Compact Neighborhoods: An Introduction

Introduction

Throughout history, investments in transportation have shaped land use and development patterns of cities. American cities of the eighteenth and nineteenth centuries were founded around ports, river fronts, and railroads. With the advent of cars and the construction of the interstate freeway system in the twentieth century, centralized and crowded cities had room to breathe. Suburbs grew up along highways, promoting a more dispersed development pattern.

Durham's history mirrors the broader trend. Founded in 1869 as a railroad and industrial hub, the tobacco industry flourished. As population grew, streetcars brought mill and factory employees to work from nearby neighborhoods, while farm-to-market roads brought goods from rural areas to town. By the 1970s and 1980s, another population boom was underway. Aided by the completion of Interstate 85 and Interstate 40, farms and forests began to transform into subdivisions, suburban shopping malls, and office/industrial campuses.

The last fifteen years have brought tremendous population growth to the Triangle. The US Census Bureau released findings earlier this year showing the Durham-Chapel Hill-Carrboro metropolitan area as the 100th largest in the country.[1,2] Of those top 100, the Durham-Chapel Hill region is the 15th fastest-growing since 2010, while the Raleigh metro area is in the top three. (Figure 1). With all indicators pointing toward fast-paced growth continuing, the status quo of the current transportation network will struggle to keep up. Already, congestion on roads is becoming a problem with some serious economic and environmental consequences.

Figure 1: Fastest Growing Metropolitan Areas of the 100 Largest [3]

		Percent Growth 2010-2014
1.	Austin-Round Rock, TX Metro Area	12.5
2.	Cape Coral-Fort Myers, FL Metro Area	9.5
3.	Raleigh, NC Metro Area	9.3
4.	Houston-The Woodlands-Sugar Land, TX Metro Area	9.1
5.	Charleston-North Charleston, SC Metro Area	9
6.	Orlando-Kissimmee-Sanford, FL Metro Area	8.5
7.	San Antonio-New Braunfels, TX Metro Area	8.1
8.	Provo-Orem, UT Metro Area	7.9
9.	Denver-Aurora-Lakewood, CO Metro Area	7.8
10.	Dallas-Fort Worth-Arlington, TX Metro Area	7.8
11.	Boise City, ID Metro Area	7.5
12.	Charlotte-Concord-Gastonia, NC-SC Metro Area	7
13.	Nashville-Davidson--Murfreesboro--Franklin, TN Metro Area	7
14.	Des Moines-West Des Moines, IA Metro Area	6.9
15.	**Durham-Chapel Hill, NC Metro Area**	**6.8**
16.	McAllen-Edinburg-Mission, TX Metro Area	6.7
17.	Phoenix-Mesa-Scottsdale, AZ Metro Area	6.6

Like railroads and highways of the past, investments in mass transit systems not only respond to the needs of the city today, but also will help shape the city of the future. Across the country, cities like Denver, CO and those closer to Durham like Charlotte, NC have shown that growth oriented toward mass transit investments can pay off, protect the environment and create jobs. Guiding development that is higher density, mixed use and walkable to areas well served by mass transit not only helps to solve a transportation problem, it can also play a role in:

- Improving public heath by increasing opportunities to walk or bike. When homes, offices, stores, and civic buildings are near a transit station and close to each other, it is more convenient to walk, bicycle or use public transit. This expanded transportation choice makes it easier to incorporate physical activity into daily routines.
- Decreasing household transportation costs. Studies show that owning a car can cost an average of $8,876 annually.[4,5] For those with modest incomes, the cost of transportation can be a substantial hardship. Locating jobs and housing within a short distance of a transit station can provide a cheaper transportation alternative.
- Connecting people who do not have access to cars with jobs and other opportunities. National trends point toward a declining number of people with access to cars, either out of necessity or choice.[6] Allowing more compact neighborhoods with reliable access to transit can help connect people to jobs, education, health care, and other opportunities throughout the region.
- Improving air quality and reducing greenhouse gas emissions. According to the EPA, roughly 17 percent of US carbon dioxide emissions come from passenger vehicles.[7] Developing compactly and investing in public transit and other transportation options makes it easier for people to drive less, lowering greenhouse gas emissions. These approaches can also help reduce carbon monoxide, sulfur dioxide, particulate matter, and other pollutants emitted by motor vehicles.
- Promoting a fiscally responsible pattern of growth by reducing infrastructure costs. According to a study by Smart Growth America,[8] many cities have found that compact development, compared to "conventional suburban development," can save money on upfront infrastructure costs, reduce the cost of ongoing community services like fire, police, and ambulance, and generate greater tax revenues.

Of course, unintended consequences can result from directing development towards investments in transit.

- Rising land values can result in increased rents and home values and accelerated housing turnover/displacement. Studies have shown that a new transit station can "set in motion a cycle of unintended consequences in which core transit users – such as renters and low income households – are priced out in favor of higher-income, car-owning residents who are less likely to use public transit for commuting."[9] Policies and tools should be put in place so that the benefits of transit investments are shared by all.

Development Tiers: A Framework for Managed Growth

When Durham elected officials adopted the 2005 Comprehensive Plan they endorsed a new framework for growth described as Development Tiers. Recognizing the variety of landscapes and urban forms across Durham, from farms and rural crossroads to urban neighborhoods and downtown, Development Tiers are a basis for context-appropriate policy and regulation (Figure 2).

The Compact Neighborhood Tier was created to promote "high density and intensity infill, redevelopment, and new development that integrates a mix of uses through an urban fabric," and was applied on the Future Land Use Map to areas surrounding a proposed regional rail transit system (Durham Comprehensive Plan Policy 2.1.2e, Compact Neighborhood Tier Defined). An additional designation, called the Suburban Transit Area, was identified for later phases of the regional rail system, and provided the option of developing under Compact Neighborhood standards. As the location of transit stations becomes more certain, Suburban Transit Areas are intended to be re-designated to Compact Neighborhoods (Durham Comprehensive Plan Policy 2.4.1e, Newly Designated Transit Areas).

As opposed to traditional patterns of suburban growth, development within the Compact Neighborhood Tier is intended to support a range of transportation modes with higher densities and a mix of uses. Shown on the next page are several broad characteristics of a compact neighborhood.

Figure 2: Development Tiers

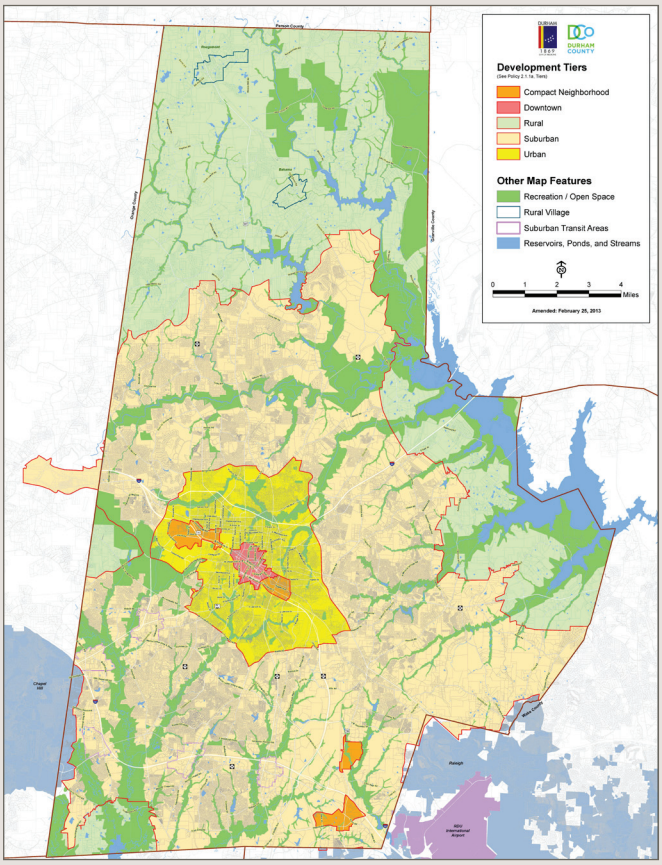
Inspired by the Rural-Urban Transect Model, elected officials adopted a framework of Development Tiers to describe the variety of landscapes and urban forms across Durham. In general, development intensity decreases with distance from the Downtown core.

Downtown Tier: The commercial, cultural and entertainment hub of Durham where high intensity development and pedestrian activity are encouraged.

Urban Tier: Land primarily developed prior to the 1960s with small lot sizes in traditional street grid patterns and differing land uses in proximity to one another.

Suburban Tier: Expected to accommodate a large propotion of future growth. Typical development patterns include residential subdivisions, shopping centers, and office parks.

Rural Tier: Established to preserve rural character, protect critical watersheds, and preserve agricultural land uses.



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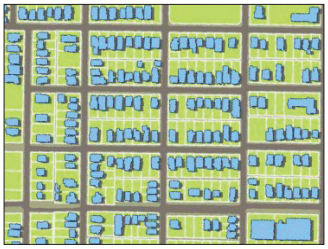
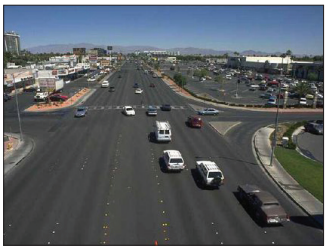
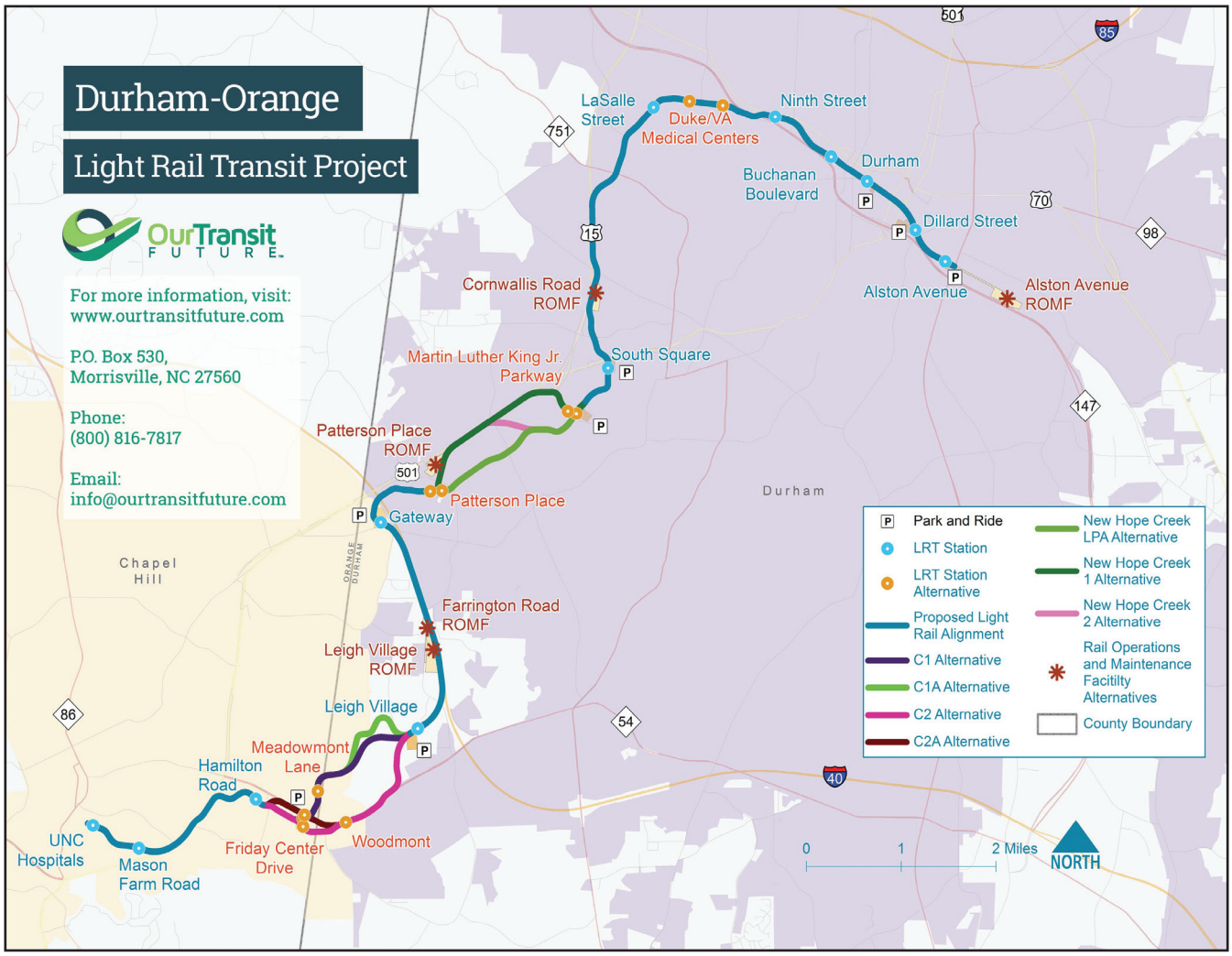
Urban densities. More households and jobs within walking distance of a transit station will support ridership and businesses in the area.		
A mix of residential, retail, office, and other uses. The ability to live, shop, eat, work, and play within the same general area decreases the number of car trips and increases the liveliness of a place.		
Street-oriented buildings. Appropriately scaled buildings built up to the sidewalk can slow traffic and make walking more interesting and inviting.		
A connected street network. Shorter blocks can improve walkability by creating more direct routes for pedestrians, and slowing and dispersing traffic.		
Appropriately scaled streets. Narrow streets slow traffic and can reduce the crash rate. Narrower streets leave more room for sidewalks and can improve the sense of comfort for pedestrians.		
Transportation choices. Frequent transit service and a continuous network of sidewalks and bike facilities add viable alternatives to traveling by car.		

The Durham-Orange Light Rail Transit and Station Area Planning

Planning for regional rail in the Triangle extends back several decades. A Regional Transit Plan was first adopted in 1995. The plan recommended two phases of regional rail: the first would connect Durham to Raleigh and other Wake County destinations, and the second would connect Chapel Hill and Durham. In 2011 and 2012 voters in Durham and Orange counties renewed their support with the passage of a 1/2 cent sales tax dedicated to expanding bus service and building regional rail. While bus service expansions are already underway, GoTriangle, the regional transit provider, is preparing environmental and engineering documents for the Durham-Orange Light Rail Transit (D-O LRT) corridor. The D-O LRT will travel 17 miles connecting an area east of Downtown Durham near Alston Avenue to the hospitals at the University of North Carolina-Chapel Hill (Figure 3).

The Durham-Orange corridor, which includes 17 stations, is a clear choice as a transit route, connecting major employers, universities, medical centers and many other destinations. In 2005, population along the corridor was 175,000 people. By 2035, projections from the Triangle Regional Model show population swelling to 231,000 – an increase of 32 percent over 20 years.

Figure 3: Proposed Durham-Orange Light Rail Transit Corridor



In addition to serving transportation needs, the D-O LRT has the potential to redirect growth and focus development in a more compact, walkable and mixed-use pattern. To do so effectively will require a multi-faceted approach to station area planning that includes land use planning, infrastructure planning and strategies to meet affordable housing objectives. As seen in Figure 4, under the larger framework of station area planning, the City and County are engaged in three major initiatives. More detail is provided in sections below.

Figure 4: Station Area Planning Framework

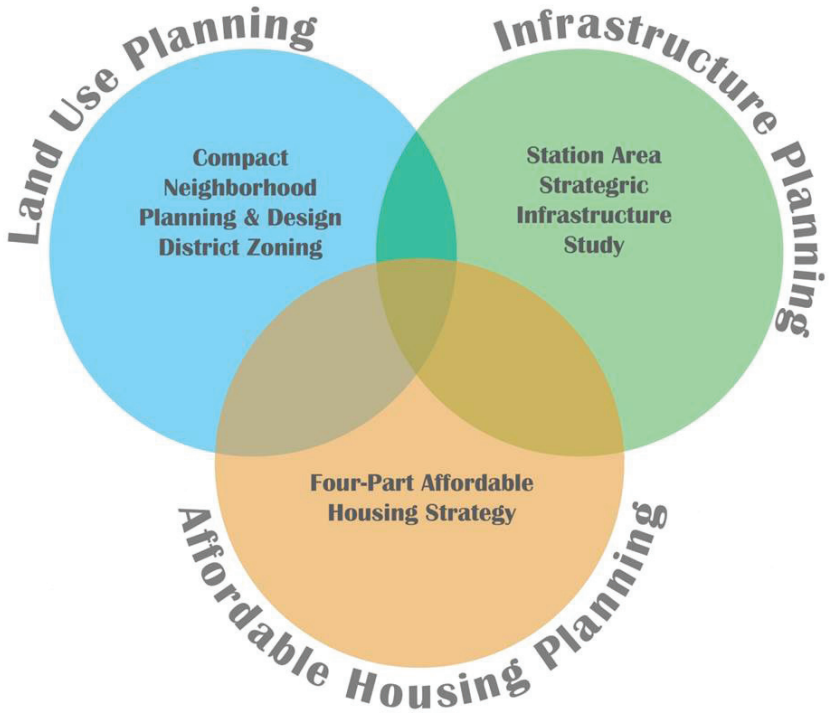
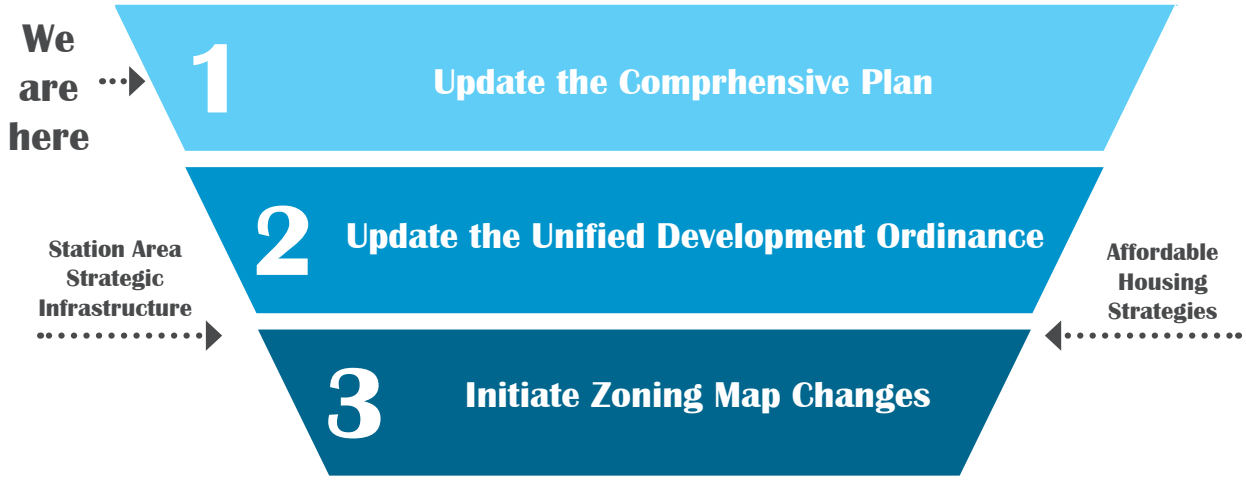


Figure 5: Land Use Planning Three Step Process



Land Use Planning

Through a three-step process establish appropriate land use policies and regulations that will enable higher density, walkable, and mixed use development (Figure 5).

Step 1: Update the Comprehensive Plan. Re-assess with community input the Compact Neighborhood Tier and Suburban Transit Area boundaries established on the Future Land Use Map.

Compact Neighborhoods and Suburban Transit Areas were established around proposed regional rail stations in the 2005 Comprehensive Plan, setting the broad policy basis for future development that supports transit by being designed with higher densities, a greater mix of uses, and multi-modal transportation options.

Thus, the policy in support of transit-oriented development is not new and remains in effect today. The proposed amendments to the Future Land Use Map described in these reports are intended as an update to the boundaries of the Compact Neighborhood Tiers and to convert Suburban Transit Areas to Compact Neighborhoods (per Policy 2.4.1.e.) to better align with the current rail transit proposal.

Updating the Compact Neighborhood Tiers now also provides an opportunity to re-engage with communities, many of which have seen growth and change in the ten years since the Comprehensive Plan was adopted. It allows opportunity to refine recommendations and assess potential issues that should be addressed in the years leading up to opening day of the light rail.

Step 2: Update the Unified Development Ordinance (UDO). Revise, as needed, the Compact Design zoning district that is intended to be put in place in areas designated as Compact Neighborhoods.

The UDO lays out the zoning rules for the physical development of property, and is crafted to result in a built environment that meets the goals of the Comprehensive Plan. The Compact Design (CD) zoning district was adopted in 2011, and was designed to encourage appropriate density and pedestrian activity by focusing on the form of development and how it shapes the streetscape in areas surrounding future transit stations.

Through a process referred to as a "text amendment," the Planning Department will revise, as needed, standards in the Compact Design zoning district to be more appropriate for designated Compact Neighborhoods identified on the Future Land Use Map.

Step 3: Zoning Map Changes. Apply, with community input, the updated Compact Design zoning district regulations in areas indicated on the Future Land Use Map to be Compact Neighborhoods. Engage the community in mapping specific sub-districts.

Rezoning the Compact Neighborhoods will be a separate and involved public process that will go into great detail about specific regulations and where those regulations should apply. A common and on-going source of confusion is the distinction between future land use and zoning. For more information, reference Figure 6 on the following page.

Infrastructure Planning

Planning for improvements to sidewalks, bike facilities, streetscapes and underground utilities within future transit areas will be crucial to the long-term success of these neighborhoods as places to live, work, and play. The Planning Department is coordinating a multi-departmental planning process, the Station Area Strategic Infrastructure (SASI) study, to identify and prioritize public infrastructure projects that promote access to transit and enhance neighborhoods and businesses around regional rail stations.

Affordable Housing in Transit Areas

The City and County Managers have authorized a four part strategy to encourage the development and/or retention of affordable housing in future rail station areas:

- Develop a "toolbox" of financing options to fund affordable housing within transit areas;
- Initiate amendments to the UDO that provide incentives for affordable housing through such measures as parking requirement reductions and improvements to the affordable housing density bonus;
- Installation of Design Districts in future rail transit areas; and
- Investigate the use of federal and state resources for affordable housing in future rail transit areas.

In addition, the City has recently engaged a consultant to provide an affordable housing plan for Downtown and the future transit areas. That plan is scheduled to be completed in early 2016.

Figure 6: Future Land Use and Zoning in Compact Neighborhoods

The Future Land Use Map acts as a long-term guide for future growth and development. Whenever there is a request to rezone a property, it must be consistent with the Future Land Use Map.

For instance, if the Future Land Use Map calls for a property to be a "Commercial" land use, any request to rezone that property must be to a commercial zoning district. The developer can choose from an array of commercial zoning districts such as Commercial Neighborhood or Commercial Infill, but could not rezone the property to allow for industrial or residential uses because it would not be consistent with the vision presented in the Future Land Use Map.

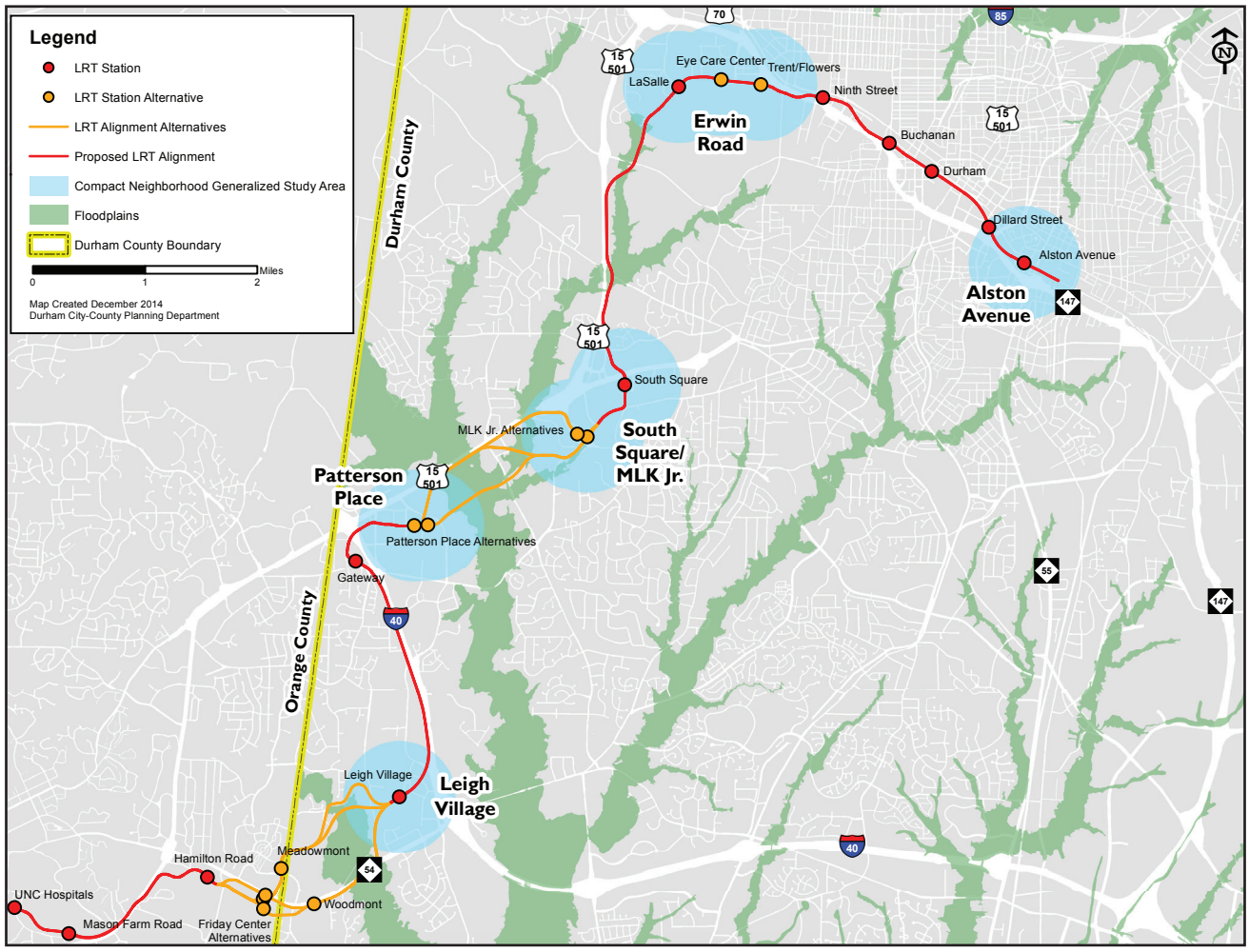
When properties are designated "Design District" on the the Future Land Use Map it sets the expectation that future development will strive to have more density, mix of uses, and walkability. The zoning districts that are compatible with the "Design District" designation on the Future Land Use Map are Compact Design (CD) and Downtown Design (DD). The Compact Design zoning district is intended specifically for areas outside of Downtown that are located near planned rail transit stations.

The Compact Design zoning district is already in place in the Ninth Street Compact Neighborhood Tier. Compact Design zoning is broken into "sub-districts" with varying standards for height, density, and intensity. Community input helped determine where specific sub-districts would be located. For instance, the most intense development was located in the Core sub-district, closest to the proposed light rail station. Support 1 and Support 2 sub-districts, with tapering development intensities, were located on the edges to help transition to and blend in with the existing neighborhoods. Special sub-districts can be created to meet unique circumstances. For instance, the Ninth Street commerical corridor has a special zoning sub-district: Pedestrian Business.

Compact Neighborhood Planning: Updating the Comprehensive Plan

Since the Comprehensive Plan was adopted in 2005, the light rail alignment has shifted and stations have been relocated, added or removed, causing boundaries on the Future Land Use Map to no longer align with the adopted transit plan. As part of the draft Environmental Impact Statement (EIS), GoTriangle has solidified the corridor and station locations. Based on these decisions, the existing Compact Neighborhood Tier and Suburban Transit Area boundaries need to be re-examined in the following areas: Leigh Village, Patterson Place, South Square/MLK Jr. Parkway, Erwin Road near Duke University/VA Hospital, and Alston Avenue (Figure 7).

Figure 7: Compact Neighborhood Study Areas



Beginning in late 2014/early 2015, Planning Department staff began work to reassess the Compact Neighborhood Tiers and Suburban Transit Areas along the Durham-Orange Light Rail corridor. In general, the project can be broken into three phases:

Staff Background Work

During this time staff developed a list of guidelines to determine new draft boundaries for the Compact Neighborhood Tier. These guidelines were applied and mapped uniformly across each study area and helped create a consistent foundation from which to begin conversations with the community (Appendices A-E). Below are the guidelines considered in the assessment of each Compact Neighborhood or Suburban Transit Area:

- Preservation of significant environmental features;
- Use of large rights-of-way (highways, railroad corridors, etc.) that preclude pedestrian connections as edges;
- Significant changes in the type and character of development (evidenced by different building scales, uses, etc.);
- Preservation of intact single-family residential (especially in historic districts);
- Avoidance of self-contained University-College development;
- A half-mile walking route from the station (not just as the bird flies);
- Locating boundaries mid-block to maintain similar character on both sides of a street;
- Inclusion of large undeveloped or underutilized tracts of land; and
- Inclusion of areas with particularly good access, visibility or prominence.

Public Engagement

Staff held a total of 10 public meetings to inform property owners and interested stakeholders about the project and process as well as seek input on proposed Compact Neighborhood Tier boundaries. Commonly asked questions are summarized in Appendix F.

April Community Meetings. Members from the public were invited to attend five public meetings to learn about Compact Neighborhoods, the planning process, and to weigh in on areas they believed should (or should not) be included in the Compact Neighborhood Tier. Over 250 people attended the series of five meetings which were held, one in each station area. In general, the meetings followed the same format: an introductory presentation, opportunity for question and answer, and a small group mapping activity. For the mapping activity, participants were asked to draw what they believed a suitable boundary for the Compact Neighborhood Tier would look like. Results from the mapping exercise were compiled and are summarized in Appendices G-J.

June and August Community Meetings. A second round of five public meetings was held in June and August to share results from April, gather additional input on the boundaries, and receive feedback on a draft of staff's recommended boundaries. Meetings were held as open houses with over 210 people in attendance.

October Public Information Sessions. Following the release of a draft of these reports to the public, Planning staff will host two public information sessions to answer questions and receive input prior to a formal public hearing setting.

Public Hearing and Adoption Process

During Fall 2015 and Winter 2016, staff will give presentations to and attend public hearings of the Joint City-County Planning Committee, Planning Commission, City Council, and the Board of County Commissioners. More detail will be provided as it becomes available.

Conclusions

Durham is at a crossroads. With rapid population and employment growth expected to continue into the future, conventional patterns of development will eventually become unsustainable. Redirecting growth and focusing development in a more compact, walkable, and mixed use pattern will offer residents and businesses with a choice about how to live, work, and move around the region.

Updating the Future Land Use Map of the Durham Comprehensive Plan is only a first step. It renews the policy – the public expectation – that as areas around light rail stations develop in the future, they will do so in a way that is consistent with the goals of the Compact Neighborhood Tier. There is a lot of work still ahead: refining Compact Design zoning regulations, developing strategies for creating and maintaining affordable housing, and developing and funding infrastructure plans. For these Compact Neighborhoods to be successful, continued diligence and dedication from the community, staff and elected officials will be needed in the years to come.

Endnotes

[1] Durham Herald Sun. "Census: Durham cracks nation's top 100." March 26, 2015. http://www.heraldsun.com/news/showcase/x268553695/Census-Durham-cracks-nation-s-top-100

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[9] Dukakis Center for Urban and Regional Policy. "Maintaining Diversity in America's Transit-Rich Neighborhoods: Tools for Equitable Neighborhood Change." October 2010. http://www.northeastern.edu/dukakiscenter/wp-content/uploads/2011/12/TRN_Equity_final.pdf

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