

KnightsdaleNext V.2

2035 Comprehensive Plan



Adopted
July 17, 2024

Preparation of the KnightdaleNext V.2 Comprehensive Plan was a collaborative effort involving numerous stakeholders, including the Town Council, Land Use Review Board, and Town staff. In addition, the new comprehensive plan could not have been completed without the active involvement of the residents of Knightdale. All of their efforts are greatly appreciated.

ACKNOWLEDGMENTS

TOWN COUNCIL

Jessica Day, Mayor
Latatious Morris, Mayor Pro Tem
Steve Evans
Ben McDonald
Stephen Morgan
Mark Swan

LAND USE REVIEW BOARD

Chris Parker – Chair
Ron Cole – Vice Chair
Lori Dickens
Angele Dixon
Tabitha Hagen
Taylor Norton
Alan Smith

CONSULTANT

City Explained, Inc.
Nealon Planning, PLLC
Arnett Muldrow & Associates, LLC
Zanetta Illustration
Becky Timmons

TOWN STAFF

Bill Summers, Town Manager
Dustin Tripp, Assistant Town Manager
Suzanne Yeatts, Assistant Town Manager
Marcey Bell, Human Resources Director
Phillip Bunton, Public Works Director
Lawrence Capps, Police Chief
Loren Cone, Fire Chief
Rachel Morris, Community Relations Director
Mark Stephens, Finance Director
JP Lefever, Parks, Recreation, and Cultural Programs Director
Jason Brown, Development Services Director
Donna Goodman, Senior Planner
Gideon Smith, Senior Planner
Andrew Spiliotis, Senior Planner
Kevin Lewis, Senior Planner
Donovan Applewhite, Planner
Tracy Padgett, Planner
Heidi Salminen, Planning Technician



VISION

“ Knightdale is, and will continue to be, an inclusive and connected urban small town with unique gathering places that foster a sense of community. ”

- Knightdale 2023 Strategic Plan

- Introduction 6
- Knightdale at-a-Glance 18
- General Framework 36
- Focus Area Concepts 100
- Supporting Infrastructure 142
- Next Steps 146
- Plan Implementation 160



1
6
INTRODUCTION

2
18
KNIGHTDALE AT-A-GLANCE

3
36
GENERAL FRAMEWORK

4
100
FOCUS AREA CONCEPTS

5
142
SUPPORTING INFRASTRUCTURE

6
146
NEXT STEPS

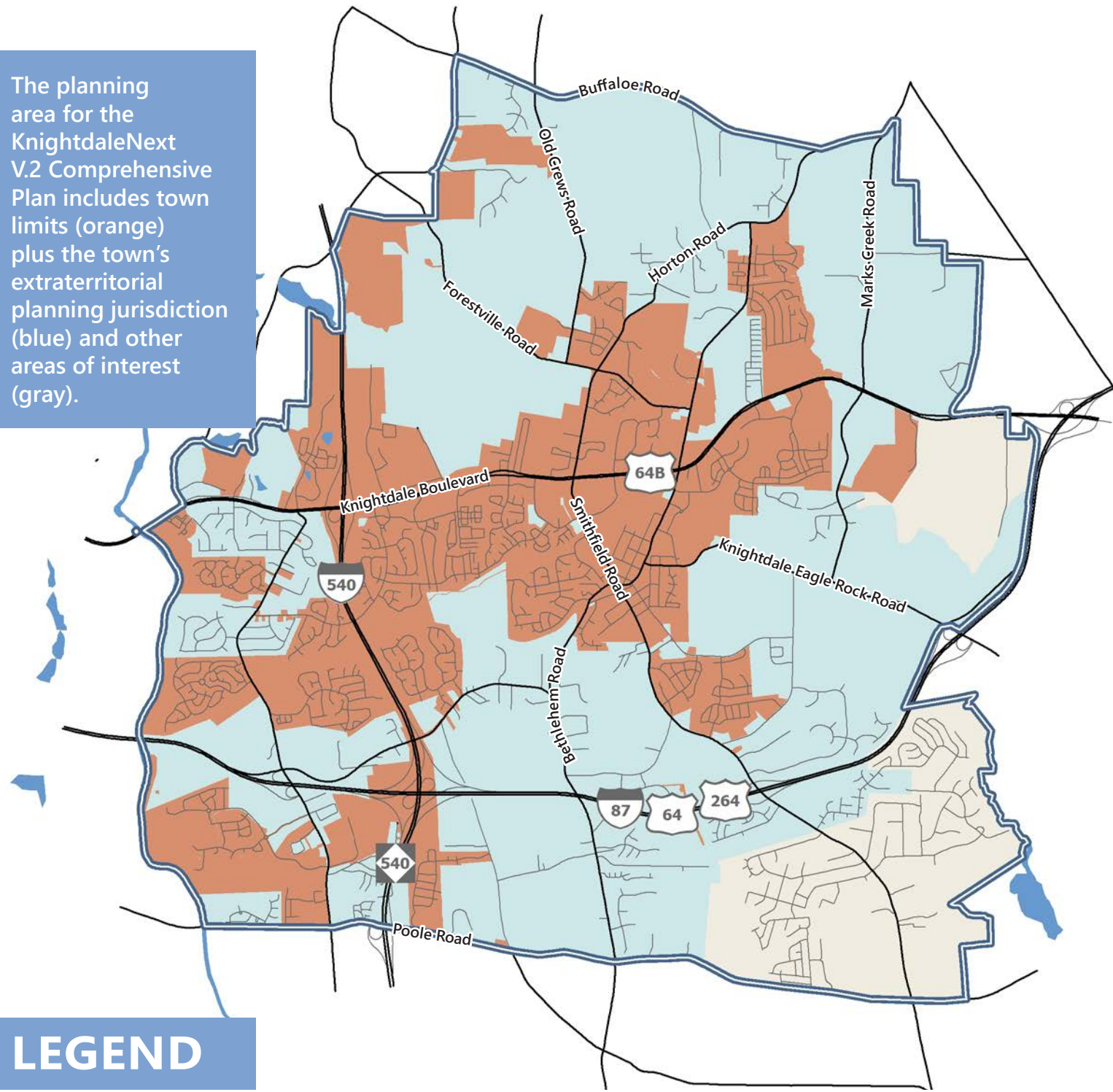
7
160
PLAN IMPLEMENTATION



1

INTRODUCTION

The planning area for the KnightdaleNext V.2 Comprehensive Plan includes town limits (orange) plus the town's extraterritorial planning jurisdiction (blue) and other areas of interest (gray).



LEGEND

- Knightdale Town Limits
- Knightdale Extraterritorial Jurisdiction
- Area of Interest for the Comprehensive Plan
- Planning Area Boundary for the Comprehensive Plan



PLAYBOOK APPROACH

The Town of Knightdale should be able to take advantage of opportunities when they present themselves, so the comprehensive plan uses a playbook approach for guiding future conservation and development initiatives in the community. Some parts of the document — the community vision statement, guiding principles, and Intentional Growth Areas Map — should remain consistent between full comprehensive plan updates to keep Knightdale on a focused path for success. Other parts of the document — general policies and recommendations, Urban Small Town Framework Map, Future Place Type Map, focus area study recommendations, or other supporting maps — may need to evolve over time as conditions change that were not contemplated at the time the document was adopted.

Changes considered to the KnightdaleNext V.2 Comprehensive Plan — whether initiated by the town, a property owner, a developer, or a member of the community — under the playbook approach should be evaluated against the community vision statement, guiding principles, and Intentional Growth Areas Map to determine if they are in the best long-term interests of the town and its residents, businesses, and property owners.

Patience may be needed for some aspects of the plan to become reality as it sets a long-term vision for conservation and development over an extended period of time. Town officials should avoid “short-sighted” decisions to modify the comprehensive plan unless the reasons to change are supported by town staff.



INTRODUCTION

The Town of Knightdale continues to experience significant growth every year since the original KnightdaleNext Comprehensive Plan was adopted in 2018. Cumulative growth since the plan's adoption often elicits different, sometimes strong, opinions about new development and the benefits or consequences it brings to the community. With each new wave of growth, challenges and opportunities present themselves to a community that wants to remain unique and respectful of the norms, values, and traditions that make Knightdale a great place to live and do business. Simply stated, town residents are concerned that if growth continues, without strong guidance and influence from the town, that the community may someday look just like anywhere else. Managing growth pressures while striving to retain, or improve upon, the characteristics that make the town a desirable place to live, work, learn, or visit is why updating the comprehensive plan is so critical at this time.

ŭp-dāt': to make something more modern or suitable for present day, adding new information or refining ideas to meet today's challenges.

The document presented here is an update to the original comprehensive plan, referred to as the KnightdaleNext V.2 Comprehensive Plan. It was created to (1) update demographic data and summarize growth trends that influence recommendations in the plan, (2) respond to changing market conditions, regional investments, infrastructure limitations, and state laws, (3) build upon achievements credited to the previous comprehensive plan, and (4) connect with other plans, ordinances, or studies completed since the previous plan was adopted in 2018. Updating the comprehensive plan at this time provides the platform needed to proactively embrace change while managing the location, timing, and magnitude of future development to protect the character and integrity of Knightdale.

The KnightdaleNext V.2 Comprehensive Plan was developed to guide future growth, conservation, and development decisions throughout the community in the face of

new pressures and realities not contemplated in 2018. It presents a community vision and guiding principles, best practices, mapped frameworks, a series of illustrative drawings, specific policies and recommendations, and an implementation plan. The document builds upon the information included in the 2018 version of the comprehensive plan, and provides greater focus and clarity related to community character, quality development, and preferred growth areas expected for the planning area. It moves the community closer to "intended outcomes", "greater predictability", and "coordinated efforts" for the future. Patience may be needed for some aspects of the plan to become reality as it sets a long-term vision for conservation and development over an extended period of time.

The comprehensive plan update provides the opportunity to both (re)prioritize outcomes and (re)balance needs for the community in a single document. The broad range of topics addressed in the plan represents a

true playbook for conservation and development that reflects the priorities and values of Knightdale residents, while safeguarding the town's history and unique sense of place. It is intended to relate to other town plans, policies, and ordinances in place, or that may be developed in the future, and provide guidance to other public or private interests preparing plans, programming projects, or proposing development that may affect the town's planning area. It will serve as the foundation for determining effective public policy and for making land use decisions for the future that will provide an ongoing framework for informed and directed public investment and private development.

Ultimately, the comprehensive plan's relevance will be measured by its use in everyday decision-making processes in the town. Monitoring plan implementation should be a routine and open process that examines performance, measures achievement, and reflects changes credited to the plan.

INTENTIONAL, MANAGED GROWTH AREAS

The planning process for the comprehensive plan update helped address problems associated with leapfrog development, which occurs when a developer skips over land to develop in the planning area (often because it is cheaper) and leaves large swaths of vacant, unprotected areas empty between the urban area and new neighborhoods, shopping areas, etc. Leapfrog development generally extends the resources of a town unnecessarily, creating larger service areas, increased response times, costly infrastructure extensions, and reliance on automobiles for making trips back to an urban center to meet residents' daily needs.

A mantra for the comprehensive plan update is to grow intentionally between now and the planning horizon (2035). This includes an emphasis on growing inward, versus outward, in the near future to be good stewards of land and cognizant of the time and money realities associated with extending infrastructure.

Infill development and redevelopment activities for vacant and under-utilized areas inside Knightdale town limits, or very near to town limits, are a priority for accommodating future growth in the comprehensive plan update.

EMPHASIS ON COMMUNITY CHARACTER

Early ideas in the planning process for the comprehensive plan update also helped reprioritize "land use", "development", "open space", and "infrastructure" topics all as contributing factors to "community character" for the document. The emphasis on physical form and design considerations over simple land use and density criteria (demand) and available infrastructure capacity (supply) for determining the town's best path forward is a strength of the comprehensive plan update.

The chapters that follow in the document focus on identifying, preserving, and perpetuating desirable development patterns in the community, while also making deliberate changes to areas that do not meet the community's expectations for character or sense of place (i.e., redevelopment). Ideas about community character extend to all chapters of the comprehensive plan, and together reinforce a unified vision for community character and a positive community image that create functional, aesthetically-appealing, and people-oriented places.



USER'S GUIDE FOR THE DOCUMENT

The comprehensive plan captures a vision for conservation and development in the planning jurisdiction, which should be implemented over a long period of time. It includes policies, maps, and recommendations for some of the town's most important decision-making processes, and a vision that builds off the strategic plan and directs other town policies, ordinances, master plans, and documents to follow.

Some chapters of the comprehensive plan incorporate other town plans or studies by reference. These documents, as amended, should have the same standing and authority provided under Chapter 160D of the North Carolina General Statutes as if they were physically included in the comprehensive plan document. Collectively, the comprehensive plan and the documents incorporated by reference ensure a comprehensive and coordinated plan for future growth, conservation, character, and development topics in the town.

People are encouraged to read the entire document to fully understand the town's philosophy and position on future growth, conservation, development, and community character in the planning jurisdiction. The "User's Guide" is comprised of five key considerations to keep in mind when reading the document.

THINK BIG PICTURE

Broad policies and recommendations in the Comprehensive Plan are implemented in more-detailed plans, studies, ordinances, or budgets that follow plan adoption. Each document refines the big ideas and concepts presented in the comprehensive plan using specific rules, requirements, or initiatives needed to create greater predictability and intended outcomes in the community.

BE A CHAMPION FOR THE COMPREHENSIVE PLAN

The comprehensive plan is the culmination of a community planning process that reflects many different points of view. Knightdale residents, business owners, visitors, and supporters participated in the process and contributed to the creation of the Comprehensive Plan. While there is something for everyone contained within these pages, not everyone will love everything in a community-wide comprehensive plan. Consider the big picture when thinking about the comprehensive plan and whether the document-as-a-whole takes Knightdale in the right direction. The comprehensive plan can only succeed if the community supports bringing its overall vision to life!



HELP MAKE IT HAPPEN

Although we all wish our tax dollars bought us unlimited town services, the reality is that there is more work to do than staff and resources to do it. All of the great ideas in the document take time, money, and capacity. For the comprehensive plan to become a reality, a large number of people must decide they care enough to stay involved, volunteer their time, and help implement the comprehensive plan. Residents should serve on a town board, join a citizen task force, or turn out to support town actions that help move Knightdale forward. Communities that work together, and work smartly, more often succeed in achieving their goals.

UNDERSTAND THE ELEMENT OF TIME

At first glance, the comprehensive plan may seem ambitious or daunting. It is important to understand not everything in the document will happen all at once and some things may not happen at all. Included are some big ideas that, if implemented, would bring about transformative change to Knightdale likely taking years to come to fruition. Other ideas are smaller and can happen right away.

UTILIZE PLACE TYPES TO GUIDE FUTURE DEVELOPMENT

The term "place types" is used in the Comprehensive Plan to describe the characteristics for thirteen different areas depicted on the Future Place Type Map. Each unique place type varies in its street and block patterns, open spaces and natural resources, building types and massing, transportation, and sustainability. This approach to town-wide organization prioritizes form and design over land use and density.



A BRIEF HISTORY OF KNIGHTDALE

The local community dates back to the colonial era when, in 1701, John Lawson reached the area now known as Knightdale. The King of England apportioned the land to settlers shortly thereafter. In the early 1700s, John Hinton was granted land in the area. He is famous for being chosen as a delegate to the Fourth Provincial Congress, which passed a resolution — known as the Halifax Resolves — that was later used by Thomas Jefferson as a model for the Declaration of Independence.



“Tarboro Road” — now US 64B, Knightdale Boulevard — on land once covered by farms and forests. The widening of Knightdale Boulevard to four lanes in the 1970s, coupled with the construction of the Mingo Creek sewer outfall in the 1980s accelerated Knightdale’s population growth. The completion of I-540 near Knightdale in 2007, and designation of US 64 as I-87 in 2016, again spurred significant population growth in Knightdale as the town became better-connected to the region via the automobile.



In the late 1800s, local citizens deeded right-of-way to the Raleigh & Pamlico Sound Railroad Company for a railroad line. It was hoped the railroad would help lead to incorporation of the community. The railroad was constructed in the early 1900s and brought additional growth along First Avenue. Increased activity in the community and a growing local identity led Knightdale to become an incorporated town on March 9, 1927.

The Town continued to grow, but on February 7, 1940, a fire broke out downtown, causing many businesses and homes to be lost. This unfortunate event prompted the establishment of both a Knightdale Volunteer Fire Department and municipal water system. With the rise of the automobile, new businesses in Knightdale started to locate along

Today, Knightdale remains a dynamic place full of opportunity, welcoming those who want something different. It is a place citizens can call their own, where the culture is decided by the people, and a place that encourages its citizens to make the town what they want it to be, and gives them the freedom to be themselves. The town’s tag line, “Start Something,” is more than a motto. It is a mindset, not only for citizens, businesses, and community partners, but for the town itself.



PLANNING PROCESS

The Town of Knightdale and their consultant hosted several rounds of public engagement within a ten-month planning period to support the comprehensive plan update, October 2023 to July 2024. The team offered an ideas exchange, maintained an online engagement hub, attended various pop-up and town council events, hosted a draft recommendations workshop, and facilitated the plan adoption process. Input received from the community was used to generate big ideas, refine concepts, and right-size recommendations for the document.



Community Ideas Exchange Workshop

The town hosted a Community Ideas Exchange Workshop on October 19, 2023, at town hall. The workshop gave community members the opportunity to learn more about the planning process for the comprehensive plan update and offer insights (big ideas) to the project team. The in-person event was planned around ten interactive stations. The stations focused on community vision and principles, retail spending, community character, transportation, lessons from outside Knightdale, parks and open space, home choices, development preferences, and a writing wall where participants could share anything they wanted with the project team. Multiple surveys disguised as hands-on games or activities were used to collect community values or preferences towards future conservation and development initiatives for the planning area.



Focus Area Design Workshop

The town hosted a design workshop on February 22, 2024, for the four new focus area concepts included in the updated document: old town, conservation neighborhood, innovation center, and neighborhood center. Stakeholders chosen for each location -- property owners, real estate brokers, economic development interests, and town officials from adjacent communities -- were invited to town hall to meet with the design team and share their knowledge of the sites chosen to evaluate/demonstrate the four concepts. Input received during the workshop influenced the design concepts presented in the document.

Online Engagement Hub

The town created an interactive online engagement hub for the comprehensive plan update, which served as a one-stop-shop for twenty-four-hour access to project information, schedules, engagement opportunities, and draft project documents created throughout the planning process. Site visits were recorded during the ten-month planning period. The project team also created a virtual twin of the Community Ideas Workshop, which provided additional opportunities to provide feedback. Input received through the hub was summarized by the project team and used to guide further revisions to the draft document.

Pop-Up Events

A series of pop-up events were held in the community to create awareness for the comprehensive plan update and seek input on different topics to share with the project team members. Generally

speaking, a booth or table was set up at the larger event and project team staff interacted with attendees.

Policy-Maker Briefing

The project team provided a briefing to Town Council during their work session on February 5, 2024, which included a summary of public input from the Community Ideas Exchange Workshop; a summary of existing data created, and emerging trends summarized, for the comprehensive plan update; and big ideas (maps, recommendations, and focus area studies) to guide the project team's revisions to the previous document. Feedback from Town Council members influenced important topics or concepts presented in draft project documents.

Draft Recommendations Workshop

The town hosted a Draft Plan Recommendations Workshop on April 30, 2024, at town hall. The workshop kicked off a two-month public review period, which was used to present maps, concepts, and recommendations in the draft document for community reaction. Poster-size enlargements of key pages from the draft document were presented on the walls of town hall, and participants were asked to provide feedback via a sticky-note survey (things they liked, things they disliked, and things they question) and dot-voting exercise (positive or negative reactions to important statements in the document). Feedback from the community influenced revisions to the draft document before starting the formal adoption process.



2

KNIGHTDALE AT-A-GLANCE

KNIGHTDALE



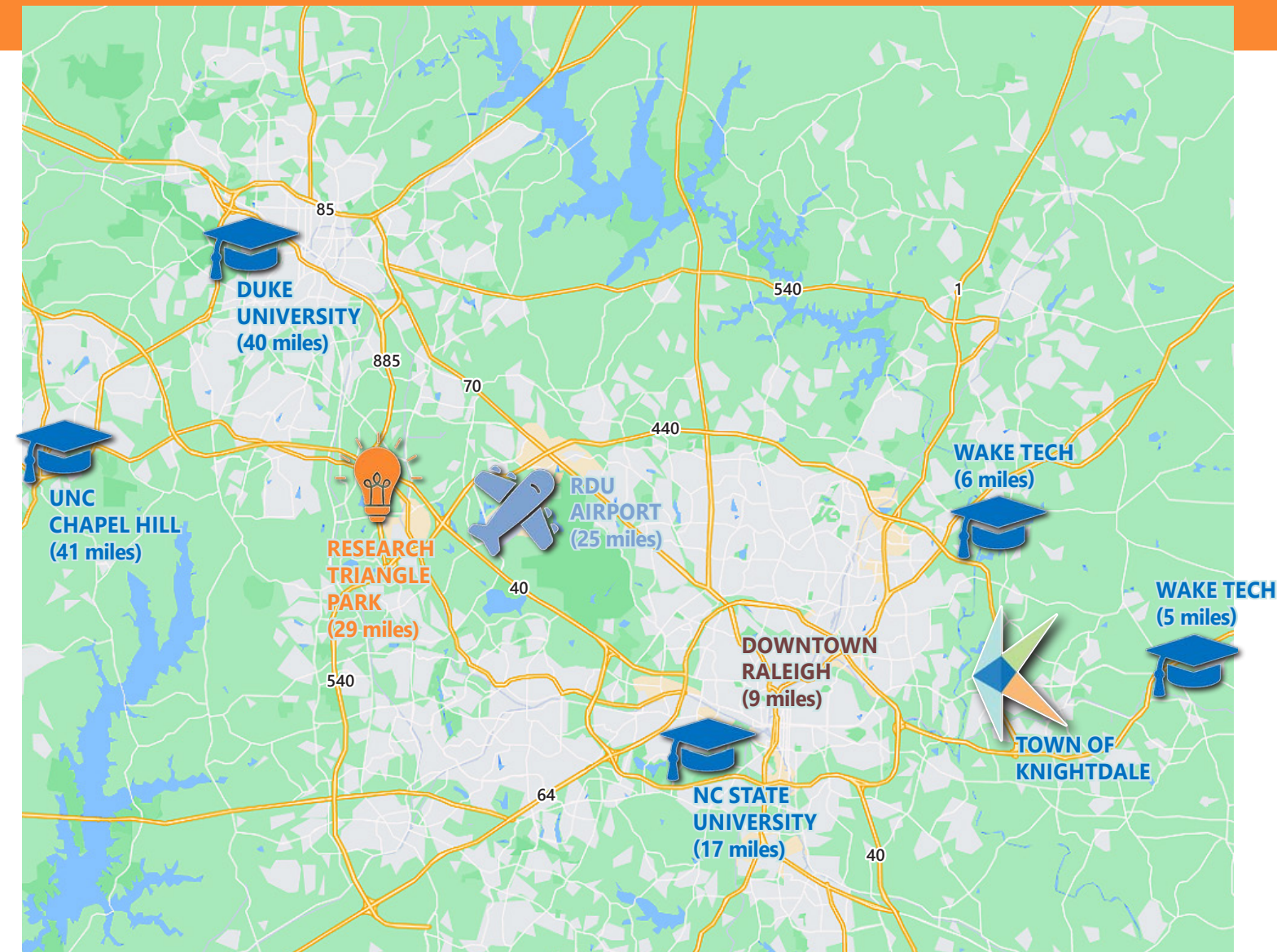


REGIONAL CONTEXT

The Town of Knightdale is a fast-growing community in desirable Wake County, centrally located in a region with over one million people and hundreds of successful businesses. Research Triangle Park, three top-tier and nationally-ranked universities, two technical college campuses, and Raleigh-Durham International Airport are close by and connected to Knightdale via a network of efficient interstates and highways. Falls Lake, the Neuse River corridor, Robertson Millpond Preserve, Sandy Pines Preserve, Turnipseed Nature Preserve, and an abundance of open space in communities connected by miles of greenways provide residents numerous opportunities to live life outdoors.

Decades removed from a small settlement in the Old Town area, Knightdale has become a thriving urban small town that is setting its sights on new opportunities for mixed-use activity centers, premium bus rapid transit, and major employment centers. Its population of 20,971 is anticipated to grow significantly in the next ten or twenty years.

Knightdale will continue to benefit from the positive energy and ideas flowing from Downtown Raleigh (nine miles to the west) while providing its residents and visitors something a little different: small town charm, a diverse community, arts and culture, and homes and neighborhoods ideal for makers, entrepreneurs, young professionals, families, and retirees.



KNIGHTDALE'S PLACE IN THE REGION

TOWN DEMOGRAPHIC PROFILE

General Population

Knightdale experienced strong population growth over the past three decades, growing from just 1,884 people in 1990 to an estimated 20,971 in 2023. From 2010 to 2020, Knightdale grew by 70%, outpacing the 25% growth in Wake County.

Residents are relatively young, with nearly 50% under the age of 35. Higher household incomes reflect a highly-educated population. More than 44% of Knightdale's residents age 25 and over have earned a bachelor's or advanced degree.

POPULATION

20,971 in the Town (2023 estimate)

32,900 in the Study Area (2023 estimate)

The population of the Study Area grew **37%** between 2010 and 2020

Source: US Census Bureau, American Community Survey, 2023 Population estimates and claritas

70% Population Growth between 2010 and 2020



POPULATION BY AGE

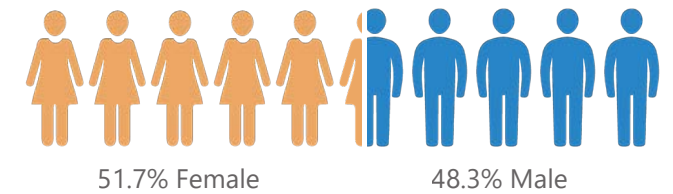


Source: US Census Bureau, American Community Survey, five year estimates, 2018-2022, table S0101

35.5 Median Age in Knightdale
39.2 Median Age in North Carolina

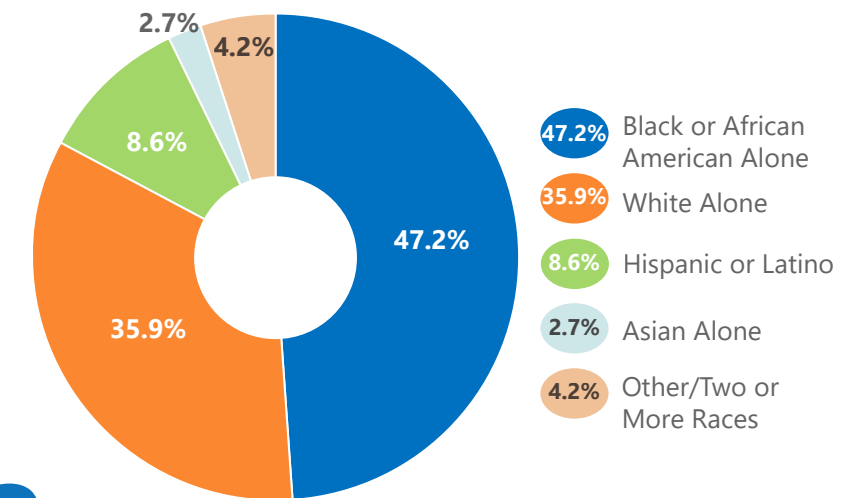
Source: US Census Bureau, American Community Survey, five year estimates, 2018-2022, table DP05

POPULATION BY GENDER



Source: US Census Bureau, American Community Survey, five year estimates, 2018-2022, table S0601

POPULATION BY RACE/ETHNICITY



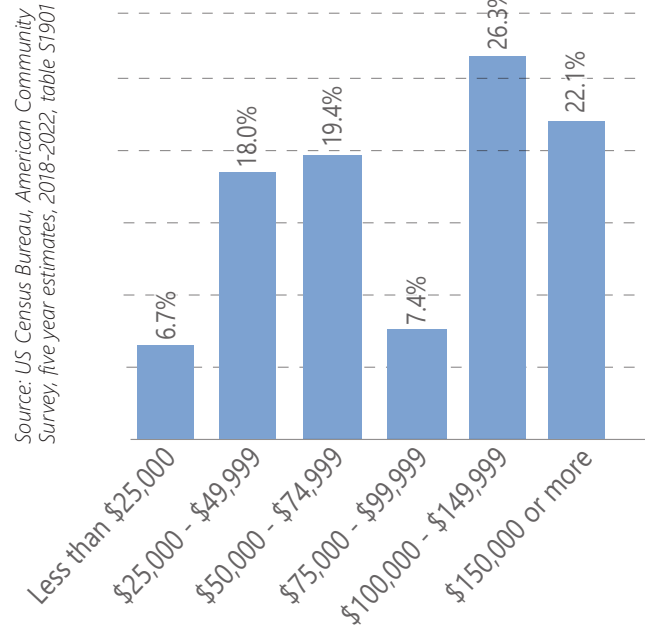
Source: US Census Bureau, American Community Survey, five year estimates, 2018-2022, table DP05



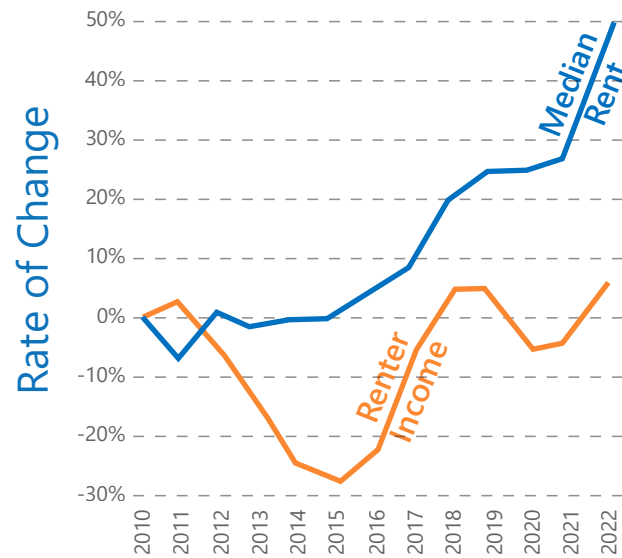
Insight:

More than 95% of Knightdale residents 25 years and older have at least a high school education or equivalent. 34.8% of those individuals have achieved an Associate Degree or attended at least some college, while 42.8% have a Bachelor Degree or higher advanced degree.

HOUSEHOLD INCOME

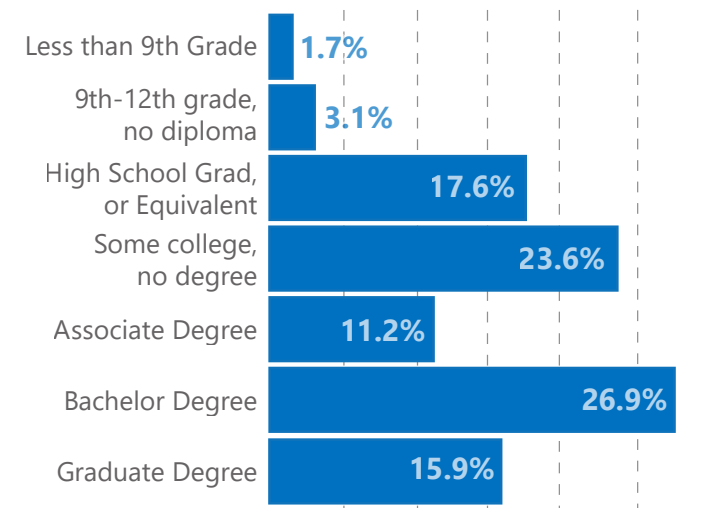


KNIGHTDALE MEDIAN RENTER HOUSEHOLD INCOME RATE OF CHANGE



Affordable Knightdale; Town of Knightdale Inclusive Growth and Housing Affordability Plan, Adopted March 20, 2024.

EDUCATIONAL ATTAINMENT (POPULATION 25 YEARS OR OLDER)



Source: US Census Bureau, American Community Survey, five year estimates, 2018-2022, table S1501

Insight:

Household income has increased 10.3% over the period between 2010 (\$71,922) and 2022 (\$79,364). Income has been far outpaced by rent and home values.

MEDIAN HOUSEHOLD INCOME

\$96,806 in Wake County
\$79,364 in the Town of Knightdale
\$67,481 in North Carolina

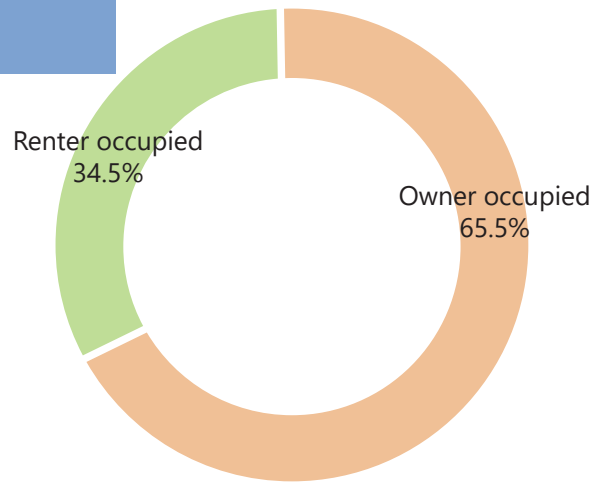
Source: US Census Bureau, American Community Survey, five year estimates, 2018-2022, table S1501

HOUSING

Insight:

Housing values in Knightdale increased over the past five years, but remain low relative to the county and region. 86% of the owner-occupied homes in Knightdale have values above \$200,000.

OWNER-OCCUPIED VS. RENTAL HOUSING UNITS

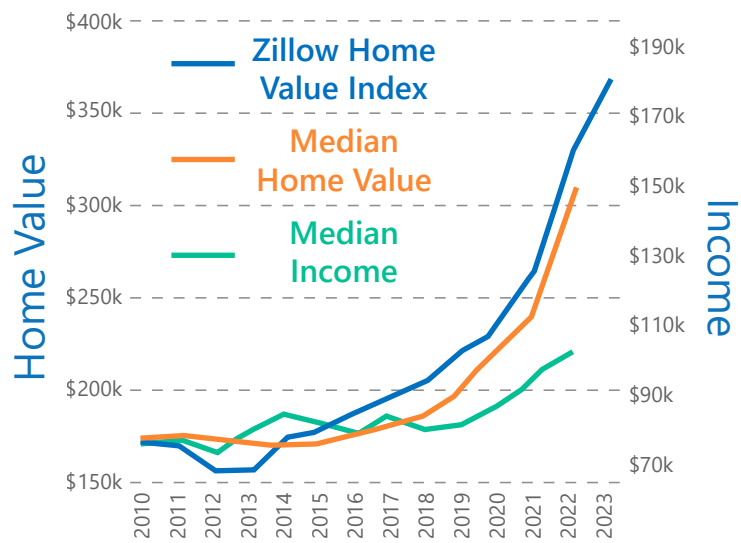


Source: US Census Bureau, American Community Survey 2022, table CP04

\$364,693
Median Home Value in Knightdale in 2024

up **113%**
from \$171,300 in 2016

KNIGHTDALE HOME VALUE AND INCOME BY YEAR



Affordable Knightdale; Town of Knightdale Inclusive Growth and Housing Affordability Plan, Adopted March 20, 2024.

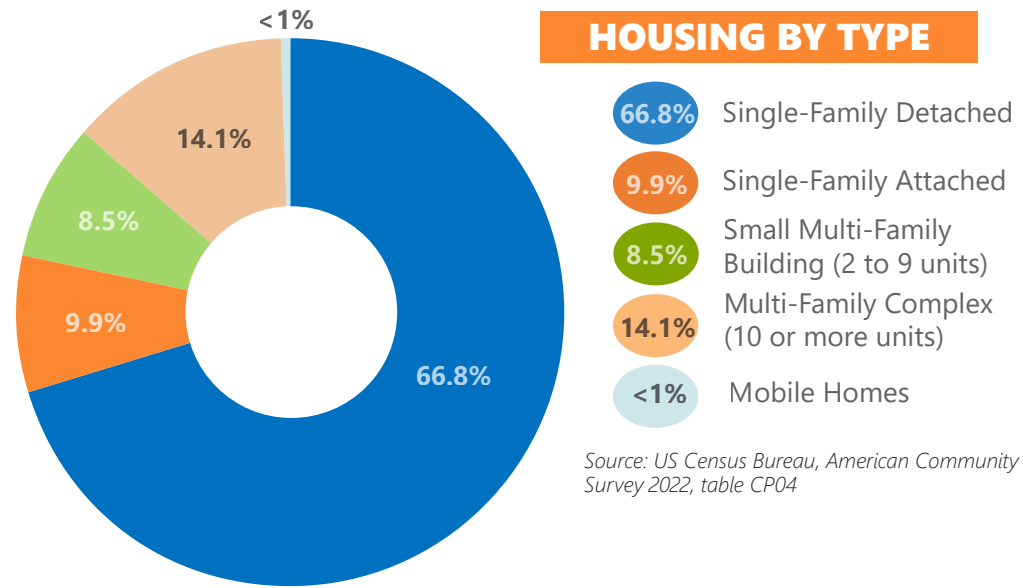
Insight:

Median home value has increased dramatically, up 113% from 2016 to 2024.

From 2016 to 2022, increases in median rents and housing values in Knightdale far outpaced increases in median household income.

As housing values and rents increase in Knightdale, affordability continues to be a concern.

HOUSING BY TYPE

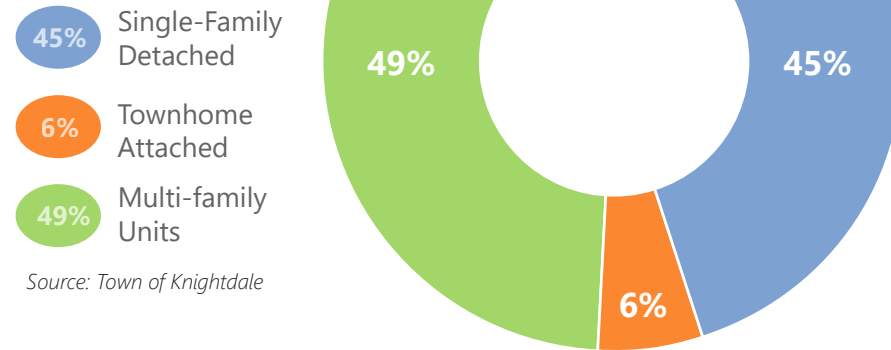


Source: US Census Bureau, American Community Survey 2022, table CP04

Insight:

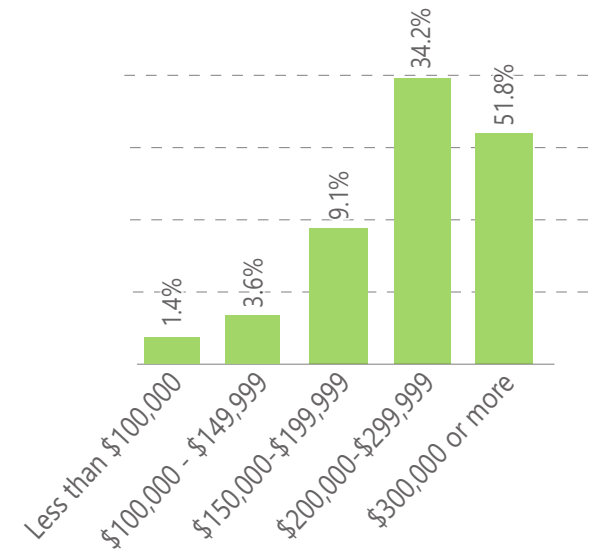
More than two-thirds of homes in Knightdale are single-family detached (up to 66.8% in 2021 from 63.7% in 2016), meaning one home on one lot sharing no walls with another home. The second largest category in the region is single-family attached.

PERMITS BY HOUSING TYPE (2017-2023)



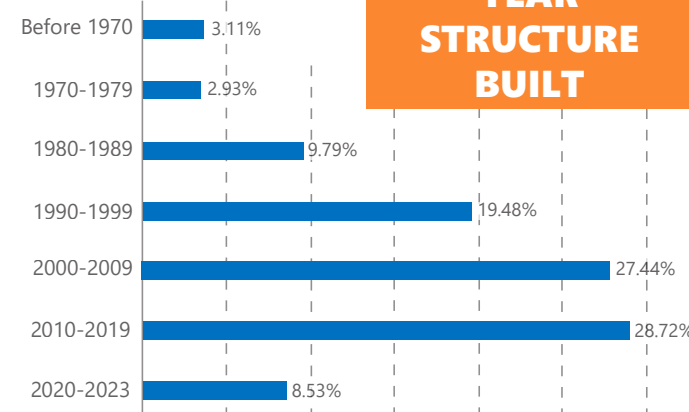
Source: Town of Knightdale

HOME VALUE - OWNER OCCUPIED UNITS



Source: US Census Bureau, American Community Survey 2022, table CP04

YEAR STRUCTURE BUILT



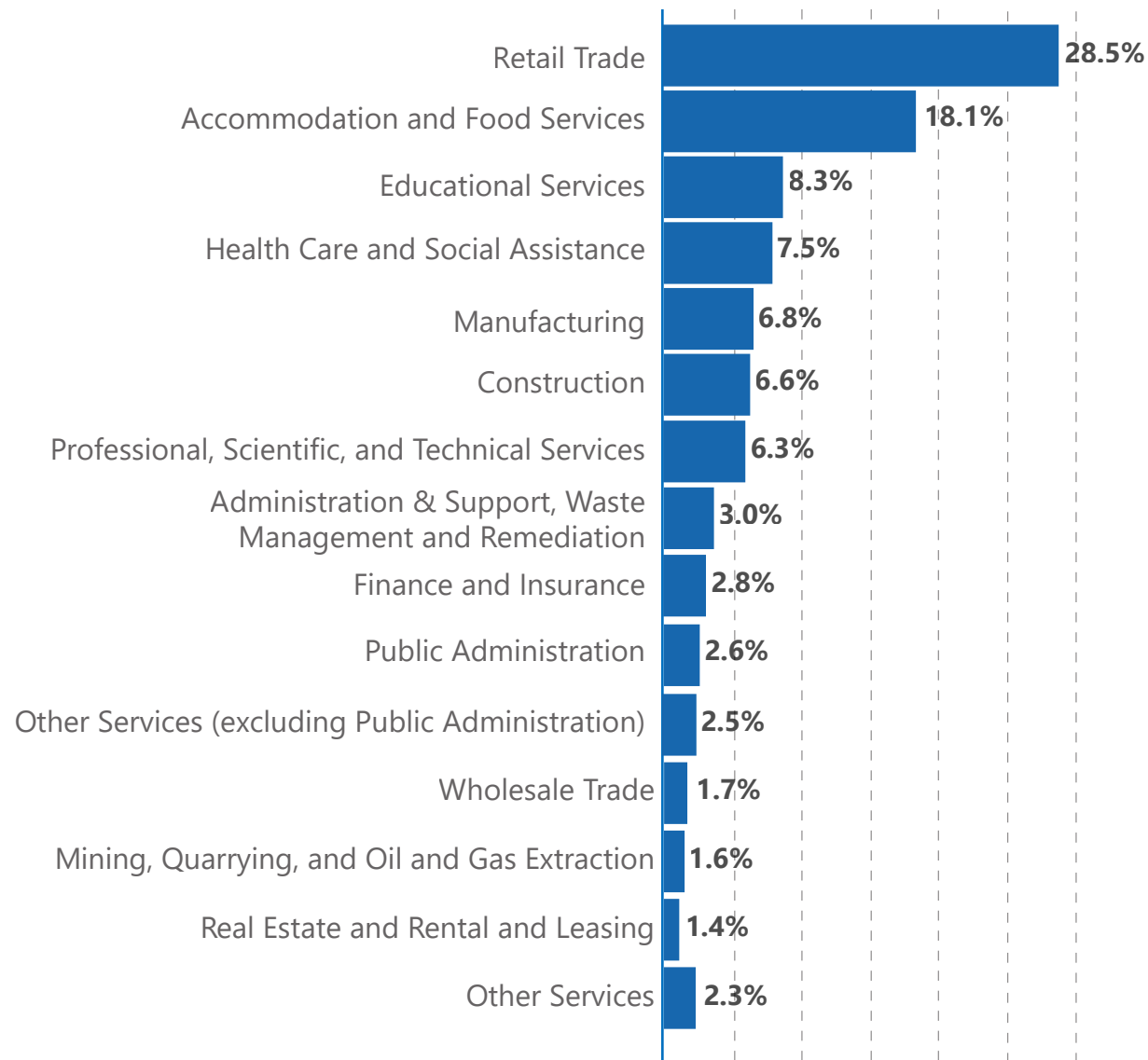
U.S. Census Bureau, American Community Survey, Five Year Estimates, 2017-2021, Table CP04 and building permits tracked by the Town of Knightdale for land inside town limits between 2020 and 2023.

Insight:

Home values have increased significantly. In 2016, approximately 33% of homes were valued at \$200,000 or more. By 2022, that number had more than doubled to 86%. Home construction has increased as well. The number of houses built since 2010 has increased from 10.7% in 2016 to 31.6% in 2023.

ECONOMY

JOBS BY INDUSTRY IN KNIGHTDALE



Source: US Census Bureau, ON THE MAP 2021

REGIONAL EMPLOYMENT PROJECTIONS

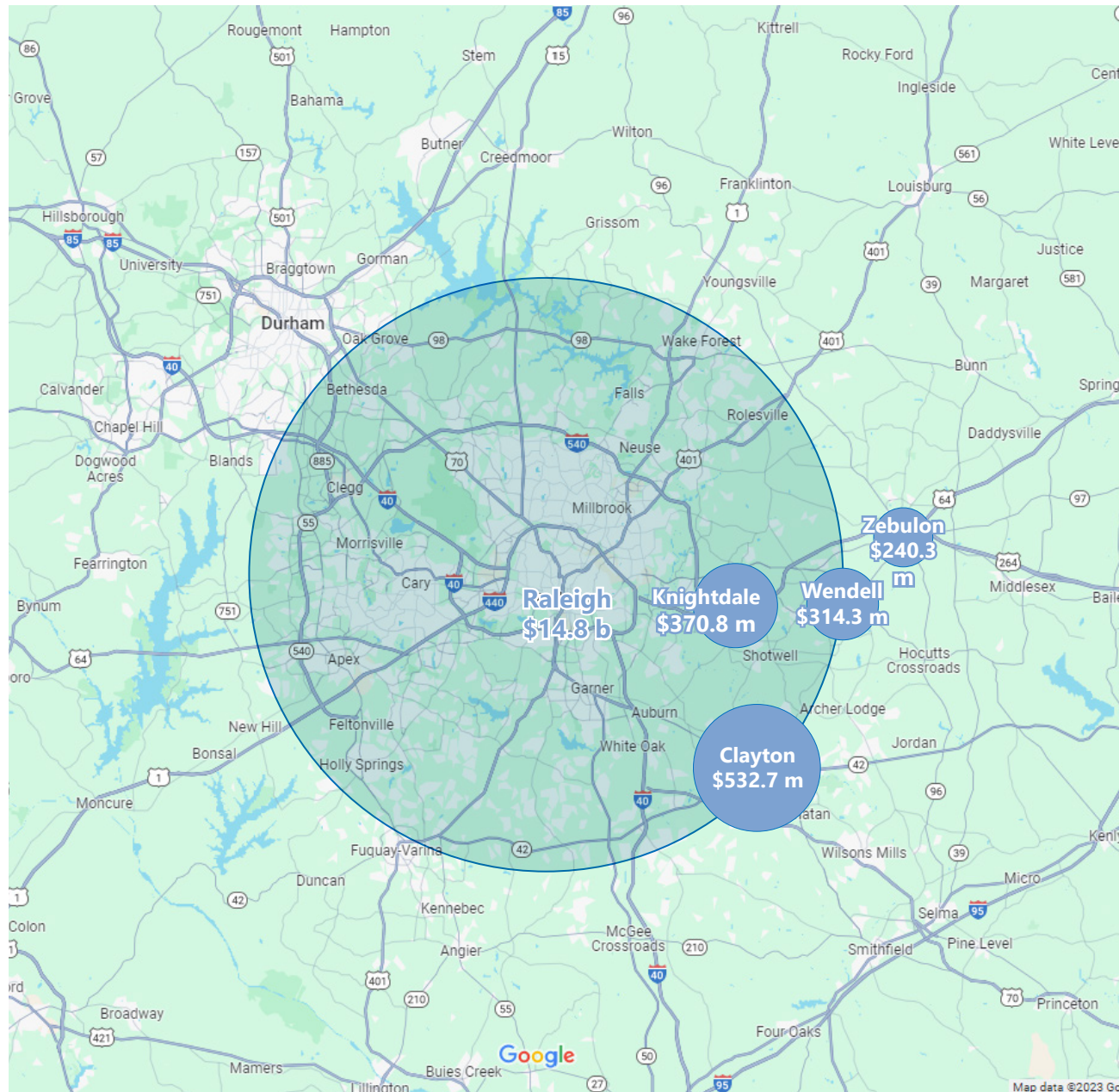
The table below shows employment projections for select industries in the Raleigh-Durham planning sub-region, as defined by the North Carolina Department of Commerce. The industries included in the table are projected to experience growth between 2021 and 2030 and have an average weekly wage above the overall state average of \$1,146. Although the growth projections are for the overall Raleigh-Durham planning sub-region, they provide guidance on where Knightdale may focus economic development activities.

| Industry Code | Industry Title | Projected Growth 2021-2030 | Annualized Growth Rate | Average Weekly Wage 2021 |
|---------------|--|----------------------------|------------------------|--------------------------|
| 236000 | Construction of Buildings | 1,091 | 0.87% | \$1,596 |
| 237000 | Heavy and Civil Engineering Construction | 1,295 | 1.79% | \$1,364 |
| 334000 | Computer and Electronic Product Manufacturing | 1,331 | 0.63% | \$2,941 |
| 423000 | Merchant Wholesalers, Durable Goods | 1,754 | 0.79% | \$2,017 |
| 424000 | Merchant Wholesalers, Nondurable Goods | 1,498 | 1.35% | \$1,600 |
| 425000 | Wholesale Electronic Markets and Agents and Brokers | 169 | 0.56% | \$2,236 |
| 511000 | Publishing Industries (except Internet) | 1,805 | 1.25% | \$2,695 |
| 518000 | Data Processing, Hosting & Related Services | 412 | 1.10% | \$2,249 |
| 522000 | Credit Intermediation and Related Activities | 1,791 | 1.10% | \$2,006 |
| 523000 | Securities, Commodity Contracts, and other Financial Investments | 2,059 | 2.13% | \$2,764 |
| 524000 | Insurance Carriers & Related Activities | 1,760 | 1.36% | \$2,043 |
| 531000 | Real Estate | 1,275 | 1.10% | \$1,290 |
| 541000 | Professional, Scientific & Technical Services | 19,224 | 1.85% | \$2,222 |
| 551000 | Management of Companies and Enterprises | 1,101 | 1.10% | \$2,309 |
| 611000 | Educational Services | 8,903 | 0.85% | \$1,199 |
| 621000 | Ambulatory Health Care Services | 8,995 | 1.92% | \$1,297 |
| 622000 | Hospitals | 8,778 | 1.55% | \$1,418 |
| 711000 | Performing Arts, Spectator Sports, and Related Industries | 1,319 | 4.43% | \$1,237 |
| 813000 | Religious, Grantmaking, Civic, Professional, and Similar Organizations | 2,509 | 1.15% | \$1,267 |

Source: North Carolina Department of Commerce

ECONOMY

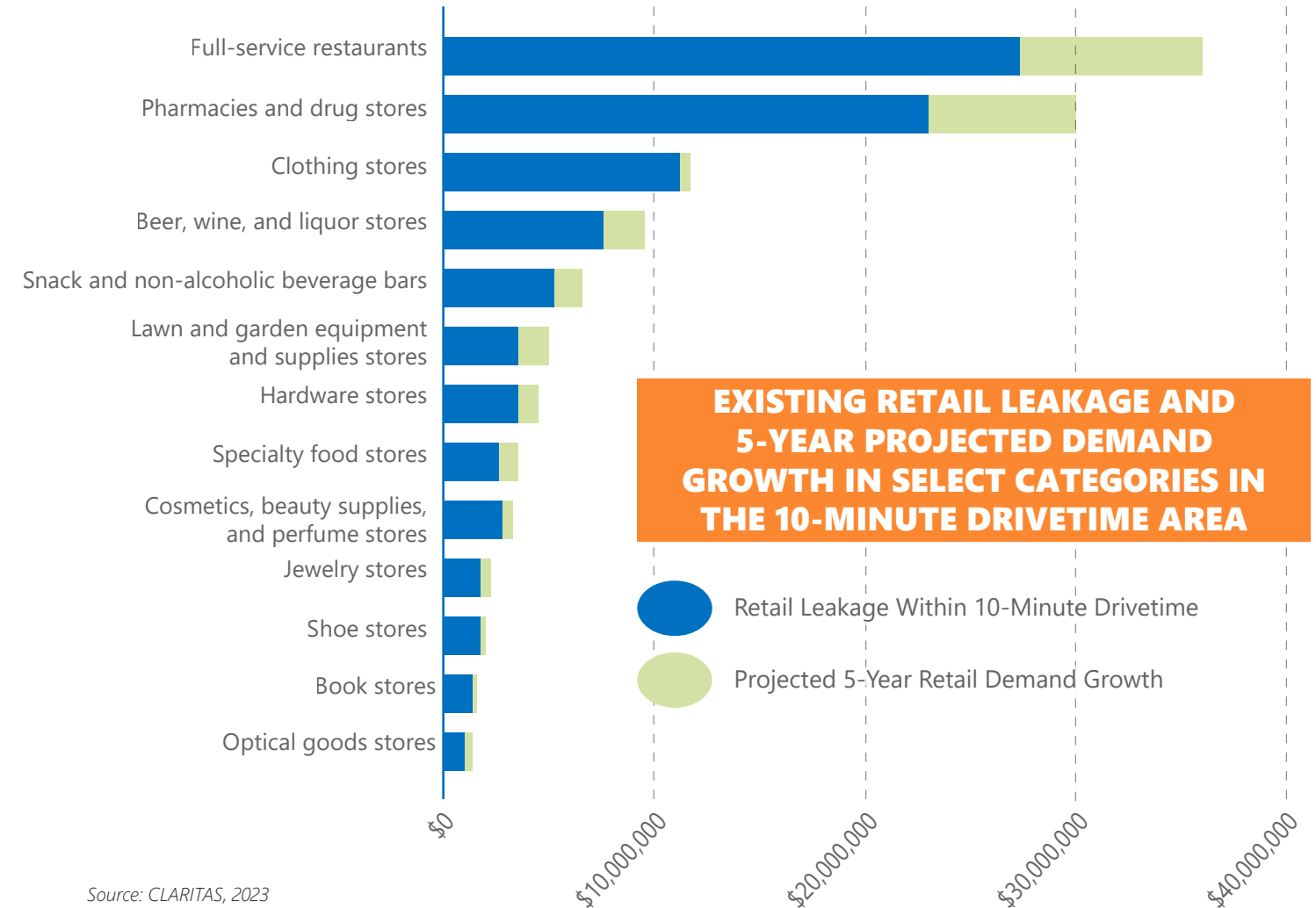
The map below shows 2023 retail sales in Knightdale, Raleigh, and the nearby towns of Wendell, Zebulon, and Clayton. Knightdale benefits from commuters traveling to Raleigh from communities further east. However, as the population of these communities has grown over the previous two decades, so has their respective retail offerings. In 2023, retail sales in Wendell were just slightly lower than retail sales in Knightdale.



“Retail Leakage” is a supply and demand study that measures the difference between consumer expenditures of residents and retail sales produced by stores located in a defined geography. If retail sales exceed consumer expenditures in the area, the market is said to have a retail gain. If residents are purchasing more than stores are selling, then dollars are leaking outside the area to other markets. Retail supply and demand is calculated for the Knightdale Town limits, the Knightdale Study Area, and a 10-minute drivetime from the center of Knightdale.

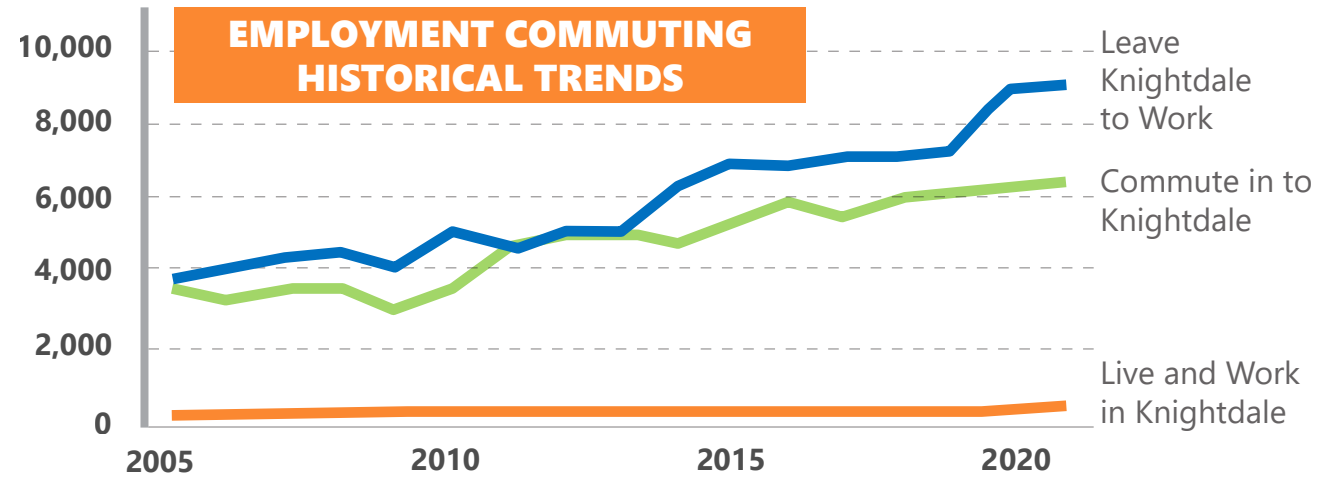
Over the past year, stores in Knightdale had \$370.8 million in sales while Knightdale residents spent \$391.8 million, resulting in retail leakage of \$21 million. The retail leakage indicates that Knightdale residents rely on other markets to meet some of their retail needs, which is typical for a community located on the outskirts of a metropolitan area with large regional retail centers nearby.

The Knightdale Study Area and 10-minute drivetime area also experience retail leakage. Consumer demand in those areas grows as the population increases, with \$610.1 million in demand in the Study Area and \$875 million in demand in the 10-minute drivetime.



Source: CLARITAS, 2023

COMMUTING & JOBS



Source: US Census On The Map 2005-2021

HOW KNIGHTDALE RESIDENTS GET TO WORK

80% of Knightdale residents drive alone to work



4.7% carpool



1% take a motorcycle, taxicab, or other means

1.2% walk, cycle, or take public transportation



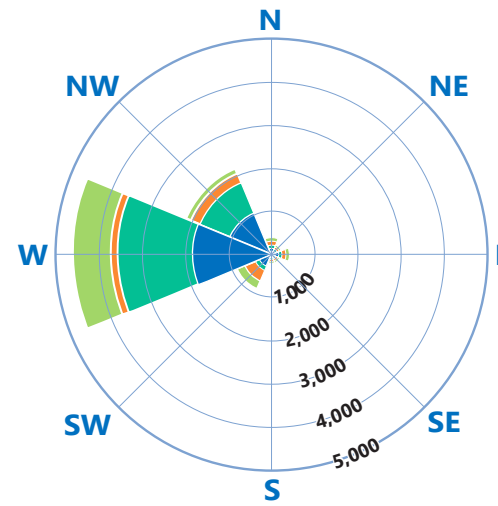
13.2% work from home (up from 4% in 2016)

Source: US Census Bureau, American Community Survey, five year estimates, 2017-2021, Table S0801

Insight:

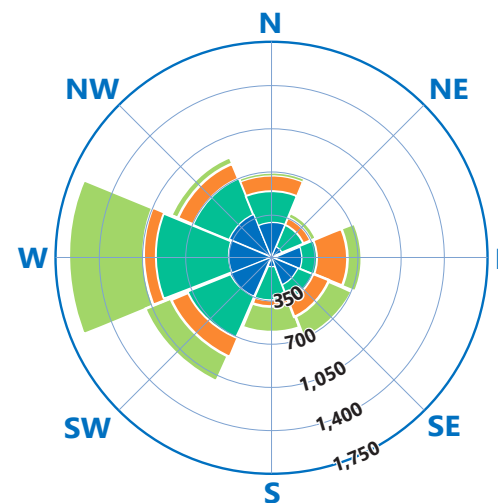
One major shift in commuting patterns occurred since the previous comprehensive plan. Like many communities across the nation, Knightdale experienced an increase in the number of residents working from home during and after the pandemic. In 2016, only 3.7% of Knightdale residents worked from home. That percentage grew to 13.2% in 2021. However, the majority of Knightdale residents still drive alone to work.

WHERE KNIGHTDALE RESIDENTS WORK



| | Count | Share |
|--------------------|-------|-------|
| Raleigh | 3,915 | 42% |
| Durham | 755 | 8% |
| Cary | 595 | 6% |
| Garner | 367 | 4% |
| Knightdale* | 335 | 4% |
| Charlotte | 314 | 3% |
| Morrisville | 186 | 2% |
| Wake Forest | 133 | 1% |
| Greensboro | 131 | 1% |
| Chapel Hill | 105 | 1% |
| Other Wake County | 1,254 | 13% |
| Other | 1,292 | 14% |
| All Places (Total) | 9,382 | 100% |

WHERE KNIGHTDALE EMPLOYEES LIVE



- Less than 10 miles
- 10-24 miles
- 25-49 miles
- 50 or more miles

Source: US Census Bureau, Onthemap application, 2021

| | Count | Share |
|--------------------|-------|-------|
| Raleigh | 1,334 | 20% |
| Knightdale* | 335 | 5% |
| Cary | 210 | 3% |
| Wake Forest | 162 | 2% |
| Durham | 137 | 2% |
| Apex | 106 | 2% |
| Garner | 103 | 2% |
| Clayton | 95 | 1% |
| Wendell | 91 | 1% |
| Charlotte | 76 | 1% |
| Other Wake County | 1,315 | 20% |
| Other | 2,692 | 40% |
| All Places (Total) | 6,656 | 100% |

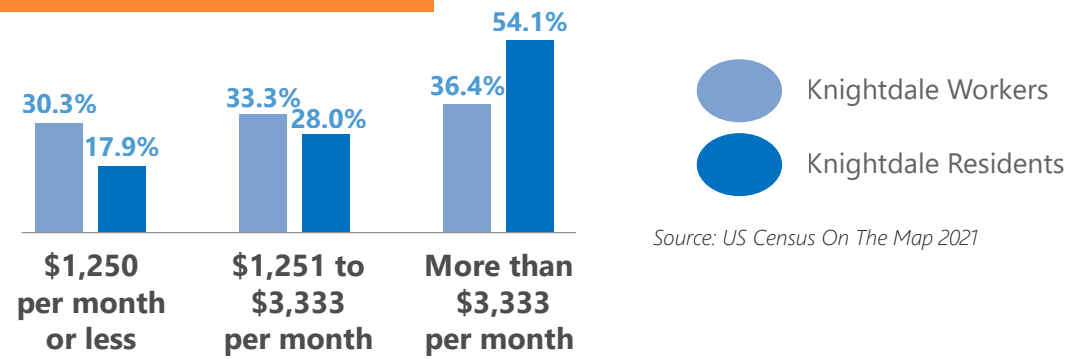
* Data reported for Town Limits only

Insight:

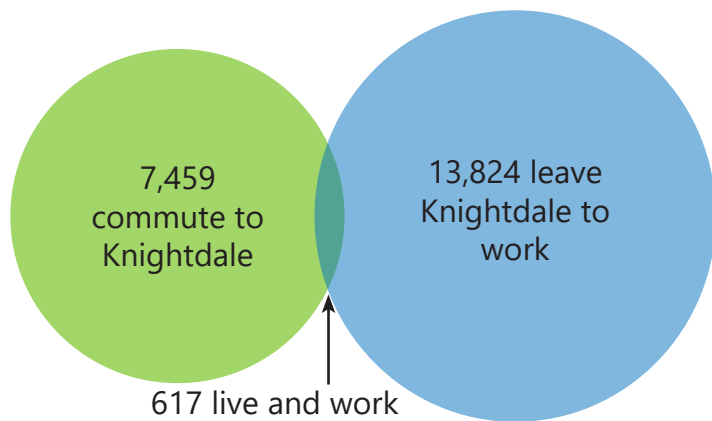
The majority of Knightdale residents who commute out for work travel west, with 42% employed in Raleigh, 8% employed in Durham, and 6% employed in Cary. Workers commuting into Knightdale come from many directions, however the largest percentage of workers live in Raleigh.

COMMUTING & JOBS

JOBS BY EARNINGS



Source: US Census On The Map 2021



- 7,459 Employed in Knightdale, Live Outside
- 13,824 Live in Knightdale, Employed Outside
- 617 Employed and Live in Knightdale

Source: US Census On The Map, Inflow/Outflow Job Counts in 2021. Data is representative of the entire Knightdale Planning Area.

Insight:

Knightdale is a net exporter of jobs, meaning that more people commute out of the Town for work than commute in. Only approximately 617 Knightdale residents also work in the Planning Area, while 13,824 residents leave Knightdale for work. Meanwhile, 7,459 people commute into Knightdale from surrounding communities for work.



3

GENERAL FRAMEWORK



GUIDING PRINCIPLES

Town Vision

Knightdale is, and will continue to be, an inclusive and connected urban small town with unique gathering places that foster a sense of community.

Eight guiding principles are presented in the KnightdaleNext V.2 Comprehensive Plan to expand upon the town vision statement presented earlier in the document. The principles are critical to preserving and enhancing a high quality-of-life for town residents, and to position town leaders well for the future as markets, technologies, and demographics change over time.

Guiding Principles included in this document are rooted in those presented in the 2018 KnightdaleNext Comprehensive Plan. They were consolidated or refined based on 1) new opportunities for the town not considered during the previous comprehensive plan update, 2) the need for more precise preference statements to influence intended outcomes, or 3) comments received from residents during the planning process to update the comprehensive plan.

The means by which the town achieves the community's broad goals may evolve over time, but the guiding principles should endure for generations unless

modified in a future comprehensive plan update. Changes to policies or direction considered for the town's planning jurisdiction should be evaluated against both the town vision statement and the guiding principles to determine if they are in the best long-term interests of Knightdale and its residents, businesses, and property owners. One guiding principle is no more important than the others, rather they are all interrelated and interdependent acting as an organizing element for the Comprehensive Plan.

The Knightdale Town Council recognizes that opportunities in the future may bring into conflict full and simultaneous implementation of the eight principles and necessitate a choice or prioritization of different principles, or the policies and recommendations that implement them. While balancing competing interests, it is the intent of the Comprehensive Plan and its guiding principles to protect the health, safety, welfare, and prosperity of the community in all of its decision-making.



Planned and Orderly Growth

Encourage a mix of land uses and development intensities in accordance with Chapter 3 (General Growth Framework) that promotes economic development, sense of place, social interaction, community-building, and the efficient use of town facilities and services.

Emphasize the development of unique activity centers throughout the community that vary in scale, use, size, and intensity. Also, proactively plan for the neighborhoods, corridors, and public spaces between activity centers that make the entire community more vibrant and connected. Prioritize infill development of under-utilized properties, and redevelopment of declining properties, in Knightdale (as opposed to expanding greenfield development patterns) to be more compact as a town and more efficient with town resources. Acknowledge increased densities and intensities, and a mixed of residential and non-residential uses, are needed in the town's activity centers to accommodate compact development patterns.



Townwide Place-Making

Celebrate a distinct brand and sense of place for the town that is uniquely Knightdale, while still tapping into the talent and creativity of the people that shape it — residents, business owners, property owners, town officials, developers, and planning and design professionals — to keep things relevant and authentic. Emphasize community character and high-quality design ideas for buildings, streets, public spaces, parking lots, signs, landscaping, etc. that make Knightdale distinct from surrounding communities. Remember the interplay between land use, transportation, open space, housing, economic, and infrastructure decisions for making the town a more livable and memorable place.

Prioritize the spaces around and between buildings for different place-making initiatives, which adds visual interest to an area, attracts outdoor activities, and creates emotional connections between people and places. Ensure place-making initiatives in Knightdale emphasize walkable environments, open spaces, and active-living. Use town investments in public spaces to leverage greater private investment nearby in terms of building use, scale, placement, materials, and indoor/outdoor activation.



Inclusive, Livable Town

Promote a welcoming, inclusive, and diverse town for residents, business owners, and visitors that recognizes not everyone starts from the same place and that intentional and unintentional barriers exist in peoples' daily lives. Plan for, and regulate, different aspects of growth and development with the interests and needs of all town residents in mind, and recognize the entire community benefits when it helps those most vulnerable to challenges. Wealth is shared more equitably, economies are more sustainable, homes are more attainable, tax base expands, skilled workforce expands, and more local businesses are added to the community. The town should address future land use decisions, investment opportunities, or the rising costs-of-living in Knightdale as potential barriers to being a more inclusive and livable town.



Home and Neighborhood Choices

Dynamic neighborhoods in Knightdale should be places that provide exceptional quality-of-life, attainable and diverse housing options, and connections to neighborhood-serving uses like community gardens, parks, schools, neighborhood commercial areas, or mixed-use activity centers. New neighborhoods should continue to mix two or more home choices in the same development, including “missing middle” home choices such as single dwelling homes on small lots, townhomes, duplexes, triplexes, quadplexes, and accessory dwelling units. Neighborhoods should also organize lots around a continuous and connected system of open space that represents a prominent feature of the development.

Neighborhoods in the town should be treated as the “connective tissue” between destinations, and provide a place for social interaction, and foster connections between residents, that together create a source of pride and belonging in the community. Positive actions, routines, or experiences in a Knightdale neighborhood should lead to a willingness of residents to stay and put down roots in the community.

Residents in neighborhoods provide regular and loyal customers for nearby businesses and should be connected to them in meaningful ways. Physical connections may include new street connections or greenways that strengthen the relationship between origin and destination. Visual connections may include special paving treatments, street lighting, landscaping, or coordinated signage that reinforce a connection between homes and businesses. Social connections may include district names or special events held to present the activity center and nearby neighborhoods as a unified and desirable location.



Environmental Stewardship and Sustainability

Create a comprehensive, continuous, and coordinated open space network for the town that promotes new parks and recreation centers, provides greater access to both active or passive uses, and provides interesting gathering places for residents, employees, and visitors in different parts of the community. The size, location, and design of open space in the community should support a resource hierarchy — town-wide parks, community parks, neighborhood parks, and public spaces in different activity centers designed as plazas, cafes, or attractive streets for walking. In the built environment, orient buildings to minimize energy use and maximize solar gain; consider land use mix, development intensity, and street connectivity principles to reduce the number and length of automobile trips; and reduce household water consumption using, in part, reclaimed water strategies.

Safeguard the town’s natural resources as critical elements of the open space network; including lakes, streams, wetlands, woodlands, trails, agricultural lands, and tree canopy. Protect natural open space as a means to manage stormwater runoff, provide trail linkages, protect water quality, reduce heat islands, and celebrate nature as a centerpiece of the town’s unique identity and sense of place.

A livable town should also embrace the tenants of sustainable development, including increased interests in environmental stewardship, financial responsibility, and renewable resources, and actions aimed at climate change, energy independence, natural infrastructure, and greenhouse gas emissions.



Multi-Modal Transportation System

Provide a transportation system that is safe and reliable for moving people and goods throughout the community by vehicle, bus, bicycle, or walking. Equal emphasis on land use (demand), transportation (supply), and design (character) topics in the town’s transportation and land use decision-making processes should improve the overall efficiency of the multi-modal transportation system. Build a transportation system that favors walkable, complete streets; mobility hubs for bringing travel modes together; and place-making principles important to creating notable neighborhoods, districts, and activity centers throughout the community. Recognize the special needs of children, seniors, runners, bikers, and families when planning for an effective transportation system.

Work with the town’s transportation partners to build a more efficient and multimodal regional transportation system.



Community Facilities and Services

Continue to improve quality-of-life for all residents of Knightdale by maintaining and expanding facilities and services to meet current and future demands — including water, sewer, roads, parks, police, and fire — while ensuring elected officials are good stewards in allocating finances toward town-provided services that promote compact development patterns and a high quality-of-life for town residents.

Prioritize infrastructure investments that support more compact and efficient development patterns presented in the General Growth Framework (Chapter 3), and maintain a strong partnership with outside service providers to ensure infrastructure capacity is available to support intended growth and development depicted in the Plan’s three-map series.



Economic Vitality

Create a competitive advantage for economic development in Knightdale based on place-making, which promotes, in part, high-quality and desirable places to live, work, and visit as a means to attract top-level businesses and their employees. Investments that make the town a more dynamic place also create a stronger local economy that appeals to a wide range of skilled and educated workers. Future investments to support place-making as economic development should realize fiscal benefits for town residents by seeking to improve the tax base, promote economic development and investment, support the needs of local shops and businesses, and increase access to diversified employment opportunities in the town’s planning jurisdiction.

COMMUNITY GROWTH CONSIDERATIONS 2024 to 2035

The town’s ability to maximize its opportunities and minimize its challenges is shaped, in part, by 1) land made available to accommodate new uses and associated buildings and spaces, 2) the type, size, and location of supporting infrastructure, 3) commitments to mixed-use activity centers and corridors, and 4) the community’s interests in protecting small-town charm, rural character, and environmentally-sensitive areas. Historically a desirable location for new households, the town has continued to grow and is projected to witness strong demand for new spaces through 2035.

Growth potential for the Knightdale planning area was calculated using information created for the Capital Area Metropolitan Planning Organization’s 2050 Metropolitan Transportation Plan (MTP). Specifically, 2020 and 2040 socioeconomic data for the MTP was used to interpolate growth forecasts for the town’s planning area, as a subset of the CAMPO region data set, between 2024 and 2035. Results were reported for population, employees, housing units, and non-residential square feet. Generally speaking, growth potential for the Knightdale planning area is very strong and the challenge for town officials will be managing opportunities in terms of what best improves residents’ quality-of-life and creates a stronger, more sustainable economy. It is reasonable to assume Knightdale will remain a desirable place to live so long as investable development rights are afforded to private property owners and future development sufficiently protects the character of the community that makes it desirable.

Strong interest and market demand in Knightdale are evident in the amount of committed development approved in the planning jurisdiction. As of April 2024, the town is expected to see significant growth in the near-term: 312,202 square feet of commercial development; 197,891 square feet of office development; 1,580,785 square feet of industrial development; 201,416 square feet of mixed-use development; 3,926 new single-family detached homes; 1,997 new townhomes; and 1,494 new apartments. Along with this growth comes the need for supporting infrastructure, such as schools, parks, utilities, and transportation investments. The type, location, timing, and capacity of infrastructure in the community will be critical to local initiatives that manage the amount of growth and development that will — or will not — occur in Knightdale. Concentrating new growth in targeted areas depicted on the Intentional Growth Areas Map, Urban Small Town Framework Map, or Future Place Type Map should maximize the benefits of infrastructure improvements and potentially change some behaviors related to how residents interact with nearby development.

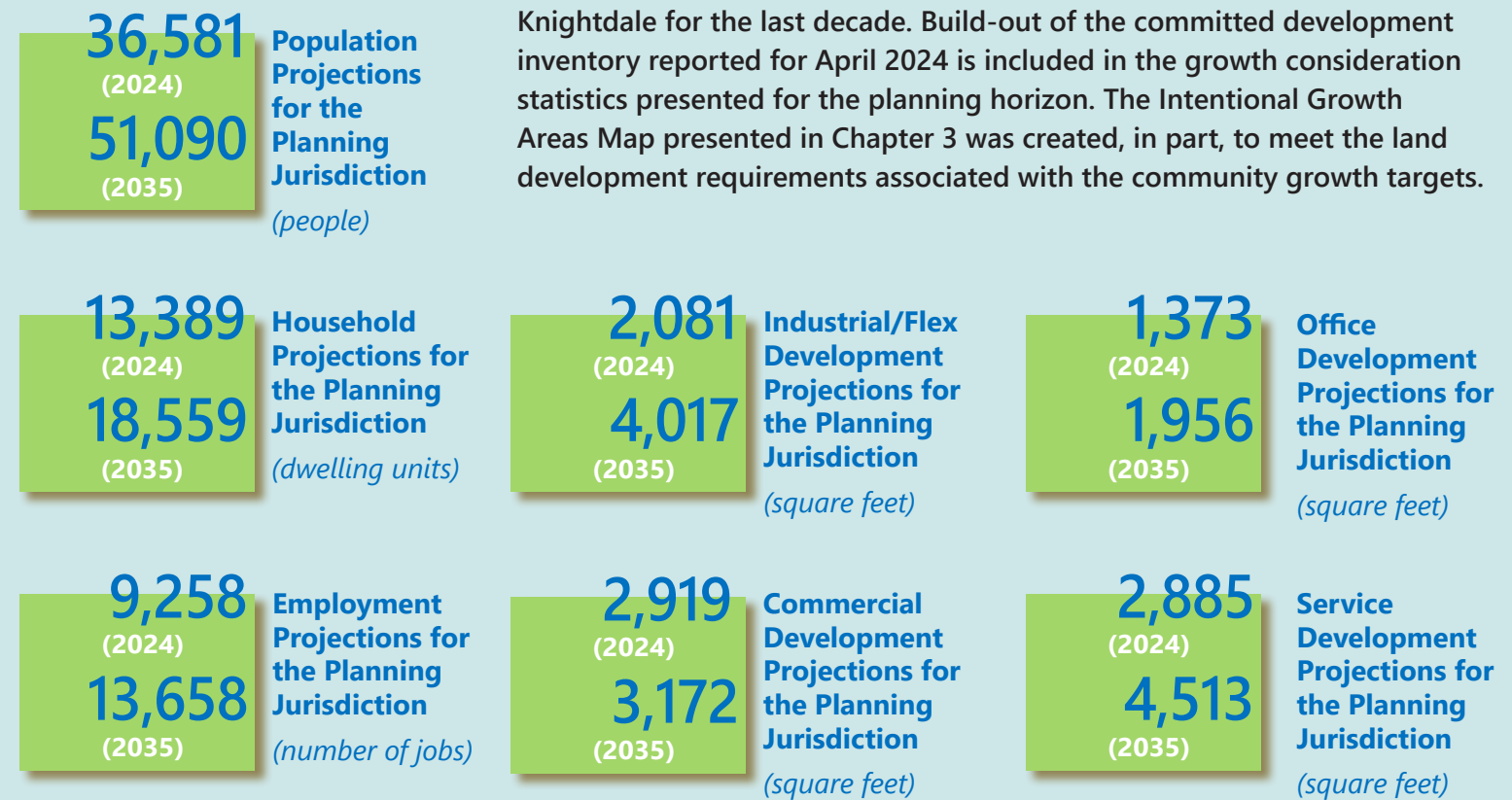
The KnightdaleNext Comprehensive Plan v.2 continues to embrace infill development and redevelopment priorities, and mixing uses and development intensities to minimize land disturbance, where places to live are located near places to work, shop, and dine. These types of mixed-use, walkable (re)developments are called “activity centers” in the comprehensive plan and are limited in number and location. Specific locations depicted on the Urban

Small Town Framework Map promote more predictable growth patterns for mixed-use development over the planning horizon.

Strong growth potential anticipated through 2035 should put town officials in a position of strength when evaluating new development proposals and increase

their influence on the use, design, and character of new development built in the community. The time is right for the town to demand what they want in terms of future (re)development and ensure that individual projects in the town reinforce the shared community vision, guiding principles, and important themes presented in the comprehensive plan.

The comprehensive plan assumes a 4.21% annual growth rate for the planning horizon — 2024 to 2035 — for all of the growth potential categories. This is consistent with annual growth rates observed in Knightdale for the last decade. Build-out of the committed development inventory reported for April 2024 is included in the growth consideration statistics presented for the planning horizon. The Intentional Growth Areas Map presented in Chapter 3 was created, in part, to meet the land development requirements associated with the community growth targets.



The General Framework, presented in Chapter 3, includes three maps that should guide future decisions about conservation and development in the community: 1) the Intentional Growth Areas Map, 2) the Urban Small Town Framework Map, and 3) the Future Place Type Map. All three maps should be used in a series when contemplating the future of a parcel or area as described below.

Step 1: Intentional Growth Areas Map

The Intentional Growth Areas Map establishes clear expectations for residents, elected officials, developers, landowners, and infrastructure providers regarding the level of change and development intensity anticipated for the area over the eleven-year planning horizon. Developers and property owners should consult with staff and use the map as a general guide before making major investment decisions, and infrastructure service providers should consult the map when evaluating the timing and magnitude of their investments to meet future demands in their service areas. Town residents should consult the map to understand a general level of development activity (or change) intended for different parts of the community sometime in the future.

Step 2: Urban Small Town Framework Map

The Urban Small Town Framework Map presents five center-based categories and four corridor-based categories to further organize the town's planning area and emphasize treatments for specific areas: mixed-use centers, mixed-use corridors, premium transit investments, trail-oriented development, and rural preservation. Developers and property owners should consult the map as a general guide before proposing development concepts or making major investment decisions. Town officials should advocate for increased or decreased development intensities in areas depicted on the map to support the town's broad goals and initiatives presented in the comprehensive plan (e.g., increased development intensities to support transit ridership or decreased development intensities to reinforce rural landscapes). Officials should also coordinate decisions for specific lots or parcels in an identified center or corridor to instill (reinforce) a unique development brand or sense of place. Town residents should consult the map to better understand the reasoning behind certain rules, policies, or investments for an area or corridor to coordinate individual investment decisions (e.g., building architecture, signage, landscaping, or outdoor furniture).

Step 3: Future Place Type Map

The Future Place Type Map delineates preferred development types, locations, patterns, and styles for the planning jurisdiction assuming complete build-out of the community. Thirteen place types are used on the map to describe intended outcomes. Some categories describe existing development conditions observed in the planning jurisdiction now, while others describe more aspirational development conditions not prevalent in the community now but desirable in the future. The categories are described in Chapter 3. More specific rules and requirements to guide development in the different categories, namely height, bulk, and density requirements, are deferred to the town's Unified Development Ordinance.

The depiction of all thirteen categories on the map sets high-level expectations for the types, locations, patterns, and styles of development preferred in the community. Developers and property owners should consult the map to confirm desirable (supportable) development outcomes before making major investment decisions. Town residents should consult the map to understand what is generally intended for vacant or declining properties in the community if or when a developer or property owner decides to make an investment.



INTENTIONAL GROWTH AREAS MAP

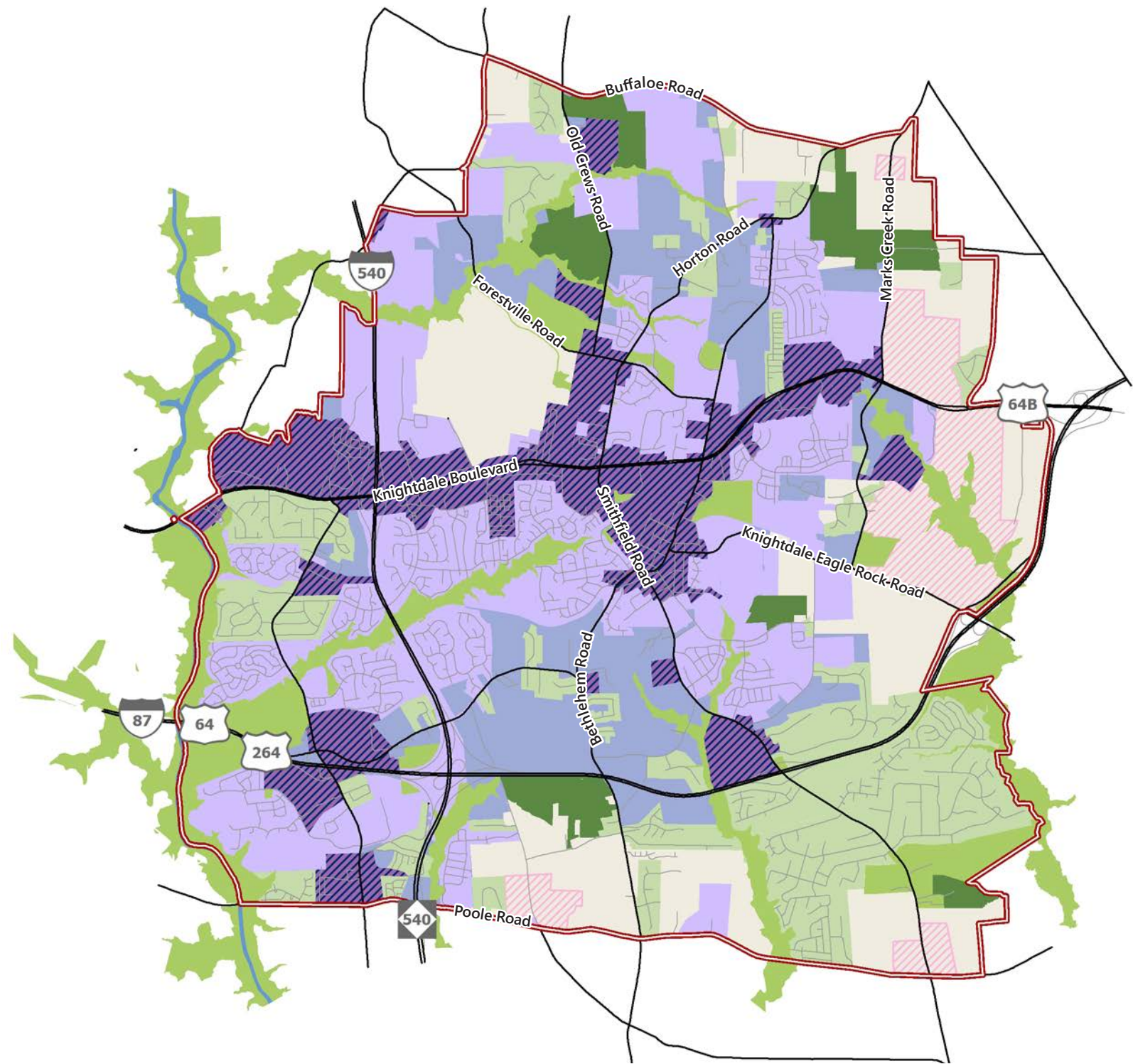
This section of the comprehensive plan describes the town's Intentional Growth Areas Map, which should guide broad growth decisions, infrastructure investments, infill development and redevelopment initiatives, open space protection, and general town policy revisions.

The Intentional Growth Areas Map offers a means to efficiently organize and illustrate a hierarchy of growth and conservation priorities for town leaders. Adherence to the Intentional Growth Areas Map will 1) facilitate the convergence of public and private decision-making processes, 2) leverage town resources with other public and private investment dollars, 3) manage the amount and timing of new infrastructure required to support future development while avoiding sprawl, 4) implement a town-wide strategy for identifying and securing open space, and 5) enhance the town's influence in future development decisions that directly impact the quality-of-life for all residents in the area.

The Intentional Growth Areas Map should remain consistent and maintain a clear direction towards the town's success with exception only for economic development

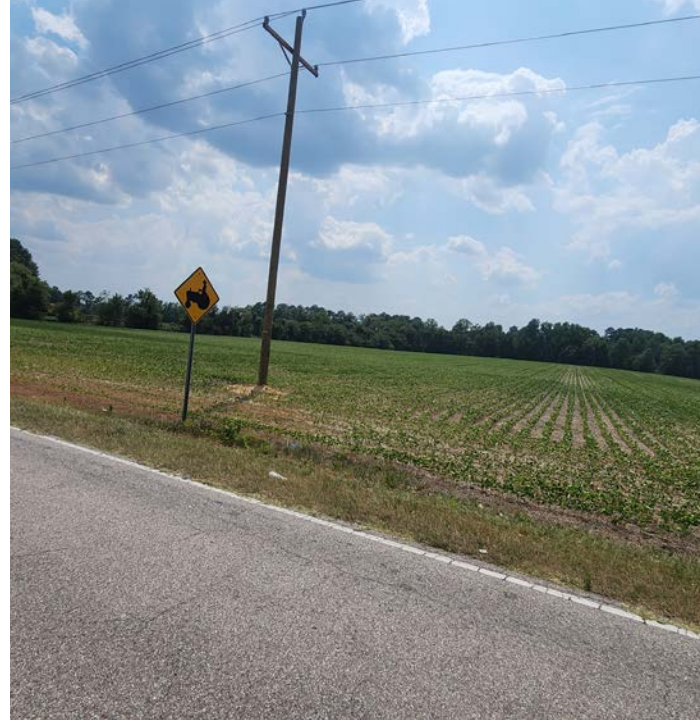
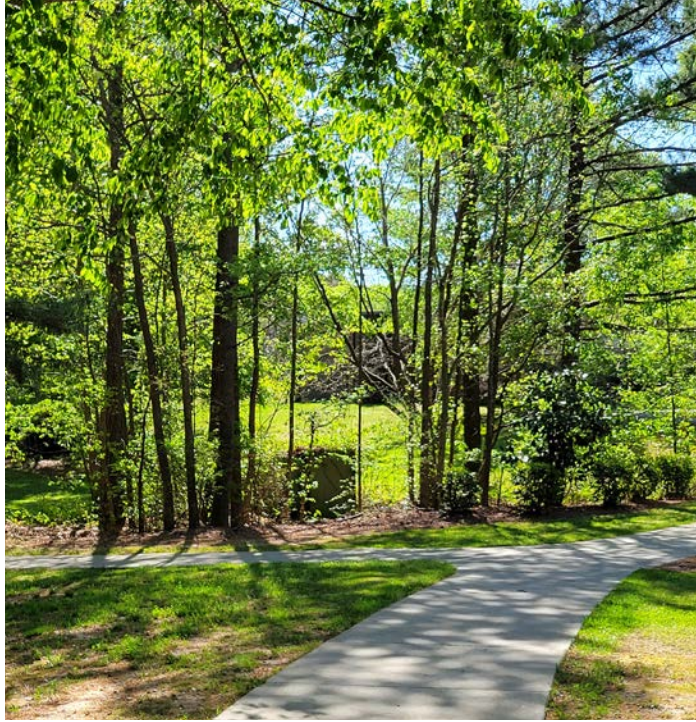
opportunities of state or regional significance that were not anticipated at the time the comprehensive plan was adopted, or significant infrastructure investments or commitments. The categories assigned to the map serve as a guide for encouraging and directing open spaces and intended growth areas within the community. Categories assigned to the map were influenced by various factors, including environmental qualities, cultural significance, eleven year growth projections, available infrastructure, and previously-developed centers, corridors, and neighborhoods.

The Intentional Growth Areas Map presents seven high-level categories: preserved open space, rural preserve, growth reserve, rural neighborhoods, secondary growth area, primary growth area, and target growth area. Each initiative is accompanied by a general objective, important considerations, and targeted treatments to facilitate progress. The map and category descriptions establish expectations for residents, elected officials, developers, landowners, and infrastructure providers regarding the level of change and development intensity anticipated for the area over the eleven-year planning horizon.



LEGEND

- Preserved Open Space
- Rural Preserve Area
- Growth Reserve Area
- Rural Neighborhoods
- Secondary Growth Area
- Primary Growth Area
- Target Growth Area
- Activity Centers in Growth Reserve Area
- Water Bodies



Preserved Open Space

Preserved open space may be used for passive or active purposes. More passive areas are represented by undisturbed or undeveloped land protected from future subdivision or development by federal, state, county, or town entities; by homeowner associations; or by other public, private, or non-profit organizations. The areas may be preserved because of their outstanding natural beauty, environmental sensitivity, stormwater management benefits, historic or cultural significance, viewsheds, floodways or floodplains, or the protection of wildlife management areas. Examples of passive open spaces in the planning area may include, but are not limited to, floodplains, preservation or conservation easements, natural parks or preserves, or cemeteries. Growth and development in these areas is prohibited to the extent controllable by town government rules and policies. Infrastructure investments in these areas should be limited to items that safeguard the community’s health, safety, or welfare with the exception of above or below ground infrastructure that connects one or more primary, secondary, or target growth areas on the map (e.g., a water or sewer main, major road, or greenway).

More active open space in the category is represented by parks, playgrounds, athletic fields, open air sports complexes, amphitheaters, greenways, or trails. Facilities may be operated by the town, county, non-profit organizations, or private sports clubs. Infrastructure investments in these areas should maintain existing park facilities or keep pace with changing preferences in the community for new park facilities or recreation programs (e.g., pickle ball courts, skate parks, disc golf courses, or public art parks).

Rural Preserve Area

Rural preserve areas include working farms, some protected by voluntary agriculture districts, and conservation easements that protect the rural nature of properties in the planning area. A minimalist infrastructure investment strategy acknowledges many responsibilities to live in these areas are borne by private landowners as a trade-off for the opportunity to live in a more rural-setting. Areas designated as rural preserve on the map should support commercial farms or farming actives, or potentially a single residence on a very large lot (homestead or hobby farm) using individual well and septic systems.

Properties where more intense development might be considered in the future should utilize the playbook approach in the comprehensive plan if significant infrastructure investments are made by the private developer. Prior to utilizing the playbook approach, town officials should explore and encourage long-term conservation efforts in rural preserve areas in coordination with Wake County or other land conservation groups.

Growth Reserve Area

Growth reserve areas represent land deemed unfavorable for significant development within the time frame of the comprehensive plan, 2024 to 2035, because they are unserved or underserved by municipal water and sewer utilities, curbside trash pickup, or police and fire protection, and it would be expensive to expand or extend services in these areas at this time. Areas designated as growth reserve on the map are not strictly prohibited from development in the future, but properties proposed for development should be evaluated utilizing the playbook approach in the comprehensive plan.

Town officials should resist using the playbook approach unless significant infrastructure and service commitments are made by the private developer. If change is contemplated, it should implement the Future Place Type Map and the recommendations presented for the individual place type categories. The areas should be evaluated, and the boundaries modified, as necessary, during the next update to the comprehensive plan.

Reclassification of growth reserve areas into a higher category — presumably secondary growth area, primary growth area, or target growth area — should be contingent upon the proximity or presence of infrastructure needed to support intended development: water, sewer, parks and recreation, police, fire, and transportation.

Future Activity Centers in Growth Reserve Areas

Future mixed-use activity centers depicted in the growth reserve area (hatched in red on the map) are encouraged to remain rural until such time that infrastructure exists to support the highest and best use intended for the area on the Future Place Type Map.



Rural Neighborhoods

Rural neighborhoods represent early leapfrog development in the planning area characterized primarily as “county subdivisions” — meaning they were developed under the authority of Wake County. Some of these settlements are decades old and create challenges for the town as it tries to connect its developed areas via roads, greenways, service districts, or municipal water/sewer systems. Neighborhoods in this category generally support large-lot, single-family detached homes on long blocks with cul-de-sacs. Water and sewer service for homes is provided by individual or shared well and septic systems. Non-residential uses in the category are generally small and oriented toward the adjacent highway.

Town officials should advocate for minimal infrastructure investments in these areas, generally limited to above or below ground infrastructure that connects one or more primary, secondary, or target growth areas on the map (e.g., a water or sewer main, major road, or greenway). Residents in rural neighborhoods may choose to connect to public infrastructure in the future if nearby service exists or if a private system fails.



Secondary Growth Area

Secondary growth areas include land contiguous to town limits that could help accommodate growth projected for an eleven-year planning horizon, 2024 to 2035, assuming annual growth rates similar to the last decade (i.e., 4.21% per year). Some areas on the map include smaller parcels anticipated to infill in a manner that complements existing buildings and their surrounding environment. Other areas on the map include large, undeveloped parcels that provide opportunities to be forward-thinking about a vision for conservation and development that includes a mix of uses or densities that create new, energized centers, corridors, or neighborhoods in the community.

A portion of the secondary growth area is inside existing or planned utility service areas. These areas should be targeted for small- to large-scale infrastructure investments that keep properties economically-viable in the future. Town officials should advocate for new infrastructure projects that upsize for additional capacity and fill-in missing segments for important street, water, or sewer connections. Continued investment in these areas should maximize return on-investment potential for the town by 1) minimizing utility expansion costs and 2) maximizing land productivity for private property

owners that increases tax revenues for the town. Infrastructure investments that support economic development — new jobs or new sales tax revenue — in the secondary growth area should be a high priority.



Primary Growth Area

Primary growth areas include land inside town limits, or in committed developments near town limits that will be annexed soon, that could help accommodate growth projected for an eleven-year planning horizon, 2024 to 2035, assuming annual growth rates similar to the last decade (i.e., 4.21% per year). Small to large vacant parcels throughout the primary growth area may support a range of infill development opportunities, which will enrich the mix of land uses in close proximity and make efficient use of existing infrastructure in the area.

These areas should be a high-priority for new or improved infrastructure constructed by private developers, which will provide new capacity in existing service areas to keep pace with infill development envisioned for different areas depicted on the Future Place Type Map. Continued investments in all primary growth areas should maximize return-on-investment potential for the town.



Target Growth Area

Target growth areas include land inside different activity centers depicted on the Future Place Type Map, and extending outward from the mixed-use areas along one or more corridors in some cases, that could help accommodate growth projected for an eleven-year planning horizon, 2024 to 2035, assuming annual growth rates similar to the last decade (i.e., 4.21% per year). They include old town and downtown, innovation center, neighborhood center, and mixed-use center place type categories. Together, they provide an opportunity to re-imagine Knightdale's future, and introduce new, energized activity areas that provide key locations for new employment centers, retail centers, entertainment areas, and upper story or adjacent residential units in appropriate locations. In the context of redevelopment, these areas require more deliberate planning and phasing to keep them viable over longer periods of change. However, once complete, redeveloped areas have the potential to serve as new and reinvigorated activity centers or mixed-use corridors for the whole of Knightdale.

These areas should be a high-priority for new or improved infrastructure constructed by private developers, which will provide new capacity in existing service areas to keep pace with infill

development and redevelopment envisioned for the different activity centers or mixed-use corridors depicted on the Urban Small Town Framework Map or Future Place Type Map. Continued investments in these areas should maximize return-on-investment potential for the town, and offer several public-private partnerships to improve the public realm — the space between buildings — or add community facilities during the development entitlement process.

Infrastructure investments in these areas should keep pace with changing economics, evolving technologies, and aging-infrastructure. Advancing infrastructure investments in these areas should be considered to incentivize investments by developers or private property owners. Specific projects should be considered that might transform these areas into more walkable and vibrant places, and consider opportunities to link neighborhoods to the different development activity centers.

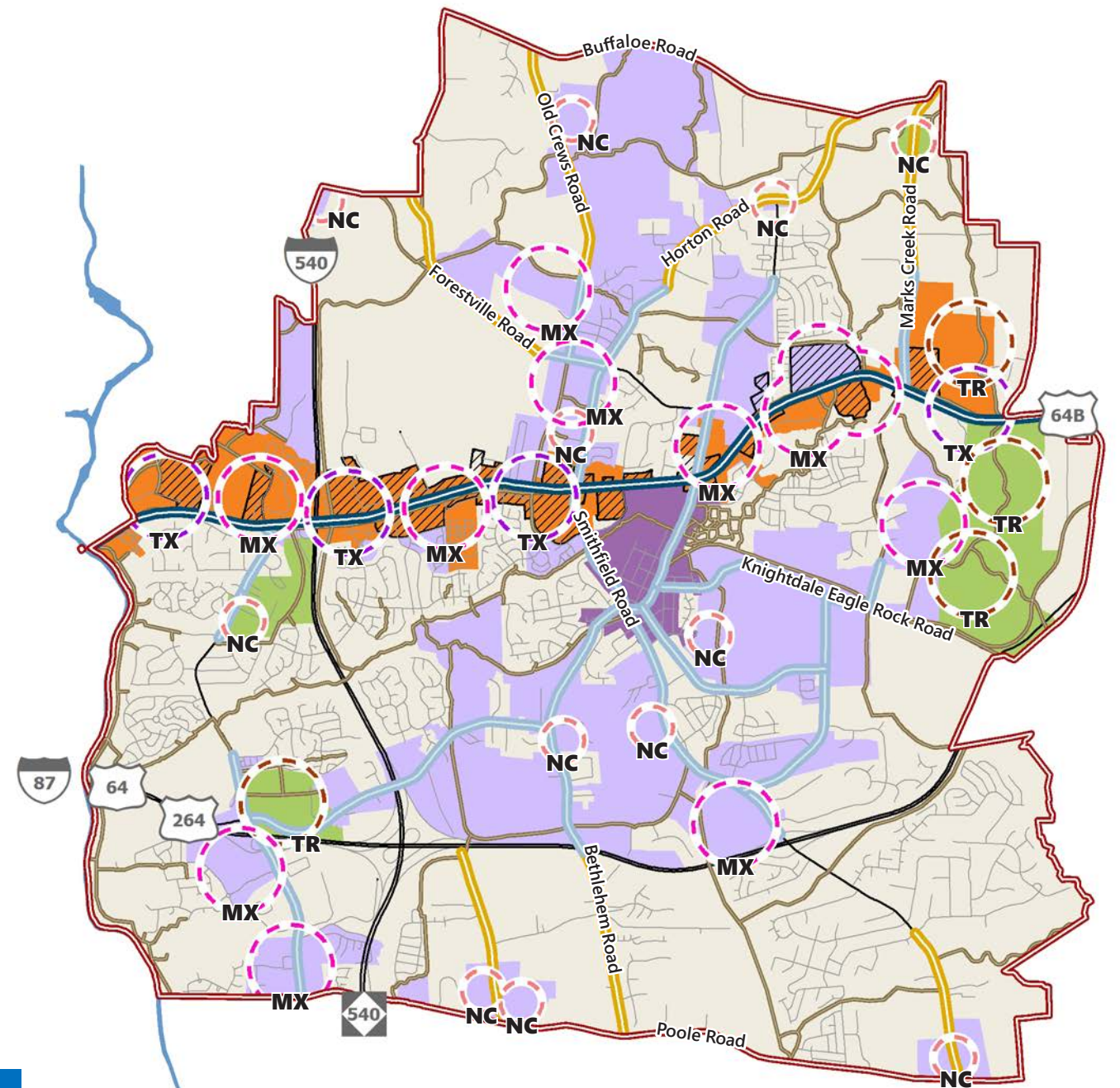
URBAN SMALL TOWN FRAMEWORK MAP

The Urban Small Town Framework Map presents four center-based categories, four corridor-based categories, and a suburban retrofit category to further organize the town's planning area. Each category is described on pages 56 through 61 by a general objective, important considerations, and targeted treatments to facilitate progress. The map and category descriptions establish general expectations for residents, elected officials, developers, landowners, and infrastructure providers regarding desired characteristics for different geographic areas in the community. More specific direction for decision making in these areas is presented on the Future Place Type Map and its corresponding place type category descriptions.

From time to time, revisions to the Urban Small Town Framework Map may be needed to reflect new realities in the future. For example, findings or conclusions from a corridor study to extend BRT service on Knightdale Boulevard may influence the number, size, or location of transit activity nodes proposed on the map. Changes considered to the map should be evaluated against the community vision statement, guiding principles,

and Intentional Growth Areas Map to determine if the town's best interests are improved because of the proposed change.

General activity center boundaries identified on the Urban Small Town Framework Map are represented in more detail on the Future Place Type Map as different place type categories: old town and downtown, innovation center, neighborhood center, and mixed-use center. Specific size, program, or design requirements for each of the activity-center-focused place type categories are provided in Chapter 3 of the document.



LEGEND

-  Mixed-Use Corridor
 -  Bus Rapid Transit Corridor
 -  Rural Preservation Corridor
 -  Trail-Oriented Development Corridor
 -  Transit-Oriented Development Target Area
 -  Trail-Oriented Development Target Area
 -  Mixed-Use Development Target Area
 -  Old Town and Downtown Target Area
 -  Suburban Retrofit Target Area
 -  Knightdale Planning Area
 -  Water Bodies
 -  Major Roads/Streets in and Around Knightdale
- General Activity Center Locations**
-  NC = Neighborhood Activity Center
 -  MX = Mixed-Use Activity Center
 -  TR = Trail-Oriented Development Activity Center
 -  TX = Transit-Oriented Development Activity Center



Neighborhood Activity Center (NC)

Neighborhood activity centers try to locate small, mixed-use destinations close to residential neighborhoods throughout the town’s planning area. Each activity center is expected to be “neighborhood-serving” with land uses that meet the daily needs of nearby residents. Their proximity to neighborhoods requires that operations be low-intensity, unobtrusive, and at a scale and design compatible with nearby residential development. The design of neighborhood activity centers should effectively transition between residential and nonresidential uses, and include safe and convenient pedestrian and bicycle access for nearby residents.

Neighborhood activity centers should effectively minimize the impact of cut-through traffic on nearby neighborhood streets by orienting vehicle access, circulation, etc. away from adjacent residential neighborhoods. Access between residential neighborhoods and adjacent commercial uses may be limited to pedestrian facilities.

Standalone residential uses, if appropriate, in a neighborhood activity center should be secondary to commercial and office uses or open spaces (combined) in terms of building square footage, land area, and intensity of development. Homes in an activity center should vary in building type, size, and format to avoid design monotony, and help transition effectively to existing land uses and development intensities observed on adjacent properties.



Mixed-Use Activity Center (MX)

Mixed-use activity centers are focal points in the community, and offer the opportunity to serve broader economic, entertainment, and housing needs for residents and visitors. Land uses and buildings on small blocks encourage active public spaces between buildings. Public spaces are sized and designed to be gathering places for mixed-use areas and their surrounding neighborhoods. Homes in and surrounding the center of development may offer several choices to live and experience the mixed-use area — including, but not limited to, “missing middle” home choices such as single dwelling homes on small lots, townhouses, duplexes, triplexes, or quadplexes — and accessory dwelling units. A larger mixed-use activity center may be surrounded by one or more mixed-density residential neighborhoods, which provide additional nearby home choices and encourage active living with a comprehensive and interconnected network of walkable streets.



Transit-Oriented Development Activity Center (TX)

Transit-oriented development activity centers for the BRT corridor found in Knightdale should include a concentration of mixed-use, dense buildings focused around a premium bus stop. The highest density development is located within one quarter mile of the transit station, with progressively lower densities spreading out into neighborhoods surrounding the center. Multifamily buildings — apartments or condominiums — should be integrated into the activity center to increase the number of transit riders (more likely pick-ups and drop-offs) in close proximity to BRT service.

Other characteristics for a transit activity node should be influenced by the activity center place type assigned to the property on the Future Place Type Map (see Chapter 3). In some cases, the mixed-use development form, pattern, and intensity intended for a transit activity node may extend outward from a mixed-use area along a designated bus rapid transit corridor. A mixed-use, bus rapid transit corridor leading to a transit-oriented development activity center, or linking two or more transit-oriented development activity centers together should be considered a desirable condition in the community.

Transit-oriented development activity centers depicted on the Urban Small Town Framework may be repositioned in future years in accordance the findings and conclusions of future BRT feasibility studies, engineering design plans, or property owner interests.



Trail-Oriented Development Activity Center (TR)

A new or improved activity center located along an existing or proposed long-distance greenway or trail (see the map in the Shift Knightdale Comprehensive Transportation Plan) should incorporate trail-oriented development principles into its overall design, including buildings oriented toward the greenway corridor, outdoor seating that fronts the greenway, public or private spaces near the greenway corridor that accommodate trail users, and a network of secondary trails that connect into the primary greenway corridor. Road crossings with the greenway in the activity center should be minimized. Amenities in a trail-oriented activity center — bike parking, outdoor furniture, bike repair stations, and public art — should also be incorporated into the overall design concept.

Suburban Retrofit

Suburban retrofit is the process of converting areas that are already developed in conventional suburban patterns into mixed-use, multi-modal, activated corridors or centers. This approach reflects a change in preference from suburban, auto-oriented development to a more traditional mixed-use form, where people can and will want to walk between new residences and a range of small and large retail shops, businesses, offices, and recreational opportunities. Context-sensitive solutions used to implement suburban retrofit concepts address typical conflicts between commercial and residential uses by carefully transitioning from small- to large-scale building types.

Suburban retrofit occurs in areas that are mostly developed, but may include underutilized parcels or excessive surface parking lots. Retrofitting existing building sites allows developers to take advantage of existing infrastructure and services, and helps to mitigate the effects of sprawl by improving transportation connections. Transformation of existing suburban centers to support mixed-use development will require deliberate planning and phasing to keep the areas viable during their transition.

Suburban retrofit also helps address barriers to bicycle and pedestrian connectivity in places like aging shopping centers by enhancing pedestrian connections and recreating internal driveways and internal streets with infill buildings fronting onto them. This redevelopment approach relocates parking to the rear of buildings, rather than having large surface parking lots between the building and the street.

Bus Rapid Transit Corridor

A bus rapid transit (BRT) corridor is found along Knightdale Boulevard, which would serve as the logical extension of the New Bern Avenue service corridor in Raleigh identified in the Wake County Transit Plan Update, 2021-2030. Generally speaking, development in the bus rapid transit corridor should incorporate the same recommendations made for the “largely-developed” mixed-use corridor condition described earlier, except that land use mix and development intensities may need to be even higher to increase ridership potential for the BRT system.



Mixed-Use Corridor

In some cases, the mixed-use development form, pattern, and intensity described for an activity center category may extend outward from a mixed-use area along one or more transportation corridors. A mixed-use corridor leading to a mixed-use activity center, or linking two or more activity centers together should be considered a desirable condition in the community.

Some mixed-use corridors in Knightdale are developed as auto-oriented shopping centers, industrial parks, or residential neighborhoods with few vacant parcels left for infill development. Larger, deeper parcels in the developed corridors may allow for significant redevelopment in the future that supports mixed-use buildings and medium- to high density residential buildings. Smaller, shallower parcels in developed corridors may be less likely to redevelop as mixed-use buildings in the future, and should emphasize improvements in their limited spaces that create more connected and consistent walkable/bikeable environments for travelers in the corridor.

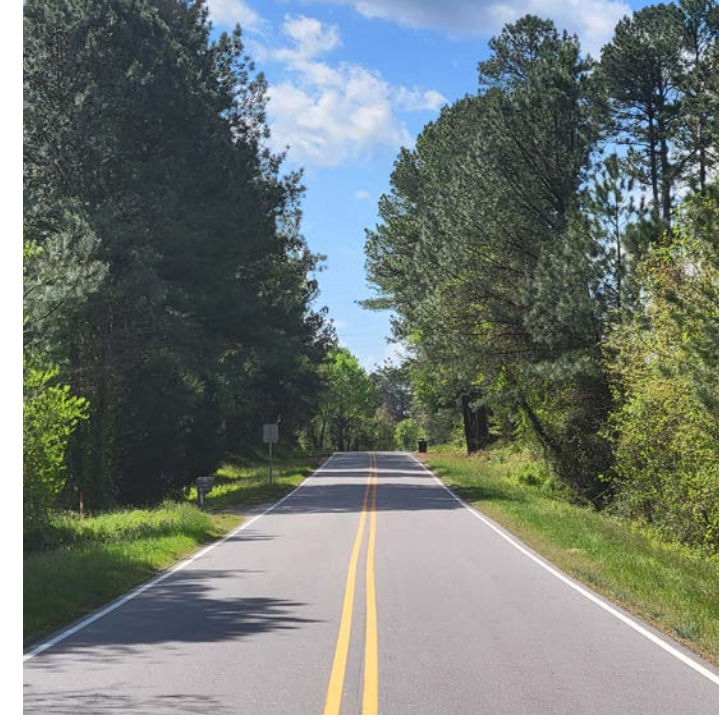
Other mixed-use corridors in Knightdale are less developed and offer immediate opportunities to support mixed-use buildings and medium- to high density residential buildings. Stub-out streets should be provided in new development if adjacent land is vacant to create a secondary street network along the corridor that supports more localized trips. Considerations should also be given to ensure building heights, scale, and massing are compatible with existing development in the corridor or adjacent to the corridor.

New (re)development of parcels in a mixed-use corridor should meet the town's goals for creating more walkable and bikeable streets in the community. Streetscape treatments — street lights, street signs, street trees, sidewalks, bicycle facilities, traffic signals, sidewalks, or seating areas — should be consistent along specific corridors, or at least for portions of corridors identified as districts, to reinforce unique experiences for visitors.



Trail-Oriented Development Corridor

In some cases, trail-oriented development principles focused in an activity center may extend outward along one or more greenway corridors. A trail-oriented development corridor leading to a trail-oriented development activity center, or linking two or more trail-oriented development activity centers together should be considered a desirable conditions in the community.



Rural Preservation Corridor

Rural preservation corridors are found along major transportation routes in Knightdale, and aim to protect historic buildings, historic resources, or a certain rural heritage that still exists for some portions of the town's planning area. Rural heritage may be influenced by physical, cultural, or environmental characteristics observed along the corridor. Land use limitations, exaggerated building setbacks, tree-save areas, and fence style or material requirements should be considered to protect the rural character, and safeguard critical viewsheds, along the corridors.

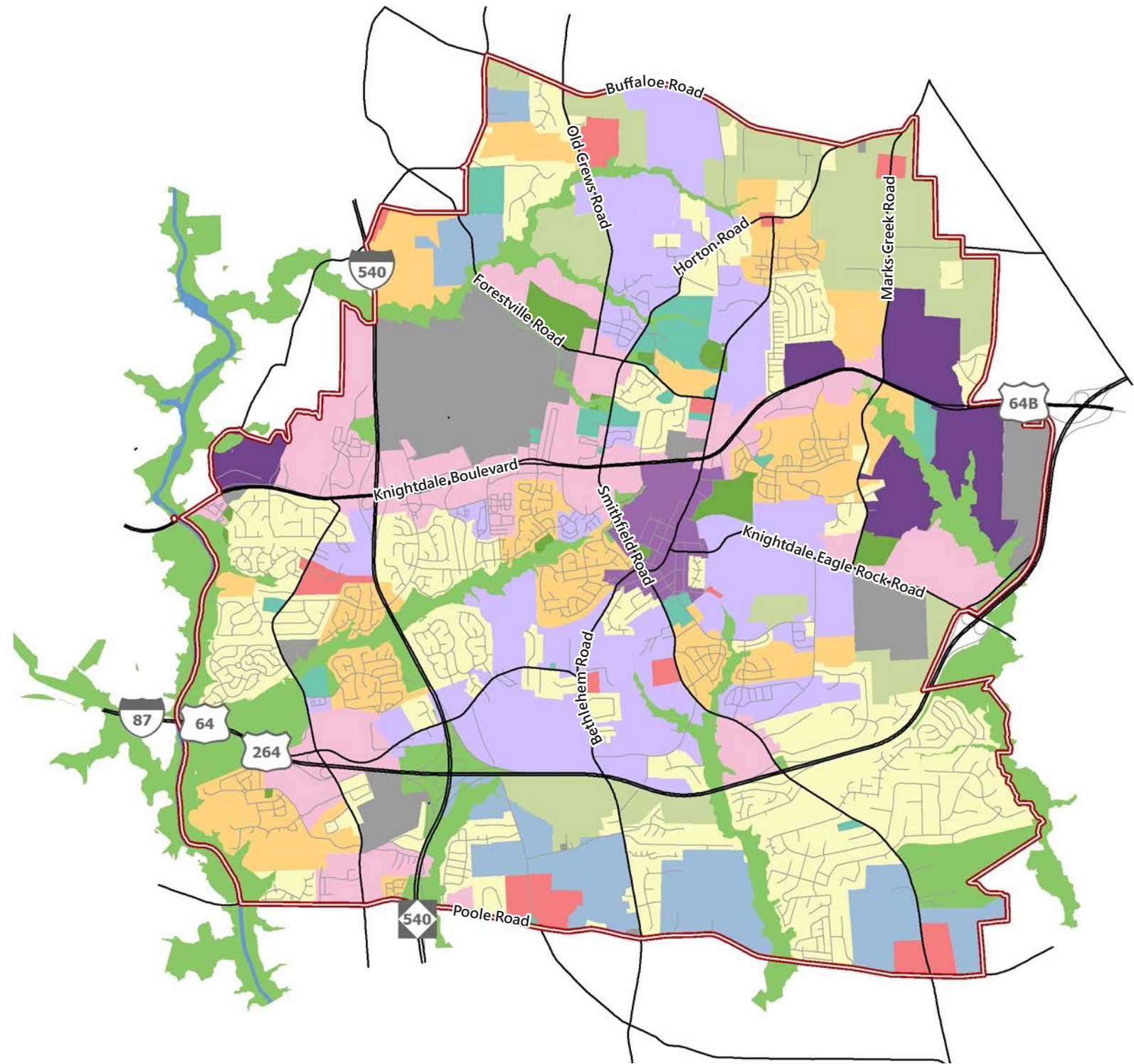
FUTURE PLACE TYPE MAP

The Future Place Type Map depicts preferred development types, locations, patterns, styles, and intensities for the planning jurisdiction assuming full build-out of the community. It also provides a physical framework to more effectively realize the community vision statement and guiding principles presented in the comprehensive plan. Some recommendations for the Future Place Type Map are somewhat bold, and set a long-term vision for a more diverse development portfolio in Knightdale that is 1) forward-thinking, 2) focused on new or improved development activity centers, 3) promotes economic development via strategic place-making investments, 4) mindful of supporting infrastructure, 5) aware of residents' quality-of-life, and 6) economically-viable and financially-sustainable for the town.










The Future Place Type Map is largely implemented through the town's Unified Development Ordinance (UDO) and official Zoning Map. Some areas on the Future Place Type Map reflect what currently exists today, some are more aspirational in nature, and others are a mix of what exists today and what could be in the future. The categories depicted on the Future Place Type Map are described later in the chapter. They articulate how specific areas should develop in the future in keeping with the shared vision for the community.

The Future Place Type Map and its place type descriptions serve as the foundation for near-term revisions to the town's UDO, which should ensure rules and regulations are consistent with the vision for conservation, character, and development presented in the KnightdaleNext V.2 Comprehensive Plan.

Some mixed-use activity centers envisioned for the Future Place Type Map may take longer to implement compared to building more suburban-style residential neighborhoods or shopping centers. However, the benefits of these uses to safeguard and promote the long-term viability of Knightdale as a leading community in the Triangle region is worth the wait. In addition, build-out of the Future Place Type Map is a long-term endeavor, whereby it will be several decades before all of the land in the planning jurisdiction is developed, redeveloped, or preserved. Town officials should influence the timing, magnitude, and location of growth in the planning jurisdiction using local infrastructure investment policies, land use regulations, and partnerships with regional service providers.



LEGEND

- | | | |
|--|--|---|
|  Preserved Open Space |  Mixed-Density Neighborhood |  Mixed-Use Center |
|  Rural Living & Agriculture |  Mixed-Use Neighborhood |  Innovation Center |
|  Recreation Open Space |  Civic & Institutional |  Old Town & Downtown |
|  Conservation Neighborhood |  Industrial |  Water Bodies |
|  Single Family Neighborhood |  Neighborhood Center | |

From time to time, revisions to the Future Place Type Map may be needed to reflect new realities in the future. Changes considered to the map should be evaluated against the community vision statement, guiding principles, Intentional Growth Areas Map, and Urban Small Town Framework Map to determine if the town's best interests are improved because of the proposed change.

Town officials should also evaluate proposed changes to the map using an "if-then-what-else" approach to decision-making, whereby potential ripple effects or unintended consequences associated with a proposed change are evaluated

to see what else might be impacted as a result. For example, categories assigned in the Future Place Type Map may need to be revised if the town or their partners decide to support a major economic development decision, or if a regional or state agency programs improvements for the area not previously anticipated in the KnightdaleNext V.2 Comprehensive Plan. Amendments to the Future Place Type Map should be considered automatic if the Town Council makes a zoning decision that is inconsistent with the map. In this case, the motion to make a zoning decision should be accompanied with the appropriate new place type category to assign on the map.

Place Type Descriptions

The comprehensive plan uses the term "place types" to describe unique and discernible areas of the community depicted on the Future Place Type Map. The categories describe important elements that work together to instill a sense of place or experience for residents, visitors, or employees in the specific areas. Organizing the town using place characteristics prioritizes site design,

public space, building form and massing, and quality architecture over general land use and density. More specific rules and standards for the place types — including provisions for permitted or prohibited land uses, densities or intensities, block sizes, setbacks, parking, or landscaping considerations — will be addressed in the Town's UDO using general guidance and recommendations for place types provided in the comprehensive plan.

OPEN SPACES

- Preserved Open Space
- Rural Living & Agriculture
- Recreation Open Space

NEIGHBORHOODS

- Conservation Neighborhood
- Single Family Neighborhood
- Mixed-Density Neighborhood
- Mixed-Use Neighborhood

DESTINATIONS

- Civic & Institutional
- Industrial

ACTIVITY CENTERS

- Neighborhood Center
- Mixed-Use Center
- Innovation Center
- Old Town & Downtown



Preserved Open Space

Preserved open space is represented by undisturbed or undeveloped land permanently protected from future subdivision or development by federal, state, county, or town entities; by homeowner associations; or by other public, private, or non-profit organizations. The areas may be preserved because of their outstanding natural beauty, environmental sensitivity, stormwater management benefits, historic or cultural significance, viewsheds, floodways or floodplains, or the protection of wildlife management areas. Examples of preserved open spaces in the town may include, but are not limited to, preservation or conservation easement areas, natural parks or preserves, or cemeteries.



Street & Block Pattern

- Undefined, should be sensitive to existing site conditions and surrounding land uses.



Open Spaces & Natural Resources

- Influenced by site conditions, but may include woodlands, natural parks, water bodies, steep topography, and greenways or trails.



Building Types & Massing

- Buildings are discouraged on a site unless they support outdoor uses (e.g., bathrooms, visitor centers, concessions, shelters, learning centers, or sports equipment sales and rentals).



Transportation

- Prioritize bicycle and pedestrian travel modes to and within the site; especially greenways or blueways. Limit internal roads to access parking lots only.



Sustainability

- Maintain existing site grades, tree stands, and stormwater features to the maximum extent possible.
- Prioritize native species when enhancing tree canopy or landscaping, while eliminating or removing invasive species.



Rural Living & Agriculture

Land characterized by large lots and a high degree of separation between buildings. Homes, farms, and farmettes (hobby farms) are scattered throughout the countryside and integrated into the landscape. Some areas are preserved under agricultural or environmental easements. These areas are largely committed to extremely low-density residential development but also prioritize the preservation of farmland.

Farmland includes land actively used for commercial agriculture or forestry activities, including cultivated land, small-scale farms, timber harvest, horse farms, other livestock, or woodlands. Farms may include a primary residence, additional housing to support agricultural operations, and/or outbuildings associated with activities on the farm. While these areas are primarily an agriculture category, conditional, accessory, or ancillary uses that support the economic viability of the farm may occur on the property. These uses could include, but are not limited, to agritourism; special event venues; breweries; wineries; distilleries; education centers; or other activities that are directly connected to specific farm activities performed on the property.



Street & Block Pattern

- Largely-undefined, but becomes more pronounced as homesteads decrease in size. Very large blocks and curvilinear streets are common when a structure is present.
- Individual driveways typically provide direct access to the property from an adjacent road.

Transportation

- Roads generally reflect the rural nature of the area and serve primarily automobiles, including vehicles and equipment associated with farm uses.
- Pedestrian and bicycle facilities should consider side paths or greenways that may run parallel to a road.
- Greenways may also support equestrian activities. Microtransit service will be available starting in July 2024.

Building Types & Massing

- A private residence is common on a site (home building type). Ancillary or out-buildings may also be present to support farm operations; including barns, silos, equipment sheds, etc.
- Accessory dwelling units on a site should be designed to be compatible with the primary residence.
- Civic buildings — such as a school, church, or fire station — may be appropriate in some areas.



Open Spaces & Natural Resources

- Influenced by site conditions, but may include natural areas, farm fields or pastures, grazing areas, woodlands, steep topography, and greenways or trails.

Sustainability

- Encourage farming practices that preserve natural resources and protect the environment.



Conservation Neighborhood

A Conservation Neighborhood preserves and protects environmental features, tree stands, meadows, steep topography, water bodies, or outstanding viewsheds by closely clustering development together of varying lot sizes and densities. Conservation Neighborhood design should respond to specific features on the site; however, goals to reallocate gross allowable densities into compact development areas that minimize infrastructure investments and maximize large, meaningful and continuous areas for permanent open space are encouraged. Conservation Neighborhoods are primarily residential, but may include limited civic, farm, or other non-residential (commercial) uses.

Street & Block Pattern

- Curvilinear roads are generally used leading into a neighborhood to avoid identified open space or environmentally-sensitive areas.
- A grid street network is used near the identified center of the neighborhood. Blocks may vary in size, increasing in area or dimension radiating out from the center of activity.
- Off-street parking should be accommodated at the side or rear of the lot to minimize the presence of parked automobiles on driveways along residential streets (with parking access to lots for townhomes from rear alleys).
- Cul-de-sacs on a site should be limited to areas with environmental concerns or steep slopes.

Transportation

- Roads internal to neighborhoods should be designed to include green infrastructure elements, including meandering sidewalks and greenways.
- Streets are designed with curb and gutter drainage.
- Residential areas in the neighborhood should be walkable with sidewalks, bicycle facilities, paths and trails, connecting to open space regularly.



Sustainability

- Low-impact landscape design techniques and sustainable stormwater practices should be incorporated.
- Individual lots sizes and shapes may provide opportunities for rain gardens or other on-site stormwater control measures.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Developed areas should take advantage of orientation, massing, tree cover, and other elements to reduce heat islands, promote natural cooling, and reduce heating and cooling demands.



Open Spaces & Natural Resources

- Permanent open space should be substantial in size, interconnected, functional in nature, and accessible to residents and visitors.
- Natural resource areas and ecologically sensitive areas on a site should remain more informal and accessible via greenways.
- A significant portion of a development, typically 30-60%, should be preserved as open space, with amounts varying depending on features present on the site.
- In an activity center or residential area, open spaces may be more formal and include parks, greenways, squares, or neighborhood gardens.
- Development in the neighborhood should be sensitive to existing natural conditions and avoid mass-grading or tree-clearing for larger lots (i.e., greater than 60 feet in width).



Recreation Open Space

Recreation open space in Knightdale is used for passive or active purposes. More passive areas are represented by nature parks, walking trails, scenic overlooks, and natural areas. Portions of a passive park may be protected because of their outstanding natural beauty, environmental sensitivity, stormwater management benefits, viewsheds, or the protection of wildlife management areas.

Active open space in the town is used for, but are not limited to, parks, playgrounds, athletic fields, open air sports complexes, amphitheatres, greenways, or trails. Facilities may be operated by the local government, non-profit organizations, or private sports clubs. The town should continually evaluate opportunities for additional park land in the planning area during the review of new development applications; especially where public recreation open space is not prevalent, or easily connected to surrounding development, in the immediate area.



Street & Block Pattern

- Undefined, should be sensitive to on-site activities and surrounding land uses.
- Active spaces should be centrally-located on a site and easily-accessible to users of the space.
- Passive areas should front public streets, and be accessible via multiple entry points. Trails and greenways should provide access to, and within, a site.



Open Spaces & Natural Resources

- Influenced by site conditions, but may include natural areas, nature parks, water bodies, athletic fields or courts, playgrounds, skate parks, amphitheatres, outdoor entertainment buildings or structures, woodlands, steep topography, and greenways or trails.



Building Types & Massing

- Cross reference with Civic and Institutional Building Types in the Town of Knightdale Unified Development Ordinance.



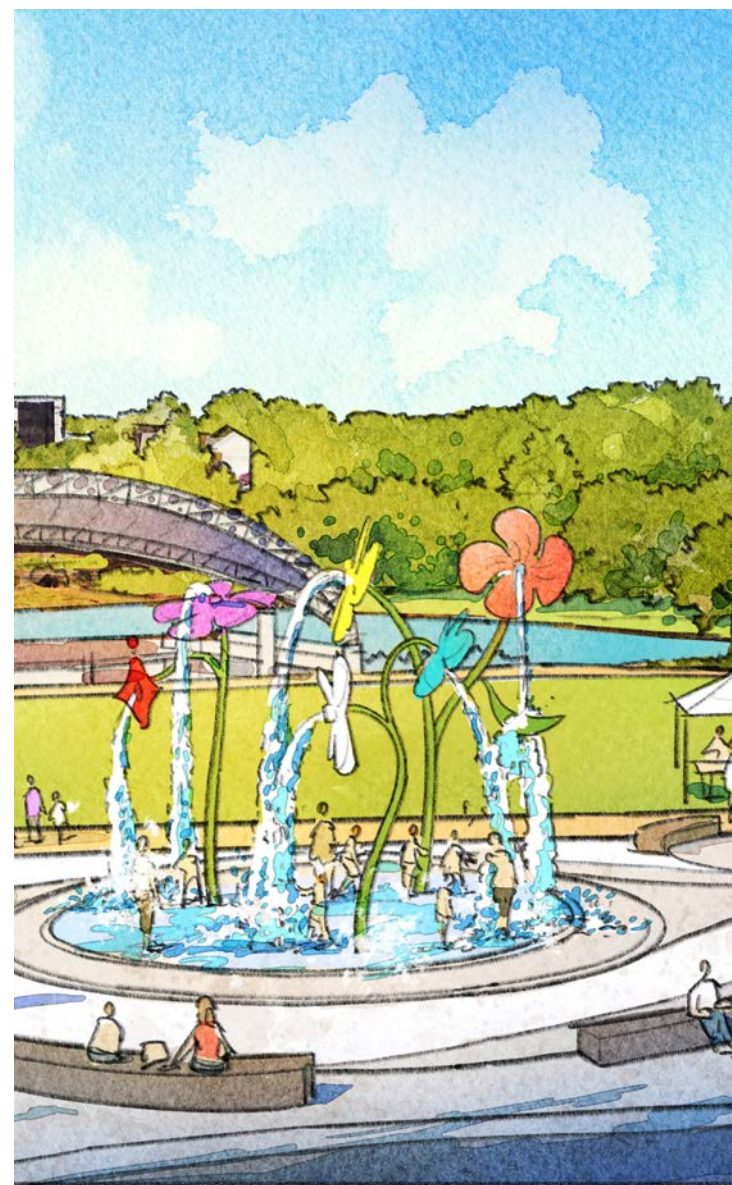
Transportation

- Prioritize bicycle and pedestrian travel modes to and within the site; especially greenways or trails.
- Build internal roads only to access parking lots or increase street connectivity.



Sustainability

- Incorporate renewable energy sources into the site design, solar-powered or wind-powered features.
- Minimize site grading to maintain natural stormwater flows.
- Maintain large tree stands to keep spaces cool in warmer months.



Single Family Neighborhood

Land formed as a Single Family Neighborhood includes one (1) housing type — single dwelling detached — on uniform lot sizes when it was first developed. Homes are oriented toward streets with rear yards larger than front yards. Older Single Family Neighborhoods in Knightdale include limited access points and cul-de-sacs.

Preserving the character of existing Single Family Neighborhoods is a high-priority, though some existing lots may be subdivided or redeveloped to introduce new home choices, including, but not limited to, single dwelling homes on small lots, townhomes, duplexes, triplexes, quadplexes, cottage dwellings, or accessory dwelling units. The type, size, orientation, and character of new homes built in existing neighborhoods should be compatible with adjacent properties and supporting infrastructure. Officials should also be careful of unintended consequences associated with wide-spread subdivision of large lots or infill development activities in the area: increased stormwater flooding because of changed drainage patterns, changes in overall neighborhood dynamics, or rising home values (and rising tax bills) that drive existing residents out of the area. Policies or considerations in the comprehensive plan should manage the timing and location of lot subdivision or tear-downs in specific areas if conditions being monitored are not exceeding expectations.



Street & Block Pattern

- A grid street network, or modified grid street network, is used throughout the neighborhood.
- Small blocks promote a more walkable environment.
- Stub out streets provide connections to adjacent vacant land.
- Off-street parking should be accommodated at the side or rear of the lot to minimize the presence of parked automobiles on driveways along residential streets.

Building Types & Massing

- Neighborhoods generally support single-family detached homes, but may include duplexes or townhomes in limited cases as infill development.
- Accessory dwelling units are allowed on all residential lots.
- Neighborhood club houses, amenity buildings, or civic buildings should be allowed in limited cases.
- Cross reference with House or Townhouse Building Types in the Town of Knightdale Unified Development Ordinance.



Transportation

- Streets in new neighborhoods are built as Complete Streets.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.

Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Minimize site grading to maintain natural stormwater flows.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Homes should take advantage of orientation, massing, tree cover, and other elements to reduce heat islands, promote natural cooling, and reduce heating and cooling demands.

Infill Development or Redevelopment

- Introduce gentle density in existing neighborhoods using other residential buildings types — like duplexes or townhomes — on subdivided lots.
- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- New infill homes should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.



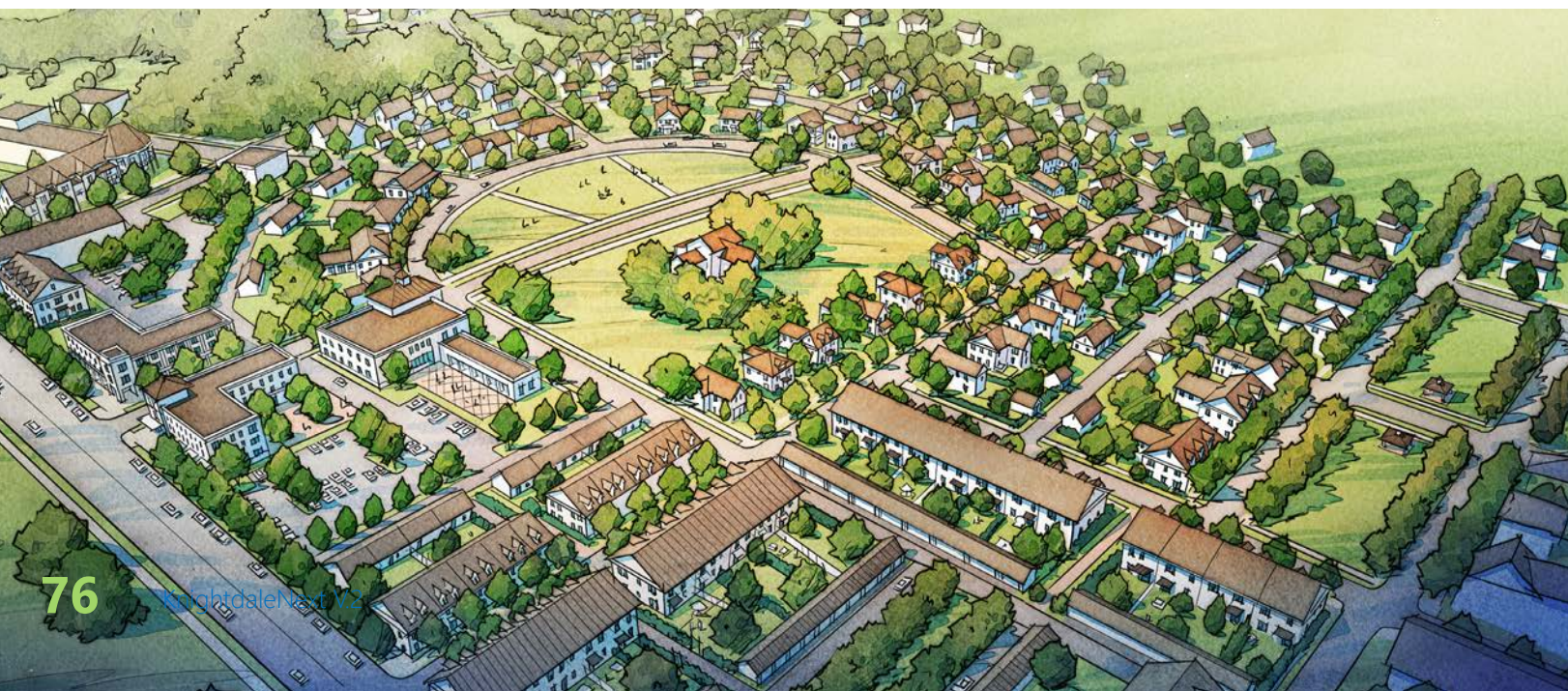
Mixed Density Neighborhood

Land formed as a neighborhood that includes several housing sizes and types — single dwelling detached, duplex, triplex, quadplex, townhome, condominium, apartment, and/or senior living — that provide a range of home choices (lot sizes, home types, and price points) in the same neighborhood. The mixed approach accommodates residents at all stages of life, with different housing needs and preferences, to live in a multi-generational community for a lifetime. Residents can start in a smaller, less expensive option like an apartment or townhome early in life, and move to larger detached single dwelling homes on larger lots as their families grow and change. Empty nesters can downsize to a townhome or senior living option without leaving the neighborhood.

In a Mixed-Density Neighborhood, homes are oriented toward a street or common open space with on-street parking in front of more dense housing options. Some neighborhoods may mix housing types on the same block, or provide accessory dwelling units. Different building types should not be fully separated from each other (like pods) in a development. Neighborhoods should include a comprehensive and connected network of open space. The neighborhoods are organized around one or more neighborhood-scale parks that serve as a central gathering place, within a five (5)-minute walk of all homes in the neighborhood. Smaller open spaces like pocket parks and community gardens are distributed throughout the neighborhood and within a short walk of homes.

Lot sizes in the neighborhoods are smallest around the central gathering place, where attached and multi-dwelling housing types like townhomes, apartments and condominium buildings may define the space. If a Mixed-Density Neighborhood is built adjacent to an existing conventional neighborhood, the variation from more dense to less dense should provide an appropriate transition.

Mixed-Density Neighborhoods are primarily residential but may include limited civic or ancillary non-residential uses.



Street & Block Pattern

- A grid street network is used throughout the neighborhood.
- Small- to medium-size blocks promote a more walkable environment.
- Stub out streets provide connections to adjacent vacant land.
- Formal, designated on-street parking throughout the neighborhood.
- Off-street parking should be accommodated at the side or rear of the lot to minimize the presence of parked automobiles on driveways along residential streets



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the neighborhood, including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, or greenways.



Building Types & Massing

- Different building types should not be fully-separated from each other (like pods) in a development.
- Accessory dwelling units are allowed on all residential lots.
- Neighborhood club houses, amenity buildings, small-scale office or retail buildings, or civic buildings should be allowed in limited cases.
- Cross reference with House, Townhouse, Mixed Use, or Commercial Building Types in the Town of Knightdale Unified Development Ordinance.



Transportation

- Streets in new neighborhoods are built as Complete Streets.
- A connected network of streets and sidewalks serves the neighborhood.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.



Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Minimize site grading to maintain natural stormwater flows.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Utilize green stormwater infrastructure to the greatest extent possible.



Infill Development or Redevelopment

- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- New, infill homes should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.

Mixed-Use Neighborhood

Land offering the opportunity to live, work, shop, and play in a single community. Mixed Use Neighborhoods emphasize a mix of uses, one or more Neighborhood Centers, and one or more neighborhoods connected to the activity centers by a network of pathways or walkable streets.

An activity center within the Mixed-Use Neighborhood provides goods and services to surrounding neighborhoods. The center's proximity to neighborhoods requires that operations be at a scale and design compatible with nearby residential development. The design of Mixed-Use Neighborhoods transitions effectively between residential and non-residential uses, and includes safe and convenient pedestrian and bicycle access for nearby residents.

Residential neighborhoods within and adjacent to the activity center(s) are encouraged to offer different home types on varied lot sizes with a range of home choices. Neighborhoods should mix home types, lot sizes, or home sizes on the same block or offer accessory dwelling units. Homes should be oriented toward streets or public open space. New neighborhoods should include a comprehensive and connected network of open space throughout the site to accommodate small parks, multiple gathering spaces, and community gardens, as well as environmental site design features to help manage stormwater runoff. Internal streets and open space throughout new Mixed-Use Neighborhoods should connect to existing or future neighborhoods nearby.



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the neighborhood, including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, or greenways.



Transportation

- Streets in new neighborhoods are built as Complete Streets. Design elements serve multiple modes of transportation, such as bike racks, benches, bus stops, etc.
- A connected network of streets and sidewalks serves the neighborhood.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.



Street & Block Pattern

- A grid street network is used throughout the neighborhood.
- Small- to medium-size blocks promote a more walkable environment.
- Stub out streets provide connections to adjacent vacant land.
- Formal, designated on-street parking throughout the neighborhood.
- Off-street parking should be accommodated at the side or rear of the lot to minimize the presence of parked automobiles on driveways along residential streets.



Building Types & Massing

- Different building types should not be fully-separated from each other (like pods) in a development.
- Incorporate "missing middle" home choices in the neighborhoods, including: single dwelling homes on small lots, townhomes, duplexes, triplexes, and quadplexes.
- Accessory dwelling units are allowed on all residential lots.
- Concentrate low-profile non-residential buildings (two to three stories) in a discernible center of the neighborhood. Encourage residential units or office space above storefronts.
- Cross reference with House, Townhouse, Apartment, Mixed Use, or Commercial Building Types in the Town of Knightdale Unified Development Ordinance.



Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Minimize site grading to maintain natural stormwater flows.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Infill Development or Redevelopment

- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- New, infill homes should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.

Civic & Institutional

Land developed to support a building or complex of buildings that serve a public or private purpose, including, but not limited to, a library, school, church, police station, fire station, recreation centers, public works complex, town hall, museum, hospital or other government- or mission-based services. Visual qualities of the buildings and their surrounding grounds reinforce a specific brand and design character for Knightdale. Many civic and institutional buildings in the community become cherished landmarks.



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- A site should include one more public gathering spaces (depends on the size of the site); including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, or greenways.
- Open space on a site should be connected visually and accessible to the public.



Transportation

- Treat civic and institutional sites as mobility hubs, which serve multiple modes of transportation in one location (see Knightdale Shift Comprehensive Transportation Plan for more guidance).
- Prioritize bicycle and pedestrian travel modes to and within the site; especially greenways or trails.
- Streets in a site are built as Complete Streets. Design elements serve multiple modes of transportation, such as bike racks, benches, bus stops, etc.
- A connected network of streets and sidewalks serves the site.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.



Street & Block Pattern

- Undefined or grid street network, should be sensitive to on-site activities and surrounding land uses.
- Active spaces should be centrally-located on a site and easily-accessible to users of the space.
- Parking should be accommodated in surface lots or parking structures located behind buildings.
- A system of walkable internal streets, sidewalks, or pathways should be easily identified in the development.



Building Types & Massing

- Civic- and institutional-type buildings should include architecture unique and iconic for Knightdale.
- Incorporate innovative design techniques and materials into high profile buildings or uses (future landmarks).
- Cross reference with Civic and Institutional Building Types in the Town of Knightdale Unified Development Ordinance.



Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy. Incorporate additional renewable energy sources (solar- or wind-powered) into the site design.
- Promote green roofs on buildings.
- Minimize site grading to maintain natural stormwater flows. Use innovative stormwater management practices in disturbed areas (e.g., rain gardens or bioswales)
- Maintain large tree stands to keep spaces cool in warmer months.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Infill Development or Redevelopment

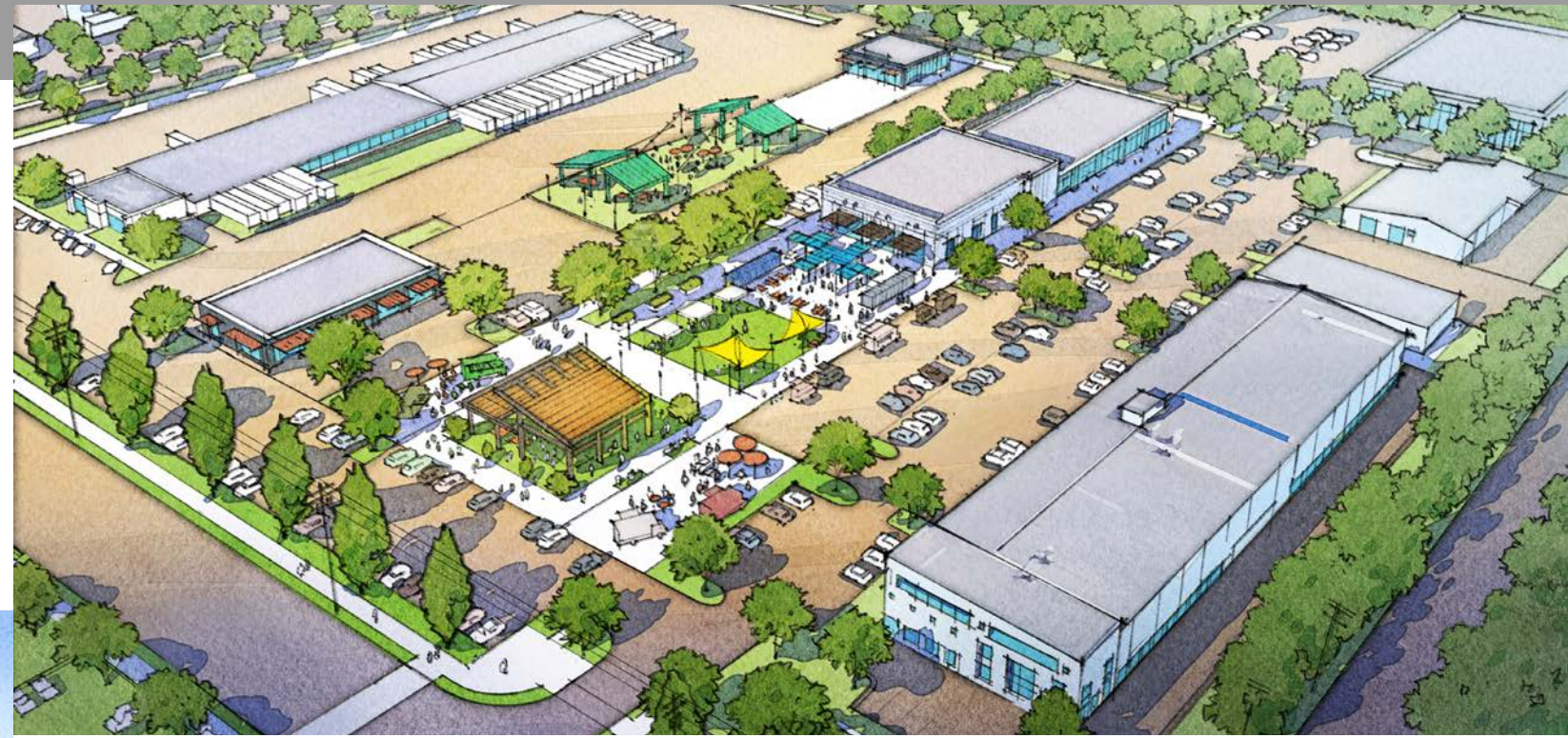
- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.



Industrial

Land providing opportunities to concentrate employment clusters in the town. They support both large-scale, single-tenant industrial and warehouse buildings and smaller, multi-tenant industrial buildings that are clustered and may support and serve one another. Advanced manufacturing, bio-technology, light manufacturing, warehouse, logistics, distribution, and research and development are targeted uses for an industrial center in Knightdale. Industrial areas are typically buffered from surrounding development by tree preservation areas or landscaped areas with the type and size of the buffer a function of the activities being performed on the site.

Land occupied by the Wake Stone Corporation's Knightdale Quarry is also categorized as industrial for the comprehensive plan, which is subject to town, state, and federal planning, permitting, and design guidelines.



Street & Block Pattern

- A curvilinear street pattern is used throughout the site. A modified grid street network may be more appropriate for small sites.
- Small- to medium-size blocks promote a more walkable environment. However, some blocks may be large to accommodate development scale or access requirements for specific buildings.
- Stub out streets provide connections to adjacent vacant land.
- Shipping or receiving areas for a building should not be visible from a public street.
- Buildings should front public streets. Off-street parking lots or decks should be located behind buildings.



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the site, including common greens, small parks, trails, or greenways.



Building Types & Massing

- Building form, scale, and footprints should be dictated by the land uses on the site.
- Cross reference with Manufacturing Building Type in the Town of Knightdale Unified Development Ordinance.



Transportation

- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.
- Streets in an industrial center are generally auto- and truck-oriented; however, sidewalks and bicycle facilities as required in the CTP should be provided along streets.



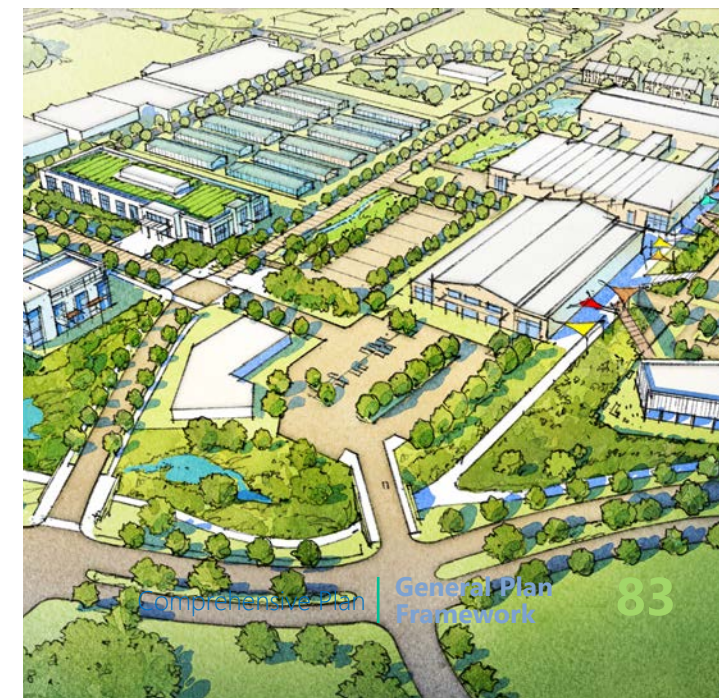
Sustainability

- Solar panels on rooftops, or wind turbines in public areas should be considered to promote renewable energy.
- Promote green roofs on buildings.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Infill Development or Redevelopment

- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- New infill buildings should be compatible with and more architecturally defined than existing buildings.
- Install missing pedestrian and bicycle infrastructure in existing industrial parks.



Neighborhood Center

Land that provides goods and services to surrounding neighborhoods at a limited scale. Their proximity to existing neighborhoods in some locations requires that commercial operations be low-intensity, unobtrusive, and at a scale and design compatible with nearby residential development. Businesses in the activity center are oriented toward an internal main street or public square that serves as a gathering space for patrons and visitors. The compact, walkable design of a Neighborhood Center encourages pedestrian movements between buildings.

Buildings on small blocks may stand up to three (3) stories tall, and encourage active public spaces between buildings. Public spaces are sized and designed to be small gathering places for surrounding neighborhoods. Residential units or office space may be found above storefronts.

For a larger Neighborhood Center, homes surrounding the center of commercial development may offer several choices to live and experience the Activity Center — including but not limited to “missing middle” home choices and accessory dwelling units. The design of Neighborhood Centers should transition effectively between residential and non-residential uses.

Neighborhood Centers should also maximize their connections to the town’s open space network, including safe and convenient pedestrian and bicycle access to the centers from nearby neighborhoods. A Neighborhood Center located along an existing or proposed long-distance greenway should incorporate trail-oriented development principles into its overall design, including buildings oriented toward the greenway corridor, public or private spaces near the greenway corridor that accommodate trail users, and a network of secondary trails that connect into the primary greenway corridor. Amenities in a trail-oriented Activity Center — bike parking, outdoor furniture, bike repair stations, and public art — should also be incorporated into the overall design concept.



Street & Block Pattern

- Incorporate a grid street pattern of small blocks throughout the activity center.
- Vehicle access and circulation should be oriented away from adjacent neighborhoods.
- Parking should be satisfied using on-street parking, structured parking, or shared rear-lot parking strategies.
- Parking lots or parking decks should be located toward the interior of blocks.
- The mix of different housing types or non-residential building types on a block or series of blocks should be frequent and widespread.
- Blocks with the same housing type or non-residential building type should not extend more than two blocks in any direction to ensure an integrated mix of land uses and intensities in the activity center. Exceptions to this standard may be appropriate on a case-by-case basis for a very limited number of irregular shaped parcels.
- Stub out streets provide connections to adjacent vacant land.
- Formal, designated on-street parking is provided throughout the activity center.
- Off-street parking should be accommodated at the side or rear of a building to minimize views from public streets.



Neighborhood Center



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the neighborhood, including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, or greenways and the “activated streets” that connect them.



Building Types & Massing

- It is imperative that a discernible center or corridor be included in the non-residential portion of the activity center: a main street, park, square, or plaza.
- Building types in the non-residential portion of the activity center should mix uses horizontally and vertically, and may include both residential, office, or commercial uses.
- The transition between residential and non-residential uses in an activity center should emphasize compatible building types, heights, footprints, architectural elements, and materials.
- Incorporate “missing middle” home choices in the neighborhood, including: single dwelling homes on small lots, townhomes, duplexes, triplexes, and quadplexes.



Building Types & Massing (cont.)

- Accessory dwelling units are allowed on all residential lots.
- Cross reference with House, Townhouse, Apartment, Mixed Use, or Commercial Building Types in the Town of Knightdale Unified Development Ordinance.



Transportation

- Streets in new activity centers are built as Complete Streets. Design elements serve multiple modes of transportation, such as bike racks, benches, bus stops, etc.
- A connected network of streets and sidewalks serves the activity center.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.
- Activity centers located along an existing or proposed long-distance greenway must incorporate trail-oriented development principles into its overall design.



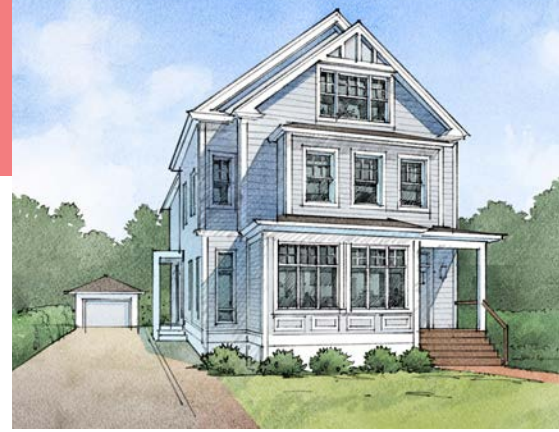
Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Minimize site grading to maintain natural stormwater flows.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Infill Development or Redevelopment

- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- New, infill homes, businesses, or mixed-use buildings should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.



Mixed-Use Center

Land offering the opportunity to serve broader economic, entertainment, and housing needs in the community. Land uses and buildings on small blocks may stand up to six (6) stories tall and encourage active public spaces between buildings. Residential units or office space may be found above storefronts. Homes in and surrounding the center of development may offer several choices to live and experience the Activity Center — including, but not limited to, “missing middle” home choices and accessory dwelling units. Parking is satisfied using on-street parking, structured parking, and shared rear-lot parking strategies. The compact, walkable environment and mix of residential and non-residential uses in the center supports multiple modes of transportation, including the potential for moderate-to-intense transit-oriented development if-when-where a decision is made to invest in premium transit along major transportation corridors in the town. Residential uses in a Mixed-Use Center are generally secondary to commercial uses and open space (combined) in terms of the size, scale, footprint, and intensity of development. The only exception should be made for transit-oriented development, which should increase the number and density of residential uses in and around a premium transit station to increase the number of potential transit riders for the system.

Mixed-Use Centers should also maximize their connections to the town’s open space network, including safe and convenient pedestrian and bicycle access to the centers from nearby neighborhoods. A Mixed-Use Center located along an existing or proposed long-distance greenway should incorporate trail-oriented development principles into its overall design, including buildings oriented toward the greenway corridor, public or private spaces near the greenway corridor that accommodate trail users, and a network of secondary trails that connect into the primary greenway corridor. Amenities in a trail-oriented Activity Center — bike parking, outdoor furniture, bike repair stations, and public art — should also be incorporated into the overall design concept.

A larger Mixed-Use Center may include one (1) or more mixed-density or mixed-use neighborhoods, which provide additional nearby home choices and encourage active living with a comprehensive and interconnected network of walkable streets. Some areas in the town designated for a Mixed-Use Center are currently suburban shopping centers. Transformation of these areas to support mixed-use development will require deliberate planning and phasing to keep the areas viable during their transition.



Street & Block Pattern

- Incorporate a grid street pattern of small blocks throughout the activity center.
- Parking should be satisfied using on-street parking, structured parking, or shared rear-lot parking strategies.
- Parking lots or parking decks should be located toward the interior of blocks.
- The mix of different housing types or non-residential building types on a block or series of blocks should be frequent and widespread.
- Stub out streets provide connections to adjacent vacant land.
- Blocks with the same housing type or non-residential building type should not extend more than four blocks in any direction to ensure an integrated mix of land uses and intensities in the activity center. Exceptions to this standard may be appropriate on a case-by-case basis for a very limited number of irregular shaped parcels.
- Formal, designated on-street parking is provided throughout the activity center.
- Off-street parking should be accommodated at the side or rear of a building to minimize views from public streets.



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the neighborhood, including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, or greenways and the “activated streets” that connect them.



Mixed-Use Center



Building Types & Massing

- It is imperative that a discernible center or corridor be included in the non-residential portion of the activity center: a main street, park, square, or plaza.
- Building types in the non-residential portion of the activity center should mix uses horizontally and vertically, and may include both residential, office, or commercial uses.
- The transition between residential and non-residential uses in an activity center should emphasize compatible building types, heights, footprints, architectural elements, and materials.
- Vertically mixed-use buildings should frame the primary street, with single-use buildings flanking secondary streets.
- Similar building types should face each other on a public street to protect the character of the streetscape. Land use transitions are preferred in alleyways, the abutment of two rear yards, or across a large common green.
- Incorporate “missing middle” home choices in the neighborhood, including: single dwelling homes on small lots, townhomes, duplexes, triplexes, and quadplexes.
- Accessory dwelling units are allowed on all residential lots.
- Cross reference with House, Townhouse, Apartment, Mixed Use, or Commercial Building Types in the Town of Knightdale Unified Development Ordinance.



Transportation

- Streets in new activity centers are built as Complete Streets. Design elements serve multiple modes of transportation, such as bike racks, benches, bus stops, etc.
- A connected network of streets and sidewalks serves the activity center.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.
- Activity centers located along an existing or proposed long-distance greenway must incorporate trail-oriented development principles into its overall design.



Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Minimize site grading to maintain natural stormwater flows.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Infill Development or Redevelopment

- Build off the driveway location or drive aisles of surface parking lots for existing shopping centers to minimize disruptions during redevelopment as an activity center. Consider designating some internal drive aisles as new public streets.
- Existing surface parking lots or other impervious surface is encouraged to redevelop as open space to the maximum extent possible.
- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- Increase densities or intensities for an activity center redeveloped along a premium transit corridor.
- Redevelopment of existing shopping centers to support mixed-use development may require deliberate planning and phasing to keep the areas viable during their transition.
- New, infill homes, businesses, or mixed-use buildings should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.



Innovation Center

Land identified as an alternative to more conventional industrial parks, employment centers, or retail centers. Innovation Centers emphasize traditional mixed-use development principles, including a concentration of employment uses in a discernible center with small-scale retail uses intermixed in the same buildings or nearby blocks to support employees' daily needs. In larger developments, the employment center may be surrounded by one (1) or more neighborhoods that support a variety of home types and lot sizes, including live-work units. Some Innovation Centers may include residential units above office, retail, or research uses in the same building.

The design, scale, character, and intensity of development in an Innovation Center emphasizes technology, creativity, and innovation, and may support a corporate headquarters, university, research and development campus, manufacturing center, light industrial, or other centers of excellence and the nearby retail businesses and housing options needed for their employees. Taller buildings and urban parking strategies — on-street parking, parking decks, and shared use parking strategies — may be needed in some locations to reduce the development footprint (lot coverage) and provide more opportunities for connected open space.

A grid network of walkable streets connect destinations within an Innovation Center and the surrounding neighborhoods. Open space throughout the center accommodates passive and active uses, including natural areas, common greens, small parks, recreation facilities, athletic fields, research plots, and other gathering places. Residential uses in an Innovation Center are secondary to non-residential uses and open space (combined) in terms of the size, scale, footprint, and intensity of development in the activity center.

Street & Block Pattern

- Incorporate a grid street pattern of small blocks throughout the innovation center.
- Parking should be satisfied using on-street parking, structured parking, or shared rear-lot parking strategies.
- Parking lots or parking decks should be located toward the interior of blocks.
- The mix of different housing types or non-residential building types on a block or series of blocks should be frequent and widespread.
- Stub out streets provide connections to adjacent vacant land.
- Blocks with the same housing type or non-residential building type should not extend more than four blocks in any direction to ensure an integrated mix of land uses and intensities in the activity center. Exceptions to this standard may be appropriate on a case-by-case basis for a very limited number of irregular shaped parcels.
- Formal, designated on-street parking is provided throughout the activity center.
- Off-street parking should be accommodated at the side or rear of a building to minimize views from public streets.

Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the neighborhood, including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, greenways, athletic fields, recreation facilities, research plots, and the "activated streets" that connect them.
- Public gathering spaces should include fun, entertaining features like public art, sculpture, interactive streetscape elements, fountains, or seating areas.

Building Types & Massing

- It is imperative that a discernible center or corridor be included in the non-residential portion of the activity center: a main street, park, square, or plaza.
- Vertically mixed-use buildings should frame the primary street, with single-use buildings flanking secondary streets.
- One or more large-format buildings may be included in the center to meet the needs of a specific end user (e.g., corporate headquarters, university, research and development center, etc.)
- Cross reference with Manufacturing, Office, Mixed-Use, and Civic/Institutional in the Town of Knightdale Unified Development Ordinance

Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Incorporate sustainable development techniques into landscape and stormwater features. Reduce impervious surface to the maximum extent possible.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Innovation Center



Transportation

- Streets in new innovation centers are built as Complete Streets. Design elements serve multiple modes of transportation, such as bike racks, benches, bus stops, etc.
- A connected network of streets and sidewalks serves the activity center.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.
- Innovation centers (or portions thereof) located along an existing or proposed long-distance greenway must incorporate trail-oriented development principles into its overall design.
- Increase densities or intensities for an innovation center developed along a premium transit corridor.



Infill Development or Redevelopment

- Existing surface parking lots or other impervious surface is encouraged to redevelop as open space to the maximum extent possible.
- Provide connections via streets, sidewalks, or greenways to future neighborhoods and non-residential development.
- Increase densities or intensities for an innovation center redeveloped along a premium transit corridor.
- Redevelopment of existing shopping, office, or industrial centers to support mixed-use development may require deliberate planning and phasing to keep the areas viable during their transition.
- New, infill homes, businesses, or mixed-use buildings should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.



Old Town & Downtown

Land that functions as a destination for both residents and visitors to the town, which includes three unique activity centers: an new, iconic downtown, the historic old town, and a new mixed-use corridor targeted north of old town. The downtown area generally extends south of Maple Street and west of Park Avenue. The old town area generally extends north of Maple Street, west of Knightdale Station Park, and south of Sycamore Street. A new mixed-use corridor is generally oriented toward the extension of Knightdale Station Run west of First Avenue. Several vibrant neighborhoods near all three activity centers provide different home choices for local residents.

Downtown

The downtown activity center supports a compact development pattern with a mix of land uses (horizontal and vertical), high-quality architecture, plazas and public spaces, and neighborhood-serving businesses that promote social interaction and celebrate the Knightdale community. Uses and buildings are located on small blocks with streets designed in a modified grid network. Buildings may stand one (1) to six (6) stories tall and include civic, retail, office, restaurant, and other entertainment uses. Townhomes or residences above storefronts may be provided strategically in the downtown. Parking may be satisfied using on-street parking, public parking lots, structured parking, or shared rear-lot parking strategies.

Old Town

The old town area is much larger than the downtown in terms of size, and supports existing homes, businesses, parks, and open space that together celebrate community and the humble beginnings of Knightdale. Preserving the character of existing homes in the area is a high-priority, though some existing lots may be subdivided or redeveloped to introduce new home choices. The type, size, orientation, and character of new homes built in existing neighborhoods should be compatible with adjacent properties and supporting infrastructure. Officials should also be careful of unintended consequences associated with the wide-spread subdivision of large lots or infill development activities in the area: increased stormwater flooding because of changed drainage patterns, changes in overall neighborhood dynamics, or rising home values (and rising tax bills) that drive existing residents out of the area. Policies or considerations in the comprehensive plan should manage the timing and location of lot subdivision or tear-downs in specific areas if conditions being monitored are not exceeding expectations.

Small businesses or restaurants, oriented toward First Avenue, should complement the size and scale of nearby homes. Buildings throughout the area may stand one (1) to three (3) stories tall. Historic preservation and neighborhood compatibility should be priorities during infill development or redevelopment efforts. Parking may be satisfied using on-street parking, public parking lots, or shared rear-lot parking strategies.

Knightdale Station Run Extension

Small, walk-to businesses oriented toward the extension of Knightdale Station Run, west of First Avenue, should complement the development envisioned for the two historic activity centers and build upon the success of Prime Barbeque and Heather's Dance nearby. Non-franchise architecture is encouraged throughout the corridor as a way to maintain unique character.

Surrounding Neighborhoods

Neighborhoods in, or adjacent to, the three activity centers offer different choices for residents to live near and experience the area. Residents provide regular and loyal customers for nearby businesses and should be connected to them in meaningful ways. Physical connections may include new street connections or greenways that strengthen the relationship between trip origin and destination. Visual connections may include special paving treatments, street lighting, landscaping, or coordinated signage that reinforce a connection between homes and businesses. Social connections may include district names or special events held to present the activity centers and nearby neighborhoods as unified and desirable locations.



Street & Block Pattern

- Preserve the existing grid street network and compact block patterns in Old Town.
- Parking should be satisfied using on-street parking, structured parking, or shared rear-lot parking strategies.
- Parking lots should be located toward the interior of blocks.
- Create smaller, more walkable blocks within the area to complement the Old Town street pattern.



Building Types & Massing

- Building types should mix uses horizontally and vertically, and should include civic, retail, office, restaurant, entertainment, and residential.
- Condominiums, apartments, or other non-residential uses may be located above storefronts.
- There may be opportunities in some areas to introduce additional housing types such as single dwelling homes on small lots, townhomes, duplexes, triplexes, quadplexes, tiny homes, or cottage dwellings.



Building Types & Massing (cont.)

- The height, massing, and design of new buildings should be sensitive to the existing character and context of the two activity centers— especially near landmark buildings.
- Historic character and architecture should be preserved by prioritizing the adaptive reuse of existing historic buildings and contextually-appropriate design of new buildings.
- Similar building types should face each other on a public street to protect the character of the streetscape. Land use transitions are preferred in alleyways, the abutment of two rear yards, or across a large common green.
- Accessory dwelling units are allowed on all residential lots.
- Cross reference with House, Townhouse, Apartment, Mixed Use, or Commercial Building Types in the Town of Knightdale Unified Development Ordinance.

Old Town & Downtown



Open Spaces & Natural Resources

- Be sensitive to existing natural resources on a site, including tree stands, steep topography, and natural drainage ways.
- Incorporate open space elements throughout the neighborhood, including common greens, squares, plazas, small parks, playgrounds, community gardens, trails, or greenways and the “activated streets” that connect them.
- Public gathering spaces should include fun, entertaining features like public art, sculpture, interactive streetscape elements, fountains, or seating areas.



Transportation

- Development in Old Town & Downtown should support all modes of transportation, and accommodate safe and efficient pedestrian or bicycle movements throughout the area and to adjacent neighborhoods.
- Site design should minimize walking distance to transit and include bus stop amenities.
- Streets are designed with curb and gutter drainage.
- Formal tree plantings are located along streets and in open space areas.
- Design elements serve multiple modes of transportation, such as bike racks, benches, bus stops, etc.



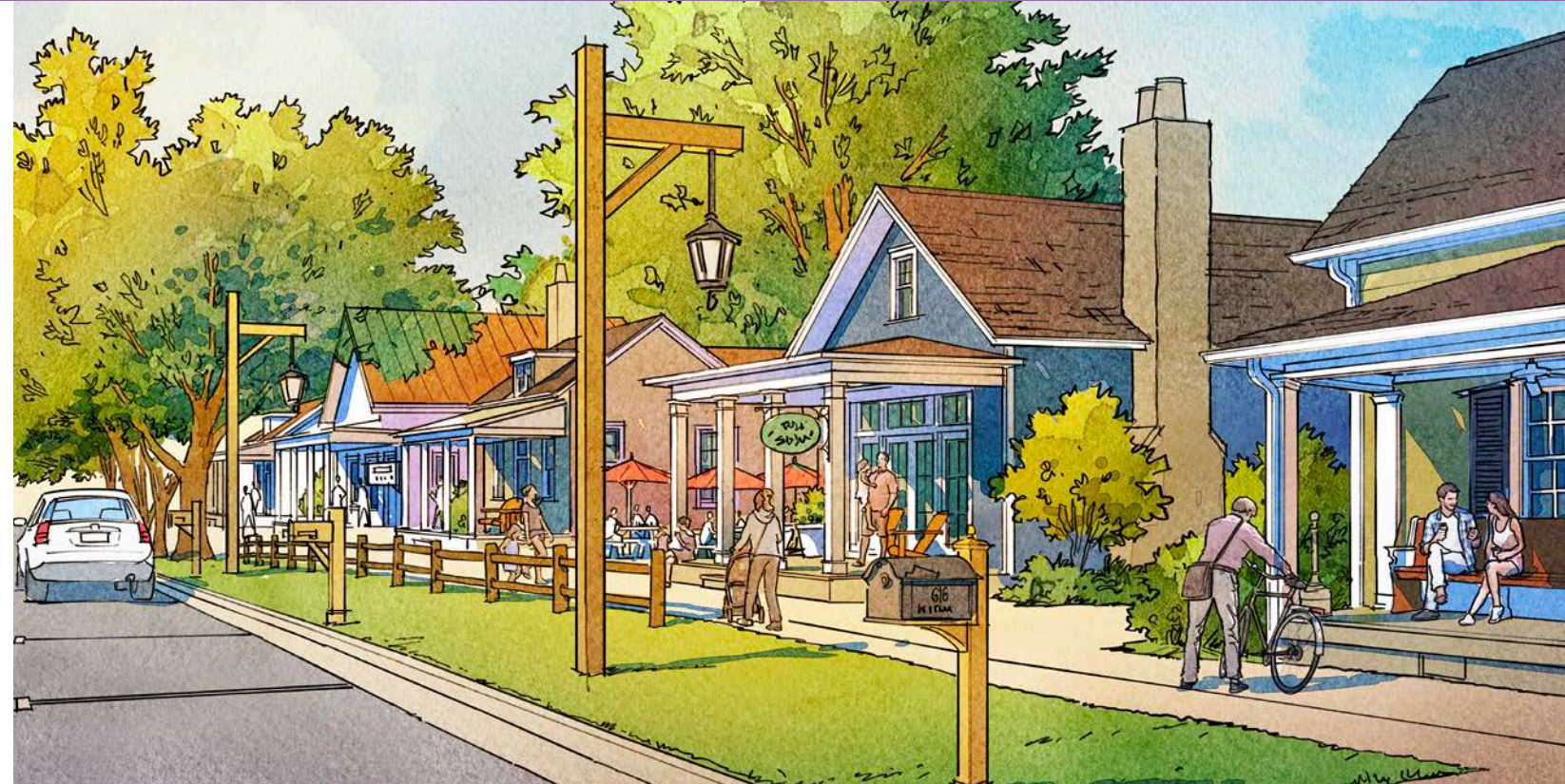
Sustainability

- Solar panels on rooftops in public areas or private lots should be considered to promote renewable energy.
- Incorporate sustainable development techniques into landscape and stormwater features. Reduce impervious surface to the extent possible.
- Maintain large tree stands to keep spaces cool in warmer months.
- Public electric vehicle charging stations should be considered in the activity center of a larger neighborhood.
- Green stormwater infrastructure should be utilized to the greatest extent possible.



Infill Development or Redevelopment

- New or infill development should be context sensitive and compatible with surrounding development patterns and intensities.
- New, infill homes, businesses, or mixed-use buildings should complement adjacent existing development in terms of building height, setbacks, and architectural details.
- Install missing pedestrian and bicycle infrastructure in existing neighborhoods.



4

FOCUS AREA CONCEPTS



SARAH LAINE LVA 2022

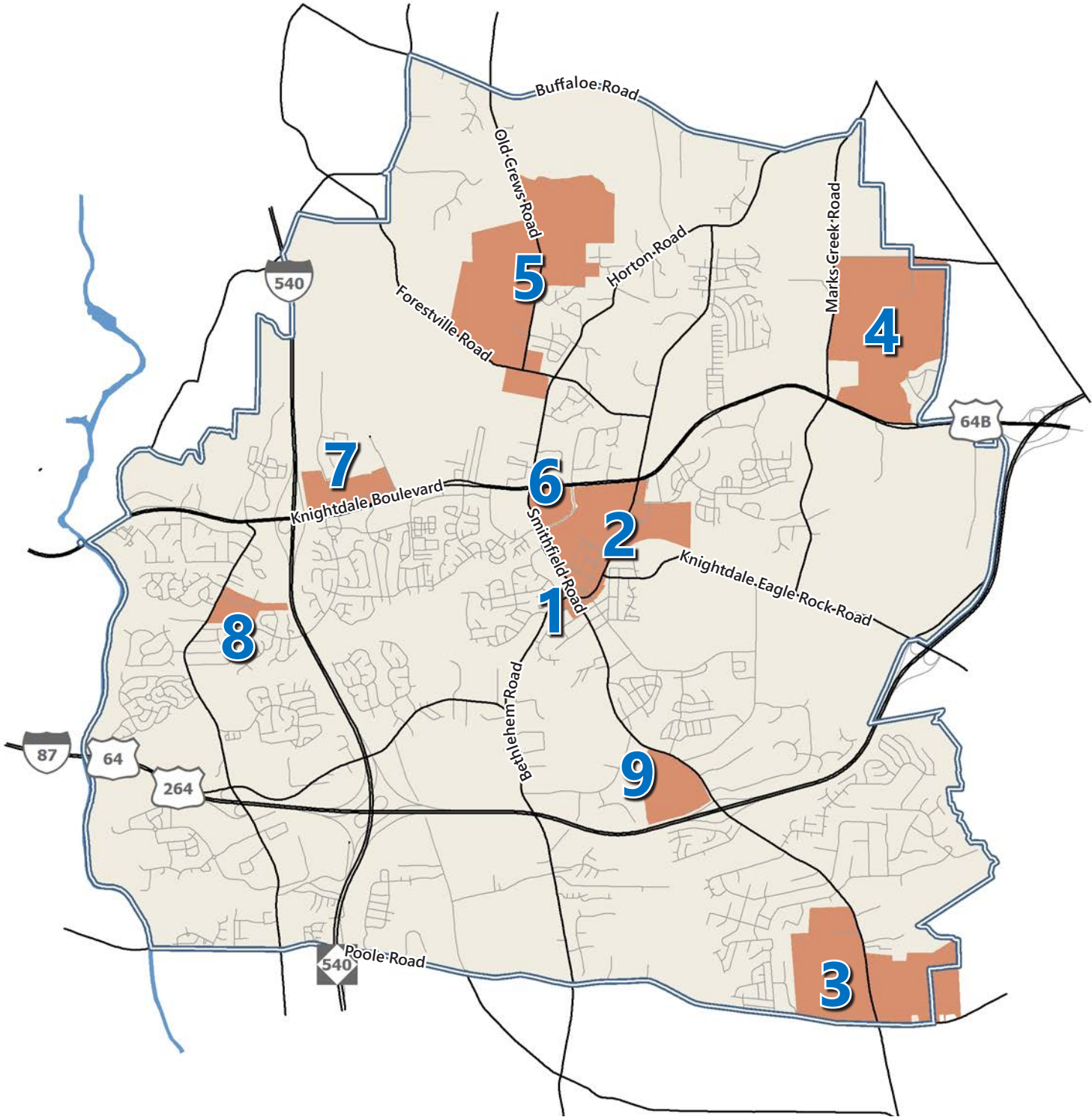
FOCUS AREA CONCEPTS



In this section, a few example illustrations convey the intent of the policies when the Intentional Growth Areas Map, the Urban Small Town Framework Map, and the Future Place Type Map and descriptions are brought together.

Illustrations are used in the document to demonstrate one of several possibilities for a site that would be consistent with the big ideas and concepts about brand, character, and sense of place discussed in the KnightdaleNext V.2 Comprehensive Plan. Their primary purpose is to help the community visualize possibilities and create a platform for dialogue about the details reflected in the images and how best to implement similar ideas in the town's Unified Development Ordinance or other implementing documents. Though they conceptually illustrate development potential in defined geographies, they also demonstrate the application of character-driven design principles and development-related policies that could be applied in other areas of Knightdale with similar conditions.

Conceptual drawings and images presented in the KnightdaleNext V.2 Comprehensive Plan are for illustrative purposes only. They do not constitute intended outcomes or provisional approvals for the properties represented in the document. Actual development of the areas may vary significantly from the drawings included in the document based on property owner interests, market realities, lending conditions, available infrastructure, environmental features, or other factors.



LEGEND

- 1 Old Town
- 2 Downtown
- 3 Conservation Neighborhood
- 4 Innovation Center
- 5 Mixed Density Neighborhood
- 6 Suburban Retrofit
- 7 Transit Oriented Development
- 8 Neighborhood Center
- 9 Mixed-Use Center

1 OLD TOWN

Situated along the rail line, the historic heart of the community is the location of a few local businesses and several homes. Restoring this key crossroad to a destination to be enjoyed by residents and visitors requires private investment in commercial uses (e.g., shops, restaurants, artist studios) and residential units that, together, deliver a unique experience that enhances and preserves Knightdale’s small-town character. Here, a combination of new structures and re-purposed buildings could form the building blocks of a quaint village-like center. Blending features that are reminiscent of the original settlement with modern enhancements, particularly elements of the public realm (i.e., streetscape, urban greenway, public spaces and amenities, and civic uses), will help create a memorable experience. “Missing middle” housing in the form of townhomes, cottages, and live-work units will expand housing options in Knightdale and will help create a critical mass to increase the vibrancy of downtown over time.



- 1** Signature building or civic destination such as a performing arts center, cultural center, town offices, or museum.
- 2** Focal point urban spaces that together form an urban gathering place for the community, a pre-function space, and an informal hangout for people watching.
 - a. Fountain plaza - an artistic feature signaling arrival at important place.
 - b. Downtown Green – it can be programmed or used for informal play space.
 - c. A “Festival Street” on First Avenue – the section can be closed to vehicular traffic for special events.
- 3** Adaptive reuse of building for an anchor, such as a destination restaurant, brewery, food hall, and/or artists’ spaces.
- 4** Triangle parks as entry features on the east and west ends.

- 5** Mixed-use buildings (here, residential or office above commercial space) that average 1 to 3 stories in height.
- 6** Courtyards and small plazas where restaurants and shops can spill into these spaces for an increase in usable square footage while activating downtown.
- 7** Townhomes and cottages increase utilization of downtown properties for a mix of housing types suitable for a small-town urban environment.

- 8** Live-work units expand housing choices and respond to demand for townhouse configuration with home-based businesses on the first floor.
- 9** Sensitive transitions to existing neighborhoods where the changes from attached single family to existing detached single family occur at rear property lines.
- 10** Street network is reconnected even if some segments are only pedestrian connections.
- 11** Greenway, or urban trail (wide sidewalk with streetscape and furnishings), follows the street to bring foot traffic to businesses and offer a different experience along the broader trail route.

- 12** Sidewalk network creates loop, popular for walking with friends and neighbors.
- 13** Well-delineated crosswalks improve safety.
- 14** Bike path transitions from the greenway trail to “bike-share” streets.
- 15** Parking is on street where feasible, and behind buildings against rail line to maximize street frontage for buildings. Decks and underground parking options are also encouraged.

CASE STUDY

Downtown Cornelius *Cornelius, NC*

One of many communities in North Carolina that grew up around a stop along a railroad more than a century ago, Cornelius is enjoying a level of reinvestment that is spurring the kind of change the community can embrace. The commitment the Town has made to building economic prosperity and enhancing the quality of life in Cornelius is evidenced by several highly-visible projects: the Town Hall, completed in 1999, followed by streetscape enhancements, and a new performing arts center (Cain Center for the Arts) in 2023. A key goal was to build activity in the center of the town and, in doing so, instill confidence in private investors to find their role in delivering a range of uses to strengthen the downtown as a destination. In response, developers are participating in the transformation, building complementary retail and office spaces as well as housing. The Cotton Mill is currently being renovated for retail shops and residential units. The changes throughout Old Town are the result of the Town's efforts to engage in public-private partnerships to achieve desired outcomes. The Town continues to regularly update its plans to identify additional initiatives to implement its vision.



OLD TOWN

2 DOWNTOWN

Part of the historic center of town, this area includes some of the town's oldest homes. It is also the location of Knightdale Station Park, a popular amenity with residents. Adjacent businesses enjoy being next to this centrally located park. Extending to Knightdale Boulevard, this area has quite a bit of vacant land and presents an opportunity for infill development. Both residential and nonresidential uses may be part of the mix. Comparably scaled single family homes, more dining options, housing for seniors, and offices (particularly along Knightdale Boulevard) are among the uses that comprise the future mix. Key to maintaining the character of this town center while accommodating new development is the sensitive integration of new buildings and the creation of connections to surrounding development.

- 1** New development is sensitive to surrounding homes, businesses, and public spaces.
- 2** Existing homes, businesses, park and open spaces define the character of the area. The attributes of each inform decisions about future infill development.
- 3** Development scale, building orientation, and the location and configuration of open space and parking can mitigate the potential impacts of change, allowing infill to complement and even enhance the existing assets.
- 4** Road and greenway connections extend into flanking areas, improving accessibility to the heart of the community and increasing residents' sense of connection to the place.
- 5** New development adjacent to Knightdale Station Park should be designed in a way that is oriented to the park and/or views of the park.
- 6** Existing residential building may be converted to small-scale commercial buildings along First Avenue.

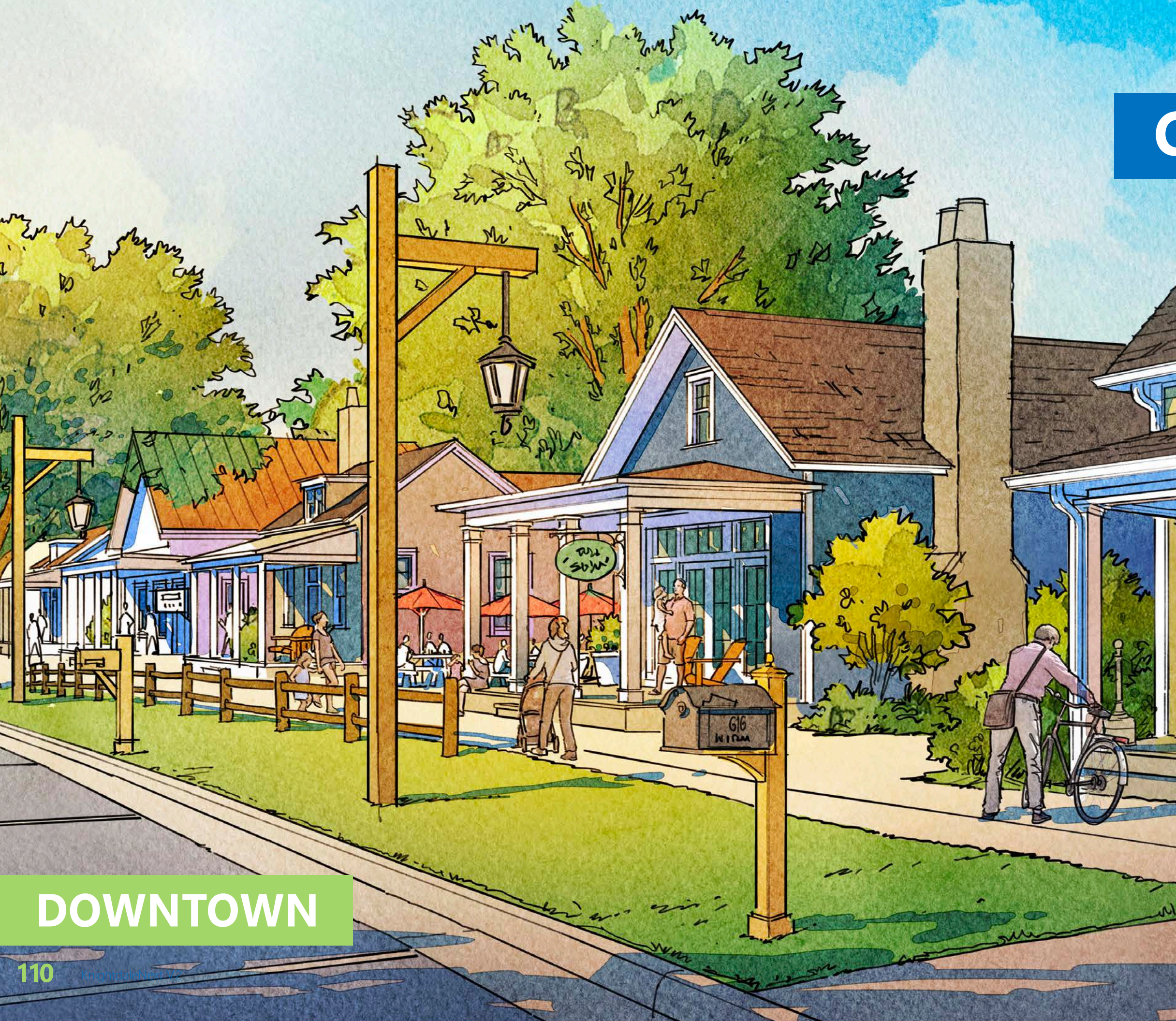


CASE STUDY

Downtown Davidson Neighborhoods

Davidson, NC

Established in 1837, the town of Davidson is best known as a college town, as Davidson College occupies a sizable tract of land in the center. However, over time, this small municipality north of Charlotte has grown into a diverse community enjoyed by people of all ages. Maintaining the “quaint village” atmosphere of downtown, infill and redevelopment that has occurred over the last two decades respects the character of the place. The scale and materials of newer structures, coupled with the organization of such development along an expanded gridded street network, work in concert with the historic fabric of the town to accommodate growth. New homes are situated on previously vacant parcels, or on lots in new neighborhoods that extend the existing street network, blurring the line between old and new. Older homes along busy streets have been thoughtfully adapted for nonresidential uses, enabling the preservation of character-defining architecture. The result is a seamless pattern of development that blends compatible uses in a variety of structures, and expands the development footprint in the town without compromising Davidson’s identity.



DOWNTOWN

3 CONSERVATION NEIGHBORHOOD ADJACENT TO ACTIVITY CENTER

1 Neighborhood Center is comprised of a wide variety of compatible uses: commercial uses (retail, office, and service), restaurants, civic and institutional uses (schools, churches, public safety facilities, recreation centers, athletic facilities, etc.).

2 Schools can serve as anchors and can function as a community center with buildings and sports fields available for surrounding residents' use and enjoyment.

3 The preservation of the character of the road corridor involves maintaining the natural vegetation, particularly the tree canopy, which can be augmented with additional landscape materials, decorative signs, and hardscape materials. Understated signs and minimal hardscape materials can be integrated while emphasizing the natural landscape.

4 Increased density is concentrated in areas already cleared (i.e., pastures) and not otherwise conserved for natural resource protection. Such concentrations of dense development is offset by the conservation of open space, particularly along the creeks.

5 Large lots require less grading, allowing for the conservation of existing tree canopy.

6 Transitions to surrounding neighborhoods, particularly residential areas at the western edge, should be compatible.

7 Mixed-use and non-residential development, including senior living, should be incorporated into the neighborhood to provide shops, restaurants, and services within walking distance.

8 Major drainage area is conserved to maintain a natural asset while providing a community amenity complete with trails and passive parks.

9 Trail network connects all areas of the center, expanding opportunities for recreation and time in nature while facilitating bike and pedestrian mobility and reducing dependence on automobiles.



This future development area can simultaneously be both a focal point of commercial and civic activity as well as a place for living serenely with the natural environment. Here, the environmental features are preserved as a variety of homes constructed in a compact, walkable form on the uplands meets demand for new housing. At the edges, development intensity is reduced to allow for a sensitive transition to the existing neighborhoods with comparably sized lots, particularly where road connections link

new development to the existing pattern. This balanced approach produces the synergy required for a successful activity center while reducing the

encroachment of development on the natural vegetation of the creek corridors. The connected network of open space that remains intact serves as an amenity, a wildlife corridor, and an effective tool for water quality protection.

10 Public spaces bring the natural environment into the foreground of the developed area, serving as both amenities and organizing elements.

CASE STUDY

Serenbe

Chattahoochee Hills, GA

Natural areas, large tree stands, organic farmland, and edible landscapes are featured elements amongst four different "omegas" (a.k.a. mixed-use neighborhoods) that comprise a large conservation neighborhood development. In total, approximately 70% of the 900-acre rural site remains natural or used for working farms. Each omega includes approximately 150 homes and offers different housing choices, non-residential activities, public spaces, community gardens, and vegetated wetlands. Each omega is defined by a town center with commercial, restaurant, or civic uses that is surrounded by the highest concentration of home densities. Streets and blocks throughout the community are generally organized in a winding serpentine pattern -- influenced by topography, waterfalls, water bodies, wetlands, or large tree stands found in the landscape. Walking paths in the community connect residents' home and nearby destinations with nature.



**CONSERVATION
NEIGHBORHOOD
ADJACENT TO ACTIVITY CENTER**

4 INNOVATION CENTER

As regional development continues, opportunities for job growth remain strong. On the eastern edge of the town, the highway access that connects Knightdale to the rest of the Triangle elevates the suitability of nearby sites for employment concentrations. One of those sites is along Knightdale Boulevard in the area between Marks Creek Road and Keiths Road. A

potential hub for innovation, this area can accommodate advanced manufacturing facilities, healthcare-related research and development labs, corporate headquarters, and many types of supporting businesses. To be a competitive location for such entities, the area should integrate a wide variety of uses that complement the employment while demonstrating respect for the context. Here, compatible uses can include retail, office, service, and restaurant uses and much of this should be integrated as mixed-use development at key nodes. Civic and educational facilities may be integrated. Housing in many forms (multi-family, lofts, attached and detached single family, and accessory dwelling units) provide opportunities for living close to employment. Amenities, such as a connected greenway network and a mobility hub, add to the quality of life for residents and workers. The open space and internal road network act as the glue connecting the various parts that comprise the place.



CENTER

- 1** Employment concentration is strategically located near major highways, and sites within this district are ideally suited for advanced manufacturing, healthcare, and corporate headquarters.
- 2** Supporting mixed-use development has options for living, shopping, dining, and learning near and as part of the employment area which can be integrated into a variety of spaces.
- 3** Increased intensity at key nodes within can generate a level of activity that makes such locations viable for businesses. The mix of uses serves the broader area, making shops, restaurants, and services more accessible to existing neighborhoods north and west of the district.
- 4** Housing choices include multi-family, attached single family units (i.e., townhouses, and lofts in the mixed-use nodes).
- 5** A variety of single-family housing types supplemented by accessory dwelling units in a single neighborhood offers multi-generational living that is also an appropriate transition to the existing large-lot single family developments north of this site.
- 6** Agriculture support in an area of agricultural activity (farms that lie north) can include uses and activities that activate this corner: produce sales, plant sales, agricultural education, community gardening, farm-to-fork dining, etc. Conservation/restoration of some of the features – barn and crops – can be the building blocks of a focal point of a future “agrihood”.
- 7** Mobility hub, a potential stop along the planned transit route, is designed to facilitate connections between transportation modes, and provide direct access into the heart of the employment center envisioned for this site. Trails also connect to the mobility hub, further improving accessibility.
- 8** Connected road network within the district maximizes internal connections for local trips to ensure the functionality of the major collectors and arterials is maintained to effectively move regional traffic.
- 9** A campus-like approach employs shared drives, parking, and trail connections to allow for seamless connections across multiple development sites.
- 10** Looping trail system amenitizes substantial acres of land devoted to utilities; increases access to creek corridors for exploration of the natural environment and passive recreation; and links places within while connecting to the broader trail network of Knightdale and the region (i.e., Marks Creek Greenway).
- 11** Rural edge sits in sharp contrast to the architecture of high-tech industries that could be facing Knightdale Blvd in the future, a series of green spaces and stands of trees can be conserved to retain some of the rural features that characterize the other road corridors: Marks Creek, Puryear, and Keiths.
- 12** Respectful transitions to existing homes and a wedding venue is accomplished through well-placed green space.

CASE STUDY

Red Ventures Campus *Indian Land, Lancaster County, SC*

A relatively new corporate campus has as its centerpiece the headquarters of Red Ventures. Seeking a location in a growing metropolitan area, the digital media company, which also owns the tech news site CNET, was the first occupant. The concept of a mixed-use employment center designed to become a hub of innovation as well as a gathering place for people of all ages was appealing. As the 180-acre campus continues to build out, the attributes of the campus will combine to offer a modern, competitive choice in the market, particularly for employers aiming to attract the country's leading talent. As Red Ventures puts it, it is "the perfect environment to host and nurture our largest employee population." Over the last six years, the highly-amenitized development has evolved to include other uses, including housing.



INNOVATION CENTER

5 MIXED DENSITY NEIGHBORHOOD ADJACENT TO ACTIVITY CENTER

This focus area concept plan envisions a multigenerational neighborhood appealing to different age groups and lifestyle preferences. Future residential development may consist of a variety of products ranging from townhouses to large estate lots. The diversity illustrated for this focus area is intended to demonstrate how such housing types might be integrated into the landscape, complement existing neighborhoods, and be organized around various types of usable green space, including small greens, pocket parks, and greenway trails, which are planned to connect the area to nearby schools and other destinations in town. As the centerpiece, the recreational complex adds to the assets of the town while functioning as an amenity for residents on the north side of Knightdale Boulevard. Small-scale dining options and convenience retail on sites adjacent to and overlooking the complex help create a more positive visitor experience and serve the needs of the residents nearby, particularly those within walking and biking distance.

- 1** Parks, schools, libraries, and similar facilities integrated thoughtfully into the development pattern can enhance existing and new development. As organizing elements and as amenities that are visually and physically accessible, such facilities can add value to surrounding properties and, in some instances, make nearby commercial development more viable.
- 2** A mix of uses in close proximity makes pedestrian and bike connections more feasible. Having such choices may help strengthen connections between complementary uses and could improve mobility by reducing the potential for congestion during periods of high traffic, such as tournaments at the recreation complex.
- 3** Neighborhood-serving retail and service uses at the periphery of neighborhoods (within 1/2 mile, a reasonable walking distance, of homes) enhances the convenience of such uses to residents, particularly if such commercial uses are connected to the neighborhood by local streets, sidewalks, and trails.
- 4** A mix housing types, including single-family detached homes of various sizes and townhomes, provide more opportunities for residents to age in place. Stage of life, lifestyle, and affordability are some factors that influence housing preferences.
- 5** Development respects (and avoids) natural features that, through conservation, maintain environmental and ecological function.



CASE STUDY

Baxter

Fort Mill, SC

Established on a tract of land owned by a family interested in providing a community for people of all ages, Baxter offers a variety of housing types ranging from apartments to single-family homes on estate lots. As people move through the various stages of life, lifestyle preferences often change, and this neighborhood enables residents to age in place, or find suitable housing given their stage of life without relocating to another community. Adjacent to a mixed-use center (Baxter Village), it houses a population that can access the center on foot or by bike and keep the businesses in the center viable. The amenities are a combination of passive and active recreation facilities, including hundreds of acres of natural conservation areas that feature 12 miles of greenway trails.



**MIXED DENSITY NEIGHBORHOOD
ADJACENT TO ACTIVITY CENTER**

6 SUBURBAN RETROFIT

Retail sales through online shopping are outpacing sales through brick-and-mortar retail establishments. Retail development flanks both sides of Knightdale Boulevard. The retail centers include “big box” retail, and given retail trends, occupancy of—as well as demand for—such large-scale retail spaces may decrease over time.

Through future redevelopment, today’s automobile-oriented shopping centers could present opportunities for creating more walkable mixed-use centers. Now is the time to consider the future evolution of some sites. What will remain open and what will be redeveloped in the coming years? How can they be reinvented before they decline into vacant, blighted centers? What form

will redevelopment take? How can the Town facilitate the transition to ensure that portions of the corridor remain viable business locations?

Changes that occur with each redevelopment opportunity will likely be phased, and will start with infill development that will establish the form of the future developed condition. The transformation would typically be phased. In the short term, infill development can expand the mix of uses and maintain the viability of remaining retail spaces. In the long term, the big boxes might be redeveloped into new buildings characterized by smaller footprints, smaller tenant spaces, and two or more stories.

1 MAKE EXTERNAL CONNECTIONS

With the transformation of retail sites, require developers to make provisions for—or improve—connections to surrounding development. The redevelopment of big box stores will open up opportunities for local street, driveway, and sidewalk connections to surrounding development. Encourage safe pedestrian connections in multiple directions, as these will be less challenging to construct than streets and driveways, and more palatable to neighboring development.

2 FACILITATE REDEVELOPMENT OF BIG BOX RETAIL SITES

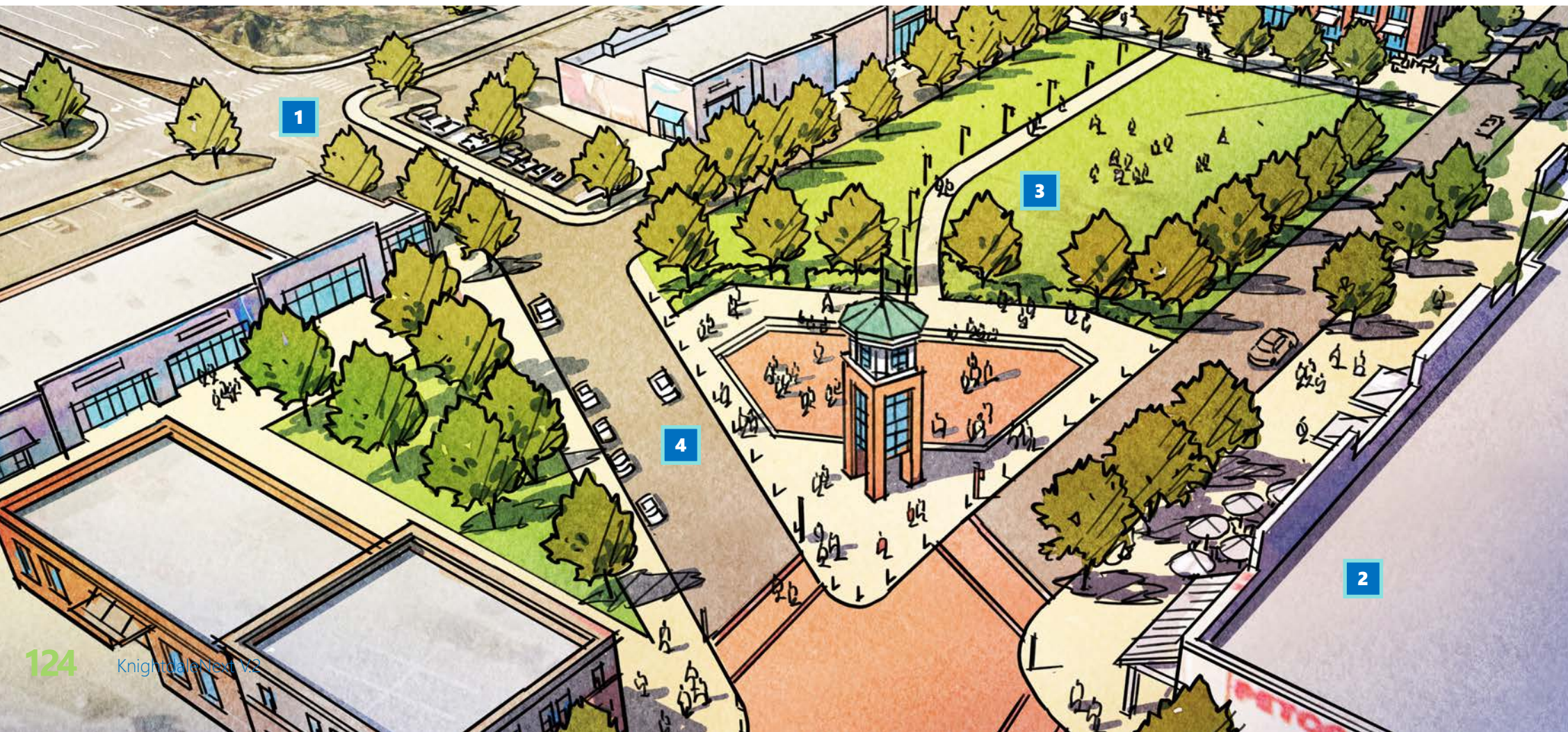
Allow a phased approach to transitioning these sites. The redevelopment should establish a block pattern with private drives located and designed to mimic a public street condition. New buildings should be located along these streets, creating an edge that helps reinforce scale, frames views of buildings at street termini, and screens parking behind the new buildings. To be implemented, such infill may require smaller lots sizes and access points that do not conform to current regulations. Early phases involve the use of existing parking areas for infill development while the big box retailer remains in operation. Initially, there may be competition for parking spaces, but as redevelopment continues the parking issues can be resolved.

3 ALLOW REDUCTIONS IN EXCESSIVE PARKING

Driven by tenant requirements, most parking lots have more capacity than needed on typical days. Where the hours of operation of adjacent tenants have little or no overlap, shared parking agreements can help meet parking needs without oversupplying spaces to satisfy peak demand as determined by individual retailers. Reducing parking requirements in key areas may also be considered so that the loss of spaces with the introduction of infill buildings does not conflict with regulatory standards (thereby requiring a variance).

4 DE-EMPHASIZE THE CAR

Design or redesign private drives within the development to form a network of complete streets. Enclosed by building facades, these linear connections should prioritize the pedestrian over the vehicle, creating safe “people spaces.” While parallel on-street parking accommodates some cars near the front doors, most of the parking should be located behind the buildings on the interior of blocks. With new buildings lined up along the street edge, the buildings serve to screen the parking from view. The appearance and character of the place is defined by the architecture and streetscape rather than the rear ends of vehicles.



PHASE 1

Typical layout for a conventional big box retail store, located several hundred feet back from the street with a large surface parking lot.



PHASE 2

Outparcels begin to develop with small retail, including sidewalks and green spaces.



PHASE 3

Conversion of surface parking lot to small retail begins, with parking provided in the rear. Residential is added to the mix.



PHASE 4

Parking conversion continues. New buildings support a mix of uses and intensities; multi-family residential, office, retail, and entertainment.



PHASE 5

Big box store is demolished and replaced with additional mixed-use.



PHASE 6

Full development potential is realized, with multiple mixed-use blocks, walkable streets, and central plazas.



7 TRANSIT ORIENTED DEVELOPMENT



This focus area may be subject to changes that not only help it keep pace with retail trends but accommodate transit service, connecting people in Knightdale with many regional destinations. The conversion of retail space into newer forms of retail as well as other complementary uses, such as office space and residential units, would help create a daytime population necessary for retail to survive. It may also help intensify development to achieve transit ridership targets. The concept plan illustrates how one side of the center can redevelop into a “transit ready” environment and potentially justify an extension of—or a feeder bus connection to—planned Bus Rapid Transit service from WakeMed (i.e. the New Bern Avenue BRT corridor).

1 “Place-making” enhancements in the redeveloped areas as well as around the retail that remains intact helps create destinations within the destination, attracting people to the center, giving patrons a reason to stay longer, and ensuring the business tenants remain competitive.

4 Upgraded streetscapes along private drives that replicate elements of successful retail streets in downtowns deliver an enticing storefront condition and may include street trees, wider paved areas in front of restaurants, and street furnishings that add color and increase comfort.

5 Café-style outdoor dining areas along the “streets” help activate pockets within the center for a more appealing, inviting destination.

6 Edged by buildings whose interiors spill into the space, amenity greens are the new anchors of modern commercial centers. They expand the accessible public space, accommodate informal activities, and support the reintroduction of vegetation to improve the aesthetics. Adjacent sites become the premium locations in and near the center, and these properties may command higher lease rates.

7 Underutilized parking areas reclaimed for infill and public spaces give the place character.

8 New, small-footprint buildings should complement existing buildings and enclose the green spaces.

9 Orient buildings, and their associated outdoor spaces, toward the street along the premium bus rapid transit corridor (Knightdale Boulevard) to promote a more walkable, energized environment.

10 Redesign drive aisles in a development’s parking lot for an internal street system, including provisions for walking and biking between buildings.

11 Support the tallest, most dense buildings around a proposed transit station for vertical mixed-use development.

2 Along and at the terminus of key transit corridors, development can be designed to facilitate transit access by reserving space for bus facilities to be incorporated. Site redesign should ensure that redevelopment results in a vibrant destination even in the absence of transit service.

3 The concentration of uses at densities that equate to sufficient numbers of residents and workers that could utilize the service could bolster efforts to receive transit service.

CASE STUDY

East Liberty Station

Pittsburgh, PA

A stop along the BRT route in Pittsburgh, this station was integrated into a redevelopment project near the East Liberty neighborhood. Developed in phases, the transit-oriented development began with a vision for commercial revitalization, with large-scale redevelopment projects fostering organic smaller-scale investment. The site, according to the City of Pittsburgh, is located in an area that was previously devoted to “automobile oriented commercial uses... dominated by large expanses of surface parking and infrastructure not designed for pedestrian comfort.” Early phases accommodated and retained big-box retailers, such as Target, but a later phase located the East Busway BRT stop in a “transit hall” that is part of the vertical mixed-use area. Today, the neighborhood not only has a revitalized mixed-use center meeting its commercial and service needs, but it also has access to a critical transportation link to the center of the metropolitan area. The improvements have transformed this unattractive gateway to the city into a vibrant, walkable node of activity.



TRANSIT ORIENTED DEVELOPMENT

8 NEIGHBORHOOD ACTIVITY CENTER

- 1** Community green space designed for informal gatherings as well as programmed events for the neighborhood
- 2** Connected road network aids circulation within the center while improving access from various approaches (including Lynnwood Dr.)
- 3** Neighborhood-scale commercial uses are organized at walkable distances around the central green space, enclosing it and giving it scale.
- 4** Upper floor and flanking residential units complement the nonresidential uses at the core. This additional height should be used to take advantage of unique viewsheds (i.e. Downtown Raleigh Skyline).
- 5** Civic and institutional uses are compatible additions to the use mix, adding to the vibrancy of the place.
- 6** Points of access to the Neuse River are also key intersections into the center, strengthening the connections to the recreation area nearby.
- 7** Greenway, a segment of the town-wide trail, expands access from surrounding neighborhoods and serves as an amenity.

A neighborhood activity center includes local-serving retail and service uses. The scale and organization of the center should prioritize the pedestrian and be trail-oriented to make greenway access a reasonable secondary front door to the center. Though primarily nonresidential in its composition, development should complement adjacent neighborhoods.

In the River District, development should support related activities envisioned for the area, fostering the concentration of specific, compatible business activity that leverages the location (e.g., an outfitters shop and equipment rental facility). The architecture, as noted in the River District Small Area Plan, should respect the existing character and the natural environment. It should have a distinct look and feel, embracing the features of the natural setting and incorporating brick, stone, timber, and steel.





CASE STUDY

Freshfields Charleston, SC

Built as a grocery-anchored neighborhood center, this mixed-use development includes a range of dining options, boutiques, and services. All are organized around a central green space that is frequently programmed with events that bring the community together. Daily needs of locals are met, as the center is the location of a full-service Harris Teeter grocery store, a branch bank, and several businesses offering personal services (e.g., hair salons). Locals and visitors enjoy the variety of restaurants and boutiques, all of which cater to a wide range of preferences and pursuits but key off the regional activities to inspire menu options and retail inventory. A sporting goods store, for example, serves as the local outfitter, providing gear for area golfing, swimming, and kayaking. Over time, the center has become a tourist destination while continuing to serve the needs of the community as a gathering place for neighbors to connect.



NEIGHBORHOOD ACTIVITY CENTER

9 MIXED-USE CENTER

Some mixed-use centers in the community, because of their location, present the opportunity to create primary entryways into Knightdale. One example includes the mixed-use center proposed at Smithfield Road and I-87, which connects between I-440 in Raleigh and I-95 in Wilson (via US 264). Those stopping at Knightdale will be deposited at the interchange of I-87 and Smithfield Road. New development here, if planned and designed thoughtfully, can help establish a positive image for the town. The mix of uses, the quality of architecture and open space, and the integration of public art should reinforce the town's identity. Attention to details, especially scale, will ensure this interchange reads as a welcoming point of entry while creating a destination distinguished from the rest of Knightdale.

- 1** The greatest mix of uses are concentrated at the core, which may be a later phase of a multi-phase development.
- 2** Connections (streets, trails, and other linear facilities) help make physical linkages through and between development phases, contributing to the creation of a cohesive, walkable development.

- 3** Open space elements can contribute to the creation of smooth transitions between different uses and changes in building scale. It can act as the "glue" that brings the component parts together, particularly between residential and nonresidential buildings.
- 4** Consistent streetscape features unify two or more areas that are otherwise different.
- 5** Nonresidential uses are complemented by a range of attached and small-lot detached residential units and a variety of indoor and outdoor spaces.
- 6** Multi-family housing, townhouses, and duplexes should be situated along streets (or private drives designed to look and function as public streets) that are segments of the existing and future street network.
- 7** Greenways should be integrated into new development design to enhance connectivity.

CASE STUDY

Fenton Cary, NC

Described as a place to play, dine, gather, shop, and celebrate, this new mixed-use activity center in Cary, NC is also a place for living. It accommodates a range of activities that combine to create a desirable destination for locals and visitors to enjoy. The amenities and programmed events invite people to linger longer, and this level of energy contributes to the viability of the center as a business location. The most successful places within the development are the common areas, which are removed and shielded from most of the vehicular traffic. The scale of such spaces, created by the architecture and the detailing that adds interest to the environment, encourages walking or simply sitting outside. Together, these spaces act as the glue that links the compatible uses to deliver one cohesive place with a distinct identity.



MIXED-USE CENTER

5

SUPPORTING INFRASTRUCTURE



SUPPORTING INFRASTRUCTURE

Governments have certain responsibilities to construct, operate, maintain, and replace community facilities and services (infrastructure) to keep pace with existing and future year development patterns. Some infrastructure categories are planned and funded solely by the Town of Knightdale, while others are provided by Raleigh Water, Wake County, Wake County Public Schools, the State of North Carolina, or other partners.

The type, location, and capacity of infrastructure in the community (its service delivery) are critical to the town's ability to grow and develop in accordance with the Growth Framework Plan presented in Chapter 3. Service delivery is also critical to managing the cost and timing of needed improvements, which can dramatically impact property owners with increased taxes if expenditures are not well-planned and well funded in future year capital and operating budgets.

Changing Infrastructure Needs

Infrastructure needs in Knightdale change over time as some portions of the community transition from rural to suburban to urban. Demands for service generally increase over time in these areas, and existing facilities expand, or new facilities are built, to provide minimum levels of service to existing and new customers.

Solutions for meeting new infrastructure demands also change as portions of the community transform. In more rural areas, minimal infrastructure is provided by the town and its partners to meet existing needs, and local residents or businesses rely on private solutions to meet at least some of their demands (e.g., well and septic systems or private open space). In more suburban areas, infrastructure investments are increased and provide either "point-of-service delivery" at the property line (water distribution and sewer collection systems or curbside trash pickup) or "close proximity to nearby facilities" in defined services areas for the different providers (e.g., parks and recreation

facilities, schools, fire protection, or police protection). In many U.S. cities, providing infrastructure to serve areas that are primarily single land use, low density, and not well connected is expensive, and over time, demands for service eventually surpass available supply to the point that systems break down. As the town grows, some activity centers or development nodes identified in the General Framework Plan may become more dense and take on certain urban characteristics: mixed-use development, taller buildings, different living options, different mobility solutions, or formal public spaces. Increased density or new land uses not anticipated at the time original infrastructure was provided may create various stresses on the system and a need to retrofit (make larger) existing systems to accommodate increased demands. In addition, one or more suburban models used previously for delivering specific facilities and services — such as school location and construction standards or park design and location standards — may need rethinking to meet the needs associated with a more urban condition.

Changes in the economy, consumer preferences, climate, and lifestyle choices may also impact how the town and its partners plan for and invest in new infrastructure. Forward-thinking and close coordination with officials that influence land use and development standards — the demand factors for the various systems — will be needed to control costs and manage the timing of new infrastructure to meet demand.

Supporting Infrastructure Maps

A series of supporting infrastructure maps are presented in other town documents, which recommend new or expanded infrastructure to keep pace with growth and development envisioned in the General Framework Plan. Information for the infrastructure categories presented in the maps should be refined further in future master plans or feasibility studies completed after the KnightdaleNext V.2 Comprehensive Plan is adopted. They should also provide more detail — refined service area maps, preferred technologies or solutions, level of service standards, candidate projects, and more specific policies — to implement broad ideas or concepts in the comprehensive plan. The follow-up plans and studies also serve as another bridge between the policies in the comprehensive plan and specific rules and requirements in the town's UDO.

General expectations for number, location, alignment, spacing, connectivity, or service areas depicted on the supporting infrastructure maps should instill minimum expectations or intended outcomes for development applications considered by town leaders. The actual location or design of a facility on the maps may change for a specific site during site development activities; however, the omission of a recommended facility or feature from one of the maps is discouraged on a site unless approved by town leaders during the development review process.



Shift Knightdale Comprehensive Transportation Plan

The Shift Knightdale Comprehensive Transportation Plan (CTP), completed in November 2022, is incorporated into the KnightdaleNext V.2 Comprehensive Plan by reference in the document. The maps, drawings, tables, policies, and recommendations presented in the CTP, in their entirety, should have the same standing and authority provided under Chapter 160D of the North Carolina General Statutes and the Town's Unified Development Ordinance as if they were physically included in the comprehensive plan.

Town of Knightdale Comprehensive Parks and Recreation Master Plan

The Town of Knightdale Comprehensive Parks and Recreation Master Plan, completed in March 2022, is incorporated into the KnightdaleNext V.2 Comprehensive Plan by reference in the document. The needs, recommendations, and implementation plan presented in the Master Plan, in their entirety, should have the same standing and authority provided under Chapter 160D of the North Carolina General Statutes and the Town's Unified Development Ordinance as if they were physically included in the comprehensive plan.

6

NEXT STEPS



The following policies and recommendations are intended to guide the town's decision-making as it allocates resources, acts on development applications, creates or modifies regulations, enters into agreements for the provision of services or public facilities, or takes other actions affecting the short- and long-term futures of Knightdale. The policies and recommendations are intended to be advisory and no individual policy is intended to stand alone. Like a toolkit, policies should be applied in a way that best achieves the Comprehensive Plan's stated vision and guiding principles, while considering available community resources and competing priorities. The information presented in this chapter is organized by the eight guiding principles presented in Chapter 3. There is no relationship or prioritization intended with the order polices and recommendations that are presented in the chapter.



PLANNED AND ORDERLY GROWTH



1.1 – Concentrate future development in mixed-use activity centers depicted on the Urban Small Town Framework Map.

1.2 – Establish compatibility and transition standards in the town's Unified Development Ordinance that better address the spaces between existing and future development; especially in terms of height, bulk, density, connectivity, or screening concerns between properties. This is important as the town advocates for more infill development and redevelopment in the community.

For implementation purposes, a small infill development or redevelopment project, sometimes as small as a single lot in an existing neighborhood, should adhere to stricter rules of compatibility with the surrounding environment since it is considered an incremental change to an already existing and defined neighborhood or district character. This does not mean a new land use should not be considered for an existing neighborhood or district in the future if the size, shape, height, and massing of the building, and its setbacks from property lines, can be made compatible with lots visible from the project location.

Larger infill development or redevelopment projects, sometimes representing the last tract of vacant land surrounded by one or more existing neighborhoods, should emphasize varying rules of compatibility for the site proportionate to the project size and visibility from adjacent neighborhoods or districts. More strict rules of compatibility with the surrounding environment should be enforced where the project property abuts an existing development. More flexible rules of compatibility with the surrounding environment should be considered on a case-by-case basis for portions of the project further away from abutting development.

1.3 – Encourage infill development and redevelopment in areas of town identified on the Intentional Growth Areas Map. Intensification of existing development in these areas should contribute to a more memorable, thriving, and sustainable community, and should aim to manage existing town resources efficiently.

1.4 – Rethink suburban commercial corridors in the community as walkable, mixed-use areas that increase the quality of retail experience for visitors, and enhance quality-of-life for nearby neighborhoods. Retrofitting existing commercial corridors should not be

about taking commercial uses and replacing them entirely with residential uses. Corridor retrofits should maintain a commercial focus, add new public spaces or amenities, and include some new housing for town residents.

1.5 – Protect and maintain historic structures in Knightdale by ensuring (1) development applications within, or adjacent to, known national or local historic or cultural resources include measures to protect those resources from demolition or encroachment, (2) developers utilize existing historic structures and features in the design of new developments, (3) developers relocate historic structures to appropriate locations to maintain glimpses of the town's past within its future.

1.6 – Influence the design and layout of new neighborhoods, districts, or activity centers in Knightdale as a means to increase residents' physical activity levels, maintain mental health, and improve overall well-being.

1.7 – Review and modify, as needed, the building types included in town's UDO to reflect the development types or preferences presented for the different place type categories.





TOWN-WIDE PLACEMAKING



2.1 – Adopt design and development standards that enhance community appearance, activate public spaces, and maintain a unique sense of place for Knightdale. Topics to address should include, but are not limited to, signature building architecture, building dimensions, public open space, streetscapes, parking solutions, and development compatibility standards.

2.2 – Develop a Knightdale Public Spaces Plan that organizes future town investments in public streets and spaces, and establishes minimum rules, criteria, or design standards that may apply to private development during a development application review.

2.3 – Require that multiple non-residential buildings on the same lot or parcel be architecturally-unified in terms of building features and building materials.

2.4 – Limit the use of franchise architecture in the town as one means to reinforce a unique brand and identity for Knightdale.

2.5 – Create one or more town grant programs for businesses that improve

the physical appearance or functionality of their properties. This should be done primarily to accelerate private investments in declining centers or corridors.

2.6 – Create recognizable entrances (gateways) into Knightdale that reinforce a brand identity, acknowledging the need to potentially brand or message certain districts in the town differently (e.g., the downtown village).

2.7 – Support neighborhood brand and identity initiatives, including unique entrance signs, street blade signs, landscaping, public art, and painted crosswalks as a means to celebrate unique areas of the community (e.g., the downtown village area).

2.8 – It is important new buildings, open space, parking lots, landscaping, or outdoor facilities in new development complement existing development intensities and patterns nearby to avoid incompatible adjacencies. On smaller infill or redevelopment sites where existing development patterns are established and expected to remain in the future, the massing and scale of new buildings should be similar to nearby surrounding buildings. On larger infill or redevelopment sites, new lots or buildings

that are significantly different in mass or scale from adjacent development should be located toward the center of the site, with lots and building sizes near the perimeter designed to transition to the scale or massing of existing surrounding development.

2.9 – New development across the street from existing development should be complementary in lot size, building mass, and placement. Similar building types should face each other on a public street to protect the character of the streetscape. Land use transitions are preferred in alleyways, the abutment of two rear yards, or across a large common green.

2.10 – Plan and program town-sponsored events and activities that are inviting and appealing to a wide range of residents' interests and backgrounds. Target events in different locations, in part, to celebrate different experiences that come with living in the town.

2.11 – Identify opportunities to expand public art in the community, which may include sculptures, murals, memorials, digital media, or live performances. Rotate exhibits in public display areas to keep spaces interesting and encourage repeat visitors to the area.





INCLUSIVE, LIVABLE TOWN



HOME AND NEIGHBORHOOD CHOICES



4.1 – Support housing diversity in the community, including different home types, sizes, and price points intermingled in close proximity, as a means to attract greater demographic diversity in the community (i.e., age, income level, culture, and race).

4.2 – Establish a discernible structure for new neighborhoods in Knightdale. The center of a neighborhood should include a civic open space — such as a park, square, or plaza depending on its location, size, and development context. Neighborhoods should also be organized around pedestrian walk sheds, which represent a five-minute walk distance from the center to the edge. The pedestrian shed concept ensures that all residents are within a short walk of a meaningful destination. These destinations may include mixed-use areas or other civic open spaces. In the case of corridor development, the pedestrian shed may be linear.

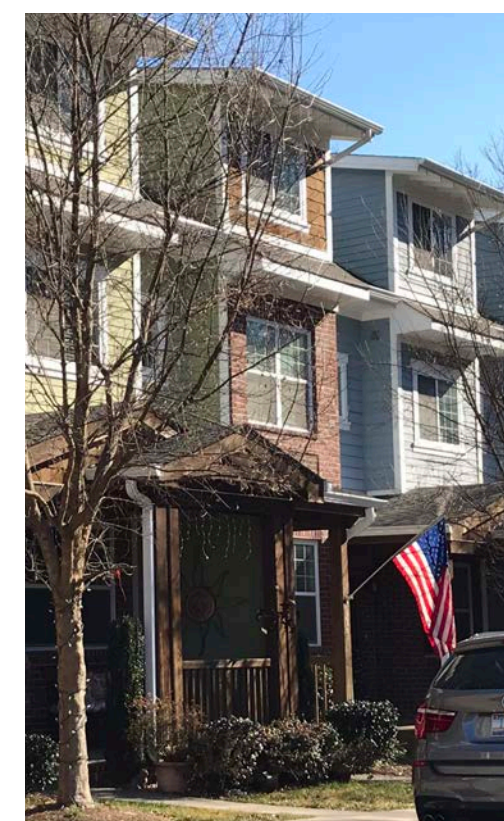
4.3 – Create policies, ordinances, or incentives that advocate for missing middle home types in the community. Design exceptions or alternative design treatments and standards for infill development opportunities in existing neighborhoods may be needed in the future, which acknowledge unique conditions or circumstances in different neighborhoods. General considerations for promoting missing middle housing in existing neighborhoods may include: 1) new home building architecture, orientation, and compatibility

with existing adjacent homes, 2) infill development and potential flooding issues associated with changed amounts of impervious surface or drainage patterns, and 3) parking provisions, on-street and on-lot, needed to effectively accommodate the target number of residents in each building.

4.4 – Support initiatives or incentives in Knightdale to encourage accessory dwelling units in new or existing neighborhoods by right.

4.5 – Join partners in exploring opportunities to support more affordable housing in Knightdale and greater Wake County. Consider solutions that lower home price points in the market, capitalize on federal housing subsidy programs, or find partners that build affordable housing in a community (e.g., Habitat for Humanity).

4.6 – Adopt town policies, rules, and criteria that allow for the purchase of land or buildings with town resources, or through resources dedicated to the town by others, to increase the number of affordable housing units in the community.

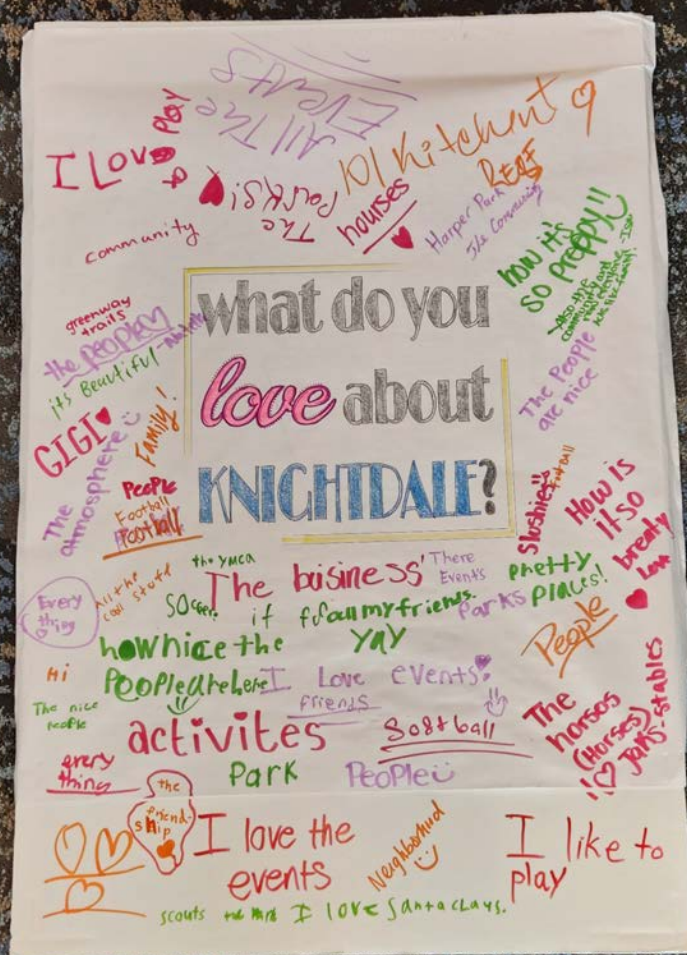


3.1 – Explore opportunities for evaluating neighborhood or resident vulnerabilities, including displacement, when evaluating development applications.

3.2 – Proactively use the town’s new Affordable Housing Trust Fund to (1) provide rental assistance in new mixed-use activity centers, (2) help fund non-profit organizations that want to rehabilitate declining homes in existing neighborhoods, or (3) mix affordable and market rate homes in new neighborhoods.

3.3 – Continue the town’s legacy of transparent and inclusive engagement, and safeguard two-way communication channels with all stakeholders as a means to make well-informed decisions.

3.4 – The town should work with its partners to celebrate local history. Ideas to explore may include, but are not limited to, an expanded history page on the town’s website, events held in the community to demonstrate local traditions, or a small Knightdale history museum located somewhere in the community.





ENVIRONMENTAL STEWARDSHIP & SUSTAINABILITY



5.1 – Develop standards that protect open space as a meaningful component of new development, including, but not limited to, natural areas, forests, floodplains, parks, plazas, squares, or greenways. Partner with state, regional, or non-profit groups working in the area to mitigate the impacts of new development on natural systems.

5.2 – Advocate for natural stormwater management strategies (drainage and infiltration) in larger neighborhoods or mixed-use activity centers. Incorporate stormwater best management practices — bioswales, infiltration planters, underground storage, etc. — in more urban mixed-use activity centers.

5.3 – Build upon the town’s growing reputation as an outdoor community, especially its growing local trail system and its connections to the Capital Area Greenway and others planned in the future.

5.4 – Protect the Neuse River in keeping with recommendations from the town’s River District Small Area Plan.

5.5 – Explore opportunities to increase the number and locations of electric vehicle (EV) charging stations in the community.

5.6 – Protect and restore natural resources in the town as climate change (shifting weather patterns) alters how we interact with and plan for development environments. Important topics areas may include stormwater management, tree canopy preservation, air quality, and renewable energies.

5.7 – Update the Town’s Water Allocation Policy to include additional environmental stewardship items.

5.8 – Develop a town sustainability master plan.



MINGO CREEK TRAIL

TRAIL HOURS ARE FROM DAWN TO DUSK

| | | | | | |
|--|--|--|--|--|-----------------------|
| | | | | | SPEED LIMIT 10 |
|--|--|--|--|--|-----------------------|

Greenway Rules

- Obey posted rules and regulations
- Pets must be on a leash no greater than 6 feet
- Owners must remove all pet waste
- Motorized vehicles are prohibited on greenways
- Users under 1, on bikes, skates, skateboards or scooters must wear a helmet
- Consumption of alcoholic beverages is prohibited
- Smoking is prohibited in Town parks and greenways
- Horses are prohibited on trails
- It is prohibited to remove, destroy, or damage any plant life or property
- It is prohibited to kill, trap, or harm wildlife
- Fires are prohibited on greenways
- Swimming in Town lakes is prohibited
- Weapons prohibited except those permitted in NCGS 14-41S.23

Greenway Safety

- Bicyclists, skaters, and skateboarders should approach pedestrians cautiously and pass on the left
- All users should remain on the right side of the trail except when passing
- Bicyclists, skaters, and skateboarders must yield the right of way to pedestrians
- Give an audible signal when passing
- Patrons should be aware of their surroundings on the trail
- The use of headphones is discouraged
- Patrons are encouraged to walk or jog with a companion
- Hide your belongings, lock your car, take your keys

KNIGHTDALE
start something



MULTI-MODAL TRANSPORTATION SYSTEM



6.1 – Implement recommendations from the Knightdale Shift Comprehensive Transportation Plan to improve the town’s transportation system, including (1) a complete and integrated grid street network, (2) complete street design principles, (3) mobility hubs serving multiple travel modes, and (4) an interconnected bicycle and pedestrian network.

6.2 – Implement demand-side solutions to improve the town’s transportation system, which may be focused on land use, development density, and urban design principles that lower vehicle trip generation (internal capture), shorten travel distance, and support non-vehicular travel modes. Street design standards for more urban conditions serving new walkable centers or communities should help bind together land use, transportation, and urban design decisions.

6.3 – Support bus rapid transit service in Knightdale via the extension of the planned line on New Bern Avenue in Raleigh.

6.4 – Work with the town’s transit partners to find bus or micro transit options for moving people within the town; especially between existing or proposed mixed-use activity centers.

6.5 – Incorporate the function and design principles for mobility hubs described in the Shift Knightdale Comprehensive Transportation Plan into new or expanded mixed-use activity centers depicted on the Urban Small Town Framework Map and the Future Place Type Map.

6.6 – Build a complete and connected network of bicycle and pedestrian facilities in the community consistent with the maps and recommendations included in the Shift Knightdale Comprehensive Transportation Plan to support preferred development types, locations, patterns, and intensities depicted on the Future Place Type Map.

6.7 – Improve street, sidewalk, greenway, and bicycle facility connectivity within, and between, new or existing neighborhoods, retail areas, employment areas, and mixed-use activity centers. Require new development connects to adjacent, existing development unless topographic or ecological constraints prohibit it.

6.8 – Coordinate with neighboring jurisdictions and agencies to link parks and greenway networks depicted in the comprehensive plan or its implementing function plans (e.g., the Shift Knightdale Comprehensive Transportation Plan or the Knightdale Parks and Recreation Master Plan).

6.9 – Lead a town-wide initiative to encourage “active living” in Knightdale, including plans and policies that promote more walkable development, a comprehensive and connected bicycle network, and programs that increase the frequency and level of daily physical activity for students, families, employees, seniors, and visitors.

6.10 – Support the town’s Vision Zero resolution aimed at eliminating all traffic fatalities and severe injuries, including, but not limited to, initiatives completed to make roads safer for all travel modes using Safe Streets and Roads for All (SS4A) grant funds from the U.S. Department of Transportation or updates to the local traffic calming policy.

6.11 – Evaluate and improve infrastructure to accommodate residents with mobility needs by updating the Town’s ADA Transition Plan.





COMMUNITY FACILITIES AND SERVICES



7.1 – Coordinate both the Town’s capital expenditures and with responsible infrastructure service providers to keep pace with the timing and location of future growth in the planning area.

7.2 – Think about new or expanded infrastructure needs to serve future residents when reviewing development applications. Sometimes new development or redevelopment will afford the opportunity to request land or building space for new community facilities. If appropriate, the town may ask development applicants to consider some of these needs in their site concept plans. In some cases, the town, or their service provider partners, may need or want to compensate the developer or landowner for upsized infrastructure or dedication of land or building space for a public purpose.

7.3 – The town and its partners should identify opportunities that increase the type, number, and location of civic and culturally-important spaces in the community. Examples of new spaces may include, but are not limited to,

public gathering spaces, a local museum, community center, or a performing arts center. New or expanded facilities could also benefit from public-private partnerships.

7.4 – Continue to use the town’s Municipal Water Allocation Policy as one method for encouraging private investments in public spaces.

7.5 – Look for opportunities to use Smart City technology in future infrastructure projects, which links together different information systems and provides more opportunities for real-time information-sharing in the community. Look for outside implementation partners — like Google or Microsoft — to start the program in Knightdale.

7.6 – Encourage construction of new schools adjacent to the neighborhoods they serve, and demand they include the infrastructure needed to promote walking and biking to school from all sides of the school.



ECONOMIC VITALITY

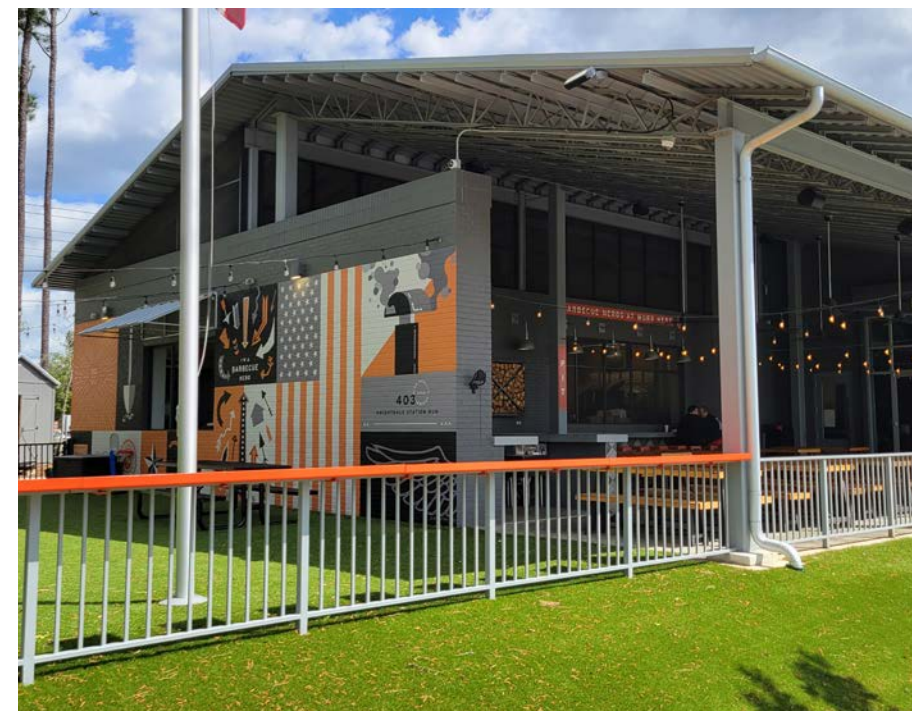


8.1 – Leverage the town’s unique character and sense of place to attract high-quality jobs and investment; acknowledging the town’s quality-of-life and its appeal to a wide range of skilled and educated workers as a desirable place to live and work are directly related.

8.2 – Continue supporting local businesses and entrepreneurship in the community using the “Start Something” identity; especially for entrepreneurs, artists, start-up businesses, technology innovators, or similar “new economy” businesses.

8.3 – Include key industries for Knightdale in proposed innovation districts on the Future Place Type Map: advanced manufacturing, clean-tech and smart grid, technology, life sciences, healthcare, and creative or artisans activities.

8.4 – Work with landowners, businesses, and state or local economic development organizations to find the resources needed to increase the number and location of site-ready properties for future industrial, business, or office growth.



7

PLAN IMPLEMENTATION



PLAN IMPLEMENTATION

Successful implementation of the policies, recommendations, and plan concepts presented in the KnightdaleNext V.2 Comprehensive Plan will depend greatly upon the interests and abilities of property owners, developers, elected officials, town staff, and the general public to work together for a common purpose. Recommendations in the comprehensive plan begin and end with the needs of Knightdale in mind. Balancing the public's needs with those of partner agencies, developers, and private landowners will be critical for comprehensive plan implementation.

The action plan presented in Chapter 6 furthers three primary objectives. First, it provides decision-makers with a playbook for implementation. Second, clearly defined projects and action items identify public or private investment opportunities that are healthy, sustainable, and achievable. Third, regularly measuring achievements against the action plan — the community report card described later in the chapter — enables stakeholders with the

opportunity to track progress and hold elected officials accountable for implementing the Comprehensive Plan.

One important note, the action plan presented in Chapter 6 advocates for the best possible community outcomes without regard to available town budgets or staff resources. It is a wish list of actions or investments needed to fulfill the vision of the comprehensive plan. Budget realities and staff time available for comprehensive plan implementation activities (measured against other staff responsibilities or duties) may impact the timing or prioritization of items presented in the action plan. Priorities are assigned in the action plan to create urgency and build momentum for keeping things moving quickly and in a positive direction after adoption of the comprehensive plan. Items may move up or down the priority list based upon available outside funds, public-public and public-private partnership opportunities, or the ability to bundle several items together to realize budget efficiencies.



The Comprehensive Plan Implementation Matrix summarizes 56 action items presented earlier in the document as short-, mid-, and long-term priorities. Detailed information for each item includes a policy number, guiding principle reference, policy statement, intended work product (if applicable), target time frame for implementation, lead party, cost category, and potential funding source.

SHORT-TERM (0 to 3 Years)

Generally speaking, there are 40 items in the short-term category, which includes several items that are on-going practices within town departments and do not have a specific end target date. Some new items could be absorbed within regular staff duties if time is available for increased work responsibilities. Most of the remaining items are not high-budget items. Some items may benefit from grant funding in the future.

MID-TERM (4 to 8 Years)

Mid-term items in the action plan may become more or less urgent in future years as opportunities or challenges present themselves in the community. Again, opportunities to bundle projects for cost-savings may influence moving items between priority categories. Still other items may benefit from a volunteer group in the community that decides to focus its resources on item implementation.

LONG-TERM (9 to 15 Years)

Long-term items in the action plan include large capital projects or big initiatives that may take patience to see through. For example, an expensive road project may take several years to realize, or the extension of bus rapid transit service to Knightdale is dependent on the implementation schedule for the portion of the line in Raleigh.

Monitor the Comprehensive Plan

An update on progress implementing the ideas, concepts, and recommendations presented in the KnightdaleNext Comprehensive Plan V.2 should be made to Town Council each year.



| POLICY | |
|-----------------------|---|
| Short-Term Priorities | |
| 1.1 | Concentrate future development in mixed-use activity centers depicted on the Urban Small Town Framework Map. |
| 1.2 | Establish compatibility and transition standards that respect the spaces between existing and future development; especially as the town advocates for infill development and redevelopment in the community. |
| 1.3 | Encourage infill development and redevelopment in areas of town identified on the Intentional Growth Areas Map. Intensification of existing development in these areas should contribute to a more memorable, thriving, and sustainable community, and should aim to manage existing town resources efficiently. |
| 1.4 | Rethink suburban commercial corridors in the community as walkable, mixed-use areas that increase the quality of retail experience for visitors, and enhance quality-of-life for nearby neighborhoods. Retrofitting existing commercial corridors should not be about taking commercial uses and replacing them entirely with residential uses. Corridor retrofits should maintain a commercial focus, add new public spaces or amenities, and include some housing new town residents. |
| 1.5 | Protect and maintain historic structures in Knightdale by ensuring (1) development applications within, or adjacent to, known national or local historic or cultural resources include measures to protect those resources from demolition or encroachment, (2) developers utilize existing historic structures and features in the design of new developments, (3) developers relocate historic structures to appropriate locations to maintain glimpses of the town's past within its future. |
| 1.6 | Influence the design and layout of new neighborhoods, districts, or activity centers in Knightdale as a means to increase residents' physical activity levels, maintain mental health, and improve overall well-being. |
| 1.7 | Review and modify, as needed, the building types included in town's UDO to reflect the development types or preferences presented for the different place type categories. |
| 2.1 | Adopt design and development standards that enhance community appearance, activate public spaces, and maintain a unique sense of place for Knightdale. Topics to address should include, but are not limited to, signature building architecture, building dimensions, public open space, streetscapes, parking solutions, and development compatibility standards. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|-----------------------------|---|---------------------------|------------------------------------|----------------|-----------------|
| Short-Term Priorities | | | | | |
| Planned and Orderly Growth | N/A | Short-Term (0 to 3 Years) | Town Council, Development Services | N/A | Staff Resources |
| Planned and Orderly Growth | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Planned and Orderly Growth | N/A | Short-Term (0 to 3 Years) | Town Council, Development Services | N/A | Staff Resources |
| Planned and Orderly Growth | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Planned and Orderly Growth | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Planned and Orderly Growth | N/A | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Planned and Orderly Growth | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Town-Wide Placemaking | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |

KEY FOR "ESTIMATED COST" COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|-----------------------|--|
| Short-Term Priorities | |
| 2.2 | Develop a Knightdale Public Spaces Plan that organizes future town investments in public streets and spaces, and establishes minimum rules, criteria, or design standards that may apply to private development during a development application review. |
| 2.3 | Require that multiple non-residential buildings on the same lot or parcel be architecturally-unified in terms of building features and building materials. |
| 2.4 | Limit the use of franchise architecture in the town as one means to reinforce a unique brand and identity for Knightdale. |
| 2.5 | Create one or more town grant programs for businesses that improve the physical appearance or functionality of their properties. This should be done primarily to accelerate private investments in declining centers or corridors. |
| 2.7 | Support neighborhood brand and identity initiatives, including unique entrance signs, street blade signs, landscaping, public art, and painted crosswalks as a means to celebrate unique areas of the community (e.g., the downtown village area). |
| 2.8 | It is important new buildings, open space, parking lots, landscaping, or outdoor facilities in new development complement existing development intensities and patterns nearby to avoid incompatible adjacencies. On smaller infill or redevelopment sites where existing development patterns are established and expected to remain in the future, the massing and scale of new buildings should be similar to nearby surrounding buildings. On larger infill or redevelopment sites, new lots or buildings that are significantly different in mass or scale from adjacent development should be located toward the center of the site, with lots and building sizes near the perimeter designed to transition to the scale or massing of existing surrounding development. |
| 2.9 | New development across the street from existing development should be complementary in lot size, building mass, and placement. Similar building types should face each other on a public street to protect the character of the streetscape. Land use transitions are preferred in alleyways, the abutment of two rear yards, or across a large common green. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|-----------------------------|---|---------------------------|------------------------------------|----------------|---|
| Short-Term Priorities | | | | | |
| Town-Wide Placemaking | Knightdale Public Spaces Plan | Short-Term (0 to 3 Years) | Development Services | \$\$\$ | Annual Town Budget |
| Town-Wide Placemaking | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Town-Wide Placemaking | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Town-Wide Placemaking | Business Façade Grant Program | Short-Term (0 to 3 Years) | Town Administration, Finance | \$\$\$ | Annual Town Budget |
| Town-Wide Placemaking | Neighborhood Branding Treatments | Short-Term (0 to 3 Years) | Development Services, Public Works | \$\$\$\$ | Town Capital Improvements Plan, Private Development Investments |
| Town-Wide Placemaking | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Town-Wide Placemaking | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |

KEY FOR "ESTIMATED COST" COLUMN
 \$ = Able to be implemented using discretionary funding available to the Planning Director
 \$\$ = Able to be implemented using discretionary funding available to the Town Manager
 \$\$\$ = Able to be implemented with a line item in the annual town budget
 \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
 \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|-----------------------|---|
| Short-Term Priorities | |
| 2.10 | Plan and program town-sponsored events and activities that are inviting and appealing to a wide range of residents' interests and backgrounds. Target events in different locations, in part, to celebrate different experiences that come with living in the town. |
| 3.2 | Proactively use the town's new Affordable Housing Trust Fund to (1) provide rental assistance in new mixed-use activity centers, (2) help fund non-profit organizations that want to rehabilitate declining homes in existing neighborhoods for sale, or (3) mix affordable and market rate homes in new neighborhoods. |
| 3.3 | Continue the town's legacy of transparent and inclusive engagement, and safeguard two-way communication channels with all stakeholders as a means to make well-informed decisions. |
| 3.4 | Work with town partners to celebrate local history. Ideas to explore may include, but are not limited to, an expanded history page on the town's website, events held in the community to demonstrate local traditions, or a small Knightdale history museum located somewhere in the community. |
| 4.1 | Support housing diversity in the community, including different home types, sizes, and price points intermingled in close proximity, as a means to attract greater demographic diversity in the community (i.e., age, income level, culture, and race). |
| 4.2 | Establish a discernible structure for new neighborhoods in Knightdale. The center of a neighborhood should include a civic open space — such as a park, square, or plaza depending on its location, size, and development context. Neighborhoods should also be organized around pedestrian walk sheds, which represent a five-minute walk distance from the center to the edge. The pedestrian shed concept ensures that all residents are within a short walk of a meaningful destination. These destinations may include mixed-use areas or other civic open spaces. In the case of corridor development, the pedestrian shed may be linear. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|-------------------------------|---|---------------------------|---|----------------|---|
| Short-Term Priorities | | | | | |
| Town-Wide Placemaking | Town Programs and Events | Short-Term (0 to 3 Years) | Community Relations, Parks, Recreation, and Cultural Programs | \$\$\$ | Annual Town Budget |
| Inclusive, Livable Town | N/A | Short-Term (0 to 3 Years) | Town Administration | \$\$\$\$ | Town Affordable Housing Trust Fund |
| Inclusive, Livable Town | N/A | Short-Term (0 to 3 Years) | Community Relations | \$ | "Discretionary Funds Available to the Community Relations Department" |
| Inclusive, Livable Town | Local History page on the Town website | Short-Term (0 to 3 Years) | Community Relations | \$ | "Discretionary Funds Available to the Community Relations Department" |
| Home and Neighborhood Choices | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Home and Neighborhood Choices | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |

KEY FOR "ESTIMATED COST" COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|-----------------------|---|
| Short-Term Priorities | |
| 4.3 | Create policies, ordinances, or incentives that advocate for missing middle home types in the community. Design exceptions or alternative design treatments and standards for infill development opportunities in existing neighborhoods may be needed in the future, which acknowledge unique conditions or circumstances in different neighborhoods. General considerations for promoting missing middle housing in existing neighborhoods may include: 1) new home building architecture, orientation, and compatibility with existing adjacent homes, 2) infill development and potential flooding issues associated with changed amounts of impervious surface or drainage patterns, and 3) parking provisions, on-street and on-lot, needed to effectively accommodate the target number of residents in each building. |
| 4.4 | Support initiatives or incentives in Knightdale to encourage accessory dwelling units in new or existing neighborhoods by right. |
| 4.5 | Join partners in exploring opportunities to support more affordable housing in Knightdale and greater Wake County. Consider solutions that lower home price points in the market, capitalize on federal housing subsidy programs, or find partners that build affordable housing in a community (e.g., Habit for Humanity). |
| 4.6 | Adopt town policies, rules, and criteria that allow for the purchase of land or buildings with town resources, or through resources dedicated to the town by others, to increase the number of affordable housing units in the community. |
| 5.1 | Develop standards that protect open space as a meaningful component of new development, including, but not limited to, natural areas, forests, floodplains, parks, plazas, squares, or greenways. Partner with state, regional, or non-profit groups working in the area to mitigate the impacts of new development on natural systems. |
| 5.2 | Advocate for natural stormwater management strategies (drainage and infiltration) in larger neighborhoods or mixed-use activity centers. Incorporate stormwater best management practices — bioswales, infiltration planters, underground storage, etc. — in more urban mixed-use activity centers. |
| 5.4 | Protect the Neuse River in keeping with recommendations from the town’s River District Small Area Plan. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|--|---|---------------------------|------------------------------------|----------------|-----------------|
| Short-Term Priorities | | | | | |
| Home and Neighborhood Choices | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Home and Neighborhood Choices | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Home and Neighborhood Choices | N/A | Short-Term (0 to 3 Years) | Town Administration | N/A | Staff Resources |
| Home and Neighborhood Choices | Town Resolution | Short-Term (0 to 3 Years) | Town Administration | N/A | Staff Resources |
| Environmental Stewardship & Sustainability | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Environmental Stewardship & Sustainability | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services, Public Works | N/A | Staff Resources |
| Environmental Stewardship & Sustainability | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |

KEY FOR “ESTIMATED COST” COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|-----------------------|---|
| Short-Term Priorities | |
| 5.5 | Explore opportunities to increase the number and locations of electric vehicle (EV) charging stations in the community. |
| 5.7 | Update the Town's Water Allocation Policy to include additional environmental stewardship items. |
| 6.2 | Implement demand-side solutions to improve the town's transportation system, which may be focused on land use, development density, and urban design principles that lower vehicle trip generation (internal capture), shorten travel distance, and support non-vehicular travel modes. Street design standards for more urban conditions serving new walkable centers or communities should help bind together land use, transportation, and urban design decisions. |
| 6.9 | Lead a town-wide initiative to encourage "active living" in Knightdale, including plans and policies that promote more walkable development, a comprehensive and connected bicycle network, and programs that increase the frequency and level of daily physical activity for students, families, employees, seniors, and visitors. |
| 6.10 | Support the town's Vision Zero resolution aimed at eliminating all traffic fatalities and severe injuries. |
| 6.11 | Evaluate and improve infrastructure to accommodate residents with mobility needs by updating the Town's ADA Transition Plan. |
| 7.1 | Coordinate the town's capital expenditures, and coordinate with responsible infrastructure service providers, to keep pace with the timing and location of future growth in the planning area. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|--|--|---------------------------|---|----------------|--------------------|
| Short-Term Priorities | | | | | |
| Inclusive, Livable Town | Unified Development Ordinance (Revised) or Include in Sustainability Master Plan | Short-Term (0 to 3 Years) | Town Administration | \$\$\$ | Annual Town Budget |
| Environmental Stewardship & Sustainability | Water Allocation Policy (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Multi-Modal Transportation System | N/A | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Multi-Modal Transportation System | N/A | Short-Term (0 to 3 Years) | Parks, Recreation, and Cultural Programs | \$\$\$ | Annual Town Budget |
| Multi-Modal Transportation System | Safer Transportation System | Short-Term (0 to 3 Years) | Development Services | \$\$\$ | Annual Town Budget |
| Multi-Modal Transportation System | ADA Transition Plan | Short-Term (0 to 3 Years) | Town Administration, Development Services | N/A | Staff Resources |
| Community Facilities and Services | N/A | Short-Term (0 to 3 Years) | Town Administration, Development Services | N/A | Staff Resources |

KEY FOR "ESTIMATED COST" COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|------------------------------|--|
| Short-Term Priorities | |
| 7.2 | Think about new or expanded infrastructure needs to serve future residents when review development applications. Sometimes new development or redevelopment will afford the opportunity to request land or building space for new community facilities. If appropriate, the town may ask development applicants to consider some of these needs in their site concept plans. In some cases, the town, or their service provider partners, may need or want to compensate the developer or landowner for upsized infrastructure or dedication of land or building space for a public purpose. |
| 7.4 | Continue to use the town's Municipal Water Allocation Policy as one method for encouraging private investments in public spaces. |
| 7.6 | Encourage construction of new schools adjacent to the neighborhoods they serve, and demand they include the infrastructure needed to promote walking and biking to school from all sides of the school. |
| 8.1 | Leverage the town's unique character and sense of place to attract high-quality jobs and investment; acknowledging the town's quality-of-life and its appeal to a wide range of skilled and educated workers as a desirable place to live and work are directly related. |
| 8.2 | Continue supporting local businesses and entrepreneurship in the community using the "Start Something" identity; especially for entrepreneurs, artists, start-up businesses, technology innovators, or similar "new economy" businesses. |
| 8.3 | Include key industries for Knightdale in proposed innovation districts on the Future Place Type Map: advanced manufacturing, clean-tech and smart grid, technology, life sciences, healthcare, and creative or artisans activities. |
| Mid-Term Priorities | |
| 2.6 | Create recognizable entrances (gateways) into Knightdale that reinforce a brand identity, acknowledging the need to potentially brand or message certain districts in the town differently (e.g., the downtown village). |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|-----------------------------------|---|---------------------------|--|----------------|--------------------------------|
| Short-Term Priorities | | | | | |
| Community Facilities and Services | N/A | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Community Facilities and Services | N/A | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Community Facilities and Services | N/A | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Economic Vitality | N/A | Short-Term (0 to 3 Years) | Town Administration, Development Services, Community Relations | N/A | Staff Resources |
| Economic Vitality | N/A | Short-Term (0 to 3 Years) | Town Administration, Development Services, Community Relations | N/A | Staff Resources |
| Economic Vitality | Unified Development Ordinance (Revised) | Short-Term (0 to 3 Years) | Development Services | N/A | Staff Resources |
| Mid-Term Priorities | | | | | |
| Town-Wide Placemaking | Gateway Treatments (Signs, Lighting, and Landscaping) | Mid-Term (4 to 8 Years) | Town Administration, Public Works | \$\$\$\$ | Town Capital Improvements Plan |

KEY FOR "ESTIMATED COST" COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|---------------------|---|
| Mid-Term Priorities | |
| 2.11 | Identify opportunities to expand public art in the community, which may include sculptures, murals, memorials, digital media, or live performances. Rotate exhibits in public display areas to keep spaces interesting and encourage repeat visitors to the area. |
| 3.1 | Explore opportunities for evaluating neighborhood or resident vulnerabilities, including displacement, when evaluating development applications. |
| 5.6 | Protect and restore natural resources in the town as climate change (shifting weather patterns) alters how we interact with and plan for development environments. Important topics areas may include stormwater management, tree canopy preservation, air quality, and renewable energies. |
| 5.8 | Develop a town sustainability master plan. |
| 6.4 | Work with the town's transit partners to find bus or micro transit options for moving people within the town; especially between existing or proposed mixed-use activity centers. |
| 6.5 | Incorporate the function and design principles for mobility hubs described in the Shift Knightdale Comprehensive Transportation Plan into new or expanded mixed-use activity centers depicted on the Urban Small Town Framework Map and the Future Place Type Map. |
| 8.4 | Work with landowners, businesses, and state or local economic development organizations to find the resources needed to increase the number and location of site-ready properties for future industrial, business, or office growth. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|--|---|-------------------------|--|----------------|--|
| Mid-Term Priorities | | | | | |
| Town-Wide Placemaking | Art Parks, Art in the Community (Public Spaces) | Mid-Term (4 to 8 Years) | Development Services, Parks, Recreation, and Cultural Programs | \$\$\$ | Annual Town Budget, Town Capital Improvements Plan |
| Inclusive, Livable Town | Equity Atlas (Maps), Equity Summary Report | Mid-Term (4 to 8 Years) | Development Services, Public Works, Town Administration | \$\$\$ | Annual Town Budget |
| Inclusive, Livable Town | Climate Action Plan | Mid-Term (4 to 8 Years) | Development Services | \$\$\$ | Annual Town Budget |
| Environmental Stewardship & Sustainability | Sustainability Master Plan | Mid-Term (4 to 8 Years) | Development Services | \$\$\$ | Annual Town Budget |
| Multi-Modal Transportation System | New or Improved Bus Routes or Micro Transit Options | Mid-Term (4 to 8 Years) | Development Services, Public Works | \$\$\$\$ | NCDOT, CAMPO, Federal Grants |
| Multi-Modal Transportation System | New or Improved Mobility Hubs | Mid-Term (4 to 8 Years) | Development Services, Public Works | N/A | Staff Resources |
| Economic Vitality | N/A | Mid-Term (4 to 8 Years) | Town Administration, Development Services, Community Relations | \$\$\$\$ | Federal Grants, State Grants, Outside Funding Partners |

KEY FOR "ESTIMATED COST" COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

| POLICY | |
|----------------------|--|
| Long-Term Priorities | |
| 5.3 | Build upon the town’s growing reputation as an outdoor community, especially its growing local trail system and its connections to the Capital Area Greenway and others planned in the future. |
| 6.1 | Implement supply-side solutions to improve the town’s transportation system, including: (1) a complete and integrated grid street network for major roads and local streets; (2) complete street principles; (3) access management standards; (4) minimum street spacing guidelines; (5) special intersection treatments; and (6) different street design standards for suburban and urban conditions. |
| 6.3 | Support bus rapid transit service in Knightdale via the extension of the planned line on New Bern Avenue in Raleigh. |
| 6.6 | Build a complete and connected network of bicycle and pedestrian facilities in the community consistent with the maps and recommendations included in the Shift Knightdale Comprehensive Transportation Plan to support preferred development types, locations, patterns, and intensities depicted on the Future Place Type Map. |
| 6.7 | Improve street, sidewalk, greenway, and bicycle facility connectivity within, and between, new or existing neighborhoods, retail areas, employment areas, and mixed-use activity centers. Require new development connects to adjacent, existing development unless topographic or ecological constraints prohibit it. |
| 6.8 | Coordinate with neighboring jurisdictions and agencies to link parks and greenway networks depicted in the comprehensive plan or its implementing function plans (e.g., the Shift Knightdale Comprehensive Transportation Plan or the Knightdale Parks and Recreation Master Plan). |
| 7.3 | The town and its partners should identify opportunities that increase the type, number, and location of civic and culturally-important spaces in the community. Examples of new spaces may include, but are not limited to, public gathering spaces, a local museum, or a performing arts center. New or expanded facilities could also benefit from public-private partnerships. |
| 7.5 | Look for opportunities to use Smart City technology in future infrastructure projects, which links together different information systems and provides more opportunities for real-time information-sharing in the community. Look for outside implementation partners — like Google or Microsoft — to start the program in Knightdale. |

| GUIDING PRINCIPLE REFERENCE | WORK PRODUCT | TIME FRAME | LEAD PARTY | ESTIMATED COST | FUNDING SOURCE |
|--|---|---------------------------|--|----------------|--|
| Long-Term Priorities | | | | | |
| Environmental Stewardship & Sustainability | N/A | Long-Term (9 to 15 Years) | Development Services, Public Works, Parks, Recreation, and Cultural Programs | \$\$\$\$ | Town Capital Improvements Plan |
| Multi-Modal Transportation System | New or Improved Streets | Long-Term (9 to 15 Years) | Development Services, Public Works | \$\$\$\$ | NCDOT, CAMPO, Private Developers |
| Multi-Modal Transportation System | Bus Rapid Transit System | Long-Term (9 to 15 Years) | Town Council, Development Services | \$\$\$\$ | NCDOT, CAMPO, Wake County, Federal Grants |
| Multi-Modal Transportation System | New or Improved Bicycle and Pedestrian Infrastructure | Long-Term (9 to 15 Years) | Development Services | \$\$\$\$ | NCDOT, CAMPO, Federal Grants |
| Multi-Modal Transportation System | Unified Development Ordinance (Revised) | Long-Term (9 to 15 Years) | Development Services | N/A | Staff Resources |
| Multi-Modal Transportation System | More Connected Greenway System | Long-Term (9 to 15 Years) | Development Services | N/A | Staff Resources |
| Community Facilities and Services | New or Expanded Civic Spaces | Long-Term (9 to 15 Years) | Town Administration, Development Services | \$\$\$ | Town Capital Improvements Plan |
| Community Facilities and Services | Smart City technology in public spaces | Long-Term (9 to 15 Years) | Town Administration, Development Services | \$\$\$\$ | Federal Grants, State Grants, Outside Funding Partners |

KEY FOR “ESTIMATED COST” COLUMN

- \$ = Able to be implemented using discretionary funding available to the Planning Director
- \$\$ = Able to be implemented using discretionary funding available to the Town Manager
- \$\$\$ = Able to be implemented with a line item in the annual town budget
- \$\$\$\$ = Able to be implemented with a line item in the Capital Improvements Program
- \$\$\$\$\$ = Able to be implemented with third-party funding such as grants or partner resources

