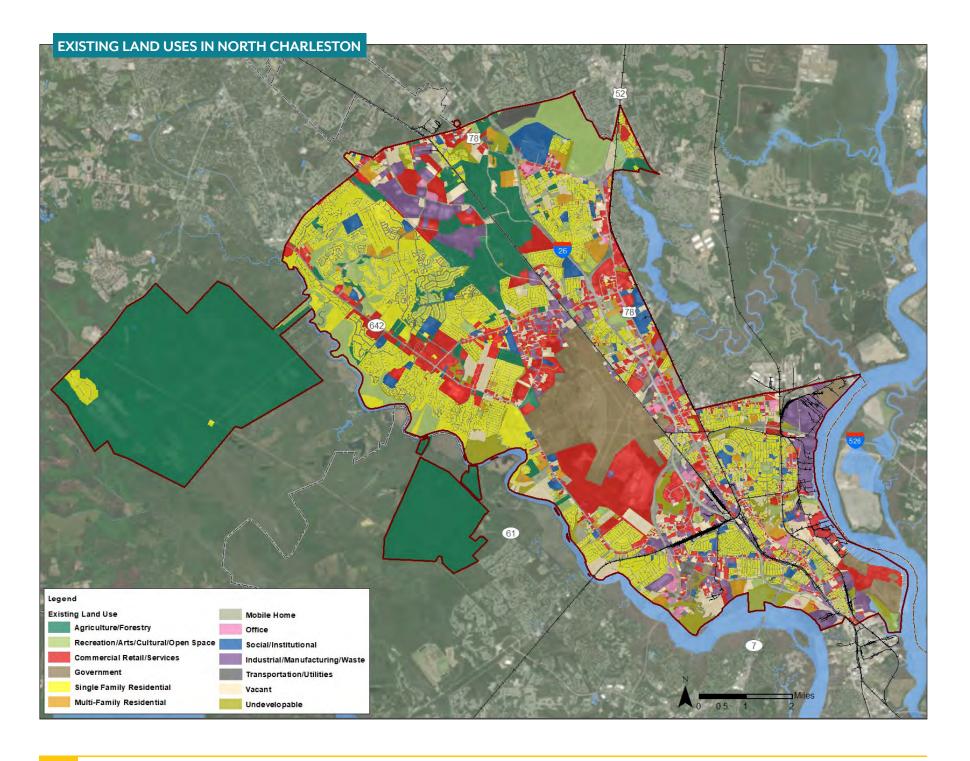
FRAMEWORK FOR SUCCESS



A blueprint for sustainable land uses and development patterns

The City of North Charleston has a variety of land uses, but despite robust development activity, the largest land use category by existing acreage is Agriculture/Forestry. Of the 19,174 acres identified as agriculture/forestry land use, over 50% are in two major tracts annexed into the City on the west side of the Ashley River and slated for future development. Although there is still a growing demand for multi-family units, the second largest existing land use in terms of land area is multi-family apartments, likely because the majority of these units are located within low-rise buildings.



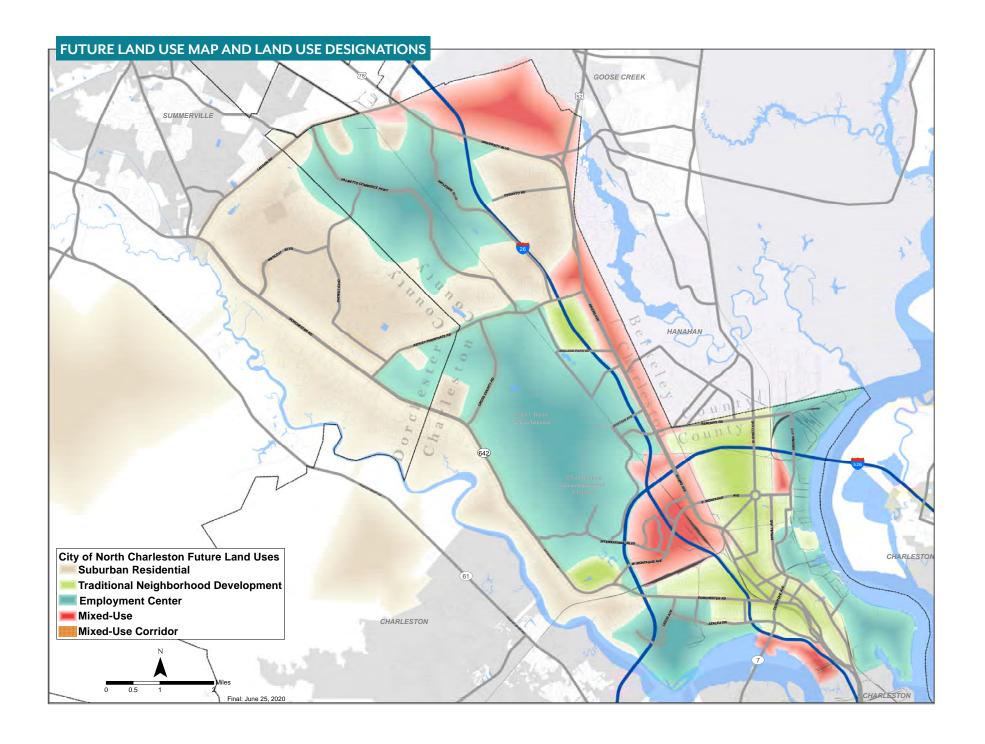


The City seeks to accommodate growth and all types of land uses in a manner that enhances the quality of life for all residents. The City strives to continue building upon its fabric of diverse yet complementary land uses that already exist. Using land use decisions to guide development within defined parameters will enable interconnected development patterns to flourish. These patterns can protect, expand and connect green infrastructure so that clearly defined corridors for both development and green space emerge.

The Future Land Use Map therefore is a framework for many of the goals and policies in this plan. It is a guide for land use decisions and informs where public investments will be needed. Public input on where certain types and intensities should be located for development on the Future Land Use Map was accepted at the public open houses and via comments through the plan website.

Each future land use designation on the City's Future Land Use Map prioritizes infill and redevelopment of land to promote greater sustainability and connectivity in all areas of the City. Varied housing types and lot sizes within neighborhoods, mixed-uses along corridors and conserved open spaces will better serve the City's population and businesses with affordable housing and commercial spaces, greater connectivity and quality of life.

Land use designations included on the Future Land Use Map are established to allow for a broad mix of uses. Each designation establishes parameters for prioritizing land uses and development patterns within the identified land use area. A number of different zoning districts may be applied within each designated land use area to achieve these development objectives. The appropriateness of any zoning district within the land use area is contingent upon the context or the parcels surrounding a proposed development and the interrelated conditions that benefit from their close proximity.



Suburban Residential (SR)

The Suburban Residential designation is applied to areas where the City intends to sustain lower-density neighborhoods. The principal use of land within these designated areas is low-density, Single-family residential development with large yards and open space. Multifamily development and commercial uses in proximity to designated Mixed-Use Corridor future land use areas are compatible within the SR designated areas as well. Appropriate land uses include: Single-family residential detached housing, manufactured homes, open space, civic and recreation facilities, and mixed-uses depending on the surrounding uses.

Traditional Neighborhood (TN)

The Traditional Neighborhood designation is applied to areas of the City to provide for and/or sustain higher-density neighborhoods with smaller lots and a mix of housing types. Principal use of land in this designation is mixed residential typical of urban neighborhoods, including Single-family residential development on smaller lots, attached residential structures such as duplexes and townhomes, and small-scale multi-family development. Where opportunities for infill and redevelopment exist, new communities should strive to include walkable neighborhood units within the development, in addition to appropriately-scaled commercial uses. More intensive commercial and multi-family uses are appropriate in close proximity to Mixed-Use Corridors. Appropriate uses include Single-family residential detached housing, manufactured homes, Single-family attached, multi-family residential structures, neighborhood-oriented commercial and/or mixed-use structures, civic and recreation facilities. The appropriateness of these uses on an individual site is contingent upon the context of its location and surrounding land uses.





Suburban Residential

Traditional Neighborhood

KEY DEVELOPMENT OBJECTIVES

- 1. Provision of a complementary mix of residential land uses and project designs to ensure long-term sustainability of both the individual and broader community.
- 2. Integration of compatible use groups through the application of performance-based requirements, including form-based zoning and special overlay districts is encouraged.
- 3. Efficient, compact lot patterns with a range of lot sizes and measurable standards of open space. Prioritization will be given to establishing a mix of open spaces, including active and passive and/or natural open spaces scaled to the community, that are connected and accessible.
- 4. Protection of sensitive natural resources through buffers and/or designation as recreation or conservation areas.
- 5. Connectivity to key centers of commercial goods and services and other developments, including inter-connectivity with abutting communities to minimize overloading of single access/entrance points onto principal roads serving each development.
- 6. Access to the regional transportation network, with a hierarchy of internal facilities for vehicular, transit, cycling and pedestrian mobility.
- 7. Development densities dependent on the adequacy of access, utilities, and a full complement of public services and facilities.

Mixed-Use (MU)

The Mixed-Use designation is established to sustain a mixture of commercial and residential land uses located within close proximity to one another. Uses may be combined within a parcel and/or stacked within a structure. New development in the Mixed-Use areas should be designed to be compact, incorporating a system of open space including interconnected trails or sidewalks that provide access to parks, recreation, and open space areas as well as commercial services. Appropriate uses include office, retail, multi-family, and light industry (manufacturing and assembly).

Mixed-Use Corridor (MUC)

The Mixed-Use Corridor designation is to provide for commercial, retail, office and higher-density housing adjacent to principal transportation corridors throughout the City. These areas are intended to promote development of mixed-uses that will enhance access to a wider range of services for nearby neighborhoods. Appropriate uses include office, retail, multi-family and light industry (manufacturing and assembly).

Development within the MU and MUC designations may be intensified within areas identified around transit centers. Intensified development in these areas is referred to as Transit-Oriented Development (TOD).

WHAT IS TRANSIT ORIENTED DEVELOPMENT? Public Spaces Transit Oriented Development Nearby Transit Stop / Station

KEY DEVELOPMENT OBJECTIVES

- 1. Provision of a complementary mix of land uses and project designs to create pedestrian friendly, self-sustaining developments.
- 2. Managed accessibility to the regional transportation network through a hierarchy of internal facilities for vehicular, transit, cycling and pedestrian mobility.
- 3. An improved built environment through wider sidewalks, better wayfinding and lighting, and uses close to each other for pedestrians to/from destinations.
- 4. Inter-connectivity with abutting residential communities.
- 5. Deliberate configuration of streets and landmark parcels along a pedestrian network within each development.
- 6. Interspersion of on-street and centralized parking facilities to facilitate non-motorist mobility.
- 7. Adequate buffering and landscaping to minimize impact on natural resources.
- 8. Use of open spaces and natural areas to manage stormwater.
- 9. Application of form-based codes is encouraged.

Employment Center (EC)

The Employment Center designation is for large-scale office and industrial uses developed for a major employer or cluster of employers with a mix of supporting or ancillary uses, such as restaurants, hotels and limited service retail. Employment Center areas create a commerce-focused environment and generally benefit from proximity to one another, with ease of access to supportive services and residential areas to relieve congestion. Appropriate land uses include office, light industry (manufacturing and assembly), ancillary retail/services for employees, commercial services, accommodations and public/institutional uses. Multi-family uses may also be compatible depending on the surrounding land uses and when sufficiently set back from industrial uses. Within the Employment Center designation, heavier industrial uses are also appropriate where in close proximity to freight and rail corridors, provided there is adequate separation from residential uses.



Aerial of Trident Medical Center

KEY DEVELOPMENT OBJECTIVES

- 1. Clustering of buildings and site design sensitive to natural features and to preserve open space contributing to management of stormwater.
- 2. Indirect access to the primary transportation network with internal collector roads.
- 3. Location of heavier industrial areas with direct access to interstate and other major transportation facilities including existing rail lines.
- 4. Provision of a safe, convenient and attractive pedestrian access to nearby residential areas and local transit service.
- 5. Adequate on-site parking, storage and loading areas, screened from surrounding/abutting neighborhoods.
- 6. Application of performance standards to ensure adequate land for separate and buffering of incompatible land uses, including nearby residential and business uses.

PRIORITY INVESTMENTS



ENABLING LEGISLATION

In 2007 the General Assembly passed the Priority Investment Act. The Act includes several amendments to the 1994 Comprehensive Planning Enabling Act, including a requirement for comprehensive plans to include a Priority Investment Element that:

"... analyzes the likely federal, state, and local funds available for public infrastructure and facilities during the next ten years, and recommends the projects for expenditure of those funds during the next ten years for needed public infrastructure and facilities such as water, sewer, roads, and schools."

The Priority Investment section complements the more extensive Goals and Strategies in the Action Plan that follows within this document. While it is important that all initiatives listed in the Action Plan are addressed, the following specific initiatives have been identified as investment priorities to move the City towards its longer term goals. Those priorities are listed below and discussed in detail on subsequent pages.



PRIORITY INVESTMENT AREAS

- City-wide Capital Improvement Plan (CIP) to address funding of infrastructure and public facility improvements
- Regional transportation improvements
- City's ordinances to incentivize compatible and affordable housing development
- Natural resiliency initiatives
- Neighborhood visioning and branding program

CAPITAL IMPROVEMENT PLAN

There are several areas of public improvements that need to be addressed in the short-term (1-3 years), ranging from upgraded sidewalks and street lighting to construction of new community centers and libraries. A Capital Improvement Plan aims to recognize and resolve deficiencies in existing infrastructure and facilities as well as to anticipate and meet future demand for capital facilities. The CIP is a multi-year schedule that lays out a series of municipal projects and their associated costs. Over the period considered by the CIP, it shows how the City should plan to expand or renovate its facilities and services to meet the demands of existing or new population and businesses. The City of North Charleston can benefit from a CIP to coordinate the financing and timing of capital improvements in a way that maximizes the return to the public.

A CIP is an advisory document that can serve a number of purposes:

- 1. Guide the staff and City Council in the annual budgeting process
- 2. Contribute to consistency in the city's real property tax rate
- 3. Coordinate various municipal improvements
- 4. Inform residents, business owners, and developers of planned improvements, perhaps spurring private investment
- 5. Provide a necessary legal basis for developing and administering an impact fee system.

Development of a CIP can be accomplished with the use of existing Staff resources, with possible costs related to legal review.

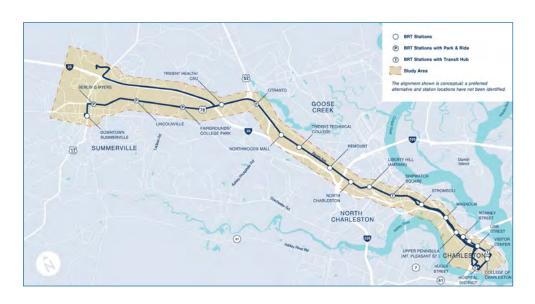
REGIONAL TRANSPORTATION PROJECTS

As a member of the Charleston Area Transportation Study (CHATS), North Charleston participates in the development of the CHATS Long-Range Transportation Plan (LRTP) for the Berkeley-

Charleston-Dorchester region. The LRTP identifies road construction and upgrade projects to be undertaken using a variety of funding sources, including but not limited to, County Transportation Sales Tax (TST) and CTC (gas tax) Funds as well as federal funds allocated through CHATS.

The 2040 CHATS Long-Range Transportation Plan identifies a number of projects with committed funding to be implemented in North Charleston, particularly interstate and port related improvements. See page 29 for the planned transportation improvements table.

The proposed Lowcountry Rapid Transit (LCRT bus rapid transit) system alignment along US 78 and US 52 offers the opportunity to transform the City's most active corridors. Certain segments or nodes around future system stations



are **prime** for re-investment with Transit-Oriented Development (TOD). The LCRT related Transit Oriented Development (TOD) study has identified residential and non-residential market projections for the corridor that will be used to identify those future station locations. (See page 40 for description of Transit-Oriented Development)

UPDATE CITY ZONING AND SUBDIVISION REGULATIONS

The City has outgrown its zoning and subdivision regulations. In many cases, vacant and underdeveloped parcels within the City where infrastructure already exists cannot be redeveloped with structures that are compatible with the rest of the neighborhood due to current zoning requirements. These neighborhoods provide the most substantial opportunities for accommodating growth within the City's existing boundary by making the most efficient use of land and protecting the City's natural resources, while also contributing to reinvestment in older areas of the City.

A number of other key objectives of this Plan can also be realized with immediate updates of the City's zoning and subdivision regulations: creation of an urban corridor with mixed-use and transit-oriented developments along the proposed Lowcountry Rapid Transit line, as well as diverse and affordable housing types throughout the City. Immediate updates will enable investors to take advantage of the City's south end designation as an Opportunity Zone. These updates can be accomplished with existing City staff resources.

RESILIENCY INITIATIVES

Several City departments are leading initiatives and projects to respond to and mitigate physical impacts of natural events, such as street closures and property damage due to flooding, traffic delays and business interruptions. A collaborative approach is needed to ensure that resources, infrastructure improvements and regulations work in concert with one another to proactively mitigate impacts and improve the resiliency of those facilities that may be affected by additional developments and climate change in the future. Recommendations proposed by a City Flood-Wise Action Committee include a group of strategies that will improve the City's National Flood Insurance Program Community-Rating and reduction in damages will have a direct financial benefit to the City, property owners and residents.

Resiliency strategies should be incorporated in updated zoning and land development regulations, particularly in the development and adoption of regulations that foster low-impact developments and natural stormwater management facilities. The City's investment in local policies and strategies for implementation should not be limited to physical impacts, but also consider economic benefits for businesses.

NEIGHBORHOOD VISIONING

Change is inevitable. As the City evolves in the next twenty years, its character will change. This change is a given based on market-forces and the projected growth of the region. Neighborhoods can proactively plan how those influences will be accommodated such that their unique character is retained.

To set (or reset) the dialogue about growth, the City can establish a neighborhood visioning initiative that starts with identifying an outcome of equitable development for each community. This initiative should include, but not be limited to discussions of infrastructure challenges, redevelopment opportunities, and sustainability. Each neighborhood's identity and vision should be celebrated and "branded" through a city-wide program of signage and interconnectivity

| | PRIORITY INVESTMENTS: SHORT TERM * | RESPONSIBLE PARTY/AGENCY | ESTIMATED COST |
|---|---|------------------------------------|-------------------|
| 1 | Develop a City-wide Capital Improvement Plan (CIP) to include an "official map" and program of identified infrastructure and facility needs and funding | City Planning/ Administration | \$100,000 |
| 2 | Implement planned and scheduled transportation improvements, including cyclist/pedestrian facilities and implementation of Complete Street policies | City Staff/CHATS | \$10-500,000 |
| 3 | Update zoning and subdivision ordinances to enable realization of City's goals and vision | City Staff/ Planning Commission | \$10,000-\$50,000 |
| 4 | Establish, expand and implement programs and initiatives to enhance natural and economic resiliency | City Planning/ Administration | \$10,000-\$50,000 |
| 5 | Establish neighborhood improvement initiatives: property maintenance enforcement, visioning and branding initiatives | City Planning/ Code Enforcement | \$10,000-\$50,000 |

^{*}Available resources for these investments include existing City Staff and applicable grants from sources such as CHATS Complete Street program

| | PRIORITY INVESTMENTS: MID-TERM * | RESPONSIBLE PARTY/AGENCY | ESTIMATED COST |
|---|---|---------------------------------------|-----------------------|
| 1 | Establish vision for the City's urban corridors with walkable hubs of mixed-uses | City Planning | \$10,000-\$50,000 |
| 2 | Adopt policies and programs to foster affordable housing | City Planning/ Administration | \$0-\$50,000 |
| 3 | Establish a centralized, permanent cultural arts center | City Cultural Arts/Administration | \$250,000-\$1,000,000 |
| 4 | Create and adopt a Green Infrastructure Plan that incorporates a network of open spaces and natural resources to be protected | City Planning/ Planning Commission | \$10,000-\$50,000 |

^{*}Available resources for these investments include existing City Staff and applicable grants from sources such as CHATS, SC Arts Commission, and SC Forestry Commission

| | NON-MOTORIST PRIORITY PROJECTS * | FROM | то | ESTIMATED COST |
|---|--|-----------------|-----------------------|----------------|
| Α | Park Circle (Traffic Circle) - Road Diet/Cycle Track | W. Montague | E. Montague | \$8M |
| В | Riverfront Park - Pedestrian Bridge & Noisette Creek Greenway | Riverfront Park | Rivers Ave | \$7M |
| С | Spruill Ave - Streetscaping & Improved Bike Lanes (SCPA/NC) | Park Circle | Pittsburgh Ave | \$6M |
| D | Reynolds Ave/Rexton Ave - Streetscaping & Improved Bike/Ped Facilities & Pedestrian Mall | Rivers Ave | Spruill Ave | \$1M |
| E | Ashley Riverfront - Hiker/Biker Trail | Leeds Ave | South of North Bridge | \$5M |

^{*}Available resources for these investments include the City, CHATS Transportation Alternatives and Complete Streets programs, and TIF district bonds where applicable

IMPLEMENTATION



ACTION PLAN

Goals and strategies identifying capital improvements, initiatives, ordinance updates, and other projects included in this Plan are proposed for implementation according to a relative schedule of short-, mid-, and long- term action items. Short-term actions are identified for implementation within the next two (2020-2022) years, mid-term within the next five (2020-2025) years, and long-term actions are identified for implementation within the next twenty years (2020-2040). Targeted years of implementation, responsible departments or agencies, potential funding sources and current cost estimates are provided where possible.

LIVABILITY AND QUALITY OF LIFE:

As the City grows, ensure a high quality of life city-wide by enhancing and connecting existing communities and building well-designed neighborhoods, encouraging infill and redevelopment and providing accessible gathering places throughout the City.

| GOAL 1: | GOAL 1: PROMOTE THE STABILITY AND MAINTENANCE OF ESTABLISHED RESIDENTIAL NEIGHBORHOODS | | | | |
|---------|--|----------|-----------------------|--|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| LQ-1A | Continue to support neighborhood organizations | | Ongoing | Neighborhood organizations/ Planning | |
| LQ-1B | Provide for a "Property Maintenance Inspector" position to address housing issues, including but not limited to, board ups, tear downs and blight removal and continue investment in building and code enforcement | * | Short-term | Building/Code Enforcement/ Planning City Administration | |
| LQ-1C | Encourage continuation of the Police Department's landlord registration program | | Ongoing | Police Department | |
| LQ-1D | Identify resources to assist in funding infrastructure improvements in older neighborhoods | | Ongoing Short-term | City Administration/Planning Public Works/Grants | |
| LQ-IE | Establish standards to encourage preservation and rehabilitation of existing housing, and encourage reuse of existing, vacant housing (by, for example, allowing re-establishment of legally constructed duplexes, etc. and/or multiple independent units on a single lot regardless of zoning with sufficient proof of legal establishment) | * | Short-term | Building/Planning | |
| LQ-1F | Support implementation of housing initiatives outlined in the 2010 Lowcountry Alliance for Model Communities (LAMC) Plan | | Ongoing | LAMC/Charleston Community Research to Action (CCRAB)/ Planning | |

| GOAL 2: FOSTER A SENSE OF SECURITY AND COMMUNITY PRIDE IN NEIGHBORHOODS AND PUBLIC SPACES | | | | |
|---|--|----------|------------|---|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS |
| LQ-2A | Continue police outreach efforts and programming that improve communications between neighborhoods and police and foster neighborhood pride, such as RECAP, roll calls, and CAPS | | Ongoing | Police |
| LQ-2B | Support after-school and other programs which provide youth with constructive activities | | Ongoing | City Administration//CDBG, CCSD, DD2, Metanoia/Recreation |
| LQ-2C | Work with neighborhoods to identify infrastructure needs, including lighting and pedestrian improvements | * | Short-term | Public Works/Planning |
| LQ-2D | Evaluate crime prevention techniques that can be achieved through environmental design, such as lighting design, landscaping, increasing pedestrian traffic, and street design | | Mid-term | Planning/Police |
| LQ-2E | Continue and enhance the City's investment in code enforcement | | Ongoing | Building/Planning/Code Enforcement |

| | GOAL 3: SUPPORT INVESTMENT IN SUSTAINABLE NEIGHBORHOODS, INCLUDING EXPANSION OF HOMEOWNERSHIP OPPORTUNITIES, AFFORDABLE HOUSING AND INFILL DEVELOPMENT | | | | |
|-------|--|----------|------------|---|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| LQ-3A | Identify appropriate areas for infill development of affordable housing and amend regulations to incentivize the development | * | Short-term | City Administration/Planning | |
| LQ-3B | Accommodate and incentivize higher-density housing in appropriate areas to increase the potential for additional supply, through use of accessory dwelling units, allowing attached housing in traditionally detached Single-family areas, and other applicable incentives | * | Short-term | City Administration/Planning | |
| LQ-3C | Collaborate with housing interests, including the North Charleston Housing Authority and regional housing groups, to find incentives and resources to increase homeownership, financial literacy and ownership retention | | Ongoing | North Charleston Housing Authority/ United Way/ Metanoia/ NeighborWorks America | |
| LQ-4A | Establish gateways and districts and develop a cohesive branding program for each gateway, district, major commercial node and/or corridor including, but not limited to, wayfinding, gateway planning, and neighborhood branding | | Mid-term | Neighborhood organizations/ Planning/City Administration | |
| LQ-4B | Develop and prioritize a list of improvements to public spaces, including streets and parks, which can serve to enhance visual character and improve the pedestrian environment | | Mid-term | Neighborhood organizations/ Planning/City Administration/ Recreation | |

| GOAL 4: | GOAL 4: ENHANCE THE CHARACTER, DESIGN, AND IDENTITY OF NEIGHBORHOODS AND CORRIDORS | | | | |
|---------|---|----------|------------------------|--|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| LQ-4C | Continue to work with neighborhoods on the installation and maintenance of neighborhood identification signs | | Ongoing | Public Works/Neighborhood organization | |
| LQ-4D | Update the Zoning Regulations to have a consistent sign code throughout the City, with branding for commercial corridors | * | Short-term | Planning | |
| LQ-4E | Encourage use of design guidelines or performance requirements for new development, including but not limited to, minimum requirements and materials, as appropriate, and consider establishment of a commercial corridor design review board | * | Short-term | Planning | |
| LQ-4F | Invest public funding in signage, streetscape improvements, etc. to spur private investment | | Ongoing/ Short-term | Public Works/Planning/City Administration | |
| LQ-4G | Establish small area/neighborhood plans for traditional neighborhoods where fragmented land uses exist to develop a framework for future development, redevelopment, and public investment | | Mid-term | Planning/Neighborhood organizations | |

SUSTAINABLE GROWTH AND RESILIENCY

Balance growth impacts with the needs of the environment to ensure sustainability and resiliency.

GOAL 1: MAINTAIN A BALANCE BETWEEN THE NATURAL AND BUILT ENVIRONMENT TO ALLEVIATE THE EFFECTS OF GROWTH ON THE NATURAL ENVIRONMENT AND QUALITY OF LIFE

| AND QU | ALITY OF LIFE | | | |
|--------|--|----------|------------------------|---|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS |
| SG-1A | Study and revise residential zoning districts to accommodate growth where there are existing resources and infrastructure, especially along transportation corridors, including development of vacant lots, assessing nonconforming provisions to encourage reuse and redevelopment, and incentivizing opportunities for redevelopment | * | Short-term | Building/Public Works/ Planning/Water and Sewer/Utilities |
| SG-1B | Continue collaborative efforts to identify and plan for redevelopment of brownfields, including grant funding to mitigate costs that potentially impede redevelopment of brownfields/gray fields | | Ongoing | City Administration/ BCDCOG |
| SG-1C | Revise Zoning regulations to include incentives for greater conservation of green spaces, increase requirements for accessible open spaces within new developments, and reduce permitted impervious lot coverage in certain districts | * | Short-term | Planning/Floodwise Action Committee |
| SG-1D | Update development regulations to strengthen stormwater management (SWM) requirements, limit fill in flood zones, provide consistent riparian buffers, mitigate impacts of flooding, re-evaluate tree canopy and preservation requirements and develop standards to allow previous sidewalks and roadways and other methodologies to better utilize infrastructure in multi-faceted ways | * | Ongoing/ Short-term | Building/Planning/ Public Works/ Floodwise Action Committee |
| SG-1E | Re-evaluate Disaster Plan to ensure streamlined permitting requirements for post-disaster construction and incorporate regulations to accommodate temporary housing post-disaster | | Ongoing | Building/Planning/ Floodwise Action Committee |

GOAL 2: ENHANCE NATURAL RESOURCES AS GREEN INFRASTRUCTURE TO BUILD RESILIENCY AND PROTECT WATER QUALITY BY MINIMIZING IMPACTS OF STORMWATER AND NUISANCE FLOODING

| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS |
|-------|---|----------|------------------------|---|
| SG-2A | Develop and adopt a Green Infrastructure Plan for the City that addresses SWM requirements, encourages Low-Impact Development standards, limits fill in flood zones, and expands buffers to mitigate impacts of flooding | | Mid-term | SC Forestry/American Forests/ Planning/Public Works |
| SG-2B | Work with various partners to identify, maintain, and conserve larger tracts of natural resources while requiring accessible open spaces within new developments | | Ongoing | Planning/Charleston County greenbelt program/ Grants |
| SG-2C | Continue protecting scenic corridors and natural viewsheds along the Ashley and Cooper Rivers, through use of a 50-foot citywide wetland/riparian buffer, while allowing for stormwater facility and utility penetrations where appropriate | * | Short-term | Planning |
| SG-2D | Revise parking requirements and provide for reductions as an incentive to encourage larger open spaces, less impervious surface, and densities of development | * | Short-term | Planning |
| SG-2E | Encourage eco-friendly and neo-traditional development design to promote low-impact design, energy efficiency, and reduce sprawl | * | Ongoing/ Short-term | Planning |

GOAL 3: USE THE FUTURE LAND USE PLAN TO SERVE AS THE FRAMEWORK FOR SUSTAINABLE LAND USES AND DEVELOPMENT PATTERNS, INCLUDING MIXED USE, DENSE DEVELOPMENT

| OSL, DENSE DE VELOFINIENT | | | | | |
|---------------------------|--|------------------|------------|------------------------------------|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| SG-3A | Reduce use of Planned Developments by establishing multi-layered, mixed use zoning districts to implement land use designations on the Future Land Use Map * Short-term | | Planning | | |
| SG-3B | Evaluate areas to accommodate mixed use nodes/corridors and mixed-use pedestrian- oriented communities through use of overlay zoning that incorporate transit-oriented development guidelines and use of performance or form-based codes, conditional uses, and/or special exceptions | * Short-term | | Planning | |
| SG-3C | Refine policies and land development regulations to consider requirements for pedestrian accessibility and connectivity within new developments in accordance with Complete Street design principles | * Short-term Pla | | Planning/Public Works | |
| SG-3D | Adopt an "Official Map" that displays potential future roads, parks, and public facilities in line with S.C. Code Section 6-29-340(B)(2)(c) | * | Short-term | Planning/Public Works/City Council | |

GOAL 4: ENABLE THE PROVISION OF FACILITIES AND INFRASTRUCTURE TO MEET THE NEEDS OF THE EXISTING AND FUTURE POPULATION THROUGH COORDINATION OF LAND USE PLANNING WITH THE AVAILABILITY OF RELATED INFRASTRUCTURE

| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS |
|-------|--|---------------------------------------|------------|--|
| SG-4A | Create and adopt a Facilities Master Plan/Capital Improvements Plan that addresses both the existing inventory of publicly-owned assets and future needed capital improvements | | Short-term | City Departments |
| SG-4B | Continue to work with neighboring jurisdictions and applicable agencies to coordinate land development approvals with availability of infrastructure and reduce duplication of services | | Ongoing | Berkeley, Charleston and Dorchester counties/ Summerville/ Hanahan/ Goose Creek/ |
| SG-4C | Develop an Annexation Policy for evaluation of potential annexations, associated impacts of concern, and reasonable geographic connectivity as well as planning for provision of services and infrastructure | · · · · · · · · · · · · · · · · · · · | | City Administration/Planning |
| SG-4D | Continue to seek grants and consider alternative revenue sources to fund infrastructure improvements | | Ongoing | Planning/Public Works/ Grants Administration |
| SG-4E | Continue utilizing existing revenue sources, such as the City's sidewalk bank funding or tree mitigation bank, to fund infrastructure improvements, such as pedestrian connectivity between communities and park areas and streetscaping | | Ongoing | Planning/City Administration/ Public Works |
| SG-4F | | | Ongoing | Planning/ City Administration |

ECONOMIC OPPORTUNITY:

Expand a vibrant and diversified economic climate that provides a range of employment opportunities, retains existing businesses and attracts new businesses

| GOAL 1: ENCOURAGE ECONOMIC ACTIVITY THAT CAPITALIZES ON NORTH CHARLESTON'S LOCATIONAL ADVANTAGES AND ECONOMIC ASSETS | | | | |
|--|---|--|------------|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS |
| EO-1A | Continue to encourage the revitalization of North Charleston's commercial corridors and nodes by improving public infrastructure | | Ongoing | Public Works/Planning |
| EO-1B | Continue coordinating with the SC Ports Authority, Palmetto Railways, and the SC Department of Transportation in long range planning, including intermodal infrastructure advances and improvements, to support the City's role in the maritime industry | nt of Transportation in long range planning, including intermodal infrastructure Ongoing | | Planning/City Administration/ Economic Development/ Ports Authority |
| EO-1C | Capitalize on opportunities for additional port-related investment, including recruitment of import-export firms | . I ong-term | | City Administration/ Economic Development/ |
| EO-1D | Coordinate long range planning with universities, colleges, and medical institutions to attract spinoff investment in research and development and provide opportunities for Lon training | | Long-term | City Administration/ Economic Development/ Charleston County Economic Development |
| EO-1E | Support and promote North Charleston as a business and cultural center of the region through continued marketing and recruitment activities | | Ongoing | City Administration/ Economic Development/ Cultural Arts |
| EO-IF | Develop a plan to ensure the vitality of the former Navy Base, capitalizing on its potential as an economic catalyst, including defining the southern base area for port supportive activities and creating a small area master plan for the northern area of the base to guide and direct public and private investment to implement the vision for a future downtown North Charleston | * | Short-term | Planning/City Administration |
| EO-1G | Continue support of airport expansion and supporting industries | | Ongoing | City Administration/ Economic Development |
| EO-1H | Position the City to be competitive in future federal and state economic incentives and programs, such as brownfield funding, opportunity zones and small business incubation | | Ongoing | City Administration/ Economic Development |

GOAL 2: LOCATE INTENSIVE COMMERCIAL AND/OR INDUSTRIAL USES WHERE SUPPORTIVE INFRASTRUCTURE EXISTS AND IMPACTS ON NEIGHBORHOODS CAN BE MITIGATED

| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS |
|-------|---|----------|-----------------------|--|
| EO-2A | Develop a program of incentives to foster infill development of commercial and employment uses along transportation corridors that are easily accessible to residents, employees, and customers | | Ongoing Short-term | Planning/Economic Development/ City Administration |
| EO-2B | Enhance economic viability of commercial corridors as shown on the Future Land Use Map | | Short-term | Planning |
| EO-2C | Invest in existing infrastructure to attract and retain businesses | | Ongoing | City Administration/ Public Works/ Planning |
| EO-2D | Evaluate the impact of City processes on doing business, including permitting, business licensing and other requirements, and modify where appropriate to support business investment | | Ongoing | Planning/Public Works/Building/ City Administration |

GOAL 3: ATTRACT BUSINESSES THAT WILL PROVIDE INCREASED OPPORTUNITIES FOR NORTH CHARLESTON'S CITIZENS TO WORK WITHIN THE CITY, THEREBY CREATING A STRONG LOCAL EMPLOYMENT BASE

| CREATING A STRONG LOCAL EMPLOTMENT BASE | | | | | |
|---|---|--|-----------|--|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| EO-3A | Continue to support and work with the Charleston Metro Chamber of Commerce, the Charleston Regional Development Alliance, the counties' economic development departments and other regional business organizations to retain existing businesses and recruit new employment opportunities | | Ongoing | Metro Chamber, CRDA, Charleston County Economic Development | |
| EO-3B | Work with the Charleston County School District, the Dorchester School District Two, Trident Technical College, Charleston Southern University, Ready SC and the State Department of Education to improve education and development of a skilled labor force | Trident Technical College, Charleston Southern University, Ready SC and the State Ongoing | | City Administration/ Economic Development/ School Districts | |
| EO-3C | Identify and adopt incentives for small businesses and work with partners to create "incubator" spaces or business districts for new commerce | | Ongoing | City Administration/ Economic Development | |

| GOAL 4: UTILIZE NORTH CHARLESTON'S CULTURAL ASSETS AS A GENERATOR FOR THE LOCAL ECONOMY | | | | | |
|---|--|----------|------------|---|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| EO-4A | Identify funding sources to continue providing support for local arts organizations and establish a permanent cultural arts center/art gallery/museum to celebrate the City's diverse history and promote the arts | * | Mid-term | Grants Administration/ Cultural Arts | |
| EO-4B | Integrate public arts at all future bus rapid transit stations for branding and display purposes | | Mid-term | Neighborhood organizations/ BCDCOG/ Cultural Arts/ | |
| EO-4C | C Conduct and maintain an updated Historical and Architectural Survey | | Mid-term | Grants/ City Historian/ SC Department of Archives and History | |
| EO-4D | Expand farmer's markets to other areas within the City | | Short-term | Cultural Arts | |

MOBILITY AND CONNECTIVITY:

Connect residents and visitors with employment, shopping, educational institutions, and activity centers through safe and efficient multi-modal regional transportation systems

| GOAL 1: PROMOTE A SAFE AND RELIABLE MULTI-MODAL TRANSPORTATION SYSTEM | | | | | |
|---|---|--|------------|---|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| MO-1A | Support and promote use of transit for improved mobility within the City, including the Lowcountry Rapid Transit (LCRT) and CARTA's traditional bus system | | Ongoing | Planning/ CARTA/ City Administration | |
| MO-1B | Collaborate with DOT and CHATS to prioritize safety improvements based on accident data and utilize congestion management techniques such as traffic demand and management modeling, signal timing, access management and other technological advances to optimize operations | techniques such as traffic demand and ess management and other technological Ongoing | | Planning/Public Works/CHATS Safety Committee | |
| MO-1C | Work with CHATS to implement prioritized transportation improvements in the CHATS 2040 Long-Range Transportation Plan | | Ongoing | Public Works/SCDOT/ CHATS/ Planning | |
| MO-1D | Coordinate with CARTA on enhancement of current and future transit service and facilities | Ongoing | | Public Works/SCDOT/ CHATS/ Planning | |
| MO-1E | Require traffic impact analyses based on expected peak-hour trips for each development and establish a policy for traffic impacts and multi-modal connectivity | * | Short-term | Planning/ Public Works | |
| MO-1F | Establish a traffic and transportation department and/or position to coordinate with various entities sponsoring \$3.4 billion in transportation projects under construction in the City over the next ten years | * | Short-term | Planning/Public Works | |
| MO-1G | Continue seeking state and federal funds to improve and expand the existing transit network | | Ongoing | CARTA/BCDCOG | |

| GOAL 2: ENCOURAGE CONNECTIVITY OF NEIGHBORHOODS AND INCREASED MOBILITY OPTIONS WHILE INCREASING SAFETY MEASURES | | | | | |
|---|--|----------|------------|------------------------|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| MO-2A | Adopt policies that support development of Complete Streets and evaluate regulations for design standards to require interconnectivity of roads, sidewalks and bike lanes | | Short-term | Planning/Public Works | |
| MO-2B | Provide safe connections to transit corridors through the use of sidewalks, multi-use paths, crosswalks, etc. | | Ongoing | Planning/ Public Works | |
| MO-2C | Prioritize safety improvements near schools, bus stops and commercial corridors, including opportunities for Safe Routes to Schools grants | | Ongoing | Planning/ Public Works | |
| MO-2D | Pursue opportunities for making non-vehicular improvements and connections across the City, including, but not limited to, reuse of former rail lines' right-of-way for trails | | Ongoing | Planning/ Public Works | |

| GOAL 2: ENCOURAGE CONNECTIVITY OF NEIGHBORHOODS AND INCREASED MOBILITY OPTIONS WHILE INCREASING SAFETY MEASURES | | | | | |
|---|--|-----------|-----------|--|--|
| | ACTION | PRIORITY | TIMEFRAME | RESPONSIBLE PARTNERS | |
| MO-2E | Coordinate with the State Ports Authority, CSX, Norfolk Southern, Palmetto Railways (Department of Commerce), and trucking associations on development of facilities/improvements to mitigate impacts of freight on neighborhoods/traffic flows | | Ongoing | Planning/ Public Works/ CHATS Freight Committee | |
| MO-2F | Annually update and continually enforce the truck routing plan, including through the posting of truck prohibitions and police monitoring and enforcement | Short- te | | Planning/ Public Works | |
| MO-2G | ovaluate and implement traffic calming strategies such as pedestrian bump outs, speed bumps, lowering neighborhood street speed limits, and stop signs where appropriate in onjunction with transportation improvements or spot efforts to protect residential areas from impacts of inappropriate volumes of through-traffic and/or excessive speed | | Ongoing | Planning/ Public Works/ SCDOT | |
| MO-2H | Improve access to neighborhoods and employment centers with traffic signage and signal enhancements, as well as roadway condition and intersection improvements | | Ongoing | Planning/ Public Works/ SCDOT | |

| GOAL 3: ENCOURAGE LAND USE PATTERNS DESIGNED TO SUPPORT TRANSIT, INCLUDING COMPACT, WALKABLE, MIXED-USE DEVELOPMENTS | | | | | |
|--|--|---------|------------|--|--|
| | ACTION PF | | TIMEFRAME | RESPONSIBLE PARTNERS | |
| MO-3A | Develop and adopt regulations, including overlay districts and design standards, to facilitate transit corridors and incentivize redevelopment along principal corridors, including reduction in required parking | * | Short-term | Planning | |
| MO-3B | Evaluate principal corridors for opportunities and develop streetscape plans for safety as well as aesthetic and functional improvements, including lighting, crosswalks, sidewalks, improved pavement quality, wayfinding signage, etc. | * | Short-term | Planning | |
| MO-3C | Implement projects identified in the 2017 WalkBike BCD plan, including those that address safety and connectivity issueS | Undoing | | Planning/ Public Works/ CHATS | |
| MO-3D | In coordination with development of the Capital Improvements Plan, identify streets to take over from SCDOT for maintenance and fund streetscape improvements to catalyze reinvestment | | Ongoing | Planning/ City Administration/ Public Works | |
| MO-3E | Revise subdivision regulations as needed to require connectivity between neighborhoods and to abutting commercial centers | * | Short-term | Planning/Public Works | |

PRINE NORTH NORTH CHARLESTON COMPREHENSIVE PLAN Bright Ideas, Bold Action

APPENDIX A: EXISTING CONDITIONS



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1.0 INTRODUCTION



The purpose of the existing conditions document is to provide an objective assessment of data and information that serves as a baseline of conditions in the City of North Charleston. The data collected established a foundation to guide the development of the North Charleston Comprehensive Plan – PRIME North Charleston. Proper planning ensures that people, businesses, and the natural environment can coexist and thrive together. The development of this Existing Conditions assessment began the planning process to forecast twenty years into the future.

As laid out in Article 3 of the South Carolina Local Government Comprehensive Planning Enabling Act, a local comprehensive plan must include the following elements:

- 1. Population
- 2. Housing
- 3. Economic Development
- 4. Natural Resources
- 5. Cultural Resources
- 6. Community Facilities
- 7. Transportation
- 8. Land Use
- 9. Priority Investment

The priority investment element is prepared based on the assessment of needs and establishment of goals and strategies to implement the plan. It is the only element that is not included within the existing conditions assessment. The existing conditions assessment provides a snapshot of where the City is with regards to the aforementioned elements, along with current development patterns, and provided the supporting technical data to aid the writing of the remainder of the Comprehensive Plan.



2.0 POPULATION



2.1 OVERVIEW

The Charleston-North Charleston Metropolitan Statistical Area (MSA) is experiencing rapid population growth. The City of North Charleston is geographically situated in both Charleston and Dorchester Counties at the center of the region (Figure 1). The municipal boundary for North Charleston does not include unincorporated areas within each county. However, in an effort to effectively plan for the next 20 years, the North Charleston Planning Area, which includes four (4) North Charleston Planning sub-Areas shown in Figure 5, was used throughout the existing conditions document to gather and present data.

Population growth is important to monitor so that the City can provide adequate services and infrastructure; a growing population indicates that a City is healthy and not stagnant or in decline. Residents fuel the local economy by purchasing goods, operating businesses, and residing within the jurisdictional boundary. Understanding the demographics of the citizens also helps to formulate policy decisions. This population element examines population trends and describes the demographic composition of the City of North Charleston.

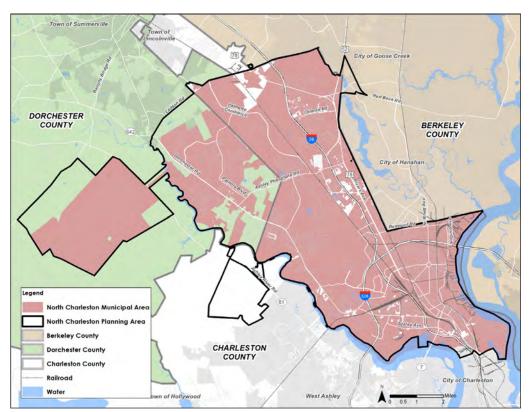


Figure 1: North Charleston Planning Area Location

2.2 GROWTH COMPARISON AND POPULATION PROJECTION

North Charleston and its neighboring cities have experienced unprecedented growth over the past few decades. The population of North Charleston increased by 13.7% between 2010 and 2017 to an estimated 110,861 residents (Figure 2). Assuming the City continues to grow at the average rate experienced in the last five years (2012-2017) of 1.7%, North Charleston's population is projected to grow by roughly 46%, reaching an estimated 161,534 by 2040 (Figure 3). With the possibility of such healthy growth in the region, it is important for the City to strategically plan for and accommodate this population growth in a sustainable way.

Highlights

- The City's population increased by roughly 77% between 1980 and 2017
- The City's growth pattern is in line with the regional growth that has occurred over the past several decades
- North Charleston has grown at an average rate of 1.7% per year between 2012 and 2017, slightly higher than the City of Charleston which averaged 1.6% annual growth over the same period

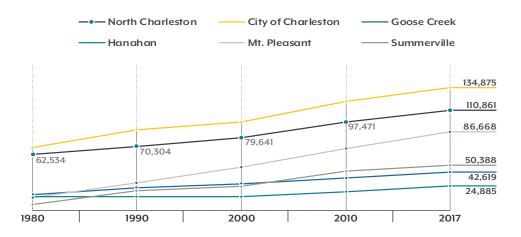


Figure 2: Municipal Population Growth 1980 – 2017

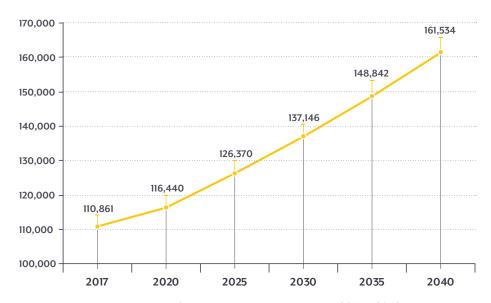


Figure 3: North Charleston Population Projection 2017 to 2040

^{1.} North Charleston Population Projection 2017 to 2040

2.3 POPULATION DENSITY

Figure 4 illustrates the population density (persons per acre) by census tract for the City of North Charleston for 2010 and 2017. Recently annexed land located to the west of the Ashley River are primarily undeveloped and belong to large census tracts which, if included, would reflect the populations and densities of the developed portions of the tract abutting jurisdictions outside of the City. Therefore these parcels and associated tracts are not included in the analysis presented in this section.

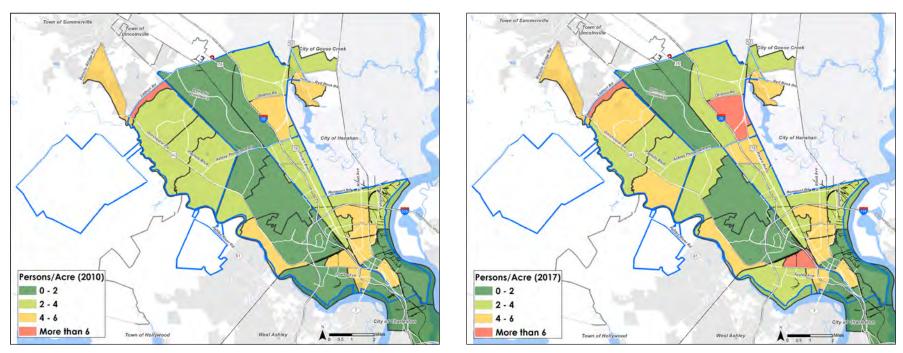


Figure 4: North Charleston Population Density 2010 (left) and 2017 (right) by Census Tract (US Census)

Between 2010 and 2017, increased densities occurred mainly in the western and northern areas of the City and along the I-26 and US-78 corridors. General areas include lower Dorchester Road (Azalea Ave/Leeds Ave and communities north of Dorchester Road), upper Dorchester Road between Cross County Road and Ladson Road, and areas adjacent to I-26 and US-78 including the Ingleside development, Northwoods and areas along Rivers Avenue just north and south of Ashley Phosphate Road.

2.4 PLANNING AREAS

North Charleston is divided into four planning areas as shown in Figure 5. Because the Planning Areas are defined by the City, their boundaries do not necessarily match with the census delineated boundaries (Census Tracts or Census Block groups), thus the sum of populations for all planning area tends to be larger than the entire City itself. Population totals for the planning areas are also inflated because populations on unincorporated parcels are included within Census Tract estimates. It should not be the focus then to have precise population counts for the City in each area, but rather the focus should be aimed more towards whether these geographical areas are growing or shrinking because it is important to monitor the growth or reduction in demand for City services. Planning to accommodate future growth in and around North Charleston should not be a single jurisdictional issue, but the shared responsibility of the Counties and other local municipalities.

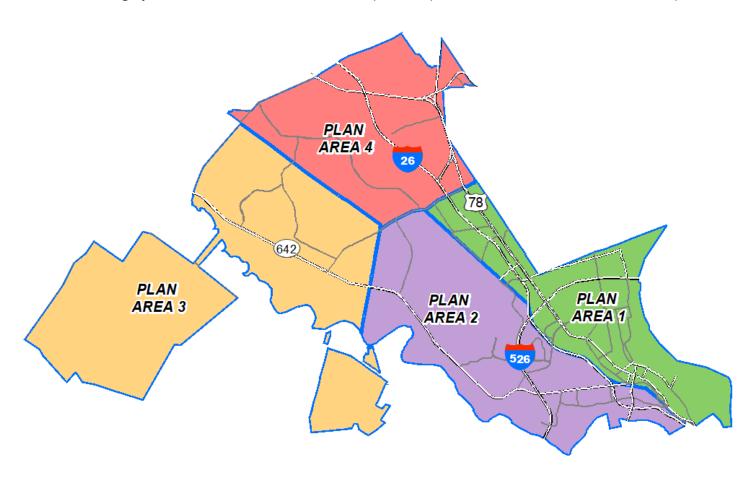
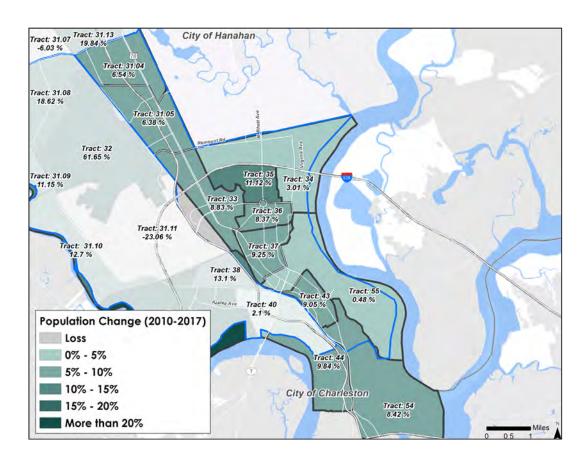


Figure 5: North Charleston Planning Areas 1 - 4

| PLAN | CENSUS | POPUL | ATION | % CHANGE |
|------------|--------|--------|--------|-------------|
| AREA | TRACT | 2010 | 2017 | 2010 - 2017 |
| | 31.04 | 4,924 | 5,246 | 6.54% |
| | 31.05 | 4,012 | 4,268 | 6.38% |
| | 33 | 3,871 | 4,213 | 8.83% |
| | 34 | 4,450 | 4,584 | 3.01% |
| | 35 | 2,681 | 2,979 | 11.12% |
| 1 | 36 | 2,233 | 2,420 | 8.37% |
| | 37 | 3,383 | 3,696 | 9.25% |
| | 43 | 2,542 | 2,772 | 9.05% |
| | 54 | 2,138 | 2,318 | 8.42% |
| | 55 | 1,244 | 1,250 | 0.48% |
| AREA TOTAL | | 31,478 | 33,746 | 7.21% |

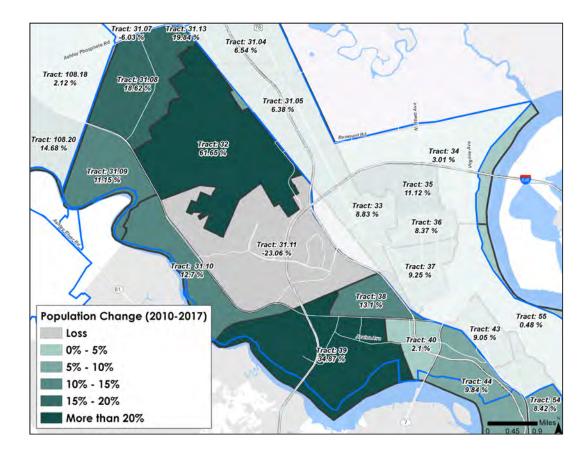


2.4.1 Planning Area 1

Planning Area 1 is loosely bounded by the Cooper River on the east, I-26 and Joint Base Charleston on the west, the City of Charleston to the south, and Ashley Phosphate Road and Berkeley County to the north. Planning Area 1 includes neighborhoods such as Park Circle, Ferndale, Russelldale, Ten Mile, Liberty Hill, Chicora-Cherokee, Oak Terrace Preserve, Mixson and more. Some notable landmarks in Planning Area 1 are the North Charleston Terminal (Port), Olde North Charleston (East Montague business district), the former Naval Base, and North Charleston City Hall. Planning Area 1 also houses the future Hugh Leatherman Terminal which is a new seaport slated to open in 2021 (refer to chapter 8 for more details). Rivers Avenue (US 52/78) is a major thoroughfare that traverses the entire planning area and serves as corridor for businesses to thrive. For the first time since the 1980s, Planning Area 1 has had an increase in population, gaining more than 2,200 residents between 2010 and 2017 however; this area experienced the smallest growth of the four planning areas. Most of the Planning Area's neighborhoods are close to businesses, forming a mixed-use environment which promotes economic and physical activity. ²

^{2.} Census tracts may be larger than North Charleston's boundary, causing a slightly inflated count

| PLAN | CENSUS | POPU | LATION | % CHANGE |
|--------|------------|-------|--------|-------------|
| AREA | TRACT | 2010 | 2017 | 2010 - 2017 |
| | 31.08 | 2,846 | 3,376 | 18.62% |
| | 31.09 | 3,391 | 3,769 | 11.15% |
| | 31.10 | 6,535 | 7,365 | 12.70% |
| | 31.11 | 6,128 | 4,715 | -23.06% |
| 2 | 32 | 871 | 1,408 | 61.65% |
| | 38 | 3,306 | 3,739 | 13.10% |
| | 39 | 4,047 | 5,458 | 34.87% |
| | 40 | 2,762 | 2,820 | 2.10% |
| | 44 | 2,216 | 2,434 | 9.84% |
| AREA 7 | AREA TOTAL | | 35,084 | 9.29% |

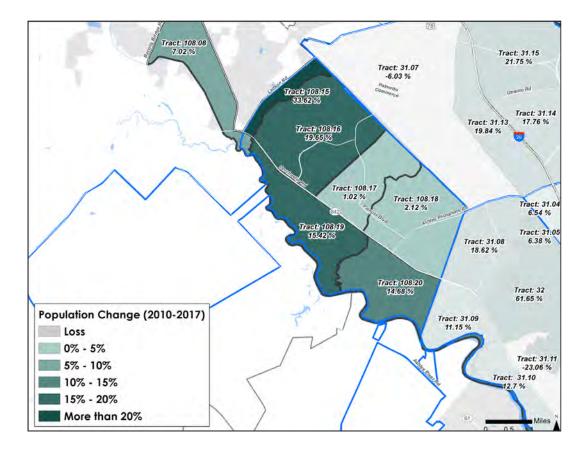


2.4.2 Planning Area 2

This area of North Charleston is generally bounded by I-26 and the Norfolk Southern Line on the east, the Ashley River and the Dorchester County line on the west, Ashley Phosphate Road on the North, and the City of Charleston on the south. Planning Area 2 includes residential areas such as Wando Woods, Evanston Estates, Ashley Villas, Forest Hills, and others. This Planning Area also accommodates some of the region's major employment nodes including Joint Base Charleston Air Force Base, Boeing, Charleston County's municipal offices – Lonnie Hamilton Public Service Building, the Charleston International Airport, Tanger Shopping Outlets and the North Charleston Coliseum, Convention and Performing Arts Centers. The population of Planning Area 2 declined from 2000 to 2010 (as well as previous decades); however, despite having fewer residential options than the other planning areas, an increase in population of almost 10% occurred from 2010 to 2017.

^{3.} Census tracts may be larger than North Charleston's boundary, causing a slightly inflated count

| PLAN | | | ATION | % CHANGE |
|------------|--------|------------|--------|-------------|
| AREA | TRACT | TRACT 2010 | | 2010 - 2017 |
| 3 | 108.08 | 7,253 | 7,762 | 7.02% |
| | 108.15 | 2,894 | 3,867 | 33.62% |
| | 108.16 | 10,241 | 12,253 | 19.65% |
| | 108.17 | 4,620 | 4,667 | 1.02% |
| | 108.18 | 8,016 | 8,186 | 2.12% |
| | 108.19 | 4,287 | 4,984 | 16.26% |
| | 108.20 | 6,177 | 7,084 | 14.68% |
| AREA TOTAL | | 43,488 | 48,803 | 12.22% |

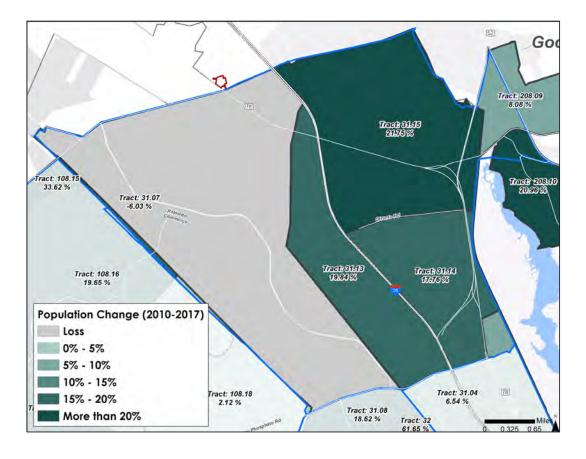


2.4.3 Planning Area 3

The majority of Planning Area 3 is generally the portion of the City within Dorchester County, with the exception of the recently annexed tracts west of the Ashley. It is bounded by the Charleston/Dorchester County line on the east and south, the Ashley River on the west, and Ladson Road on the north. The areas of land in Planning Area 3 that fall on the western side of the Ashley River are sparsely populated, with the only development located on unincorporated parcels. Except for the Dorchester Road, Ladson Road and Ashley Phosphate Road corridors, Planning Area 3 mainly consists of suburban single family residential development and includes the Wescott Plantation, Whitehall, Cedar Grove, and Coosaw Creek neighborhoods, among others. Planning Area 3 experienced the second largest population increase of the planning areas, with roughly 12% growth between 2010 and 2017.

Census Tract 57, which includes a newly annexed area west of the Ashley River, is mostly incorporated within the City of Charleston. The portions annexed by the City of North Charleston are largely undeveloped at present and zoned for agricultural uses but could possibly support residential development in the future.

| PLAN | CENSUS | POPULATION | | | | % CHANGE |
|------------|--------|-----------------|--------|-------------|--|----------|
| AREA | TRACT | TRACT 2010 2017 | | 2010 - 2017 | | |
| | 31.07 | 4,397 | 4,132 | -6.03% | | |
| | 31.13 | 2,772 | 3,322 | 19.84% | | |
| | 31.14 | 7,133 | 8,400 | 17.76% | | |
| | 31.15 | 7,113 | 8,660 | 21.75% | | |
| | 208.09 | 3,340 | 3,610 | 8.08% | | |
| | 208.10 | 3,716 | 4,495 | 20.96% | | |
| AREA TOTAL | | 28,471 | 32,619 | 14.57% | | |



2.4.4 Planning Area 4

Planning Area 4 encompasses the northeastern quadrant of the City and is generally bounded by Dorchester County on the west, Berkeley County on the north and east, and Ashley Phosphate Road on the south. There is a single shopping center parcel in Berkeley County that is also included within the City's boundary. This Planning Area includes residential communities such as Deer Park, The Lakes, Colony North, Pepperhill, Northwoods Estates and others. Tract 31.07 recorded a loss in population between 2010 and 2017.

However, this tract consists of the Palmetto Commerce industrial Park, which is largely zoned for light industrial and manufacturing uses. At present, many of the industrial parcels are under development along Palmetto Commerce Parkway accommodating a growing manufacturing base and creating a hub for economic development in the region. Companies such as Boeing, Cummins Turbo Technologies, and Mercedes-Benz Vans Assembly are located along this corridor and call North Charleston home. This tract also includes the significant area surrounding Ingleside Boulevard which is zoned to accommodate future mixed use development. To date, this area has already seen the construction of three apartment communities and as the development matures or is built out, the area will see an increase in commercial, office and residential uses. The population of North Charleston is growing and more importantly, the population is growing in all four Planning Areas. As the region itself continues to grow, the growth trend will continue.

2.5 DEMOGRAPHICS

2.5.1 Age Distribution

Understanding the age distribution of the City's population has great implications for planning. A City with a large and growing population moving into retirement age will impact the labor force available and employers may be challenged with finding workers to replace retirees and fill new job positions. Similarly, a large and growing millennial population has, in general, demonstrated preferences for higher density housing and more urban living with greater transit, walking and bicycling options. As such, these trends will shape the services provided to residents as well as the City's future housing demands, transportation needs, and life style preferences. North Charleston's population is younger when compared to South Carolina and the United States. As Figure 6 shows, the median age of residents in North Charleston in 2017 was 32.5, whereas the median age in South Carolina and the United States were 39.0 and 37.8, respectively.

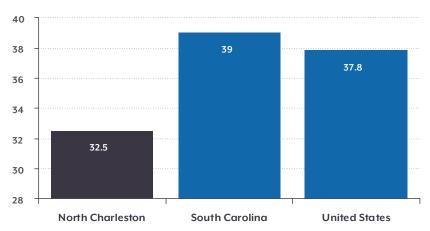


Figure 6: Median Age of Residents (2017)

Figure 7 shows the population age distribution of the City for the years 2010 and 2017. North Charleston has seen growth in the percent of residents aged 25-39 years and 50-74 years between 2010 and 2017. In 2017 the City's youth population, ages 18 years and under, was roughly 27% and 10% was seniors, ages 65 and over. In general the City's youth population is greater and senior population is smaller than that of the Charleston Metro area and the State. Figure 8, next page, provides the distribution of youth and senior populations by census tract for the City and shows the tracts that have higher youth and senior populations in comparison to the City's average.

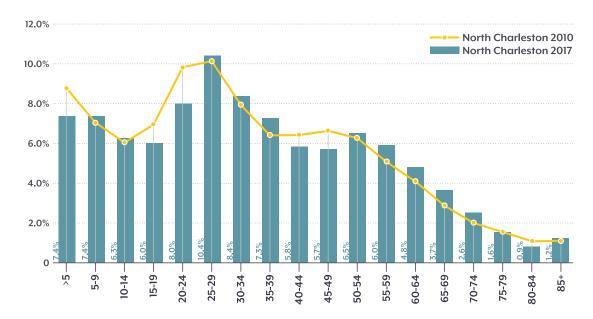


Figure 7: Age Distribution of North Charleston Residents (2010 & 2017)

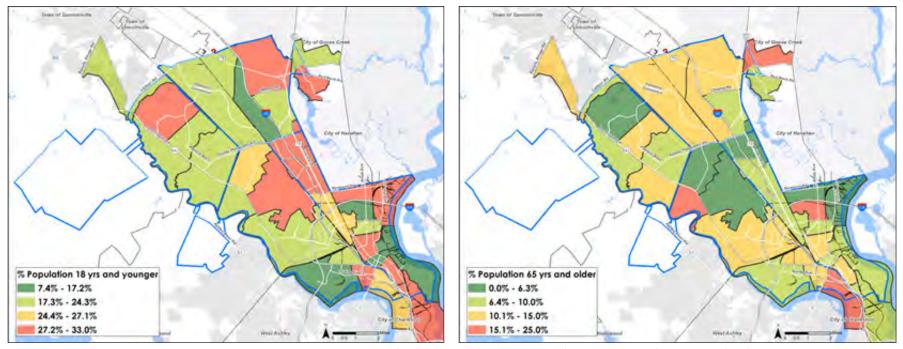


Figure 8: North Charleston Distribution of Youth (18 years and younger) and Senior (65 years and older) Populations (2017)

Highlights

- In 2017 approximately 27% of the City's population was 18 years and younger (youth population) and 10% of the City's population was 65 years and over (senior population)
- Between 2010 and 2017 it appears that the proportion of the City's youth population has decreased, while the senior population was increased
- Roughly 26% of North Charleston's population are in the 25-39 age cohort (2017); this cohort also saw an increase between 2010 and 2017
- \cdot The median age of the City has increased between 2010 and 2017 from 30.6 years to 32.5 years
- North Charleston maintains a relatively identical split between the male and female population at 49.1% and 50.9%, respectively

2.5.2 Diversity

In 2017, the largest racial group in North Charleston was African American or Black at 47.2%, followed by Caucasian or White at 45.3% (Figure 9). Table 1 provides the City's population composition by race for the Census years 2000 and 2010. The percent of the population identifying as White and African American or Black has decreased between Census years, while the percent of the population identifying as all other race categories showed an increase. Individuals identifying as Hispanic or Latino ethnicity has more than doubled over the same period. This decrease in individuals identifying as White or African American may partially come as a result of persons identifying as some other race or two or more races.

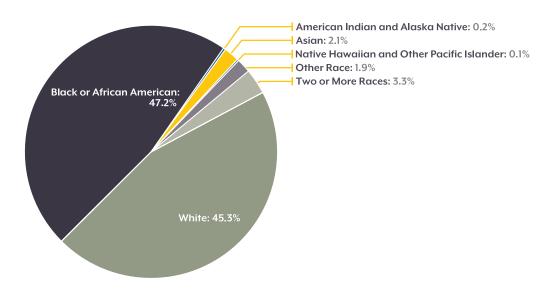


Figure 9: North Charleston Race Composition (2017)

| RACE | 2000 | | 2010 | | 2017 | |
|--|--------|-------|----------|-------|--------|-------|
| WHITE | 35,651 | 44.8% | 40,514 | 41.6% | 49,005 | 45.3% |
| AFRICAN AMERICAN OR BLACK | 39,348 | 49.4% | 45,964 | 47.2% | 51,117 | 47.2% |
| AMERICAN INDIAN AND ALASKAN NATIVE | 349 | 0.4% | 453 | 0.5% | 193 | 0.2% |
| ASIAN | 1,263 | 1.6% | 1,897 | 1.9% | 2,220 | 2.1% |
| NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER | 75 | 0.1% | 157 | 0.2% | 100 | 0.1% |
| SOME OTHER RACE | 1,417 | 1.8% | 6,067 | 6.2% | 2,018 | 1.9% |
| TWO OR MORE RACES | 1,538 | 1.9% | 2,419 | 2.5% | 3,533 | 3.3% |
| ETHNICITY | 2000 | | 000 2010 | | 20 |)17 |
| HISPANIC OR LATINO (OF ANY RACE) | 3,163 | 4.0% | 10,617 | 10.9% | 11,270 | 10.4% |

Table 1: North Charleston Race and Ethnicity 2000, 2010, & 2017

Compared to both the State and Charleston-North Charleston Metro area, the City has a more diverse population as shown in Figure 10. The City's non-Hispanic White population is considerably lower than the State and Charleston Metro area. In fact, the African American or Black population is the racial majority in the City.

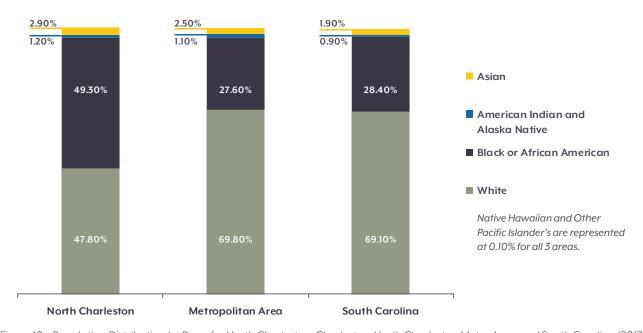


Figure 10: Population Distribution by Race for North Charleston, Charleston-North Charleston Metro Area, and South Carolina (2017)

Highlights

- · African American or Black racial group makes up the largest portion of the City's population
- · Over time, the proportion of both White and African American populations has decreased, while other races has increased
- The percent of North Charleston population identifying as Hispanic or Latino has more than doubled between 2000 and 2010
- The City's racial composition is more diverse than both the State and the Charleston-North Charleston Metro area

2.5.3 Educational Profile

The Census Bureau defines educational attainment as the highest degree or level of schooling completed by an individual. Higher levels of education are closely associated with higher average earnings. Educational attainment is an important metric for a community because unemployment rates tend to be lower where educational attainment is higher. As education levels of the residents of North Charleston increase, so will incomes, which are beneficial to not only the individual, but the community as a whole Between 2010 and 2017 the North Charleston population 25 years and older has become better educated. However in 2017 the percent of the City's population without a high school diploma (16.5%) was above both the State (13.5%) and national levels (12.6%). By comparison, the City has seen the strongest growth in the population having a Bachelor's degree or higher between 2010 and 2017, however it still lags behind the Charleston-North Charleston Metro and State levels (Table 2 and Figure 11).

North Charleston has seen a fall in school enrollment between 2000 and 2017 at all levels from nursery school/preschool through high school (Table 3). However, college or graduate school enrollment has increased by roughly 6% over the period. The increase in school enrollment at this education level has put the City's enrollment more on par with the Charleston-North Charleston Metro area.

| EDUCATIONAL ATTAINMENT | NORTH CHARLESTON | | CHARELESTON METRO | | SOUTH CAROLINA | |
|---|---------------------|-------|----------------------|-------|-------------------|-------|
| | 2000 | 2017 | 2000 | 2017 | 2000 | 2017 |
| NO HIGH SCHOOL DIPLOMA | 27.2% | 16.5% | 16.1% | 9.9% | 23.7% | 13.5% |
| HIGH SCHOOL GRADUATE (INCLUDES EQUIVALENCY) | 28.6% | 30.2% | 25.3% | 25.6% | 30.0% | 29.4% |
| SOME COLLEGE, NO DEGREE | 24.1% | 21.3% | 23.3% | 21.1% | 19.3% | 20.8% |
| ASSOCIATE DEGREE | 6.3% | 9.9% | 7.4% | 9.3% | 6.7% | 9.3% |
| BACHELOR'S DEGREE | 9.7% | 15.6% | 18.3% | 21.9% | 13.5% | 17.2% |
| GRADUATE OR PROFESSIONAL DEGREE | 4.1% | 6.5% | 9.6% | 12.2% | 6.9% | 9.8% |

Table 2: Highest Educational Attainment 2000 & 2017 (Pop 25-yrs+)

| SCHOOL ENROLLMENT | NORTH CHARLESTON | | CHARLESTON METRO | | SOUTH CAROLINA | |
|--------------------------------|---------------------|-------|---------------------|-------|-------------------|-------|
| | 2000 | 2017 | 2000 | 2017 | 2000 | 2017 |
| NURSERY SCHOOL, PRESCHOOL | 7.7% | 5.4% | 6.9% | 6.2% | 6.5% | 5.3% |
| ELEMENTARY SCHOOL (GRADES K-8) | 51.5% | 49.7% | 47.3% | 45.7% | 51.0% | 47.0% |
| HIGH SCHOOL (GRADES 9-12) | 19.8% | 17.5% | 19.1% | 19.8% | 21.9% | 21.0% |
| COLLEGE OR GRADUATE SCHOOL | 21.0% | 27.4% | 26.7% | 28.4% | 20.6% | 26.8% |

Table 3: School Enrollment 2000 & 2017 (Pop 3-yrs+)

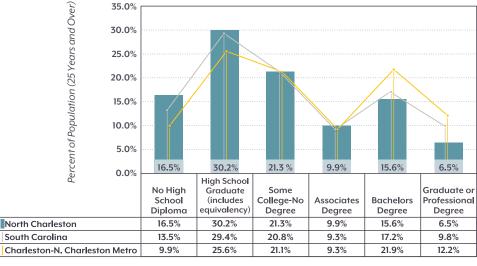


Figure 11: North Charleston, Charleston Metro and State Highest Educational Attainment 2017

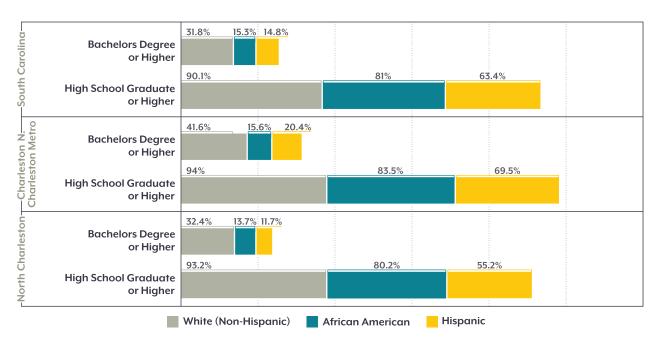


Figure 12: Select Educational Attainment by Race (2017)

Given the diversity of the City, it is important that the overall education of its residents is addressed across all groups. When educational attainment is compared across racial/ethnic groups (Figure 12) it can be seen that the North Charleston population, although more diverse than the Charleston Metro area and the State, still has a lower proportion of African Americans and Hispanics attaining high school diplomas and bachelor's/professional degrees. Addressing the achievement gap or disparities in education is as much a national and state issue as it is an issue for the City. The South Carolina Department of Education evaluation of district schools identified nine Charleston County schools which ranked among the worst-performing in the State⁴. All but one of these schools is located in North Charleston. The schools identified for intervention include Chicora Elementary, Edmund A. Burns Elementary, Greg Mathis Charter High, Mary Ford Elementary, Morningside Middle, North Charleston Elementary, North Charleston High, and R.B. Stall High school. The Charleston County School District (CCSD), in developing their most recent strategic goals, is focused on improving the quality of education for all schools within its jurisdiction, with a clear directive to address the wide achievement gap of CCSD students and schools with the most significant needs.

^{4.} https://ed.sc.gov/districts-schools/school-improvement/school-improvement-programs/csi/

3.0 HOUSING



3.1 OVERVIEW

As the population of North Charleston continues to increase, it is essential to plan for development of additional housing that will accommodate the growth. This planning starts by assessing the condition, availability, and affordability of existing housing. Diverse housing options in terms of housing types (single family/multi-family), housing unit sizes, and price points are assessed, as well as the affordability of current housing costs relative to incomes of residents. Such assessment assists in identifying gaps in the current housing inventory and what other types of housing might be needed in the future.

3.2 HOUSING SUPPLY

Categorization of North Charleston's existing housing supply shows that close to a majority of housing units in the City are single-family detached residences. Multi-family units represent approximately one-third of the City's housing supply. The remaining 17% of housing units are reported as townhomes, mobile homes, or boat, RV, and vans. When examining Table 4 (and building permit data later presented), it is easy to identify the housing bubble from 2000 to 2009. Table 4 indicates that only half as many housing units have been added to the inventory so far this decade (2010-2017), however as of 2017 the average annual increase in units since 2010 was more approximately 79% of the housing units added in the previous decade (2000-2010).

As illustrated in Table 4, the decrease in additional housing units can be attributed to a slowdown in the construction of single and multi-

family units so far this decade (2010 and 2017). Concurrently, townhomes have been added to the supply at a much greater rate. This is not to say that more actual Townhomes units were added to the inventory than single family or multi-family units, but that there has been more investment in construction of townhomes than in the previous decade. This shift could indicate a slight over-saturation of single family homes in the market as it rebounded from the 2008 downturn, rising land and/or development costs, the demand for more affordable options, or increased demand for smaller living quarters with less maintenance. Concurrent to these shifts, the inventory of Mobile homes, boats, RVs, and vans as housing types have continued to decline.

NORTH CHARLESTON HOUSING INVENTORY

| | | | | % OF CURRENT | PERCENT CHANGE IN TOTAL UNITS | | |
|---------------|--------|--------|--------|-----------------|-------------------------------|-----------|--|
| | 2000 | 2010 | 2017 | INVENTORY | 2000-2010 | 2010-2017 | |
| TOTAL UNITS | 33,649 | 41,519 | 45,893 | | 23.4% | 10.5% | |
| SINGLE-FAMILY | 15,316 | 20,217 | 22,445 | 48.91% | 32.0% | 11.0% | |
| TOWNHOMES | 2,191 | 2,055 | 3,393 | 7.39% | -6.2% | 65.1% | |
| MULTI-FAMILY | 10,600 | 14,665 | 15,693 | 34.19% | 38.3% | 7.0% | |
| MOBILE HOME | 5,514 | 4,573 | 4,355 | 9.49% | -17.1% | -4.8% | |
| BOAT, RV, VAN | 28 | 9 | 7 | 0.02% | -67.9% | -22.2% | |

Source: United States Census

Table 4: North Charleston Housing Inventory

Approximately 30% of North Charleston's housing units were built after 2000, meaning that almost 70% of the housing supply is from the 20th century. By 2020, approximately 45% of the City's current housing inventory will be at least 50 years old. Older homes often need more repairs and have outdated heating systems, inadequate plumbing, poor electrical systems, inadequate insulation, structural decay, and a lack of appropriate health and safety systems. On average 0.4% of the City's occupied housing units are considered substandard because they are lacking complete plumbing facilities and lacking complete kitchen facilities. Figure 13 illustrates where the higher proportion of substandard units are located.

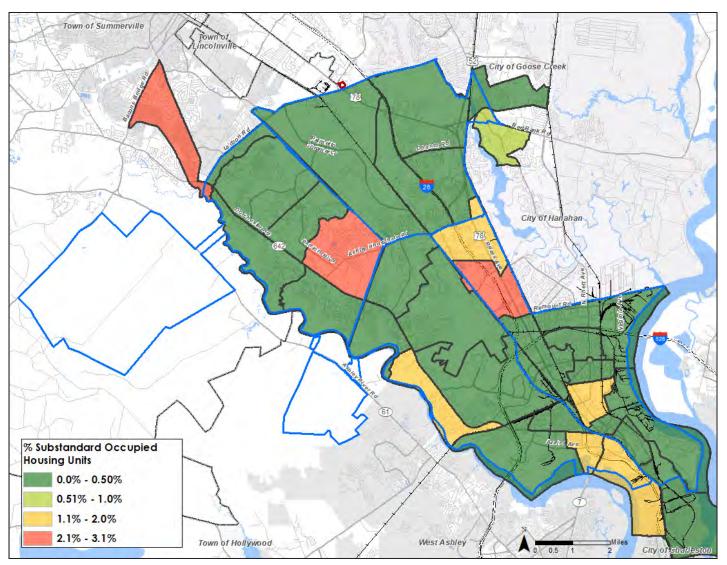


Figure 13: Substandard Housing in North Charleston (2017)

While age of housing is not the sole variable for how good the housing stock is, it is an indicator of how the City has developed and where growth is occurring in the region. Since 2000, North Charleston has built more new housing than surrounding jurisdictions except for the City of Charleston as shown in Table 5.

HOUSING SUPPLY CHANGES SINCE 2000

| | NORTH CHARLESTON | CITY OF CHARLESTON | GOOSE CREEK | MONCKS CORNER | SUMMERVILLE |
|----------------------------|---------------------|-----------------------|----------------|------------------|-------------|
| TOTAL HOUSING UNITS (2017) | 45,893 | 61,199 | 14,468 | 3,757 | 19,129 |
| HOUSING BUILT AFTER 2000 | 13,795 | 17,945 | 6,289 | 1,672 | 8,411 |
| CHANGE IN SUPPLY | 30.1% | 29.3% | 43.5% | 44.5% | 44.0% |

Source: United States Census

Table 5: North Charleston Changes in Housing Supply Since 2000

Table 6 indicates that the number of building permits issued for construction by the City of North Charleston has stayed relatively consistent since 2010 with Single-family residential still the predominant type of housing construction. As previously mentioned, Single Family construction surged from 2002 to 2007 prior to the recession and dropped off when the bubble burst in 2008. It is important to note that permitting does not always indicate all units have been constructed, but does illustrate relative stability in housing market demand.

NORTH CHARLESTON BUILDING PERMITS

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| SINGLE-FAMILY | 636 | 863 | 1,339 | 1,321 | 1,113 | 794 | 368 | 335 | 342 | 283 | 365 | 403 | 141 | 311 | 317 | 380 |
| TOWNHOME | 0 | 0 | 0 | 219 | 277 | 0 | 0 | 32 | 26 | 4 | 33 | 17 | 7 | 59 | 36 | 46 |
| MULTI-FAMILY* | 0 | 488 | 24 | 66 | 171 | 29 | 35 | 2 | 7 | 13 | 12 | 40 | 2 | 4 | 8 | 11 |
| MOBILE HOME | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 18 | 28 | 171 | 134 | 15 | 60 | 61 | 74 |

Source: City of North Charleston; BCDCOG

Table 6: North Charleston Building Permits 2002-2017

*Fluctuations prior to 2010 are due to discrepancies in permit reporting. MF permits since 2010 do not account for the number of units in a single building permitted.

One limitation to the construction of new housing could be the supply and cost of available land. In the recent past, new residential developments have been created on large tracts along Dorchester Road and further away from the historic core of the City. While North Charleston is not technically land locked, these larger projects are located at the periphery of North Charleston or in other jurisdictions that have more availability of larger tracts with easy access to jobs located at the edge of the City. However, these types of developments on the fringe have direct impacts on traffic and congestion, particularly within the City along already stressed corridors such as I-26 and Dorchester Road. Figure 14 indicates land currently assessed by Charleston County as vacant. While these do not necessarily present opportunities for re-development, the map provides a snapshot of potential areas where there may be opportunities for new construction.

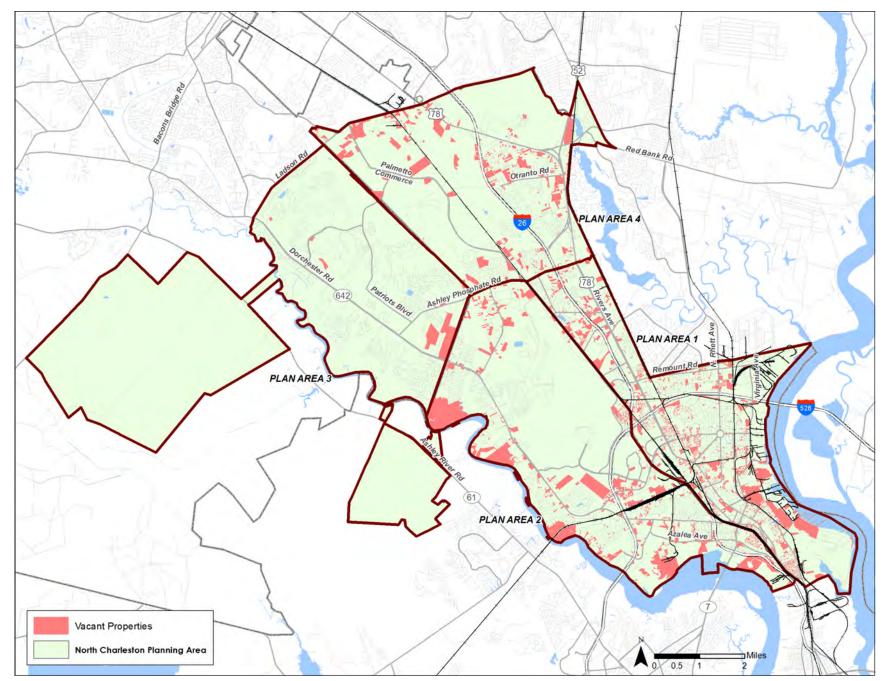


Figure 14: North Charleston Vacant Properties

3.2.1 Housing Occupancy

Housing occupancy is an indicator of economic stability. Typically, a higher rate of owner occupancy indicates greater investment in a community. Table 7 shows the trend in housing occupancy as either owner occupied, renter occupied, or vacant. While the majority of occupied housing units in North Charleston have consistently been renter occupied units, renter occupied units have increased at a much greater rate than owner-occupied units since 2010. This could be attributed to the increase in rental unit demand that was observed regionally as a result of foreclosures during the recession, in-migration of new residents being transferred with new companies moving to the region, and/or the desire of certain age groups to have more mobility offered by leasing.

NORTH CHARLESTON OCCUPANCY CHARACTERISTICS

| | | | | % OF TOTAL | CHANGE IN 1 | TOTAL UNITS |
|-----------------|--------|--------|--------|------------|-------------|-------------|
| | 2000 | 2010 | 2017 | UNITS 2017 | 2000-2010 | 2010-2017 |
| TOTAL UNITS | 33,649 | 41,519 | 45,893 | | 23.4% | 10.5% |
| OCCUPIED, TOTAL | 29,747 | 34,926 | 40,577 | 88.42% | 17.4% | 16.2% |
| OWNER OCCUPIED | 13,757 | 16,935 | 18,038 | 39.30% | 23.1% | 6.5% |
| RENTER OCCUPIED | 15,990 | 17,991 | 22,539 | 49.11% | 12.5% | 25.3% |
| VACANT | 3,902 | 6,593 | 5,316 | 11.58% | 69.0% | -19.4% |

Source: United States Census

Table 7: North Charleston Occupancy Characteristics

COMPARATIVE OCCUPANCY IN 2017

| | NORTH CHARLESTON | CHARLESTON | GOOSE CREEK | SUMMERVILLE |
|-----------------|---------------------|------------|-------------|-------------|
| Occupied, Total | 40,577 | 53,845 | 13,756 | 17,565 |
| Owner Occupied | 44.5% | 54.4% | 68.0% | 64.1% |
| Renter Occupied | 55.5% | 45.6% | 32.0% | 35.9% |

Source: United States Census

Table 8: Comparative Occupancy in 2017

Vacant units, which grew significantly between 2000 and 2010, have decreased between 2010 and 2017.

Compared to surrounding jurisdictions listed in Table 8, the City is the only jurisdiction that carries a higher renter occupancy rate. Renter-occupied units are up 4% from 2010 when they comprised 51.5% of occupied units in the City.

According to ATTOM Data Solutions 2018 report, buying a home is more affordable than renting in 54% of the United States; however 64% of the United States population lives in areas that are more affordable to rent than to buy. Although home ownership is currently more affordable than renting in Dorchester and Berkeley Counties, Charleston County is an area where it has been deemed more affordable to rent than buy. In addition, areas in the City of North Charleston are considered to be the most affordable for renters within Charleston County. Figure 15 and 16 indicate relative concentrations of renter occupied housing units and owner-occupied units.

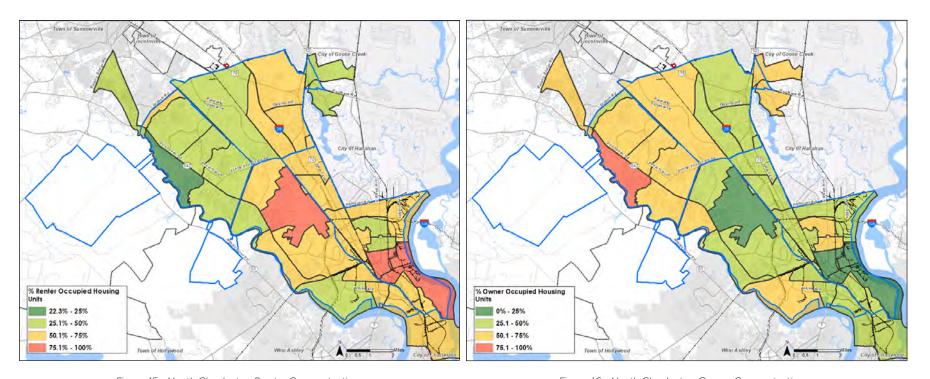


Figure 15: North Charleston Renter Concentrations

Figure 16: North Charleston Owner Concentrations

3.2.2 Households, Families, and Nonfamilies

The Census Bureau defines a household as "all the people who occupy a housing unit" and it "includes the related family members and all the unrelated people." There are two major categories of households, "family" and "nonfamily." A family is two or more people whom are related by birth, marriage or adoption, whereas nonfamilies are those households that consist of only unrelated persons (group quarters, such as halfway homes, and single individuals living alone are excluded from household counts and are not included in the Table 9 below). These distinctions are necessary to understand the current housing utilization in North Charleston.

CHARACTERISTICS OF HOUSEHOLDS

| | NORTH CHARLESTON | | CHARL | .ESTON | GOOSE | CREEK | SUMMERVILLE | |
|------------------------|------------------|--------|--------|--------|--------|--------|-------------|--------|
| | 2010 | 2017 | 2010 | 2017 | 2010 | 2017 | 2010 | 2017 |
| TOTAL HOUSEHOLDS | 34,926 | 40,577 | 49,288 | 53,845 | 11,178 | 13,756 | 15,529 | 17,565 |
| TOTAL FAMILIES | 21,809 | 23,431 | 25,628 | 28,274 | 8,973 | 10,263 | 10,634 | 12,059 |
| PERCENT OF FAMILIES | 62.4% | 57.7% | 52.0% | 52.5% | 80.3% | 74.6% | 68.5% | 68.7% |
| AVERAGE FAMILY SIZE | 3.21 | 3.34 | 2.97 | 3.01 | 3.21 | 3.26 | 3.14 | 3.42 |
| NON-FAMILY HOUSEHOLDS | 13,117 | 17,146 | 23,660 | 25,571 | 2,205 | 3,493 | 4,895 | 5,506 |
| PERCENT OF NONFAMILIES | 38% | 42% | 48% | 47% | 20% | 25% | 32% | 31% |

Source: United States Census

Table 9: Characteristics of Households

As seen in Table 9, while the total number of households and families in each jurisdiction have increased from 2010 to 2017, both North Charleston and Goose Creek have seen greater increases in the proportion of non-family households. The increase in non-family households along with the increase in renter occupied units may not be coincidental as housing cost increases may dictate the need for roommates to offset increasing rents.

While the average size of families is on the rise, the proportion of households in North Charleston made up by families has decreased. Combined with greater increases in non-family households and renter occupied units, these are likely contributors to the fact that North Charleston has the second lowest average household size of the four jurisdictions that surround the City (Table 10). These trends are indicative of an area that is urbanizing.

AVERAGE HOUSEHOLD SIZE

| | NORTH CHARLESTON | | CHARL | LESTON GOOSE | | CREEK | SUMMERVILLE | |
|-----------------------|------------------|------|-------|--------------|------|-------|-------------|------|
| | 2010 | 2017 | 2010 | 2017 | 2010 | 2017 | 2010 | 2017 |
| OWNER-OCCUPIED UNITS | 2.60 | 2.57 | 2.40 | 2.45 | 2.90 | 2.86 | 2.70 | 2.86 |
| RENTER-OCCUPIED UNITS | 2.50 | 2.50 | 2.10 | 2.18 | 3.00 | 2.76 | 2.30 | 2.64 |
| AVERAGE OWNER/RENTER | 2.55 | 2.54 | 2.25 | 2.32 | 2.95 | 2.81 | 2.50 | 2.75 |

Source: United States Census

Table 10: Average Household Size

3.2.3 Housing Values and Affordability

North Charleston's homes are slightly lower in value when compared to homes in the City of Charleston and the tri-county region as shown in Figure 17. However, over the past decade North Charleston has exceeded both the City of Charleston and the metropolitan region in valuation growth. In 2017, the median home value in North Charleston was \$155,900, which represents a 28.2% increase from \$121,600 in 2007. During the same period, the City of Charleston and regional home values only grew 15.8%.

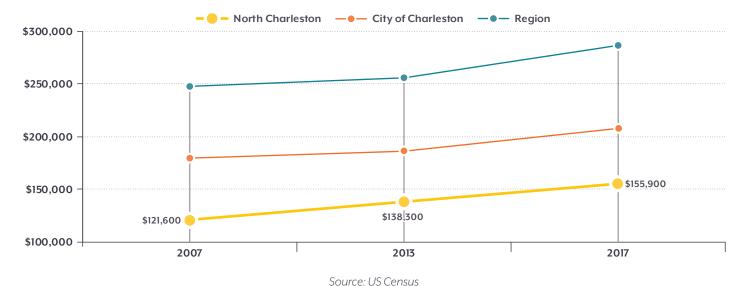


Figure 17: Comparative Median Home Values

This increase in value is good for current home owners, but not necessarily for renters. As values increase, landlords may increase rents to offset increasing assessments and taxes making it more difficult for renters to afford housing and/or save to become home owners.

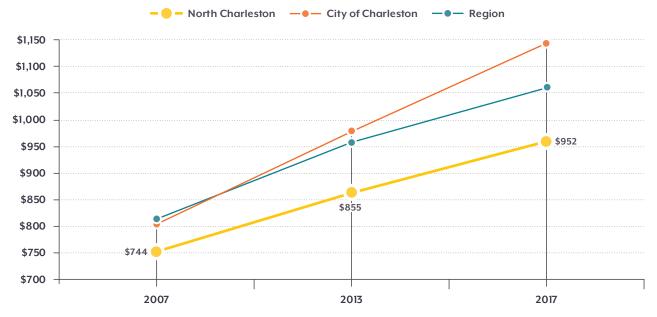


Figure 18: Households Paying Greater than 30% Income on Gross Housing Costs*
Source: US Census

Rental costs are also on the rise regionally due to higher demand. In 2013 the median rent in North Charleston was \$744 per month, which grew to \$952 per month in 2017, representing a 28% increase (Figure 18) in less than a decade.

However, during the same period, rents in the City of Charleston grew by 42.6% and regional rents grew by 30.9%, a factor making North Charleston a more attractive location for renter households.

The United States Department of Housing and Urban Development (HUD) defines housing as "affordable" when housing costs, inclusive of rent or mortgage payments and utility costs, are 30% or less of a household's combined annual income. In 2017, an estimated 43.6% (or 17,709) of households in the City of North Charleston spent 30% or more of their total household income on housing costs. Of the estimated 12,135 households in North Charleston that had a mortgage, 35% spent 30% or more of their income on housing. For those homeowners in North Charleston who did not have a mortgage, 15.4% paid more than 30% of their income on housing. At the same time, a clear majority (58.5%) of renters in North Charleston were spending more than 30% of their income on housing. These numbers are slightly higher compared to Charleston, Goose Creek, and Summerville, but consistent with the affordability issue that the region is facing, particularly for renters.

HOUSING AND RENTAL AFFORDABILITY COMPARISON

| | NO | RTH CHARLE | STON | | CHARLESTO | N | | GOOSE CRE | EK | | SUMMERVIL | LE |
|--|--------|--|------------------------|--------|--|------------------------|-------|--|------------------------|-------|--|------------------------|
| | TOTAL | SPEND 30% OR MORE INCOME ON HOUSING | PERCENT OF TOTAL | TOTAL | SPEND 30% OR MORE INCOME ON HOUSING | PERCENT OF TOTAL | TOTAL | SPEND 30% OR MORE INCOME ON HOUSING | PERCENT OF TOTAL | TOTAL | SPEND 30% OR MORE INCOME ON HOUSING | PERCENT OF TOTAL |
| OWNER-OCCUPIED HOUSEHOLDS WITH MORTGAGE | 12,135 | 4,335 | 35.7% | 20,678 | 6,235 | 30.2% | 7,526 | 1,747 | 23.2% | 8,699 | 2,497 | 28.7% |
| OWNER-OCCUPIED HOUSEHOLDS WITHOUT MORTGAGE | 5,657 | 870 | 15.4% | 8,259 | 1,324 | 16.0% | 1,730 | 210 | 12.1% | 2,508 | 275 | 11.0% |
| RENTAL-OCCUPIED HOUSEHOLDS | 21,371 | 12,504 | 58.5% | 22,224 | 11,448 | 51.5% | 4,119 | 2,150 | 52.2% | 6,007 | 3,117 | 51.9% |

Source: United States Census

Table 11: Housing and Rental Affordability Comparison

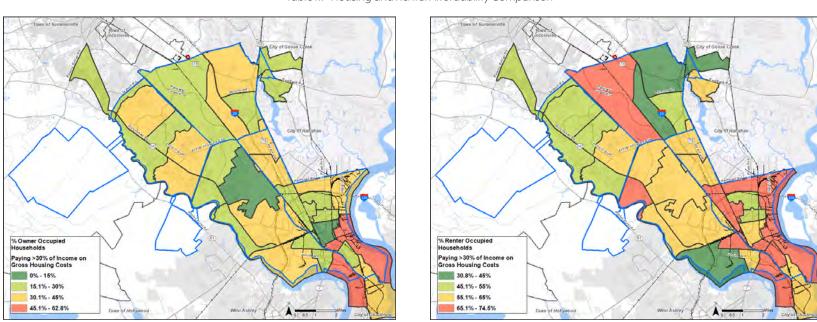


Figure 19: Households Paying Greater than 30% Income on Gross Housing Costs*
*Gross Housing Costs Include Mortgage, Rent, Utilities, & Taxes

A more accurate assessment of housing affordability can be derived comparing recent sales prices to median household incomes. Over the past five years, median sales prices for housing in Charleston County have increased 25.5%, while sales prices in Dorchester County increased 27.2% (CTAR 2018 Annual Report on the Charleston Area Housing Market). Three Multiple Listing Service (MLS) areas account for the majority of the City's jurisdiction. While these do not align with the City's Planning Areas (Figure 20), they can be described as follows:

- MLS Area 31: Neighborhoods inside I526 between the Ashley and Cooper Rivers, including the "Neck" area, Park Circle.
- MLS Area 32: Neighborhoods outside I-526 between Hanahan and the Ashley River, including the Remount Road, Rivers and Dorchester Road corridor in Charleston County.
- MLS Area 61: Neighborhoods in Dorchester County along Dorchester Road.

While reported sales prices within the City of North Charleston have been consistently lower than those for the three counties, these areas kept pace in the overall proportionate increases in median sales prices at an average of almost 9% annually over the past five years.

As reported in a regional Housing Needs Assessment released in 2014, home sales within these MLS areas dictated that a prospective purchaser earn between 39%-110% of the region's median household income which was \$51,332 at the time. In 2018, the median sales price in these MLS areas dictated that prospective purchasers earn between 98%-144% of the region's median household income.

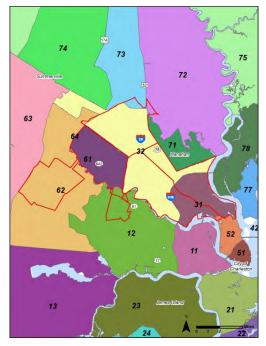


Figure 20: Multiple Listing Service In North Charleston

Berkeley County

Charleston County
31: Inside I526

Dorchester County

-- 32: Outside I526

61: Dorchester Road Corridor

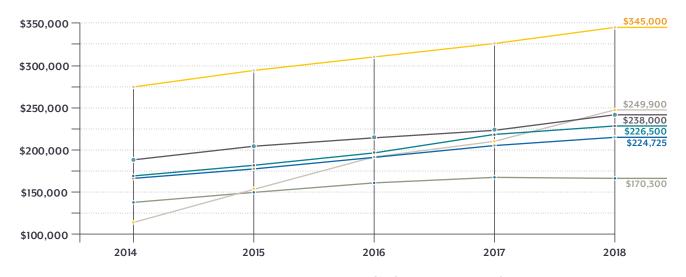


Figure 21: Comparative Median Sales Prices

However, these areas are even less affordable to existing North Charleston residents. With a median household income of \$39,944 in 2017, more than half of the City's current households are theoretically stretched to afford purchasing a home for approximately \$120,000. However, with median home prices in the City ranging from \$170K-\$250K, the majority of current residents cannot afford the current market. It is important to note that the less expensive area of the City is not what is commonly referred to as the Neck Area, where the majority of residents earn far below the City's median income. Thus this area continues to attract new homeowners from outside the City, while current residents remain renters.

It is much more difficult to obtain market rental costs (versus those reported by the Census). However, with a median household income of \$39,944, most renter households can afford housing that costs just under \$1,000 per month. As discussed above, average rental rates are getting close to that threshold.

3.2.4 Homelessness

Understanding the extent of the homelessness in the City is important. However, trying to get an accurate count of the transient population is exceptionally difficult. Housing and homeless service providers are required by HUD to participate in an annual "Point-In-Time" (PIT) count of the people who are homeless in their community. The 2017 PIT count showed a total of 3,916 homeless individuals in South Carolina, of which 425 were located in the Charleston/Lowcountry area. Table 12 shows figures for 2010 and 2017, and, while it appears that homelessness is increasing slightly, it should be noted that a PIT count is only conducted in the last 10 days of January each year and many homeless individuals are not accounted for when they chose not to take advantage of services and resources that are available.

HOMELESSNESS

| | CHARLESTON/ | LOWCOUNTRY | SOUTH CAROLINA | | | |
|----------------------|-------------|------------|----------------|-------|--|--|
| | 2010 | 2017 | 2010 | 2017 | | |
| TOTAL HOMELESS | 416 | 425 | 4,473 | 3,916 | | |
| SHELTERED HOMELESS | 347 | 221 | 3,036 | 2,415 | | |
| UNSHELTERED HOMELESS | 69 | 204 | 1,437 | 1,501 | | |

Source: United States Department of Housing and Urban Development

Table 12: HUD Homelessness Counts

4.0 ECONOMIC DEVELOPMENT



4.1 OVERVIEW

North Charleston is an economic leader in South Carolina. The City is home to the Charleston Port, and other major public and private sector employers such as Joint Base Charleston, Boeing, Mercedes-Benz Vans, Trident Health Systems, and Robert Bosch LLC. The City and region has continued to see growth in its manufacturing base as spin-off or secondary industries strategically locate to the region to support, for example, the automotive, aerospace and logistic industries. The Economic Development element explores the economic trends, workforce characteristics, industries, jobs, and commuting patterns for the citizens of North Charleston. North Charleston excels in promoting a climate that is easy for businesses to work within, which helps to ensure that jobs are available and that high sales revenue can be returned to the citizens through strong public services. Maintaining a strong, diversified and skilled workforce is essential to sustaining the economic vitality of North Charleston.

4.2 ECONOMIC TRENDS

The City of North Charleston and the region at large was at one time a military/defense dependent economy. However, since the closure of the Naval Base, the area has successfully shifted to a more diverse economy focused around the Charleston Port and its related transportation and logistics (warehousing and distribution) industries, tourism, manufacturing (automotive and aerospace), education, health, and information technology. The Charleston Metro Chamber of Commerce identifies the region's major employers (employing more than 500 workers) and drivers of the economic community, many of which are located in North Charleston's Planning Area. These include Joint Base Charleston, Boeing Company, Trident Health System, Robert Bosch LLC, Trident Technical College, City of North Charleston, WestRock MWV LLC, Mercedes-Benz Vans LLC, Detyen's ShipYard Inc., SAIC, TIGHTCO Incorporated, and Scientific Research Corporation. With two regional shopping centers, Tanger Shopping Outlets and Northwoods Mall; North Charleston also leads South Carolina in retail sales, exceeding \$6 billion each year.

The Charleston Regional Development Alliance (CRDA) keeps tracks of businesses that it has helped to bring into the region in a "Location and Expansion Log." In the last decade the CRDA has either attracted or helped with the expansion of some the following business: Robert Bosch, Boeing, SAIC, Senior Aerospace, Weber Automotive and NexGen Composites. North Charleston has made investments in public infrastructure to entice commerce. Palmetto Commerce Boulevard and the beautification project for East Montague Avenue would be two examples of this.

^{5.} Charleston Metro Chamber, https://www.charlestonchamber.org/economicdata/

4.3 WORKFORCE

4.3.1 Income

Household income is a measure commonly used by both public and private institutions to represent the total income of all residents over the age of 18 in each household, whether related to the primary householder or not. Household income is a measure of not just wages and salaries, but also unemployment insurance, disability and child support payments, regular rental receipts, as well as any personal business, investment, or other kinds of income regularly received.

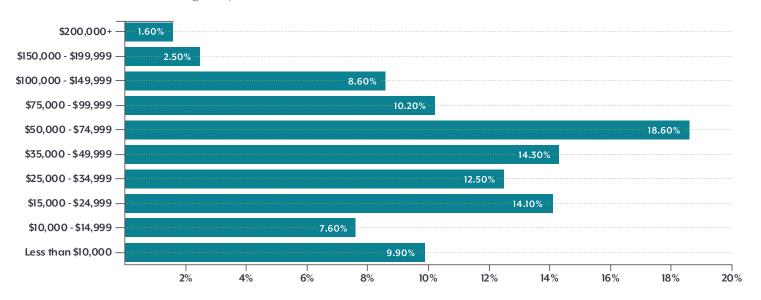
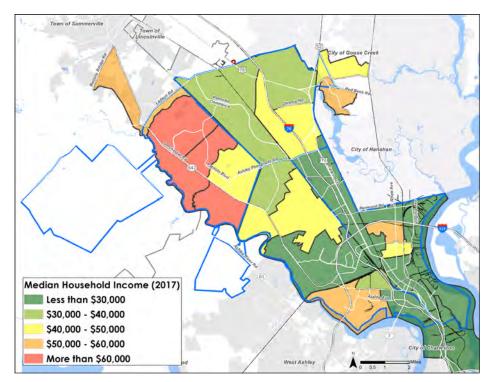


Figure 22: 2017 North Charleston Annual Household Income Distributions

In 2017, the median household income in the Charleston-North Charleston Metro Area was \$57,666 however; the median household income in the City of North Charleston was approximately 30% less at \$39,944. When compared to the median incomes of surrounding jurisdictions, Table 13 shows that North Charleston residents also lag behind residents who live in the City of Charleston, Goose Creek, and the Summerville jurisdictions. As discussed in the Population Chapter, educational attainment in North Charleston is lower than the surrounding jurisdictions. Educational attainment is directly correlated to lower household incomes in North Charleston.

Table 13 includes the gross increase and percent change in median household incomes between 2007 and 2017. North Charleston's median household income has grown at the second fastest pace of surrounding jurisdictions between 2007 and 2017. However, while the median income increased by \$5,648 since 2007, it is almost 30% - 40% less than some of its neighboring jurisdictions. Figure 23 shows how the incomes are distributed throughout North Charleston.



| | 2007 | 2017 | GROSS INCREASE | % CHANGE |
|--------------------------------------|----------|----------|-------------------|-------------|
| CHARLESTON-NORTH CHARLESTON METRO | \$48,315 | \$57,666 | \$9,351 | 19.4% |
| NORTH CHARLESTON | \$34,296 | \$39,944 | \$5,648 | 16.5% |
| CHARLESTON | \$44,765 | \$61,367 | \$16,602 | 37.1% |
| GOOSE CREEK | \$56,042 | \$64,204 | \$8,162 | 14.6% |
| SUMMERVILLE | \$52,806 | \$57,825 | \$5,019 | 9.5% |

Figure 23: Median Household Income Distribution by Census Tract (2017)

Table 13: Comparative Median Household Income Growth (2007 & 2017)

4.3.2 Education

As discussed in the Population Chapter, the Census Bureau defines educational attainment as the highest level of education completed by an individual. A community's high school graduation rate is a barometer of its health and the skill level of its future workforce. In 2017, 16.5% of North Charleston residents did not have a high school diploma while only 22.1% had a bachelor's degree. Comparatively, 10% of residents in the Charleston Metro area did not have a high school diploma and 34.1% had a bachelor's degree

Efforts to improve educational opportunities in North Charleston are currently underway. Currently, CCSD offers students opportunities to take college courses in high school. A new CCSD technical high school, which is scheduled to open in the fall of 2020, will work to enhance skills for the residents who live in North Charleston and Charleston County. Embry-Riddle is a postsecondary school that offers certificates in Aviation Maintenance, Associate/Bachelor Degrees in Aeronautics, Aviation Maintenance, and Technical Management, and a Master Degree in Aeronautics.6 Last, there are plenty of workforce development opportunities that exist such as ReadySC7 and SC Works8 for workers in the region.

- 6. https://worldwide.erau.edu/locations/north-charleston/
- 7. http://www.readysc.org/
- 8. https://www.scworkstrident.org/

4.3.3 Labor Force

The available labor force in North Charleston has grown from 75,063 people in 2012 to 84,348 people in 2017 (Table 14). This represents a 12.4% increase in the total available labor force living within the City, which aligns with the City's overall growth discussed in the Population Chapter. Likewise, North Charleston residents who are working increased by 10.2% over the same period. The unemployed civilian workforce decreased by 40.2% between 2012 and 2017, which is consistent with the trends following a recession.

4.3.4 Unemployment Rate

The unemployment rate is a measure of economic vitality and is calculated as a percentage by dividing the number of unemployed individuals (all those looking for work and excluding those who have chosen not to work) by all individuals currently in the labor force. The South Carolina Department of Employment & Workforce (SCDEW) collects annual employment data which is shown in Figure 24. The fall in the unemployment rate throughout South Carolina, including North Charleston, indicates that the economy has improved since the recession eased and is healthy. However, North Charleston's economy has improved more than its peers with the greatest decrease in its unemployment rate between 2012 and 2017.

4.3.5 Poverty

The Census Bureau uses a set of income thresholds that vary by family size and composition to determine who lives in poverty. If a family's total income is less than the family size threshold, then that family, and every individual in it, is considered to be in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using the Consumer Price Index (CPI-U). Historically, North Charleston has had higher poverty rates than both the Charleston Metro Area and South Carolina. According to the Census Bureau, despite improvements in the unemployment rate, that trend has continued in 2017 with 22.8% of North Charleston residents living in poverty (Figure 25).

| | 2012 | 2017 | CHANGE |
|---|--------|--------|--------|
| AVAILABLE LABOR FORCE (ALL RESIDENTS AGE 16+) | 75,063 | 84,348 | 12.4% |
| IN LABOR FORCE | 51,047 | 56,273 | 10.2% |
| CIVILIAN LABOR FORCE | 48,877 | 54,279 | 11.1% |
| CIVILIAN EMPLOYED | 42,399 | 50,403 | 18.9% |
| CIVILIAN UNEMPLOYED | 6,478 | 3,876 | -40.2% |
| ARMED FORCES | 2,170 | 1,994 | -8.1% |
| NOT IN LABOR FORCE | 24,016 | 28,075 | 16.9% |

Table 14: North Charleston Labor Force

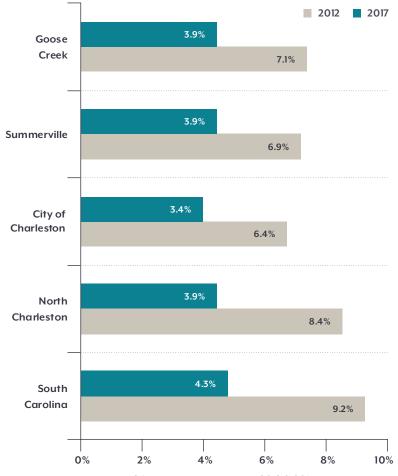


Figure 24: Unemployment Rate 2012 & 2017

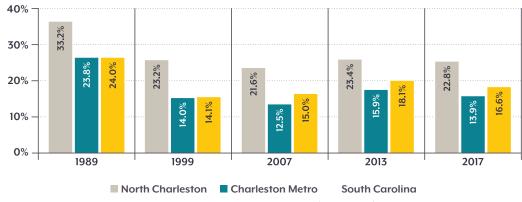


Figure 25: Historic Poverty Rates (1989 – 2017)

Looking at the three largest racial/ethnic groups, the disparity in poverty between African American or Blacks and Hispanic/Latinos is significant when compared to Whites in the City of North Charleston as well as across the entire State of South Carolina (Table 15). This coincides with the educational attainment data showing disproportionately fewer high school and bachelor's degrees among these groups (see Population Chapter). Planning Area 1 has the largest portion of its population living below the poverty level (Figure 26).

| | BLACK ALONE | | | HISPANIC/ LATINO | | IITE ONE |
|---------------------|----------------|-------|-----------|---------------------|-------|-------------|
| | 2013 | 2017 | 2013 2017 | | 2013 | 2017 |
| NORTH CHARLESTON | 32.4% | 31.0% | 28.4% | 33.1% | 12.4% | 10.4% |
| CHARLESTON METRO | 27.4% | 24.0% | 30.4% | 26.0% | 9.9% | 8.6% |
| SOUTH CAROLINA | 29.5% | 26.7% | 31.5% | 11.2% | 12.1% | 11.2% |

Table 15: Poverty Rate by Racial Composition (2013 & 2017)

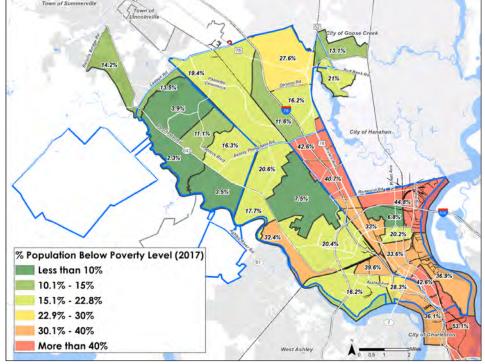


Figure 26: North Charleston Population Below Poverty Level (2017)

4.3.6 North Charleston Industry

North Charleston is considered the economic hub of the region and maintains an extremely business friendly climate. North Charleston's central location within the tri-county region, gives it a competitive advantage for the movement of goods by air, land, or sea. The City has convenient access to domestic and global markets through the Charleston Port, two class one rail lines (CSX and Norfolk Southern Railways), and commercial air services (Atlas Air, FedEx Express, FedEx Feeder, and UPS Airlines). The State, SC Port Authority and other partners have committed to invest in port and port-related infrastructure that will not only increase port capacity, but also enhance the operational performance and transportation infrastructure related to the movement of cargo at the Port of Charleston and throughout the State. The Charleston International Airport has also implemented an expansion plan to increase the capacity of the region's air facilities. The development of the successful Palmetto Commerce Industrial Park reflects the local commitment to creating an environment that is necessary for the economic vitality of the region.

The region supports a diverse mix of industries. The industries that take advantage of the business climate and transportation network currently in North Charleston are shown in Table 16. In 2018, there were 5,662 businesses that employ roughly 95,000 people. The major industries by share include Manufacturing, Transportation and Warehousing, Retail trade and Health care services. As the retail sales leader in South Carolina, the retail trade industry contains the most businesses (862) and second highest job count (11,034) in the City. Manufacturing accounts for 15,546 employees spread across 227 businesses. The industry with the third highest job count is health care and social assistance which employs 9,687 people.

Table 16 also shows how North Charleston compares against each of the three counties in the region and the state. North Charleston has more businesses located within or total employees when compared to either Berkeley or Dorchester County. Likewise, it grosses more total sales than either Berkeley or Dorchester County. Comparatively, North Charleston represents about 45% of the total sales in Charleston County which is fairly impressive considering that not all of North Charleston is geographically located within Charleston County.

NORTH CHARLESTON INDUSTRIES

| | 2018 | % OF | 2018 | % OF |
|---|------------|-------|-----------|-------|
| | BUSINESSES | TOTAL | EMPLOYEES | TOTAL |
| AGRICULTURE, FORESTRY, FISHING & HUNTING (NAICS II) | 3 | 0.1% | 175 | 0.2% |
| MINING, QUARRYING, & OIL & GAS EXTRACTION (NAICS 21) | 5 | 0.1% | 39 | 0.0% |
| UTILITIES (NAICS 22) | 3 | 0.1% | 130 | 0.1% |
| CONSTRUCTION (NAICS 23) | 374 | 6.6% | 5,924 | 6.3% |
| MANUFACTURING (NAICS 31-33) | 227 | 4.0% | 15,546 | 16.4% |
| WHOLESALE TRADE (NAICS 42) | 285 | 5.0% | 4,067 | 4.3% |
| RETAIL TRADE (NAICS 44-45) | 862 | 15.2% | 11,034 | 11.6% |
| TRANSPORTATION & WAREHOUSING (NAICS 48-49) | 249 | 4.4% | 3,772 | 4.0% |
| INFORMATION (NAICS 51) | 129 | 2.3% | 1,938 | 2.0% |
| FINANCE & INSURANCE (NAICS 52) | 246 | 4.3% | 1,981 | 2.1% |
| REAL ESTATE & RENTAL & LEASING (NAICS 53) | 340 | 6.0% | 2,046 | 2.2% |
| PROFESSIONAL & TECHNICAL SERVICES (NAICS 54) | 489 | 8.6% | 5,975 | 6.3% |
| MANAGEMENT OF COMPANIES & ENTERPRISES (NAICS 55) | 7 | 0.1% | 40 | 0.0% |
| ADMINISTRATIVE & WASTE SERVICES (NAICS 56) | 242 | 4.3% | 5,295 | 5.6% |
| EDUCATIONAL SERVICES (NAICS 61) | 124 | 2.2% | 5,924 | 6.3% |
| HEALTH CARE & SOCIAL ASSISTANCE (NAICS 62) | 436 | 7.7% | 9,687 | 10.2% |
| ARTS, ENTERTAINMENT, & RECREATION (NAICS 7I) | 91 | 1.6% | 1,206 | 1.3% |
| ACCOMMODATION & FOOD SERVICES (NAICS 72) | 466 | 8.2% | 9,066 | 9.6% |
| OTHER SERVICES, EXCEPT PUBLIC ADMINISTRATION (NAICS 81) | 649 | 11.5% | 4,095 | 4.3% |
| PUBLIC ADMINISTRATION (NAICS 92) | 207 | 3.7% | 6,624 | 7.0% |
| UNCLASSIFIED ESTABLISHMENTS | 228 | 4.0% | 200 | 0.2% |
| TOTAL ALL INDUSTRIES | 5,662 | | 94,764 | |

2018 ECONOMIC COMPARISON

| | TOTAL BUSINESSES | TOTAL EMPLOYEES | TOTAL SALES |
|----------------------|---------------------|--------------------|----------------|
| NORTH CHARLESTON | 5,662 | 94,764 | \$21,669,126 |
| BERKELEY COUNTY | 4,567 | 54,682 | \$9,734,757 |
| CHARLESTON COUNTY | 18,842 | 265,665 | \$47,241,511 |
| DORCHESTER COUNTY | 3,499 | 41,367 | \$5,238,876 |
| SOUTH CAROLINA | 165,366 | 2,113,518 | \$377,766,385 |

Source: ESRI Business Analyst Online

Table 16: North Charleston Industries and Economic Comparison

4.3.7 Place of Work and Commuting Patterns

As the employment and economic hub for the region, North Charleston offers a variety of employment opportunities. Figure 27 not only shows some of the major employers in North Charleston, but it also depicts the density of jobs (jobs per square mile) as of 2015. The region's principal transportation routes, I-26, I-526, and Rivers Avenue (US 52) all transverse the City and tend to accommodate higher densities of employment. These routes also play an essential role in the transportation of goods throughout the city and region. In addition, these major corridors are commuting routes for people to get to other employment destinations such as Mount Pleasant and downtown Charleston

In fact, of the 93,596 people employed in North Charleston in 2015, 78,204 or 83.6% of them commuted to work from another jurisdiction. ⁹ Only 15,392 people lived and worked in North Charleston, which represents about 16.4% of the City's population.

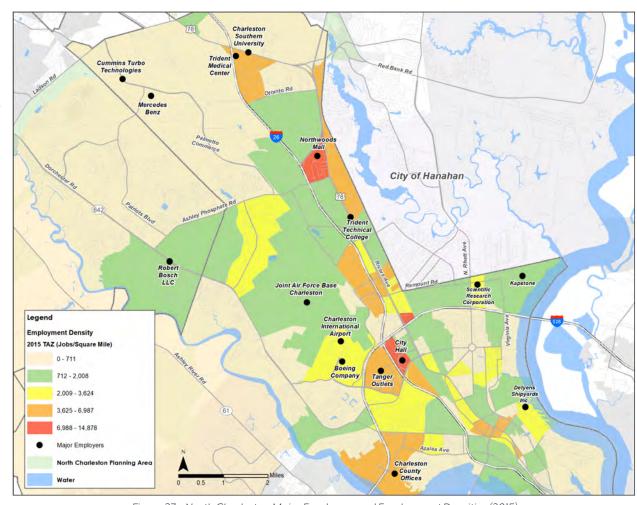


Figure 27: North Charleston Major Employers and Employment Densities (2015)

^{9.} https://onthemap.ces.census.gov/

4.4 TAX INCREMENT FINANCING DISTRICTS

Tax Increment Financing (TIF) Districts are economic incentives that work to bring businesses and residents to a specific location. Areas that are in need of updated infrastructure and/or redevelopment are identified by a local municipality and designated for a TIF district in an effort to catalyze revitalization. TIF financing does not come directly from the coffers of the local municipality; however governmental entities with tax levying authority incur a temporary loss through foregone tax revenue. The benefits of increased tax revenues through land or physical improvements are delayed for a specified number of years. Figure 28 shows a 23 year TIF period where any incremental assessed value does not contribute to the local tax roll, but instead is applied to the project or infrastructure improvements. At the end of the 23rd year, the total taxes may be collected by the taxing entities. There are four TIF Districts in North Charleston: City Center, Noisette, Naval Base, and Ingleside as referenced in Figure 29.

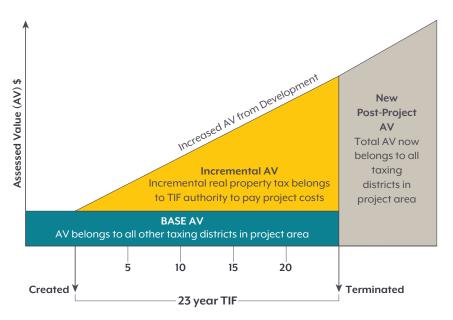


Figure 28: TIF Assessed Value

4.4.1 City Center TIF

Charles Towne Square was an indoor mall that was opened in 1976. The original anchors included JC Penney, Montgomery Wards, and Edwards, but the mall was underperforming for many years. As a result of the declining mall, the City Center TIF was established in 1991 and then revised in 1996. This City Center TIF district prompted the demolition of Charles Towne Square and its redevelopment to an office complex, Verizon Wireless call center, movie theater, and the North Charleston City Hall. The City Center TIF district also helped facilitate building the North Charleston Coliseum in 1993. After the City Center TIF district was revised in 1996, the district successfully spurred redevelopment with projects like Tanger Outlet Mall, Sam's Club, Walmart, and several new hotels.

4.4.2 Noisette Community Redevelopment TIF

The Noisette Community Redevelopment TIF district was created in 2001 and has helped to fund projects such as the Oak Terrace Preserve (OTP) neighborhood. OTP was developed on a 55 acre site and accommodates approximately 370 residences. OTP is a model green community within the region and contains green spaces, parks, oak trees and is friendly for both pedestrians and bicyclists alike. The Noisette Community Redevelopment also covers areas specifically along Montague Avenue, Durant Avenue, Virginia Avenue, McMillan Avenue, and Rivers Avenue. In 2013, North Charleston started the process to extend the life of the Noisette Community Redevelopment TIF district for the years 2018 to 2028. During this process North Charleston added a few areas including the former GARCO mill site near East Montague Avenue. Currently the former GARCO site has secured two tenants that will occupy two 30,000 square foot facilities.¹⁰

^{10.} https://charlestonbusiness.com/news/construction/76007/

The Naval Base TIF district has helped with infrastructure improvements such as roads, drainage utilities, and public buildings. It also spurred redevelopment that put in place North Charleston's Riverfront Park and the accompanying Naval Base Memorial. Redevelopment continues to occur in and around the Naval Base.

4.4.3 Ingleside TIF

In 2011, the Ingleside TIF district was formed for an area west of I-26 and south of Highway 78. The land encompassed approximately 2,100 acres and was partially vacant and partially used for agriculture. Original estimates depicted that the development would entail roughly 6 million square feet of commercial space, 3 million square feet in retail, and approximately 3.5 million square feet of industrial development. Since then, approximately \$40 million dollars of public infrastructure improvements have been put in place. This has helped to catalyze development along Palmetto Commerce Parkway as well as Ingleside Boulevard. TIGHTCO Incorporated and Mercedes-Benz Vans are two major employers who are located on Palmetto Commerce Parkway. Medical, office, light industrial and residential developments are also occurring along Ingleside Boulevard.

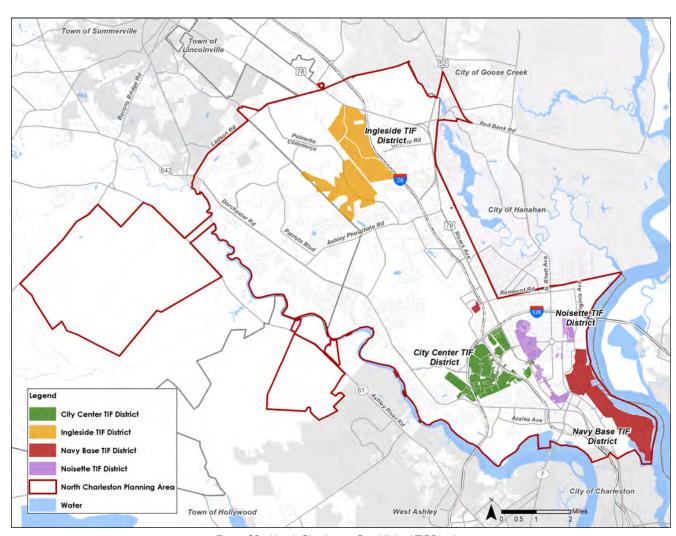


Figure 29: North Charleston Established TIF Districts

4.5 OPPORTUNITY ZONES

The United States Congress authorized Opportunity Zones as a community development program through the Tax Cuts and Jobs Act of 2017. Opportunity Zones encourage long term private investment in low-income communities by incentivizing taxpayers to reinvest unrealized capital gains in low-income communities. Opportunity Zones are designated by the Governor of South Carolina and are based off of data from the 2011 to 2015 American Community Survey. The Governor designated twenty-five percent of qualifying Census Tracts in South Carolina as Opportunity Zones. Census Tracts 40, 43, 44, 54, and 55 are in North Charleston and are within Opportunity Zones as shown in Figure 30.

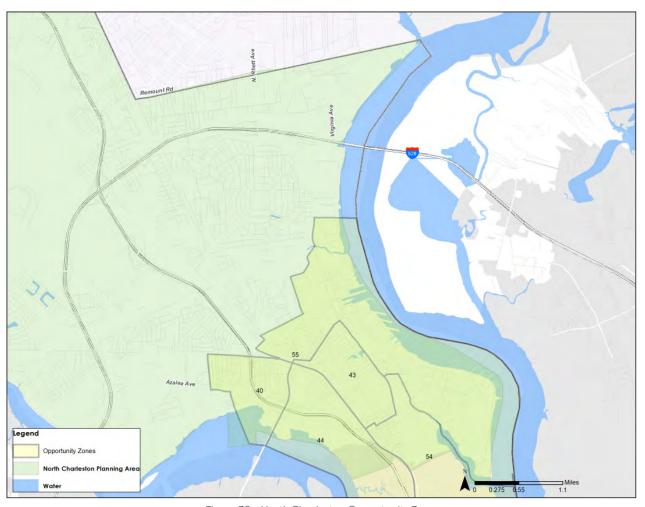


Figure 30: North Charleston Opportunity Zones

^{11.} http://scopportunityzone.com/

5.0 NATURAL RESOURCES



5.1 OVERVIEW

Natural resources encompass any naturally occurring element in the environment such as climate, water features, soil types, plant and animal species, and more. A community's natural resources are a vital component to the comprehensive planning process because they play an important role in the quality of life for residents and their management impacts the sustainability of a community. The natural resources in the area helped define North Charleston through history since the first inhabitants lived along the Ashley and Cooper Rivers. During the midtwentieth century, the City's natural resources played an integral role in developing North Charleston as a center for trade, manufacturing, and regional transportation. Conserving these natural resources is essential to maintaining the quality of life and economic well-being in North Charleston.

5.2 CLIMATE

One of the most attractive natural characteristics of North Charleston and the region is the climate. Winters are commonly mild while spring, summer, and fall are all typically well suited for outdoor recreation and plant growth. North Charleston has a temperate to subtropical climate with the region averaging 230 days of sunshine each year. The average daily high is 75.7 degrees Fahrenheit, and precipitation averages 50.14 inches each year. However, due to its proximity to the coast, the City is also impacted by tropical storms and hurricanes during hurricane season which typically lasts from late summer to the end of November.

North Charleston's proximity to open water, tidally influenced rivers, low-lying areas, and flat terrain makes it vulnerable to the threats or hazards that are associated with tropical storms and hurricanes including high winds, tornados, intense rainfall, storm surge, and severe flooding. Major hurricanes that have affected the tri-county area were Hugo, a category 4 hurricane which made landfall in September 1989, Matthew, a Category 4 hurricane in October 2016, and Irma, which made land fall in Florida in 2017, then influenced water events later around North Charleston. However, tropical storms and less severe hurricanes often bring higher tides and an abundance of rain which increase flooding in low lying areas. To prepare for storm damage and flooding from storm events and heavy rainfall, North Charleston has taken protective measures, including improving building codes and adopting stormwater management regulations. North Charleston developed and implemented a Stormwater Management Plan and Program to help protect the surrounding waters from polluted runoff, and in 2008 they developed a Stormwater Permitting and Design Manual. In 2009, North Charleston adopted a riparian buffer Ordinance that seeks to maintain the natural ecological systems along waterfronts. In 2019 the City adopted an amendment in its Building Code that provides for a significant update to the City's floodplain regulations which sets a two-foot "freeboard" requirement – where the lowest floor of a building must be elevated at least two feet higher than the base flood elevation (BFE) – in an effort to minimize instances of structural damage should future water events exceed recognized standard flooding levels.

5.3 LAND

5.3.1 Seismic Activity

Approximately 20 earthquakes are recorded each year in South Carolina, with approximately 70% of those located near Charleston in the Middleton Place-Summerville Seismic Zone. One of the most significant historical earthquakes to occur in the Berkeley-Charleston-Dorchester region was the 1886 Charleston/Summerville earthquake which was the most damaging earthquake ever to occur in the eastern United States in terms of lives lost, human suffering, and infrastructure loss. Earthquakes in South Carolina have the potential to cause great and sudden loss because devastation can occur without warning. Forecasts indicate there is a 40 to 60 percent chance of a magnitude 6 earthquake occurring somewhere in the central and eastern United States within the next 30 years. Figure 31 shows where seismic monitoring stations are located in and around North Charleston.

5.3.2 Environmental Hazards

Environmental hazards refer to any event or situation, resulting from human activities or natural processes, which poses a threat to the surrounding natural environment and has the potential to adversely affect people's health. Hazards can include pollutants, such as heavy metals, pesticides, biological contaminants, chemicals, and toxic waste. Figure 31 provides the location of hazardous sites in and around North Charleston which were sourced from the Environmental Protection Agency's Facility Register Service. The hazardous waste generation sites indicate where small quantities of hazardous materials are being treated or disposed. The medical and pharmaceutical sites indicate locations associated with medical facilities and services, which are required to report annually to the South Carolina Department of Health and Environmental Control (DHEC) on the amount of waste generated. Monitoring these sites provides accountability for organizations to make sure that they are correctly disposing of waste and protects against future cleanups.

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or "Superfund" in the 1980s. The Act established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund which helps to pay for the cleanup of sites when no responsible party could be identified. The major goals of CERLA are to:

- 1. Protect human health and the health of the environment by cleaning up contaminated sites;
- 2. Make responsible parties pay for cleanup work;
- 3. Involve communities in the Superfund process; and
- 4. Restore Superfund sites to safe, productive use

^{12.} https://www.scemd.org/prepare/types-of-disasters/earthquakes/

^{13.} https://www.epa.gov/frs/epa-regional-kml-download

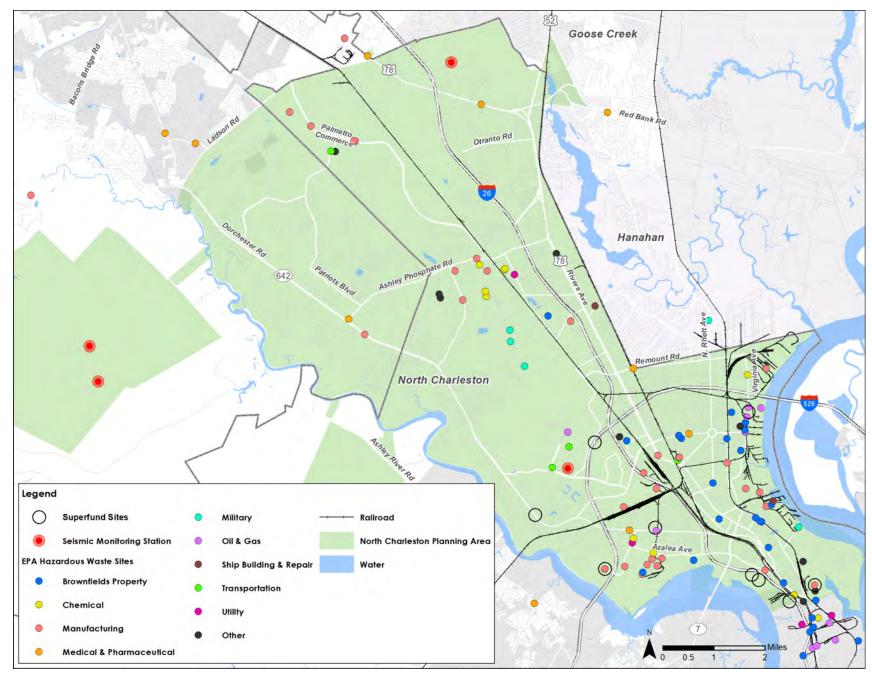


Figure 31: Seismic Monitoring Stations & Hazardous Waste Sites

5.3.3 Soils

Soil is a mixture of organic material, minerals, gases, and liquids on the Earth's surface that is capable of supporting life. It is formed by the geography and topography of an area, and can be divided into numerous associations and types based on its formation and characteristics. By identifying and understanding the types of soil in an area and their suitability and limitations for various land uses, more informed decisions regarding land use and development can be made, and this valuable natural resource can be preserved.

The United States Department of Agriculture (USDA) provides soil data for more than 95% of the nation's counties. These soil surveys can be used for area planning in North Charleston. The Field Office Technical Guide Soils Information, developed by the Unites States Department of Agriculture for Charleston County, helps to determine the slope, farmland suitability, erosion scale, drainage class, hydric soil rating and land capability class of soils within the area. Dorchester County has a Field Office Technical Guide as well that is also used for conservation purposes.

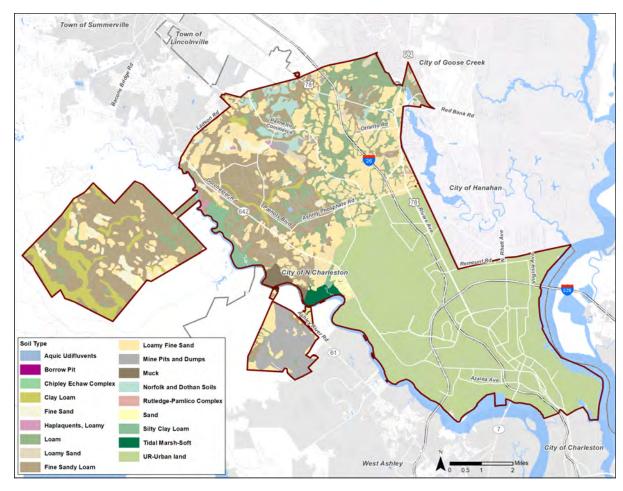


Figure 32: North Charleston Area Soils

While the Field Office Technical Guide lists all the sands in Charleston and Dorchester Counties, Figure 32 shows the types of soils in North Charleston. Note that some of the sands, fine sands, and loamy fine sands have been merged to produce a map that is easier to read. Thirty-eight (38%) percent of the land in North Charleston is of soil type UR: Urban Land-Yauhannah-Yemessee-Ogeechee Association, which is considered poor for farming and is typically poor to moderately-well drained. This soil type generally covers the more urban areas of North Charleston, south of Ashley Phosphate Road.

5.5 HYDROLOGY

5.4.1 Watersheds

A watershed is an area of land that channels water until it reaches a common low point, such as a bay, lake, or the ocean. This means that every stream, brook, tributary, and river will eventually reach a larger body of water within its associated watershed. A water supply watershed is the area where rainfall runoff drains into a river, stream, or reservoir used downstream as a source of public drinking water. The protection of these water sources is critical for the safety and public health of the community. The replacement of natural vegetation with impervious surfaces such as roads, roof tops and parking lots increases runoff, which leads to contamination of surface water and potable water supply. North Charleston's Stormwater Management Plan plays a major role in protecting the water quality of the watersheds within North Charleston by preventing pollution and runoff. As such, the program components are always evolving to improve the effectiveness of the plan. The City, for example, adopted a riparian buffer requirement in 2009 to limit impervious coverage within environmentally sensitive areas.

North Charleston falls primarily within two watersheds; the Ashley River and Cooper River watersheds (Figure 33). Areas of the City to the west of the Norfolk Southern rail lines drain into the Ashley River Watershed, via Eagle, Coosaw, Popperdam, and BrickYard Creeks. The east and southeastern parts of the City are located in the Cooper River Watershed and drain to the Cooper River via MuChune Branch (Goose Creek), Turkey, Filbin, Noisette, and ShipYard Creeks. The North Charleston planning area to the west of the Ashley River also falls within the Stono River and Rantowles watersheds. Roughly 60% of the Watson Hill area annexed into North Charleston in 2011 lies within the Rantowles Creek watershed, while a very small section of an area recently annexed into the City of North Charleston falls within the Stono River Watershed.

The waterways surrounding the City support major Port activity, especially along the Cooper River. These rivers and streams support the eco-tourism resource that the region is known for by providing recreational uses to the local community and regional visitors, and also adds scenic and aesthetic value to the local residential real estate market. Figure 37 in Chapter 6, Cultural and Historic Resources, shows and discusses the Ashley River Scenic and Historic Districts which provide protections for the Ashley River.

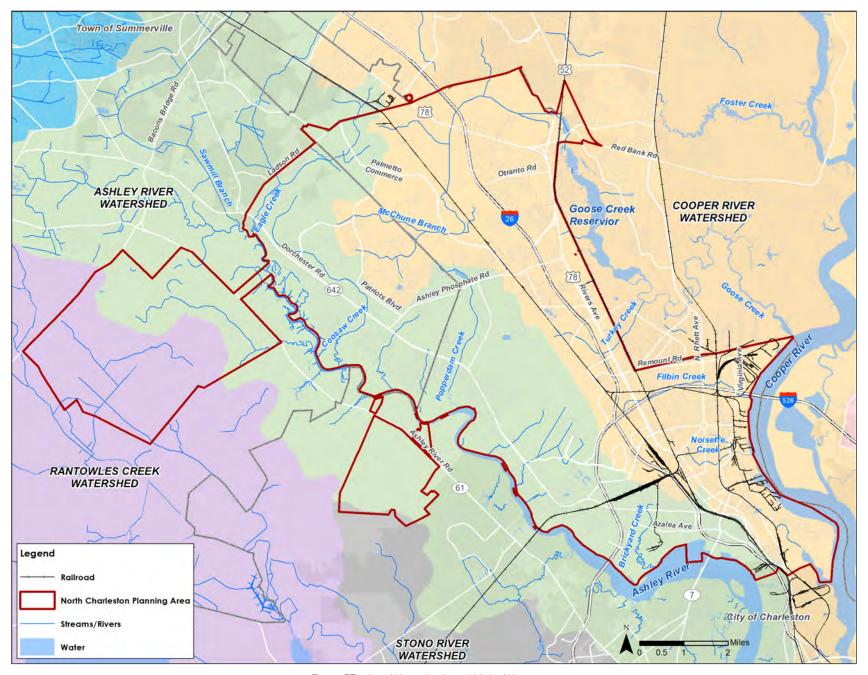


Figure 33: Area Watersheds and Major Waterways

5.4.2 Groundwater

Groundwater is a valuable natural resource found beneath the earth's surface and is a source of fresh water for a variety of uses, most importantly drinking water. Groundwater is contained within and extracted from an aquifer, which is an underground layer of water absorbent rock or other loose materials (gravel, sand or silt) capable of providing economically viable amounts of water to wells or springs.

The South Carolina Groundwater Use and Reporting Act gave South Carolina DHEC the legal authority and mandate to develop and implement a local groundwater management program for the Trident Capacity Use Area (Trident Area) which consists of Berkeley, Charleston, and Dorchester Counties. The major goals of the Trident Area Groundwater Management Plan is to ensure sustainable development of the groundwater resource by management of groundwater withdrawals; protect groundwater quality from salt-water intrusion; and monitor and evaluate groundwater quality and quantity conditions.

5.4.3 Floodplains

North Charleston is located near the coast, has low elevations, and is bounded by the Cooper and Ashley Rivers. Several areas in the City are designated as wetlands or within a FEMA-designated flood zone. A 100-year flood event is the maximum flood level expected to occur an average of once every 100 years, in other words, there is a 1% chance of a 100-year flood happening in a given year. Similarly, a 500-year flood has a 1 in 500 or 0.2% chance of occurring in a given year. FEMA maintains flood maps that detail the location and severity of flood zones in any given location. The two most at risk zones for flooding are VE and A/AE zones, which ideally function as natural water storage, help maintain water quality, and assist with groundwater recharge. In addition to these ecological functions, these areas serve as vital habitat to diverse species, some of which are extremely vulnerable. These zones require substantial flood insurance, and FEMA recommends keeping development out of these areas for not only the protection of life and property, but also for the preservation of the natural functions of the ecosystem. Figure 33 provides the Federal Emergency Management Agency (FEMA) preliminary 100- and 500-year flood zone designations.

5.4.4 Wetlands

Wetlands are categorized by their characteristic vegetation, and can be classified as saltwater, freshwater, or brackish, which is a mixture of salt and fresh water. Wetlands are some of the most ecologically important areas on earth and have many functions. Wetlands provide wildlife habitat and are a safe breeding ground for many species. Wetlands also help improve water quality and provide flood protection to the surrounding land uses by filtering pollutants and providing a necessary buffer to development. Figure 34 illustrates the designated wetland areas in and around North Charleston.

The Federal Clean Water Act grants the United States Army Corps of Engineers (USACE) protection powers over wetlands. USACE processes permits that will minimize disturbance for wetlands as infrastructure is improved. More specifically the type of activities in wetlands subject to regulations include: filling, dredging, or draining; constructing and land clearing activities in wetlands; mining or creating impoundments; and managing stormwater runoff. Most agricultural and forestry activities are exempt from the permitting process. The City of North Charleston's Zoning Ordinance generally requires a 50-foot undisturbed riparian buffer, and in areas within some overlay districts, a 25-foot undisturbed buffer is required.

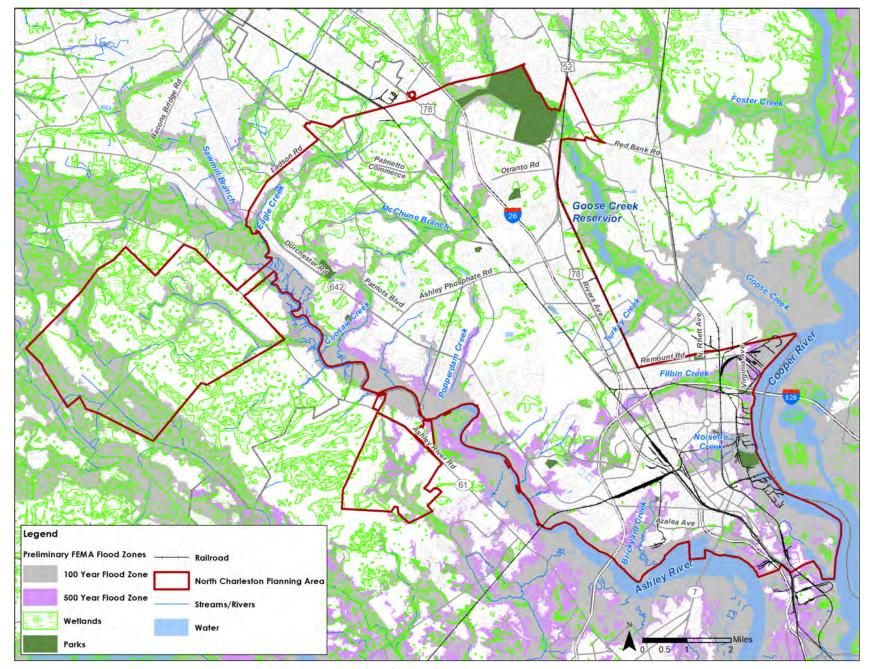


Figure 34: North Charleston Flood Zones and Wetlands

5.4.5 Sea Level Rise

Due to climate change, accelerated sea level rise is an ongoing threat to coastal cities. As the Earth warms and ice sheets and glaciers melt, the seas rise each year globally and locally. Resource extractions can draw down coastal aquifers, resulting in subsidence of land; this, with the accelerated sea level rise, can lead to chronic inundation. Within 50 years, it is expected that the region will experience a 1-3-foot rise in sea level; however, scientists believe that this is a conservative estimate, and damaging changes in sea level rise could happen even sooner. While North Charleston does not lie directly on the coast, major water bodies that surround it will be affected as the sea level rises. Sea level rise could especially present problems for North Charleston areas that are near the Ashley and Cooper Rivers.

5.4.6 Water Quality

Many of the tributary creeks that feed the Ashley and Cooper Rivers are tidally influenced, meaning they rise and fall with the tide and contain brackish water. Tidal streams have unique ecosystems that are extremely diverse and fragile. These streams typically have low oxygen levels which support or provide protection for juvenile fish populations since the low levels of dissolved oxygen prevent larger predators from being able to survive in these streams. These tidal streams are valuable ecological resources, but they are highly susceptible to damage from pollution, such as runoff from adjacent land uses. The South Carolina DHEC Office of Ocean and Coastal Resource Management recommends a 50-foot riparian buffer to protect tidal streams from the negative impacts affecting water quality, which as mentioned under Wetlands, North Charleston has adopted as a requirement in most areas of the City.

Best Management Practices exist as recommendations in order to prevent damage to the water supply. BCDCOG regularly updates its 208 Water Quality Management Plan pursuant to Section 208 of the Federal Clean Water Act. The purpose of the 208 Plan is to preserve and enhance water quality and to meet the goals of the Federal Clean Water Act and the South Carolina Pollution Control Act. The 208 Plan serves to guide local decision makers when addressing issues and opportunities related to water quality, including the regulation of discharges by utility providers and industries. In addition to the regional 208 Water Quality Management Plan, North Charleston developed and implemented a Stormwater Management Program based on EPA regulations. The program is also consistent with the Federal Clean Water Act and South Carolina Pollution Control Act and requires stormwater discharge permitting to reduce pollutants from stormwater runoff. DHEC monitors water quality from numerous areas located in and around North Charleston (Figure 35). DHEC monitors surface water to make sure it meets water quality standards; identify locations that need extra attention; determine long term trends; provide background data for permitting and planning; and to formulate permit limits for wastewater discharge. DHEC monitors macroinvertebrates, fish tissue, and dissolved oxygen in to insure the water quality is appropriate for the species that exist within it. ¹⁴

^{14.} https://scdhec.gov/environment/your-water-coast/how-dhec-measures-surface-water-quality

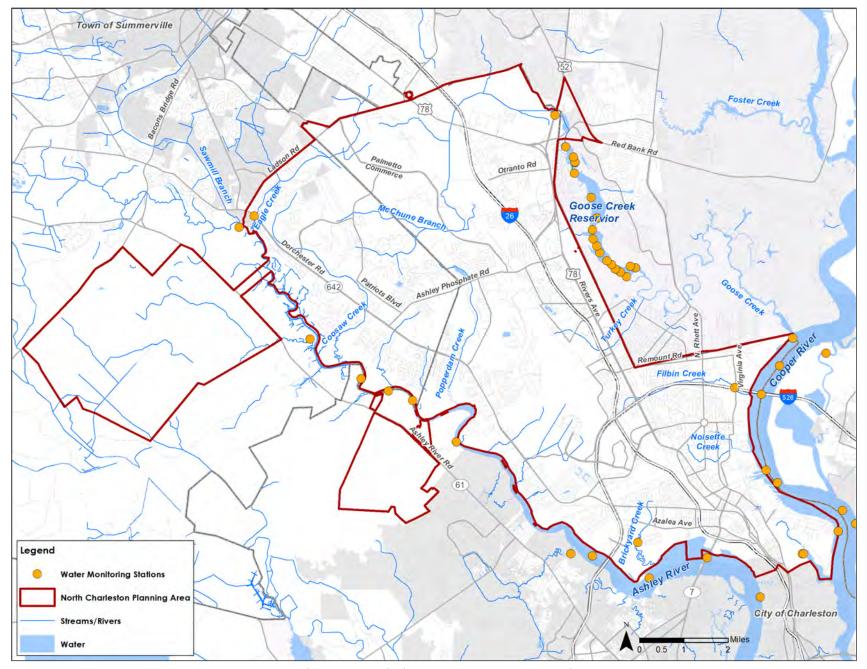


Figure 35: North Charleston Area Surface Water and Water Monitoring Station Locations

5.4.7 North Charleston At Work

Approximately 68% of Charleston County is within a flood plain. The City of North Charleston is aware of the differing flood events that occur in the region and is working to be more proactive in addressing them. Most of the events that occur can be classified as a rain event, tidal flooding, or storm surge. The City has identified consequences of reoccurring flooding:

- Street Flooding
- Street Closure
- · Damage to Personal Property
- Congestion
- · Loss in Business Revenue
- · City Resource Allocation

The City is currently developing a Flood-Wise Action Group who will develop strategies to guide flood issues moving forward. These strategies will be prioritized to guide their implementation in an effort to minimize future flood events and prepare City staff for their response. These actions will ultimately save the tax payers money over the long term.

North Charleston also participates in the National Flood Insurance Program (NFIP). NFIP developed a Community Rating System (CRS) that encourages community flood plain management activities. The CRS program recognizes various practices designed to make the community more flood resistant such as reducing flood damage to insurable structures. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk from the community strategies that are applied. Currently, North Charleston has a class rating of 7, City of Charleston has a rating of 6, and Charleston County has a rating of 4. The lower the rating number, the more a community can save in insurance premiums. Currently, the City of North Charleston earns an annual savings of about \$5 million for City residents.

5.6 PLANT AND ANIMAL HABITATS

5.5.1 Threatened and Endangered Species

The Endangered Species Act (ESA) of 1973 is designed to protect plants and animals and their habitats that are listed by the government as "endangered" or "threatened" from becoming extinct. Prohibiting any taking, disturbance, or destruction of a listed species and its habitat helps to thwart any loss of life that may ensue. Endangered species are any species in danger of extinction, and threatened species are any species likely to become endangered within the foreseeable future. Species are listed with their Federal and State status if found on either list. Specific locations of endangered and threatened species are not available to the public, in order to prevent poaching or any disturbance of the species' habitat. The United States Fish and Wildlife Service (USFWS) provides a planning level evaluation of potential impacts to USFWS trust resources, such as migrating birds, species proposed or listed under the Endangered Species Act, interjurisdiction fishes, marine mammals, and wetlands, through their IPaC (Information for Planning and Consultation) service. For North Charleston, the following Migrating Birds and potential Endangered Species were identified:

| MIGRATING BIRDS | BREEDING SEASON |
|------------------------|--------------------------|
| American Kestrel | April 1 – August 31 |
| American Oystercatcher | April 15 – August 31 |
| Bald Eagle | September 1 – July 31 |
| Black Skimmer | May 20 – September 15 |
| Clapper Rail | April 10 – October 31 |
| Common Ground-dove | February 1 – December 31 |
| Dunlin | Breeds elsewhere |
| Eastern Whip-poor-will | May 1 – August 20 |
| Gull-billed Tern | May 1 – July 31 |
| Kentucky Warbler | April 20 – August 20 |
| King Rail | May 1 – September 5 |
| Least Tern | April 20 – September 10 |
| Lesser Yellowlegs | Breeds elsewhere |
| Marbled Godwit | Breeds elsewhere |
| Nelson's Sparrow | Breeds elsewhere |
| Prairie Warbler | May 1 – July 31 |
| Prothonotary Warbler | April 1 – July 31 |
| Red-headed Woodpecker | May 10 – September 10 |
| Red-throated Loon | Breeds elsewhere |
| Ruddy Turnstone | Breeds elsewhere |
| Rusty BlackBird | Breeds elsewhere |
| Seaside Sparrow | May 10 – August 20 |
| Semipalmated Sandpiper | Breeds elsewhere |
| Short-billed Dowitcher | Breeds elsewhere |
| Swallow-tailed Kite | March 10 – June 30 |
| Whimbrel | Breeds elsewhere |
| Willet | April 20 – August 5 |
| Wood Thrush | May 10 – August 31 |

| ENDANGERED SPECIES | TYPE | STATUS |
|------------------------------|-----------------|---------------------|
| Northern Long-eared Bat | Mammal | Threatened |
| West Indian Manatee | Marine Mammal | Threatened |
| Bachman's Warbler | Bird | Endangered |
| Eastern Black Rail | Bird | Proposed Threatened |
| Kirtland's Warbler | Bird | Endangered |
| Piping Plover | Bird | Threatened |
| Red Knot | Bird | Threatened |
| Red-cockaded Woodpecker | Bird | Endangered |
| Wood Stork | Bird | Threatened |
| Green Sea Turtle | Reptile | Threatened |
| Kemp's Ridley Sea Turtle | Reptile | Endangered |
| Leatherback Sea Turtle | Reptile | Endangered |
| Loggerhead Sea Turtle | Reptile | Threatened |
| Frosted Flatwoods Salamander | Amphibian | Threatened |
| American Chaffseed | Flowering Plant | Endangered |
| Canby's Dropwort | Flowering Plant | Endangered |
| Pondberry | Flowering Plant | Endangered |
| Seabeach Amaranth | Flowering Plant | Threatened |

Table 17: Threatened and Endangered Species

6.0 CULTURAL AND HISTORIC RESOURCES



6.1 OVERVIEW

Cultural and historic resources are the foundation upon which every community is built. These resources provide many benefits to the community, including bridging the present with the past and setting the community apart from others. A community's cultural and historic resources can include any structures or sites having historical, archaeological, architectural, social or cultural significance within the City. Preservation of such resources fosters civic pride and helps to contribute to the economy by attracting residents, businesses, and visitors. North Charleston has been committed to promoting culture and history since the City Council created the Cultural Arts Department in 1979. The Cultural Arts Department is responsible for programs and services that encompass public events, public outreach, artist assistance, economic development, among others that promote the City's history.¹⁵

6.2 HISTORY

The Ashley and Cooper Rivers were integral to life for Native American tribes and the European settlers who followed. Settlers who arrived in the late seventeenth century quickly spread out along the banks of the rivers, starting farms which soon evolved into plantations. The plantations were known to grow crops, such as rice, cotton, indigo, and even silk from imported silk worms. Consequently there are no Native American sites identified in the City today and while the legacy of the Native Americans has faded, vestibules of their occupation of the land remain in the names of many places in the area.

By the middle of the eighteenth century, the area north of the City of Charleston became known as "The North Area." Due to the physical geography of the North Area, it became a transportation corridor with important trade routes, ferries, taverns, and animal watering stops, connecting the growing plantations to the port city. The Broad Path, the main road which was in the location of the present-day Rivers Avenue and Dorchester Road, connected Charleston to the upcountry in South Carolina. Rail lines were eventually added, and the train became the primary mode of transportation. After the railroads were established, more settlements filled in around the railroad crossings, but they were relatively small due to the fact that the North Area was covered with marsh and lowlands. The first true communities in the North Area were Liberty Hill and Pettigru.

During the 1890s, Charleston County drained wetlands to create land for more productive agriculture and to reduce the mosquito population for fear of malaria and other diseases prevalent during that time. The City of Charleston purchased two former plantations on the Cooper River to create Chicora Park, wanting to create a recreation destination for its citizens. That plan was stopped as the federal government purchased the land to develop a naval base that would replace the same at Port Royal in Beaufort, South Carolina. Eventually, the Naval Base was established and the community began to flourish with neighborhoods such as Chicora Place, Charleston Heights, Accabee, Cherokee Place, Buckfield, and Mappus Tract. After the North Area was established as one of Charleston County's first Public Service Districts in 1935, these neighborhoods benefited from street lights, public sewers, water, fire protection, and garbage collection. During the 1940s, the North Area experienced another housing boom due to increased operations at the Naval Base during World War II.

^{15.} https://www.northcharleston.org/residents/arts-and-culture/

North Charleston was incorporated in 1972 and since then has grown into the 3rd largest city in South Carolina based on population. North Charleston has grown into an economic powerhouse where businesses locate and thrive. With two seaports (soon to be a third) and two major freight rail operators in North Charleston, the movement of commodities is instrumental to the economy. The Economic Development and Transportation Chapters discuss businesses and transportation in greater detail for North Charleston.

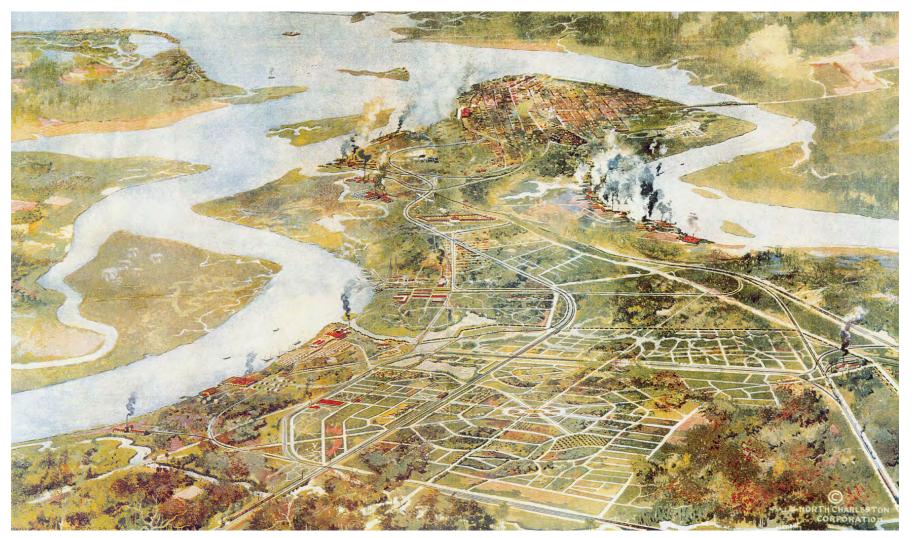


Figure 36: Historical View of North Charleston

6.3 HISTORIC DISTRICTS

The City of North Charleston has several Historic Districts listed on the National Register of Historic Places. Three of these are located entirely within North Charleston, and another, a portion of the Ashley River Historic District, extends into the City to preserve the viewsheds from the western bank of the Ashley River. Listing on the National Register of Historic Places is limited in the protection provided to these resources. Highway 61, Ashley River Road, is a National Scenic Byway that features St. Andrews Parish Church, Drayton Hall Plantation, Magnolia Plantation and Gardens, Middleton Place Plantation, and Fort Dorchester State Park.

- Charleston Navy Yard Historic District
 - Designated in 2006, part of the former Navy Base and ShipYard (1903-1996)
 - District includes 29 buildings, 27 structures associated with U.S. Navy operations, and a portion of the shipyard and its associated buildings.
 - Provides historic context and resources about what occurred on this land during the 20th Century, especially during World War II
- Charleston Navy Hospital Historic District
- Designated in 2010
- · Located in northwest corner of the former Navy Base
- Includes collection of 32 buildings
- · At risk of being delisted due to proposed Navy Base Intermodal Container Transfer Facility (ICTF) project
- Demolition of several structures in district has begun and/or been completed to accommodate the proposed Intermodal Container Transfer Facility (ICTF)
- Charleston Navy Yard Officers' Quarters Historic District
- · Located in north end of former Navy Base
- Includes 24 buildings built between 1903 and 1945 that were used for housing Navy officers and their families
- Ashley River Historic District
- Created in 1994
- Roughly 23,000 acres; partially in City of North Charleston
- District includes both banks of the Ashley River
- District was expanded in 2010 to include adjacent areas with a distinctive historic rural landscape, Watson Hill property annexed by the City of North Charleston in 2005 (finalized in 2011) is adjacent to the District's expanded boundary and the Whitfield Tract along the Runnymede and Middlebrook Plantations, which were annexed into the City in 2018

6.4 HISTORIC ZONING OVERLAY DISTRICTS

A Historic Zoning Overlay District is a regulatory planning tool used to preserve the historic character of an area.

- Olde North Charleston Neighborhood Historic District
 - Adopted in 2008 to preserve the historic character of this neighborhood
 - District includes properties built between 1900 and 1945 that are worthy of protection
 - Historic District overlay requires additional design review for new construction and alterations of the existing structure. There are regulations for bulk, setbacks, building materials, and other physical characteristics to help preserve the original character of the neighborhood
- Olde North Charleston Neighborhood Conservation District
 - Next to the Olde North Charleston Neighborhood Historic District and includes homes built in the same era
 - Historic properties are more spread out than those in the Neighborhood Historic District
 - · Conservation District is intended to limit "out-of-character" development adjacent to the Historic District
 - District requires additional design review which mimics the controls from the Historic District, including those for massing, bulk, setbacks, materials, orientation, and demolition
- Ashley River Scenic District
 - · Not a district for historic preservation specifically. Subdivided into three districts: AR-I, AR-II and AR-III.
 - AR-I protects the viewsheds from the historic plantation and properties that line the river. Design controls in this district are primarily height limitations and buildings or structures placement. Tree protection, grading, filling, excavating, and limiting impervious surfaces are also used to conserve the natural environment
 - · AR-II and AR-III are to protect the natural resources of the Ashley River
 - · District includes regulations for boat dock facilities to help preserve the natural environment surrounding the Ashley River

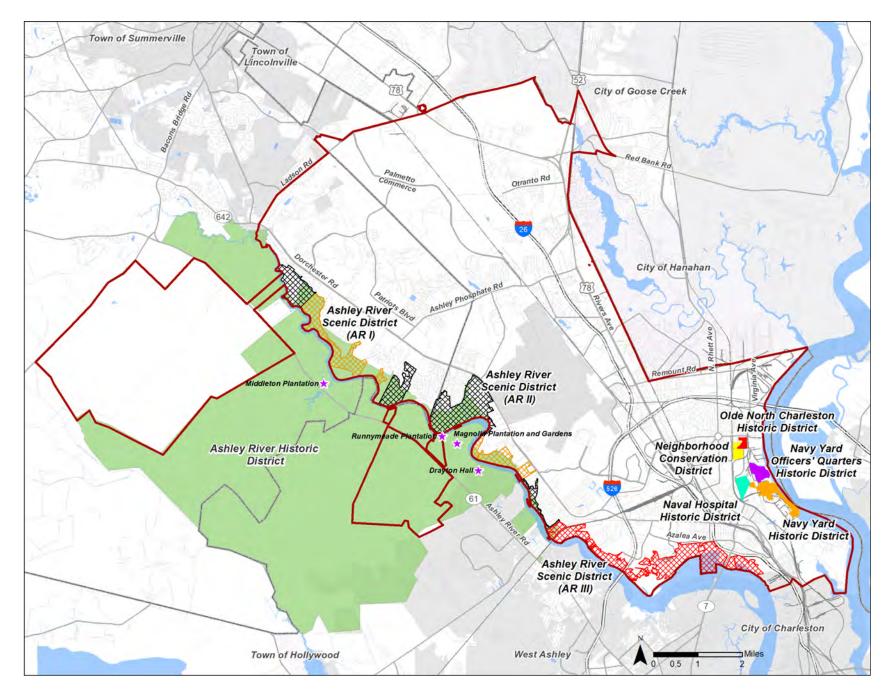


Figure 37: North Charleston Historic Districts and Historic Overlay Districts

6.5 HISTORIC STRUCTURES AND NEIGHBORHOODS

The City of North Charleston has a rich history with numerous historic neighborhoods, some of which are highlighted in Figure 38. The City contains many properties within the Districts listed on the National Register of Historic Places. The City of North Charleston Historical and Architectural Survey (1995), prepared by Preservation Consultants, Inc. of Charleston, SC, documented North Charleston's history and historic properties. A total of 2,706 properties were surveyed in North Charleston, of which approximately 38 were designated as historic by the South Carolina State Historic Preservation Office (SHPO). Table 18 identifies the number of historic properties that were surveyed in each neighborhood. Since completion of the survey, the George Legare Homes, John C. Calhoun Homes and Liberty Homes has since been demolished and developed as the Horizon Village, Mixson and Oak Terrace Preserve communities, respectively.

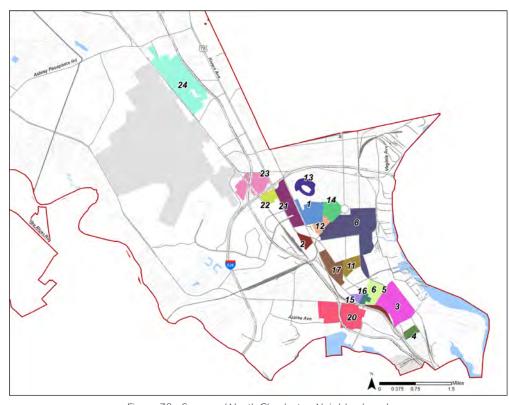


Figure 38: Surveyed North Charleston Neighborhoods

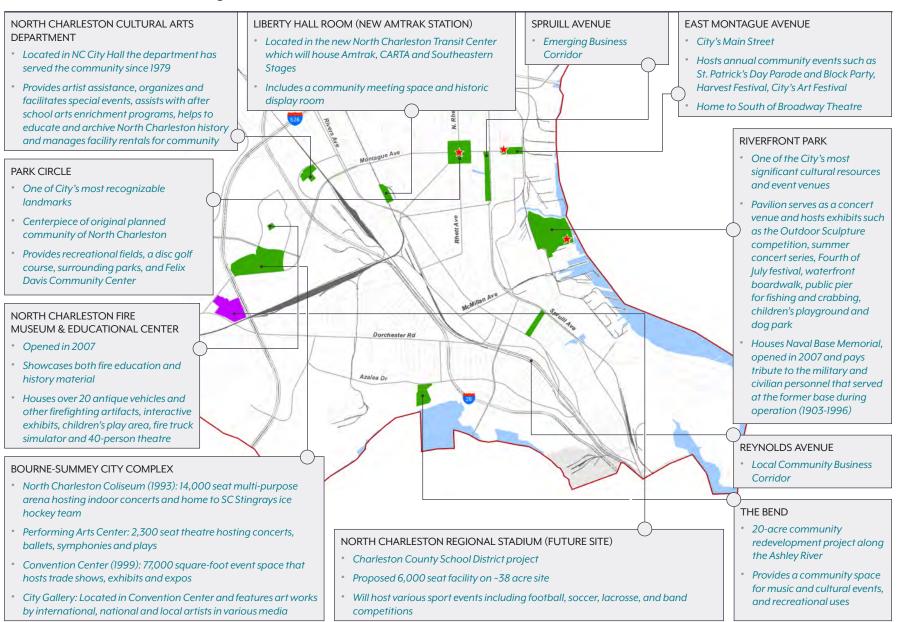
| | NEIGHBORHOOD | SURVEYED PROPERTIES |
|----|---|---------------------|
| 1 | Liberty Hill | 37 |
| 2 | Ashley Junction/Pettigru/Six Mile/Deas Hill | 22 |
| 3 | Chicora | 224 |
| 4 | Stromboli | 99 |
| 5 | Charleston Heights | 49 |
| 6 | Cherokee Place & Mappus Tract | 66 |
| 7 | Buckfield – Not shown in map | 33 |
| 8 | Olde North Charleston | 335 |
| 9 | Charleston Farms | 98 |
| 10 | Ben Tillman Holmes – Not shown in map | 138 |
| 11 | George Legare Homes (North Park Village) – Now Horizon Village | 160 |
| 12 | John C Calhoun Homes – Now Mixson | 200 |
| 13 | Liberty Homes – Now Oak Terrace Preserve | 192 |
| 14 | Palmetto Gardens – Not shown in map | 200 |
| 15 | Nafair | 67 |
| 16 | Nafair Addition | 52 |
| 17 | Whipper Barony | 90 |
| 18 | Whipper Barony Extension – Not shown in map | 12 |
| 19 | St Johns - Not shown in map | 10 |
| 20 | Dorchester Terrace | 550 |
| 21 | Ferndale and Morningside | 83 |
| 22 | Russelldale | 10 |
| 23 | Liberty Park and Highland Terrace | 18 |
| 24 | Midland Park | 12 |
| 25 | Ladson - Not shown in map | 3 |
| | Other/Scattered Sites | 36 |

Source: North Charleston Historical & Architectural Survey (1995)

Table 18: Historical Properties Surveyed (1995)

6.6 CULTURAL ARTS AND ENTERTAINMENT VENUES

The City of North Charleston host events at special venues specifically designed to promote cultural arts and activities within the community. These facilities include the following:



6.7 PROTECTED LANDS

The Charleston County Greenbelt Program began in 2004 with approval of a referendum for a one-half penny sales tax to fund roads, mass transit, and greenbelts. Citizens were concerned that the new roads would promote growth that could impact the natural beauty of Charleston County. Therefore, of the \$1.3 billion dollars that was expected to be collected during the 25-year life of the tax, \$221 million was set-aside for greenbelts. Since funding from the first sales tax has been virtually exhausted, Charleston County citizens approved a second one-half penny sales tax for roads, mass transit, and greenbelts in 2016. The 2016 tax provides an additional \$210 million for the greenbelt funding that will be used for preservation and beautification. There are approximately 185 recorded acres of lands in North Charleston that have been protected by the Greenbelt Program.

The lands in North Charleston are also protected by other organizations such as the Lowcountry Open Land Trust, East Edisto Conservancy, and the National Trust for Historic Preservation through the purchase of properties or conservation easements. Approximately 3,600 recorded acres have been protected so far in North Charleston, as depicted in Figure 39. The Watson Hill Tract in Dorchester County is the largest part of this with approximately 2,661 acres that are conserved by limiting one dwelling unit per six acres.

6.8 HERITAGE CORRIDORS

North Charleston is part of the South Carolina National Heritage Corridor which promotes and preserves cultural, natural, and historic resources across South Carolina. The South Carolina National Heritage Corridor stretches across 17 counties from the Appalachian Mountains to the Atlantic Ocean. North Charleston is also part of the Gullah Geechee Heritage Corridor which recognizes the Gullah Geechee culture. The Gullah Geechee corridor extends 12,000 square miles through North Carolina, South Carolina, Georgia, and Florida.

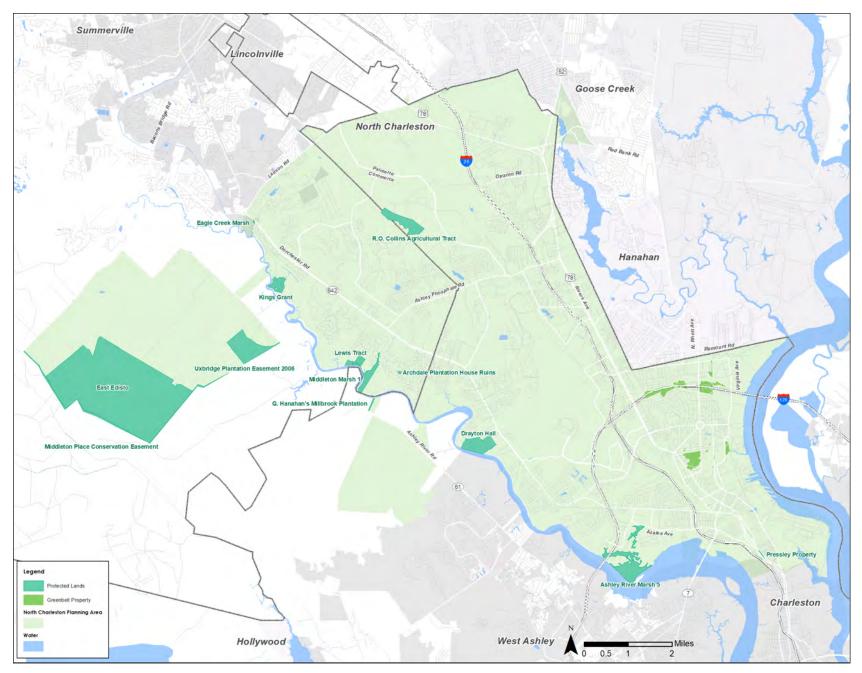


Figure 39: North Charleston Protected and Greenbelt Lands

7.0 COMMUNITY FACILITIES



7.1 OVERVIEW

Public services and facilities allow the City to serve its citizens effectively. Some services that are provided by North Charleston include fire, police, recreation, and sanitation. Most of the services provided by the City require facilities as well. Public facilities are assets to the community as they provide not only a means to conduct business, but land and facility investment value as well. Some public services are provided by other governmental agencies such as libraries, which are provided by the counties. This chapter will focus on public services and facilities in four main areas: Education, Recreation, Safety, and Environmental.

7.2 MUNICIPAL FACILITIES

7.2.1 City Hall

At the forefront of public facilities in North Charleston is City Hall, which is located at 2500 City Hall Lane. The building is a multiuse facility that was built to streamline services for citizens. City Hall provides access to the following:

- · Office of the Mayor
- City Council
- Building Inspections
- · Code Enforcement
- Committees and Commissions
- Municipal Court
- Cultural Arts
- Economic Development

- Finance
- Fire Department
- Human Resources
- Parks and Recreation
- Police
- Planning and Zoning
- Charleston County Legislative Delegation
- Crisis Ministries

For more information on how the municipal government in North Charleston is divided, how to conduct business, or find contact information for the City of North Charleston, the website is a one stop shop with an abundance of information.



North Charleston City Hall

7.2.2 North Charleston Public Works

The Public Works Department is located at 5800 Casper Padgett Way in North Charleston. Public Works is responsible for engineering, planning, design, management, operations, construction, road maintenance, and disaster preparedness and recovery. The Department is divided into three divisions: Maintenance, Sanitation, and Equipment Maintenance, each are further divided into smaller subdivisions.

The Maintenance Division is responsible for streets, stormwater, horticulture, traffic signals and signs, and building maintenance. The maintenance Division is further subdivided into the Streets, Stormwater, Traffic Signals/Electrical, and the Building Maintenance Divisions. The Streets Division maintains city-owned streets. The Stormwater Division maintains about 120 miles of open drainage ditches, while also cutting and clearing another 35 miles of artery ditches. The Traffic Signals/Electrical Division is responsible for installation, maintenance and upgrades to traffic signals and signs. They also work on the electrical systems for public facilities. The Building Maintenance Division is responsible for the maintenance of all public facilities.



North Charleston Public Works

The Equipment Maintenance Division is responsible for the upkeep of all vehicles required to perform City functions. This includes both automotive and construction equipment.

The Sanitation Division is responsible for the removal of solid waste/trash for North Charleston. Recycling is handled by both Charleston and Dorchester Counties. Charleston County provides curbside service while Dorchester County has recycling drop off locations.

7.3 PUBLIC SAFETY

Public safety is an essential service that North Charleston provides to its citizens. North Charleston manages both Police and Fire Departments to ensure the safety of the citizens and visitors. The Police and Fire Departments have many different facilities and equipment that continually needs to be operated and maintained. Each county manages a Sheriff's Department that helps improve safety in both incorporated and unincorporated jurisdictions. Emergency medical, emergency management and 911 services are all provided by the respective counties.

7.3.1 North Charleston Fire Department

The St Phillip's and St Michael's Fire Department first served the area of North Charleston in 1935. Two years later, in 1937, the North Charleston Fire Department (NCFD) was formed by merging St Phillip's and St Michael's. The NCFD was accredited by the Commission on Fire Accreditation International (CFAI) in 2018. Currently, there are only approximately 247 agencies worldwide that hold the CFAI accreditation. The CFAI helps to establish an agency-wide culture of continuous improvement and offers independent verification and validation of the NCFD operations. The NCFD also maintains an ISO Class 1 rating which is the highest possible award that can be given. Approximately 260 out of 46,200 fire departments nationwide have earned this ISO rating.

The NCFD works from a Community-Driven Strategic Plan and serves the citizens with fire suppression, emergency medical services, basic and technical rescue, hazardous materials mitigation, water-related emergency response, public fire and life safety education, fire investigation, community risk reduction, and emergency management and preparedness. The NCFD is staffed by over 250 personnel who respond to approximately 22,000 incidents every year. The Community-Driven Strategic Plan is the template that was built for the NCFD to follow in order to have continued success in the community.

The NCFD headquarters are located at North Charleston City Hall and provide administrative support to the eleven stations throughout the City. Figure 40 shows the station locations are distributed to minimize the response time needed to help save lives. Each facility has the capability to store a certain number of vehicles and those are distributed throughout the community. Currently there are eleven fire engines, one training engine, three tower trucks, one ladder truck, two rescue vehicles, one High Water Truck, and one fire and rescue watercraft.

7.3.2 Police Department

The North Charleston Police Department (NCPD) earned its national reaccreditation from the Commission on Accreditation for Law Enforcement Agencies (CALEA) in March of 2017 which marked a full decade of achievement since the original accreditation was earned in 2007. CALEA establishes and acknowledges that North Charleston is committed to excellence in leadership, resource management, and service delivery while encouraging community-oriented policing. CALEA provides training that helps improve decision making and resource allocation for a more efficient management system.

The NCPD is divided into the Office of the Chief of Police, Compliance and Standards, Administrative Services, Uniform Patrol Division, Investigations Divisions, and the Special Operations Division. While all divisions are public, the most outwardly facing division is the Uniform Patrol Division, which has 165 certified officers and 23 civilian personnel. The Uniformed Patrol Division is divided into three decentralized bureaus which are strategically placed around the City to better serve the citizens.



North Charleston Police Car

7.3.3 County Sheriff's Departments

The municipal boundaries of North Charleston spans Berkeley, Charleston, and Dorchester Counties, each of which operates its own sheriff's department. Neither Dorchester nor Berkeley Counties have a sheriff's office that is located within North Charleston. However, the sheriff deputies provide service for their respective counties in cooperation with the NCPD. The Charleston County Sheriff's Office is located in North Charleston at the corner of Azalea Drive and Leeds Avenue. The Sheriff's Office also operates the Sheriff Al Cannon Detention Center which is also located in North Charleston at 3841 Leeds Avenue. The detention center can hold up to 1,917 inmates, but currently houses approximately 1,350.

7.3.4 Aviation Authority Police Department

The Charleston International Airport is situated in the geographic center of the City. North Charleston and is managed by the Charleston County Aviation Authority (CCAA). In 1990, the CCAA decided to create an Aviation Authority Police Department to help with public safety for air travelers. The CCAA has thirteen officers and maintains a position for a civilian records specialist. All officers are sworn in as South Carolina State Certified Class I law enforcement officers who enforce all South Carolina laws and the ordinances created by the CCAA within the boundaries of the airport. The agency also works very closely with the Transportation Security Administration, the Federal Aviation Administration, and all other federal, state, and local law enforcement agencies to ensure public safety.

7.3.5 Emergency Management/Emergency Medical / 911

Emergency dispatch for both the North Charleston Police and Fire Departments occurs through the Charleston County Consolidated 9-1-1 Center and the Dorchester County E911 Dispatch Center. The City of North Charleston developed an emergency operations plan to be used by the City in the event of any natural or man-made disasters. ¹⁶ The plan outlines policies and procedures



Charleston Internation Airport
Image Credit: Charleston Business Journal

for a coordinated response during events within the City. The Charleston County Emergency Operations Center is located at 8500 Palmetto Commerce Boulevard in North Charleston. City, County, State, and Federal partners work at the facility during events such as major hurricanes to improve coordination and safety. Emergency Medical Services (EMS) are provided to North Charleston citizens by Charleston and Dorchester Counties. The consolidation of services improves interjurisdictional coordination and increases response times for safety.

^{16.} https://northcharleston.org/wp-content/uploads/disaster_emergenc_ops_plan.pdf

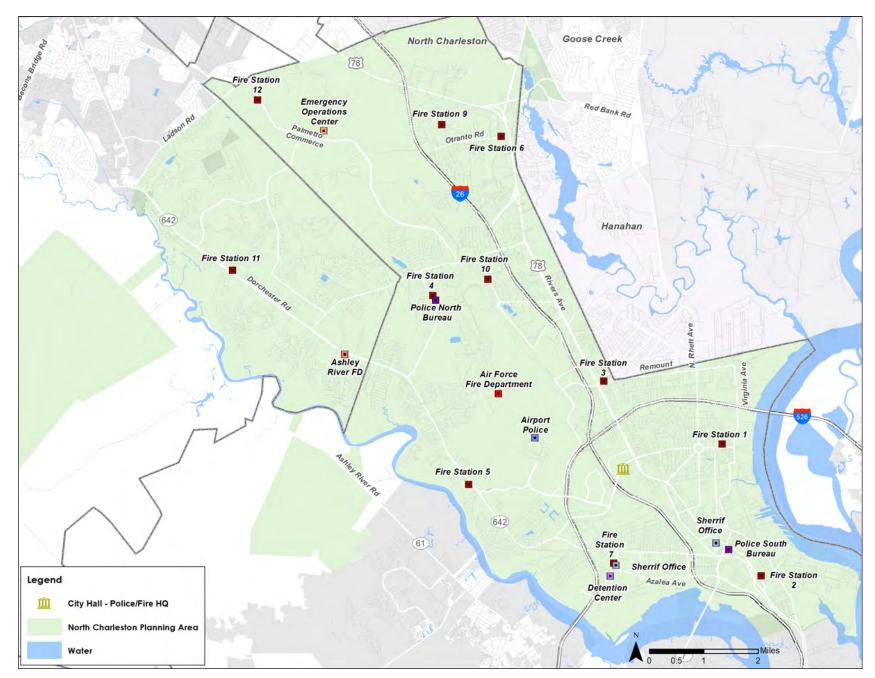


Figure 40: North Charleston Public Safety Facilities

7.4 EDUCATIONAL INSTITUTIONS

Primary through secondary education are operated by governmental entities in North Charleston. Post-secondary education options are both private and public ventures. This section focuses on the location of educational facilities within North Charleston

7.4.1 Schools

North Charleston is served by the Charleston County School District (CCSD) and the Dorchester School District Two (DSD2). Planning Areas 1, 2, and 4 are served by CCSD while Planning Area 3 is served by DSD2. The public schools that either serve or are located within North Charleston are located in Figure 41. In addition, there are several private schools located within the City which are attended by both City and non-City residents (not pictured). The School Rating is a statewide multi variable report card that gauges the success or failures of both individual schools and the district as a whole. Enrollment numbers are provided by the State of South Carolina Department of Education. Table 19 shows the schools in North Charleston, their enrollment and their rating.

| DORCHESTER CO. | ENROLLMENT | SCHOOL RATING | CHARLESTON CO. ELEMENTARY | ENROLLMENT | SCHOOL RATING | CHARLESTON CO. ELEMENTARY | ENROLLMENT | SCHOOL RATING |
|-----------------------|------------|------------------|------------------------------|------------|------------------|--------------------------------|------------|------------------|
| Eagle Nest Elem. | 794 | Below Average | A. C. Corcoran Elem. | 664 | Average | Liberty Hill Academy | N/A | N/A |
| Fort Dorchester Elem. | 993 | Good | Chicora School of Comm. | 526 | Unsatisfactory | Malcolm C. Hursey (ES+MS)* | 351 | Below Average |
| Fort Dorchester High | 2244 | Good | Creative Arts Elementary | 495 | Average | Mary Ford Elem. | 342 | Unsatisfactory |
| Joseph R Pye Elem. | 918 | Average | Edmund A. Burns Elem. | 281 | Unsatisfactory | Matilda F. Dunston Primary | 345 | N/A |
| Oakbrook Elem. | 710 | Below Average | Goodwin Elementary | 520 | Below Average | Midland Park Primary | 423 | N/A |
| Oakbrook Middle | 1034 | Average | Hunley Park Elem. | 515 | Unsatisfactory | North Charleston Elem. | 495 | Unsatisfactory |
| River Oaks Middle | 988 | Unsatisfactory | Ladson Elementary | 802 | Below Average | Pepperhill Elem. | 634 | Unsatisfactory |
| Windsor Hill Elem. | 895 | Good | Lambs Elementary | 400 | Average | Pinehurst Elem. | 807 | Unsatisfactory |
| Ashley Ridge High | 2263 | Excellent | | | | Windsor Hill Art Infused Elem. | 895 | Good |
| | | SCHOOL | | | SCHOOL | | | |

| 7 ist ii 67 Tii ag 6 T ii g 1 T | | 2/1001101111 | | | |
|---------------------------------------|------------|------------------|--|------------|------------------|
| CHARLESTON CO. MIDDLE | ENROLLMENT | SCHOOL RATING | CHARLESTON CO. HIGH | ENROLLMENT | SCHOOL RATING |
| Jerry Zucker Middle School of Science | 511 | Below Average | Academic Magnet High | 659 | Excellent |
| Military Magnet Academy (MS+HS)* | 456 | Below Average | Daniel Jenkins Creative Learning Center | N/A | N/A |
| Morningside Middle | 626 | Unsatisfactory | Fort Dorchester High | 2244 | Good |
| Northwoods Middle | 799 | Below Average | Garrett Academy Of Technology | 392 | Below Average |
| River Oaks Middle | 988 | Unsatisfactory | Greg Mathis Charter High | 67 | N/A |
| School of the Arts (MS+HS)* | 1105 | Excellent | North Charleston High | N/A | Unsatisfactory |
| Deer Park Middle | 549 | N/A | R. B. Stall High | 1388 | Unsatisfactory |

Table 19: Schools that Serve North Charleston
*Total School Enrollment for All Grades

^{17.} https://www.screportcards.com/

^{18.} https://ed.sc.gov/data/other/student-counts/active-student-headcounts/

7.4.2 Colleges and Universities

North Charleston has one major university and one technical school within its boundaries. Charleston Southern University is the largest, four-year private university in South Carolina and is located adjacent to the I-26/US-78 University Boulevard interchange. Trident Technical College is an accredited two-year institution that is the largest technical and 3rd largest college in South Carolina. Trident Technical College is growing as they are building a new \$80 million dollar aeronautical center to meet the needs of the advanced manufacturing industry in South Carolina. Both campuses provide localized access to furthering education for those who live in North Charleston.

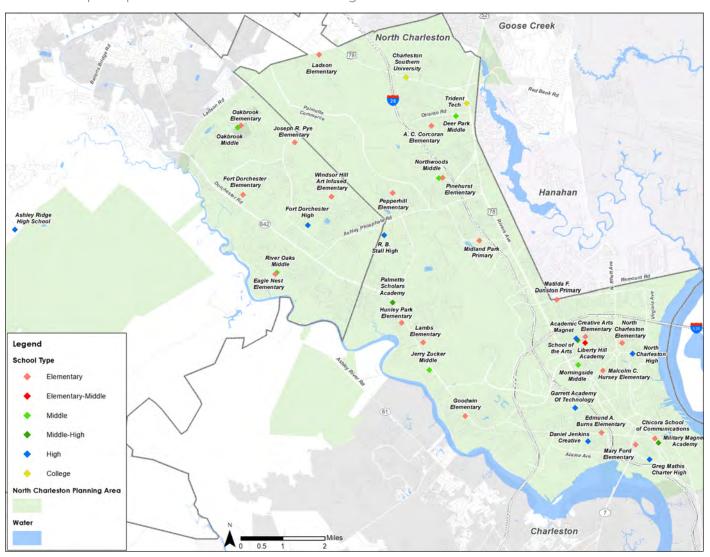


Figure 41: North Charleston Educational Institutions

7.5 COMMUNITY ENRICHMENT

7.5.1 Libraries

Residents in North Charleston are directly served by the Charleston and Dorchester County Public Library Systems. Charleston County Public Library has three facilities that serve North Charleston residents which are shown on Figure 42. Note that the existing Cooper River Memorial Library, which opened in 1948, will be replaced with a new state of the art 15,000 square foot library. The new library will be located on adjacent land and named the R. Keith Summey North Charleston Library. The Dorchester County Library system does not have any physical structures in North Charleston however, there is a Bookmobile that travels throughout Dorchester County and stops within North Charleston.

7.5.2 Community and Senior Centers

Community and Senior Centers exist throughout the North Charleston community and provide benefits by having activities such as exercising, dancing, computer labs, crafts, senior cornhole, board/card games, and community meetings. Sporting activities are held such as boxing, table tennis, karate, basketball, and swimming. Figure 29 shows where the community and senior centers are located in North Charleston.



Proposed R. Ketih Summey Library Rendering
Image Credit: CCPL Website

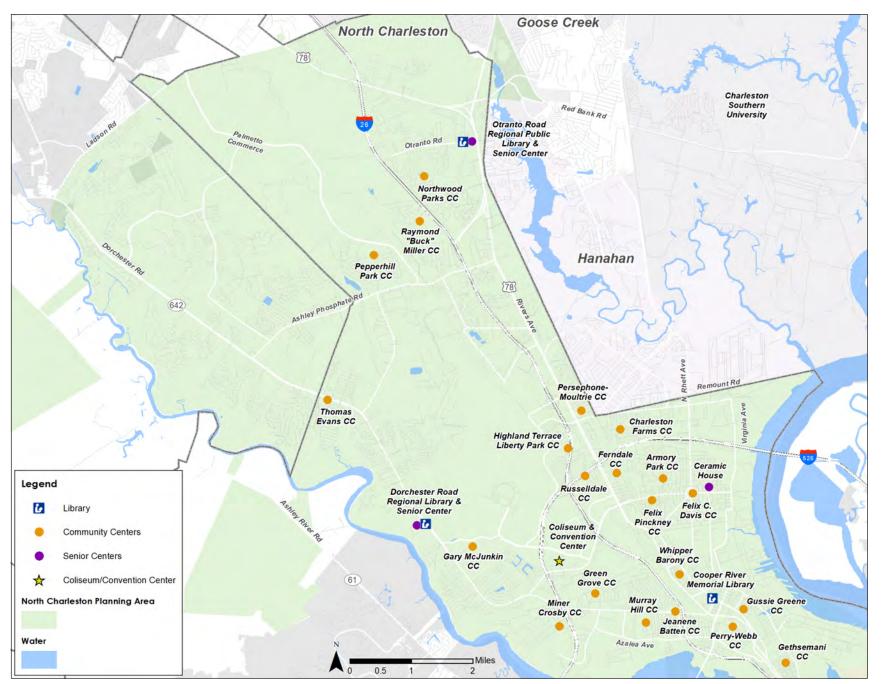


Figure 42: North Charleston Public Libraries, Community Centers and Senior Centers

7.5.3 Parks and Recreation

North Charleston's Recreation Department oversees twenty-one community centers, three senior centers, open spaces, youth sports recreation facilities, and parks in North Charleston. Figure 43 shows the existing and future parks and sports facilities, greenbelt properties, and protected lands within North Charleston. Each of these amenities provides residents with opportunities to socialize, recreate, educate and work together, fostering community. Specific examples of activities hosted at these facilities include:

- Dog Training
- Self Defense
- Table Tennis
- Gardening Clubs
- Dancing
- After School Programs
- Computer Labs

- Meal Programs
- Walking Clubs
- Arts and Crafts
- Farmers Markets
- Children's Camps and Programs
- Senior Activities



Park Circle Softball Field

7.4.3 County Parks and Recreation

The Charleston County Park and Recreation Commission manages over 11,000 acres throughout Charleston County. The North Charleston Wannamaker County Park consists of 1,015 acres of woodlands, wetlands, meadows, playgrounds, dog parks, a water park, and other athletic amenities located on University Boulevard. The Cooper River Marina is operated by Charleston County Park and Recreation as well. It provides boat access to the Charleston Harbor with floating concrete docks and over 170 deep water slips for lease. The old Baker Hospital Site and the Ashley River Park site located off Dorchester Road will serve the community in the future.

The R.M. Hendricks Boat Ramp is located across from the intersection of Virginia Avenue and Lincoln Avenue and offers one lane access to the Cooper River, a playground, a picnic pavilion, and restrooms. The W.O. Thomas Country Farm Boat Ramp located at Bridge View Drive and Corporate Road. The W.O. Thomas Country Farm Boat Ramp has 2 lanes, 95 trailer parking spots, courtesy docs, pavilion, picnic tables, benches, restrooms and a fishing pier. The Ashley River is adopted by the Community as a Blue Trail and provides many recreational opportunities, such as kayaking and canoeing for the residents of North Charleston. The former King's Grant Golf Course will have eighty acres turned into a marsh park with a walking trail and paddlecraft launch into the Ashley River.

Dorchester County does not operate any parks in North Charleston. However, there are plans to build an 85 acre park on the northwestern edge of the North Charleston Planning area (along the Ashley River just northwest of Ladson Road) that will serve North Charleston residents.

^{19.} https://www.ccprc.com/1737/North-Charleston-Wannamaker-County-Park

^{20.} https://ccprc.com/67/Cooper-River-Marina

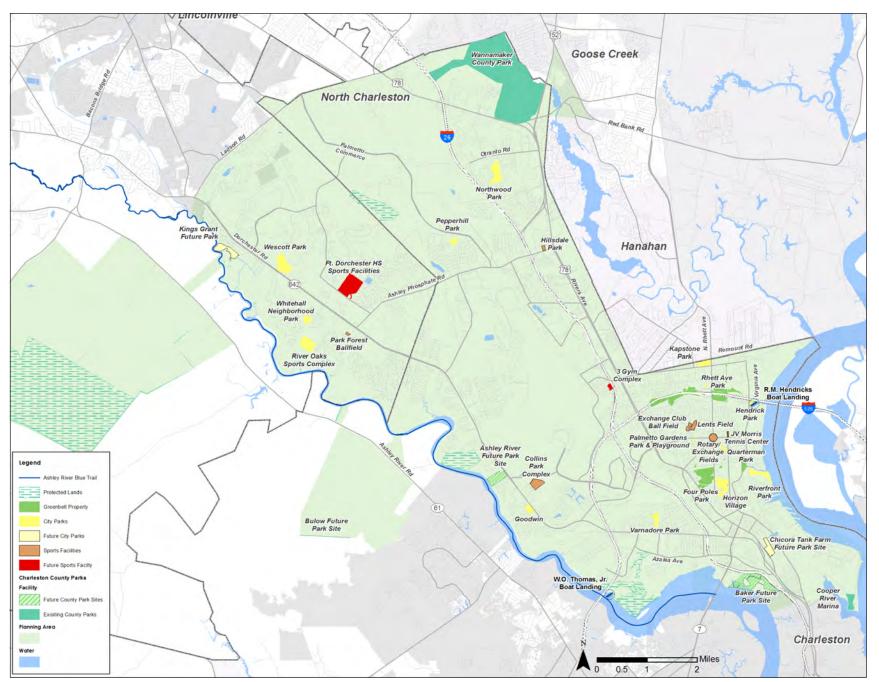


Figure 43: North Charleston Recreational Facilities and Sites

7.6 UTILITY PROVIDERS

Utility companies provide residents and businesses of North Charleston with a means to power, water, wastewater, and natural gas. These are the basics needed to support life and to conduct business in North Charleston.

7.6.1 Water and Wastewater Service

Water and wastewater services are provided to North Charleston residents by Charleston Water Systems (CWS), the North Charleston Sewer District (NCSD), and the Dorchester County Water and Sewer (DCWS). CWS is a public utility that services the greater Charleston metropolitan region. The NCSD is a public wastewater utility that serves the majority of the City of North Charleston and surrounding areas. Dorchester County provides water and wastewater services to the North Charleston residents who live in Dorchester County. Figure 44 and Figure 45 show the water service area and wastewater service area in North Charleston, respectively.

7.6.2 Electric and Gas Utility

Electricity and natural gas are provided by Dominion Energy an energy company headquartered in Richmond, Virginia. Dominion Energy is a publicly traded company on the New York Stock Exchange, and it has a portfolio of approximately 31,000 megawatts of electrical generation, 106,400 miles of natural gas distribution, and 93,600 miles of electricity transmission and distribution. Dominion Energy has approximately 7.5 million utility and retail energy customers and maintains a staff of approximately 21,000.²⁴ Their recent acquisition of the utility company South Carolina Electric and Gas (SCE&G) has increased the company's portfolio and made them the dominant provider in South Carolina.

Santee Cooper is a state owned electric and water utility provider that operates mostly in Berkeley, Georgetown, and Horry counties. However, Santee Cooper does provide power to Joint Base Charleston in North Charleston. Santee Cooper maintains 5,146 miles of transmission and 2,967 miles of distribution lines throughout South Carolina. Transmission reliability rates at 99.9973%, which is an average of 11 minutes without power per year. Their distribution reliability ranks top 10 nationally as well.

^{21.} http://charlestonwater.com/455/Customers

^{22.} https://www.ncsd.sc.gov/

^{23.} https://www.dorchestercountysc.gov/government/water-sewer/about-dcws

^{24.} https://www.dominionenergy.com/

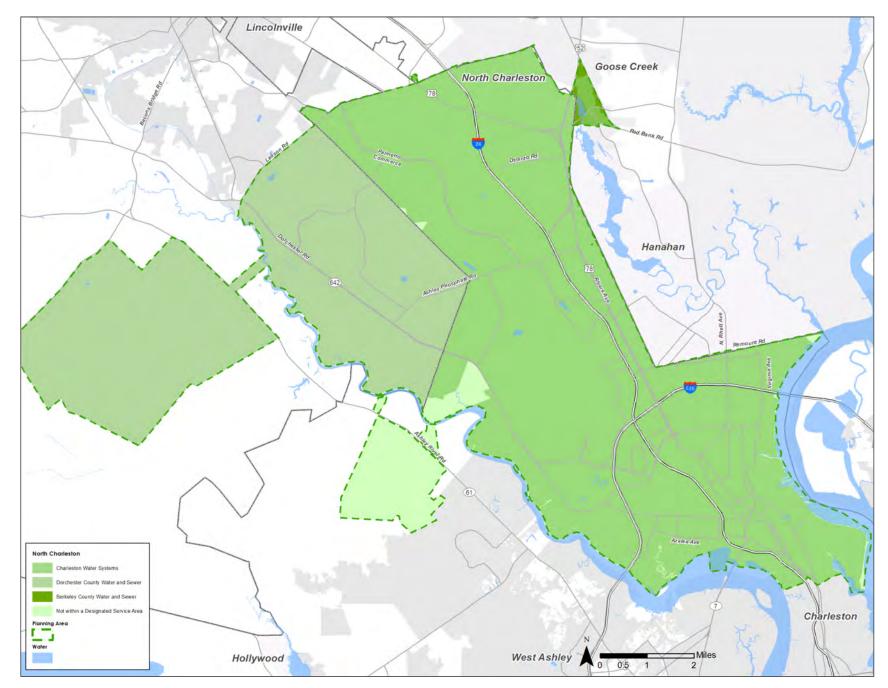


Figure 44: Water Service Areas within North Charleston

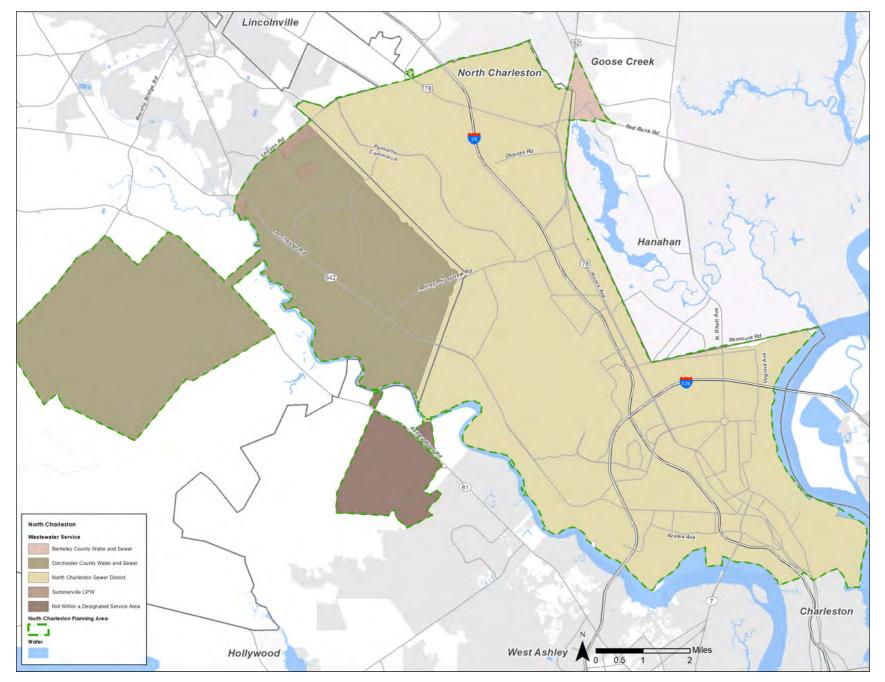


Figure 45: Wastewater Service Areas within North Charleston

8.0 TRANSPORTATION



8.1 OVERVIEW

The ability to be mobile, across a variety of transportation modes, is critical to the success of a community. Accessibility to modes of transportation that enable residents to move around the City ensures a healthy and livable community. Mobility also supports the economic vitality of an area by creating and sustaining an environment in which businesses and industries can thrive. Mobility is defined in broad terms as moving people and goods safely throughout the community using various transportation modes.

Due to its centralized location, North Charleston is the transportation hub of the region. The City is home to two U.S. interstates, major US highways, multiple rail lines and intermodal facilities, the State's busiest airport, major marine port terminals, public transportation services, and a passenger rail service. As the third most populated city in the State, North Charleston also has a large and growing resident population that calls for more alternative transportation options including pedestrian and bicycle facilities. Such a multimodal system needs to be well coordinated to ensure access to the network and to also provide safe connections between modes. North Charleston is committed to improving multimodal transportation throughout the City.

The Battery Park Pedestrian Bridge which will connect Riverfront Park to new development across Noisette Creek is a shining example of that dedication. The City's mix of urban and suburban areas in transition, increased growth areas prime for redevelopment, growth of employment centers, and major port and intermodal infrastructure investments will undoubtedly generate increased demands on the area's transportation system. These demands, if not addressed will make the City more vulnerable to traffic congestion and potential negative impacts to the economy and quality and life of local residents.





Renderings of Battery Park Pedestrian Bridge Conceptual Design

Image Credit: Thomas & Hutton

^{25.} https://www.thomasandhutton.com/portfolio_page/battery-park-pedestrian-bridge-recreation/

8.2 EXISTING TRANSPORTATION SYSTEM

8.2.1 Road Network

North Charleston's road network is central to the transportation of both people and goods in and around Berkeley, Charleston, and Dorchester Counties. The City's transportation network is composed of a hierarchy of streets. The functional classification system, established by the Federal Highway Administration (FHWA) for roads and highways in the United States, is based on the types of trips that occur, the basic purpose for which the street was designed and the volume of traffic that the roadway facility carries. This roadway classification consists primarily of arterials, collectors and local roads. In general all roadways serve two major objectives to varying degrees - mobility and land access. Figure 46 provides an illustration of how a road network connects within a city. Table 20 and Figure 47 together summarize the functional classification of the City's road network.



Sample of roadways in North Charleston - intersection of Spruill and Buist

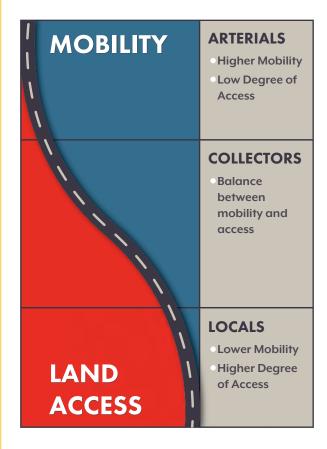


Figure 46: Road Network Functionality – Credit Alaska DOT

| ROADWAY FUNCTIONAL CLASSIFICATION | DESCRIPTION | MAJOR ROADWAYS | CENTERLINE MILES | PERCENT OF ROAD NETWORK |
|--------------------------------------|--|---|---------------------|----------------------------|
| INTERSTATE | Interstate highways are the highest level of principal arterial roadways serving high-speed and high-volume regional traffic. They provide the greatest level of mobility with access limited to grade-separated interchanges. Facilities typically link major urban areas together. | | 41.75 | 5.5 % |
| PRINCIPAL ARTERIAL | This system supplements the higher order arterial/interstate system and links major centers of metropolitan areas together, provides a high degree of mobility and can provide mobility through rural areas. Dorchester Road US-78 (Rivers Ave/University Boulevard) Remount Road US-52 Spruill Avenue | | 58.51 | 7.8 % |
| MINOR ARTERIAL | This system serves trips of moderate length and offers connectivity to the higher arterial network. Minor Arterials link cities, towns, rural centers and other major destinations that are capable of generating travel over relatively long distances. This system forms an integrated network that provides interstate and inter-county service. Ashley Phosphate Road North Rhett Avenue Palmetto Commerce Parkway Ladson Road International Boulevard Montague Avenue | | 41.68 | 5.5 % |
| COLLECTOR | This system generally gathers or collects traffic from local streets and channels it to the higher order arterial network. Collectors provide less mobility than arterials, usually support lower speeds and are used to travel shorter distances. Collectors balance mobility with land access. The collector system provides connection between neighborhoods, from neighborhoods to minor business clusters and also provides supplemental connections between major traffic generators and regional job concentrations within the metropolitan area. | Azalea Avenue Cross County Road Patriot Boulevard Wescott Boulevard Otranto Road Rhett Avenue Michaux Parkway South Aviation Avenue | 35.15 | 4.7 % |
| LOCAL STREET | Typically small residential and commercial streets that connect to other local streets and feed into the collector system. Local streets serve short trips at lower speeds, as well as local travel for pedestrian and bicyclists. They have substantial land access to residential areas, businesses and other local land uses. These usually make up the majority of roads in the system. | - | 575.75 | 76.5 % |
| TOTAL | | | 752.84 | 100 % |

Table 20: North Charleston Roadway Functional Classification

^{26.} SCDOT, 2012 Roadway Functional Classification

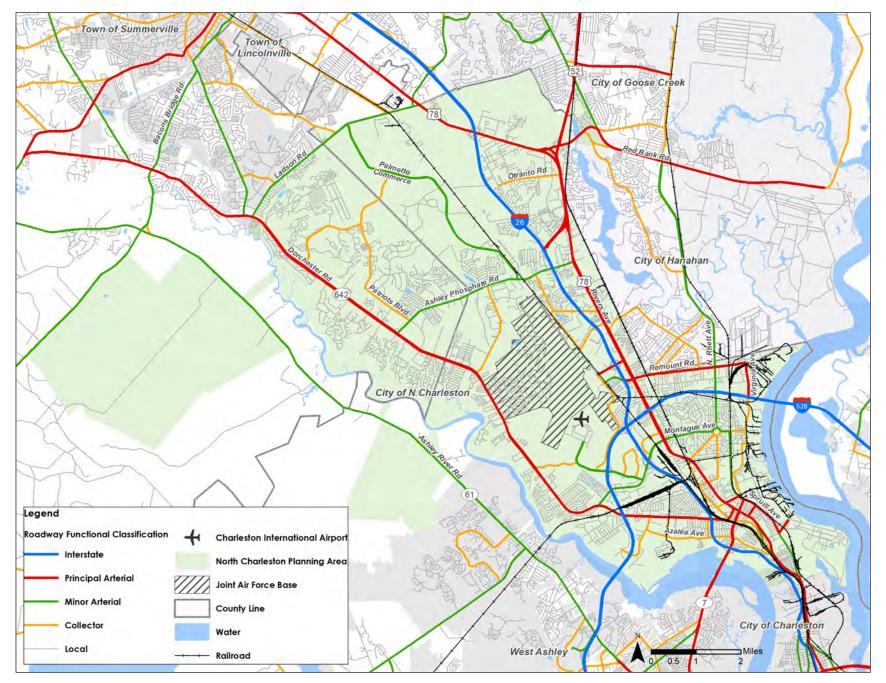


Figure 47: North Charleston Roadway Network and Functional Classification (SCDOT, 2012)

8.2.2 Traffic Volumes

The South Carolina Department of Transportation (SCDOT) maintains annual average daily traffic (AADT) count information for all counties in the state. Count stations are set up along major roads in order to measure the existing bi-directional traffic volumes. Sampled counts are then adjusted to reflect the average daily traffic over a year. Figure 48 indicates the 2017 traffic count data for the City. As expected, the higher traffic volumes are being carried on roadways with the higher functional classification.

The level of congestion on a roadway can be indicated quantitatively by the volume/capacity ratio (V/C). V/C is a measure of the amount of traffic on a given roadway in relation to the amount of traffic the roadway was originally designed to handle. A V/C less than 0.8 generally indicate that a roadway is operating acceptably. As the V/C approaches 1.0, the roadway becomes increasingly congested. It may operate acceptably for much of the day, but is likely to be congested during peak periods. A V/C greater than 1.0 indicates a roadway that is carrying more traffic than for which it was designed. Roadways with high V/C are generally very congested, especially in the peak periods, and may operate in stop-and-go conditions.

Level of Service (LOS) is a qualitative measure used to describe roadway congestion levels and is expressed as a grade between "A" for excellent and "F" for failing. Table 21 provides the general description of each of the LOS ratings A through F. These LOS ratings are based on V/C ratio values. The BCDCOG uses a travel demand model to understand the future capacity needs for the region. The model includes analysis of existing LOS for major roads and projected future LOS for the roadways in the region. Existing LOS is provided for the model base year of 2015 and future LOS for the 2040 Existing and Committed (E+C) transportation network which includes any roadway

| LOS (V/C) | DEFINITION |
|--------------------|---|
| A (0.00 - 0.30) | Free Flow: traffic flows at or above the posted speed limit and motorists have complete mobility between lanes. |
| B (0.31 - 0.50) | Reasonably Free Flow: speeds are maintained, however maneuverability within traffic stream is slightly restricted. |
| C (0.51 - 0.70) | Stable Flow: travel at or near free flow speeds, movements are restricted due to higher volumes but not objectionable by users |
| D (0.71 – 0.90) | Approaching Unstable Flow: speeds are slightly decreased, higher volumes are noted and operator comfort is reduced |
| E (0.91 – 0.99) | Unstable Flow: operating at capacity levels, vehicles are closely spaced and maneuverability is limited, incidents can cause flow breakdown |
| F (>1.00) | Forced Flow: Demand volumes are greater than capacity with resulting breakdown in traffic flow, travel times cannot be predicted. |

Table 21: SCDOT Level of Service Guideline

project in the CHATS planning area that is currently under construction, completely programmed and/or partially funded. From a cost-benefit perspective, roadways with a LOS rating of A and B reflect situations where the road has excess capacity. Given the cost of road improvements and the magnitude of traffic problems across the region, it is not financially feasible or desirable to strive for a LOS of A or B on each roadway. In general, roadways with a LOS of C or higher is acceptable on facilities in non-urban areas and LOS D or higher is acceptable in urban areas. Comparing the CHATS Travel Demand Model LOS between 2015 and 2040 the major facilities either maintaining a LOS E-F or experiencing a drop to LOS E-F include:

- Dorchester Road (Ashley Phosphate Road to Ladson Road)
- I-26 (Ashley Phosphate Road to Aviation Avenue) (Ashley Phosphate Road to US-78)
- · North Rhett Avenue

- Ladson Road
- South Aviation Road
- Cross County Road
- Ashley Phosphate Road

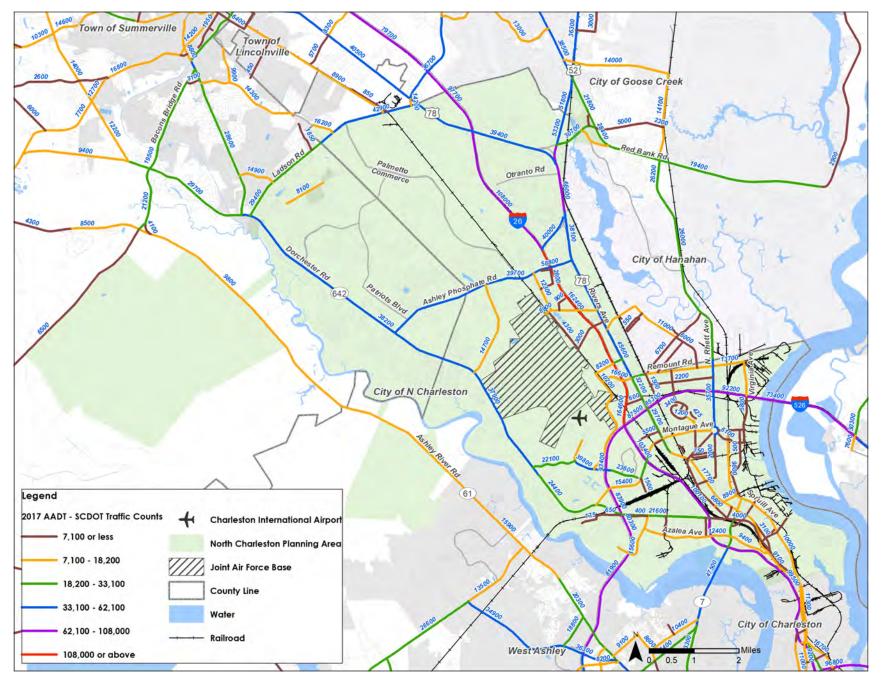


Figure 48: North Charleston 2017 AADT Traffic Counts (SCDOT, 2017)

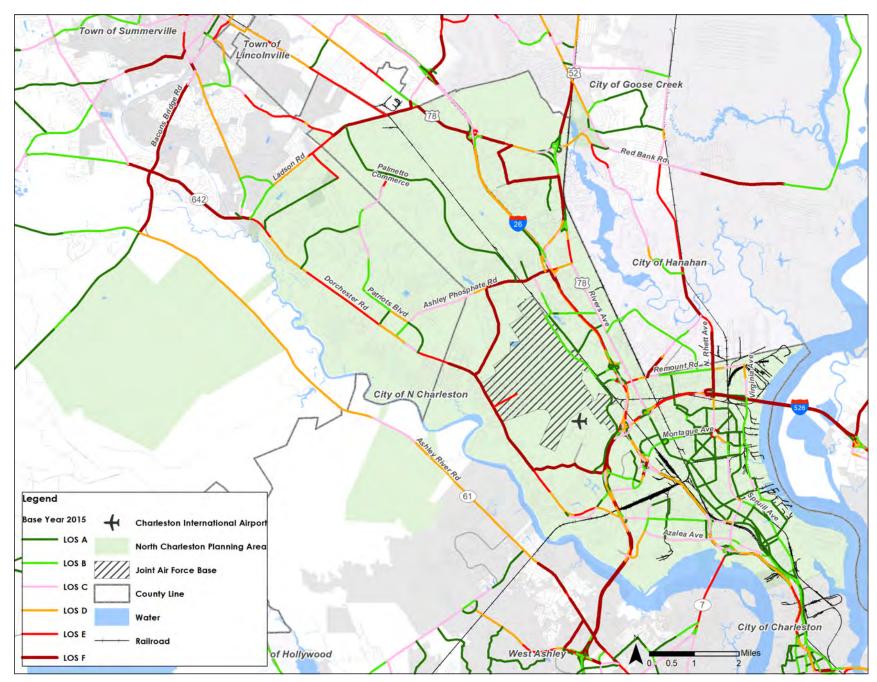


Figure 49: 2015 Base Year Road Network Level of Service (LOS)

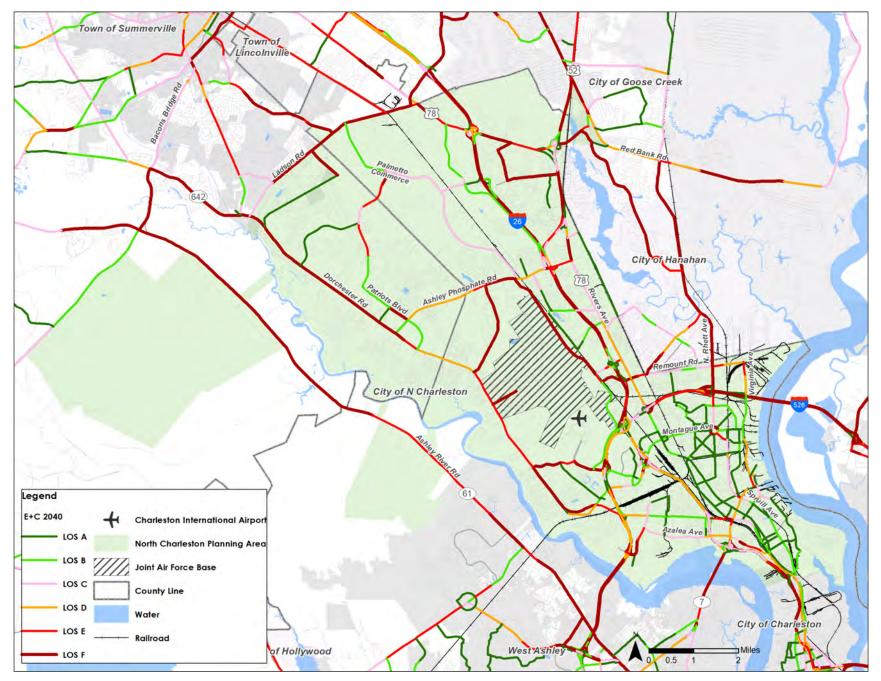


Figure 50: 2040 Existing + Committed (E+C) Road Network Level of Service (LOS)

8.3 TRANSPORTATION TRENDS

8.3.1 Mode of Transportation to Work

Data from the 2017 American Community Survey (ACS) provides information on how North Charleston residents commute to work. Figure 51 shows that 78.8% of North Charleston's working population drove alone to work. This is slightly lower than rates seen by the State (82.6%) and the Charleston-North Charleston urbanized area (80.7%).

When compared to other modes of travel to work, summarized in Figure 52, proportionally more of North Charleston's working population carpooled and utilized public transportation to commute to work. However, the State and Charleston-North Charleston urban area had a larger percent of their population traveling to work by alternative transportation modes including walking, bicycling and working from home. This could be due in part to the inclusion of the more urbanized central business district of the Charleston peninsula that offers a more walkable and bike able environment as well as the inclusion of job types that offer the opportunity to work at home (telecommuting).

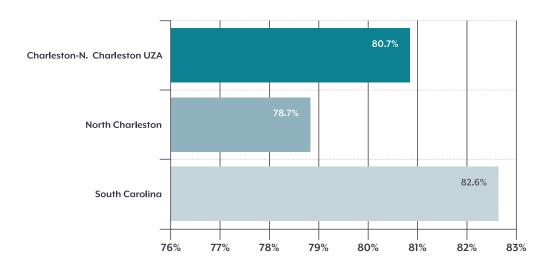


Figure 51: Percent of working population utilizing single occupancy vehicle to travel to work

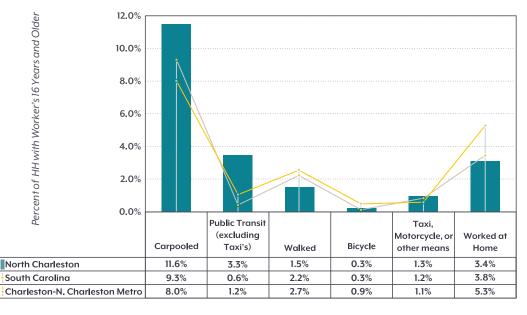


Figure 52: Mode of Transportation to Work (2017)

8.3.2 Travel Time to Work

Figure 53 compares the travel time to work data for the City of North Charleston, the Charleston-North Charleston urbanized area and South Carolina. Unlike both the State and Charleston-North Charleston urbanized area, the largest proportion of the City's working population commute roughly 20-24 minutes to work on average. In general, a smaller portion of North Charleston residents make shorter (less than 10 minutes) or more localized trips to work.

The mean travel time to work for the residents of North Charleston has increased from 21.8 minutes (2000 Census) to 23.1 minutes (2013-2017 ACS 5-Yr).

8.3.3 Vehicle Availability

The City of North Charleston has greater than proportionate number of working households with no vehicle access (5%) and access to one vehicle (32%) when compared to both the State and the Charleston-North Charleston urbanized area. This indicates North Charleston's population as a higher propensity to utilize alternative transportation options, such as public transit or private rideshare services.

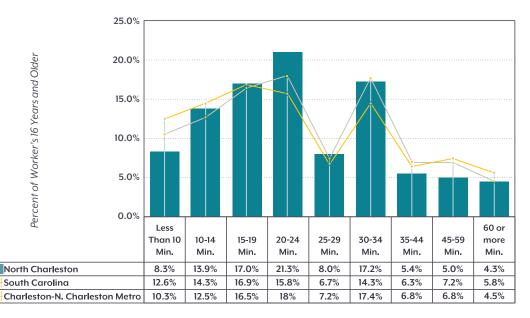


Figure 53: Travel Time to Work (2017)

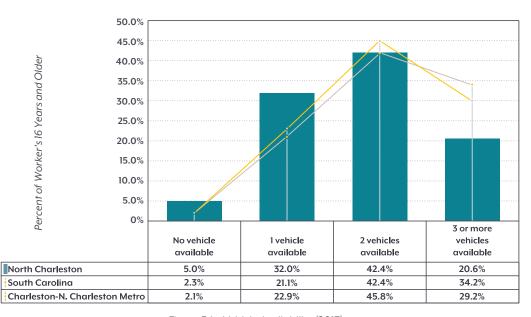


Figure 54: Vehicle Availability (2017)

8.3.4 Longitudinal Employer-Household Dynamics (LEHD)

Data collected from the US Census Longitudinal Employer-Household Dynamics (LEHD) Program provides insight into the travel patterns of persons who live and work in North Charleston. Figure 55 provides a summary of the commuter flow of workers into and out of the City for 2015. Approximately 74,000 persons commuted into the City of North Charleston to work; 14,283 live and work in the City; and 25,309 North Charleston residents work outside the City.

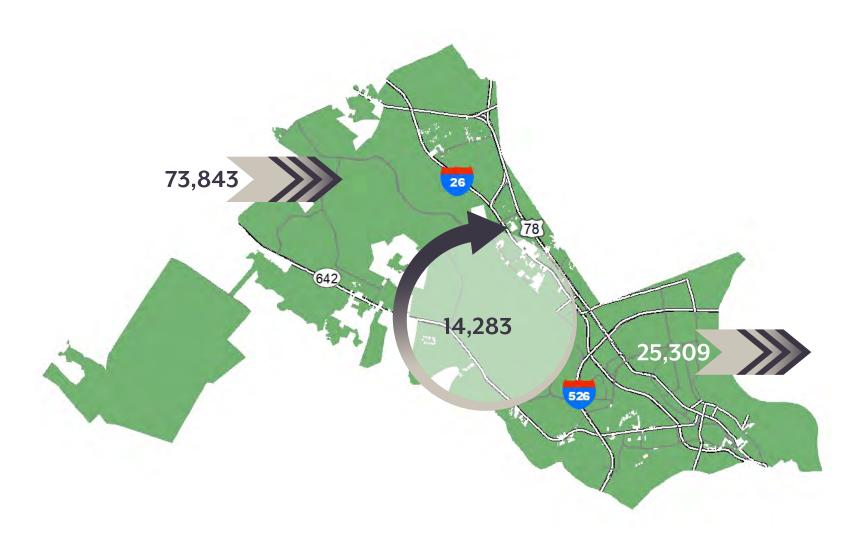


Figure 55: 2015 North Charleston Commuter Flows (Jobs Inflow-Outflow)

North Charleston Labor and Commuter Sheds were also developed from an analysis of LEHD data, provided in Figure 56. Shed analysis results provide more detail to commuter patterns, indicating where persons who work in North Charleston live, and where individuals who live in North Charleston work.

The Labor Shed Analysis shows travel patterns of commuters who work in North Charleston. Workers commute largely from the following areas:

- Dorchester Road / Ashley Phosphate Road
- Goose Creek (US-52/Red Bank Road/US-176)
- Summerville (Ladson Road/Sangaree)

The Commuter Shed Analysis shows travel patterns of commuters who live in North Charleston. Commuter sheds show where area residents work or are employed. A large number of North Charleston residents commute to the following employment areas:

- Downtown Charleston
- Leeds Avenue
- Tanger Outlets / Mall Drive
- Boeing
- Northwoods Mall
- Trident Health Systems
- Bosch

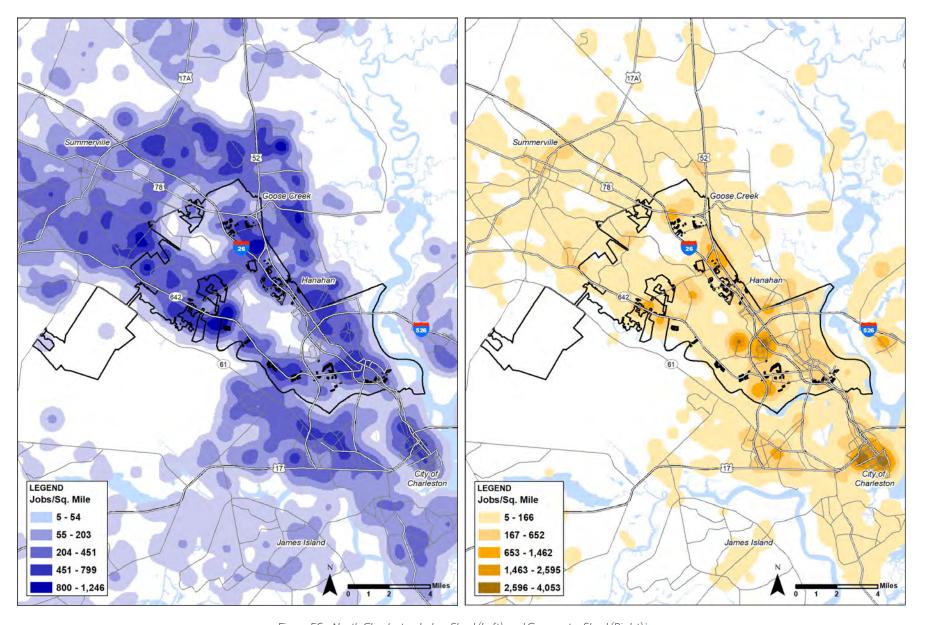


Figure 56: North Charleston Labor Shed (Left) and Commuter Shed (Right) |

^{1.} Maps do not contain most recent annexation for North Charleston across the Ashley River as there is no data for area.

8.4 PUBLIC TRANSPORTATION

8.4.1 Charleston Area Regional Transportation Authority (CARTA)

Established in 1997, CARTA serves the urbanized area of the region and currently operates 21 fixed bus routes which include 18 local routes and three Downtown Area Shuttle (DASH) routes in the historic Charleston peninsula. It also operates four commuter express routes which serve seven park and ride facilities and the Charleston International Airport. CARTA's Tel-a-Ride (ADA paratransit) provides demand response service to qualified individuals within three-quarter of a mile of a fixed-route alignment. While CARTA's buses are equipped with wheelchair lifts, many disabled riders need the door-to-door transportation service provided by the Tel-A-Ride service. Of the 18 local fixed bus routes and four express routes provided by CARTA, seven fixed routes and three express commuter routes operate within the City of North Charleston. The overall transit system for North Charleston can be view in Figure 57. These routes are:

Local Fixed Routes:

- Route 10 Local (Rivers Avenue)
- Route 11 Local (Dorchester/Airport)
- Route 12 Local (Upper Dorchester/AFB)
- Route 13 Local (Remount Road)
- Routes 102 Neighborhood Circulator (North Neck)
- Route 103 Neighborhood Circulator (Leeds Avenue)
- · Route 104 Neighborhood Circulator (Montague Avenue)

Express Commuter Bus:

- Express 1 (James Island North Charleston)
- Express 3 (Dorchester Road Summerville)
- Express 4 (Airport Express provides direct connection between the Charleston International Airport and Downtown Charleston)

8.4.2 CARTA Transit Facilities

CARTA has two major transit hubs or transfer centers: the Mary Street Garage Transit Center in downtown Charleston and the SuperStop located at the intersection of Rivers Avenue and Cosgrove Avenue in North Charleston. These hubs facilitate increased access to the transit service area by allowing system users to transfer from one route to another and from one system to another at select locations. The SuperStop transfer center allows transit users to connect to routes serving downtown Charleston, West Ashley, James Island and Mount Pleasant. In 2018, construction was completed on the first phase of the new North Charleston Transit Facility, located on Gaynor Avenue at the site of the old North Charleston Amtrak station. Phase I of the multimodal facility included construction of a new building and completion of half of the train platform. Phase II of the project includes demolition of the old Amtrak Station, completion of the second half of the train

platform and construction of CARTA bus facilities. This new intermodal hub will increase access and connectivity to Amtrak passenger rail services, regional bus service (Southeastern Stages) and CARTA's local bus services.

Park-and-Ride (PnR) facilities are also important facilities that support increased access to the transit system. These facilities serve transit users beyond the typical quarter-mile walk shed from a transit stop. PnR lots allow users to drive to and park in the lots to access transit service. There are currently two PnR facilities located in the City of North Charleston:

- Rivers Avenue Park & Ride serving both CARTA and TriCounty Link
- Festival Centre Park & Ride serving CARTA Express Route 3

The Berkeley Charleston Dorchester Council of Governments (BCDCOG) recently completed a Regional Park-and-Ride Study (2018) that produced a comprehensive plan that identifies sites for permanent parking facilities throughout the region. Assessments were made on both existing and new sites and recommendations were provided for improving or expanding the Park and Ride network. The Rivers Avenue Park and Ride serves the most productive CARTA route (Route 10), Express Route 1, as well as TriCounty Link (Commuter Service 2). This facility is the most utilized lot in the region, accommodating roughly 200 vehicles and is usually at or near capacity. Recommendations from the Regional Park-and-Ride Study include a new Rivers Avenue Park and Ride, an expansion of the existing lot at Festival Centre (~ 30% utilization rate), and development of three additional North Charleston lots in the short to mid-term. Figure 57 provides an overview of the transit routes, major hubs and other transit related facilities located within North Charleston.

8.4.3 TriCounty Link (TCL)

TriCounty Link (TCL) commuter express routes operate between a network of park-and-ride facilities and other key service points throughout the rural service area, and connect to CARTA services at coordinated transfer locations. One of the major coordinated transfer locations between the rural TCL system and the CARTA system is the Rivers Avenue Park and Ride in North Charleston. TCL local fixed routes B102 (Moncks Corner/Goose Creek) and D305 (Summerville Connector), and commuter routes CS1 (Monks Corner/North Charleston) and CS2 (Summerville/North Charleston) partially operate within the North Charleston area and provides access and connection to the CARTA system. Figure 56 provides an overview of the major transit routes operating in the City.

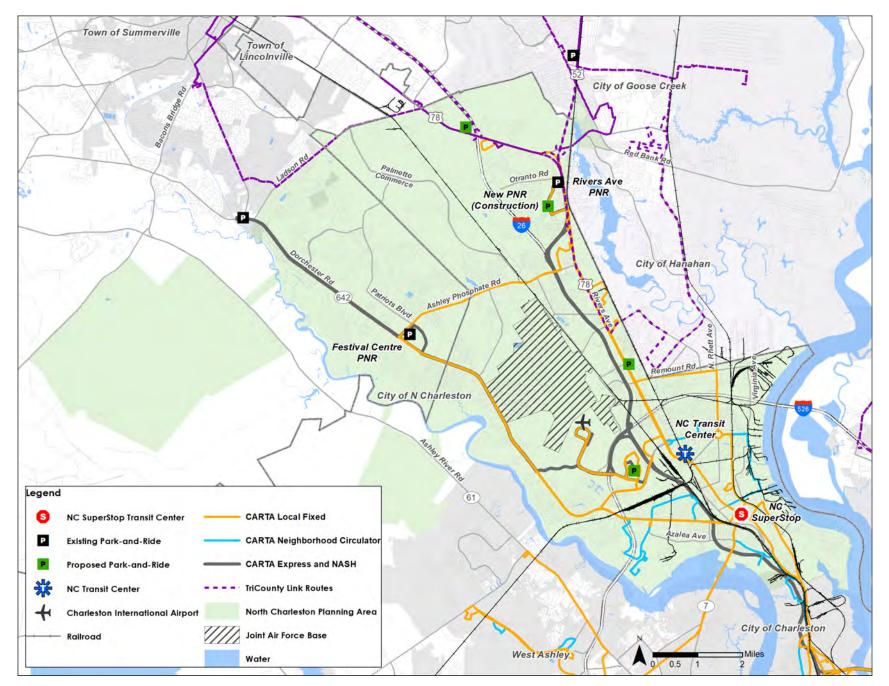


Figure 57: Transit Routes and Transit Related Facilities

8.5 BICYCLE AND PEDESTRIAN FACILITIES

Bicycle and pedestrian facilities enhance the livability of the community. Walking and biking have many benefits for both personal and environmental health. Safety for pedestrians and bicyclists is however a key challenge in North Charleston due to the high volume of traffic in the area. Sidewalks, trails, and bike lanes are important pedestrian and cyclist infrastructure that enables safer streets. It is especially important that safe routes to schools are in place.

Sidewalks are especially important in locations where the pedestrian activity is concentrated, including parks, schools, transit stops, retail centers, and employment centers. A typical comfortable walking distance is about five-minutes for a one-way trip, or approximately one-quarter mile, and this distance is commonly referred to as a pedestrian shed, or "ped-shed." In 2015, the City of North Charleston mapped several ped-sheds using GIS in order to understand where the sidewalks most needed improvements. In 2017 the BCD WalkBike pedestrian and bicycle master plan was completed for the region. Major recommendations addressed improvement or expansion of the region's bicycle and pedestrian network to increase regional mobility, connectivity and safety for non-motorized travel. Improvements in the BCD WalkBike plan incorporate some of the major recommendations found in the City's 2015 ped-shed analysis.

8.5.1 Trails

In addition to sidewalks and bike lanes, dedicated multi-use paths, greenways, and trails can be used to provide a safe place for pedestrians and bicycles that are separate from motor vehicle traffic. Current bike lanes and bike trails in the City include:

- Ladson Road A bike lane is provided on Ladson Road between Dorchester Road and University Boulevard.
- University Boulevard A bike trail separate from the road exists between Charleston Southern University and the U.S. 52/U.S. 78 interchange.
- Wescott Boulevard A bike trail is provided along Wescott Boulevard from Dorchester Road to the intersection of Patriot Boulevard.
- Dorchester Road A separated hiker/biker trail is provided along Wescott Boulevard from Dorchester Road to the intersection of Patriot Boulevard.
- Patriot Boulevard A bike trail runs along Patriot Boulevard from Appian Way to Club Course Drive
- Spruill Avenue North and south bike lanes are provided on Spruill Avenue between Buist Avenue and the southern City limit.

Figure 58 provides existing pedestrian and bicycle infrastructure in the City.

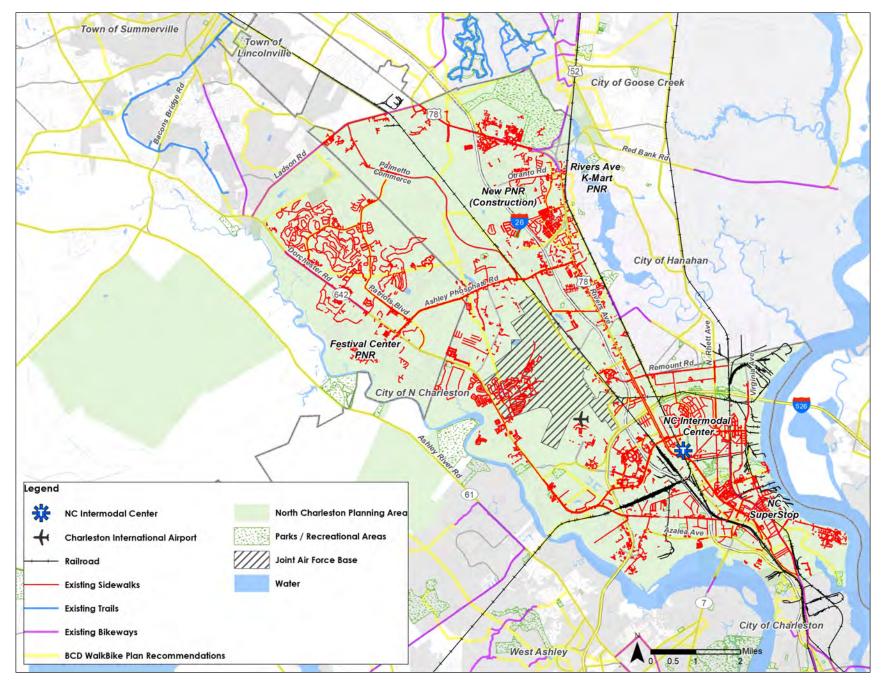


Figure 58: North Charleston Pedestrian and Bicycle Facilities

8.6 SEAPORT FACILITIES

The Port of Charleston, the nation's ninth busiest container port, is owned and operated by the South Carolina Ports Authority (SCPA). It is a major freight gateway for international trade and an economic engine for the region. The Port currently operates at four locations along the Wando and Cooper Rivers. Freight movements to and from these facilities are primarily supported by truck and rail. The two port terminals located in North Charleston are the Veteran's Terminal and the North Charleston Terminal.

A third port terminal, the Hugh Leatherman, Sr. Terminal (HLT), is currently under construction (planned Phase I opening 2021) to increase the port's capacity and ability to meet the future growth anticipated in this trade gateway. The HLT is a 284-acre container facility which, when fully built, will boost capacity at the Port of Charleston by



Hugh Leatherman Terminal (SCPA, 2018)

approximately 50 percent. In 2002, an MOU was signed by the South Carolina State Ports Authority and North Charleston stating that before container operations commenced, a truck access road from I-26 to the HLT and three rail overpasses at Rivers Avenue and Harley Street, Rivers Avenue and Durant Road, and North Rhett and I-526 would need to be built. Figure 60 provides an overview of the seaport facilities located in North Charleston.

SCPA, the State of South Carolina and other partner agencies have committed to invest in port and port-related infrastructure that will not only increase port capacity, but also enhance the operational performance and transportation infrastructure related to the movement of cargo at the Port of Charleston and throughout the State. Major investments include:

- Harbor deepening SCPA is working to deepen the harbor channel from 45 feet to 52 feet to accommodate the growing number of large and new Post-Panamax vessels that call on the Port.
- New Terminal Construction of the 286-acre Hugh Leatherman Terminal (HLT).
- Intermodal Transfer Facility (ICFT) Funded and operated by Palmetto Railways the new ICTF will be located on the former naval base near the HLT to allow near-dock rail service.
- New Port Access Road Construction of the new Port Access Road, which will provide connection between the HLT and the ICTF and also direct interstate access to I-26, is underway. The project also includes new roadway connections and existing roadway improvements to surrounding surface streets.
- Inland port development Inland ports are dry ports that help relieve pressure off of sea ports by acting as a storage or distribution point. Inland Port Greer (operational 2013) serves the Upstate region by Norfolk Southern rail, and Inland Port Dillon (operational 2018) serves the Pee Dee region by CSX rail.
- Wando Welch terminal improvements Includes building upgrades, crane upgrades and new crane acquisitions to serve Super-Post-Panamax ships, traffic Yard improvements and chassis Yard relocation.
- Other improvements Information technology enhancements including new terminal operating system, equipment upgrades, and paving and infrastructure enhancements at various port terminals.

8.7 RAIL FACILITIES

8.7.1 Rail Freight and Passenger Rail

Railroads play an essential role in the region's transportation network. Railroads in the region are primarily freight lines with limited passenger rail service. There are two Class I railroads operating in the City of North Charleston: CSX Transportation (CSX), formerly SeaboaRoad System, and Norfolk Southern Railway (NS). CSX rail is South Carolina's largest railroad, representing roughly 56 percent of the state's rail system. It owns and operates two rail lines that are parallel to the east of Rivers Avenue (serving the North Charleston Transit Center) and North Rhett Avenue, and an east-west line running south of Montague Avenue (serving CSX's Bennett Yard/Ashley Junction Intermodal Yard).

In addition to the rail mileage it owns, CSX also has tracking rights on the NS line between Charleston and Columbia. Norfolk Southern Railway is the second largest rail carrier in the state, representing roughly 30 percent of the state's rail system. Its main rail line runs parallel to the I-26 and US-78 corridors. Both carriers provide a vital connection to and from the region's port facilities and provide long-haul rail services across the state and country.

Passenger rail services are available through Amtrak on their Palmetto service from New York-Washington-Savannah and Silver Meteor service from New York-Washington-Miami, both stop in North Charleston at the Gaynor Avenue North Charleston Transit Center station.

Amtrak operates on CSX's rail lines through an agreement between companies, and trips are scheduled so as to avoid any conflicts between trains.

Palmetto Railways, previously South Carolina Public Railways (SCPR), provides terminal switching short-haul services and operates three rail divisions, one of which operates in North Charleston. The North Charleston Subdivision, formally Port Terminal Railroad, provides service to the South Carolina Ports Authority North Charleston Terminal and the Charleston Naval Complex. Palmetto Railways' rail facilitates interchange traffic with both CSX and NS. North Charleston is also home to other major rail facilities for both Class I carriers. CSX has its principal Yard and intermodal facility (Bennett Yard / Ashley Junction Intermodal Yard) in the City and NS has its intermodal facility (7-Mile Intermodal Yard) and automotive distribution terminal in North Charleston as well.²⁷

The existing rail intermodal facilities operate at high volumes and are at or near capacity. Due to the lack of land surrounding both the CSX and NS intermodal Yards, facility expansion of these sites is constrained. In order to keep pace with and accommodate the projected future intermodal growth, Palmetto Railways is developing the Navy Base Intermodal Container Transfer Facility (ICTF) project. The ICTF project is sited on a 130-acre site near Hobson Avenue and Viaduct Road on the former Charleston Naval Complex (CNC) in North Charleston. This intermodal facility will be located near the new Hugh Leatherman Terminal (HLT) to provide near-dock rail service, will provide equal access for both Class I rails via north and south rail connections, and will include additional off-site improvements including a limited-access drayage road which connects to HLT, a new overpass connecting Cosgrove Avenue to McMillan Avenue, removal of the Viaduct Road overpass, and improvements to Bainbridge and Hobson Avenues, as illustrated in Figure 59. The proposed drayage road connection between the container terminal and intermodal facility, the Port Access Road connection between the HLT and I-26, and restricted truck turn movements into and out of the ICTF would limit truck traffic use of the surrounding surface streets. However, as these facilities are

^{27.} http://www.nscorp.com/content/dam/nscorp/ship/automotive/ns_auto_distr.pdf

constructed and begin operation, it would be important to monitor the truck circulation patterns and road facility uses to ensure local neighborhoods are protected from truck freight movements and unforeseen negative externalities are addressed. Similarly, the planned Navy Base ICTF project will impact rail traffic.

In 2018, the US Army Corp of Engineers completed the Navy Base ICTF Final Environmental Impact Study (FEIS), which provides the major impacts generated by the permitted ICTF project alternative. The FEIS found that the proposed ICTF project will have little impact on the majority of the analyzed intersections in North Charleston compared to the No-Build alternative. The proposed project alternative was found to improve operations of the Hobson Avenue and McMillan Avenue intersection and Spruill Avenue and McMillan Avenue intersections due to the inclusion of mitigation measures such as lane geometry improvements. The study also found that the realignment of the Cosgrove Avenue/McMillan Avenue overpass will have a positive impact on the Spruill Avenue and McMillan Avenue intersection because the overpass will shift traffic away from the intersection. The FEIS however found that the proposed project will have adverse effects on the Spruill Avenue at Cosgrove Avenue/ McMillan Avenue realigned intersection, the Noisette Boulevard at Turnbull Avenue intersection (due to higher traffic volumes generated from ICTF employee traffic and roadway network modifications), and the stop-controlled Noisette Boulevard at Cosgrove Avenue/McMillan Avenue realigned intersection.

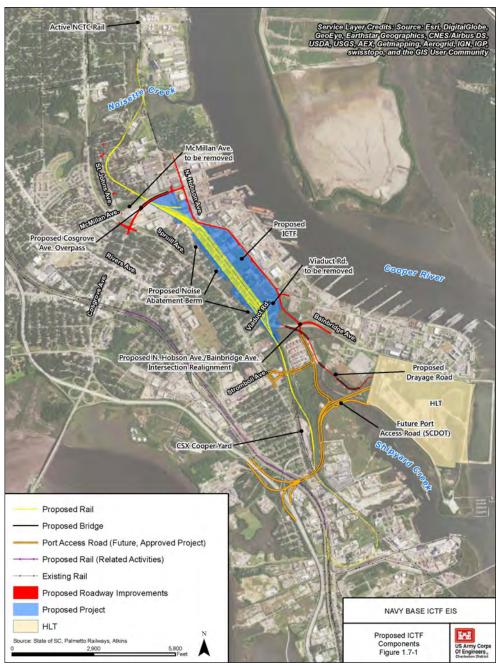


Figure 59: Navy Base ICTP Proposed Alternative

The proposed ICTF project includes dual rail line access for both rail carriers from the north and south of the intermodal Yard. This will include the construction of new rail lines to the north of the facility that connects to the existing active Palmetto Rail North Charleston Terminal line and a southern line which connects to the existing rail line near Herbert Street in the City of Charleston. Construction of this southern spur will create a new rail crossing along a major thoroughfare (US-78) in the City of Charleston. A detailed analysis of the impact of the ICTF rail operations on the system at select crossings will be completed in the North Charleston Surface Transportation Impact Study (2019).

8.7.2 Highway Freight Facilities

Freight movement through North Charleston is accomplished by trains and trucks, with the larger share occurring by truck on the existing roadway network. Providing an efficient and safe network for the movement of goods is a priority to maintain the quality of life of residents and to support the economic vitality of the region. Figure 59 provides the National Highway Freight Network and Statewide Freight Road Network in North Charleston. These strategic freight corridors have been identified as critical in the movement of goods in the region and the efficiencies of these corridors support and advance State and national economic goals. The major North Charleston freight corridors include the I-26 and I-526 corridors, Remount Road and Montague Avenue intermodal connection corridors, and Highways 78 and 52. Stakeholder feedback from the freight and goods movement community collected during the development of the region's Long Range Transportation Plan (LRTP) identified the need to not only address congestion on these freight corridors but more specifically to improve incident management practices and integrate more intelligent transportation solutions (ITS) on the freight network to improve system operation and reliability. There are also opportunities to improve local corridor access to freight related or freight intensive land uses such as manufacturing, industrial, warehousing and distribution uses. Roadways such as Ashley Phosphate Road, Cross County Road, Palmetto Commerce Parkway, Leeds Avenue, Dorchester Road and Azalea Drive (identified in the Neck Area Plan) which support concentrated freight uses presents an opportunity to provide more reliable freight connectivity and movement in North Charleston.

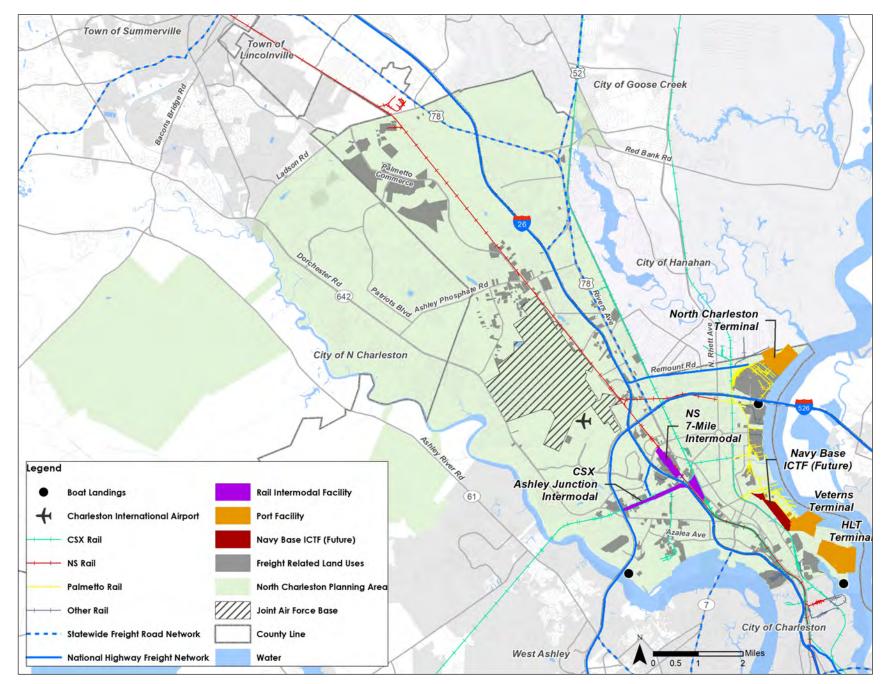


Figure 60: North Charleston Rail, Port and Intermodal Facilities

8.8 AIRPORT FACILITIES

The Charleston International Airport (CHS) is one of three public airports owned and operated by the Charleston County Aviation Authority (CCAA), under a Joint Use Agreement with the U.S. Air Force and Joint Base Charleston which owns, maintains and operates the shared runways, taxiways and navigational facilities. This major airport, located in North Charleston, is the busiest in South Carolina and connects millions of annual visitors. In 2018, the busiest year on record, the airport accommodated roughly 4.5 million passengers. As such, the City of North Charleston provides a first impression of the region and serves as the gateway to the Lowcountry.

The airport terminal has two concourses (A and B) and is classified as a security-level Category I airport by the Transportation Security Administration (TSA). Major passenger carriers serving the facility include Alaska Airlines, American Airlines, British Airways, Delta, Frontier Airlines, JetBlue, Southwest, United Airlines, and Allegiant Airs. Boeing South Carolina also operates a major manufacturing and delivery site which occupies roughly 730 acres on the south side of the airport campus.

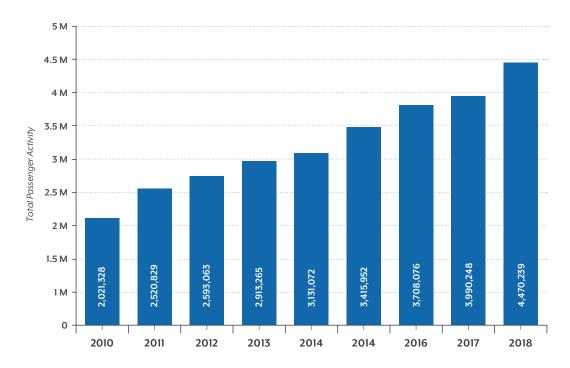


Figure 61: CHS Annual Passenger Activity (2010-2018)

Charleston International Airport, under the direction of its Airport Master Plan "CHS: Vision 2030", recently underwent a four-year effort completed in 2016, to upgrade its facilities to accommodate the steady growth in passenger travel experienced since 2010 (Figure 61). Implementation of its Terminal Redevelopment and Improvement Program (TRIP) is aimed at increasing the capacity of the Airport by approximately 50 percent to accommodate the future growth in airport activities. Improvements include modernization of the terminal building, existing concourse expansion and new concourse construction, construction of a new parking deck and development of a new Airport Connector Road that will provide increased access to the airport. This new roadway construction will not only impact how passengers and workers access the facility from surrounding roadways (Dorchester Road and I-526) but would also impact general travel patterns in the area. Increased access and connectivity to the facility is also supported by taxi/shuttle services including ride share or transportation network companies (TNCs) such as Uber and Lyft, hotel shuttles, rental car services and a new bus shelter.

^{28.} Charleston County Aviation Authority, CCAA 2010-2018 Operations Report. Retrieved https://www.iflychs.com/AviationAuthority/Statistics/Operations-Reports

8.9 PLANNED AND APPROVED TRANSPORTATION PROJECTS

The Berkeley Charleston Dorchester Council of Governments (BCDCOG) serves as the Metropolitan Planning Organization (MPO) for the Charleston Area Transportation Study (CHATS) urbanized area. All federal funds in the urban area of Berkeley, Charleston, and Dorchester Counties are administered through the CHATS Policy Committee. The Policy Committee is a policy-making body formed of elected officials from all three counties who make decisions concerning transportation policies and prioritize and allocate federal dollars to transportation projects in the entire Census-defined urbanized area, as well as those areas expected to be urbanized over the next 20 years. North Charleston falls completely within the urbanized area of the region.

In 2019, the CHATS Policy Committee adopted the 2040 Long Range Transportation Plan (LRTP). LRTP identifies regionally significant transportation projects, evaluates and prioritizes projects based local goals and preferences, and allocates funds to the highest ranked projects identified as most critical to the development of the region's transportation system. The projects are evaluated and ranked in accordance to the South Carolina Legislatures Act 114 with objective transportation criteria and then placed in a fiscally constrained projects list. The fiscally constrained project list helps to plan for long term transportation needs at the regional level. Figure 62 and the associated Table 22 show the projects that were scored and prioritized from the 2040 LRTP. North Charleston has four capacity enhancement projects, five intersection projects, and one corridor study that are included on the fiscally constrained list. The projects in Table 22 are either fully or partly within North Charleston.

As future funding becomes available, the fiscally-constrained project list begins to funnel projects into the Transportation Improvement Program (TIP). The TIP identifies when a project will start by year and how much funding it will receive by each phase of work (planning, preliminary engineering, rights-of-way, utility, and construction). A project enters the TIP when it has been fully funded. Each year CHATS receives about \$19 million in federal funds for transportation projects. The first three projects in the fiscally constrained list are located within North Charleston and total approximately \$53.5 million. Using federal dollars to fund projects comes with a 20% local match requirement; 20% of \$53.5 million is approximately \$10.7 million in local funding that would be needed to move the projects in to the TIP.

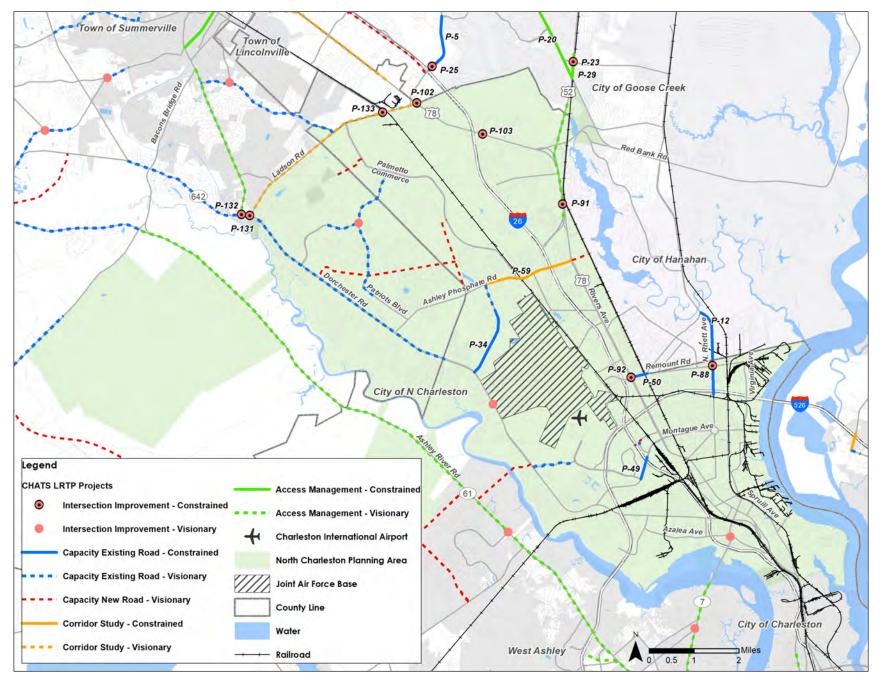


Figure 62: CHATS Long Range Transportation Plan Fiscally Constrained and Visionary Projects in North Charleston

| RANKING | LRTP PROJECT ID | ROADWAY FACILITY | PROJECT TYPE | LIMITS | SCDOT FUNCTIONAL CLASS | LENGTH (MILES) | COST (1000S) |
|---------|-----------------------|--|-------------------------------|---|--|-------------------|-----------------|
| 1 | P-49 | Montague Avenue | Capacity Enhancement | "International Boulevard to I-26 Interchange" | Minor Arterial | 0.50 | \$10,000 |
| 2 | P-91 | "Rivers Avenue & Greenridge Road" | "Intersection Improvement" | - | "Principal Arterial & Local" | - | \$1,500 |
| 3 | P-12 | North Rhett Avenue | Capacity Enhancement | I-526 Interchange to Yeamans Hall Road | Minor Arterial | 1.93 | \$42,185 |
| 4 | P-18 | "US-17A / North Main Street" | Corridor Study | "I-26 Interchange to Berlin Myers Parkway" | "Principal Arterial" | 0.77 | \$8,705 |
| 5 | P-97 | "US-17 & Long Point Road" | "Intersection Improvement" | - | "Principal Arterial & Major Collector" | - | \$3,000 |
| 6 | P-96 | "US-17 & Anna Knapp Blvd." | "Intersection Improvement" | - | "Principal Arterial & Local" | - | \$1,500 |
| 7 | P-130 | South Main Street | Access Management | "Carolina Street to US-78" | "Principal Arterial" | 1.67 | \$2,512 |
| 8 | P-131 | "Dorchester Road & Ladson Road" | "Intersection Improvement" | - | "Principal Arterial & Major Collector" | - | \$2,000 |
| 9 | P-9 | Jedburg Road | Capacity Enhancement | "Wildgame Road to Dropoff Drive" | Major Collector | 0.91 | \$7,863 |
| 10 | P-10 | Jedburg Road | Capacity Enhancement | "Old Dairy Road to US-78" | Minor Arterial | 2.34 | \$20,544 |
| 11 | P-28 | US-17A & US-176 | "Intersection Improvement" | - | "Principal Arterial & Minor Arterial" | - | \$5,000 |
| 12 | P-16 | Clements Ferry Road | Corridor Study | "I-526 Interchange to St. Thomas Island Drive" | Minor Arterial | 0.39 | \$2,786 |
| 13 | P-50 | Remount Road | Capacity Enhancement | Yeamans Hall Road to Rivers Avenue | "Principal Arterial" | 0.35 | \$8,427 |
| 14 | P-30 | "US-52 & Liberty Hall Road" | "Intersection Improvement" | - | "Principal Arterials" | - | \$2,000 |
| 15 | P-5 | College Park Road | Capacity Enhancement | "Crowfield Boulevard to I-26 Interchange" | Minor Arterial | 1.34 | \$14,532 |
| 16 | P-102 | "US-78 & Ladson Road / Ancrum Road" | "Intersection Improvement" | - | "Principal Arterial & Minor Arterial/ Local" | - | \$4,000 |

| RANKING | LRTP PROJECT ID | ROADWAY FACILITY | PROJECT TYPE | LIMITS | SCDOT FUNCTIONAL CLASS | LENGTH (MILES) | COST (1000S) |
|---------|-----------------------|---|-------------------------------|---|---|-------------------|-----------------|
| 17 | P-65 | Long Point Road | Access Management | I-526 to Whipple Road | Minor Arterial | 0.97 | \$1,453 |
| 18 | P-133 | "Ladson Road & Lincolnville Road" | "Intersection Improvement" | - | "Minor Arterial & Major Collector" | - | \$2,000 |
| 19 | P-23 | US-52 | Access Management | "Button Hall Avenue to Red Bank Road" | "Principal Arterial" | 0.55 | \$823 |
| 20 | P-100 | "US-17 & Wappoo Road" | "Intersection Improvement" | - | "Principal Arterial & Major Collector" | - | \$1,500 |
| 21 | P-39 | Folly Road | Capacity Enhancement | SC-30 Off-Ramp to Highland Avenue | Minor Arterial | 0.64 | \$10,000 |
| 22 | P-99 | "US-17 & Shelmore Blvd." | "Intersection Improvement" | - | "Principal Arterial & Local" | - | \$1,500 |
| 23 | P-20 | US-176 | Access Management | "Old Mt. Holly Road to N. Goose Creek Blvd." | "Principal Arterial" | 2.86 | \$4,291 |
| 24 | P-59 | Ashley Phosphate Road | Corridor Study | "Cross County Road to Rivers Avenue" | Minor Arterial | 2.01 | \$14,139 |
| 25 | P-101 | "US-17 / West Oak Forest Drive / Farmfield Avenue" | "Intersection Improvement" | - | "Principal Arterial & Major Collector" | - | \$1,500 |
| 26 | P-132 | "Dorchester Road & Old Trolley Road" | "Intersection Improvement" | - | "Principal Arterial & Minor Arterial" | - | \$5,000 |
| 27 | P-29 | "US-52 & Cypress Gardens Road" | "Intersection Improvement" | - | "Principal Arterial & Major Collector" | - | \$1,000 |
| 28 | P-34 | Cross County Road | Capacity Enhancement | "Dorchester Road to Hill Park Drive" | Major Collector | 1.47 | \$12,097 |
| 29 | P-98 | "US-17 & Porcher's Bluff Road " | "Intersection Improvement" | - | "Principal Arterial & Major Collector" | - | \$4,000 |
| 30 | P-92 | "Rivers Avenue & Remount Road" | "Intersection Improvement" | - | "Principal Arterials" | - | \$5,000 |
| 31 | P-88 | "Remount Road & Rhett Avenue" | "Intersection Improvement" | - | "Principal Arterial & Minor Arterial" | - | \$4,000 |
| 32 | P-56 | "US-17 / Ravenel Bridge Southbound Approach" | Capacity Enhancement | Magrath Darby Blvd. to Wingo Way On-Ramp | "Principal Arterial" | 0.27 | \$3,034 |
| 33 | P-55 | "US-17 / Ravenel Bridge Northbound Off-Ramp" | Capacity Enhancement | "US-17/Coleman Split to Sessions Way" | "Principal Arterial" | 0.55 | \$3,775 |

| RANKING | LRTP PROJECT ID | ROADWAY FACILITY | PROJECT TYPE | LIMITS | SCDOT FUNCTIONAL CLASS | LENGTH (MILES) | COST (1000S) |
|---------|-----------------------|---|-------------------------------|---|---------------------------------|-------------------|-----------------|
| 34 | P-129 | North Main Street | Access Management | "5th Street to Berlin Myers Parkway" | "Principal Arterial" | 0.81 | \$1,212 |
| 35 | P-71 | Savannah Highway | Access Management | Wesley Drive to I-526 | "Principal Arterial" | 3.49 | \$5,239 |
| 36 | P-103 | "US-78 / University Blvd. & Medical Plaza Drive" | "Intersection Improvement" | - | "Principal Arterial & Local" | - | \$5,000 |

Source: BCDCOG

Table 22: CHATS Long Range Transportation Plan (LRTP) Fiscally Constrained Project List

8.10 SIGNIFICANT PROJECTS

8.10.1 Lowcountry Rapid Transit

The Lowcountry Rapid Transit (LCRT) is the locally preferred transit alternative identified and recommended as a result of the 2016 I-26ALT Study – a 15-month analysis to identify a viable fixed guideway transit solution to reduce traffic congestion and improve mobility in the region. The LCRT is a bus rapid transit system that operates in its own dedicated guideway or in mixed traffic. The line will originate in Summerville and end in downtown Charleston, with an estimated 60-minute one-way travel time. The plan is to have approximately 18 stations (some with park and ride lots), transit hubs, and neighborhood stops serving major activity centers in the region. The service will provide a fast and reliable alternative, with busses running every ten minutes during weekday peak travel periods and twenty minutes in the off peak. The LCRT is especially important to North Charleston since it has the potential to serve as a catalyst for redevelopment along Rivers Avenue, University Boulevard, and Highway 78. Development of the LCRT corridor has the potential to impact not only roadway infrastructure and operations (through priority signal technologies) but will also impact land use and development patterns in North Charleston with the introduction of Transit Oriented Development (TOD) concepts especially at station locations as provided in Figure 63.

8.10.2 Airport Connector Road

The Airport Connector Road will provide a new direct access road to Charleston International Airport and should relieve traffic congestion by providing a new connection from Dorchester Road to Montague Avenue near the Mark Clark Expressway (I-526). The initial concept is to build over three miles of a new, four-lane road, which will provide locals and visitors with a new route to the airport.

8.10.3 Palmetto Commerce Parkway Phase III (PCP3)

The PCP3 project will provide the last segment in a new connector parkway from Ladson Road to Aviation Ave near I-26 and the Joint Base Charleston. It will relieve traffic congestion by providing a new three mile connection from Ashley Phosphate Road to Aviation Avenue, as well as improve approximately two miles of South Aviation Avenue. The initial concept for the PCP3 project is to build more than three miles of a new four-lane road, while improving an additional two miles of the of the road, to provide better distribution of traffic in the area north of the I-26/I-526 Interchange.

8.10.4 Palmetto Commerce Interchange (PCI)

The PCI project will ultimately construct a new interchange on I-26 between US 78 (University Boulevard) and Ashley Phosphate Road, which will provide a new westerly connection to Palmetto Commerce Parkway, Weber Boulevard, and Northside Drive. The purpose is to provide a connection from I-26 to a new network of roads between Ladson Road and Ashley Phosphate Road in order to relieve major traffic congestion along these heavily congested roads and along this busy segment of I-26.

PCI will build a new I-26 interchange and approximately 0.5-miles of a new four-lane road, which will provide motorists with additional route options within the currently congested area. In addition to alternative travel routes, PCI will provide access for future development upon approximately 1,000 acres of adjacent property. When complete, the interchange is expected to improve safety and serve as a direct route for workers who are traveling to various facilities in and nearby Palmetto Commerce Park.

8.10.5 I-526 Lowcountry Corridor (LCC)²⁹

The I-526 Lowcountry Corridor, a 23-mile corridor between West Ashley and Mount Pleasant, has been identified by SCDOT as one of the state's most congested interstate highways and is among the Department's top priorities statewide. This interstate corridor is critical to mobility within the region and is important to daily commuting traffic, other travelers, as well as freight movements to and from the Port of Charleston. The LCC project will address the growing demand for capacity on this interstate which has resulted in increased congestion along this major corridor.

The I-526 Lowcountry Corridor project has been broken down into two distinct projects – I-526 Lowcountry Corridor West, which extends from south of Paul Cantrell Boulevard in West Ashley to Virginia Avenue in North Charleston, and I-526 Lowcountry Corridor East from Virginia Avenue to south of US-17 in Mount Pleasant. An Environmental Impact Statement (EIS) is currently being developed for the LLC West project which seeks to increase capacity and improve operations at the I-26 and I-526 interchange and along the I-526 mainline within the study area. In addition to the I-526 and I-26 interchange, this project will potentially impact the operation of multiple North Charleston interchanges including I-526 and Leeds Avenue, I-526 and Dorchester Road, I-526 and Montague Avenue, I-526 and International Boulevard, and I-526 and Rivers Avenue. The study will evaluate a range of possible solutions which includes increased lanes, implementation of new technologies, and other strategies. This project schedule has an anticipated construction date of 2022. The LLC East project is currently a planning study.

8.10.6 I-26 Corridor

Improvement to the capacity and operation of I-26 is also important to the mobility and economic vitality of the region. The SCDOT has identified within their Ten-Year Plan, capacity improvements along the I-26 Corridor from I-526 to the new Port Access Road (anticipated construction 2026).³⁰ The Department is also currently developing the I-26 Corridor Management Plan (CMP)³¹ between Ridgeville (Exit 187) and Charleston (US-17). The CMP will evaluate and vet improvements (capacity and traffic operational improvements) and strategies (travel demand management and modal strategies) that will reduce congestion and improve the overall operation and safety of the I-26 corridor within the region.

^{29.} https://www.526lowcountrycorridor.com/

^{30.} https://www.scdot.org/projects/ten-year-plan.aspx

^{31.} https://www.scdot.org/projects/i26-corridor.aspx

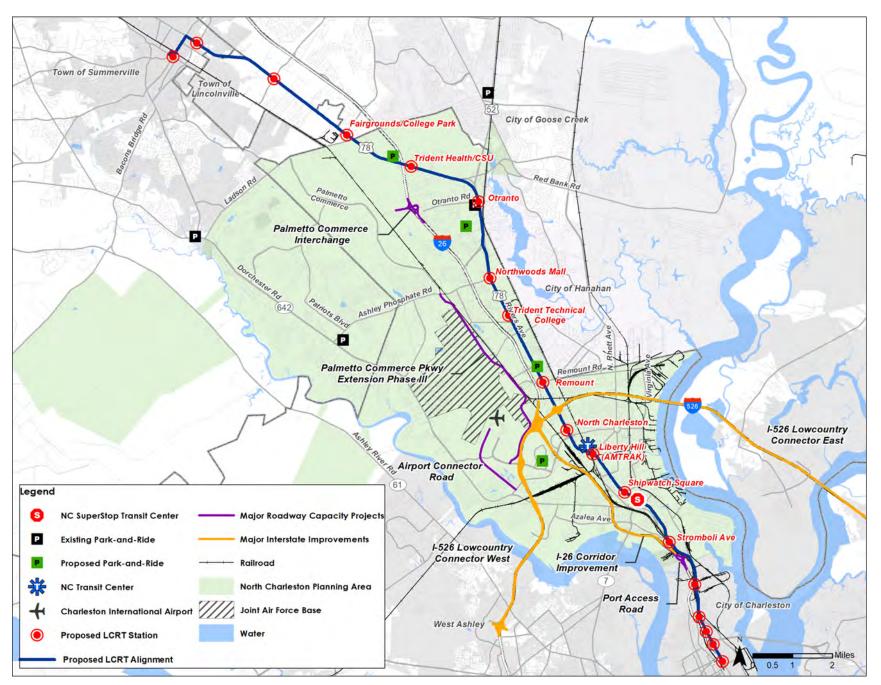


Figure 63: Significant North Charleston Projects

9.0 LAND USE



9.1 OVERVIEW

Analyzing existing land use and development patterns is a critical component that along with the other existing conditions elements create the framework for the long range land use planning ideas that will be expressed as goals coming out of the Comprehensive Plan, guiding future land use decisions for the City's next 20 years.

9.1.1 Previous Planning Work

It is worth mentioning a few plans that have been developed over the past decade. The Lowcountry Alliance for Model Communities (LAMC) developed an Area Revitalization Plan that was completed in 2010. 32 LAMC organized in 2005 in an effort to preserve and protect the communities that were close to the where the South Carolina General Assembly sited the Hugh Leatherman Terminal in North Charleston. In 2014, BCDCOG completed the Partnership for Prosperity Master Plan (PPMP). 33 The PPMP examined the transit network, bike and pedestrian facilities, freight mobility, economic development, open spaces and recreation, environmental sustainability, and catalyst areas in the "Neck Area" which includes portions of both North Charleston and Charleston.

9.2 EXISTING LAND USE

9.2.1 Planning Area 1

Planning Area 1 is the core of North Charleston as it contains some of the oldest neighborhoods that were established well before the City's incorporation. Liberty Hill, which is the oldest neighborhood in North Charleston, was founded in the 1870s for instance.

Neighborhoods like Cherokee Place, Charleston Heights, and Chicora Place were developed between 1903 and 1930. In 1915, the Park Circle neighborhood was laid out as a concentric Garden City style development that stemmed from an open space in the center. The homes in parts of Park Circle were built between 1915 and 1940 and the urban form is generally very pedestrian friendly as it measures from the center approximately one-half mile in any direction. In fact, it is only a one-half mile from the center of Park Circle to the center of the Olde Village business district on East Montague Avenue.



Old Village

^{32.} https://drive.google.com/file/d/0Bzyq5cLI02kISmU1amtaSWNqcWs/view

^{33.} http://www.neckprosperity.org/briefing-book.html

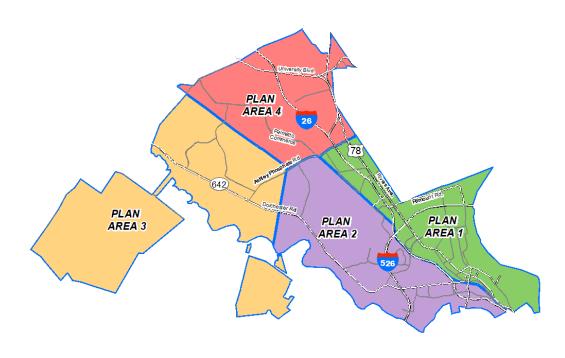


Figure 64: North Charleston Planning Areas 1 - 4

World War II sparked a housing boom during the early 1940s as the Naval Base brought in more service members for operations. Neighborhoods such as Whipper Barony, Liberty Park, Ferndale, and Russelldale were built to increase the housing supply for service members. The location and density of these neighborhoods suggest that the developments occurred before automobiles became the primary form of travel in the United States. After the 1980s, and particularly after the closure of the Naval Base, many of these areas suffered from suburban flight and minimal reinvestment, becoming blighted with abandoned and vacant properties.

However, since the early 2000s, Planning Area 1 has seen a resurgence of new developments that are revitalizing the area. Younger families and new businesses are moving to Park Circle and the Olde Village is thriving with new shops, restaurants, and small offices. The majority of the surrounding Park Circle neighborhoods have a grid system, traditional lot size, and small front Yard setbacks. Similarly, the former Liberty Homes/Century Oaks site has been redeveloped into a walkable, eco-conscious neighborhood called Oak Terrace Preserve.³⁴

While Planning Area 1 does not consist of large-scale commercial or retail developments, Rivers Avenue is the main commercial corridor that traverses it today. Rivers Avenue is a highway lined with strip commercial

uses and is very sub-urban in context with parking lots built towards the street and buildings set back at far distances. Spruill Avenue is another major corridor that runs north and south. In fact, the section of Spruill Avenue that begins at East Montague Avenue is seeing new business growth today. East Montague between North Boulevard and Virginia Avenue is already an established commercial corridor in the Olde Village, however, East Montague from approximately Mixson Avenue to I-26 is a major avenue for travel. Remount Road, from Virginia Avenue to I-26 is another east/west corridor that abuts Hanahan. Lastly, Reynolds Avenue from Meeting Street to Spruill Avenue contains a small business district and scattered commercial along the corridor.

^{34.} http://www.oakterracepreservesc.com/

9.2.2 Planning Area 2

While Planning Area 2 has some residential areas, it mainly consists of large commercial, office, and industrial uses. The residential areas are generally located on local streets off of Dorchester Road and Azalea Drive. Accabee and Dorchester Terrace are located in the southern portion of Planning Area 2, while Hunley Park and Riverbend exist at the northern end. These residential areas include a mix of single-family, multi-family, and mobile homes. The southern end is typically more urban with smaller lots and more grid-like streets. The northern end consists of post-World War II conventional suburban large lots and streets with one generally one way in and out of the neighborhood.

Charleston International Airport and the Charleston Air Force Base, comprise most of the land in Planning Area 2. Boeing, a commercial airplane manufacturer, also abuts Joint Base Charleston. Centre Point development, south of I-526, is a horizontal mixed-use development made up of residential apartments, commercial, convention, and office uses. It incorporates the North Charleston Coliseum, Convention Center, and Performing Arts Center, along with the Tanger Outlet Mall. There are also some major office developments located along Leeds Avenue, and industrial uses toward the intersections with Azalea Drive and Dorchester Road. The Charleston County Public Services Building is located south of Leeds Avenue, and the Charleston County Detention Center is located on Leeds south of Azalea Drive. Leeds Avenue and Faber Place Drive consist of a large commercial site and an office park that step back from I-526 as a buffer for the Wando Woods neighborhood.

Dorchester Road is the major thoroughfare through Planning Area 2. As Dorchester Road moves northwest from I-26, it becomes increasingly more suburban in context. On Dorchester Road, between Michaux Parkway and I-26, there are lots of strip centers and businesses for commerce to take place. After Michaux Parkway, heading northwest, there are only spots where a few businesses exist directly along the corridor as the corridor turns into more entrances for residential communities. Cross County Road connects Dorchester Road with Ashley Phosphate Road and consists mainly of commercial and industrial uses.

9.2.3 Planning Area 3

Planning Area 3, is largely within Dorchester County and is almost entirely developed as suburban residential. The older residential developments in this area include Coosaw Creek, Kings Grant, Indigo Fields, and Whitehall. A more recent development is Wescott Plantation, which is the largest development in Planning Area 3. Wescott Plantation offers a variety of housing types, of different sizes and prices, along with some commercial uses. Dorchester Road is the major thoroughfare through Planning Area 3 with limited commercial nodes at intersections like Ashley Phosphate Road, Appian Way, Club Course Drive, and Wescott Boulevard. Sparse strip commercial development exists along Dorchester Road in Planning Area 3 as it is mainly serves as access to single family neighborhoods. Ashley Phosphate Road does provide commercial opportunities for the residents in North Charleston as well.

On the west side of the Ashley River in Dorchester County, the Watson Hill tract was recently sold and plans for future mixed-use development are being developed. There are conservation easements in place to help protect this ecologically sensitive area by limiting residential development to 1004 principal dwelling units. In Charleston County, North Charleston recently annexed Runnymede and Millbrook Plantations in addition to a 2,200-acre tract west of the Ashley River. Currently this land is undeveloped but has the potential for development in the future.

Planning Area 3 has the potential to grow by future annexations as the other areas are mostly land locked. The potential to expand further into both Charleston and Dorchester Counties exists to accommodate future growth.

9.2.4 Planning Area 4

This area is the northeastern quadrant of North Charleston which is bounded by Dorchester and Berkeley Counties. Planning Area 4 consists of many residential neighborhoods along Rivers Avenue that were developed in the 1970s and 1980s as people moved out of the City's core. Neighborhoods in Planning Area 4 include Northwoods Estates, Deer Park, Elms Plantation, Plantation Acres, Paddock Pointe, Pepperhill, and Spencer Creek Woods.

Commercial land uses in the area include the Northwoods Mall and other retail centers along Ashley Phosphate Road and Rivers Avenue east of I-26. Trident Medical Center, Charleston Southern University, and Wannamaker County Park are all also included in this area.

More recent development has occurred and will continue to develop along Palmetto Commerce Parkway and Ingleside Boulevard. Palmetto Commerce Park has grown with industrial uses in recent years, particularly to supply Boeing and Mercedes Benz. Ingleside Boulevard supplies access to both residential and commercial development.

9.3 EXISTING LAND USE³⁵

Table 23 shows how much of each land use category exists in each planning area within North Charleston. The Existing Land Use Map (Figure 65) shows generalized categories for Charleston's current land uses. The definitions of each category are below.

- Agriculture / Forestry Land that is used and/or suitable for agriculture, animal husbandry, forestry, and other low intensity uses and may contain a homestead or farmhouse.
- Commercial Retail and Services Land dedicated to non-industrial business uses, including retail sales, service provision, and entertainment facilities. Commercial uses may be located as a single use in one building or grouped together in a shopping center or office building in urbanized areas. These uses are typically found in town centers and along major roadways.
- Government The Government land uses are used for public uses and consist of government owned or operated buildings. Government uses include City Hall and other government buildings or complexes, police and fire stations, libraries, and post offices.
- Industrial/Manufacturing/Waste Land that is designated to accommodate manufacturing facilities, processing plants, factories, warehousing and wholesale trade facilities, waste sites, or other similar uses.
- Office Land designated for business office space.

^{35.} Land Use is based off of a the Charleston and Dorchester Counties Assessors' Information and does not constitute local zoning

- Recreation/Arts/Cultural/Open Space Land is dedicated to active or passive recreational uses, as well as land conserved as green space
 where development is restricted. These areas may be publicly or privately owned and may include public parks, playgrounds, nature
 preserves, wildlife management areas, golf courses, recreation centers or similar uses. These areas also provide public benefits and
 ecosystem services such as water filtration, wildlife habitat and biodiversity, and natural flood control.
- Residential Land used for housing units and is divided into the following three categories:
- Single-Family Residential: consists of built homes on a single lot or a townhomes.
- Multi-Family Residential: consists of residential properties with more than one housing unit per structure, such as duplexes, triplexes, condos, and apartments.
- Mobile Homes: consists of manufactured housing on individual lots or in planned developments and cooperative communities.
- Social/Institutional Social/Institutional lands are used for nonprofit uses, such as schools, religious institutions, hospitals and assisted living facilities.
- Transportation/Utilities This land use category is comprised of rights of way, railroads, utilities, public facilities and services, major transportation routes, public transit stations, or other similar uses.
- Undevelopable This category is for lots or tracts of land that are restricted from future development due to easement, environmental constraints, etcetera.
- Vacant Land This category is for lots or tracts of land that are undeveloped and unused, but not necessarily designated as open space or restricted from future development.

| | PLANNING AREA 1 | | PLANNING AREA 2 PLANNIN | | G AREA 3 P | PLANNIN | PLANNING AREA 4 | | |
|--|-----------------|---------------|-------------------------|---------------|------------|---------------|-----------------|---------------|--------|
| | ACRES | % OF TOTAL | ACRES | % OF TOTAL | ACRES | % OF TOTAL | ACRES | % OF TOTAL | ACRES |
| AGRICULTURE/ FORESTRY | 4 | 0.02% | 192 | 1.00% | 16,369 | 85.37% | 2,609 | 13.61% | 19,174 |
| COMMERCIAL RETAIL AND SERVICES | 1,630 | 20.97% | 2,878 | 37.03% | 1,293 | 16.63% | 1,971 | 25.36% | 7,772 |
| GOVERNMENT FACILITIES & PROPERTIES | 1,111 | 70.95% | 441 | 28.17% | 0 | 0.00% | 14 | 0.88% | 1,566 |
| INDUSTRIAL/MANUFACTURING/WASTE | 1,500 | 43.92% | 811 | 23.73% | 0 | 0.00% | 1,105 | 32.34% | 3,415 |
| MOBILE HOME | 232 | 45.58% | 157 | 30.82% | 0 | 0.00% | 120 | 23.61% | 509 |
| MULTIFAMILY | 2,535 | 22.95% | 7,256 | 65.69% | 138 | 1.25% | 1,117 | 10.11% | 11,045 |
| OFFICE | 188 | 41.18% | 131 | 28.69% | 0 | 0.00% | 138 | 30.13% | 458 |
| RECREATION, ARTS, CULTURAL, OPEN SPACE | 271 | 7.85% | 1,144 | 33.12% | 1,781 | 51.57% | 258 | 7.46% | 3,454 |
| SINGLE FAMILY ATTACHED | 64 | 19.30% | 194 | 58.15% | 0 | 0.00% | 75 | 22.56% | 333 |
| SINGLE FAMILY DETACHED | 1,305 | 14.19% | 1,720 | 18.70% | 4,863 | 52.88% | 1,308 | 14.22% | 9,196 |
| SOCIAL/INSTITUTIONAL | 393 | 14.52% | 289 | 10.67% | 730 | 26.97% | 1,294 | 47.84% | 2,705 |
| TRANSPORTATION AND UTILITIES | 14 | 3.58% | 6 | 1.66% | 365 | 94.76% | | 0.00% | 385 |
| UNDEVELOPABLE | 404 | 22.03% | 1,023 | 55.85% | 88 | 4.78% | 318 | 17.34% | 1,832 |
| UTILITIES/INFRASTRUCTURE | 75 | 16.85% | 65 | 14.68% | 0 | 0.00% | 304 | 68.47% | 444 |
| VACANT NONRESIDENTIAL | 738 | 28.55% | 942 | 36.40% | 247 | 9.56% | 660 | 25.49% | 2,587 |
| VACANT RESIDENTIAL | 476 | 20.56% | 532 | 22.96% | 0 | 0.00% | 1,309 | 56.48% | 2,318 |

Table 23: Land Use by Planning Area in Acres

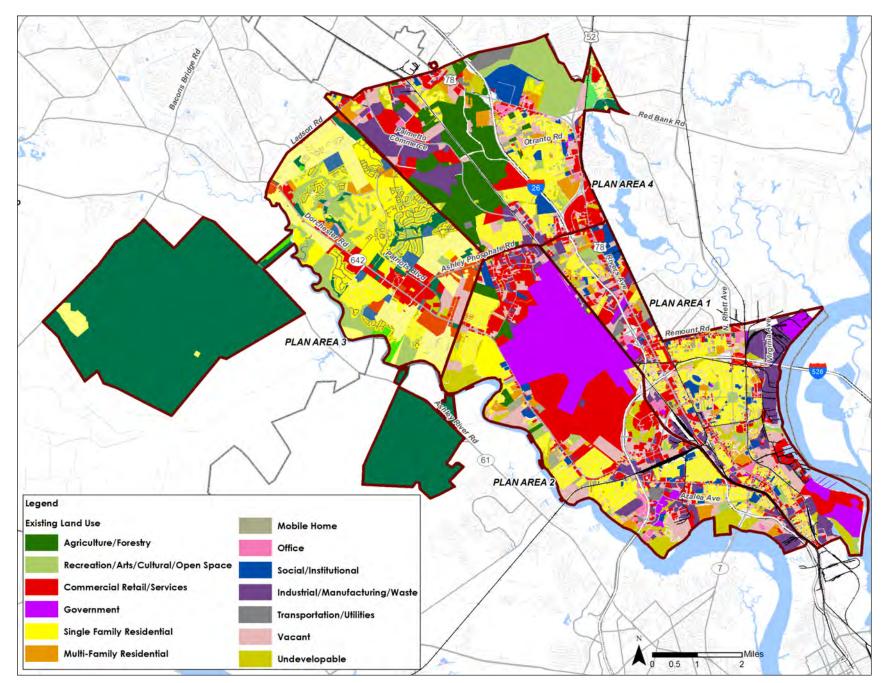


Figure 65: Existing Land Use

9.4 OVERLAY DISTRICTS

While zoning helps to site and identify the appropriate use for individual parcels of land, overlay districts can be applied to establish additional standards over larger areas. Overlays can also be used to improve design standards to insure higher qualities of building materials are used. Lastly, overlays can be used to promote mixed-use, affordable housing, or to improve housing along transit corridors. The specific design detail for each district is located in the North Charleston Zoning Regulations.³⁶

9.4.1 Dorchester Road Corridor I District

The Dorchester Road Corridor I District covers all of the parcels that are located within Dorchester County. The overlay establishes a front forty-foot vegetative buffer along Dorchester Road, such that when one drives down Dorchester Road, the main sight is usually trees. This preserves the character of the road and helps to mitigate noise and light pollution. This overlay is bounded by Ladson Road and the Charleston County line as depicted in Figure 66.

9.4.2 Dorchester Road Corridor II District

The Dorchester Road Corridor II District is bounded by the Ashley River, the Mark Clark Expressway, the Norfolk Southern rail line, Ashley Phosphate Road, and the Dorchester County line. Similar to District I, District II has a front fifteen foot vegetative buffer along private and public rights-of-way. The buffer is intended for aesthetics rather than screening purposes.

9.4.3 Ladson Road Overlay District

Like the Dorchester Road Corridor II District, the Ladson Road Overlay District requires a front vegetative fifteen foot aesthetic buffer along private and public rights-of-way. The Ladson Road Overlay is generally bounded by Ladson Road on the north, the Dorchester County line on the west, I-26 on the east, and Ashley Phosphate Road on the south.

9.4.4 University Boulevard Overlay District

The only front corridor buffer in this overlay district exists on US 78 and it is a fifteen foot vegetative buffer as well. This district includes all parcels of land south of Goose Creek, east of I-26, west of Rivers Avenue/US 52 and generally north of I-26, US 52 and the US 78 Connector.

9.4.5 Old Village Business Overlay District

The Old Village Business Overlay District is generally bounded by Stone's Alley on the north, Virginia Avenue on the east, Cat Alley on the South, and Jenkins Avenue on the west. The Garco Park planned development is also included in this district. This overlay allows for sidewalk cafés to exist.

9.4.6 Historic and Scenic Overlays

Other overlays that protect and preserve land in North Charleston can be found in Figure 37 in Chapter 6, Cultural and Historic Resources.

^{36.} https://library.municode.com/sc/north_charleston/codes/code_of_oRoadinances

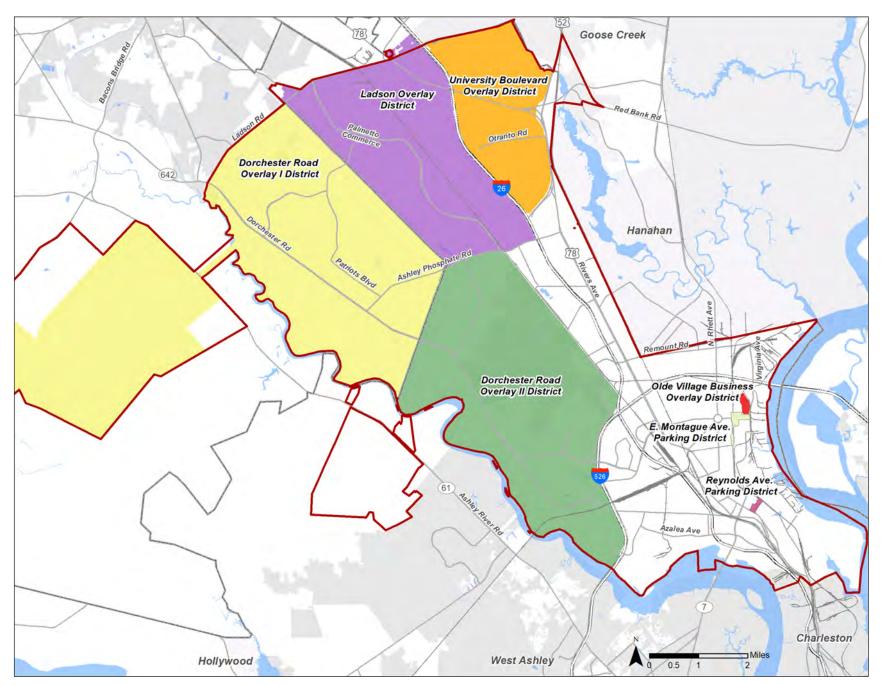


Figure 66: North Charleston Overlay Districts

9.5 JOINT LAND USE STUDY

The Charleston Air Force Base and Naval Weapons Station periodically review and conduct a regional Joint Land Use Study (JLUS). The JLUS is a cooperative plan conducted between the military and the surrounding local jurisdictions to determine compatible and appropriate land uses. An Air Force base generates noise, smoke, and pollution that could be detrimental to residential areas. Likewise, new developments in a jurisdiction in proximity to the base may put constraints on the operations of the military. The JLUS works to identify solutions that are beneficial to the local jurisdiction(s) and the military installation. The most recent JLUS prepared for Joint Base Charleston (JBC) was prepared in 2008. Since then, the Council of Governments has worked with regional leaders to implement various activities recommended in the 2008 JLUS with assistance of a grant from the Department of Defense's Office of Economic Adjustment. At the time of this Plan, the COG continues to coordinate with Joint Base Charleston and a Policy Oversight Committee of regional leaders to enhance communications between JBC leaders and surrounding communities as JLUS Implementation Phase II.

9.5.1 AICUZ

The Air Installation Compatible Use Zone (AICUZ) study is a Department of Defense standard for noise, clear zones, and accident potential zones. Noise contours show the average Decibel level (dBI) experienced in those areas. Figure 67 shows the AICUZ Impact Zones for the Charleston Air Force Base. A Clear Zone (CZ) is the area that has the highest probability for an air accident and is a 9,000,000 square foot area at the end of the runways. Accident Potential Zone I (APZI) has the second highest probability for an accident and the land area is 15,000,000 square feet past the CZ. Lastly, the area that is 21,000,000 square feet past APZI is considered the Accident Potential Zone II (APZII). Figure 67 overlays these zones on an aerial of the surrounding community. An updated AICUZ study was released by Joint Base Charleston in August of 2019. While the Clear and Accident Potential Zones have not substantively changed, Joint Base Charleston continues to express concerns about increasing development intensities and traffic within those zones. As part of the ILUS Implementation Phase II,

the Policy Oversight Committee is discussing efforts that could be undertaken to educate the public about the missions of Joint Base Charleston, as well as Accident Potential Zones and programs to acquire land and/or redirect development out of those areas.

Community Partnership Charter

In late January 2020, the City of North Charleston's Mayor was one of the many community leaders who signed a Charter establishing the Lowcountry Defense Community Partnership Council. The purpose of this new Council is to identify partnership opportunities between Joint Base Charleston and surrounding communities, as well as to deepen collaboration among community and military leaders in the region. An important framework for this collaboration is the Joint Land Use Study (JLUS). Ut es traed iptimis sentus scis condiem, faci publicaed remurbis condem dem nir unclut quem teritiam tandam Romprob sensiceps, sena, conis elii comporturei iu se audam alabem ina coruntus atus hala moressi licatemeniu eo, nonsum atua L. Ulessatiam.



JLUS Signing



Figure 67: 2008 JLUS Accident Potential Zones

PRINE NORTH CHARLESTON COMPREHENSIVE PLAN Bright Ideas, Bold Action

APPENDIX B: SUMMARY OF OUTREACH EFFORTS

The City of North Charleston initiated a 10-year update of its Comprehensive Plan in Fall 2018 with a comprehensive program of activities to engage community groups, stakeholders, residents and public officials in the process. The input received has guided development of Prime North Charleston.



COMMUNITY ENGAGEMENT



SUMMARY OF OUTREACH EFFORTS

Public Open Houses

Five open house events were held over a two-week period in strategic locations throughout the City. Each open house was attended by dozens of residents who were given an opportunity to explore data and maps depicting a snapshot of existing conditions in the City and to share their thoughts and ideas.

Stakeholder Interviews

In addition to meetings with leaders of City Departments and outside government agencies, several group meetings were held with stakeholders representing community advocates, economic development specialists, educational and health institutions, development investors, and neighborhoods.

Website and Online Survey

A project website – www.primenorthcharleston.com – was established with an Online Survey that residents could complete 24/7. Over a thousand surveys were completed and submitted to the project team, including 933 via the website, over an eight (8) - week period. Approximately 84% of respondents to the online survey were North Charleston residents.

Community Interface

The project team interacted with residents at a number of community events, spreading the word about Prime North Charleston and where to find information. Hundreds of bookmarks and stickers with the project website were distributed while the project team engaged and encouraged participation in the planning process during these occasions.

Public Open House

Five public open houses were held during the latter part of October (2018) at the following locations:

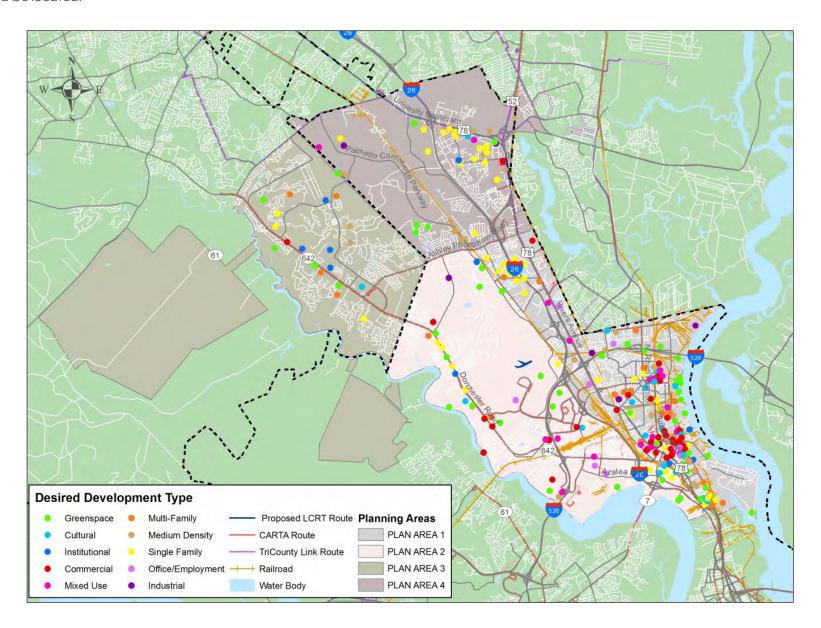
- The Senior Center on Dorchester Road (Oct. 15th)
- Wescott Park (Oct. 16th)
- The Gussie Greene Community Center (Oct. 22nd)
- The Senior Center at Northwood (Oct. 23rd)
- Felix Davis Community Center (Oct 25th)

Over 90% of attendees at the Open Houses were North Charleston residents.

A majority (54%) of attendees work in the City of North Charleston.



Input on how the City should accommodate growth varied by meeting location. In general, most attendees agreed that future growth needs to be accommodated and that it can be accommodated in a variety of ways. Attendees at almost all meetings ranked encouraging development of vacant and under-utilized property as the preferred means of accommodating growth. The option to "do nothing" was ranked high only at the Dorchester Road Senior Center. The following map depicts where attendees indicated certain types of development should be located:



STAKEHOLDER INTERVIEWS

The project team hosted a series of meetings with select Stakeholder groups. At each of the seven meetings, attendees were asked to provide input on the City' strengths, challenges or concerns, and opportunities. Attendees were also asked how the City could accommodate growth, and how they envisioned the proposed Lowcountry Rapid Transit line along US78 and US52 would impact the City.



Many participants were quick to point out that the City has great opportunity for the future based on its location within a growing region with a strong economy. The City is ideally located at the "heart" of the region.



The City was praised by several groups on its positive attitude towards growth and change. The City was commended for being pro-business and its consistency in being customer and solution oriented.



The City was also commended on its success in revitalizing the East Montague/Old Village area and encouraged to replicate the neighborhood commercial area while fostering the City's original theory of sustainable communities or neighborhoods.

"Having (City) Staff that is solution-oriented makes it easier to sell the City to new investments that create jobs and provide opportunities for its residents."

Key concerns expressed by every group included:

- Increasing challenges to affordability both for housing and commercial spaces threatens livability.
- There is a need to "right size" the City's ordinances, particularly parking requirements, and to evolve from the original code that promotes suburban development.
- Combating crime, or the perception thereof, should continue to be a priority for the City.
- Collaboration is needed with the school districts to ensure schools within the City do not discourage those employed in the City from living within the City, while providing curriculums that generate a future labor force to support the growing economy.
- Last, but not least, TRAFFIC. Like most of the region, too many of the City's arterials are congested stemming from the City's ideal location at the heart of the region. Better infrastructure planning to foster connectivity between neighborhoods, better transit services, safe pathways for cyclists and pedestrians, and creation of more walkable nodes/corridors (similar to Park Circle) should be a focus in the Plan.

The matrix below identifies many of the common key issues discussed at each of the Stakeholder meetings.

| STAKEHOLDER GROUP/CONCERNS | DEVELOPMENT INVESTORS | COMMUNITY ADVOCACY | ECONOMIC DEVELOPMENT | INSTITUTIONAL AGENCIES | OUTSIDE GOVERNMENT AGENCIES | METRO CHAMBER ADVISORY COMMITTEE |
|--|--------------------------|-----------------------|-------------------------|---------------------------|-----------------------------------|---|
| HOUSING AFFORDABILITY | Χ | X | X | Х | | Х |
| AFFORDABLE COMMERCIAL SPACES | X | | X | | | X |
| ORDINANCES OUT OF SYNC WITH NEEDS | Χ | | | | | |
| PLANNING FOR DIVERSE LAND USES/PRESERVATION OF OPEN SPACE | | | | | Х | |
| SCHOOL PROGRAMS AND SITE PROGRAMMING | Х | | Х | Х | | |
| ACCESS TO NEEDED GOODS AND SERVICES | | X | | | | |
| TRAFFIC/MOBILITY OF GOODS AND RESIDENTS/PUBLIC TRANSPORTATION | Х | | | Х | Х | X |
| PRESERVATION OF EXISTING NEIGHBORHOODS | | X | | | | |
| FLOODING | | Х | | Х | | |
| INFRASTRUCTURE CONDITIONS/CAPACITY | | X | | | Х | Х |
| SUGGESTED SOLUTIONS | | | | | | |
| CREATE WALKABLE NODES OF DEVELOPMENT OPPORTUNITIES | Х | X | Х | Х | Х | |
| DESTINATION NEIGHBORHOOD COMMERCIAL AREAS | Х | X | | | | Х |
| ENCOURAGE INFILL DEVELOPMENT | | | Х | Х | | Х |
| INCENTIVIZE AFFORDABLE HOUSING | | | Х | Х | | |
| ORDINANCE RIGHT-SIZING | Х | X | | | | |
| ENHANCED/PROMOTED MASS TRANSIT SYSTEM | Х | | | | | X |
| MULTIMODAL CONNECTIVITY BETWEEN HOUSING - JOBS - EDUCATION | | Х | Х | | Х | |
| SOUND AND SAFE INFRASTRUCTURE THROUGH PUBLIC/PRIVATE PARTNER-SHIPS | | Х | | | Х | |
| CONSCIOUS CONSIDERATION OF EXISTING NEIGHBORHOODS | | X | Х | | | |
| ADOPT POLICIES AND PLANS TO PROMOTE RESILIENCY | | X | X | Х | Х | |

CITY LEADERS AND DECISION MAKERS

The project team also sought input from the City's department leaders and held one-on-one interviews with each Councilperson.

Concerns of those with day-to-day responsibility for services in the City were very much aligned with those of Stakeholders and the general public:

- Traffic
- Increase in rail traffic and potential impacts on emergency response times
- Maintenance of infrastructure owned by other entities (e.g. SCDOT)

- Housing Affordability
- Vacancies in retail space (due to the growth of e-trade)
- Availability of secure recreation and cultural facilities

- Availability of skilled labor force
- Preservation of existing neighborhoods
- Services keeping pace with growth and being accessible

Not only did these leaders note opportunities for the City to address these concerns in the future, those participating in the discussion provided the team with internal strategic plans to include and align with the Comprehensive Plan itself.

Discussions with decision makers revealed that they are in touch with constituent concerns and aligned with each other's priorities. In each individual interface, the project team asked Council representatives to name the City's strengths and three main issues facing the City and their districts.

| STRENGTHS | CHALLENGES |
|---|---|
| City's location within the region | Infrastructure (primarily transportation) |
| Availability of green space and undeveloped land | Housing (Affordability and Conditions) |
| Availability of employment space | Crime |
| Opportunities that the proposed bus rapid transit system will afford businesses and residents | Public Transportation and Connectivity and reduction in conflicts with traffic and rail |
| Success in Economic Development – Open for Business attitude | Resiliency and Sustainability to both natural environments and industry challenges |
| Collaboration to provide needed services and quality of life for residents | Sustainable growth patterns - Balancing the interface between growth and existing uses |
| Consideration and concern for residents | Labor force availability and wages |
| | Food Deserts |
| | Engagement of all populations |

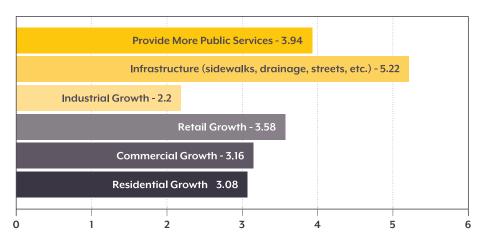
ONLINE SURVEY

933 individuals completed the online survey posted on the project website as a component of community engagement. Two key questions asked respondents how they envisioned the City accommodating future growth.

AVERAGE RANKING (1-5 WITH 1 BEING THE HIGHEST PREFERENCE) OF WAYS NORTH CHARLESTON CAN ACCOMMODATE FUTURE GROWTH



AVERAGE RANKING (1-6 WITH 1 BEING THE HIGHEST PREFERENCE) OF WHAT RESPONDENTS WOULD PREFER TO SEE MORE OF IN NORTH CHARLESTON



BOILING IT DOWN

Input gathered during the initial community engagement activities was comprehensive and diverse. However, input received can be categorized into a handful of key topics: Transportation and Infrastructure; Housing; Growth; and Access to Resources.

"The City (of North Charleston) should be an attractive, livable community where people can live and work within close proximity, reducing the number of cars on the roads."

Transportation/Infrastructure

Input – Infrastructure is not up to date, or adequate for the growth that is occurring. Infrastructure improvements should reflect the growth that the City is experiencing.

- 1. North Charleston needs safer, cleaner walking and biking infrastructure that provides improved connectivity to housing, jobs, schools, and recreation, expanding options alternative to automotive transportation.
- 2. Public transportation is an extremely important component to managing growth and transportation issues. The use of public transit should be encouraged by making it reliable and safe. A mass transit culture should be developed by improving amenities and creating intentional first and last mile connections.
- 3. The City should consider strategies to pay for infrastructure improvements to support development before it occurs.

"Housing in the City should be affordable, but first the City needs to define what the term "affordable" means for North
Charleston."

Housing

Input – Housing diversity should be maintained to ensure there are affordable housing options for all residents.

- 1. There is a continued need to address dilapidated and deteriorating housing through code enforcement.
- 2. Increasing rents and housing prices are a challenge in many of the existing neighborhoods, raising greater concerns about gentrification.
- 3. More high density, mixed use development should be encouraged around nodes of the proposed bus rapid transit system and transit hubs to provide affordable housing options.

Growth

Input – The City should identify special nodes and/or corridors throughout where higher density/mixed use development can be implemented, addressing housing and transportation issues.

- 1. The proposed bus rapid transit alignment provides an opportunity for higher density/mixed use developments to increase connectivity and reduce the reliance on automobiles for transportation.
- 2. Adding high density residential and commercial development should be done carefully to mitigate the impacts they can have on infrastructure and traffic.
- 3. The City needs a sustainable growth pattern/plan with adequate infrastructure to support increasing growth.
- 4. Infrastructure (roads, water, sewer and transmission lines) are in need of upgrades to keep up with growth.

"Natural Resources, cultural resources, and city services all make the City more livable for residents."

Access to Resources

Input – The City needs to carefully plan how to protect and increase natural resources, cultural resources and city services.

- 1. Green space should be a priority in every neighborhood, so people of all ages have access to safe places to play and relax.
- 2. The City needs more parks, trails, greenspaces, and waterfront access for the public.
- 3. Preserving existing green space will contribute to protecting natural resources and make North Charleston a more desirable place to live.
- 4. The City needs more grocery stores in general. Better access to healthy food, particularly near transit hubs, is an important consideration.
- 5. Cultural resources should be protected and increased throughout the City.

All public input received has been used in conjunction with research and statistics to guide development of the Prime North Charleston Plan.

COMMUNITY INPUT AND FINAL ADOPTION

Goals and strategies in the draft Plan seek to further City efforts to provide a livable and sustainable environment for citizens and businesses. A complete draft of PRIME North Charleston was presented to the Planning Commission in early February 2020, followed by presentations to the public at a number of Open Houses held later that month.

Again, five public open houses were held at a variety of locations throughout the City:

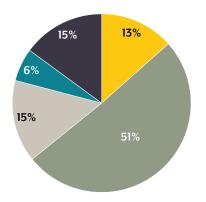
- Wescott Park (Feb. 19th)
- North Charleston Transit Center (Feb. 18th)
- Minor Crosby Community Center (Feb. 24th)
- Gussie Greene Community Center (Feb. 25th)
- North Charleston Athletic Center (Feb. 26th)



Attendees at all meetings were generally satisfied with the draft plan concepts presented by planners at different stations.

While close to 150 residents attended the open houses in total, closer to 75 persons completed a survey that was distributed both at the meetings and on the PRIME North Charleston website, giving input on the draft plan Vision, Guiding Principles, and Goals. Again over 90% of respondents were City residents. Results of the survey indicated that:

- The majority of respondents agreed with the Vision Statement in PRIME North Charleston
- The majority of respondents agreed with the Guiding Principles that were used to organize goals within the plan
- Public parks, open spaces, watersheds and water quality were felt to be the most vulnerable resources in need of protection as the City grows in the future
- Affordable housing should be addressed for a diversity of demographics in a variety of ways, including housing for seniors and the homeless



- Capital Improvement Plan
- Regional Transportation Projects
- Updated Zoning and Subdivision Regulations
- Resiliency Initiatives
- Neighborhood Visioning

Asked to rank the proposed areas of Priority Investments, regional transportation improvements and options for increased mobility, along with supportive infrastructure, continue to be top issues for residents.

The final draft plan was presented to the Planning Commission for recommendation on June 8, 2020. Subsequent to a public hearing, City Council voted unanimously to adopt PRIME North Charleston on June 25, 2020.