Composite Bicycle & Pedestrian Plan
Town of Matthews

Executive Summary

Over the years, Matthews has prepared various documents that focused on certain elements of non-motorized transport. These involved bicycles both on-road with cars, and off-road, as well as pedestrian pathways which run the range of paved greenway and multi-use paths to dirtways. This Composite Bicycle and Pedestrian Plan takes into consideration all these past efforts, and concludes with an up-to-date listing of all bicycle and/or pedestrian facilities necessary to allow Matthews' residents and visitors the choice of safely and enjoyably getting around our community without use of a vehicle.

There are six primary goals being accomplished through this Composite Bicycle and Pedestrian Plan. They are:

1) **Update and Expand the Comprehensive Bicycle Plan.** Adopted in 2006, this Plan references the bulk of bicycle facilities desired in our community today.

2) **Create a Master Inventory.** This Plan combines lists of wanted improvements from several documents and rezoning actions so that a current, master list is available for Town officials, Town advisory groups, citizens, property owners, real estate agents, and representatives of the development community to use.

3) **Standardize Terminology.** Past documents use different terms to mean similar or identical facilities, and this Plan proposes use of a single set of nomenclature going forward, as follows:

For bicycles only:
- Bike Lane
- Neighborhood Signed Route
- Wide Outside Lane

For pedestrians only:
- Sidewalk

For both:
- Greenway
- Multi-Use Path

4) **Conflict Resolution Between Projects.** Sometimes past plans proposed two similar facilities for the same area. This Plan identifies these repetitions and offers an appropriate single project going forward.

5) **Complete a "Gap" Analysis.** This Plan identifies where bike and/or pedestrian improvements exist or are planned but are unable to connect people to a logical activity point because the proposed improvements are disjointed. These missing segments, or gaps, are identified here as necessary for a completely networked system.

6) **Analyze the Effectiveness Through Implementation.** Once this Plan is adopted, an oversight group, the Matthews Transportation Advisory Committee, will monitor how well it is being implemented. It will be their responsibility to advocate for ongoing funding and installation, and to develop specific performance measurement standards to be used to evaluate how effective the Plan is to the Town's efforts at giving people a choice in how to maneuver around the community.

This Plan identifies all the bike and pedestrian projects proposed by: the 2006 Matthews Comprehensive Bicycle Plan; the 2008 Mecklenburg County Park and Recreation Master Plan; the 2009 Mecklenburg County portion of the Carolina Thread Trail; the 2014 Matthews Comprehensive Transportation Plan; the 2014 Monroe Road Small Area Plan and the Family Entertainment District Small Area Plan; and multiple zoning actions approved over the past decade. This document then eliminates duplicate listings and completed segments, adds needed "gap" projects, clarifies which improvement is now preferred where necessary, and offers an up-to-date listing of all bike and pedestrian projects yet to be built.

Some metrics, or performance measurement standards, are offered in this Plan. These will be fleshed out and applied to projects by the Matthews Transportation Advisory Committee after adoption to determine the effectiveness of the networked system. The committee may choose to recommend amendments to this document as they assess how these projects improve connectivity around Matthews.

As a long-range non-motorized transportation plan, this document does not assume full implementation on a specific schedule, realizing many factors are involved. Some proposed improvements will be completed as the adjacent street or highway is widened or rebuilt. Some sections of new facilities may be built when privately-owned land is developed that includes or is adjacent to the needed bike or pedestrian improvement. Some "gaps" may be built by local or state government when it provides needed connection to a County park or school. The Town may choose, on an annual basis, to designate a certain amount of capital funding for connection of bike and pedestrian facilities.

Acknowledgements

The Composite Bicycle and Pedestrian Plan was developed through a collaborative effort shared by Town citizens, Board members, and staff.

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Introduction

The Composite Bicycle and Pedestrian Plan is an undertaking by the Town of Matthews to combine two long-range transportation planning focal points: bicycle planning and pedestrian planning. The merger of these two initiatives is practical; these transportation modes share many facility types and are often chosen for similar reasons and preferences, such as exercise or convenience. By jointly planning bicycle and pedestrian networks, the Town can ensure an efficient system that avoids duplicative costs and infrastructure and provides the broadest possible range of transportation opportunities for the community.

Additionally, this plan is not starting from scratch; numerous previous long-range plans have focused on various parts of this overall endeavor. Therefore, building on the foundation of previous adopted plans, the Composite Bicycle and Pedestrian Plan will update and expand the proposed bicycle and pedestrian networks currently "on the books." Tasked with different scopes and objectives, these adopted plans can be complimentary, but are often incongruent. The plans do not always merge seamlessly; there are gaps, redundancies, and variations. One plan may recommend a bike lane along a roadway whereas another plan recommends a multi-use path. Similarly, a plan tasked with a countywide or multi-jurisdictional scope will not always include the detail necessary to tie it in within a town or subdivision plan.

The overarching goal of this document is to update the bicycle and pedestrian network plans and, in the process, consolidate the applicable components of those various plans into a single document. By taking a holistic approach, merging these plans together, seeing where they fit and where they are at odds, the Town of Matthews will ensure an efficient and complete bike and pedestrian network, one that serves the needs of current and future residents and visitors. This document serves as the official guide to bicycle and pedestrian planning initiatives for the Town of Matthews.

Goals of the Composite Bicycle and Pedestrian Plan

1 **Update / Expand Comprehensive Bicycle Plan**
Update the Comprehensive Bicycle Plan completed in 2006 and expand the scope to include pedestrian facilities.

2 **Master Inventory**
Consolidate adopted plans, including applicable approved rezoning applications, into one document and establish a master inventory of all existing and proposed facilities that comprise the bicycle and pedestrian network in the Town of Matthews.

3 **Standardization**
Codify the varying terms and facility types of the previous plans and produce a universal nomenclature to aid in comparing plans and ensure consistency going forward.

4 **Conflict Resolution**
Identify instances of conflict or redundancy in previously adopted plans and offer resolutions to ensure a clear and concise needs statement.

5 **Gap Analysis**
Identify and rectify facility gaps that exist in the master inventory.

6 **Analyze Effectiveness**
Devise metrics to objectively determine the effectiveness and efficiency of the network.

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Chapter 1: Background

Background

Transportation has always played an important role in the prosperity of Matthews. Indeed, the Town owes its name to the locating of a train stop along the Wilmington-Tennessee rail line. The stop was named after Edward Watson Matthews, a director of the Central Carolina Railroad, in 1874. Little more than a crossroads beforehand, the Town of Matthews was incorporated five years later. From that humble beginning, as the Town has expanded and transportation has evolved, so have the Town's attempts to accommodate it.

Due largely to timing, Matthews' existing transportation infrastructure is predominantly a product of the automobile age. Since the 1960s when about 90% of land parcels within today's Town jurisdiction were farm fields and forested plots, Matthews has developed into a suburban to urban community which can accommodate a rapidly growing population.

The development of a transportation network has understandably reflected this era, resulting in the threading of more than 350 linear miles of driving lanes through town, but less than ¼ of this mileage is in an accompanying, fragmented sidewalk network. Bicycle facilities are even scarcer within the town. This imbalance ensures that all destinations in and around Matthews are principally, if not exclusively, served by roadways. Residents and visitors oftentimes do not have a choice when going from A to B; they must get in their car.

Providing transportation choices is at the heart of a high-quality, prosperous community and emerging trends suggest that the time is right for a focus on biking and walking:

- Bicycle Sharing Systems have become popular in recent years, with availability nearly quadrupling from 2011 to 2014. Latest estimates place the worldwide number of stations at 37,500[1], including 24 in downtown Charlotte.

- Cities that have invested in bike lanes have experienced dramatic increases in ridership. In 2008, New York City experienced a single-year bike ridership increase of 35%, a figure their Department of Transportation credited in part to the addition of 140 miles of bike lanes during that timeframe[2]. Examples like this suggest that there is latent demand; people are ready to engage in bicycling once a safe and complete network is provided.

- Walking and biking trails commonly appear near the top of priority ranking lists of recreational facility needs assessments, including the number one spot in the Mecklenburg County Park and Recreation Master Plan (2008).

- Numerous recent studies indicate that walkable communities are desirable to multiple age groups. Baby boomers, now transitioning to empty-nesters are preferring smaller homes and the conveniences of walkable downtown communities. Millenials are less likely than previous generations to own a car or even obtain a driver's license, citing a desire for freedom and flexibility[3]. Both of these demographic shifts contain cultural reasons for seeking walkable communities, which are more lasting and propelling than economic reasons.

[1] MTI Report *Public Bikesharing in North America During a Period of Rapid Expansion*
[2] City of New York *Bike Share Report*
[3] Speck, Jeff *Walkable City*

Background: The Benefits of Bicycling and Walking

People choose to bike or walk for a variety of reasons: recreation, exercise and health, convenience, or for financial reasons. The built environment can have a strong influence on these reasons, either encouraging or discouraging walking and biking through ease of access, real and perceived safety, and land use patterns. A built environment that includes a vibrant and safe multi-modal transportation network provides benefits for individuals, as well as the community.

Individual Benefits

- For many households, an automobile is one of the largest expenses after housing. An extensive bicycle and pedestrian network that gives people options can extend the life of their car and, in some cases, even eliminate the need for an additional car.

- Bicycle and pedestrian transportation allows individuals to incorporate physical activity into their daily routine, making it more convenient to exercise and maintain a healthy lifestyle.

- Obesity is a health care issue for many people, including children. Sedentary lifestyles exacerbate this problem. Bicycle and pedestrian facilities in neighborhoods and near schools provide children and families the opportunity for daily exercise.

Community Benefits

- A robust bicycle and pedestrian network can reduce the number of motor vehicles on roadways, especially at peak trip times, thereby delaying the need for costly projects to increase capacity for cars.

- Short auto trips produce far more pollution per mile than longer trips. By reducing the reliance on the automobile for short trips, the Town of Matthews can do its part in improving air quality in the Charlotte region.

- Access to trail and pathway systems is often cited as a high priority when people look for housing options. Studies have demonstrated that demand for these facilities can even lead to an increase in property values.

- Businesses tend to invest in areas that have a high quality of life. Employers look for competitive advantages when attracting highly skilled workers and a robust bicycle and pedestrian network can offer some of these qualities.

The Town of Matthews seeks to expand transportation options for all of these reasons and the simple overarching reason: more transportation options accommodate more people, businesses, and community interests.

Background: Demographics

Demographics provide valuable insight into a community. They give context; they help to tell the story of where a community has been, and where it is headed. More importantly, they aid in decision-making and goal-setting, and help to expose the challenges and opportunities that will develop along the way. In this way, the demographics discussed below help to provide a foundation for the Composite Bicycle and Pedestrian Plan.

1. Population
2. Median Income
3. Bicycle and Pedestrian Safety
4. Commuter Behavior
5. Car Ownership

Population

Similar to most of the Charlotte region, the Town of Matthews has experienced rapid growth in recent years. From 2000 to 2010, Mecklenburg County population grew an astounding 32%. The Town of Matthews kept pace, growing 21% in that timeframe, from 22,127 to 27,198.

Figures such as residential construction permits indicate that population has continued to grow since the last census. These estimates place the current population at 29,384, as detailed in the chart to the right.

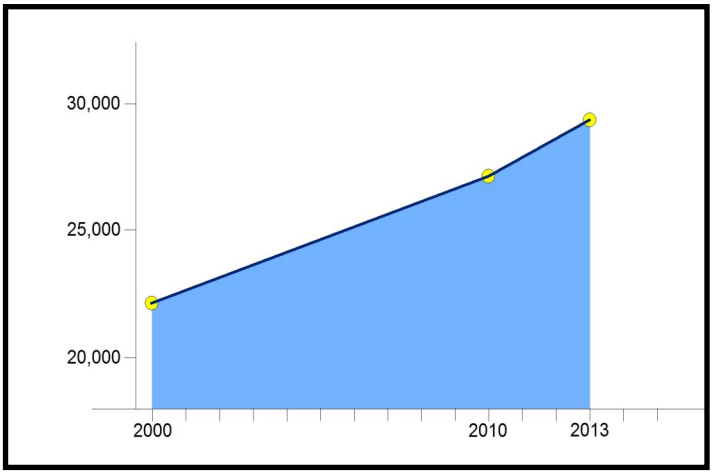


Figure: Population estimates in the 2010 decade suggest the rapid rate of the 2000s remains.

These figures suggest that the Great Recession (2008-2014) may not have affected population growth as population has continued to climb at a 2% annual rate, comparable to the pace of the entire previous decade (2000-2010).

Population figures are expected to grow in the next decade, despite the limited availability of undeveloped land in Matthews. The Charlotte Regional Transportation Planning Organization (CRTPO) projects a conservative growth rate of 1.24% for the southeast section of Mecklenburg County through 2040. This pace would translate into population figures of 32,031 by 2020 and 40,984 by 2040.

Town of Matthews Population Estimates Based On Residential Construction Permits

Date	Population
April 1, 2010	27,198
July 1, 2010	27,313
July 1, 2011	27,968
July 1, 2012	28,679
July 1, 2013	29,384

Bicycle Safety

From 1997 through 2012, there were a total of 36 bicycle-vehicle accidents in the Town of Matthews; an average of just more than two per year. Two-thirds of these accidents occurred at some type of intersection. The City of Charlotte experienced 1,600 accidents over this same time period. Normalized for population differences, this amounts to 1 accident for every 500 persons for Charlotte and 1 for every 750 persons for Matthews. Ultimately, however, it is difficult to compare accident data of two areas with vastly different bicycle networks.

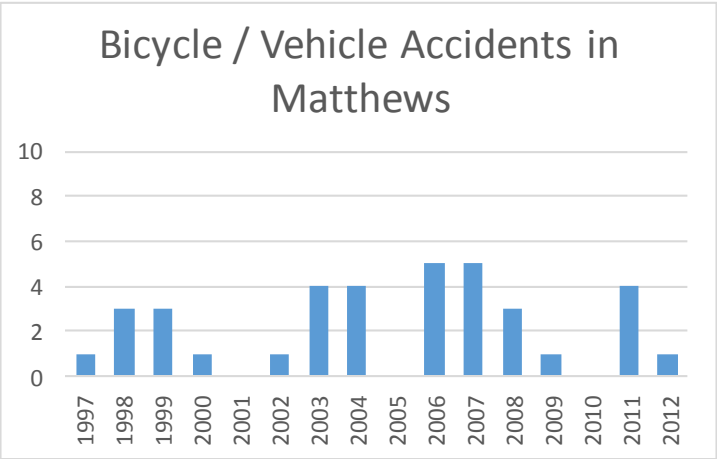


Figure: Bicycle / Vehicle Accidents by year in the Town of Matthews

The relatively few bicycle-vehicle accidents may be a misleading statement on the safety of the overall bicycle network. A perceived lack of safety results in fewer bicycle trips in Matthews, which in turn leads to fewer chances of accidents or conflicts. In many ways, perceived lack of safety is as much a barrier to creating a bicycle-friendly community as a lack of facilities. A review of previous plans later in this section will demonstrate that concern is prevalent in Matthews.

Pedestrian Safety

Over the 1997 to 2012 time period, there were a total of 90 pedestrian-vehicle accidents (or an average of 5.6 per year) in the Town of Matthews. Nearly one-third of these accidents (26) occurred in parking lots as opposed to the public right-of-way. However, of the 64 accidents that occurred within the public right-of-way, a significant number of them (19%) were the result of a pedestrian walking along a roadway, suggesting these may be instances where no pedestrian facility is provided. The City of Charlotte experienced 5,593 pedestrian –vehicle accidents in this time frame. Normalized for population differences, Charlotte witnessed an accident for every 140 persons, versus 1 for every 300 persons for Matthews.

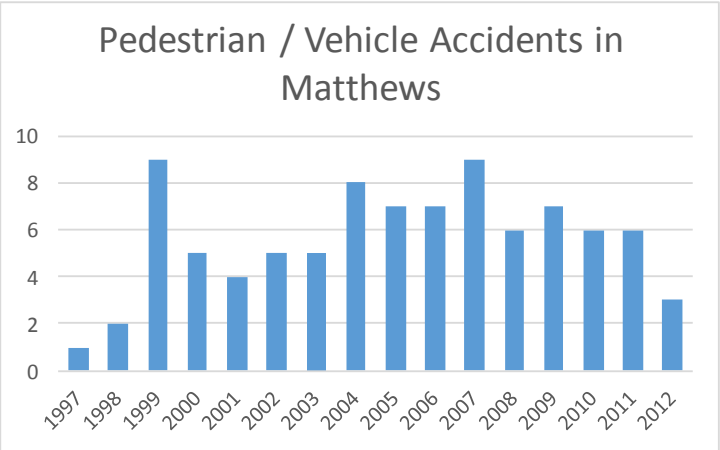
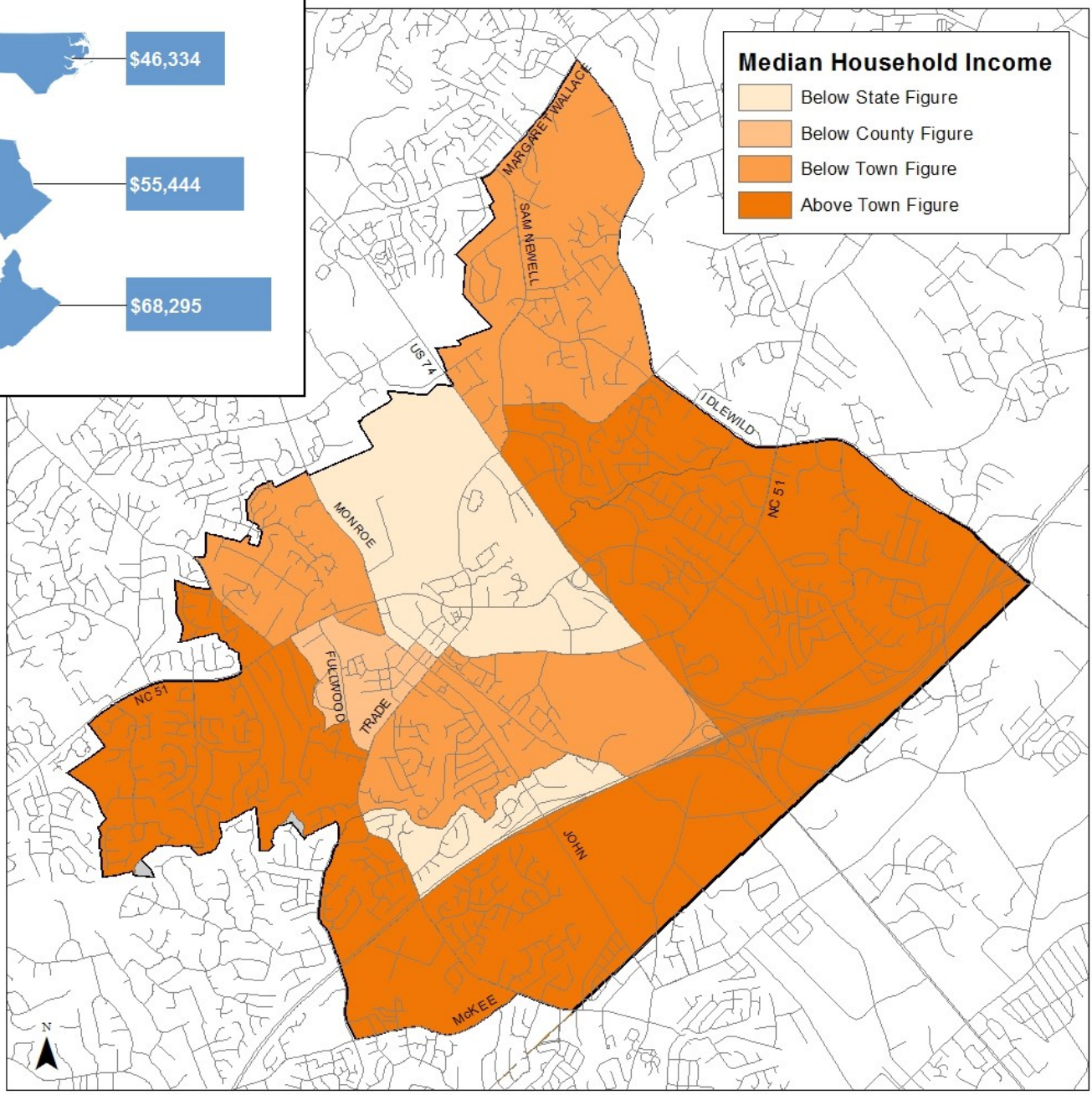


Figure: Pedestrian/ Vehicle Accidents by year in Matthews

Background: Demographics

Median Income

The Town of Matthews exhibits median household income values above the regional and national averages. According to the 2013 American Community Survey from the U.S. Census Bureau, the Town of Matthews has a median household income of $68,295. However, the median household income is not uniform across the town. The map below illustrates that some census tracts have incomes below Mecklenburg County and even North Carolina State figures. The areas with the lowest median household income are those between Independence Boulevard and Matthews-Mint Hill Road / Monroe Road, and the Vinings at Matthews and Ashley Creek Neighborhoods. The areas grouped together (based largely on census tracts) mask the reality of the Crestdale neighborhood, another area of known economic disadvantage.

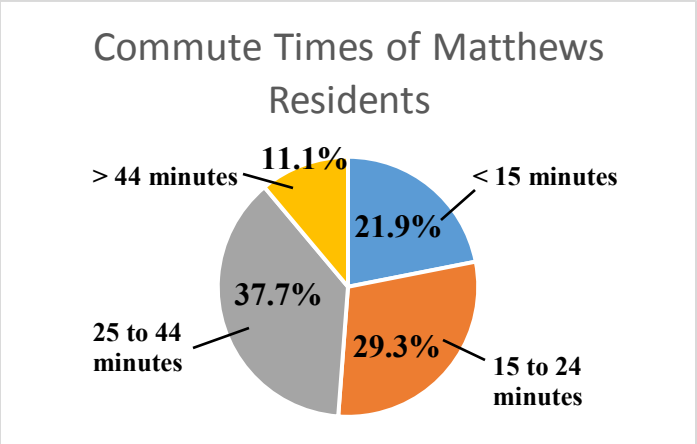


Commuter Behavior

Living in a largely suburban area, residents of the Town of Matthews are dependent on their personal vehicles for transportation, particularly for commuting to and from work.

According to the latest American Community Survey, 1.6% of the workforce in Matthews walks to work. An additional 0.2% bike to work. These figures compare unfavorably with national figures of 2.8% and 0.6% respectively. The Town of Matthews figures still trail when compared to other suburban areas that, overall, average 2.4% and 0.4% respectively.

With many Matthews residents commuting into the employment hub of Charlotte, it is not surprising that the mean travel time to work is 25 minutes, which is close to the national average of 25.8 minutes. For most of these individuals, commuting by bicycle or on foot is simply not an option. However, 22% of Matthews residents have a commute time of 15 minutes or less. For these individuals, a complete and safe bicycle and pedestrian network could provide an alternative means of getting to work.



Car Ownership

Households in the Town of Matthews are very likely to own a personal vehicle with more than 96% of them having at least one car and 65% owning at least two. These figures are above the national averages of 90.9% and 57.2% respectively. This data reinforces the notion that Matthews residents are dependent on personal vehicles for daily trips.

Background: Land Use

The pattern and intensity in which land is used and transportation demands and impacts are extensively linked. For example, large shopping centers seek to locate near highways and other areas that can accommodate large traffic volumes. Similarly, the type of development that occurs in an area will dictate the type and extent of transportation infrastructure necessary to serve that area. The spatial distribution of different types of land uses is a predominant determinant to when, where, and to what extent traffic congestion occurs.

The transportation facilities of an area should serve the anticipated and established land uses. For example, industrial and warehouse areas will have a greater need for bulk transport, moving goods and supplies along rail lines and wide roadways, rather than moving people from place to place. Therefore, understanding the land use patterns and issues of the Town of Matthews is an essential precursor to planning a comprehensive and efficient transportation network.

Residential

Residential property is the predominant land use in Matthews, comprising 43% of all physical space. Most residential land is single family on large parcels (at least 15,000 square feet). Currently, all new roads are required to include sidewalks on both sides. Some of Matthews' residential neighborhoods, however, were developed prior to this regulation, resulting in a fragmented sidewalk network and numerous gaps.

Because so many trips originate or conclude at home, providing bicycle and pedestrian facilities in residential areas is an essential component to an overall, comprehensive network.

Commercial

The majority of commercial land in Matthews is located in close proximity to Independence Boulevard (US 74). Independence Boulevard is a major impediment to walking and biking in Matthews. The large, ever-expanding roadway (currently four to six lanes) has limited safe crossing locations and is generally viewed as an unfriendly or even hostile to the bicycle and pedestrian environment. Independence Boulevard is currently in the process of being converted to a limited access highway, further challenging the issue of a multi-modal transportation network along this corridor.

Fortunately, Matthews has been planning for this eventuality. As access points are lost on Independence Boulevard, they will be replaced on parallel connector roads, Northeast Parkway and Independence Pointe Parkway. Grade-separated crossings are expected to be constructed at Sam Newell Road and Matthews-Mint Hill Road. These corridors should all be designed to accommodate complete bicycle and pedestrian facilities as well.

Density

In the next decade, Matthews will inevitably face an evolution in land use. A chief component of this change will be an increase in density. Surrounded by other municipalities, Matthews has been unable to annex adjacent land and expand its boundaries since 2003. Additionally, only a handful of large undeveloped tracts

remain within the Town. Despite this relative lack of developable land, Matthews, situated between urban Charlotte and a rapidly suburbanizing Union County, continues to face pressure to develop and grow. At this critical point, where Matthews is restricted from growing outward, the Town will have to grow upward.

In fact, this style of development is already underway in the Town of Matthews. The burgeoning Matthews Gateway development off of North Trade Street incorporates office uses, retail space, and approximately 80 apartment units on slightly more than six acres. Envisioned as a place where "residents can ditch their cars and walk or bike to area shops, restaurants, the library, church, and even nearby doctors' offices", this development concept embraces a new transportation reality: busier, denser areas reduce the need for car trips and encourage non-vehicular modes of transportation. It can even be a selling point!

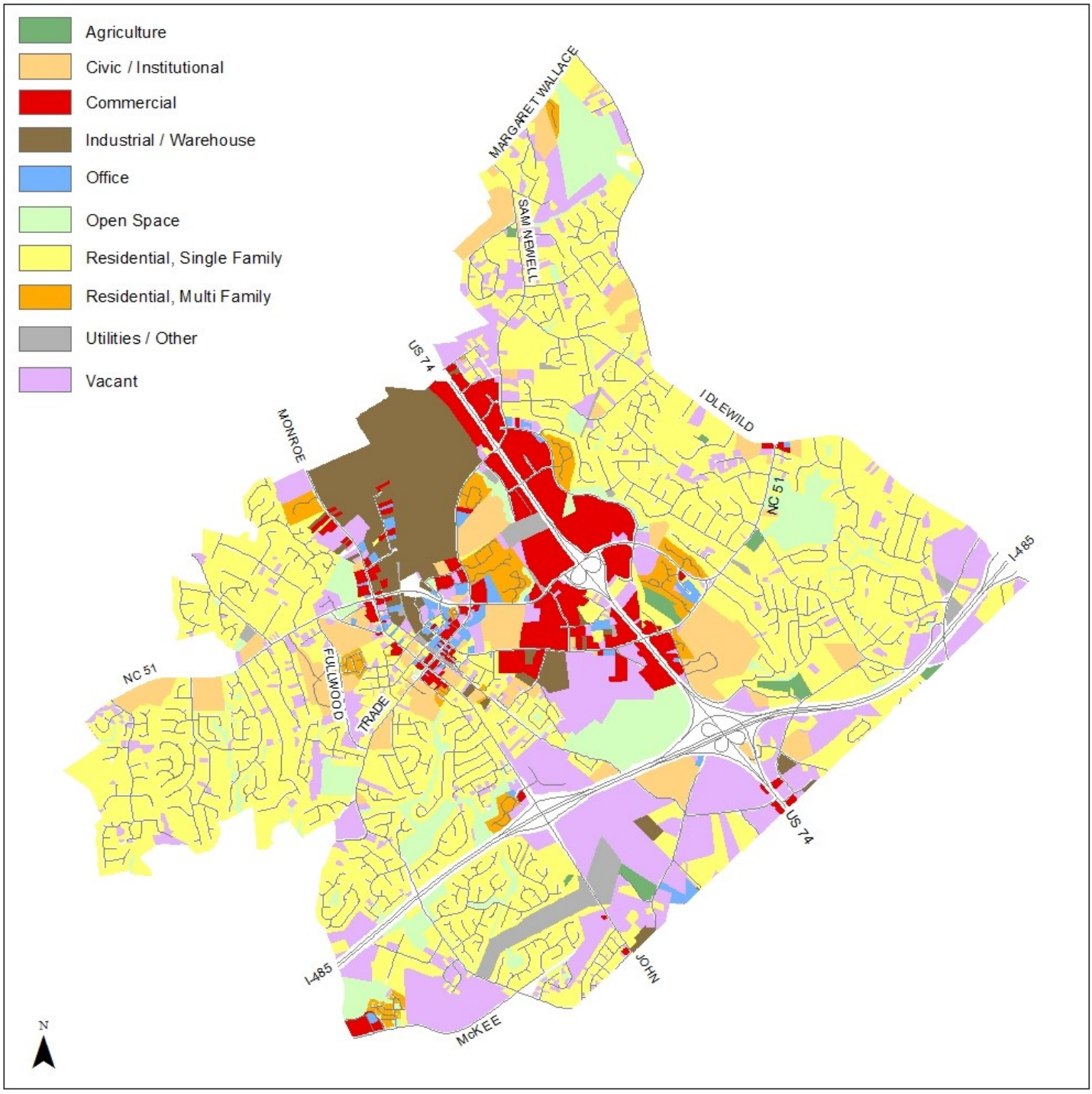
The Town is now poised to receive new development projects with higher densities than historically typical in Matthews. Two significant projects on the horizon reflect this change: Matthews Fountains at the intersection of Northeast Parkway and NC 51, and the Family Entertainment District between Matthews-Mint Hill Road and the county Sportsplex. The mixed-use nature of these projects will allow for, and encourage, non-vehicular transportation within the sites; and will also ensure that there are adequate connections to the town-wide transportation network.

The planned expansion of rapid transit into Matthews will also impact land use and transportation patterns. As witnessed in Charlotte's South Boulevard Corridor with the installation of the LYNX Blue Line, rapid transit encourages high density, mixed use development, providing multiple destinations that are easily accessed by foot. A 2010 study in the American Journal of Preventive Medicine illustrated the result: residents near the Blue Line walked an additional 1.2 miles per day in the first year alone ("Happy City")[1].

Multi-modal transportation options are essential in mixed use and high density developments. The proximity and abundance of destinations means that alternative modes of transportation such as walking or bicycling are not only possible, but are more convenient. While it is not the purpose of this plan to promote a certain type of land use, it is important to consider what types of transportation infrastructure will be needed to adequately

[1] Montgomery, Charles *Happy City*

Map: General Land Use Categories and their Spatial Distribution in Matthews



Background: Nomenclature / Naming Convention

Facility types are the building blocks of the bicycle and pedestrian networks. One of the objectives of the Composite Bicycle and Pedestrian Plan is to define universal terms for facility types that can be applied across plans. Developing a consistent nomenclature is essential for determining where various plans are similar and where they differ. In many instances, multiple plans propose the same type of facility but simply call it by a different name.

The main terminology conflict that this plan seeks to resolve is multi-use path vs. multi-use trail. The Comprehensive Bicycle Plan used the term "multi-use path" to refer to paved paths of various widths located in off-road corridors. The Comprehensive Transportation Plan, however, distinguished between these terms based on type of corridor. Facilities in the right-of-way, paralleling a roadway were termed "multi-use *paths*," whereas those requiring their own corridor were "multi-use *trails*." Design specifications were identical and so the only distinguishing attribute was the location of the facility.

For the sake of clarity and consistency, the Composite Bicycle and Pedestrian Plan has resolved this conflict by applying the generic "multi-use path" term to refer to all paved paths of width sufficient to accommodate both bicycle and pedestrian traffic simultaneously, regardless of type of corridor. The Composite Bicycle and Pedestrian Plan also recognizes that design specifications will sometimes vary depending on external factors.

The terms used to refer to facility types in this plan are defined on the following page, with the transportation modes they serve identified by the accompanying icons.

Background: Nomenclature / Naming Convention

1. Bike Lane	A bike lane is a portion of the roadway that is specifically designed for bike travel. Typical bicycle lanes are four to six feet in width and located to the right of the white stripe denoting the edge of the drive lane.
2. Greenway	Greenways are multi-use paths constructed by Mecklenburg County Park and Recreation or the Town, typically ten feet in width. This facility is unique from other multi-use paths as it is typically located along a stream or other non-road corridor.
3. Multi-Use Path	Multi-Use Paths are paved paths of a variable width sufficient to accommodate both bicycle and pedestrian traffic simultaneously. Recommended width is at least eight feet, and ideally ten, so as to allow for passing in either direction. This facility term refers to both on and off-road corridors and, for the purposes of this plan, encompasses the terms multi-use path and multi-use trail used in previous plans.
4. Neighborhood Signed Route	A Neighborhood Signed Route is a roadway that uses signage and/or pavement markings to indicate that it is shared by vehicular and bicycle traffic. As the name implies, this facility would be appropriate only along road segments that have a low vehicular traffic volume, such as a residential blocks with large lots. The National Association of City Transportation Officials recommends a maximum vehicular speed of 25 mph and a maximum vehicular volume of 1,500 to 3,000 / day for roads providing these facilities. The CBP recommends that signage or markers be placed at frequent intervals such as ¼ mile apart. These facilities are sometimes called “sharrows” or “bike boulevards.”
5. Sidewalk	Paved pedestrian pathway, typically five feet in width and typically located within the right-of-way, parallel to the road way.
6. Wide Outside Lane	A typical vehicular travel lane is 12 feet wide. A wide outside lane consists of additional paved space, typically two additional feet of width, next to the curb and gutter. The primary purpose of a wide outside lane is to allow a motorist to pass a bicyclist without leaving the designated drive lane. Due to the lack of striping or separation between vehicular and bicycle traffic, this type of facility is no longer common.
7. Wide Paved Shoulder	A wide paved shoulder is similar to a bicycle lane as it provides the same amount of additional pavement (4’) on the right side of the white stripe denoting the edge of the drive lane. Though they contain no markings, they are easily converted to bicycle lanes.

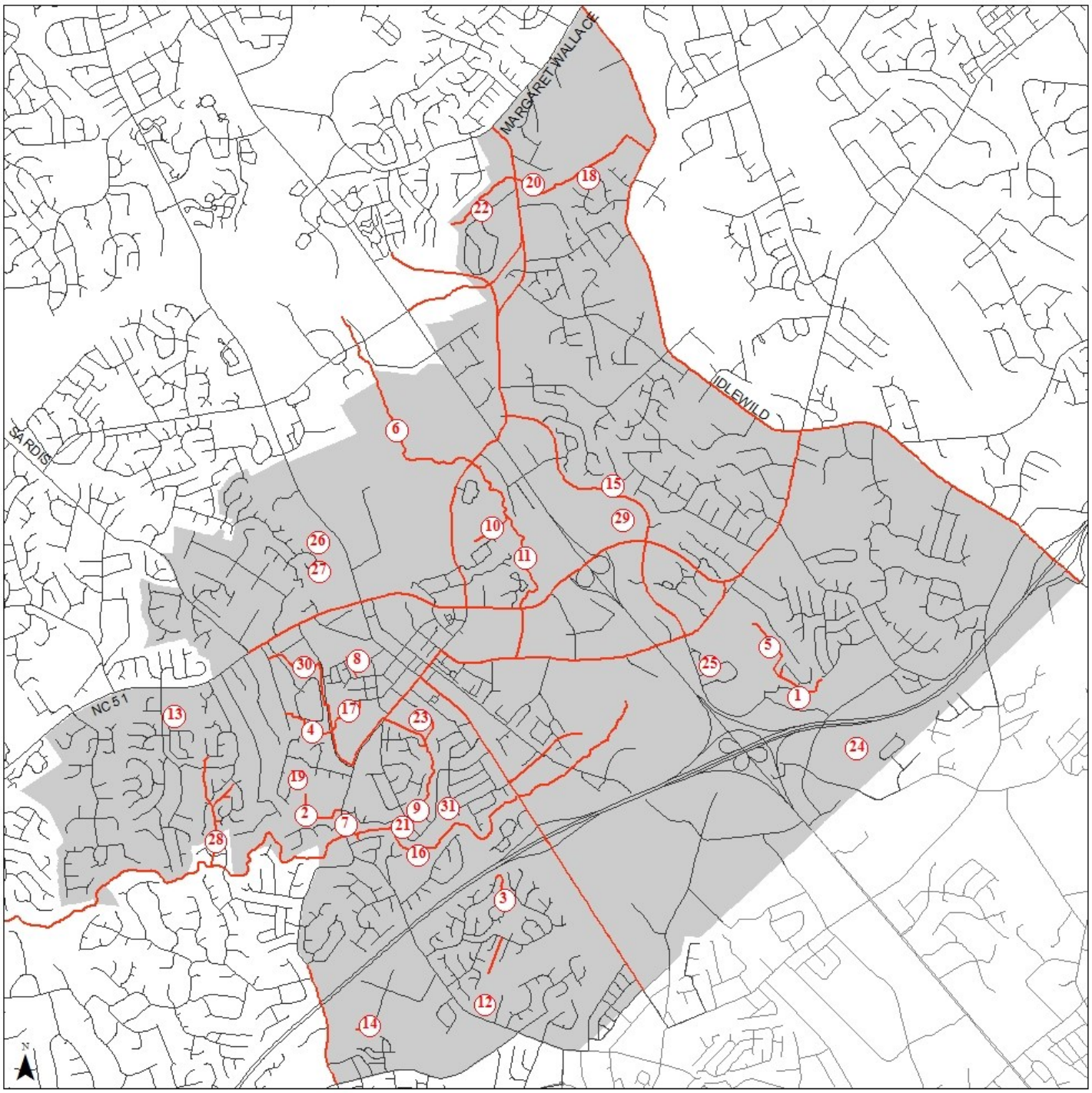
Background: Off-Road Corridor Facilities

As mentioned earlier, some proposed projects, namely multi-use paths and greenways, are not located in a road right-of-way or parallel to a road. The alignment of these facilities may follow a water feature or take advantage of community open space or public land. Because of the separation from vehicular traffic, these facilities typically provide a safer and more enjoyable experience. With more than xx miles of existing and proposed off-road corridor facilities in Matthews, they play an integral part in the overall bicycle and pedestrian network.

Due to their separation from the street network, the names of off-road corridor facilities are often obscure and do not instantly provide a description of their location. Off-road corridor facilities listed in the inventories are the following:

1. Alexander Ridge Connector
2. Arthur Goodman Park Connector
3. Brightmoor Connector
4. Bubbling Well / Fullwood Lane Connector
5. Butler High School Connector
6. Carolina Thread Trail East Connector
7. Chesney Glen / Four Mile Creek Connector
8. Christ Covenant / South Ames Street Connector
9. Country Place Drive / Four Mile Creek Greenway Connector
10. Crestdale Middle School / CATS Park & Ride Connector
11. Downtown Matthews Connector
12. Duke Power Right-of-Way
13. Elizabeth Lane Elementary School Connector
14. Fair Forest / Siskey YMCA Connector
15. Forest Ridge / Northeast Parkway Connector
16. Four Mile Creek Greenway
17. Fullwood Lane / South Freemont Connector
18. Habersham / Irvins Creek Greenway Connector
19. Hampton Green / S. Trade Connector
20. Irvins Creek Greenway
21. Jeffers Drive / Four Mile Creek Greenway Connector
22. Lakeview Circle / Irvins Creek Greenway Connector
23. Matthews Elementary / Four Mile Creek Greenway Connector
24. Mt. Harmony Church Road / Union County Connector
25. Royal Park Connector
26. Sardis Forest / Monroe Road Connector
27. Sardis Forest / Warner Park Connector
28. Sardis Plantation / Four Mile Creek Connector
29. Sycamore Commons Greenway
30. Village at Plantation Estates / Eden Hall Connector
31. Vinecrest / Greylock Ridge Road Connector

Map: Off-Road Corridor Facilities, Existing and Proposed, in the Town of Matthews



Background: Existing Plans

The foundation of the Composite Bicycle and Pedestrian Plan is composed of previous plans that were adopted over the past decade. While some of the plans had the chief objective of expanding and enhancing bicycle and/ or pedestrian facilities and other plans considered these as ancillary provisions, all the plans made important contributions to stitching together a robust proposed bicycle and pedestrian network. These plans can be divided into two categories:

Long-Term Plans

1. The Comprehensive Bicycle Plan (2006)
2. The Mecklenburg County Park and Recreation Master Plan (2008)
3. The Carolina Thread Trail Plan (2009)
4. The Comprehensive Transportation Plan (2014)
5. The Monroe Road Small Area Plan (2014)
6. The Entertainment District Small Area Plan (2014)

Approved Rezoning Applications

1. Alexander Ridge
2. Elizabeth Place Neighborhood
3. Fountains at Matthews
4. Greylock Neighborhood
5. Mecklenburg County Sportsplex
6. Plantation Estates & Eden Hall
7. Royal Park
8. Silver Oaks
9. Sycamore Commons
10. Wingate Commons

Background: Existing Plans

Comprehensive Bicycle Plan

The first long-term bike planning initiative undertaken by the Town of Matthews was the 2006 Comprehensive Bicycle Plan (CBP). This document recognized bicycling as "an integral part of the highly livable, family friendly Town of Matthews." The CBP was prepared by Haden-Stanziale, with participation from Town staff, the NCDOT Division of Bicycle and Pedestrian Transportation, and the Bicycle Steering Committee. The plan sought to propose and develop a system of bicycle facilities that expanded transportation options for the resident and visitors of the Town of Matthews.

The Bicycle Steering Committee played a vital role in ensuring the needs and concerns of the public were met throughout the development of this document. This committee included interested citizens and bicycle advocates, as well as individuals representing various government agencies such as the Town of Matthews Parks and Recreation, Planning, and Police departments, and the North Carolina Department of Transportation.

Additionally, two public meetings were held and a survey was administered to elicit public opinion. Highlights of the public input process included the following comments:

- Matthews is generally considered to have an uncomfortable bicycling environment due to the lack of facilities both on and off-road.
- Automobiles pass too close and too fast, creating a hostile and dangerous on-road environment.
- Lack of ancillary accommodations, such as signage and parking, further contribute to the unfriendly bicycling environment.

Vision Statement:

Bicycling must be an integral part of the highly livable, family friendly Town of Matthews. Residents can choose cycling as a safe and convenient transportation option for moving within and beyond the Town. A system of bicycle facilities is an integral part of Matthews' transportation system and should provide opportunities for residents to pursue an active healthy lifestyle, expanded recreation options, and reinforce a sense of community.

Background: About the Plans

Comprehensive Bicycle Plan

To achieve the objective of proposing a bicycle network, the CBP first identified destinations, essentially the dots that needed to be connected by a bicycle network. The following places were identified:

Downtown

1. Matthews Library / Town Hall
2. Farmers Market
3. Post Office
4. Downtown Retail
5. Matthews Community Center
6. Wingate University—Matthews Center
7. Stumptown Park

Commercial Centers

8. Movie Theater at Eastpoint
9. Sycamore Commons
10. Windsor Square
11. Matthews Township Festival
12. Matthews Commons

Institutions

13. Levine Senior Center
14. Siskey YMCA
15. Presbyterian Hospital Matthews (Novant Health)

Public Transportation

16. CATS Park and Ride
17. Future Southeast Transit Corridor

Schools

18. Elizabeth Lane Elementary School
19. Butler High School
20. Carmel Christian School
21. CPCC Levine Campus
22. Christ Covenant Church and School
23. Crestdale Middle School
24. Matthews Elementary School
25. Crown Point Elementary School

Parks

26. Arthur Goodman Park (MARA)
27. Idlewild Park
28. Windsor Park
29. Squirrel Lake Park
30. Sardis Road Park
31. Baucom Park

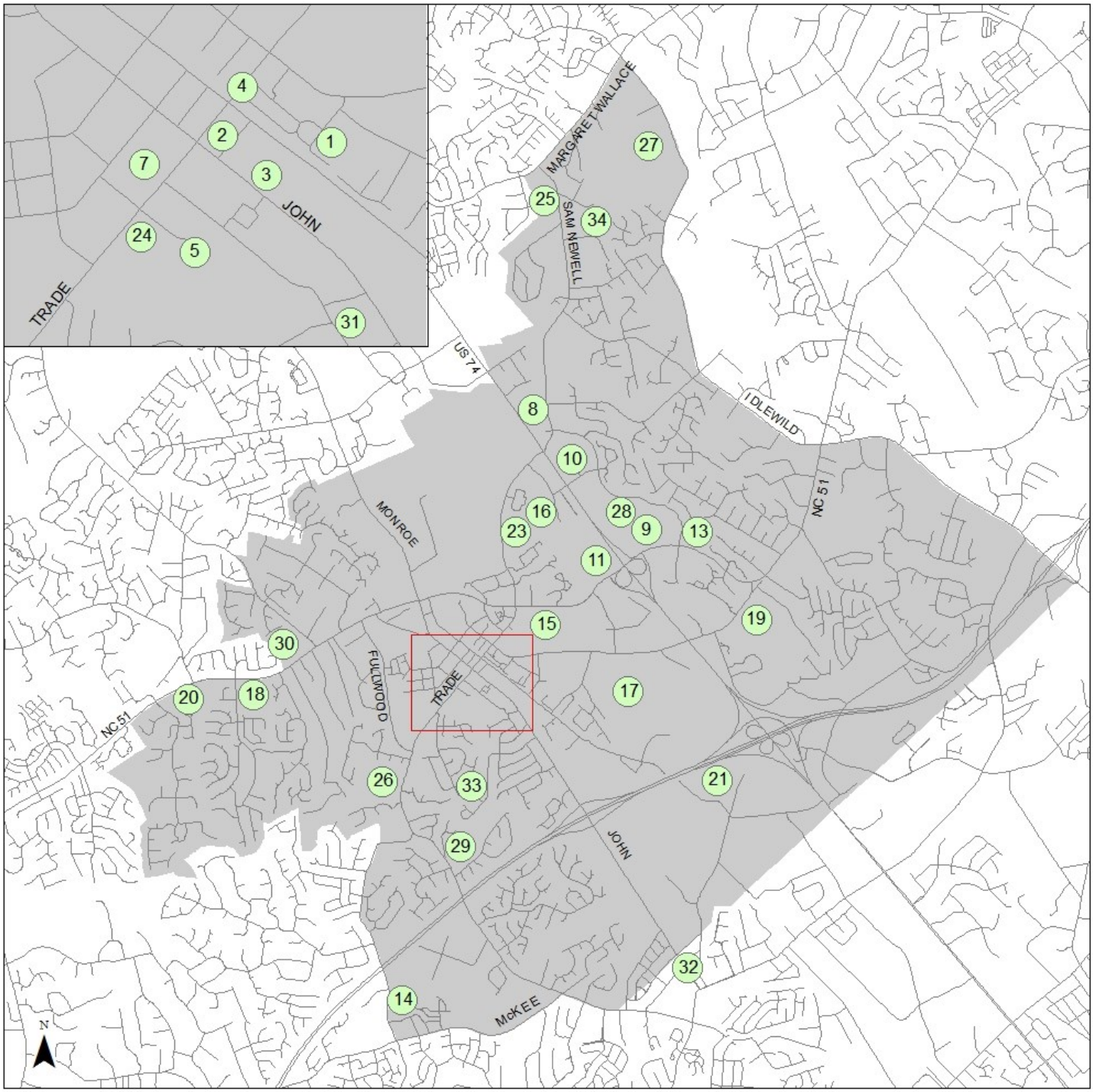
Other

32. Union County (rural roads)
33. Four Mile Creek Greenway
34. Irvins Creek Greenway

The locations of these destinations are illustrated in the map on the next page. The Composite Bicycle and Pedestrian Plan expands on this list of destinations to ensure a more robust bicycle and pedestrian network. This expanded destination list will be used as a metric in determining the connectivity and completeness of the network.

Comprehensive Bicycle Plan

Map: Destinations identified in the Comprehensive Bicycle Plan

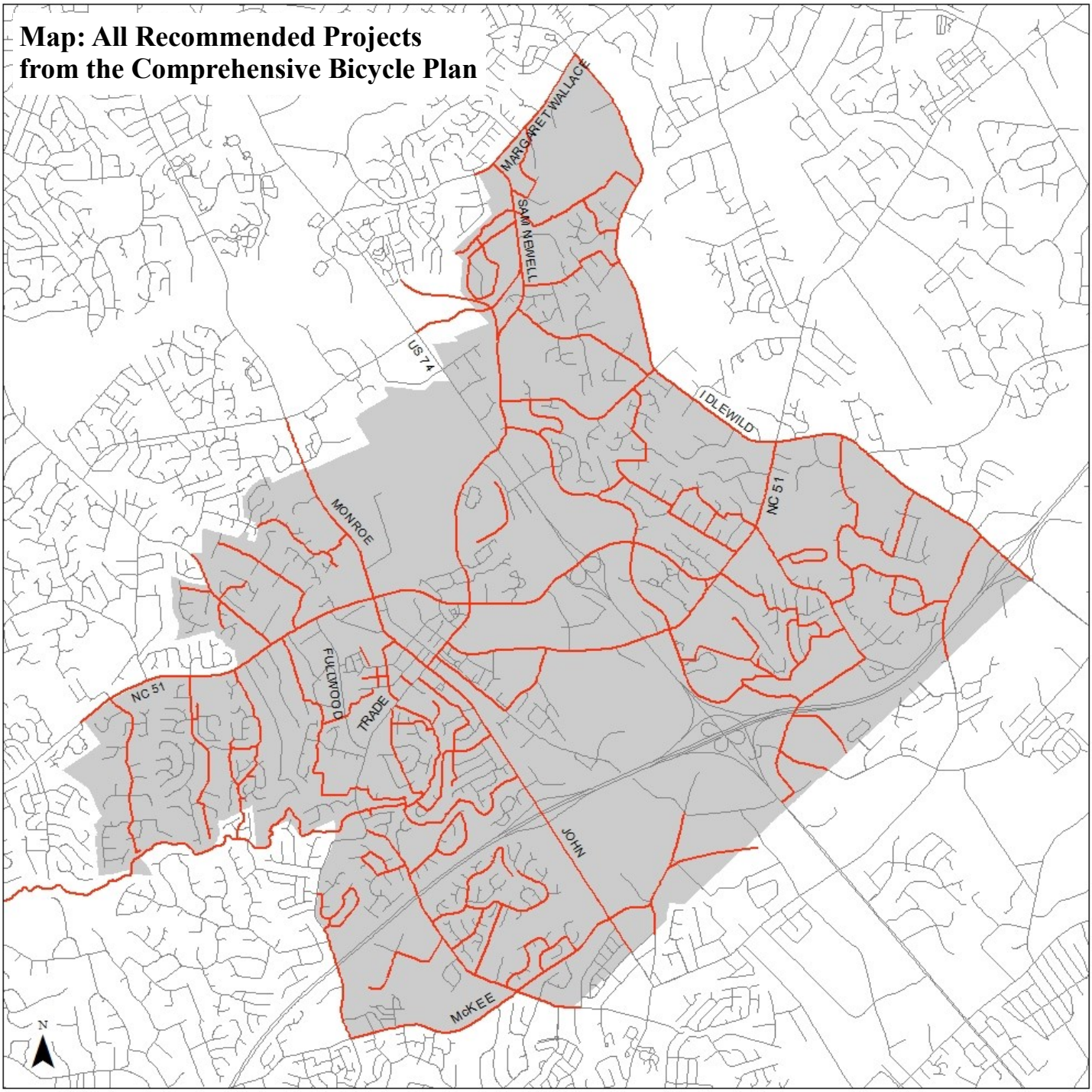


Background: Existing Plans

Comprehensive Bicycle Plan

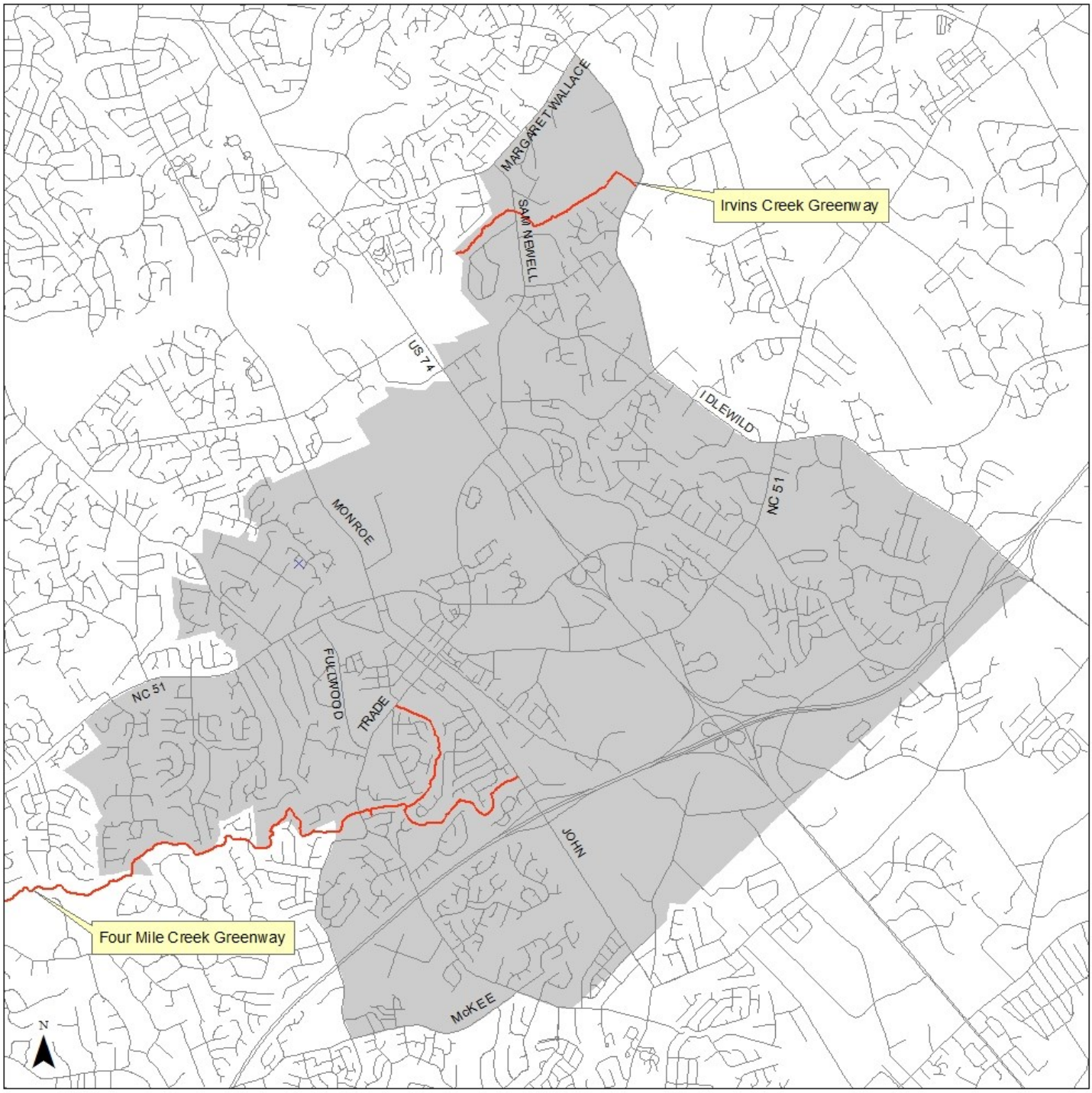
The CBP employed the following list of bicycle facility types in proposing a bicycle network that would connect these destinations and achieve the objectives of the plan. The placement of these facilities is detailed below and on the following pages.

1. Greenways
2. Multi-Use Trails
3. Neighborhood Signed Routes
4. Bike Lanes
5. Wide Outside Lanes
6. Wide Paved Shoulders



Comprehensive Bicycle Plan **#1**

Map: Recommended Greenway Projects from the Comprehensive Bicycle Plan

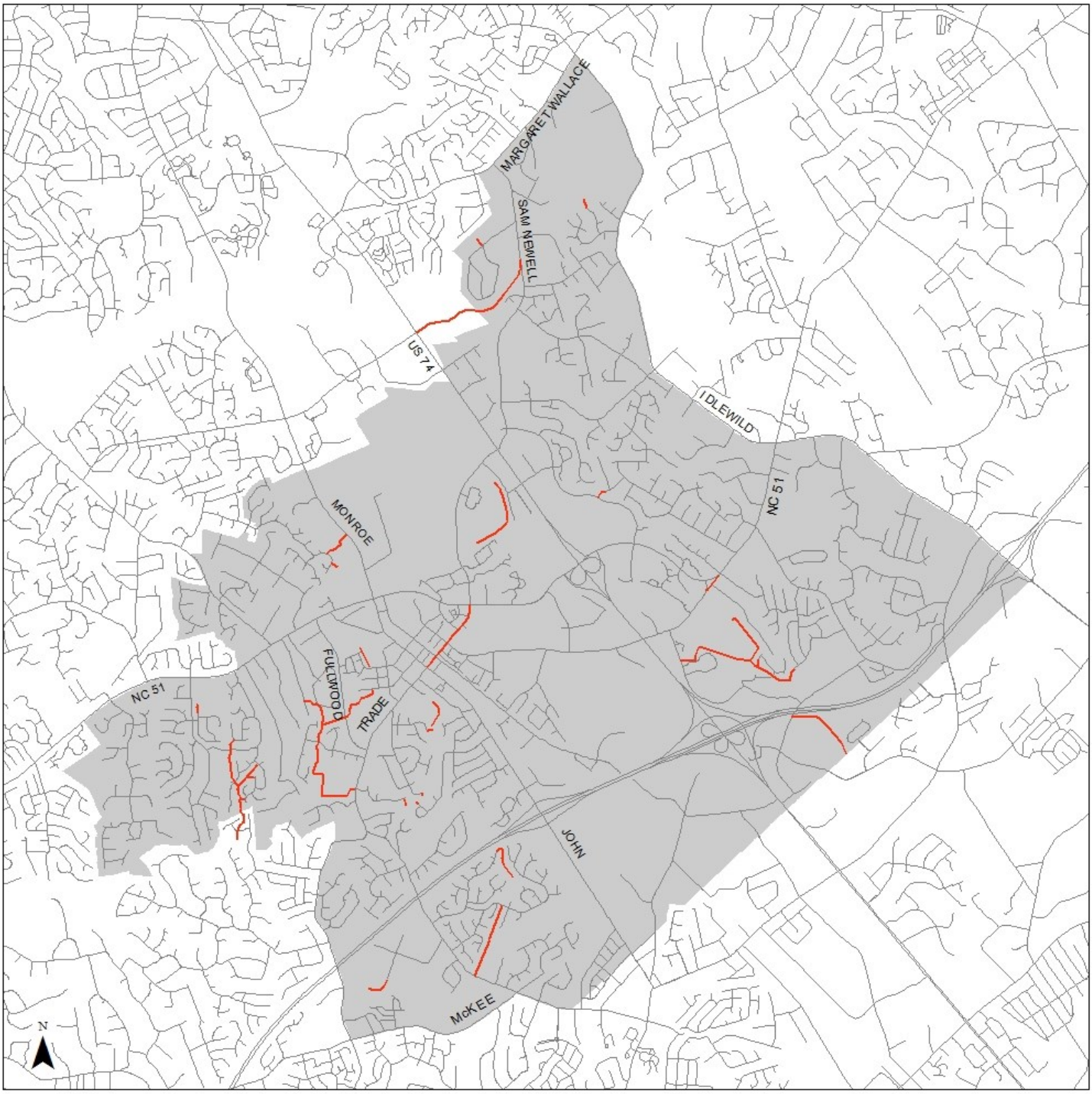


Comprehensive Bicycle Plan

#2

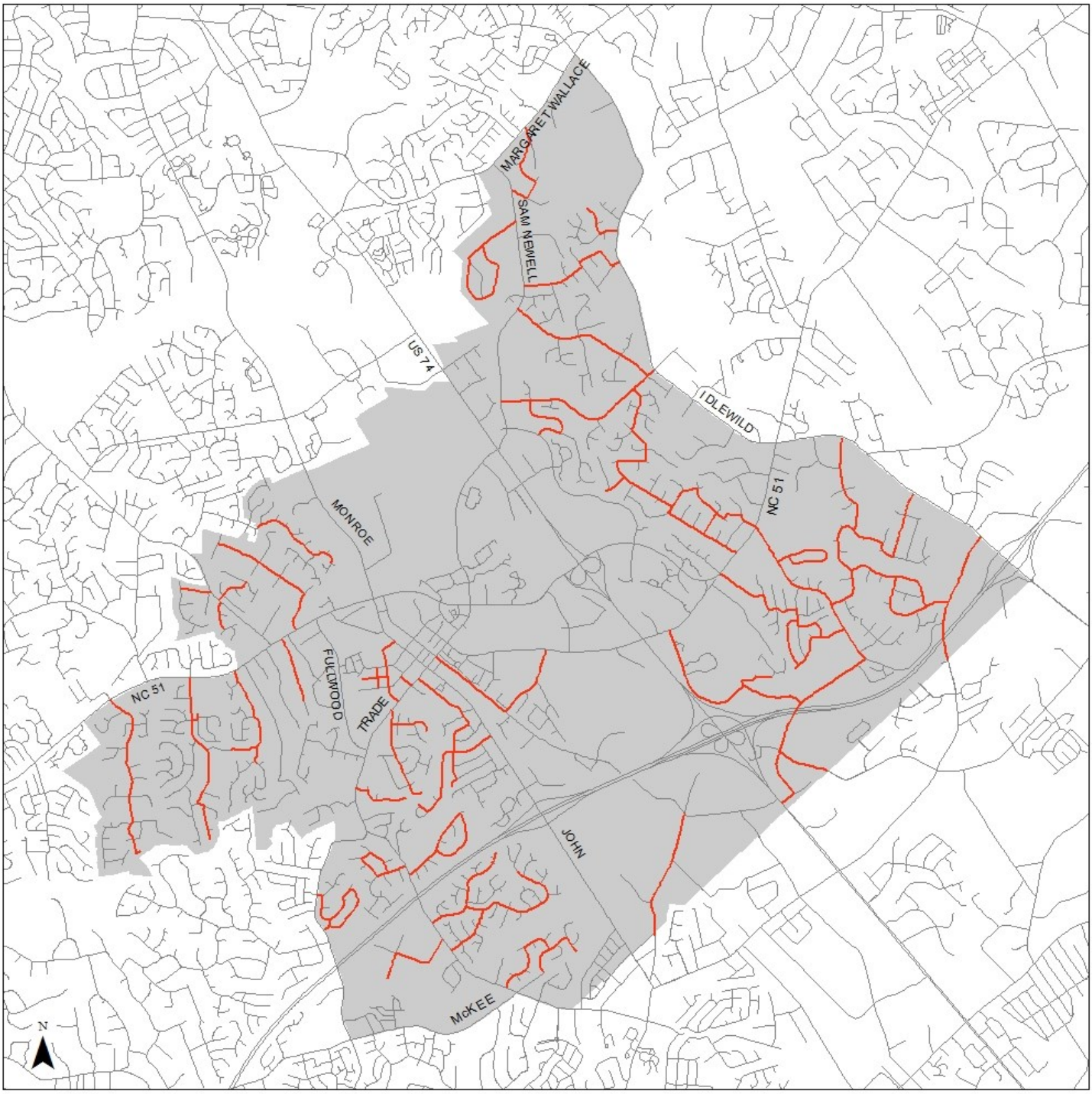
Map: Recommended Multi-Use Trail Projects from the Comprehensive Bicycle Plan

Some of these projects are neighborhood connections to greenways.



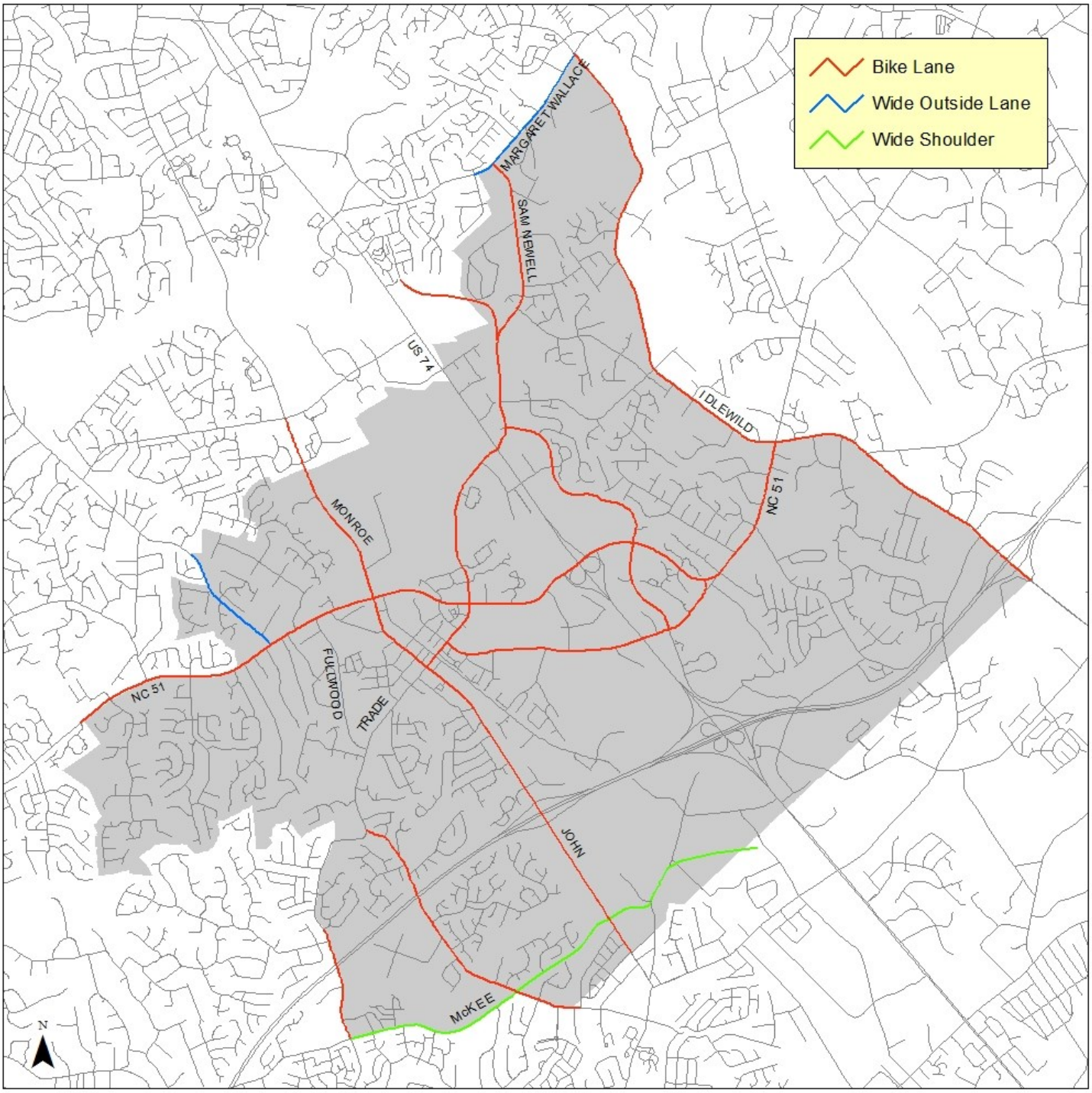
Comprehensive Bicycle Plan **#3**

Map: Recommended Neighborhood Signed Route Projects from the Comprehensive Bicycle Plan



Comprehensive Bicycle Plan

#4 - 6 Map: Recommended On-Road Projects (Bike Lane, Wide Outside Lane, and Wide Shoulder) from the Comprehensive Bicycle Plan



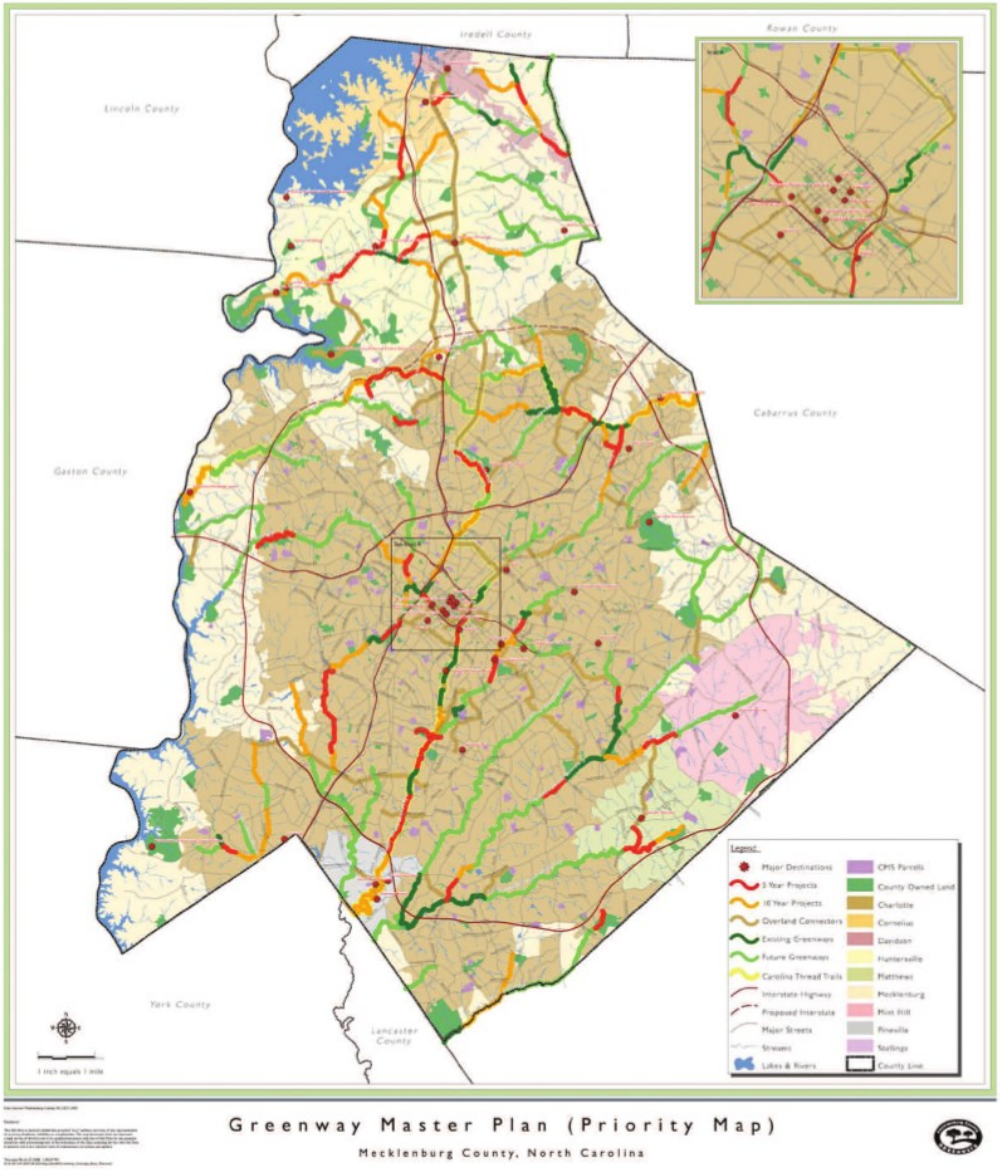
Background: Existing Plans

Mecklenburg County Park and Recreation Master Plan

Adopted in 2008, the Mecklenburg County Park and Recreation Master Plan identified park and greenway construction projects to be implemented over a ten year span. As it relates to the Town of Matthews' bicycle and pedestrian network, the Master Plan identified two greenway corridors within the town: the Four Mile Creek Greenway, and the Irvin Creek Greenway. All projects were categorized based on priority as part of either a five-year or ten-year action plan.

The initial two mile segment of the Four Mile Creek Greenway (from East John Street to South Trade Street) was identified in the five-year action plan. This segment was constructed in 2010, though it stopped just short of South Trade Street with a connection to Brenham Lane. The remaining segment to be built along the border of the Town of Matthews (a 3.6 mile segment from South Trade Street eastward) was part of the ten-year action plan.

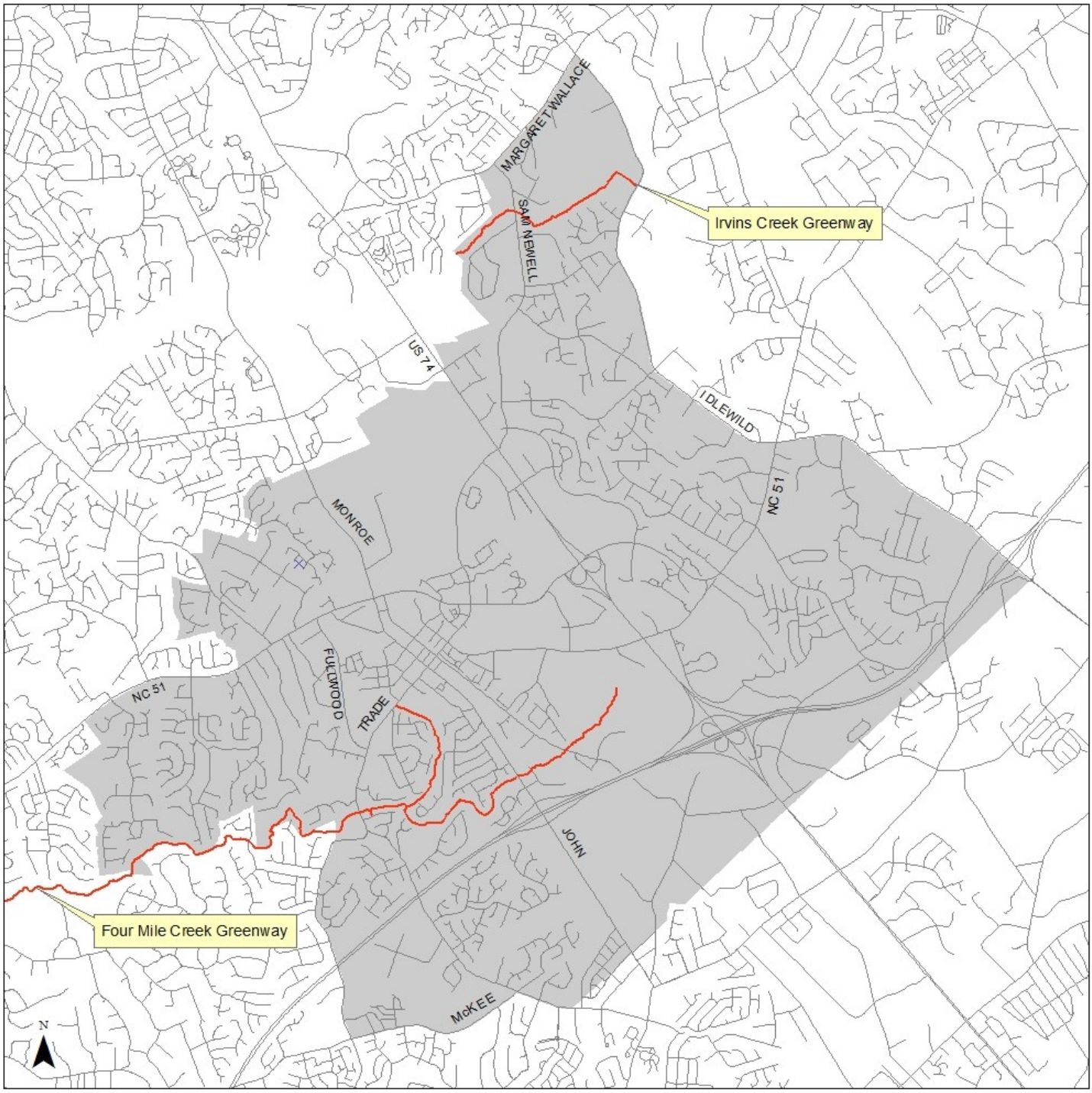
A two-mile segment of the Irvins Creek Greenway (from Idlewild Road to Lakeview Circle) was part of the five-year action plan but has not been designed or constructed.



Background: Existing Plans

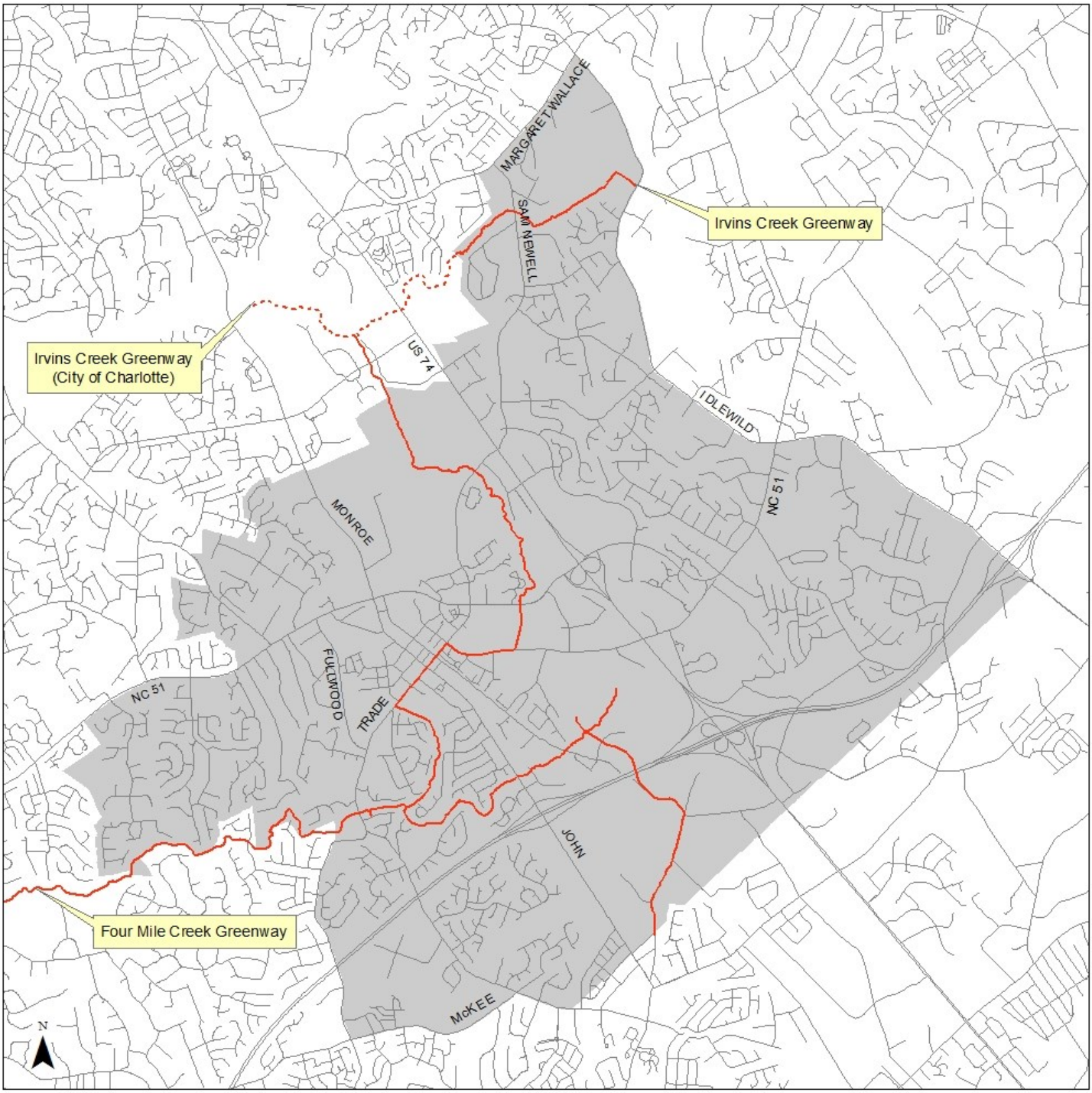
Mecklenburg County Park and Recreation Master Plan

Map: Planned Greenways in Matthews from the Mecklenburg County Park and Recreation Master Plan



Background: Existing Plans

The Carolina Thread Trail is a regional trail initiative that plans to connect trails across fifteen counties in North and South Carolina to form a contiguous network. Thread Trail staff help communities in identifying and coordinating trail alignments and connections. The map depicting proposed trail segments for Mecklenburg County was adopted in 2009. In Matthews, the two planned greenways, plus the necessary corridors (both on-road and off-road) to create a continuous route, comprise the Carolina Thread Trail components.



Background: Existing Plans

The Comprehensive Transportation Plan (CTP) was completed as a joint venture between the Town of Matthews and the Town of Stallings, Matthews' neighbor to the east in Union County. The plan was shepherded by a task force including members from both towns, and led by consultants CDM Smith and Haden Stanziale. The purpose of the plan is to serve "as an official guide to providing a well-coordinated, efficient, and economical transportation system for the future of the region."

As such, the CTP reviewed existing conditions and provided recommendations for all modes of transportation: roadways, transit, bicycling, and pedestrian travel. Emphasis was placed on considering all these modes as components of a larger network, as reflected in the stated goals of the CTP:

- Provide safe, dedicated facilities for multi-modal transportation, including automobiles, bicycles, pedestrians, and transit.
- Bridge transportation gaps between neighborhoods, communities, towns, and counties.
- Promote a safe environment for all modes of transportation.
- Balance transportation system levels of service with the physical environments and character that make Matthews and Stallings unique.
- Balance the diverse needs of local trips within the study area and commuting traffic through the study area.
- Create transportation facilities for users of all ages, abilities, and skill levels.
- Provide multi-modal transportation connections between mixed, diverse land uses.
- Encourage non-vehicular local trips by providing multi-modal transportation facilities that make useful connections.
- Support current and future land uses with proactive transportation facility development and improvement.
- Assign funding for the improvement and development of multi-modal transportation facilities.

Background: Existing Plans

The CTP recognized the importance of understanding the needs of the community in developing an inventory of potential projects. In addition to holding a community workshop to elicit public input, the CTP conducted a survey of Matthews and Stallings residents. Some of the results are valuable to the Composite Bicycle and Pedestrian Plan as they provide firsthand recommendations from end-users. The following lists are road corridors in the Town of Matthews cited in the survey that need facility improvements in order to better accommodate the corresponding transportation mode.

Bicycle Facility Improvements Needed

1. Idlewild Road
2. McKee Road
3. Monroe Road / John Street
4. NC 51
5. Pleasant Plains Road
6. Sam Newell Road
7. Stallings Road
8. Trade Street

Pedestrian Facility Improvements Needed

1. McKee Road
2. Monroe Road / John Street
3. NC 51
4. Pleasant Plains Road
5. Sam Newell Road
6. Trade Street

With a different scope and different study area, the CTP is unique from the CBP in many ways:

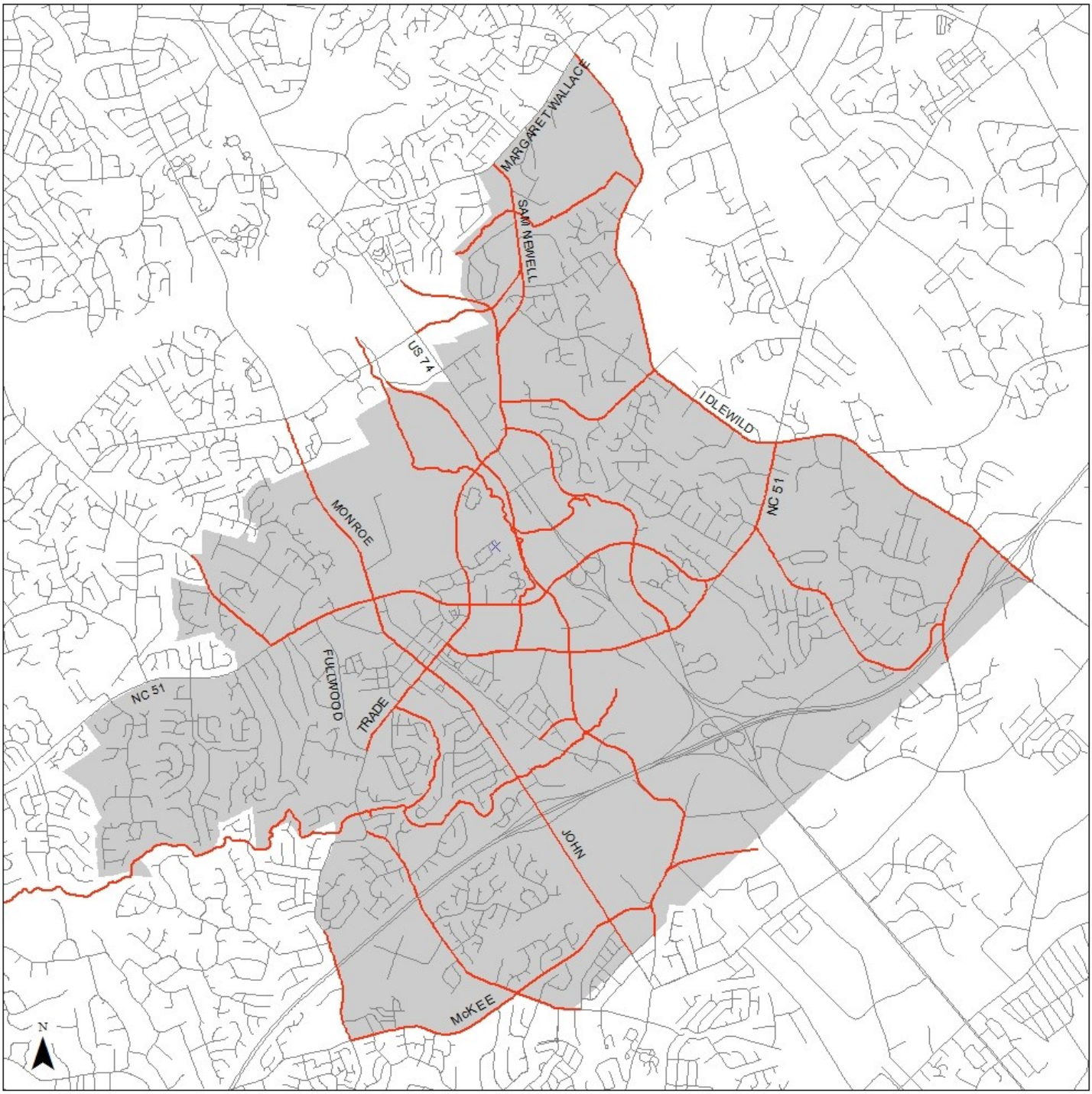
- The expanded study area led to a focus on thoroughfares and larger facilities. Therefore, some detail is lost in the bicycle facilities recommended, namely the Neighborhood Signed Route facility type is absent from this plan
- Because the CTP reviews modes other than bicycle-based transportation, there are some facilities that exclusively serve other modes that are not covered in the CBP. Relevant to the Composite Bicycle and Pedestrian Plan, sidewalk facilities are included in the CTP.

Furthermore, the CTP considered multi-modal facilities along road corridors, as opposed to only along off-road corridors. These on-road corridor facilities were distinguished from multi-modal off-road corridor facilities by name only: multi-use paths for on-road, multi-use trails for off-road; both facilities come with a recommended minimum width of 10 feet. Therefore, because they are designed similarly and serve the same user groups, they are both identified as “multi-use paths” throughout the Composite Bicycle and Pedestrian Plan. All facility types identified in the CTP are as follows:

1. Multi-Use Paths
2. Multi-Use Trails
3. Sidewalks
4. Bike Lanes
5. Wide Outside Lane

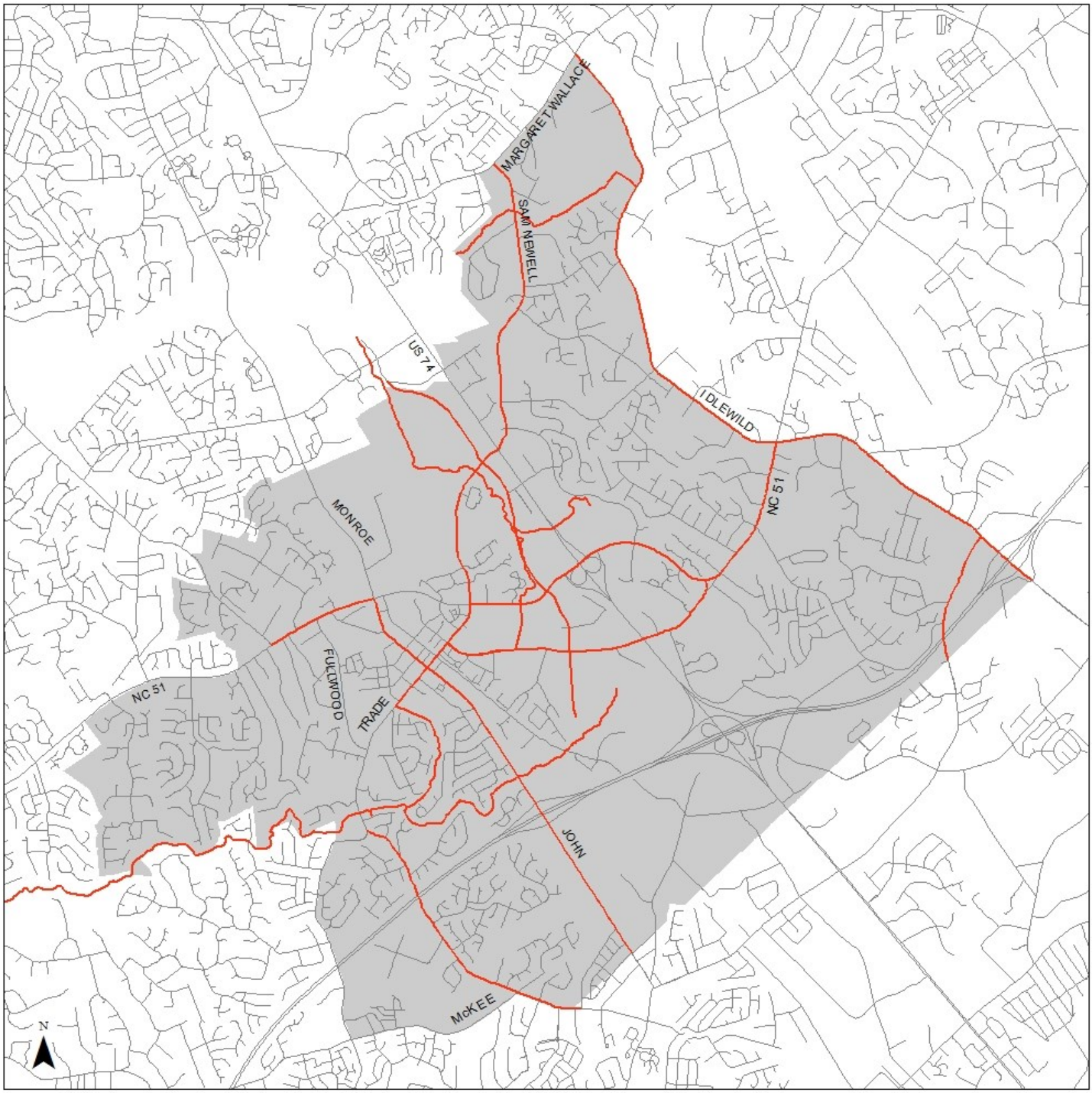
Maps illustrating these facilities as identified by the CTP are on the following pages.

Map: All Recommended Project in the Town of Matthews from the Comprehensive Transportation Plan

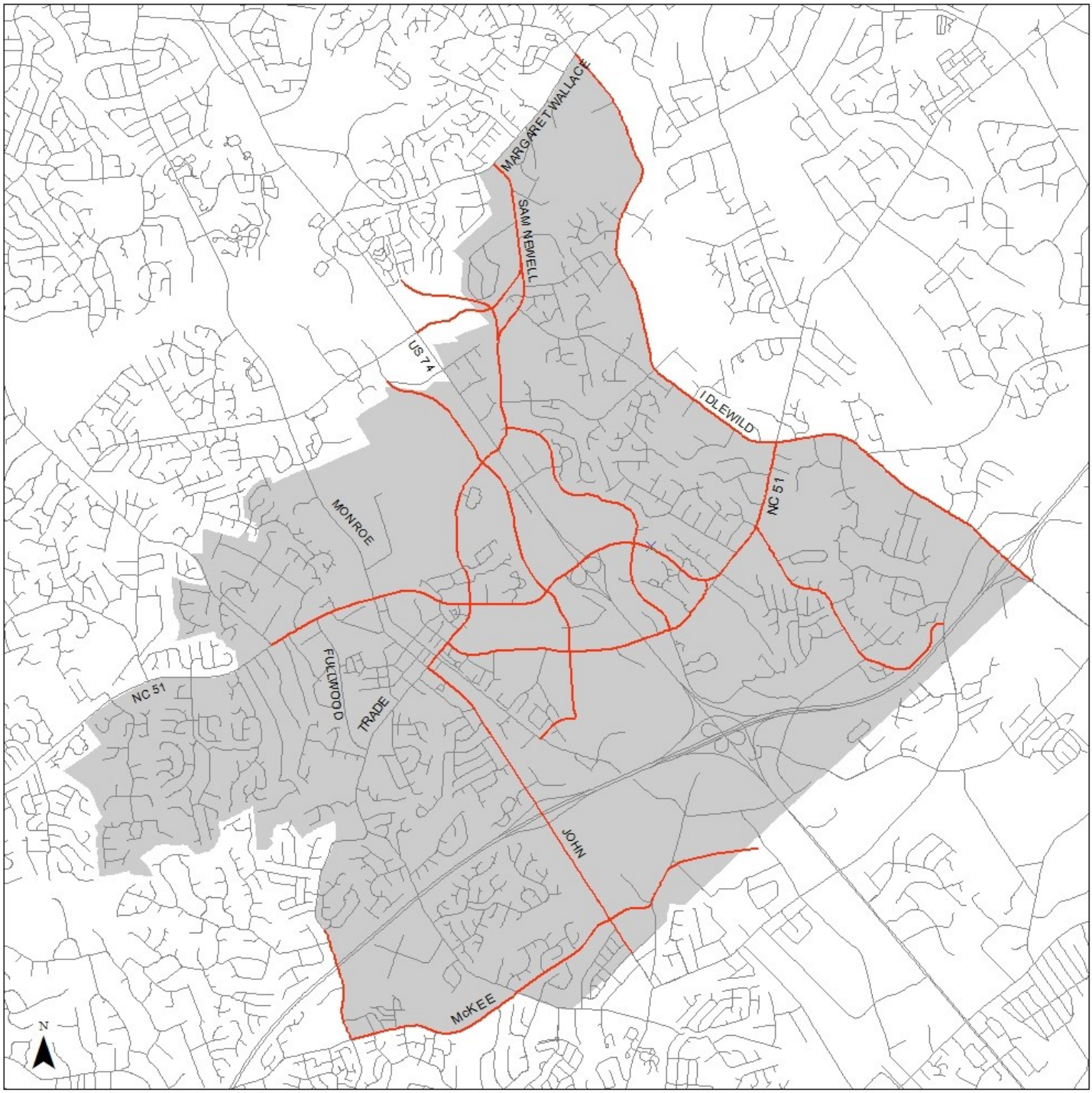


#1, 2

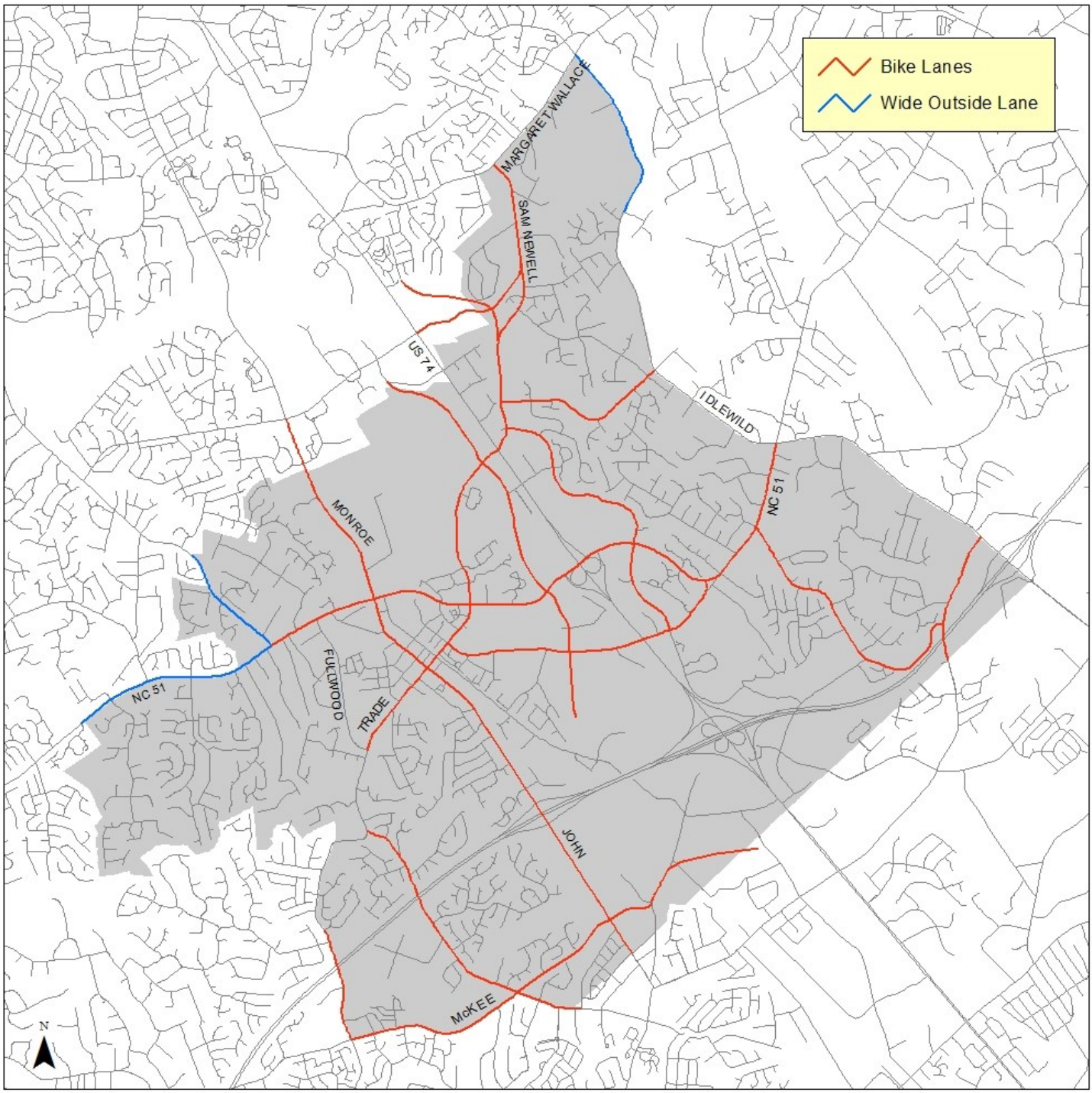
Map: Recommended Multi-Use Facilities in the Town of Matthews from the Comprehensive Transportation Plan



#3 Map: Recommended Sidewalks in the Town of Matthews from the Comprehensive Transportation Plan



#4, 5 Map: Recommended On-Road Projects (Bike Lanes and Wide Outside Lane) in the Town of Matthews from the Comprehensive Transportation Plan



Background: Existing Plans

Monroe Small Area Plan

The Town of Matthews Land Use Plan Update in 2012 contained the objective of developing Small Area Plans for portions of town that were undergoing, or likely to undergo, significant change. By establishing Small Area Plans that delved into more detail than the Land Use Plan, the town can establish a vision for the area and ensure that it is developed with safety and sustainability in mind. The Monroe Road Small Area Plan, the first of the Small Area Plans, was completed in 2014.

The Monroe Road Area consists of all parcels located between NC 51 and the town limits, from the Sardis Forest neighborhood east to the CSX Railway. With 32,000 vehicles traveling five-lane Monroe Road daily and a fragmented sidewalk network, the area is generally considered unwelcoming to bicyclists and pedestrians. The Small Area Plan recognized this challenge and offered the following planned action items:

- Consider a feasibility study for replacing the center turn lane with a landscaped median with pedestrian safety zones at designated crosswalks.
- Identify potential pedestrian connection from Sardis Forest neighborhood to Monroe Road.
- Consider a Multi-Use Path at the rear of properties adjacent to Sardis Forest.
- Encourage internal connectivity between and within developments.
- Complete sidewalk network.
- Consider adding bike lanes or other bicycle facilities.

Entertainment District Small Area Plan

The Entertainment District (ENT) is a zoning classification that will be applied to a specific area of approximately 300 acres bounded by Matthews-Mint Hill Road to the north, US74 / Independence Blvd to the east, I-485 to the south and southeast, and the Crestdale neighborhood to the west and southwest. Included in this area is the Mecklenburg County Regional Sportsplex, which will encompass the southern half of the district. This district will be unique in Matthews in that it will be a planned, urban-scale neighborhood with a mixture of uses and a unique brand. A Small Area Plan was completed for this district in 2014, establishing a framework for how the district should be developed.

This district may also accommodate the planned LYNX Silver Line, the Charlotte Area Rapid Transit Corridor for the Southeast Corridor. Emanating from Uptown Charlotte, the Silver Line is again under study to parallel US74 and snake its way through the Entertainment District before terminating at CPCC Levine Campus on the other side of I-485.

Although the layout of the Entertainment District has not yet been planned, it is essential that the goals of the Small Area Plan that pertain to multi-modal transportation are brought forward and implemented once design occurs. These goals include:

- The area should be developed with public plazas and small green spaces that enhance the ease of access to the various businesses and activity sites. This will enable the district to operate as a "park once" environment where using a personal vehicle internally becomes a choice rather than a necessity.
- Any pedestrian and multi-modal pathways incorporated in the Entertainment District must continue outside of the district, linking this area to other existing development sites in Matthews. With downtown Matthews less than a mile away, safe, continuous connections along Matthews-Mint Hill Road and the planned Crestdale Heritage Trail are essential.
- The internal road network of the district should exceed typical sidewalk provisions of development elsewhere in town. As illustrated in an example cross-section below, all roads should have a multi-modal path on at least one side, and bike lanes will be appropriate on many streets.

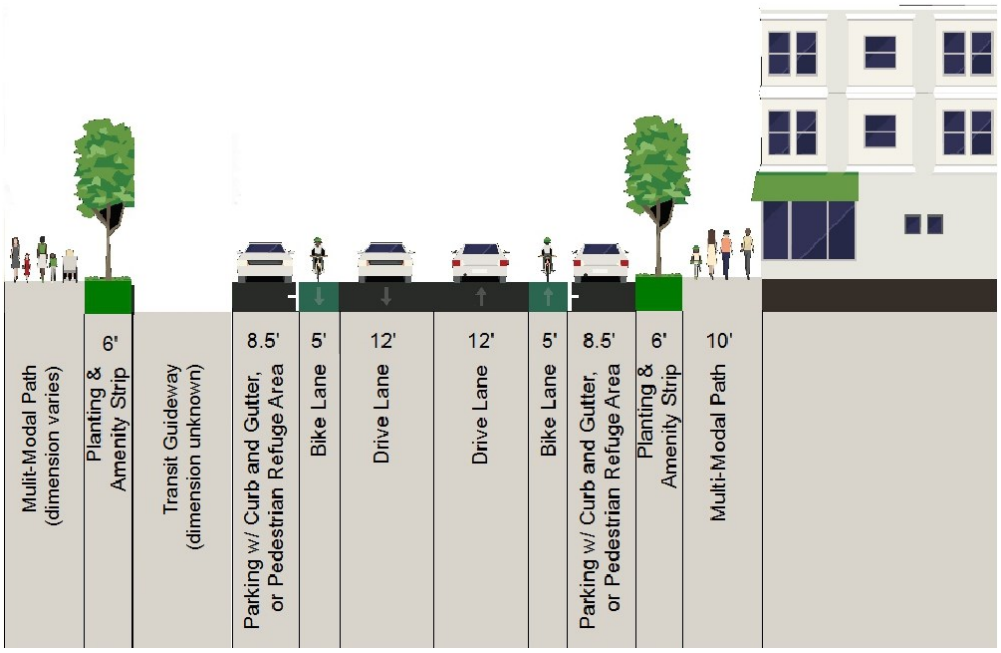


Figure: A possible cross-section for Independence Pointe Parkway through the ENT district.

Background: Existing Plans

Approved Rezoning Applications

Over the past decade, numerous zoning applications have been approved with conditions that include provisions for bicycle and pedestrian facilities. This process can play an important role in attaining the Town's overall vision of a multi-modal transportation network. These private development projects have committed to dedicating space, funds, and sometimes even constructing these facilities.

New development reimagines and transforms the landscape it inhabits, as well as adjacent areas. Development can create new roads, realign existing ones, change traffic patterns, create new destinations, and more. Therefore, the provisions included in these zoning petitions are often absent from previous planning documents. It is for this reason that integrating approved zoning petitions is a critical component in developing a comprehensive multi-modal transportation network; and should be regarded as an ongoing process with the Composite Bicycle and Pedestrian Plan amended as needed.

The following zoning applications and board actions have been adopted with conditions pertaining to the bicycle and pedestrian network. They are summarized on the following pages for background and context into the contributions they make to the composite inventory.

1. Alexander Ridge
2. Elizabeth Place Neighborhood
3. Fountains at Matthews
4. Greylock Neighborhood
5. Mecklenburg County Sportsplex
6. Plantation Estates & Eden Hall
7. Royal Park
8. Silver Oaks
9. Sycamore Commons
10. Wingate Commons

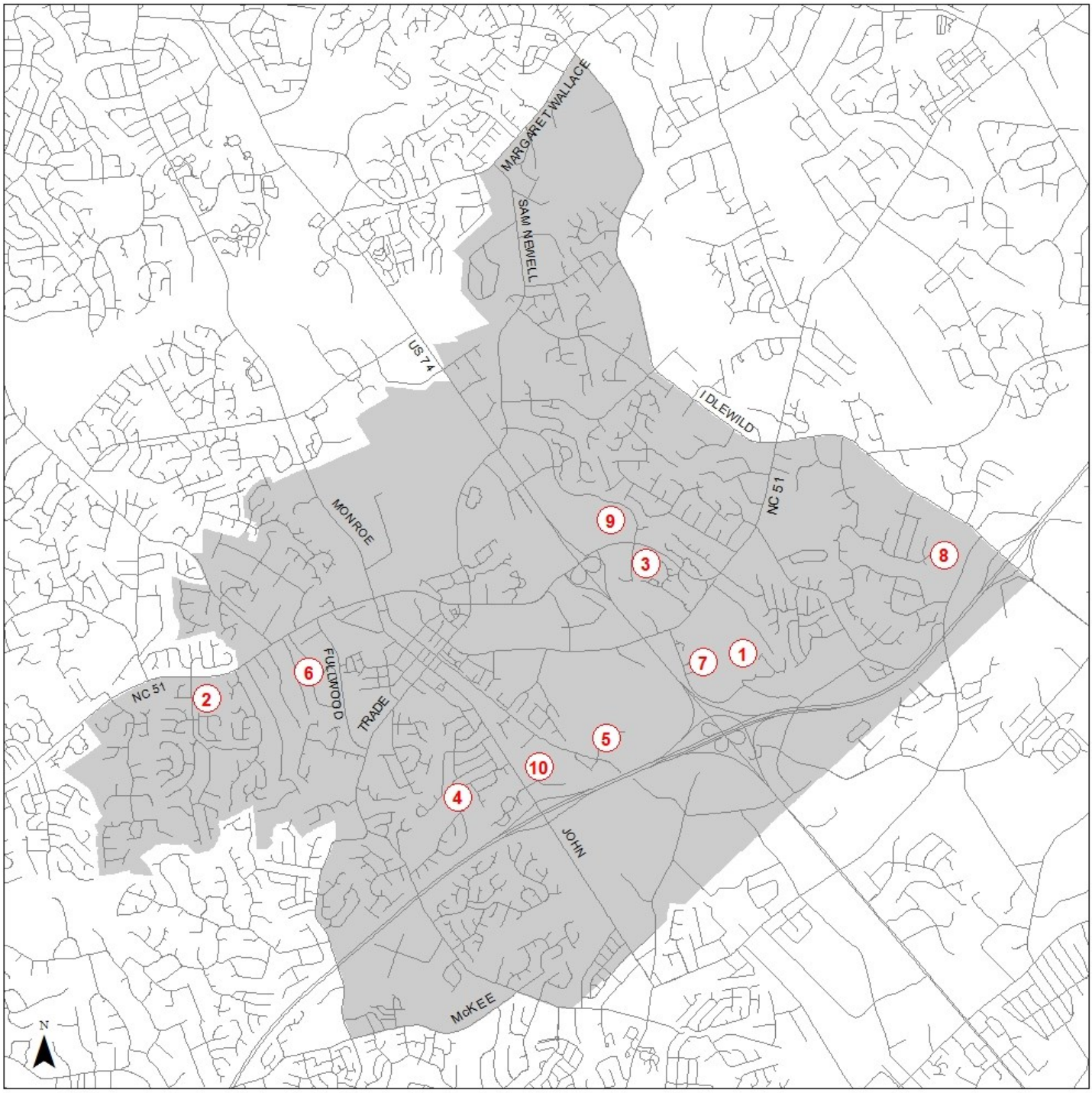
The zoning applications approved at the time of this document have been catalogued on the following pages.

Background: Existing Plans

Approved Rezoning Applications

Map: Approved Zoning Applications with Bicycle and/or Pedestrian Facility Components in the Town of Matthews

1. Alexander Ridge
2. Elizabeth Place Neighborhood
3. Fountains at Matthews
4. Greylock Neighborhood
5. Mecklenburg County Sportsplex
6. Plantation Estates & Eden Hall
7. Royal Park
8. Silver Oaks
9. Sycamore Commons
10. Wingate Commons



#1 Alexander Ridge

Alexander Ridge was platted as a single-family residential neighborhood under the former cluster zoning provision in 2002. The cluster zoning provision allowed for an increase in density in exchange for the dedication of open space. A total of 6.2 acres of land stretching along the North Fork Crooked Creek tributary were dedicated to the Town of Matthews. Running through the middle of the Alexander Ridge development, this land has access points in the Kimbrell Court and O'Toole Drive cul-de-sacs and connects to Butler High School property to the west. These open space areas were subsequently identified in the Comprehensive Bicycle Plan as a corridor for a multi-use path connecting the neighborhoods and Butler High School.

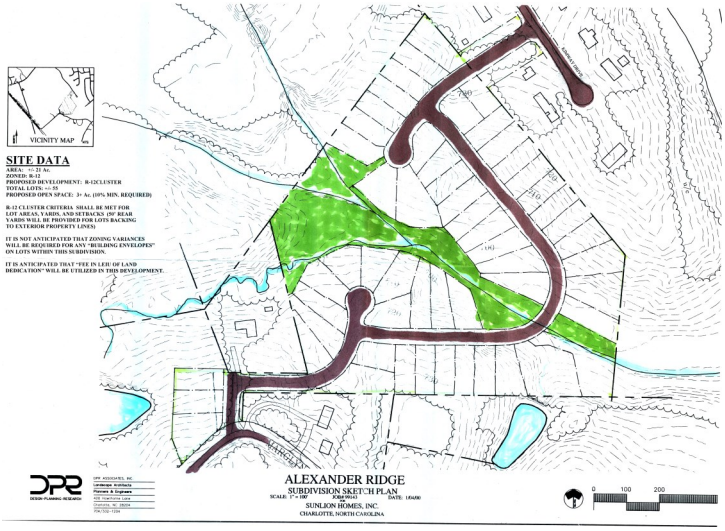


Figure: Land in the Alexander Ridge neighborhood dedicated to the Town for future bicycle / pedestrian access.

#2 Elizabeth Place Neighborhood

The Elizabeth Place subdivision was platted in 2003 with a 20ft wide easement placed at the northern cul-de-sac of Willow Brook Drive. This easement connects the subdivision directly with Elizabeth Lane Elementary School to the north. Currently, the easement is functioning as an unpaved trail into the school site.

#3 Fountains at Matthews

The Fountains at Matthews is a mixed-use development on the southeast corner of the Matthews Township Parkway and Northeast Parkway intersection. Approved in 2014, the zoning application allows for up to 250 apartment units and at least 8,000 sf of commercial space. Instead of the typical five foot sidewalk along the property road frontage, the developer agreed to install a ten foot wide multi-use path along Northeast Parkway.

#4 Greylock Ridge Neighborhood

The Greylock Ridge subdivision is located on the south side of East John Street near the overpass of Four Mile Creek. Being strategically located near the future Four Mile Creek Greenway, land was dedicated for connections to the greenway. Direct formal connections were made at the end of Greylock Ridge Road and at the end of Rockwell View Road, and a subsequent connection was made from the previously developed Vinecrest Drive to Greylock Ridge Road. Additional open space between the planned greenway and Greylock Ridge Road, for a total of 16.4 acres, was also dedicated to the Town, as detailed in the map to the right.

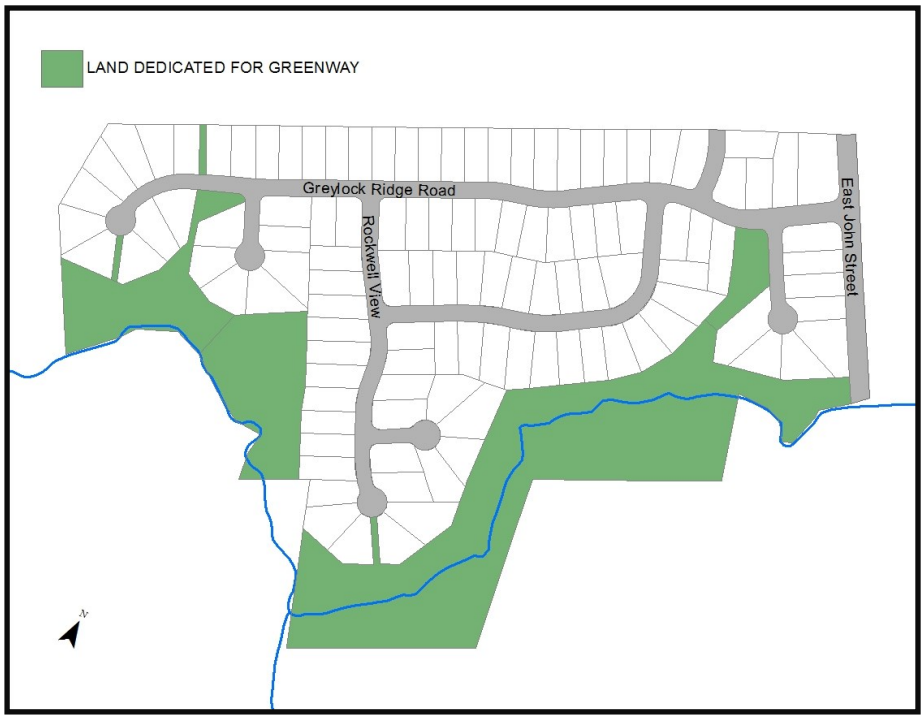


Figure: Land in the Greylock Ridge neighborhood dedicated to the Town for greenway use.

Since the neighborhood was undeveloped at the time of drafting the Comprehensive Bicycle Plan, the greenway connections were not recognized in the document. These connections, therefore, are a good example of how a zoning action can add to the overall bicycle and pedestrian network plan.

#5 Mecklenburg County Regional Sportsplex

The Mecklenburg County Regional Sportsplex is a valuable asset for the Town of Matthews. This park will be a major destination for recreation and entertainment and will complement, in form and function, the planned Entertainment District immediately adjacent to the north (discussed later in this chapter). The internal road network will connect Tank Town Road with Matthews-Mint Hill Road.

The first phase of Sports Parkway, the entrance road off of Tank Town Road, set the standard for this trunk road within the park when it was constructed in 2012. Mecklenburg County asked for, and received from the Town, a public improvement variance for the requirement of providing sidewalks on both sides of the street. Factors such as severe slope limited the ability of constructing a sidewalk on the west side of Sports Parkway, and a greenway path was in the later park phase for that side of the street. Therefore, the County agreed to provide a ten foot wide Multi-Use Path on the east side of the road with an eight foot landscaped buffer. This cross-section standard will be continued along Sports Parkway through Phase 2 of the Sportsplex construction. In a park setting, a Multi-Use Path is preferable to sidewalks as it allows for multiple modes and creates a more enjoyable travel environment.

#6 Plantation Estates & Eden Hall

Plantation Estates is a large and expanding retirement community in Matthews. The original campus, constructed in the late 1980s, offers more than 350 independent-living apartments on more than 50 acres off of Pineville-Matthews Road between Sardis Road and Fullwood Lane. A second campus, the Village at Plantation Estates, was approved through a zoning application in 2011. This campus, located at the corner of Fullwood Lane and South Trade Street will consist of villa homes and apartment units. A condition of this zoning application was the installation of a ten foot wide multi-use path along South Trade Street and Fullwood Lane, a crosswalk with a HAWK signal, and the continuance of the multi-use path across the rear of the original campus to Bubbling Well Road. In addition to completing the Bubbling Well / Fullwood Connector identified in the Comprehensive Bicycle Plan, this would extend a multi-use path to the entrance of Four Mile Creek Greenway on South Trade Street, a total length of over a mile.

In 2014, Plantation Estates submitted a zoning petition to expand their original campus with the addition of a health care facility at the rear of the property. At that time, it was determined that the multi-use path alignment approved in the Village at Plantation Estates rezoning application would be difficult to install due to topography issues. Serendipitously, a development adjacent to the north of Plantation Estates submitted a zoning application around the same time. A townhouse development, Eden Hall would be located on 16 acres at the corner of Fullwood Lane and Marion Drive. Arrangements were made to shift the multi-use path to roughly the property boundary between the two developments, providing a better alignment and allowing more residents access to the path.

Figure: These maps show the two planned alignments of a multi-use path that will connect Four Mile Creek Greenway to NC51.

#7 Royal Park

Royal Park is a retirement community located along Moore Road near the I-485 / Independence Boulevard interchange. Currently, a rehabilitation and long-term care center is located on the site, but build-out will include offices, an assisted living facility, an independent living facility, and independent living cottages. The McEwen-Moore Farmhouse, a historic property, is also part of the complex, having been relocated from elsewhere on the site.

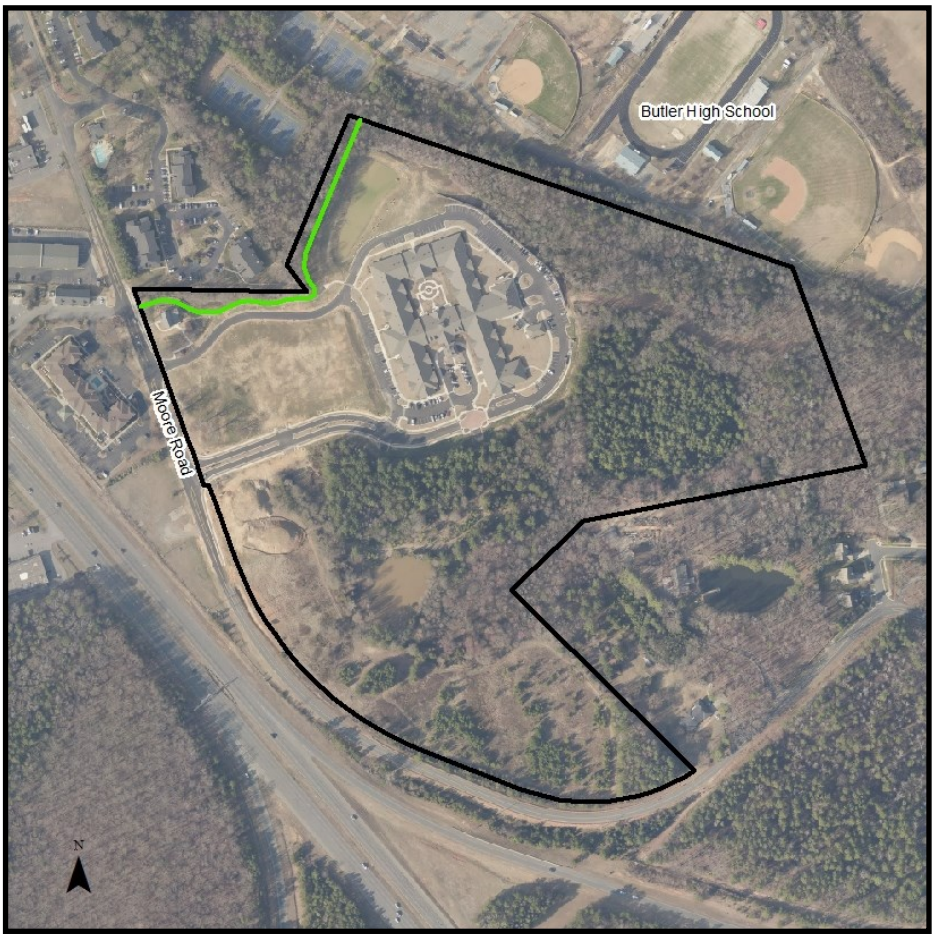


Figure: The Royal Park development, as of 2014, with extent of future multi-use trail depicted along the northern property boundary line.

As a condition of the rezoning application to develop this project in 2011, Liberty Healthcare, the property owner, agreed to construct a multi-use trail along the northeast border of the property. This trail will be paved and at least ten feet in width. It will connect with Butler High School property to the north. Approximately 540 linear feet, beginning at Moore Road, have already been constructed. Completion of the trail will occur at the time of construction of independent living facilities and office facilities. Joined with the Alexander Ridge connections, this multi-use trail will eventually stretch to over a mile in length.

This connection was also identified in the Comprehensive Bicycle Plan, as part of the Butler High School / Moore Road Connector.

#8 Silver Oaks

Silver Oaks was a planned residential development at the corner of Stallings Road and Idlewild Road in the northeast corner of the town. The development used the R-VS, or Residential-Varied Style, zoning designation to propose a variety of housing products, including both attached and detached options. The development backed up to the Windrow subdivision, touching the dead end of Creekside Drive. Though no road connection was planned, a pedestrian connection via a 10ft wide multi-use path and a covered bridge was to be provided.

This project was never built, but any future development should maintain this multi-use path connection, if not a road connection.

#9 Sycamore Commons

The Sycamore Commons shopping center is located at the corner of Matthews Township Parkway and Northeast Parkway. This development straddles a tributary of Irvins Creek and is bordered by Windsor Park to the north. The developer agreed to install and maintain a "greenway trail" along the tributary corridor, stretching a half-mile from the front of the shopping center northwest into Windsor Park. This facility is essentially a multi-use path with an unpaved pit gravel surface.

#10 Wingate Commons

Wingate Commons was a planned mixed use development off of East John Street near I-485. The project, located on 68 acres, was to include 200 multi-family units, nearly one hundred thousand square feet of office and commercial space, a hotel, and another one hundred thousand square feet of Wingate University campus space. With Four Mile Creek running through the middle of the site, the developer agreed to dedicate and convey greenway space to the Town of Matthews. Additionally, the developer agreed to construct a ten foot wide multi-use path along portion of the property that fronts the Greylock Ridge Road corridor.

Though this project has been put on hold with Wingate University's relocation to Ballantyne, it is important that these provisions be retained and, if appropriate, enhanced when the site is rezoned again.

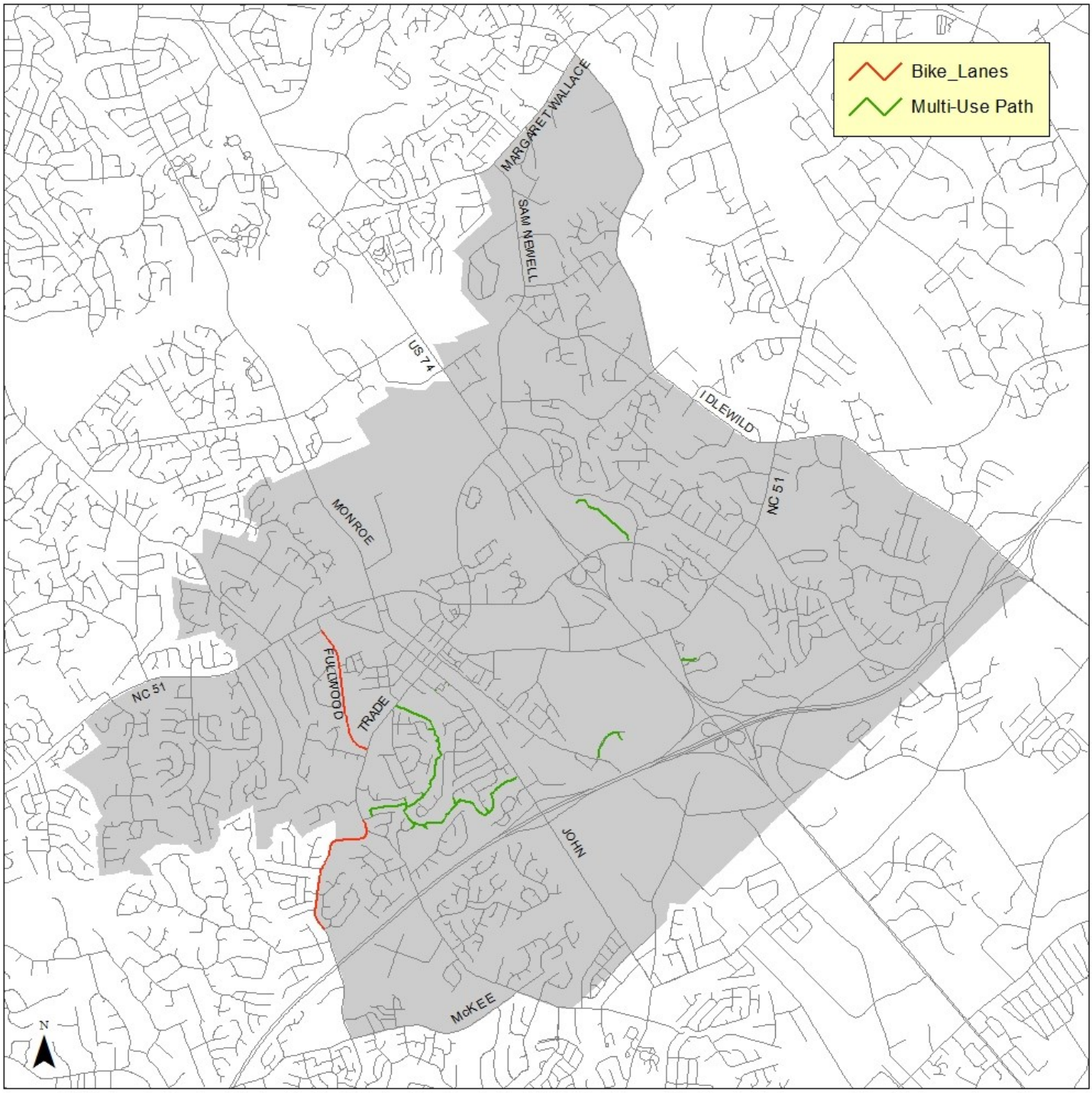
Figure: Wingate Commons schematic plan with Greylock Ridge Road in the upper left corner and Four Mile Creek represented by the swath of green through the middle of the site.

Existing Inventory

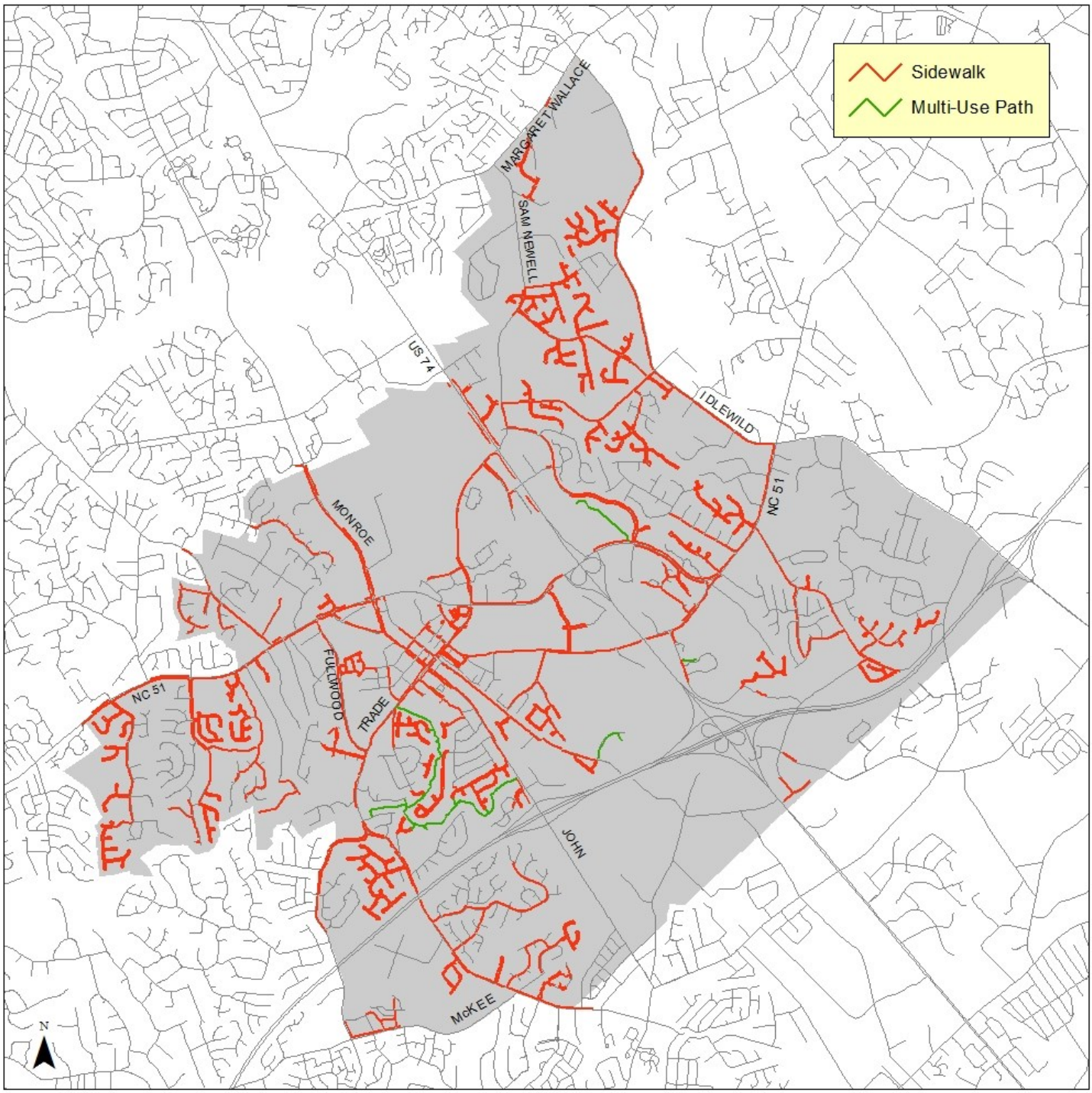
In addition to the 2 mile segment of Four Mile Creek Greenway and the half-mile Sycamore Commons Greenway that have been constructed in town, sidewalks and a few bike lanes comprise the existing bicycle and pedestrian network.

Requirements to provide these facilities were strengthened with the adoption of the Unified Development Ordinance in 2014. In addition to constructing sidewalks on both sides of all streets, a development site must build any bicycle facilities that are recognized on an adopted plan and fall within their development area.

Map: Existing Bicycle Network in the Town of Matthews



Map: Existing Pedestrian Network in the Town of Matthews



Chapter 2: Inventory

Organization

One of the most challenging tasks in comprising the composite inventory is organizing and combining the inventories of the various plans in a manner that is concise and yet still informative. The sheer size of the Town and quantity of proposed improvements makes an alphabetical listing daunting to sort through. Therefore, the proposed facilities inventory has been divided into two parts based on the mode of travel accommodated. Facilities that allow for both bicycle and pedestrian travel (i.e. multi-use paths, trails, and greenways) are included in both inventories.

The facility name, type, and corridor are included in each inventory listing. The previous source of each facility is also indicated.

Bicycle Facilities Inventory

The majority of proposed bicycle facilities are derived from the Comprehensive Bicycle Plan (CBP), adopted in 2006. The Comprehensive Transportation Plan (CTP), adopted eight years later, complemented the CBP, bringing forward many of the recommendations and slightly expanding the scope of on-road bicycle facilities.

The CBP proposed four facility types along road corridors: Bike Lanes, Wide Oustide Lanes, Wide Shoulders, and Neighborhood Signed Routes. The CBP also proposed two facility types for off-road corridors: Greenways and Multi-Use Trails.

With the CTP's focus on busier thoroughfares, the document did not use the Neighborhood Signed Routes facility.

Pedestrian Facilities Inventory

The majority of proposed pedestrian facilities are derived from the Comprehensive Transportation Plan (CTP), adopted in 2014. Although quite recent, the CTP incorporated the project listings of the two earlier planning documents that dealt with pedestrian facilities: the Mecklenburg County Park and Recreation Master Plan (2008) and the Carolina Thread Trail Plan (2009).

A handful of zoning petitions provided additional pedestrian facility projects, some of which have been constructed and reside in the Existing Inventory section, others are listed in the following composite inventory.

Composite Bicycle Facilities Inventory– Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
1	Alexander Street	N'hood Signed Route	Road	●		
2	Alexander Ridge Connector	Multi-Use Path	Off-Road	●		●
3	Alexander Ridge Drive	N'hood Signed Route	Road	●		
4	Andalusian Drive	N'hood Signed Route	Road	●		
5	Annecy Drive	N'hood Signed Route	Road	●		
6	Arthur Goodman Park Connector	Multi-Use Path	Off-Road	●		
7	Ashley Creek Drive	N'hood Signed Route	Road	●		
8	Ballards Pond Lane	N'hood Signed Route	Road	●		
9	Barington Place	N'hood Signed Route	Road	●		
10	Bathgate Lane	N'hood Signed Route	Road	●		
11	Benton Woods Drive	N'hood Signed Route	Road	●		
12	Biltmore Forest Drive	N'hood Signed Route	Road	●		
13	Brightmoor Drive	N'hood Signed Route	Road	●		
14	Brightmoor / Pleasant Plains Road Connector	Multi-Use Path	Off-Road	●		
15	Bubbling Well / Fullwood Lane Connector	Multi-Use Path	Off-Road	●		●
16	Bubbling Well Road	N'hood Signed Route	Road	●		
17	Butler High School Connector	Multi-Use Path	Off-Road	●		
18	Campus Ridge Road	N'hood Signed Route	Road	●		
19	Carolina Thread Trail East Connector	Multi-Use Path	Off-Road		●	●
20	Carolina Thread Trail West Connector	Multi-Use Path	Off-Road		●	●
21	Candlelight Woods Drive	N'hood Signed Route	Road	●		
22	Charing Cross Drive	N'hood Signed Route	Road	●		
23	Chesney Glen Drive	N'hood Signed Route	Road	●		
24	Chesney Glen / Four Mile Creek Connector	Multi-Use Path	Off-Road	●		
25	Chesswood Lane	N'hood Signed Route	Road	●		
26	Christ Covenant / S. Ames Street Connector	Multi-Use Path	Off-Road	●		
27	Cithara Drive	N'hood Signed Route	Road	●		
28	Clearbrook Road	N'hood Signed Route	Road	●		

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
29	Cloudburst Drive	N'hood Signed Route	Road	●		
30	Coach Ridge Trail	N'hood Signed Route	Road	●		
31	Cochrane Woods Lane	N'hood Signed Route	Road	●		
32	Connemarra Drive	N'hood Signed Route	Road	●		
33	Country Place Drive	N'hood Signed Route	Road	●		
34	Country Place / Four Mile Creek Connector	Multi-Use Path	Off-Road	●		
35	Creekside Drive	N'hood Signed Route	Road	●		
36	Crescent Knoll Drive	N'hood Signed Route	Road	●		
37	Crestdale Road	N'hood Signed Route	Road	●		
38	Crestdale Middle School Connector	Multi-Use Path	Off-Road	●		
39	Cross Point Road	N'hood Signed Route	Road	●		
40	Danny Court	N'hood Signed Route	Road	●		
41	Deer Creek Drive	N'hood Signed Route	Road	●		
42	Dion Drive	N'hood Signed Route	Road	●		
43	Downtown Matthews Connector	Multi-Use Path	Off-Road		●	
44	Duke Power Right-of-Way	Multi-Use Path	Off-Road	●		
45	East Charles Street	N'hood Signed Route	Road	●		
46	East John Street	Bike Lanes	Road	●	●	
47	East John Street	Multi-Use Path	Road		●	
48	Elizabeth Lane	N'hood Signed Route	Road	●		
49	Elizabeth Lane Elementary School Connector	Multi-Use Path	Off-Road	●		
50	Fair Forest Drive	N'hood Signed Route	Road	●		
51	Fair Forest / Siskey YMCA Connector	Multi-Use Path	Off-Road	●		
52	Fairfax Woods Drive	N'hood Signed Route	Road	●		
53	Firewood Drive	N'hood Signed Route	Road	●		
54	Forest Ridge / Northeast Parkway Connector	Multi-Use Path	Off-Road	●		
55	Forest Wood Drive	N'hood Signed Route	Road	●		
56	Four Mile Creek Greenway	Greenway	Off-Road	●	●	●

Composite Bicycle Facilities Inventory-Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
57	Four Mile Creek Greenway / Greylock Ext.	Greenway	Off-Road		●	●
58	Fraserburgh Drive	N'hood Signed Route	Road	●		
59	Fullwood Lane / South Freemont Connector	Multi-Use Path	Off-Road	●		
60	Gladewater Drive	N'hood Signed Route	Road	●		
61	Grayfox Lane	N'hood Signed Route	Road	●		
62	Greylock Ridge Road Extension	Multi-Use Path	Road			●
63	Habersham / Irvins Creek Connector	Multi-Use Path	Off-Road	●		
64	Hackamore Drive	N'hood Signed Route	Road	●		
65	Hadco Lane	N'hood Signed Route	Road	●		
66	Hallmark Drive	N'hood Signed Route	Road	●		
67	Hampton Green / S. Trade Street Connector	Multi-Use Path	Off-Road	●		
68	Hargett Road	N'hood Signed Route	Road	●		
69	Heathershire Lane	N'hood Signed Route	Road	●		
70	Hickory Lake Lane	N'hood Signed Route	Road	●		
71	Hinson Drive	N'hood Signed Route	Road	●		
72	Holly Ridge Drive	N'hood Signed Route	Road	●		
73	Honey Creek Lane	N'hood Signed Route	Road	●		
74	Hounds Run Drive	N'hood Signed Route	Road	●		
75	Idlewild Road	Bike Lanes	Road	●		
76	Idlewild Road	Multi-Use Path	Road		●	
77	Idlewild Road	Wide Outside Lane	Road		●	
78	Independence Commerce Drive	N'hood Signed Route	Road	●		
79	Independence Pointe Parkway	Bike Lanes	Road		●	
80	Independence Pointe Parkway	Multi-Use Path	Road		●	
81	Irvins Creek Greenway	Greenway	Off-Road	●	●	●
82	Ivey Wood Lane	N'hood Signed Route	Road	●		
83	Ivy Bluff Way	N'hood Signed Route	Road	●		
84	Jeffers Drive	N'hood Signed Route	Road	●		

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
85	Jeffers Drive / Four Mile Creek Connector	Multi-Use Path	Off-Road	●		
86	Jefferson Street	N'hood Signed Route	Road	●		
87	Kale Wood Drive	N'hood Signed Route	Road	●		
88	Kilkenney Hill Road	N'hood Signed Route	Road	●		
89	Kintyre Court	N'hood Signed Route	Road	●		
90	Lakeview Circle	N'hood Signed Route	Road	●		
91	Lakeview Circle / Irvins Creek Connector	Multi-Use Path	Off-Road	●		
92	Laurel Fork Drive	N'hood Signed Route	Road	●		
93	Light Brigade Drive	N'hood Signed Route	Road	●		
94	Lightwood Drive	N'hood Signed Route	Road	●		
95	Linville Drive	N'hood Signed Route	Road	●		
96	Main Street	N'hood Signed Route	Road	●		
97	Mangionne Drive	N'hood Signed Route	Road	●		
98	Margaret Wallace Road	Wide Outside Lane	Road	●		
99	Marglyn Drive	N'hood Signed Route	Road	●		
100	Matthews Elem. School Greenway Connector	Multi-Use Path	Off-Road	●		
101	Matthews Estates Road	N'hood Signed Route	Road	●		
102	Matthews Estates / Four Mile Creek Connect.	Multi-Use Path	Off-Road	●		
103	Matthews-Mint Hill Road	Bike Lanes	Road	●	●	
104	Matthews-Mint Hill Road	Multi-Use Path	Road		●	
105	Matthews-Mint Hill Road Connector	Multi-Use Path	Off-Road	●		
106	Matthews Plantation Drive	N'hood Signed Route	Road	●		
107	Matthews Township Parkway	Bike Lanes	Road	●	●	
108	Matthews Township Parkway	Multi-Use Path	Road		●	
109	McDowell Street	N'hood Signed Route	Road	●		
110	McKee Road	Bike Lanes	Road		●	
111	McKee Road	Wide Shoulder	Road	●		
112	McKee Road Extension	Wide Shoulder	Road	●		

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
113	Monroe Road	Bike Lanes	Road	●	●	
114	Moonstone Drive	N'hood Signed Route	Road	●		
115	Moore Road	N'hood Signed Route	Road	●		
116	Mt. Harmony Church Road	N'hood Signed Route	Road	●		
117	Mt. Harmony Church / Union Co. Connector	Multi-Use Path	Off-Road	●		
118	Mullis Lane	N'hood Signed Route	Road	●		
119	Neill Ridge Road	N'hood Signed Route	Road	●		
120	North Trade Street	Bike Lanes	Road	●		
121	Northeast Parkway	Bike Lanes	Road	●	●	
122	Northeast Parkway	Multi-Use Path	Road			●
123	Northeast Parkway Extension	Bike Lanes	Road	●	●	
124	O'Malley Drive	N'hood Signed Route	Road	●		
125	Otoole Drive	N'hood Signed Route	Road	●		
126	Oxborough Drive	N'hood Signed Route	Road	●		
127	Phillips Road	Bike Lanes	Road		●	
128	Phillips Road	N'hood Signed Route	Road	●		
129	Phillips Woods Lane	N'hood Signed Route	Road	●		
130	Pineville-Matthews Road	Bike Lanes	Road	●		
131	Pineville-Matthews Road	Wide Outside Lane	Road		●	
132	Pleasant Plains Road	Bike Lanes	Road	●	●	
133	Pleasant Plains Road	Multi-Use Path	Road		●	
134	Plentywood Drive	N'hood Signed Route	Road	●		
135	Point Drive	N'hood Signed Route	Road	●		
136	Port Patrick Lane	N'hood Signed Route	Road	●		
137	Port Royal Drive	N'hood Signed Route	Road	●		
138	Reid Harkey Road	N'hood Signed Route	Road	●		
139	Reverdy Lane	N'hood Signed Route	Road	●		
140	Rice Road	Bike Lanes	Road		●	

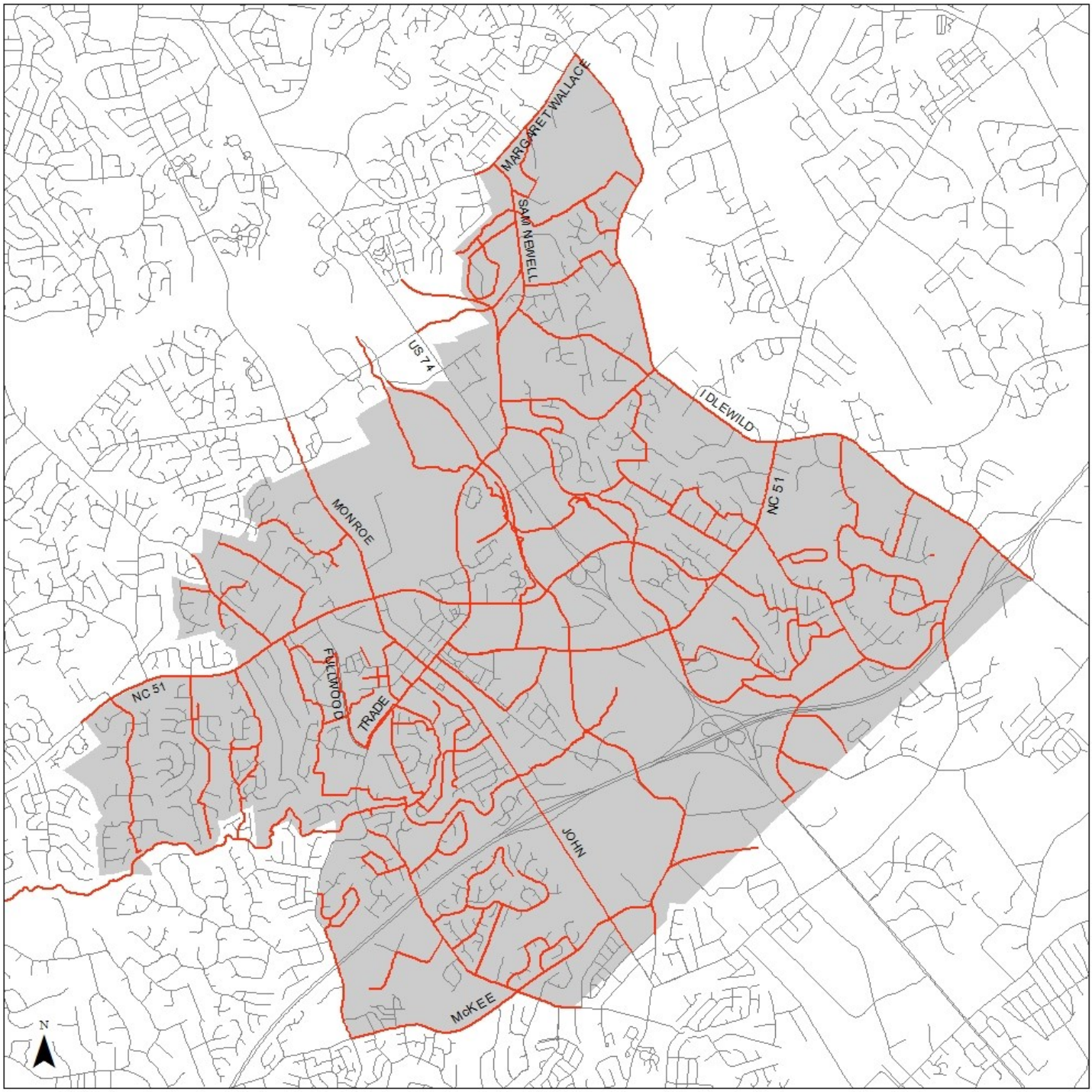
Composite Bicycle Facilities Inventory-Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
141	Rice Road	N'hood Signed Route	Road	●		
142	Royal Park Connector	Multi-Use Path	Off-Road	●		●
143	Sadie Drive	N'hood Signed Route	Road	●		
144	Sam Newell Road	Bike Lanes	Road	●	●	
145	Sam Newell Road	Multi-Use Path	Road		●	
146	Sardis Forest / Monroe Road Connector	Multi-Use Path	Off-Road	●		●
147	Sardis Forest / Warner Park Connector	Multi-Use Path	Off-Road	●		
148	Sardis Plantation / Four Mile Creek Connect.	Multi-Use Path	Off-Road	●		
149	Sardis Plantation Open Space Connector	Multi-Use Path	Off-Road	●		
150	Sardis Road	Wide Outside Lane	Road	●	●	
151	Sardis Road N.	Bike Lanes	Road		●	
152	Sardis Road N. Ext. / Sam Newell Connector	Multi-Use Path	Road	●		
153	Sardis Mill Drive	N'hood Signed Route	Road	●		
154	Silver Oaks / Creekside Connector	Multi-Use Path	Off-Road			●
155	Springwater Drive	N'hood Signed Route	Road	●		
156	Stallings Road	Bike Lanes	Road		●	
157	Stallings Road	Multi-Use Path	Road		●	
158	Stallings Road	N'hood Signed Route	Road	●		
159	Stevens Mill Road	N'hood Signed Route	Road	●		
160	Stratfordshire Drive	N'hood Signed Route	Road	●		
161	Strathaven Drive	N'hood Signed Route	Road	●		
162	Straussburg Woods Lane	N'hood Signed Route	Road	●		
163	Swaim Drive	N'hood Signed Route	Road	●		
164	Sycamore Commons Greenway	Greenway	Off-Road			●
165	Tanfield Drive	N'hood Signed Route	Road	●		
166	Thornblade Ridge Drive	N'hood Signed Route	Road	●		
167	Vinecrest Drive	N'hood Signed Route	Road	●		
168	Vinecrest / Greylock Ridge Road Connector	Multi-Use Path	Off-Road			●

Composite Bicycle Facilities Inventory-Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
169	Weddington Road	Bike Lanes	Road	●	●	
170	West John Street	Bike Lanes	Road	●	●	
171	West John Street	Multi-Use Path	Road		●	
172	Williams Road	N'hood Signed Route	Road	●		
173	Willow Brook Drive	N'hood Signed Route	Road	●		
174	Village at Plantation Estates / Eden Hall	Multi-Use Path	Off-Road			●
175	Winding Trail	N'hood Signed Route	Road	●		
176	Windrow Lane	N'hood Signed Route	Road	●		
177	Winter Wood Drive	N'hood Signed Route	Road	●		
178	Winterbrooke Drive	N'hood Signed Route	Road	●		
179	Woodbend Drive	N'hood Signed Route	Road	●		
180	Woody Creek Road	N'hood Signed Route	Road	●		

Map: All Bicycle Facilities in the Composite Inventory



Composite Pedestrian Facilities Inventory-Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
1	Alexander Ridge Connector	Multi-Use Path	Off-Road	●		●
2	Arthur Goodman Park Connector	Multi-Use Path	Off-Road	●		
3	Brightmoor / Pleasant Plains Road Connector	Multi-Use Path	Off-Road	●		
4	Bubbling Well / Fullwood Lane Connector	Multi-Use Path	Off-Road	●		●
5	Butler High School Connector	Multi-Use Path	Off-Road	●		
6	Carolina Thread Trail East Connector	Multi-Use Path	Off-Road		●	●
7	Carolina Thread Trail West Connector	Multi-Use Path	Off-Road		●	●
8	Chesney Glen / Four Mile Creek Connector	Multi-Use Path	Off-Road	●		
9	Christ Covenant / S. Ames Street Connector	Multi-Use Path	Off-Road	●		
10	Country Place / Matthews Elem. Connector	Multi-Use Path	Off-Road	●		
11	Crestdale Middle School Connector	Multi-Use Path	Off-Road	●		
12	Downtown Matthews Connector	Multi-Use Path	Off-Road	●		
13	Duke Power Right-of-Way	Multi-Use Path	Off-Road	●		
14	East John Street	Multi-Use Path	Road		●	
15	East John Street	Sidewalk	Road		●	
16	Elizabeth Lane Elementary School Connector	Multi-Use Path	Off-Road	●		
17	Fair Forest / Siskey YMCA Connector	Multi-Use Path	Off-Road	●		
18	Forest Ridge / Northeast Parkway Connector	Multi-Use Path	Off-Road	●		
19	Four Mile Creek Greenway	Greenway	Off-Road	●	●	●
20	Four Mile Creek Greenway / Greylock Ext.	Greenway	Off-Road		●	●
21	Fullwood Lane / S. Freemont Connector	Multi-Use Path	Off-Road	●		
22	Greylock Ridge Road Extension	Multi-Use Path	Road			●
23	Greylock Ridge Road Extension	Sidewalk	Road		●	
24	Habersham / Irvins Creek Connector	Multi-Use Path	Off-Road	●		
25	Hampton Green / S. Trade Street Connector	Multi-Use Path	Off-Road	●		
26	Idlewild Road	Multi-Use Path	Road		●	
27	Idlewild Road	Sidewalk	Road		●	
28	Independence Pointe Parkway	Multi-Use Path	Road		●	

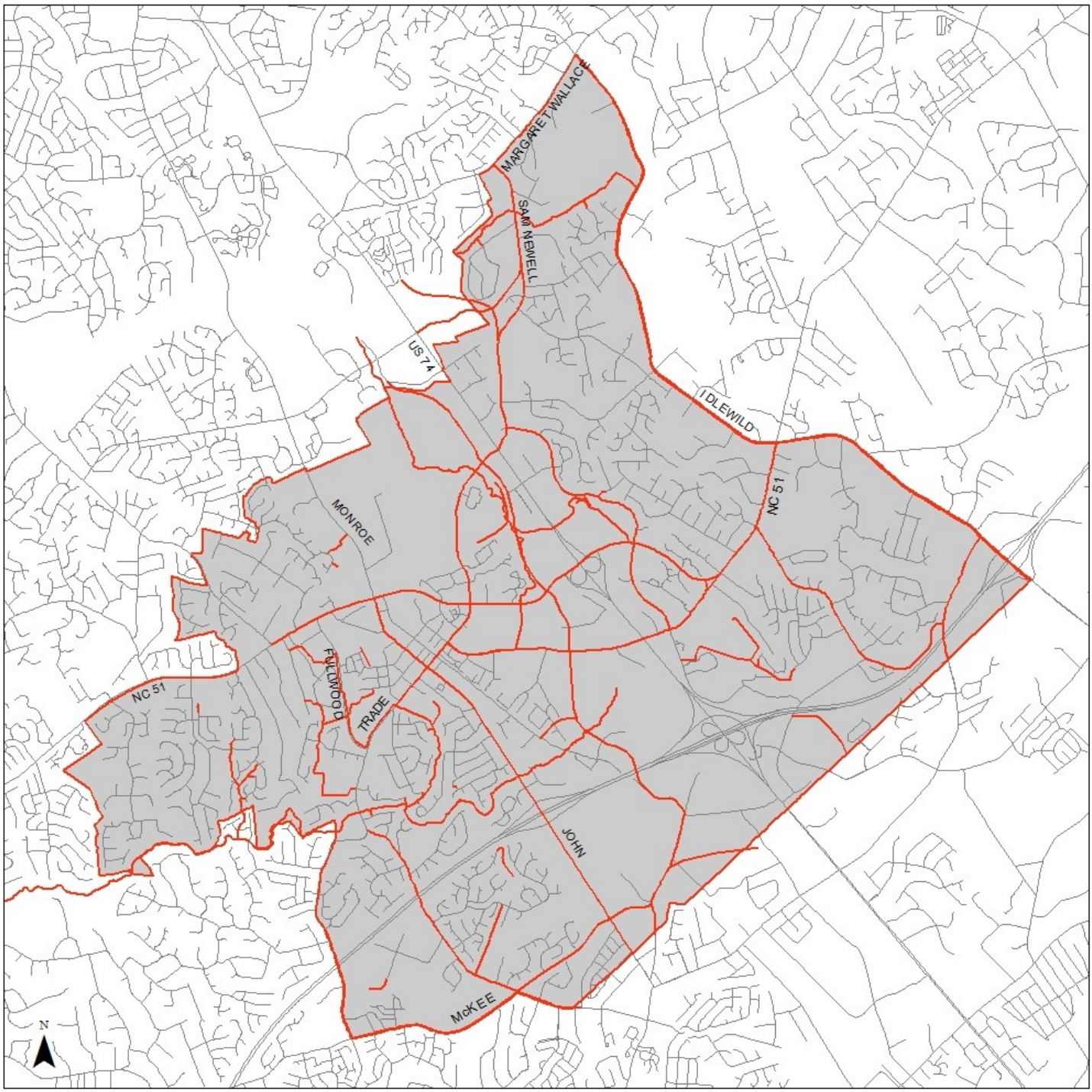
Composite Pedestrian Facilities Inventory-Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
29	Independence Pointe Parkway	Sidewalk	Road		●	
30	Irvins Creek Greenway	Greenway	Off-Road	●	●	●
31	Jeffers Drive / Matthews Elem. Connector	Multi-Use Path	Off-Road	●		
32	Lakeview Circle / Irvins Creek Connector	Multi-Use Path	Off-Road	●		
33	Matthews Elem. School Greenway Connector	Multi-Use Path	Off-Road	●		
34	Matthews Estates / Matthews Elem. Connect.	Multi-Use Path	Off-Road	●		
35	Matthews-Mint Hill Road	Multi-Use Path	Road		●	
36	Matthews-Mint Hill Road	Sidewalk	Road		●	
37	Matthews-Mint Hill Road Connector	Multi-Use Path	Off-Road	●		
38	Matthews Township Parkway	Multi-Use Path	Road		●	
39	Matthews Township Parkway	Sidewalk	Road		●	
40	McKee Road	Sidewalk	Road		●	
41	Mt. Harmony Church / Union Co. Connector	Multi-Use Path	Off-Road	●		
42	Northeast Parkway	Multi-Use Path	Road			●
43	Northeast Parkway	Sidewalk	Road		●	
44	Phillips Road	Sidewalk	Road		●	
45	Pleasant Plains Road	Multi-Use Path	Road		●	
46	Royal Park Connector	Multi-Use Path	Off-Road	●		●
47	Sam Newell Road	Multi-Use Path	Road		●	
48	Sam Newell Road	Sidewalk	Road		●	
49	Sardis Forest / Monroe Road Connector	Multi-Use Path	Off-Road	●		
50	Sardis Forest / Warner Park Connector	Multi-Use Path	Off-Road	●		
51	Sardis Plantation / Four Mile Creek Connect.	Multi-Use Path	Off-Road	●		
52	Sardis Plantation Open Space Connector	Multi-Use Path	Off-Road	●		
53	Sardis Road N.	Sidewalk	Road		●	
54	Sardis Road N. / Sam Newell Connector	Multi-Use Path	Off-Road	●		
55	Stallings Road	Multi-Use Path	Road		●	
56	Sycamore Commons Greenway	Greenway	Off-Road			●

Composite Pedestrian Facilities Inventory-Proposed in Past Plans

	Facility Name	Facility Type	Corridor	CBP	CTP	Other
57	Village at Plantation Estates / Eden Hall	Multi-Use Path	Off-Road			●
58	Vinecrest / Greylock Ridge Road Connector	Multi-Use Path	Off-Road			●
59	Weddington Road	Sidewalk	Road		●	
60	West John Street	Multi-Use Path	Road		●	

Map: All Pedestrian Facilities in the Composite Inventory



Updating the Composite Inventory

Now that the composite inventory has been established, the next step is to sort through it. In order to present an efficient and complete network, some clean-up and adjustment of the composite inventory is necessary. Because of the various plans and timeframes from which these projects originated, sorting through them can be a complicated undertaking. These adjustment procedures include:

1. Identifying **completed projects** and moving them to the existing inventory ledger.
2. **Resolving conflicts and redundancies** between projects in different plans.
3. **Modifying characteristics** of projects to better align with the overall network plan.
4. **Eliminating** projects that are no longer feasible.
5. **Realigning** projects that have been impacted by external factors such as development.
6. **Adding projects through gap analysis** to form a more complete and efficient network.

As discussed in previous chapters, the bicycle and pedestrian inventories contain a significant amount of overlap with some facility types serving both uses. Additionally, limited amounts of right-of-way mean that bicycle and pedestrian facilities will sometimes compete for space in the same corridor. Therefore, the inventory adjustment process reviews both modes simultaneously, on a per project basis. The applicable modes are indicated.

Completed Projects

With the oldest plan, the Comprehensive Bicycle Plan, approaching ten years in age, a number of projects suggested in the plan can be checked off as completed. All of these completed projects are multi-use paths and, as such, apply to both transportation modes:

1. Chesney Glen / Four Mile Creek Connector
2. Country Place / Four Mile Creek Connector
3. Jeffers Drive / Four Mile Creek Connector
4. Matthews Elementary School Greenway Connector
5. Matthews Estates / Four Mile Creek Connector
6. Sycamore Commons Greenway
7. Vinecrest / Greylock Ridge Road Connector

Conflicts and Resolutions

Conflict #1: Bubbling Well / Fullwood Connector vs. Village at Plantation Estates / Eden Hall Connector	
Bubbling Well / Fullwood Connector	Corridor aligned to the south of Plantation Estates facilities.
Village at Plantation Estates / Eden Hall Connector	Corridor aligned to the north of Plantation Estates facilities.
Resolution and Explanation	Village at Plantation Estates / Eden Hall Connector determined to be more feasible alignment and will provide access to more residents.

Conflict #2: East John Street	
Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Bike Lanes, Multi-Use Path, and Sidewalk
Resolution and Explanation	Providing all three facilities would require a minimum of 30 feet of right-of-way. This amount of space is simply not available. Because bicycles can be accommodated with a multi-use path, bike lanes can be eliminated here, and sidewalk can located on one side with a Multi-Use Path on the other.

Conflict #3: Idlewild Road	
Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Multi-Use Path, Sidewalk, and Wide Outside Lane (no longer a desired option)
Resolution and Explanation	Providing all four facilities would require a minimum of 34 feet of right-of-way. This amount of space is simply not available. Both modes can be accommodated with a multi-use path which is the preferred facility. Idlewild Rd is split between Matthews and Mint Hill jurisdictions.

Conflict #4: Independence Pointe Parkway	
Comprehensive Transportation Plan	Bike Lanes, Multi-Use Path, and Sidewalk
Resolution and Explanation	Sidewalks and Bike Lanes are a redundant facility where Multi-Use Paths are provided. Therefore, on the undeveloped sections of Independence Pointe Parkway, Multi-Use Paths are the preferred facilities.

Conflict #5: Matthews-Mint Hill Road

Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Bike Lanes, Multi-Use Path, and Sidewalk
Resolution and Explanation	Providing all three facilities would require a minimum of 30 feet of right-of-way. This amount of space is simply not available. Both modes can be accommodated with a multi-use path, and this is the preferred facility, although sidewalk may be located on one side.

Conflict #6: Matthews Township Parkway

Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Bike Lanes, Multi-Use Path, and Sidewalk
Resolution and Explanation	Providing all three facilities would require a minimum of 30 feet of right-of-way. This amount of space is simply not available. Because both modes can be accommodated with a multi-use path, this is the preferred facility.

Conflict #7: McKee Road (Existing Section)

Comprehensive Bicycle Plan	Wide Shoulder
Comprehensive Transportation Plan	Bike Lanes
Resolution and Explanation	Wide Shoulder is redundant with Bike Lanes provided and should be eliminated.

Conflict #8: Northeast Parkway

Comprehensive Transportation Plan	Sidewalk
Approved Zoning Petition	Multi-Use Path
Resolution and Explanation	Multi-Use Paths accommodate both transportation modes and where installed, render Sidewalks redundant.

Conflict #9: Phillips Road

Comprehensive Bicycle Plan	Neighborhood Signed Route
Comprehensive Transportation Plan	Bike Lanes and Sidewalk
Resolution and Explanation	Due to the high speed and volume of traffic associated with a connector road such as Phillips Road, a Neighborhood Signed Route is not appropriate. Both modes can be accommodated with a Multi-Use Path, thereby separating bicycle traffic from vehicular traffic and providing a safer facility.

Conflict #10: Pineville-Matthews Road

Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Wide Outside Lane
Resolution and Explanation	Wide Shoulder is redundant with Bike Lanes provided and should be eliminated.

Conflict #11: Pleasant Plains Road

Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Bike Lanes and Multi-Use Path
Resolution and Explanation	Bike Lanes are redundant with provision of Multi-Use Path and should be eliminated.

Conflict #12: Rice Road

Comprehensive Bicycle Plan	Neighborhood Signed Route
Comprehensive Transportation Plan	Bike Lanes
Resolution and Explanation	Due to the speed and volume of traffic associated with a connector road such as Rice Road, Bike Lanes are the more appropriate facility.

Conflict #13: Sam Newell Road

Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Bike Lanes, Multi-Use Path, and Sidewalk
Resolution and Explanation	Providing all three facilities would require a minimum of 30 feet of right-of-way. This amount of space is simply not available. Both modes can be accommodated with a multi-use path, and this is the preferred facility, although sidewalk on one side is acceptable.

Conflict #14: Sardis Road N. / Sam Newell Connector

Comprehensive Bicycle Plan	Multi-Use Path
Comprehensive Transportation Plan	Bike Lanes
Resolution and Explanation	Bike Lanes are redundant with provision of Multi-Use Path and should be eliminated.

Conflict #15: Stallings Road

Comprehensive Bicycle Plan	Neighborhood Signed Route
Comprehensive Transportation Plan	Bike Lanes and Multi-Use Path
Resolution and Explanation	Due to the high speed and volume of traffic associated with a connector road such as Stallings Road, a Neighborhood Signed Route is not appropriate. Furthermore, Bike Lanes are redundant with provision of Multi-Use Path and should be eliminated.

Conflict #16: West John Street

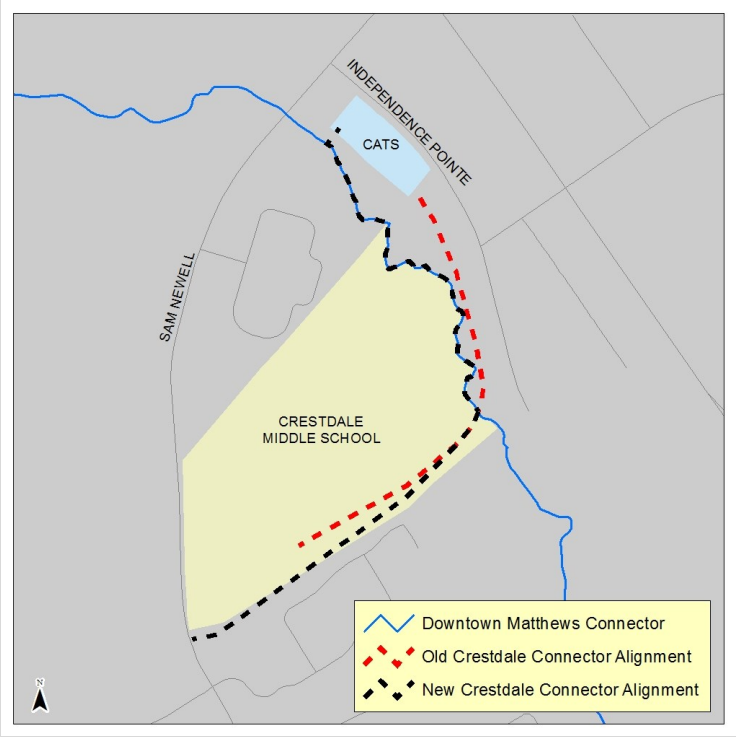
Comprehensive Bicycle Plan	Bike Lanes
Comprehensive Transportation Plan	Bike Lanes and Multi-Use Path
Resolution and Explanation	Bike Lanes are redundant with provision of Multi-Use Path and should be eliminated.

Realignments

Some proposed projects remain viable despite external factors such as development or the adoption of alternate plans. These projects simply need to be realigned to accommodate and work in concert with these factors. The following two projects have been adjusted accordingly:

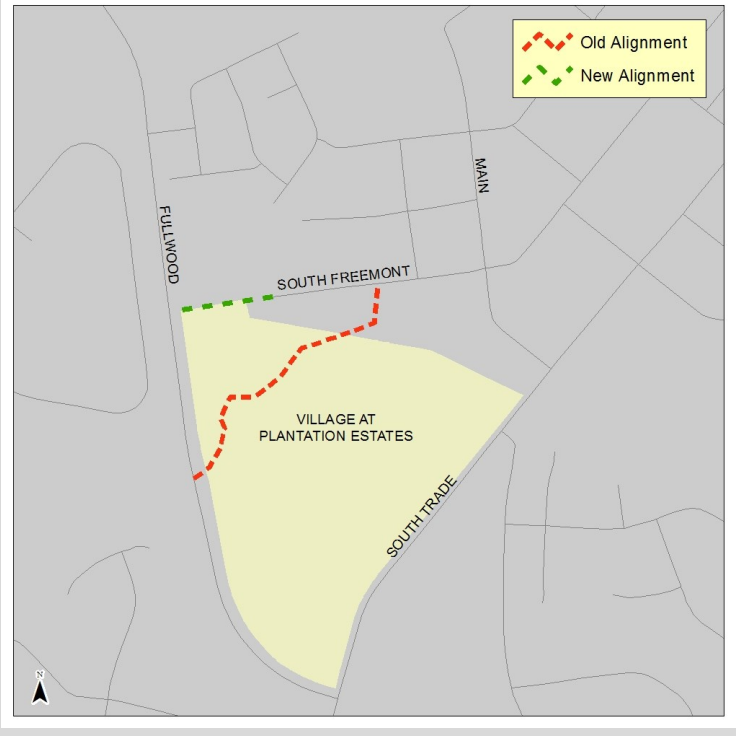
1. **Crestdale Middle School Connector:**
Multi-Use Path

The purpose of the Crestdale Middle School Connector was to link two important destinations: Crestdale Middle School on Sam Newell Road and the CATS Park & Ride facility on Independence Pointe Parkway. This connector was originally identified in the Comprehensive Bicycle Plan in 2006. Subsequent plans (the Carolina Thread Trail and the Comprehensive Transportation Plan) have identified an additional project that traverses the planned connector, following the stream corridor from McAlpine Creek Greenway in Charlotte southeast to Matthews-Mint Hill Road. This project, entitled the Downtown Matthews Connector, accesses both Crestdale Middle School and the CATS Park & Ride facility. Therefore, the Crestdale Connector alignment has been modified to utilize the Downtown Matthews Connector alignment where they parallel, still extending into the Park & Ride site, and across Crestdale Middle School campus to connect with Sam Newell Road.



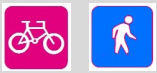
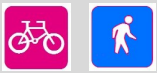
2. **Fullwood Lane / South Freemont Connector:**
Multi-Use Path

Originally identified in the Comprehensive Bicycle Plan (CBP), the Fullwood Lane / South Freemont Connector was intended to follow the stream corridor from South Freemont Street, across sparsely developed property, and terminate at Fullwood Lane. Since the adoption of the CBP, 42 acres on both sides of the stream have been rezoned for the Village at Plantation Estates retirement community, as discussed in other sections of this plan. The developers attempted to include this connector in their site plan but ultimately determined that the severe topography between the stream and Fullwood Lane rendered the project infeasible. By shifting the proposed alignment north to the edge of the project, the connector can still serve its purpose and line up nicely with the planned crosswalk on Fullwood Lane.



Facility Type Changes

The following projects have been modified to a different facility type for the final inventory:

Project	Old Facility Type(s)	New Facility Type	Explanation
1. Campus Ridge Road	Neighborhood Signed Route	Multi-Use Path	Due to high volume of traffic, Neighborhood Signed Route is not an appropriate facility type. A Multi-Use Path will be consistent with the plans for the Carolina Thread Trail West Connector which is a Multi-Use Path that will use the Campus Ridge Road from I-485 to Union County.
2. Margaret Wallace Road	Wide Outside Lane	Bike Lanes	Wide Outside Lane is a less desirable facility type. As redevelopment occurs along this corridor, there will be an opportunity to widen the road enough for Bike Lanes.
3. McKee Road Extension	Wide Shoulder and Sidewalks	Multi-Use Path 	The McKee Road Extension will improve access to the CPCC Levine campus as well as the largely undeveloped surrounding area. A Multi-Use Path will ensure safe access for all users.
4. Mt. Harmony Church Road	Neighborhood Signed Route	Bike Lanes	Due to high volume of traffic, Neighborhood Signed Route is not an appropriate facility type. Bike Lanes are more appropriate.
4. Northeast Parkway Extension	Bike Lanes and Sidewalks	Multi-Use Path 	Separating bicycle traffic from vehicular traffic is a priority and an undeveloped road corridor presents an opportunity to accomplish this.
5. Williams Road	Neighborhood Signed Route	Bike Lanes	Due to high volume of traffic, Neighborhood Signed Route is not an appropriate facility type. Bike Lanes are more appropriate.

Eliminated Projects

A 2012 corridor study by Stewart Engineering determined that the Hampton Green / South Trade Street Connector project identified in the Comprehensive Bicycle Plan was cost prohibitive based on the presence of wetlands and significant topography across virtually all of the 900 foot long trail. The multi-use path would traverse the Hampton Green neighborhood common open space north to south and would require boardwalk for most of the length, thereby increasing the cost almost fivefold over a typical paved trail.

A second trail segment would then cross the Arthur Goodman Park property to the east to make the connection with South Trade Street. This segment of the path was called the Arthur Goodman Park Connector and, without the Hampton Green segment, is rendered obsolete. Therefore, both of these projects are being stricken from the inventory.

1. **~~Hampton Green / South Trade Street Connector:~~** ~~Multi-Use Path~~

2. **~~Arthur Goodman Park Connector:~~** ~~Multi-Use Path~~

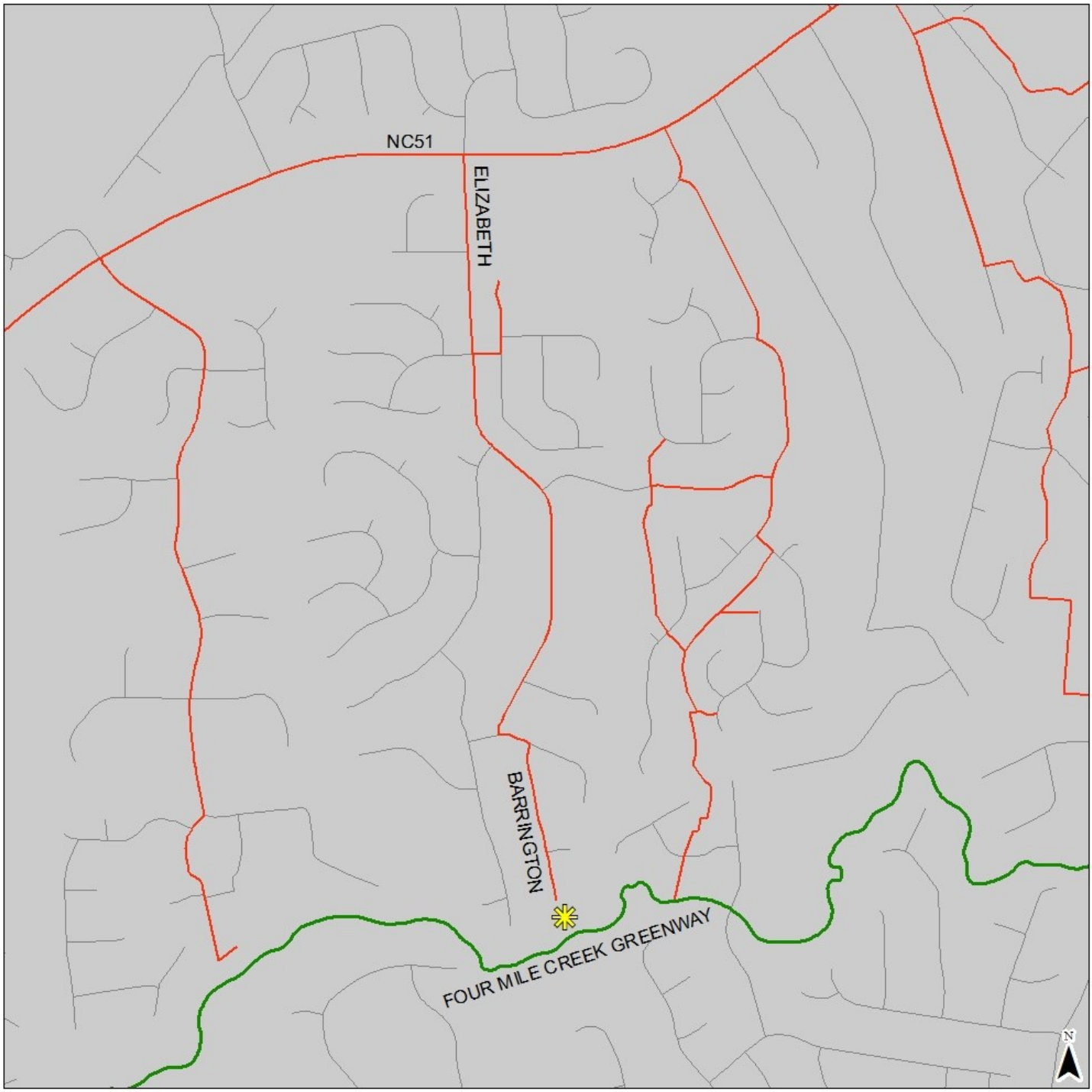
Gap Analysis

Because so many previous plans have developed lists of recommended projects, much of Matthews is covered. However, due to external factors such as unforeseen development and changes in land use type or intensity, some areas of Matthews can benefit from the provision of bicycle and pedestrian facilities previously unrecognized. The proposed additional facilities are listed below and discussed in detail on the following pages.

1. **Barington Place / Four Mile Creek Connector:** Multi-Use Path
2. **Brenham Lane:** Neighborhood Signed Route
3. **Creekside Drive:** Neighborhood Signed Route
4. **English Knoll Drive:** Neighborhood Signed Route
5. **Greylock Ridge Road:** Neighborhood Signed Route
6. **Greylock Ridge Road Extension:** Multi-Use Path
7. **Mangionne Drive:** Neighborhood Signed Route
8. **Marque Place:** Neighborhood Signed Route
9. **Mt. Harmony Church Connector:** Multi-Use Path
10. **Rice Road / Williams Road Connector:** Multi-Use Path
11. **Rockwell View Road:** Neighborhood Signed Route
12. **Somersby Lane:** Neighborhood Signed Route
13. **Stanhope Lane:** Neighborhood Signed Route
14. **Thornblade Ridge Drive:** Neighborhood Signed Route
15. **Windrow Connector:** Multi-Use Path

Barington Place / Four Mile Creek Connector—Multi-Use Path

The expansion of Four Mile Creek Greenway westward from its current terminus near South Trade Street will present a challenge to provide access to all the Matthews neighborhoods bordering the creek to the north. Many of these are older neighborhoods that were completely built-out decades before the greenway corridor was planned. Therefore, there simply are not many clear opportunities to make connections. Sardis Plantation, with community open space bordering the creek, is an exception and, as such, has been recognized as a planned connection on the Comprehensive Bicycle Plan. Barington Place, with a utility easement leading from the right-of-way to county-owned property, is another opportunity. This connection would provide greenway access to more than 400 residences located off of Elizabeth Lane.



Brenham Lane, English Knoll Drive, and Marque Place—Neighborhood Signed Routes
With a Four Mile Creek Greenway access established on Brenham Lane in 2010, enhancing bicycle and pedestrian facilities in the Brighton on Matthews neighborhood is a priority. Installing Neighborhood Signed Routes along the three roads serving the neighborhood will improve safety and access to the greenway.

Creekside Drive—Neighborhood Signed Route

An extensive Neighborhood Signed Route network is planned for the Windrow subdivision. With development of the previously planned Silver Oaks area likely at some point in the future, extending the Neighborhood Signed Route along Creekside Drive to the dead end would ensure bicycle and pedestrian connection into the future neighborhood.

Greylock Ridge Road and Rockwell View Road—Neighborhood Signed Routes
With Four Mile Creek Greenway entrances on Greylock Ridge Road and Rockwell View Road, ensuring safe access in the Greylock neighborhood is a priority. Installing Neighborhood Signed Routes on these two roads achieves this objective.

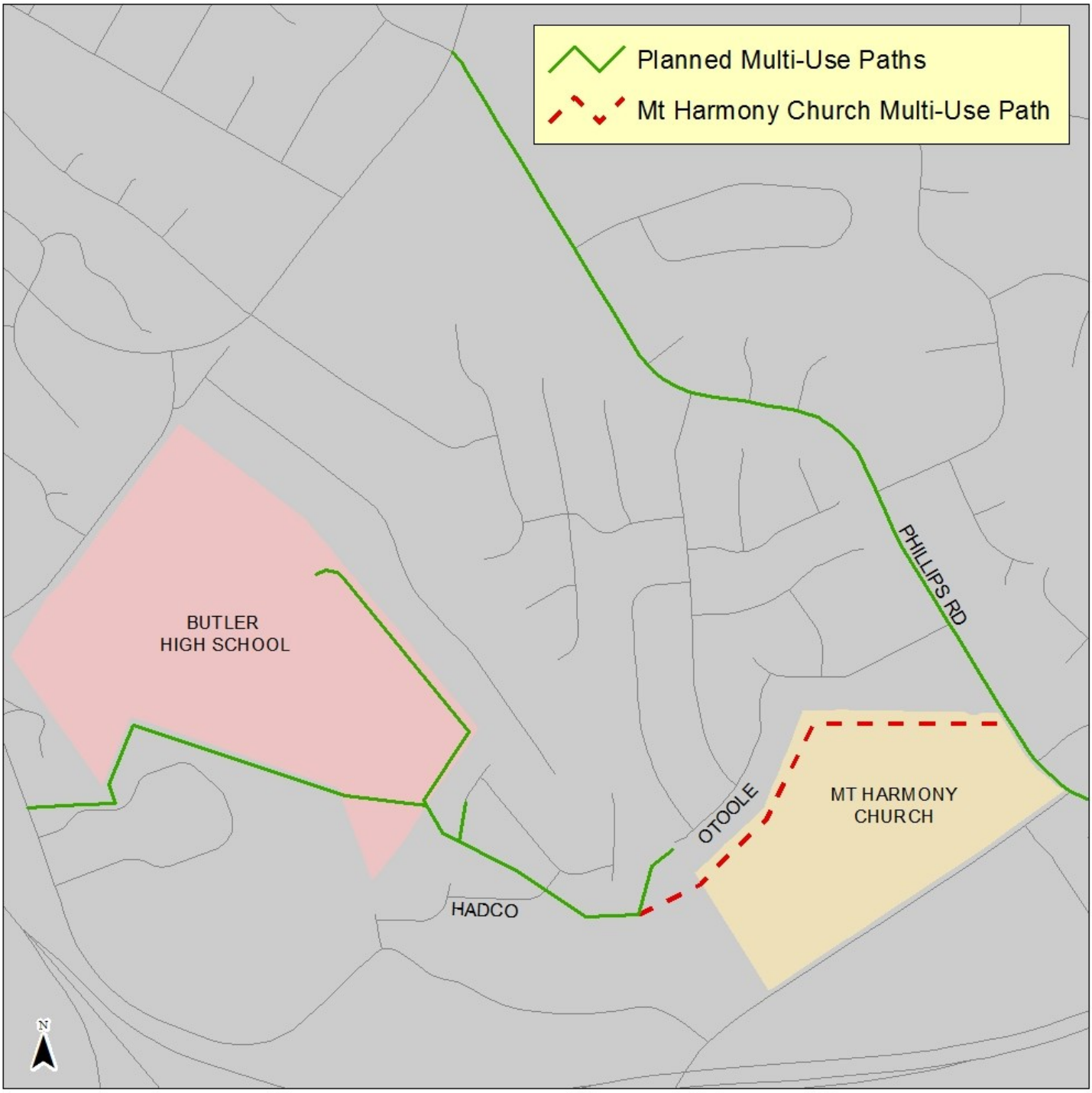
Greylock Ridge Road Extension—Multi-Use Path

The initial 200 feet of Greylock Ridge Road Extension off of East John Street have been planned to include a Multi-Use Path on the east side of the road per the approved zoning application for Wingate Commons. The Multi-Use Path should be extended along the entire length of Greylock Ridge Road Extension, into the Entertainment District. This would provide a high-volume connector into a major destination as well as connecting to the Crestdale Heritage Trail.

Mangionne Drive, Somersby Lane, and Stanhope Lane—Neighborhood Signed Routes
Placing Neighborhood Signed Routes on Somersby Lane, Stanhope Lane, and Mangionne Drive will provide bicycle facilities to many more residents in the Somersby and Mallory Manor neighborhoods.

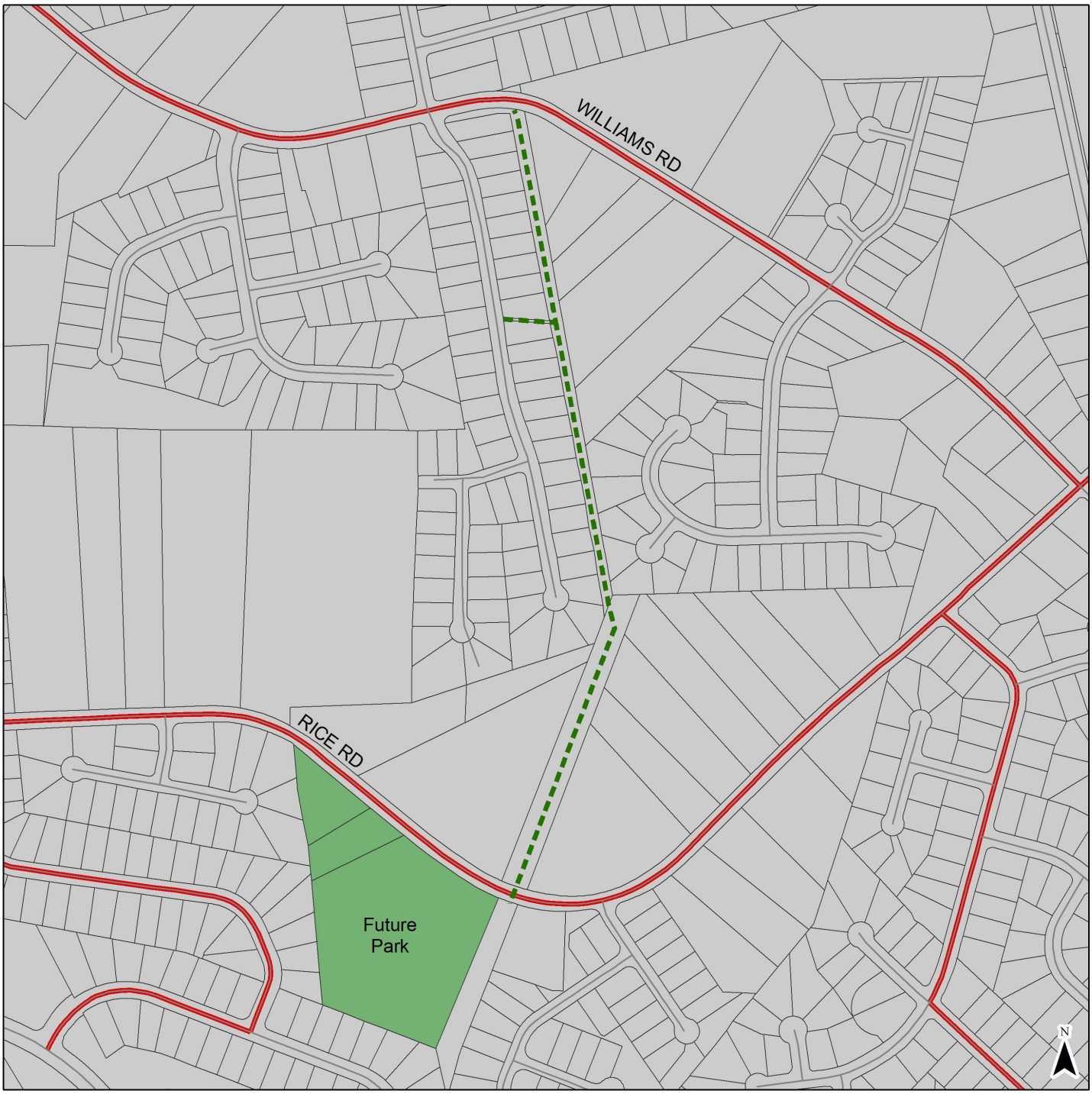
Mt. Harmony Church Connector—Multi-Use Path

Nearly a mile of Multi-Use Paths are planned to link Moore Road at Royal Park, Butler High School, and the Alexander Ridge Neighborhood. Additionally, a Multi-Use Path is planned along Phillips Road. Currently, there is no pedestrian connection planned between the two, nor sidewalks on the ground along O'Toole Drive. An opportunity exists to utilize the substantial open space on Mt. Harmony Church property to connect these two Multi-Use Path systems, greatly improving the connectedness of the network.



Rice Road / Williams Road Connector—Multi-Use Path

Utilizing the Duke Power transmission line corridor between Rice Road and Williams Road (similar to the planned multi-use path in the Brightmoor neighborhood) will provide safe access to the future town park on Rice Road for the Williams Crossing neighborhood, as well as other neighborhoods off of Williams Road. This path would occupy one parcel owned by Duke and another owned by the Williams Crossing homeowners association.

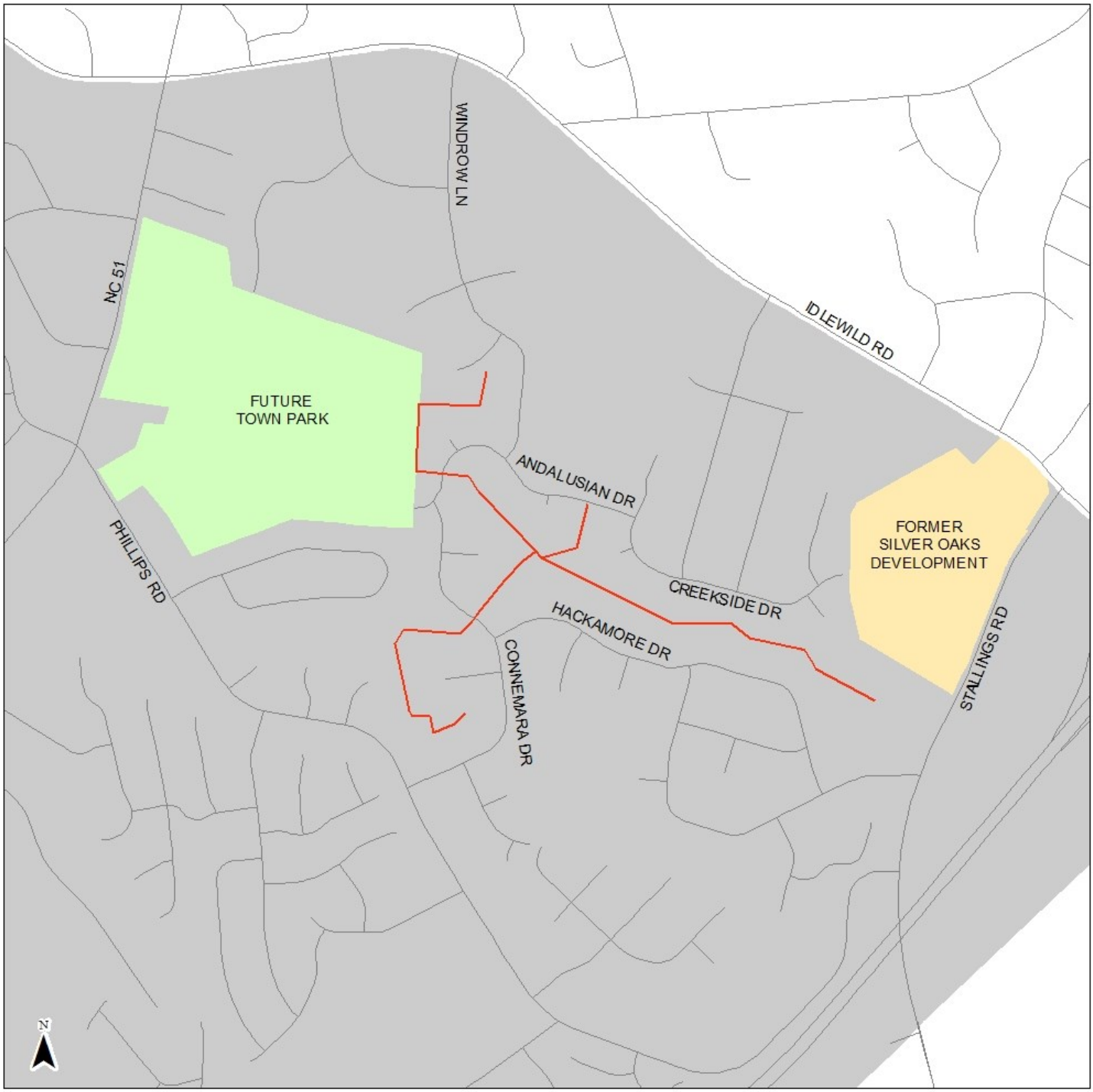


Thornblade Ridge Drive—Neighborhood Signed Route

The Thornblade neighborhood has the start of a Neighborhood Signed Route network but the back section of the neighborhood is not served. By extending the Neighborhood Signed Route on Thornblade Ridge Drive to Patten Hill Drive, the percentage of neighborhood residents served by this facility is greatly increased.

Windrow Connector—Multi-Use Path

The Windrow neighborhood was developed long before sidewalks were required in subdivisions and, as a result, the neighborhood has no pedestrian facilities. The neighborhood is unique in that it does have a rough trail system, originally designed to accommodate horse riding. Horse keeping has now become rare in the subdivision, leading the trail system to be largely unused. Using this corridor to build a Multi-Use Path would provide for a connection to the future town park located off of NC51 and Phillips Road, as well as creating the only pedestrian facility for a neighborhood of more than 350 residences. Extending it a quarter-mile along a stream corridor between Creekside Drive and Hackamore Drive will allow for a future connection near the former Silver Oaks development, a large area of undeveloped land.



Crestdale Heritage Trail—Multi-Use Path, Sidewalk, and/or Dirtway

The Crestdale Heritage Trail has been proposed as a network of pedestrian facilities within and through the Crestdale neighborhood to provide convenient and safe access for both residents of Crestdale and visitors and participants from the Regional Sportsplex, Novant Hospital, and Downtown Matthews. The proposed system will utilize existing sidewalks where they are in place, and make connections via multi-use paths to the greatest extent possible. These connections may initially be improved as dirtways - pathways using a natural or gravel surface sufficiently wide for comfortable walking. The Town received Community Development Block Grant (CDBG) funding in 2014 to acquire parcels or easements to make these connections, but does not currently have funding for improving the missing segments.

Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
1	Alexander Street	N'hood Signed Route	Road
2	Alexander Ridge Connector	Multi-Use Path	Off-Road
3	Alexander Ridge Drive	N'hood Signed Route	Road
4	Andalusian Drive	N'hood Signed Route	Road
5	Annecy Drive	N'hood Signed Route	Road
6	Ashley Creek Drive	N'hood Signed Route	Road
7	Ballards Pond Lane	N'hood Signed Route	Road
8	Barington Place	N'hood Signed Route	Road
9	Barington Place / Four Mile Creek Connect.	Multi-Use Path	Off-Road
10	Bathgate Lane	N'hood Signed Route	Road
11	Benton Woods Drive	N'hood Signed Route	Road
12	Biltmore Forest Drive	N'hood Signed Route	Road
13	Brenham Lane	N'hood Signed Route	Road
14	Brightmoor Drive	N'hood Signed Route	Road
15	Brightmoor / Pleasant Plains Road Connector	Multi-Use Path	Off-Road
16	Bubbling Well Road	N'hood Signed Route	Road
17	Butler High School Connector	Multi-Use Path	Off-Road
18	Campus Ridge Road	Multi-Use Path	Road
19	Carolina Thread Trail East Connector	Multi-Use Path	Off-Road
20	Carolina Thread Trail West Connector	Multi-Use Path	Off-Road
21	Candlelight Woods Drive	N'hood Signed Route	Road
22	Charing Cross Drive	N'hood Signed Route	Road
23	Chesney Glen Drive	N'hood Signed Route	Road
24	Chesswood Lane	N'hood Signed Route	Road
25	Christ Covenant / S. Ames Street Connector	Multi-Use Path	Off-Road
26	Cithara Drive	N'hood Signed Route	Road
27	Clearbrook Road	N'hood Signed Route	Road
28	Cloudburst Drive	N'hood Signed Route	Road

Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
29	Coach Ridge Trail	N'hood Signed Route	Road
30	Cochrane Woods Lane	N'hood Signed Route	Road
31	Connemarra Drive	N'hood Signed Route	Road
32	Country Place Drive	N'hood Signed Route	Road
33	Creekside Drive	N'hood Signed Route	Road
34	Crescent Knoll Drive	N'hood Signed Route	Road
35	Crestdale Road	N'hood Signed Route	Road
36	Crestdale Middle School Connector	Multi-Use Path	Off-Road
37	Cross Point Road	N'hood Signed Route	Road
38	Danny Court	N'hood Signed Route	Road
39	Deer Creek Drive	N'hood Signed Route	Road
40	Dion Drive	N'hood Signed Route	Road
41	Downtown Matthews Connector	Multi-Use Path	Off-Road
42	Duke Power Right-of-Way	Multi-Use Path	Off-Road
43	East Charles Street	N'hood Signed Route	Road
44	East John Street	Multi-Use Path	Road
45	Elizabeth Lane	N'hood Signed Route	Road
46	Elizabeth Lane Elementary School Connector	Multi-Use Path	Off-Road
47	English Knoll Drive	N'hood Signed Route	Road
48	Fair Forest Drive	N'hood Signed Route	Road
49	Fair Forest / Siskey YMCA Connector	Multi-Use Path	Off-Road
50	Fairfax Woods Drive	N'hood Signed Route	Road
51	Firewood Drive	N'hood Signed Route	Road
52	Forest Ridge / Northeast Parkway Connector	Multi-Use Path	Off-Road
53	Forest Wood Drive	N'hood Signed Route	Road
54	Four Mile Creek Greenway	Greenway	Off-Road
55	Four Mile Creek Greenway / Greylock Ext.	Greenway	Off-Road
56	Fraserburgh Drive	N'hood Signed Route	Road

Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
29	Coach Ridge Trail	N'hood Signed Route	Road
30	Cochrane Woods Lane	N'hood Signed Route	Road
31	Connemarra Drive	N'hood Signed Route	Road
32	Country Place Drive	N'hood Signed Route	Road
33	Creekside Drive	N'hood Signed Route	Road
34	Crescent Knoll Drive	N'hood Signed Route	Road
35	Crestdale Road	N'hood Signed Route	Road
36	Crestdale Middle School Connector	Multi-Use Path	Off-Road
37	Cross Point Road	N'hood Signed Route	Road
38	Danny Court	N'hood Signed Route	Road
39	Deer Creek Drive	N'hood Signed Route	Road
40	Dion Drive	N'hood Signed Route	Road
41	Downtown Matthews Connector	Multi-Use Path	Off-Road
42	Duke Power Right-of-Way	Multi-Use Path	Off-Road
43	East Charles Street	N'hood Signed Route	Road
44	East John Street	Multi-Use Path	Road
45	Elizabeth Lane	N'hood Signed Route	Road
46	Elizabeth Lane Elementary School Connector	Multi-Use Path	Off-Road
47	English Knoll Drive	N'hood Signed Route	Road
48	Fair Forest Drive	N'hood Signed Route	Road
49	Fair Forest / Siskey YMCA Connector	Multi-Use Path	Off-Road
50	Fairfax Woods Drive	N'hood Signed Route	Road
51	Firewood Drive	N'hood Signed Route	Road
52	Forest Ridge / Northeast Parkway Connector	Multi-Use Path	Off-Road
53	Forest Wood Drive	N'hood Signed Route	Road
54	Four Mile Creek Greenway	Greenway	Off-Road
55	Four Mile Creek Greenway / Greylock Ext.	Greenway	Off-Road
56	Fraserburgh Drive	N'hood Signed Route	Road

Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
57	Fullwood Lane / South Freemont Connector	Multi-Use Path	Off-Road
58	Gladewater Drive	N'hood Signed Route	Road
59	Grayfox Lane	N'hood Signed Route	Road
60	Greylock Ridge Road	N'hood Signed Route	Road
61	Greylock Ridge Road Extension	Multi-Use Path	Road
62	Habersham / Irvins Creek Connector	Multi-Use Path	Off-Road
63	Hackamore Drive	N'hood Signed Route	Road
64	Hadco Lane	N'hood Signed Route	Road
65	Hallmark Drive	N'hood Signed Route	Road
66	Hargett Road	N'hood Signed Route	Road
67	Heathershire Lane	N'hood Signed Route	Road
68	Hickory Lake Lane	N'hood Signed Route	Road
69	Hinson Drive	N'hood Signed Route	Road
70	Holly Ridge Drive	N'hood Signed Route	Road
71	Honey Creek Lane	N'hood Signed Route	Road
72	Hounds Run Drive	N'hood Signed Route	Road
73	Idlewild Road	Multi-Use Path	Road
74	Independence Commerce Drive	N'hood Signed Route	Road
75	Independence Pointe Parkway	Bike Lanes	Road
76	Independence Pointe Parkway	Multi-Use Path	Road
77	Irvins Creek Greenway	Greenway	Off-Road
78	Ivey Wood Lane	N'hood Signed Route	Road
79	Ivy Bluff Way	N'hood Signed Route	Road
80	Jeffers Drive	N'hood Signed Route	Road
81	Jefferson Street	N'hood Signed Route	Road
82	Kale Wood Drive	N'hood Signed Route	Road
83	Kilkenney Hill Road	N'hood Signed Route	Road
84	Kintyre Court	N'hood Signed Route	Road

Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
85	Lakeview Circle	N'hood Signed Route	Road
86	Lakeview Circle / Irvins Creek Connector	Multi-Use Path	Off-Road
87	Laurel Fork Drive	N'hood Signed Route	Road
88	Light Brigade Drive	N'hood Signed Route	Road
89	Lightwood Drive	N'hood Signed Route	Road
90	Linville Drive	N'hood Signed Route	Road
91	Main Street	N'hood Signed Route	Road
92	Mangionne Drive	N'hood Signed Route	Road
93	Margaret Wallace Road	Bike Lanes	Road
94	Marglyn Drive	N'hood Signed Route	Road
95	Marque Place	N'hood Signed Route	Road
96	Matthews Estates Road	N'hood Signed Route	Road
97	Matthews-Mint Hill Road	Multi-Use Path	Road
98	Matthews-Mint Hill Road Connector	Multi-Use Path	Off-Road
99	Matthews Plantation Drive	N'hood Signed Route	Road
100	Matthews Township Parkway	Multi-Use Path	Road
101	McDowell Street	N'hood Signed Route	Road
102	McKee Road	Bike Lanes	Road
103	McKee Road Extension	Multi-Use Path	Road
104	Monroe Road	Bike Lanes	Road
105	Moonstone Drive	N'hood Signed Route	Road
106	Moore Road	N'hood Signed Route	Road
107	Mt. Harmony Church Road	Bike Lanes	Road
108	Mt. Harmony Church / Union Co. Connector	Multi-Use Path	Off-Road
109	Mullis Lane	N'hood Signed Route	Road
110	Neill Ridge Road	N'hood Signed Route	Road
111	North Trade Street	Bike Lanes	Road
112	Northeast Parkway	Multi-Use Path	Road

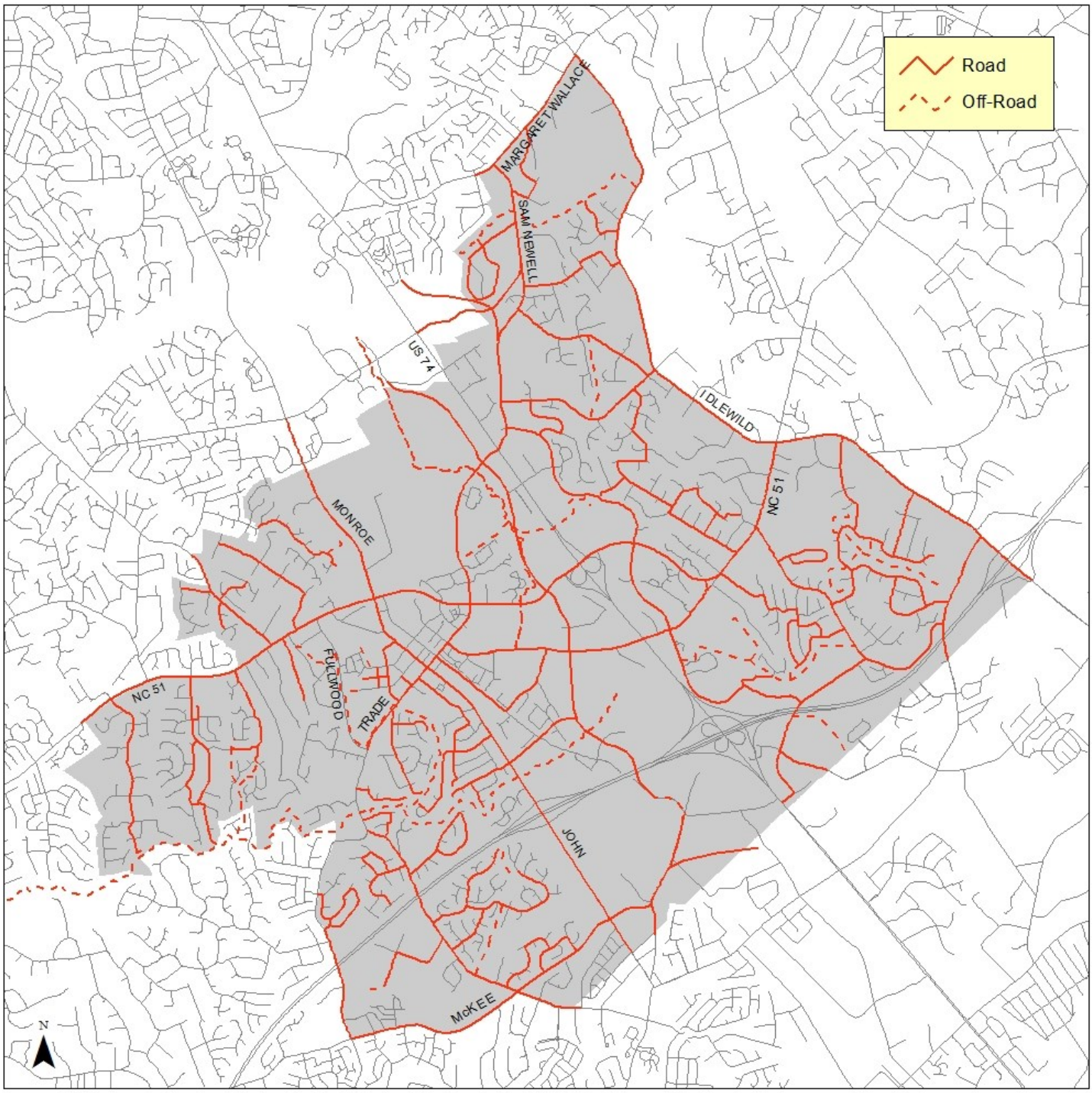
Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
113	Northeast Parkway Extension	Multi-Use Path	Road
114	O'Malley Drive	N'hood Signed Route	Road
115	Otoole Drive	N'hood Signed Route	Road
116	Oxborough Drive	N'hood Signed Route	Road
117	Phillips Road	Multi-Use Path	Road
118	Phillips Woods Lane	N'hood Signed Route	Road
119	Pineville-Matthews Road	Bike Lanes	Road
120	Pineville-Matthews Road	Wide Outside Lane	Road
121	Pleasant Plains Road	Multi-Use Path	Road
122	Plentywood Drive	N'hood Signed Route	Road
123	Point Drive	N'hood Signed Route	Road
124	Port Patrick Lane	N'hood Signed Route	Road
125	Port Royal Drive	N'hood Signed Route	Road
126	Reid Harkey Road	N'hood Signed Route	Road
127	Reverdy Lane	N'hood Signed Route	Road
128	Rice Road	Bike Lanes	Road
129	Rice Road / Williams Road Connector	Multi-Use Path	Off-Road
130	Rockwell View Road	N'hood Signed Route	Road
131	Royal Park Connector	Multi-Use Path	Off-Road
132	Sadie Drive	N'hood Signed Route	Road
133	Sam Newell Road	Multi-Use Path	Road
134	Sardis Forest / Monroe Road Connector	Multi-Use Path	Off-Road
135	Sardis Forest / Warner Park Connector	Multi-Use Path	Off-Road
136	Sardis Plantation / Four Mile Creek Connect.	Multi-Use Path	Off-Road
137	Sardis Plantation Open Space Connector	Multi-Use Path	Off-Road
138	Sardis Road	Wide Outside Lane	Road
139	Sardis Road N. Ext. / Sam Newell Connector	Multi-Use Path	Road
140	Sardis Mill Drive	N'hood Signed Route	Road

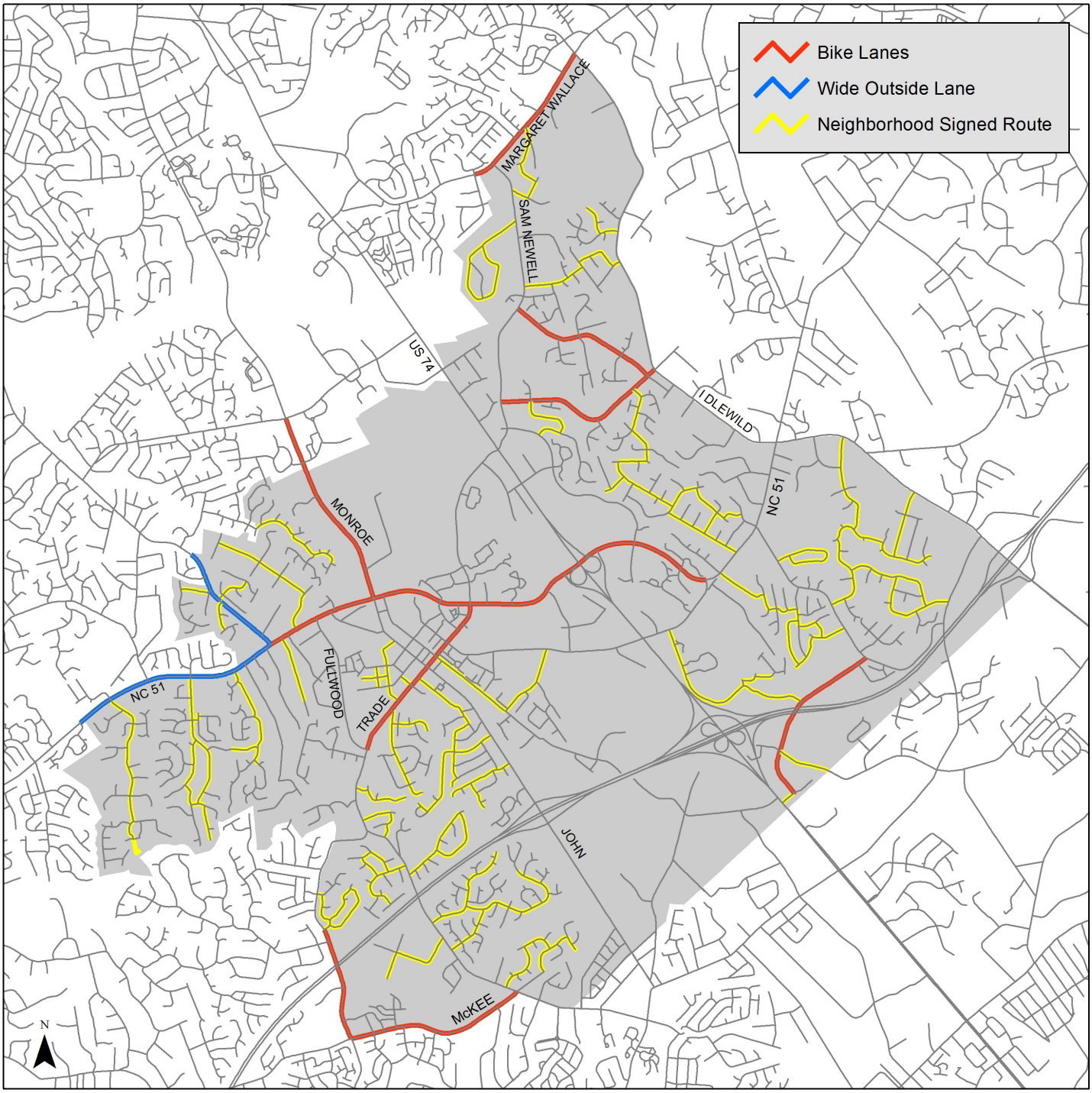
Final Inventory: Bicycle Facilities

	Facility Name	Facility Type	Corridor
141	Silver Oaks / Creekside Connector	Multi-Use Path	Off-Road
142	Somersby Lane	N'hood Signed Route	Road
143	Springwater Drive	N'hood Signed Route	Road
144	Stallings Road	Multi-Use Path	Road
145	Stanhope Lane	N'hood Signed Route	Road
146	Stevens Mill Road	N'hood Signed Route	Road
147	Stratfordshire Drive	N'hood Signed Route	Road
148	Strathaven Drive	N'hood Signed Route	Road
149	Straussburg Woods Lane	N'hood Signed Route	Road
150	Swaim Drive	N'hood Signed Route	Road
151	Tanfield Drive	N'hood Signed Route	Road
152	Thornblade Ridge Drive	N'hood Signed Route	Road
153	Village at Plantation Estates / Eden Hall	Multi-Use Path	Off-Road
154	Vinecrest Drive	N'hood Signed Route	Road
155	Weddington Road	Bike Lanes	Road
156	West John Street	Multi-Use Path	Road
157	Williams Road	Bike Lanes	Road
158	Willow Brook Drive	N'hood Signed Route	Road
159	Winding Trail	N'hood Signed Route	Road
160	Windrow Connector	Multi-Use Path	Off-Road
161	Windrow Lane	N'hood Signed Route	Road
162	Winter Wood Drive	N'hood Signed Route	Road
163	Winterbrooke Drive	N'hood Signed Route	Road
164	Woodbend Drive	N'hood Signed Route	Road
165	Woody Creek Road	N'hood Signed Route	Road

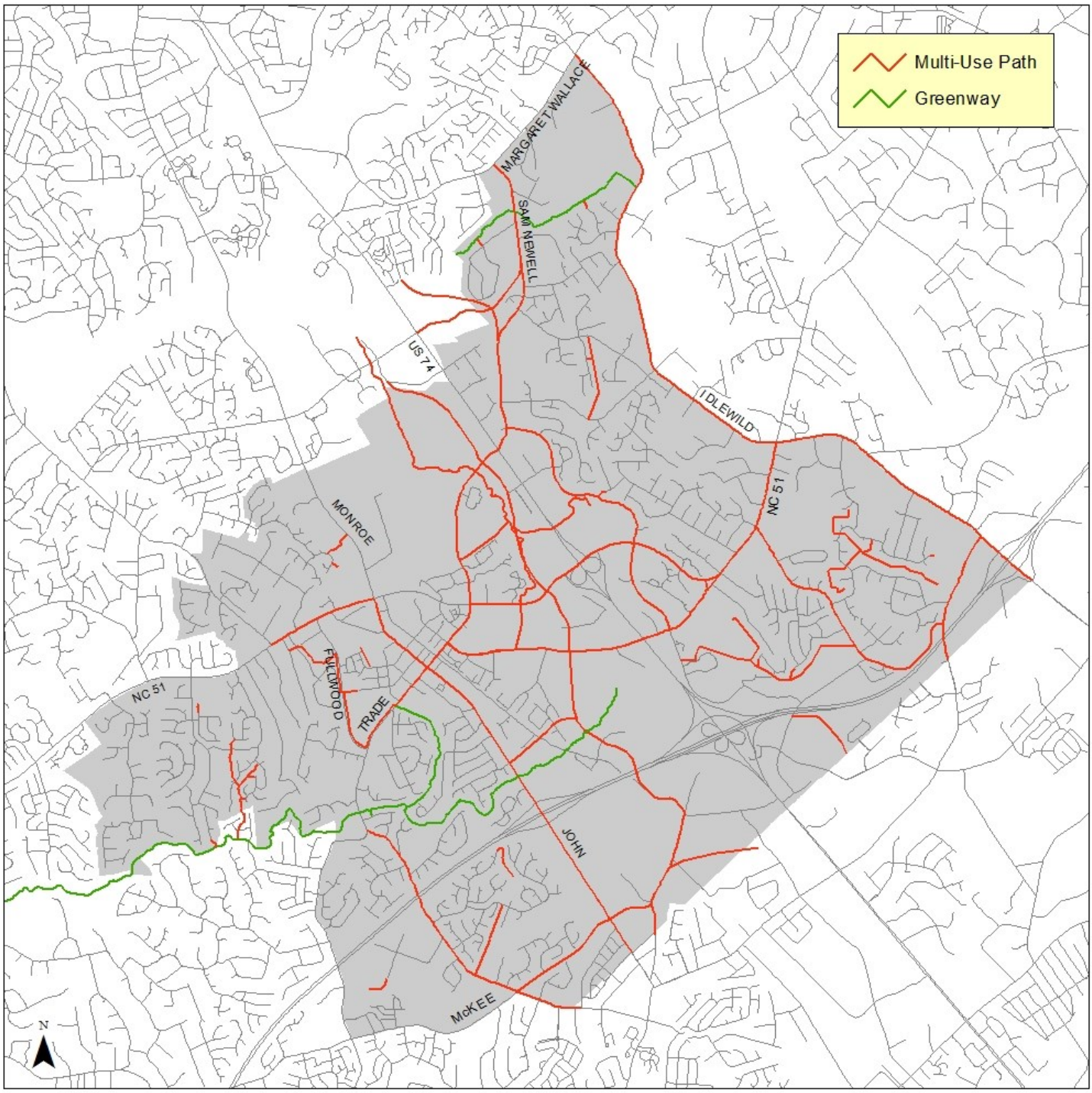
Map Depicting All 165 Planned Bicycle Facilities in the Final Inventory



Map Depicting All In-Road Facilities in the Final Inventory



Map Depicting Multi-Use Paths and Greenways in the Final Inventory



Final Inventory: Pedestrian Facilities

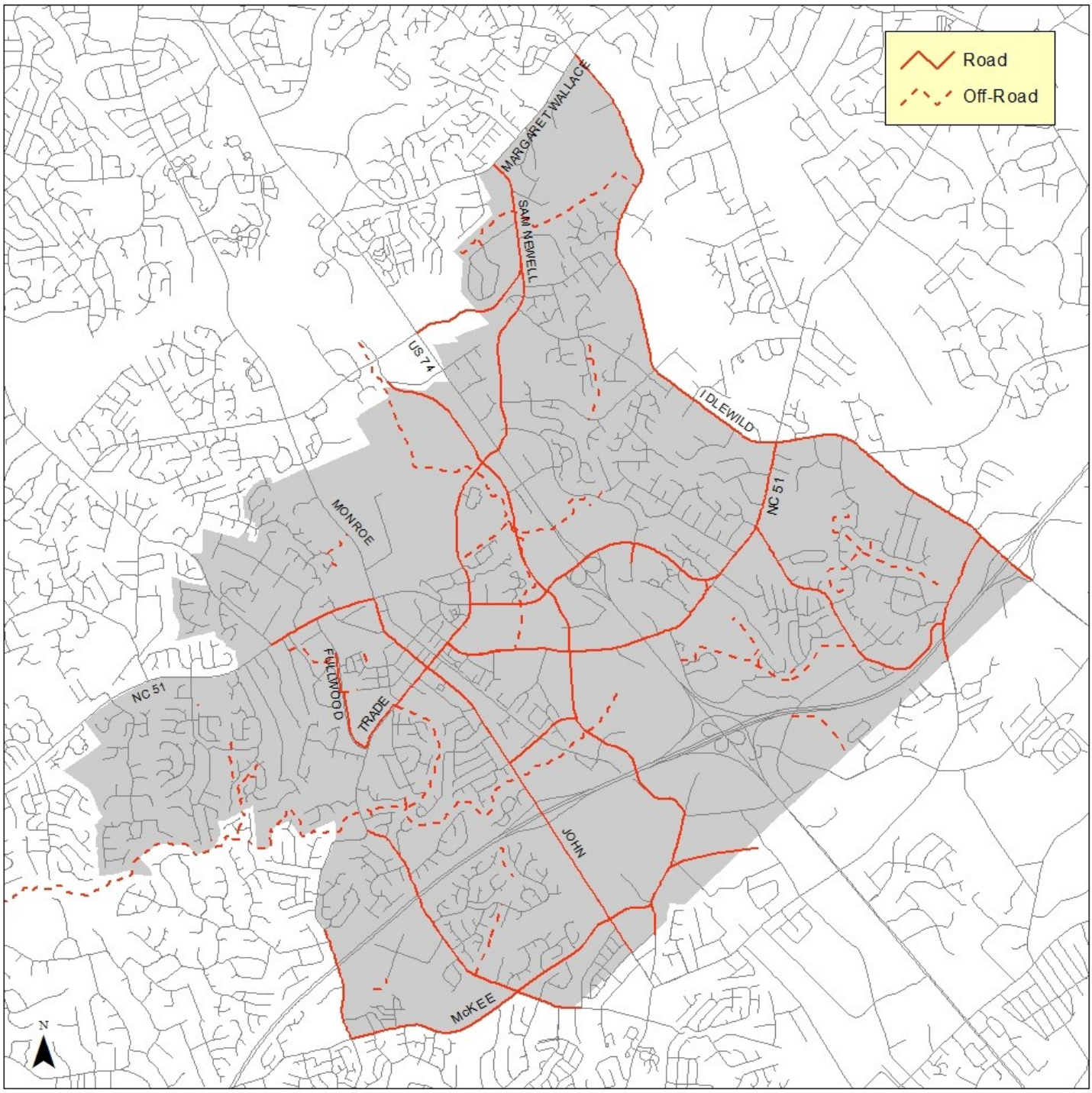
	Facility Name	Facility Type	Corridor
1	Alexander Ridge Connector	Multi-Use Path	Off-Road
2	Barington Place / Four Mile Creek Connect.	Multi-Use Path	Off-Road
3	Brightmoor / Pleasant Plains Road Connector	Multi-Use Path	Off-Road
4	Bubbling Well / Fullwood Lane Connector	Multi-Use Path	Off-Road
5	Butler High School Connector	Multi-Use Path	Off-Road
6	Campus Ridge Road	Multi-Use Path	Road
7	Carolina Thread Trail East Connector	Multi-Use Path	Off-Road
8	Carolina Thread Trail West Connector	Multi-Use Path	Off-Road
9	Chesney Glen / Four Mile Creek Connector	Multi-Use Path	Off-Road
10	Christ Covenant / S. Ames Street Connector	Multi-Use Path	Off-Road
11	Country Place / Matthews Elem. Connector	Multi-Use Path	Off-Road
12	Crestdale Heritage Trail	Multi-Use Path, Side-walk, &/or dirtway	Road and Off-Road
13	Crestdale Middle School Connector	Multi-Use Path	Off-Road
14	Downtown Matthews Connector	Multi-Use Path	Off-Road
15	Duke Power Right-of-Way	Multi-Use Path	Off-Road
16	East John Street	Multi-Use Path (**)	Road
17	Elizabeth Lane Elementary School Connector	Multi-Use Path	Off-Road
18	Fair Forest / Siskey YMCA Connector	Multi-Use Path	Off-Road
19	Forest Ridge / Northeast Parkway Connector	Multi-Use Path	Off-Road
20	Four Mile Creek Greenway	Greenway	Off-Road
21	Four Mile Creek Greenway / Greylock Ext.	Greenway	Off-Road
22	Fullwood Lane / S. Freemont Connector	Multi-Use Path	Off-Road
23	Greylock Ridge Road Extension	Multi-Use Path	Road
24	Greylock Ridge Road Extension	Sidewalk	Road
25	Habersham / Irvins Creek Connector	Multi-Use Path	Off-Road
26	Idlewild Road	Multi-Use Path	Road

Final Inventory: Pedestrian Facilities

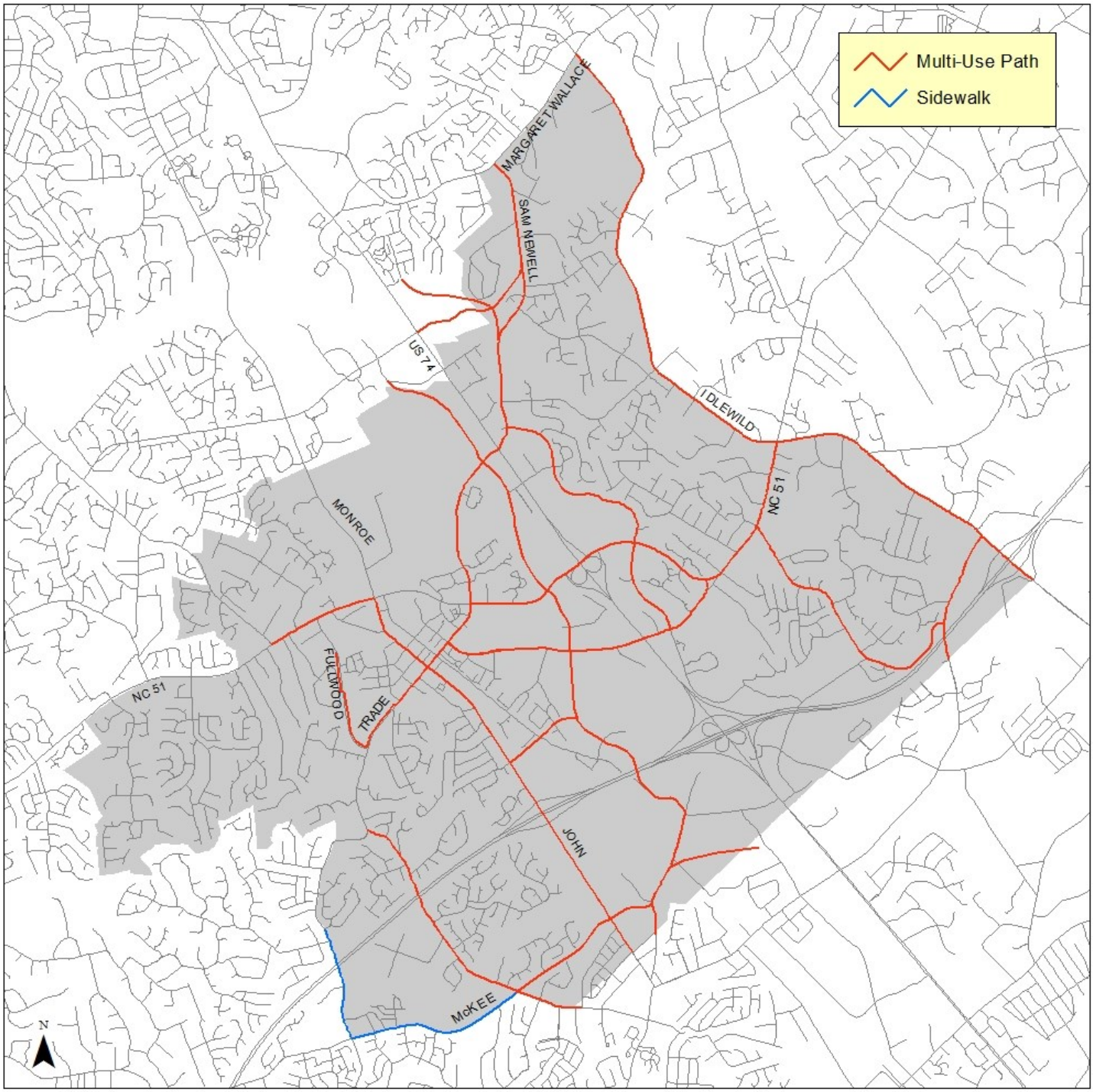
	Facility Name	Facility Type	Corridor
27	Independence Pointe Parkway	Multi-Use Path	Road
28	Irvins Creek Greenway	Greenway	Off-Road
29	Lakeview Circle / Irvins Creek Connector	Multi-Use Path	Off-Road
30	Matthews-Mint Hill Road	Multi-Use Path (**)	Road
31	Matthews-Mint Hill Road Connector	Multi-Use Path	Off-Road
32	Matthews Township Parkway	Multi-Use Path	Road
33	Matthews Township Parkway	Sidewalk	Road
34	McKee Road	Sidewalk	Road
35	McKee Road Extension	Multi-Use Path	Road
36	Mt. Harmony Church / Union Co. Connector	Multi-Use Path	Off-Road
37	Northeast Parkway	Multi-Use Path	Road
38	Phillips Road	Multi-Use Path	Road
39	Pleasant Plains Road	Multi-Use Path	Road
40	Rice Road / Williams Road Connector	Multi-Use Path	Off-Road
41	Royal Park Connector	Multi-Use Path	Off-Road
42	Sam Newell Road	Multi-Use Path (**)	Road
43	Sardis Forest / Monroe Road Connector	Multi-Use Path	Off-Road
44	Sardis Forest / Warner Park Connector	Multi-Use Path	Off-Road
45	Sardis Plantation / Four Mile Creek Connect.	Multi-Use Path	Off-Road
46	Sardis Plantation Open Space Connector	Multi-Use Path	Off-Road
47	Sardis Road N. / Sam Newell Connector	Multi-Use Path	Off-Road
48	Stallings Road	Multi-Use Path	Road
49	Village at Plantation Estates / Eden Hall	Multi-Use Path	Off-Road
50	Weddington Road	Sidewalk	Road
51	West John Street	Multi-Use Path	Road
52	Windrow Connector	Multi-Use Path	Off-Road

(**) Either Multi-Use Path on both sides or 1 side with Multi-Use Path and 1 side with sidewalk

Map Depicting All 52 Planned Pedestrian Facilities in the Final Inventory (Not Including Crestdale Heritage Trail, Not Yet Fully Defined)



Map Depicting Road Corridor Facilities in the Final Inventory



Final Inventory: Pedestrian Facilities

Road Corridor Facilities in the Final Inventory:

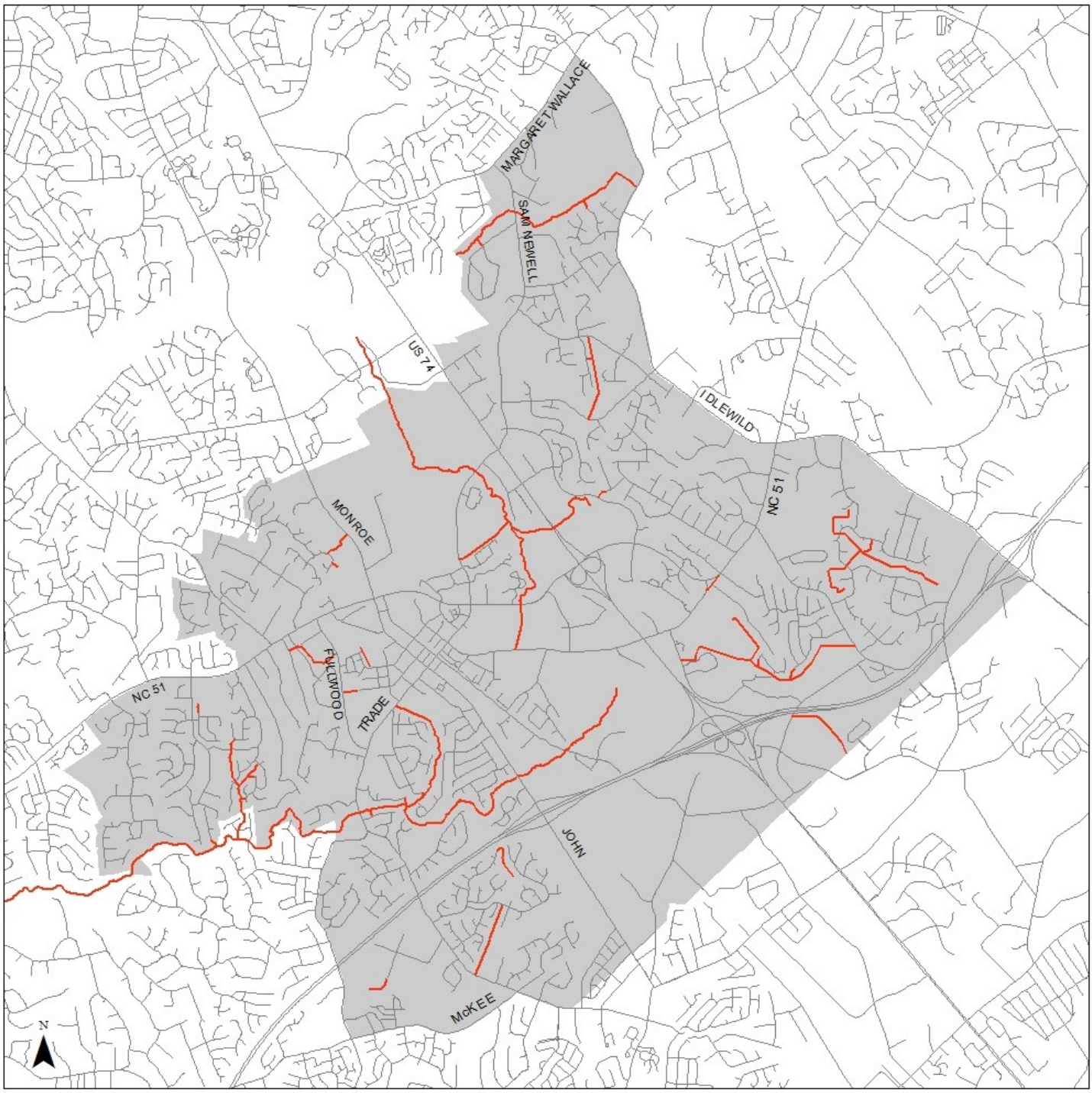
Multi-Use Paths

1. Campus Ridge Road
2. East John Street
3. Fullwood Lane
4. Greylock Ridge Road Extension
5. Idlewild Road
6. Independence Pointe Parkway
7. Matthews-Mint Hill Road
8. Matthews Township Parkway
9. McKee Road Extension
10. North Trade Street
11. Northeast Parkway
12. Phillips Road
13. Pleasant Plains Road
14. Sardis Road North
15. Sam Newell Road
16. South Trade Street
17. Stallings Road
18. West John Street

Sidewalks

1. McKee Road
2. Pleasant Plains Road

Map Depicting Off Road (Multi-Use Path) Facilities in the Final Inventory



Chapter 3: Evaluation & Recommendations

Evaluation: Measuring Effectiveness

In order to determine the overall effectiveness of the bicycle and pedestrian network, the Composite Bicycle and Pedestrian Plan proposes to employ three metrics. These metrics will help to guide the Town of Matthews in evaluating existing conditions and proposed improvements, as well as establishing objective, measurable goals. The Matthews Transportation Advisory Committee and Town staff will use GIS capabilities to assess the criteria as defined below and on the following pages.

Metric	Definition
Residences served by a network	Measures percentage of residential parcels that have direct access to bicycle and pedestrian facilities.
Commercial properties served by a network	Measures percentage of commercial properties that have direct access to bicycle and pedestrian facilities.
Destination Ratio of a network	Measures ratio of connections from each identified destination to every other destination.

The first two metrics simply measure access to a facility, but they do not consider the length or connectedness of that facility to the rest of the network. For example, if there is a sidewalk in front of a business, that business is deemed to have access to a pedestrian facility, even if its neighbors have no sidewalk. These metrics are useful in determining network gaps and identifying potential barriers. The figures are obtained through GIS using geoprocessing and proximity analysis.

The third metric addresses the notion of connectedness, the true measure of a network's effectiveness. Using GIS network analysis, each destination is reviewed on how many other destinations can be accessed through the network. The results of every destination are aggregated and the total number of connections made compared against the total number of connections possible represents the Destination Ratio. The list of destinations, originally developed in the Comprehensive Bicycle Plan, has been greatly expanded and is discussed on the next page.

On the following pages, these metrics are expanded to show how they apply to each modal network (bicycle and pedestrian) for each of the three inventories addressed in this plan:

1. Existing facilities
2. Composite inventory of proposed facilities
3. Final inventory after the six modification procedures discussed in the previous chapter were applied.

Current Destinations

A fundamental measure of the effectiveness of any proposed bicycle and pedestrian network is the objective answer to the question: are the places people want to go to and from easily accessed? The first step in answering that question is to identify a comprehensive list of destinations, which include both starting and ending points since most trips are round trips. Therefore, this updated destinations list expands the original Comprehensive Bicycle Plan list by including residential clusters, loosely defined as cohesive neighborhoods and subdivisions:

1. Alexander Ridge
2. Annecy
3. Annecy II
4. Archstone
5. Arthur Goodman Park
6. Ashley Creek
7. Avington
8. Baucom Park
9. Bellasera Villas
10. Benton Woods
11. Brandywine
12. Brightmoor
13. Brighton on Matthews
14. Bubbling Well Road
15. Butler High School
16. Candalon
17. Carmel Christian School
18. Castle Cliff
19. CATS Park and Ride
20. Chesney Glen
21. Christ Covenant Day School
22. Cinemark (movie theater)
23. Coachman's Ridge
24. Colonial Grand at Matthews
25. Country Place
26. Courtney II
27. Courtney Lane
28. CPCC Levine Campus
29. Crestdale Neighborhood
30. Crestdale Middle School
31. Crews Road Rec. Center
32. Crown Point Elementary School
33. Downtown Retail
34. Eastwood Forest
35. Elizabeth Lane Elem. School
36. Elizabeth Place
37. Entertainment District
38. Fair Forest
39. Fairfax Woods
40. Farmers Market
41. Forest Brook Estates
42. Forest Ridge / Woodhollow
43. Fountains at Matthews
44. Four Mile Creek Greenway
45. Greygate
46. Greylock
47. Habersham
48. Hampton Green
49. Idlewild Road Park
50. Irvins Creek Greenway
51. Jessica Park
52. Julian Meadows
53. Kimbrell Acres
54. Lakeview Circle
55. Levine Senior Center
56. Mallory Manor
57. Matthews Commons
58. Matthews Community Center
59. Matthews Elem. School
60. Matthews Estates
61. Matthews Gateway
62. Matthews Library / Town Hall
63. Matthews Plantation
64. Matthews Township Festival
65. Matthews Village
66. McKee Farms
67. Mecklenburg Co. Sportsplex
68. Millstone Ridge
69. NC 51 Park (future)
70. Novant Health Center
71. Oakcroft
72. Oakhaven
73. Paces Commons
74. Parkview at Matthews
75. Plantation Estates
76. Pleasant Ridge
77. Polo Club
78. Poplar Forest
79. Post Office
80. Providence Manor
81. Reid Hall
82. Reverdy Woods
83. Royal Park
84. Saddlebrook
85. Sardis Forst
86. Sardis Mill
87. Sardis Plantation
88. Sardis Road Park
89. Siskey YMCA
90. Somersby
91. South Windsor
92. Southwoods
93. Springwater
94. Squirrel Lake Park
95. Sterling Square
96. Stratfordshire
97. Streamside
98. Stumptown Park
99. Suburban Woods
100. Sycamore Commons
101. The Drake
102. The Heathers
103. Thornblade
104. Village at Plantation Estates
105. Village at St. Andrews
106. Vinings at Matthews
107. Warner Park
108. Williams Crossing
109. Williams Station
110. Windrow I
111. Windrow II
112. Windsor Chase
113. Windsor Park
114. Winterbrooke
115. Wynchase
116. Wyndmere
117. Yorktown

Evaluation: Bicycle Network

Bicycle Network

The existing bicycle network is scant, with the majority of facilities consisting of multi-use paths, namely, Four Mile Creek Greenway and its various connectors. While the greenway connectors serve numerous neighborhoods, the lack of bicycle facilities on these neighborhood streets severely limits the ability to form connections beyond the greenway and its immediate surroundings.

The network devised by the sum of all previous plans goes a long way to filling out bicycle facility access throughout the Town of Matthews. Chief among the contributors is the Neighborhood Signed Route facility which links neighborhoods to collector bicycle facilities much in the same way sidewalks do for pedestrians.

Number of Existing Facilities	5
Mileage of Existing Facilities	4
Number of Planned Facilities	165
Mileage of Planned Facilities	97
Residences Served by Existing Network	2.0%
Residences Served by Composite Network	39.6%
Residences Served by Final Network	42.0%
Commercial Properties Served by Existing Network	3.1%
Commercial Properties Served by Composite Network	73.7%
Commercial Properties Served by Final Network	73.7%
Destination Ratio of Existing Network	0.0060
Destination Ratio of Composite Network	0.9194
Destination Ratio of Final Network	0.9673

The final inventory refines the composite inventory by eliminating redundancies and adjusting a few facility types and alignments. The final inventory also expands network access slightly, adding a few projects that stretch further into neighborhoods.

Pedestrian Network

The presence of an extensive sidewalk system places the pedestrian network at a decent starting point in terms of overall access and connectivity. Multi-Use Paths, however, are few and, thus far, have been exclusively applied to off-road corridors. Four Mile Creek Greenway and its neighborhood connections form the vast majority of Multi-Use Paths on the ground today.

The composite network introduces the concept of Multi-Use Paths along road corridors. Many of these proposed facilities would replace existing sidewalks, thereby providing a superior facility but not significantly improving the overall access.

Similar to the bicycle inventory, the final inventory for pedestrian facilities refines the composite inventory by eliminating redundancies and adjusting a few facility types and alignments. The final inventory also expands network access, adding Multi-Use Paths in neighborhoods previously without pedestrian facilities.

Number of Existing Facilities	n/a
Mileage of Existing Facilities	104
Number of Planned Facilities	51
Mileage of Planned Facilities	53
Residences Served by Existing Network	43.6%
Residences Served by Composite Network	56.2%
Residences Served by Final Network	56.9%
Commercial Properties Served by Existing Network	77.3%
Commercial Properties Served by Composite Network	92.6%
Commercial Properties Served by Final Network	92.6%
Destination Ratio of Existing Network	0.6439
Destination Ratio of Composite Network	0.7975
Destination Ratio of Final Network	0.8573

Recommendations for Implementing the Plan

1

Establish Budget Process to Implement Composite Bicycle and Pedestrian Plan

Without annual designated funding, implementation of this Plan will occur slowly and sporadically, as was evident with the 2006 Comprehensive Bicycle Plan. While site-by-site improvements may take place as adjacent private development commences, it will take Town initiative to fill the gaps to complete useable sections of the overall network.

2

Install Neighborhood Signed Route Projects

Increased biking in residential areas can improve the health and socialization of children and should be encouraged. Neighborhood Signed Routes can be a strong advocate for this objective. They encourage bicyclists to use an existing infrastructure while at the same time communicating to drivers to be aware that bicycles are sharing the pavement. Implementing Neighborhood Signed Routes is a quick and inexpensive way to provide new facilities.

3

Establish Network Effectiveness Metric Benchmarks

To measure progress in implementing the Composite Bicycle and Pedestrian Plan, five and ten year Network Effectiveness Metric goals should be established for both transportation modes. The 2006 CBP called for creation of a separate Bicycle Advisory Committee to advocate for and oversee implementation. The concept of a citizen committee devoted to pushing for progress is good, and can be accomplished using the existing Transportation Advisory Committee.

4

Consider Dirtways as a First Stage Facility

Dirtways, or unpaved pathways, are an excellent first step toward providing a bicycle / pedestrian facility on a virtually non-existent budget. Temporarily opening up a planned corridor to bike or foot traffic over a natural or gravel surface helps to develop interest and demand for the facility, as well as show commitment to the goals of the bicycle and pedestrian network. Potential dirtway pilot projects are the Four Mile Creek Greenway section west of Trade Street, the Downtown Matthews Connector that parallels future Independence Pointe Parkway between Sam Newell Road and Matthews-Mint Hill Road, and the Crestdale Heritage Trail.

5

Consider Bike Sharing Stations

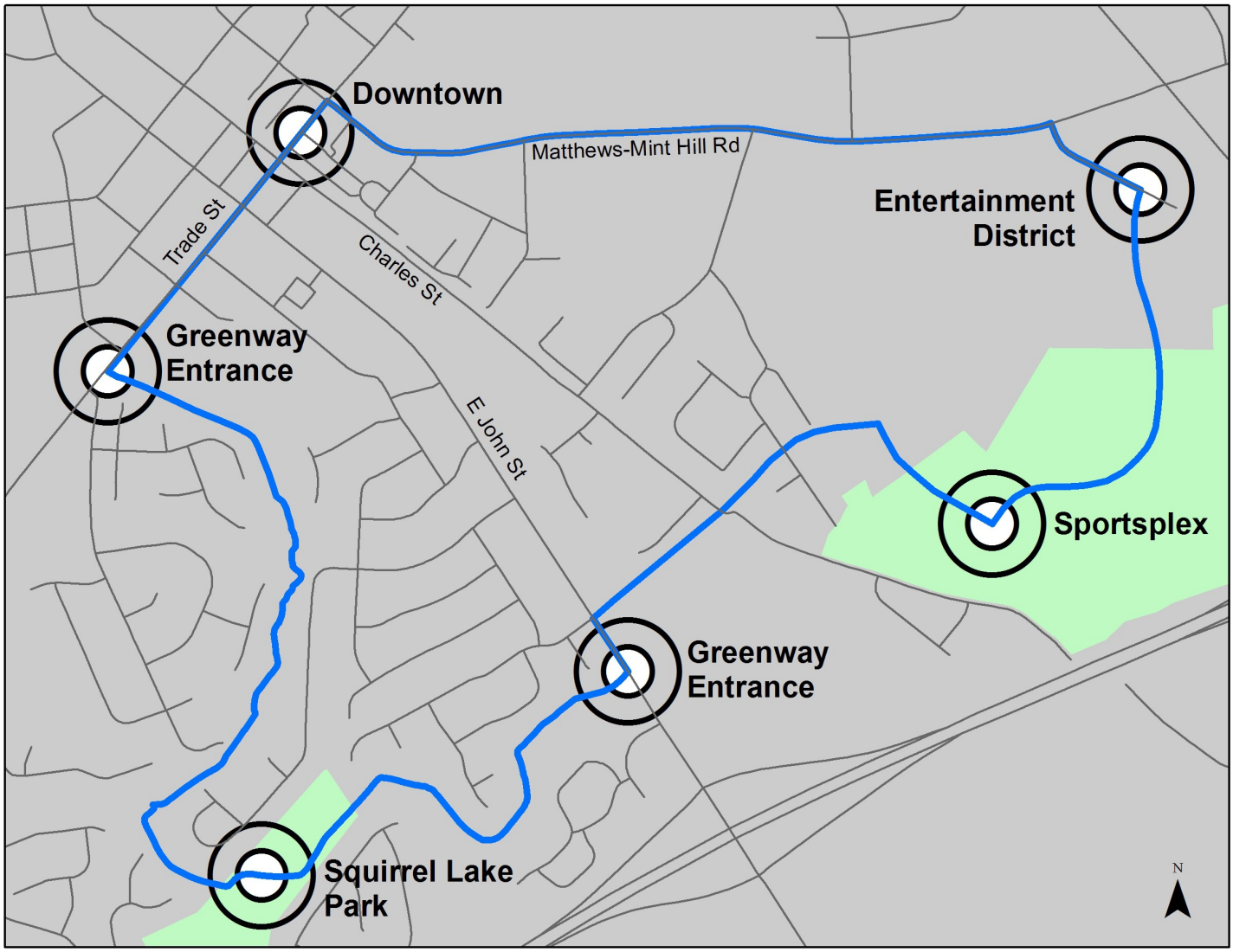
Identify appropriate locations for bike sharing stations, particularly in Downtown Matthews and the Entertainment District, and pursue the provision of these facilities. This can be accomplished by public, nonprofit, or for-profit organizations.

6

Regional Coordination

Ongoing coordination with local and regional agencies should be pursued to ensure connectivity with areas outside of Matthews. NCDOT has adopted a Complete Streets Policy which calls for providing bike and pedestrian facilities when working on road. Other agencies to keep in contact with include Mecklenburg County Park and Recreation, and Carolina Thread Trail.

A Concept for Bike Sharing Stations

As discussed earlier in this document, the popularity and availability of bicycle sharing systems have spread rapidly in recent years. Though relatively small when compared to other communities that have bicycle sharing stations, the Town of Matthews recognizes the importance of these facilities in implementing a complete bicycle network. The presence of these facilities will enable and encourage bicycling as an alternative mode of transportation.

Utilizing a few of the most popular destinations in town, the Town of Matthews could soon roll-out a small bicycle sharing system. Starting in downtown Matthews, heading south to Four Mile Creek Greenway and then following the greenway up to the Sportsplex and back to downtown would provide a nine mile loop that would link some of the most frequently visited destination in Matthews. Though portions of this loop could not be implemented today, simply linking the downtown with the greenway and / or the Sportsplex could be immediately popular.