

Natural Features

This section includes a discussion of the topography, hydrology, flood hazards, watersheds, wetlands, and soils that influence growth and development in the Study Area. The location of natural resources across the City help define where lands should be considered for protection, areas where impediments may exist for future development and areas that have few environmental related limitations to support development. This inventory of natural resources within the Study Area provides important information for property owners, developers and local officials to consider when making long range infrastructure and development plans. While this inventory identifies important natural features across the landscape of the City, it is intended to guide and inform decisions for the recommendations of this Plan. Specific development proposals for properties within the Study Area will continue to require more detailed evaluation to determine final development feasibility and need for environmental protection on a case by case basis.

Topography

The Study Area is characterized primarily by gently rolling hills oriented along a northwest to southeast axis; descending from a ridge along NC 62 / Fairfield Road that runs east-west in the northern part of the Study Area. A second major ridge runs generally north-south on the west side of the City, with the railroad, and then the southern portion of Archdale Road following the ridge line. The heaviest concentration of development in the City is along a spur that lies between Muddy Creek to the south and one of its tributaries to the north. Main Street generally runs northwest to southeast along this central feature, with Archdale Road paralleling it to the west closer to Muddy Creek. Areas lying west of Archdale Road and the railroad tend to have more steep topography, with relatively closely spaced draws leading from the ridge to the nearby Uwharrie River. The topography of the Study Area is shown in Map B.5

Hydrology

As noted in the discussion of the City's topography, the Study area falls across four major drainage basins formed by the prominent ridges that run along the City's northern and western boundaries (see Map B.6). The primary drainage within Archdale is Muddy Creek, which flows into the Deep River at Randleman Lake southeast of the City. Lying north of the Muddy Creek basin, Richland Creek drains the areas north of NC 62, and also flows into the Deep River in the upper reaches of Randleman Lake near I-85. These tributaries, after flowing through Randleman Lake, eventually join with the Cape Fear River. On the western side of the ridge along the City's western boundary with Trinity are the headwaters of the Uwharrie River, with numerous small drainages running from the ridge to the west into the upper reaches of the river. The far southern portion of the Study Area is drained by Caraway Creek, which also drains into the Uwharrie River, which is part of the larger Yadkin-Pee Dee River basin.

Water Supply Watersheds

All of the drainage basins in Archdale have development related water quality protections in place, with the exception of the Caraway Creek basin. The Uwharrie basin regulations are in

place since it flows into Lake Reese, a major drinking water source for the City of Asheboro. Muddy Creek and Richland Creek are both within the Randleman Lake Water Supply Watershed, which is a major water source for cities in the eastern portion of the Piedmont Triad Region, including functioning as the City of Archdale's primary source of treated water through the Piedmont Regional Water Authority. The water supply watersheds are shown in Map B.7.

Flood Hazards

The primary flooding hazards in the Study Area are concentrated along the main course of Muddy Creek and its tributaries (see Map B.8). Although the floodplains associated with these creeks are not particularly large, they do present hazards to development and serve as a barrier to growth in some areas. While it is possible to experience flooding in areas other than the defined floodplains, the good drainage provided by the rolling topography concentrates most flooding in fairly close proximity to the creeks.

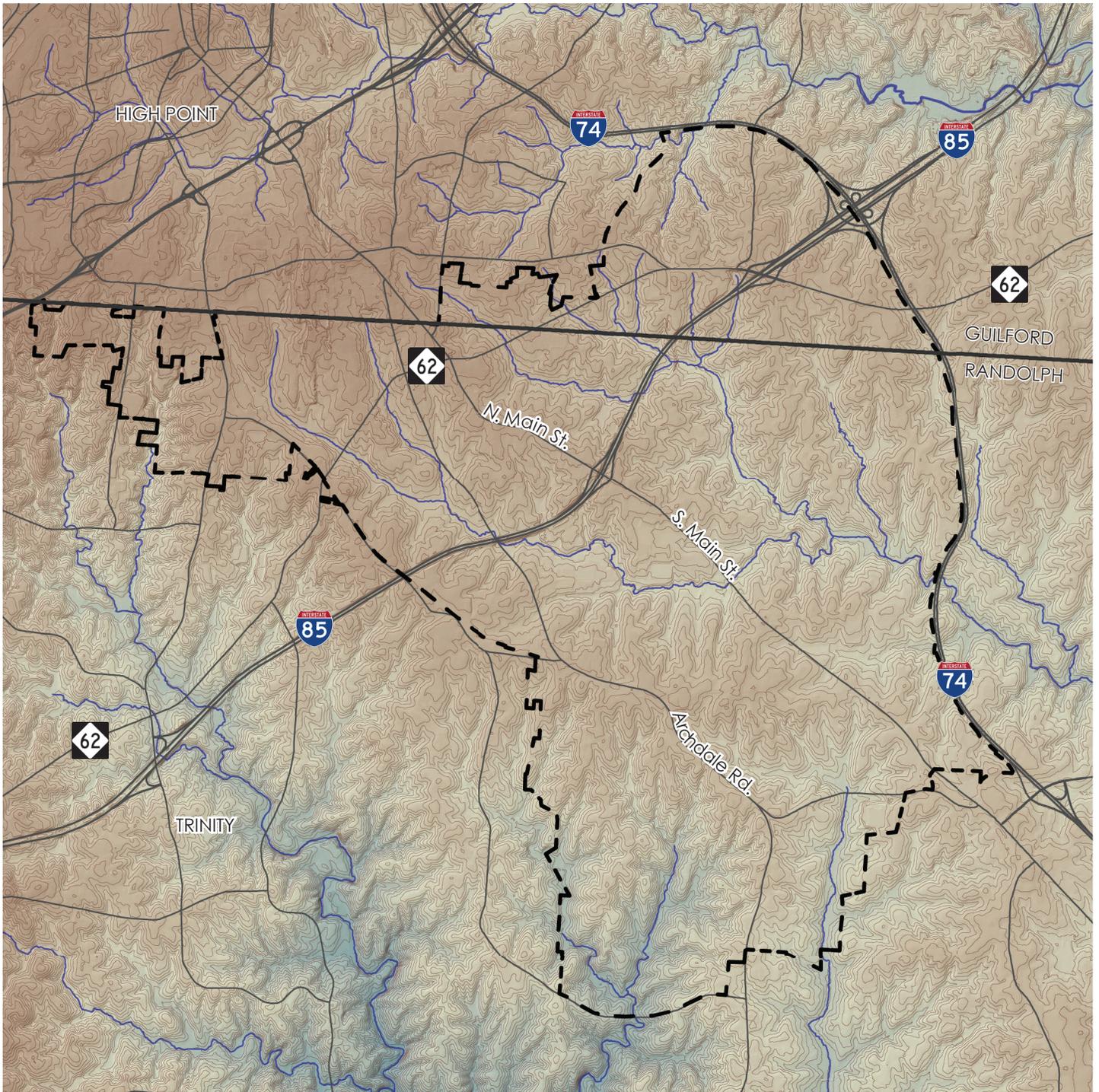
Wetlands

As Map B.9 shows, while there are numerous small shallow waterbodies throughout the Study Area, defined wetlands are not prevalent. Only several small areas are identified in the data, primarily within flood hazard areas in bottomland along major creeks. Good soil drainage and the rolling topography of the area has prevented the formation of many low-lying wet areas that could be barriers to development.

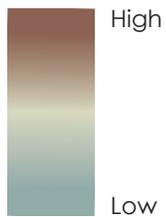
Soil Properties

Map B.10 shows the extent of what have been defined as “prime farmland” soils, meaning that they have a composition and topographic association that make them particularly well-suited for agricultural production. These soils are also frequently assessed as being ideal for development since farmland and good development tracts often share the same physical qualities of shallow slopes and good drainage. Map B.11 shows the location of soil types that have been identified as having the potential to limit the viability of on-site wastewater systems. While individual site surveys are necessary to make a final determination, this map shows the extent of where it may be more difficult for development to occur without the availability of a centralized wastewater collection and treatment system.

MAP B.6 TOPOGRAPHY



Elevation

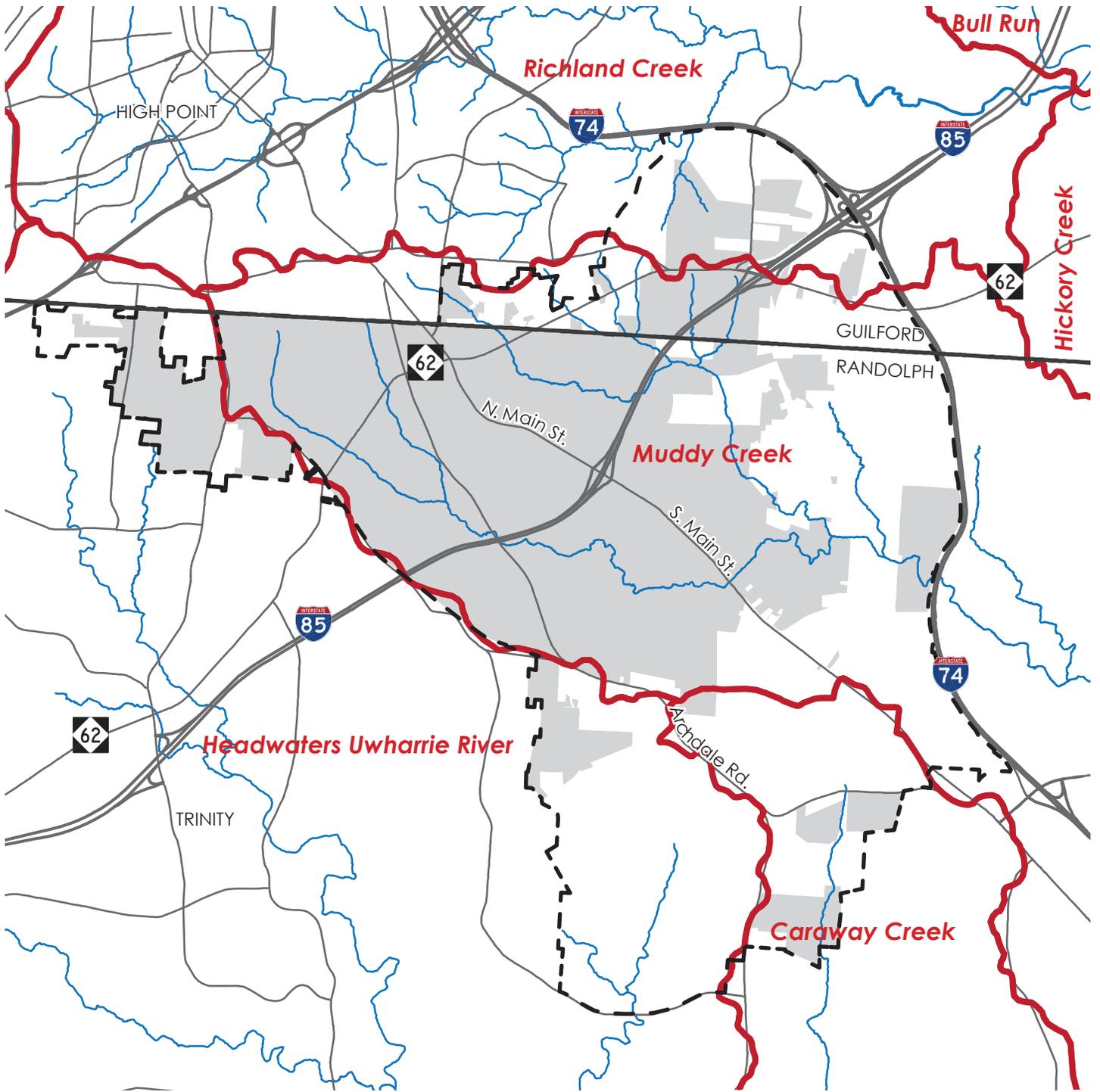


--- Planning Area Boundary

— Rivers and Streams



1 Mile



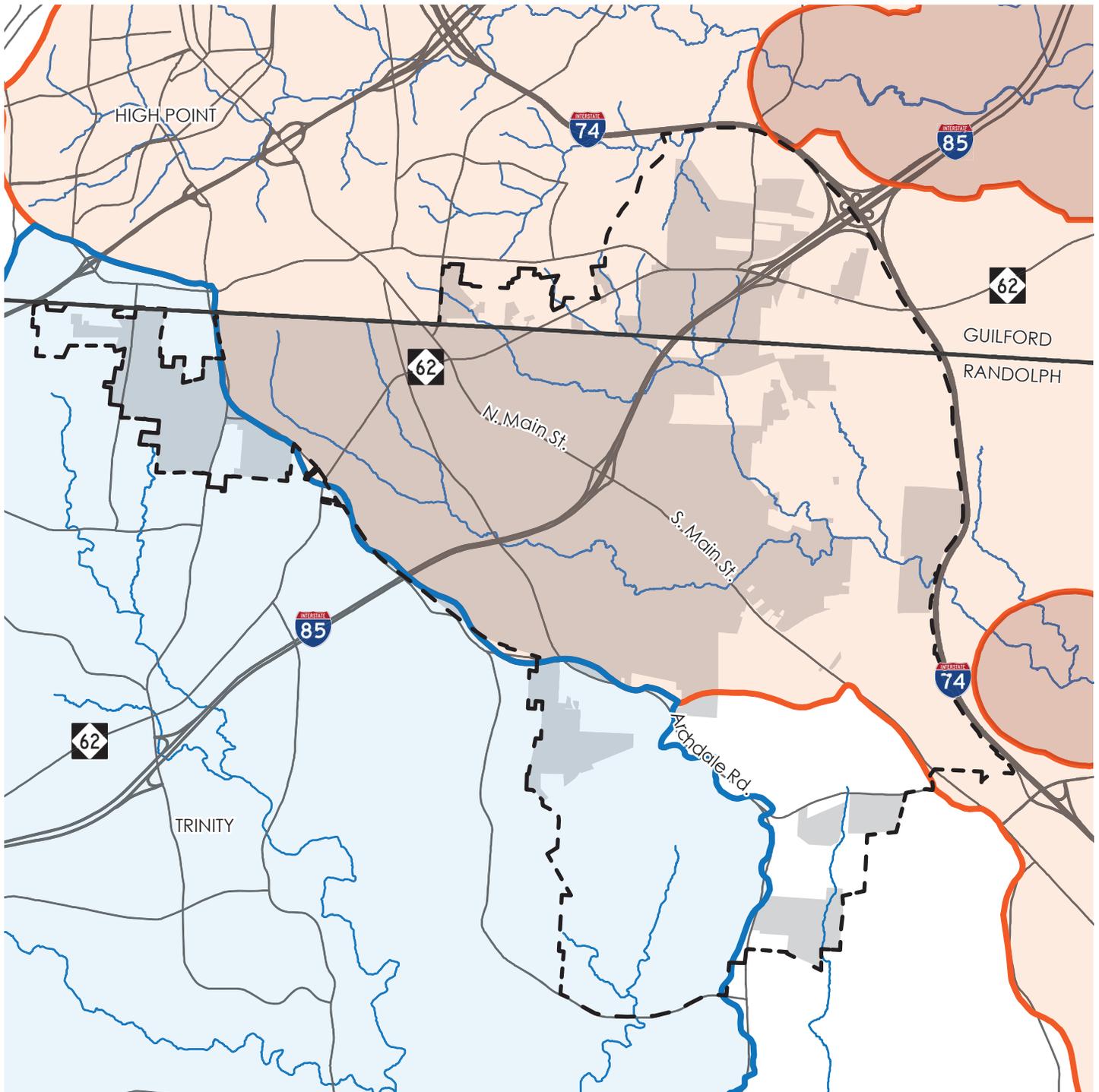
— Rivers and Streams
— River Basins

— County Line
- - - - - Planning Area Boundary
■ City Limits



1 Mile

▼ MAP B.8 WATER SUPPLY WATERSHED PROTECTION



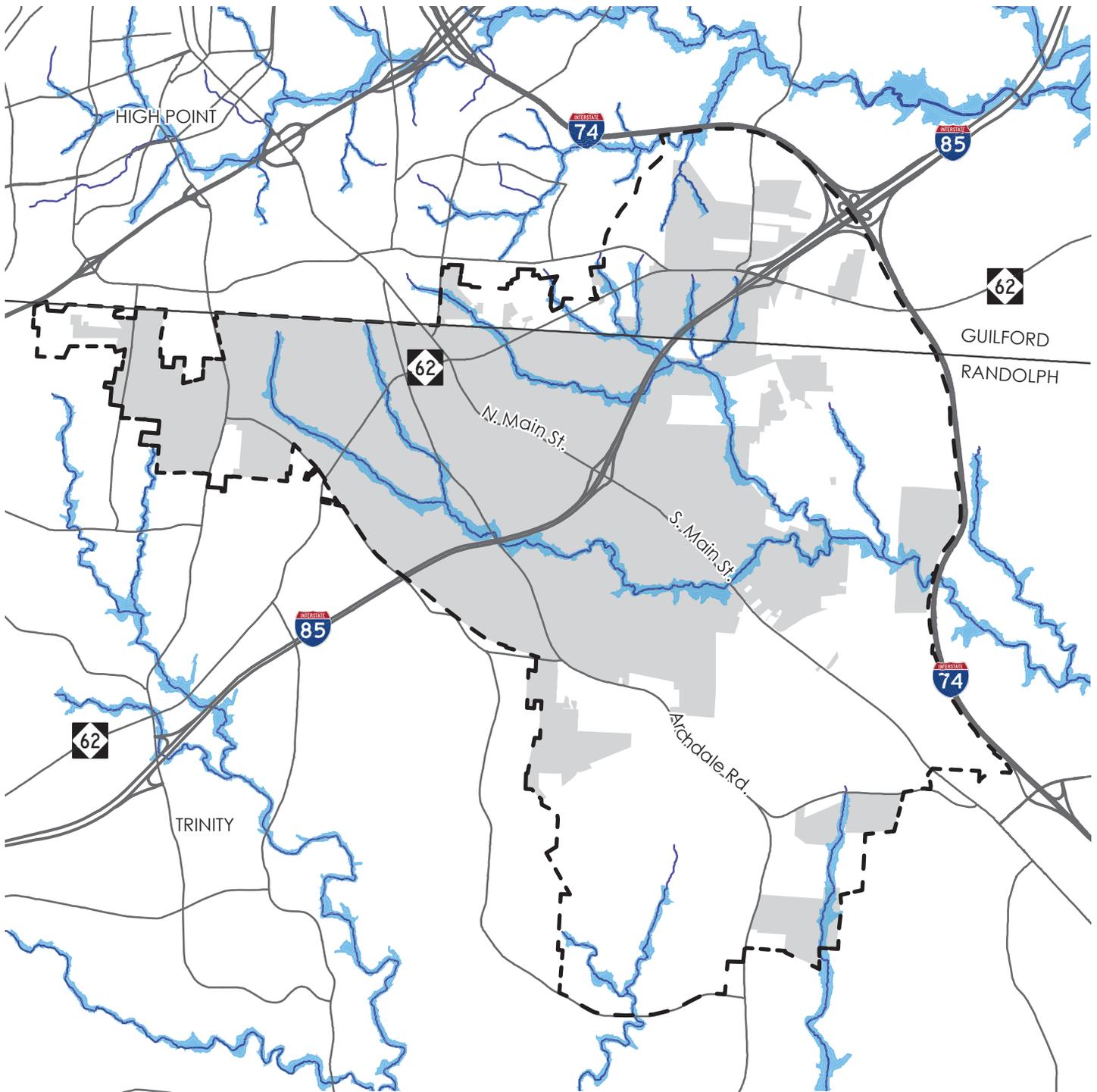
- Rivers and Streams
- Uwharrie River (Lake Reese)
- Deep River (Randleman Lake)
- Deep River (Randleman Lake)-Critical

- County Line
- Planning Area Boundary
- City Limits



1 Mile

▼ MAP B.9 FLOOD HAZARD AREAS



 Rivers and Streams

 100 Year Flood Plain

 County Line

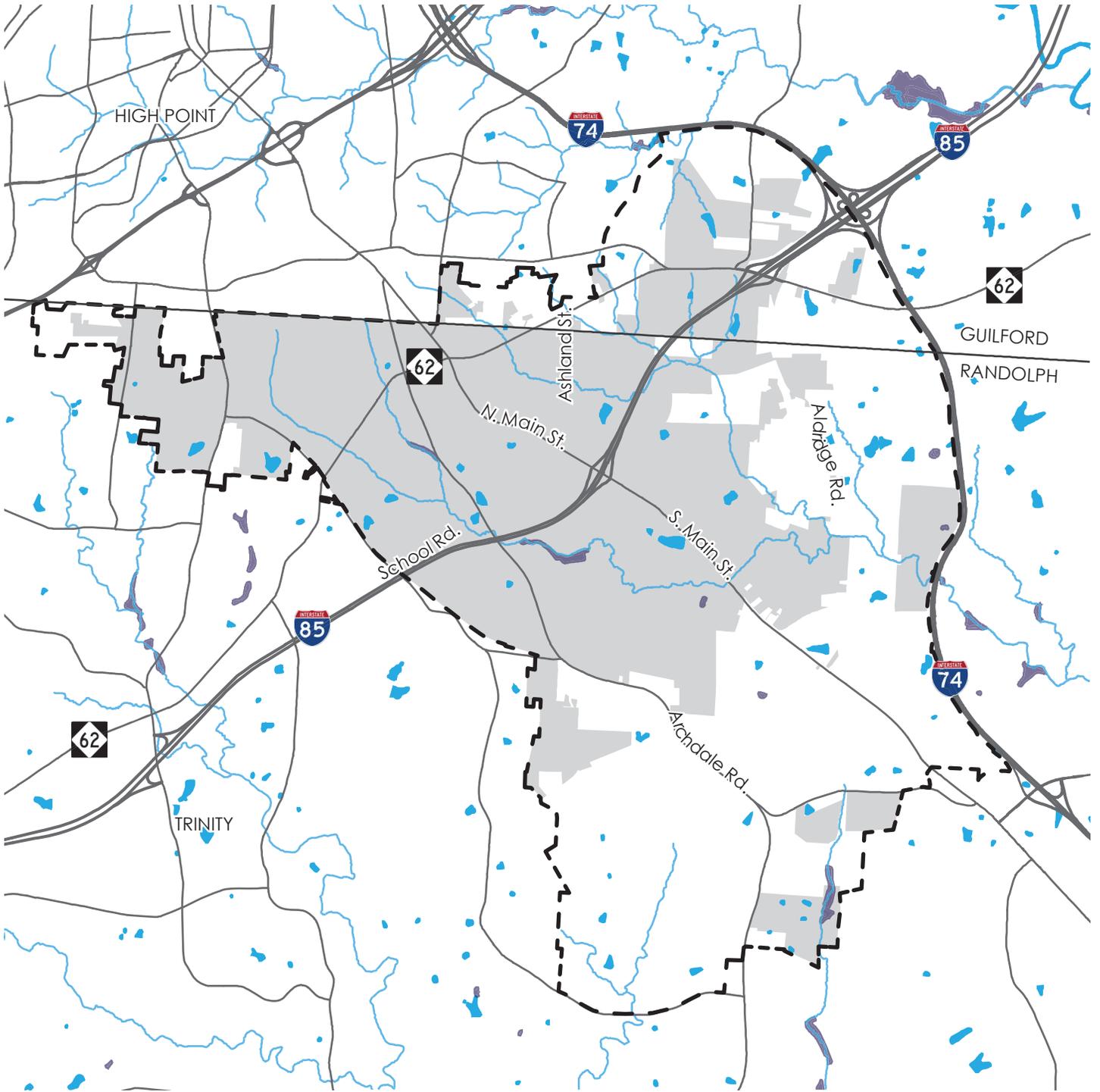
 Planning Area Boundary

 City Limits



1 Mile

▼ MAP B.10 WETLANDS

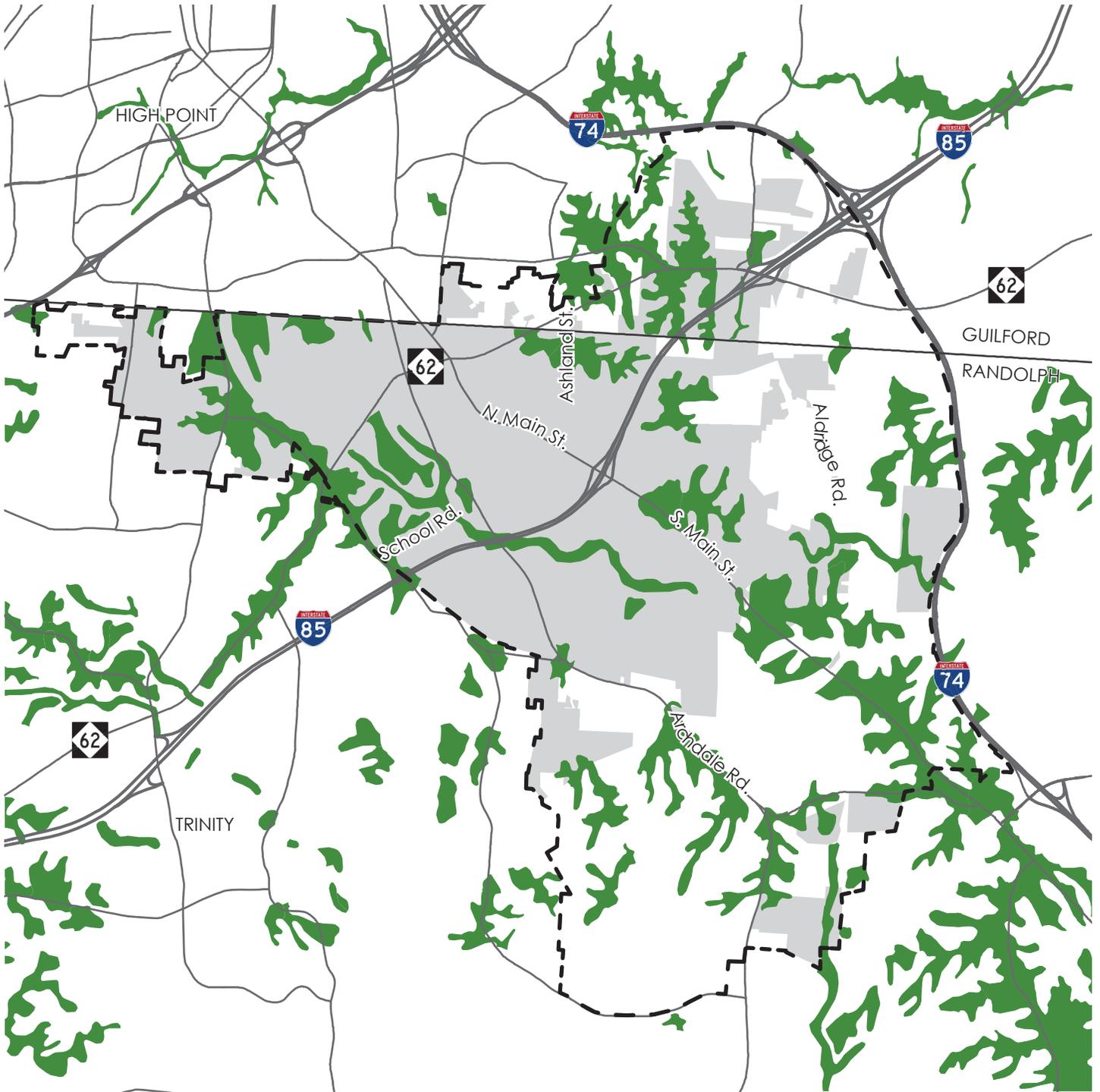


-  Rivers
-  Body of Water
-  Wetlands
-  City Limits
-  County Line
-  Planning Area Boundary
-  Roads



1 Mile

▼ MAP B.11 PRIME FARMLAND SOILS



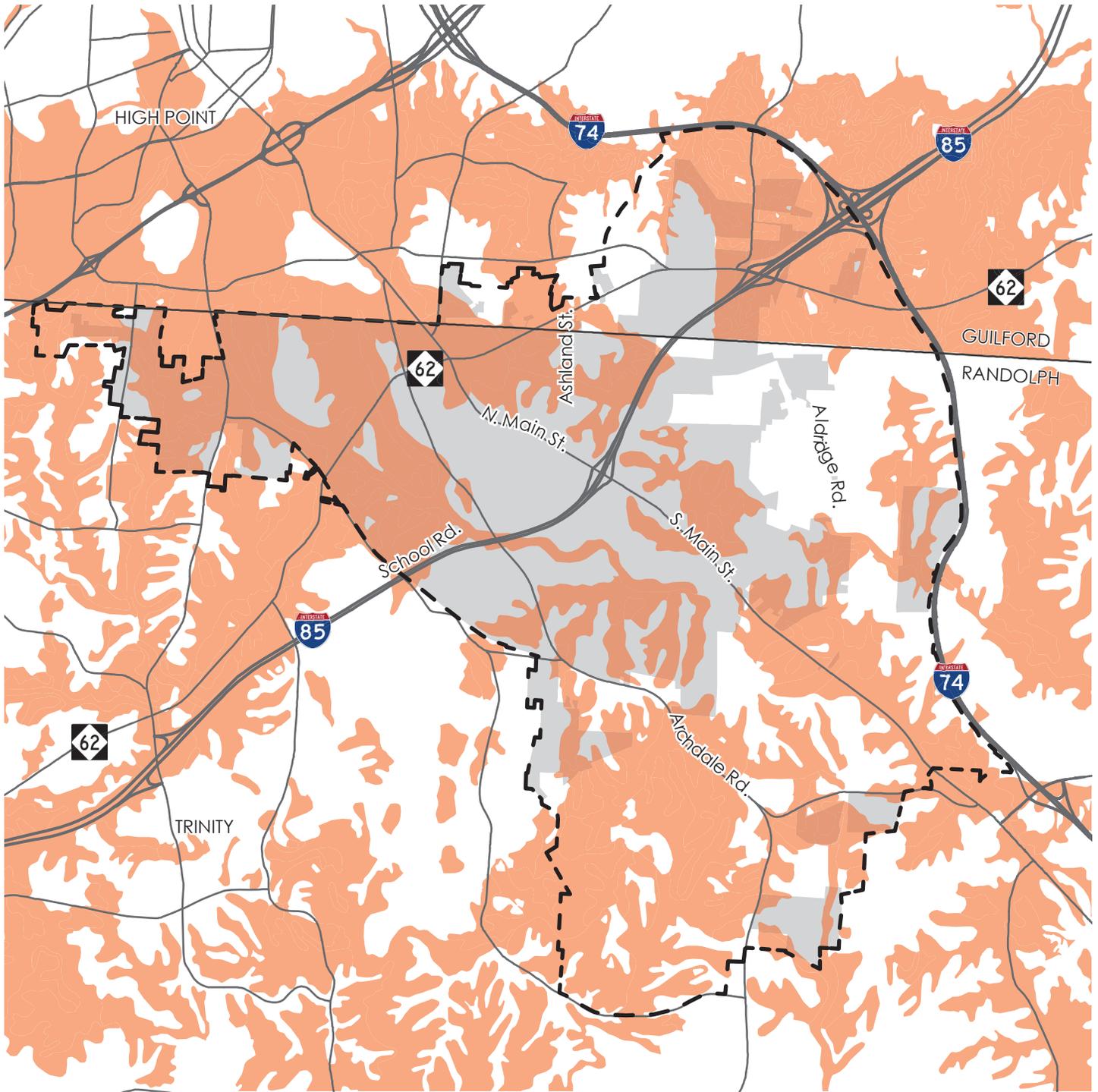
 Prime Farmland Soils
 City Limits

 County Line
 Planning Area Boundary
 Roads



1 Mile

▼ MAP B.12 SEPTIC TANK ABSORPTION FIELD SOIL LIMITATIONS



- Potentially Limiting Soils
- City Limits
- County Line
- Planning Area Boundary
- Roads



1 Mile

Public Services

The City of Archdale, as well as Guilford and Randolph Counties, provide a number of public services including public safety, police, fire, emergency medical services, stormwater protection, sanitation / recycling, street maintenance, civic and cultural, and educational services. This section provides an inventory of the current services and related facilities, which serves as a baseline for evaluating future needs as part of the planning process. In addition, the inventory includes planned facilities and anticipated expansion of facilities.

Public Safety Services

The City of Archdale is served and protected by the City of Archdale Police Department, the Guil-Rand Fire Department, and the Randolph County Emergency Medical Services. In addition to the primary service providers for public safety, mutual aid agreements are in place with surrounding local law enforcement, fire and emergency medical service providers to assist when needed.

Archdale Police Department

The City of Archdale's Police Department has 32 employees committed to the philosophy of community-oriented policing. This strategy is designed to create a more effective working partnership with the community, allowing for personnel to develop positive relationships with the citizens of Archdale, effectively addressing community concerns. In general, four uniformed patrol teams provide patrol services to the City. The primary mission of each team is to protect life, property, and prevent crime. Officers are responsible for patrolling Archdale's nearly 9 square miles and for providing effective law enforcement to the City's residents and to visitors that travel to and from Archdale. The four patrol teams operate on rotating shifts (12 hour shifts) which are three days on two days off and then two days on and three days off.

County Law Enforcement

Areas outside of the City in the Study Area are served by the Randolph County and Guilford County Sheriff's Departments. The Randolph County Sheriff's Department maintains a substation in Archdale near City Hall, from which it serves the northwestern portion of the County. The portion of the Study Area in Guilford County is served by District 3 of the Guilford County Sheriff's Department out of its Jamestown substation, which serves the southwestern portion of Guilford County.

Guil-Rand Fire Department

The Guil-Rand Fire Department is headquartered within the City of Archdale along South Main Street across from Creekside Park. The department was organized in 1950 to provide fire protection and rescue services to what is now the greater Archdale and Trinity area. Today, the department has 5 stations that provide fire and rescue service throughout the northwest corner of Randolph County and portions of the unincorporated areas of southwest Guilford County. Specifically, the fire district serves an area of approximately 81 square miles and a population of about 33,000 persons in Randolph and Guilford Counties, which covers approximately 1,100 businesses that include commercial and industrial establishments. In

addition, Guil-Rand covers 9 public schools, which includes 2 high schools, 1 middle school and 6 elementary schools. The main functions of the department include fire suppression, rescue operations, HAZMAT operations, emergency medical operations, fire prevention, fire inspections and investigations. The municipal areas serviced by the department carry a very good Insurance Services Office (ISO) rating of 3, with the rural zones also achieving a good rating of 4/9E.

Emergency Medical Services (EMS)

Randolph County EMS has eight base locations across the County including: Archdale, Asheboro, Erect, Liberty, Ramseur, Randleman, Trinity and Uwharrie. EMT-Paramedics are based at these locations ready to respond to any emergency 24-hours per day. Randolph County EMS is also supported by two private sector EMT-Intermediate ambulance services; Ash-Rand Rescue & EMS and Piedmont Triad Ambulance and Rescue. These private non-profit agencies respond to emergency calls, as well as handle most convalescent transports. Randolph County EMS Base 1 serves the residents of Archdale and the entire Study Area.

Civic and Cultural Facilities

The City has several important civic and cultural facilities, providing a valuable public service to its residents and nearby communities. The primary facilities include the Archdale Public Library, City Hall, Farmer's Market, Senior Center, Chamber of Commerce, and the YMCA.

Archdale Public Library

The Archdale Public Library was founded in 1973 by the Archdale City Council, later joining the Randolph County system in 1992. The Library is a cherished asset in the Archdale community providing a range of services to all ages, including meeting space for various community organizations to gather for workshops, programs, and other events. The Library is located next to Creekside Park on South Main Street.

Creekside Park Farmers Market

The Creekside Park Farmers Market is a place for farmers, bakers, and craft persons to market locally produced goods directly to the public. The Market is open from May through September on Thursday afternoons from 2:30 pm until 6:30 pm. Vendors are able to pay a small fee to sell for the day, or may pay for an entire season.

Senior Center

The Archdale Senior Center located in Creekside Park is owned by the City and operated by the Randolph County Senior Adults Association. The Senior Center provides a daily lunch for residents aged 60 years or older and offers activities which include crafts, music, bingo, birthday parties, exercise classes, movies, and blood pressure checks. The Senior Center also operates four Meals-On-Wheels routes which delivers hot lunches to homebound seniors.

Archdale City Hall

The Archdale City Hall, located at 307 Balfour Drive is the focal point of Archdale's City Government and is a notable landmark from Interstate 85. The City Hall is the location for residents to access customer service and several of the major City departments. The City

Hall also contains a large assembly room on the second floor for City Council meetings and volunteer board meetings with a multipurpose room on the first floor to handle workshops, training and other similar events.

Street Maintenance

Map B.12 identifies both locally maintained roads and State (NCDOT) maintained roads. Generally, roadways that are more heavily traveled are maintained by the State, though there are a few exceptions. The City currently maintains 53 miles of public streets, and receives an annual appropriation of Powell Bill funding from the State to help supplement street maintenance costs within the City.

Public Utilities

The City of Archdale owns and operates its own wastewater collection system. The collection system operates under Permit #WQCS00312 issued by the State of North Carolina. On average the City collects 900,000 gallons of wastewater each day and transports it through 79 miles of gravity collection lines, 6.2 miles of force mains, and 10 pump stations to the City of High Point's Eastside Wastewater Treatment Plant. The City of Archdale owns 2.5 million gallons per day of treatment capacity in the High Point Eastside WWTP, of which 1.1 million gallons is allocated to current customers. The extent of the current wastewater collection system is shown in Map B.13.

The City also owns and operates a municipal water distribution system that serves customers both within and outside of the City limits. The City's primary water source is Randleman Lake, which provides water to members of the Piedmont Triad Regional Water Authority, of which Archdale is a founding member. The City owns approximately 1.6 million gallons per day of treated water capacity, with rights to up to 2.45 million gallons. Current water usage by customers is approximately 865,000 gallons per day. The City also maintains connections to the City of High Point and Davidson Water that can provide emergency treated water supply to the City. A map of the current extent of the City's water system is shown in Map B.14

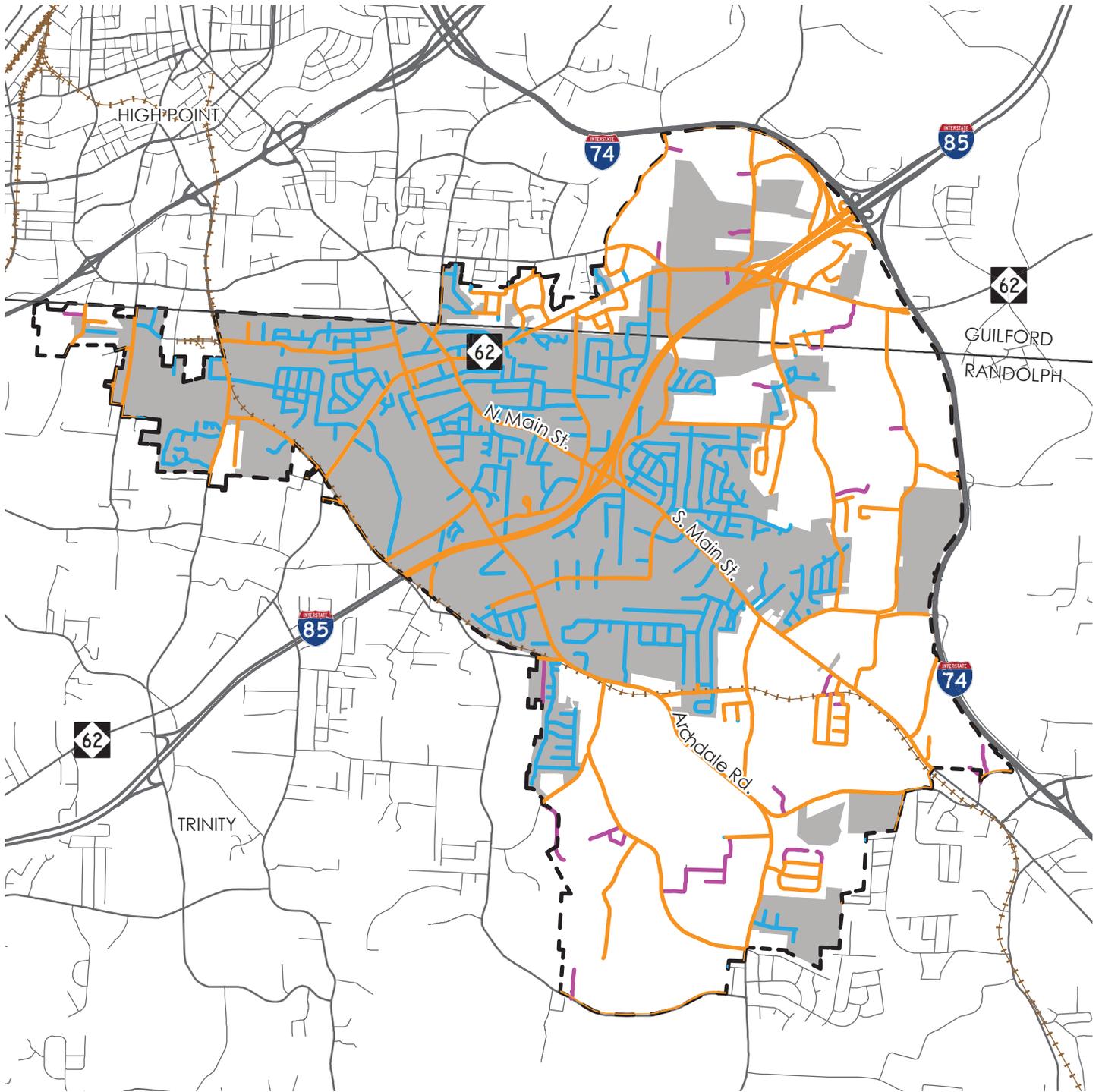
Sanitation / Recycling

The City of Archdale provides privately contracted solid waste collection and recycling services, with household waste being collected once a week and household recycling being collected every other week. The City also provides year-round curbside pick-up of limbs, brush, and bagged yard waste. Additionally, loose leaf pick up is available throughout the winter season. The public works staff utilizes knuckleboom and leaf vacuum trucks to provide these services. Also, residents within the Study Area can utilize one of the 6 convenience sites located in Randolph County or one of the Guilford County sites for those Study Area residents located in Guilford County.

Stormwater Management

The City of Archdale is a federally designated National Pollutant Discharge Elimination System (NPDES) Phase II community and operates under the authority of the ACE (Archdale's Community Effort) Integrated Stormwater Management Program, which became effective on January 2, 2008 by action of the City Council. NPDES Phase II is a federal and state mandated

▼ MAP B.13 CITY AND STATE MAINTAINED STREETS



— NCDOT Maintained Roads

--- Planning Area Boundary

— City Maintained Roads

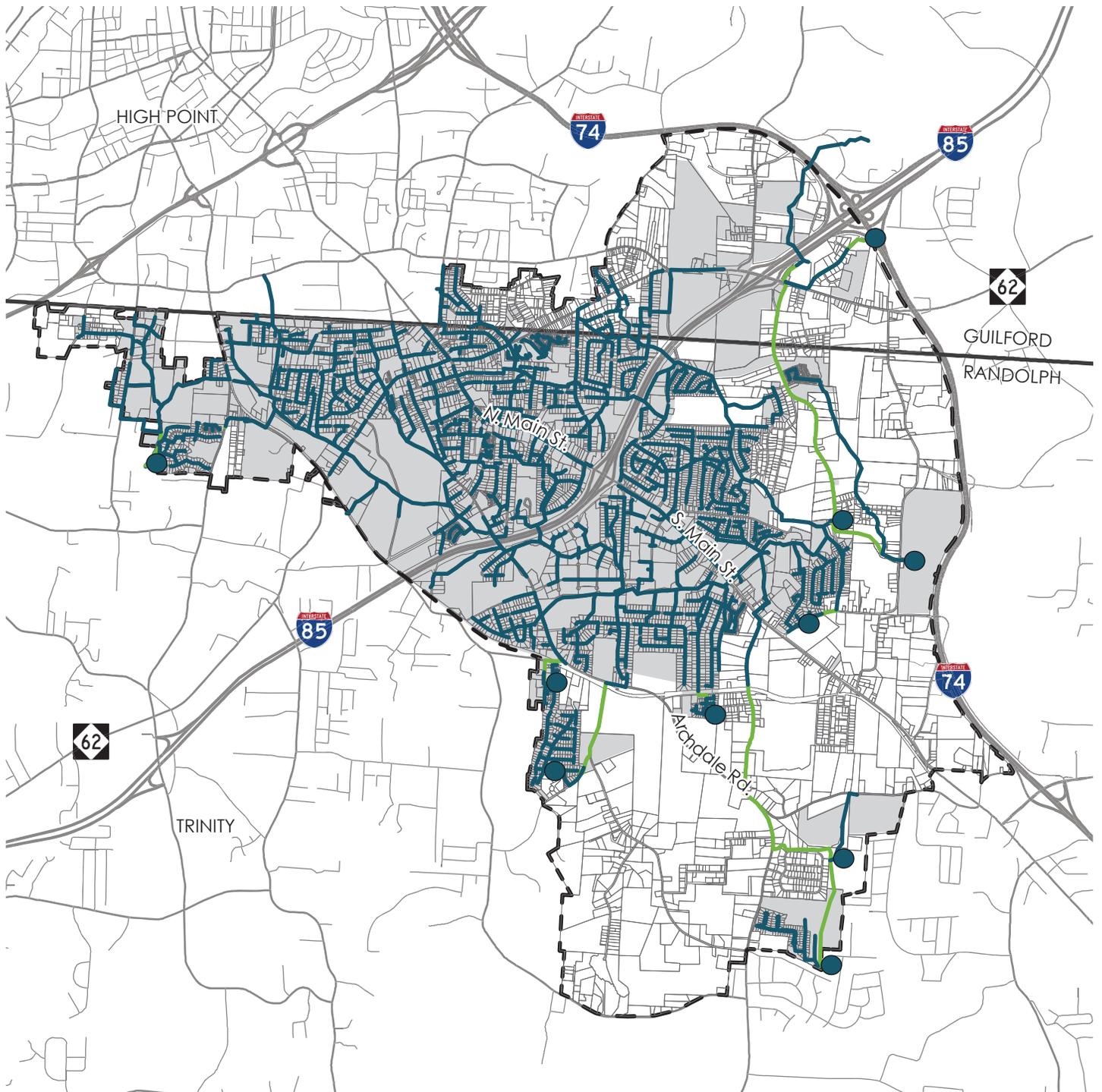
■ City Limits

— Private Roads



1 Mile

▼ MAP B.14 WASTEWATER COLLECTION SYSTEM



— Gravity Main

--- Planning Area Boundary

— Force Main

— Parcel Lines

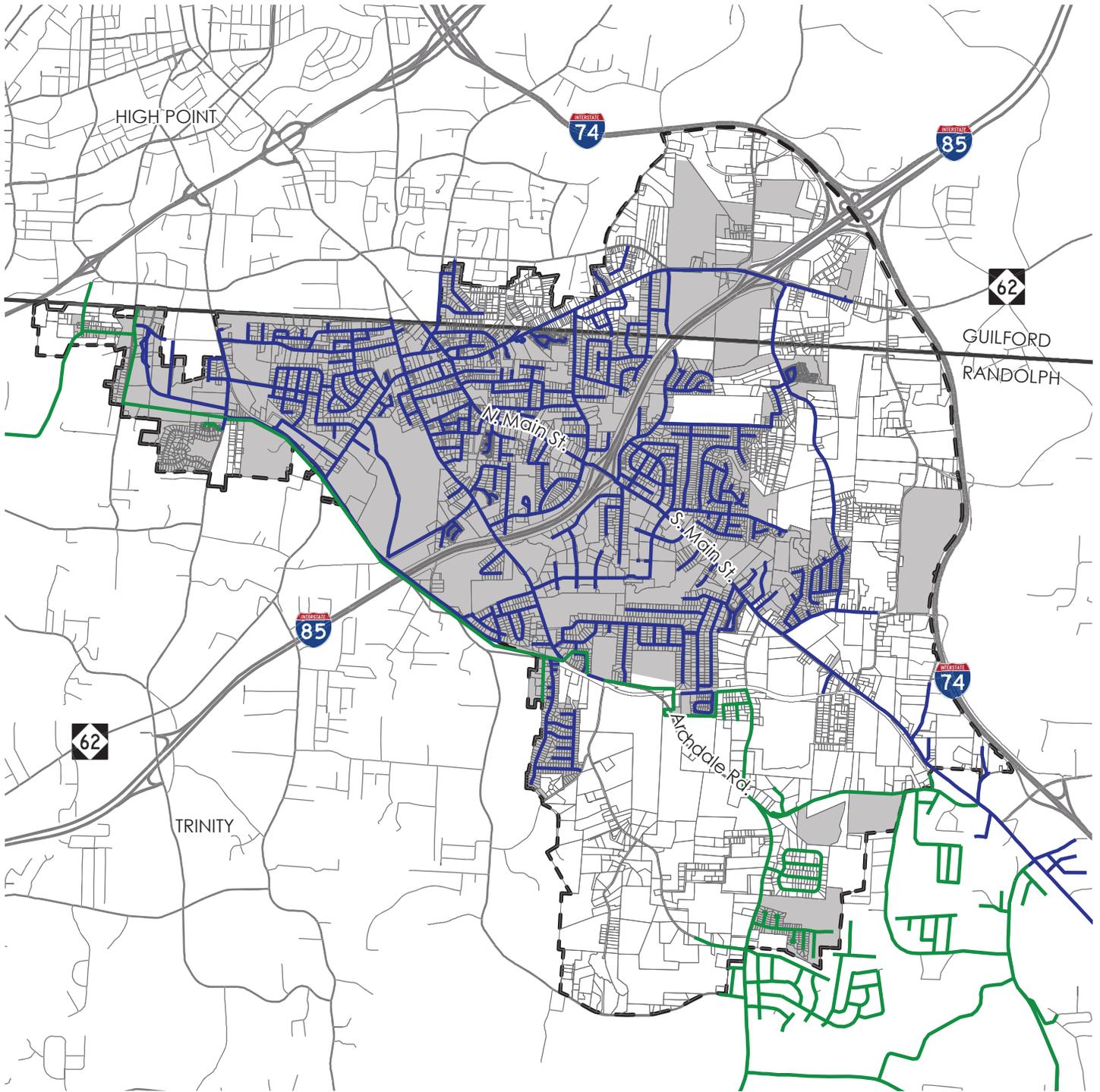
● Lift Station

■ City Limits



1 Mile

▼ MAP B.15 WATER DISTRIBUTION SYSTEM



— City of Archdale Water

— Parcel Lines

— Davidson Water

— City Limits

- - - Planning Area Boundary



1 Mile

program under the Clean Water Act to address non-point source pollution or stormwater runoff in order to protect and enhance water quality. The Stormwater Program operates as a division of the City's Planning Department. The entire Study Area experiences stormwater run-on and runoff. For example, even though a property in the Study Area may never flood, the stormwater that flows off any property must be managed so that it does not contribute to flooding or pollution in areas downstream. Stormwater is an issue that impacts all properties in the Study Area regardless of its rural or urban context.

In general, the City's program focuses on the implementation and coordination of education and outreach to the community, Illicit Discharge Detection and Elimination (IDDE), construction site runoff controls, post-construction runoff controls, water supply and watershed protection, and pollution prevention measures - accentuated by an online web portal feature.

Public Education

The Study Area is served by both the Randolph County and Guilford County public school systems, with the majority of the students being served by Randolph County Schools. Of note, the City of Archdale is within a special school tax district that also includes Trinity and a portion of the unincorporated area of northwestern Randolph County. The schools within this special tax district feed into either Trinity High School or Wheatmore High School. For post-secondary education, Randolph Community College operates the Archdale Center, located inside Creekside Park. The public schools serving residents in the Study Area include:

Randolph County Schools

Archdale Elementary

In the 2017-2018 School Year, Archdale Elementary School enrolled 375 students, which is slightly less than the District and State averages. The average class size ranged between 13 and 20 depending on the grade level but was generally the same or smaller than the State average. Over time, the enrollment has generally decreased, with a slight uptick in 2017. The highest enrollment between 2007 and 2018 was 2009 with 435 students.

Trindale Elementary

In the 2017-2018 School Year, Trindale Elementary School enrolled 330 students, which is much smaller than the District and State averages. Trindale Elementary School has some room for additional students as enrollment has generally decreased over time. It's highest enrollment in the last decade was in 2007, with 390 students.

John R Lawrence Elementary

In the 2017-2018 School Year, John R Lawrence Elementary School enrolled 390 students, which is smaller than the District and State averages. John R Lawrence's enrollment has steeply decreased in the last decade, with the highest enrollment being 549 students in 2009.

Braxton Craven Middle School (6th Grade Only)

Braxton Craven Middle School serves the sixth grade students in the Archdale-Trinity area.

Students come from five feeder schools: Archdale Elementary, Hopewell, John Lawrence, Trindale, and Trinity Elementary. When students leave BCMS, they complete their middle school years at Archdale-Trinity Middle School. With the opening of the new Trinity Middle School in August of 2021, Braxton Craven Middle School is scheduled to close.

Archdale-Trinity Middle (Currently 7th to 8th Grades Only)

In the 2017-2018 School Year, Archdale-Trinity Middle School enrolled more students than the average middle school in the District and State (697 students). While the middle school's enrollment increased steadily between 2010 and 2013, it has decreased annually since. The highest enrollment in the last decade was in 2013 with 875 students. Once the new middle school is open, Archdale-Trinity will once again serve 6th through 8th grade with students being assigned to Trinity Middle or Archdale-Trinity Middle School.

Trinity Middle School (The New Middle School)

A new middle school, Trinity Middle School, is planned to open in August of 2021 on land along Surrett Drive across from Trinity High School. The new 135,000-square-foot school is being constructed on 67 acres and will have a capacity of 750 students. It is planned for the new middle school to send students to Trinity High School, while Archdale-Trinity Middle School will send students to Wheatmore High School.

Trinity High School

In the 2017-2018 School Year, Trinity High School enrolled 707 students, which is smaller than the District and State averages. The school has sufficient capacity, as its enrollment steeply declined between 2009 and 2011 (aligning with the opening of Wheatmore High School). At its highest enrollment (2008), Trinity High included 1,438 students.

Wheatmore High School

In the 2017-2018 School Year, Wheatmore High School enrolled 836 students, which is slightly smaller than the District and State averages. Wheatmore was opened in 2010 along Finch Farm Road in Trinity and its enrollment has generally increased over time, with its 2018 population the highest on record.

Guilford County Schools

Allen Jay Elementary School

In the 2017-2018 School Year, Allen Jay Elementary School enrolled 447 students, which is slightly smaller than the District and State averages. The school's enrollment has been relatively steady over time, with its highest enrollment in 2008 (493 students).

Allen Jay Middle School (A Preparatory Academy)

In the 2017-2018 School Year, Allen Jay Middle School enrolled 386 students, which is significantly smaller than the District and State averages (which are between 600 and 700). The school was opened in 2014 and its enrollment increased steadily through 2017 and has remained stagnant for this past year (with five fewer students than its highest enrollment in 2017).

Southern Guilford High School

In the 2017-2018 School Year, Southern Guilford High School enrolled 1,076 students, which is larger than the District and State averages (which are between 800 and 850). The school's enrollment peaked in 2014 when 1,155 students attended.

Randolph Community College

Randolph Community College's Archdale Center is located on 13.9 acres at 110 Park Drive, inside the City of Archdale's Creekside Park. The Center was built in 1990 and expanded in 2006 to serve the changing needs of the northwest community of Randolph County. It was extensively renovated in 2011 in order to offer a two-year associate in applied science degree in Medical Assisting. Among the many improvements, the Archdale Center now boasts a state-of-the-art biology lab to serve the needs of the Medical Assisting students as well as others engaged in health or science-related studies. There is also a state-of-the-industry Welding Center; enabling students to pursue various welding certifications or to enroll in a one-year, comprehensive Welding Technology diploma program or a 14-credit-hour certificate program.

Additionally, RCC's Archdale Center continues to offer a wide variety of Workforce Development and Continuing Education courses, Human Resources Development computer classes, Adult Basic Life-skills Education (ABLE), Adult Basic & Secondary Education, and Personal Enrichment classes that range from health and wellness programs to the creative arts.

Parks and Recreation

As previously noted, the City completed a Comprehensive Parks and Recreation Plan in 2016 and continues to make progress on its implementation. The City also completed several studies that evaluated opportunities for trail development as part of the overall parks and recreation system and future pedestrian network. The parks and recreation inventory included in this section focuses on existing and proposed parks and recreational amenities, including greenways and trails. The inventory in this section, coupled with recommendations from previous plans, helps to provide a foundation for the goals and objectives of the Comprehensive Plan.

Parks

Creekside Park is Archdale's primary park, spanning over 100 acres in the southern portion of the City. Creekside Park is well-utilized by residents and attracts visitors from throughout the region. The park's amenities include walking trails, picnic shelters, an 18-hole disc golf course, an orienteering course, playgrounds, ball fields, t-ball fields, tennis and pickleball courts, a basketball court, sand volleyball courts, and a large indoor recreation center. Creekside Park also hosts a number of significant events throughout the year including the 4th of July Festival that attracts several thousand visitors each year. The 4th of July Festival includes a mini-fair with rides and games, music, food and craft vendors, and is highlighted by a display of fireworks at sunset. The City also owns Sterling Ridge Park on Jacob Court within the Sterling Ridge subdivision. This mini-park is currently being converted into a dog park.

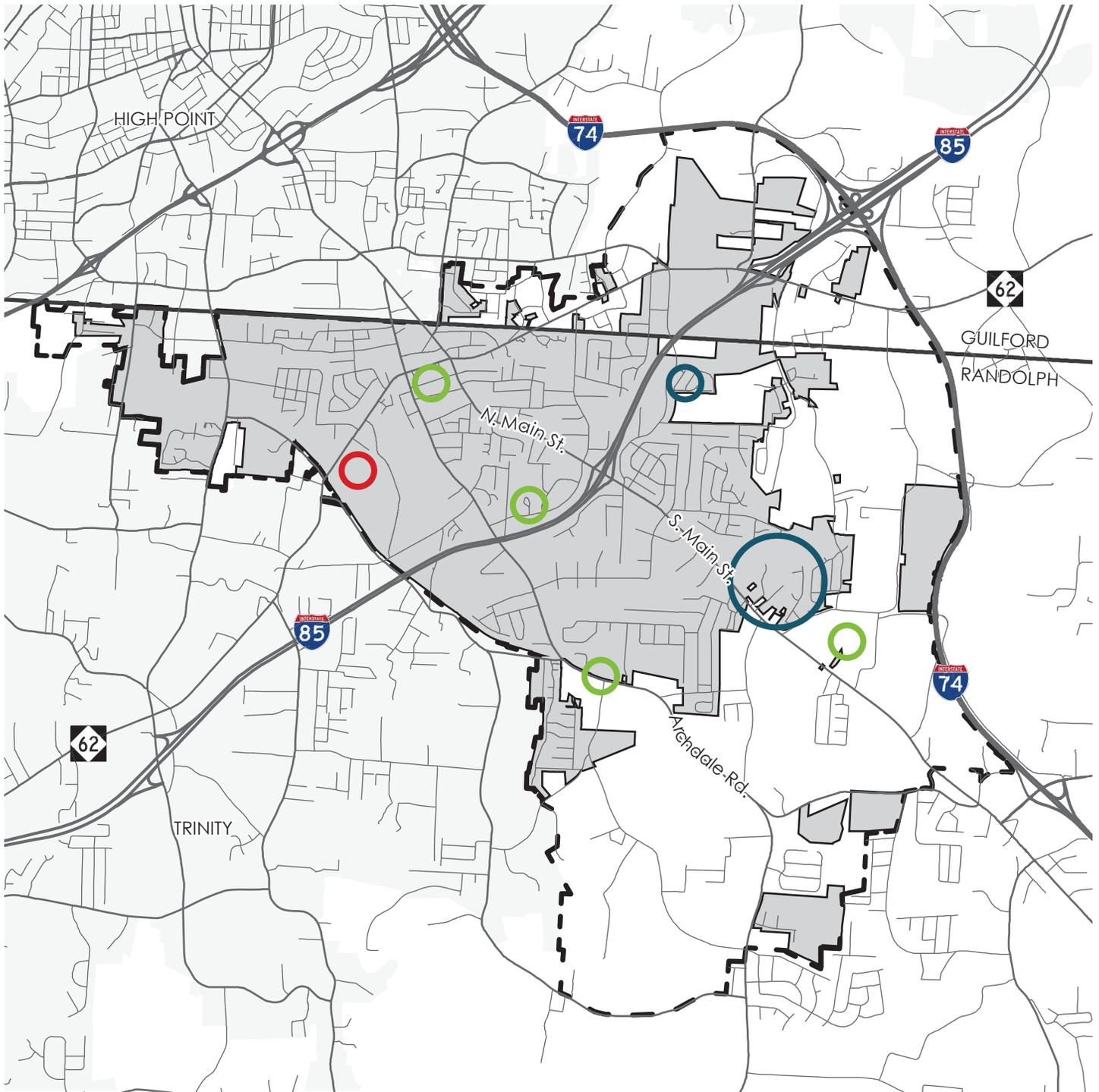
In addition to the City's parks, there are recreational facilities at the four local schools: Archdale Elementary, Trindale School, Archdale - Trinity Middle School, and John Lawrence Elementary School. The school facilities are not always open to the general public and generally require official permission for use. Other recreational facilities include the Grubb Family YMCA, which offers fitness classes, youth and adult team sports, a gym, summer and after school camps, a splash pad, and a pool. The location of the parks are identified on Map B.15.

The City of Archdale's Comprehensive Parks and Recreation Plan identified generalized locations for new parks. These were selected based off a land suitability analysis for future park locations, as well as a review of the current park service areas. The Plan's analysis is intended to provide a guide for future park locations based upon recreation standards and future park expansion goals. Map B.16 shows the location of the proposed neighborhood park service areas identified in the adopted Parks Plan.

Greenway Trails

Greenways are a very popular recreational amenity among residents of Archdale. There are currently a number of trails within and extending from Creekside Park that connect nearby neighborhoods to the park. Map B.17 shows the existing greenway network, while Map B.18 shows the recommended network of greenways and off-road shared use paths identified in the adopted Pedestrian and Trails Master Plan. These proposed additional greenways are intended to provide connections between key destinations throughout the City.

MAP B.16 EXISTING PARKS



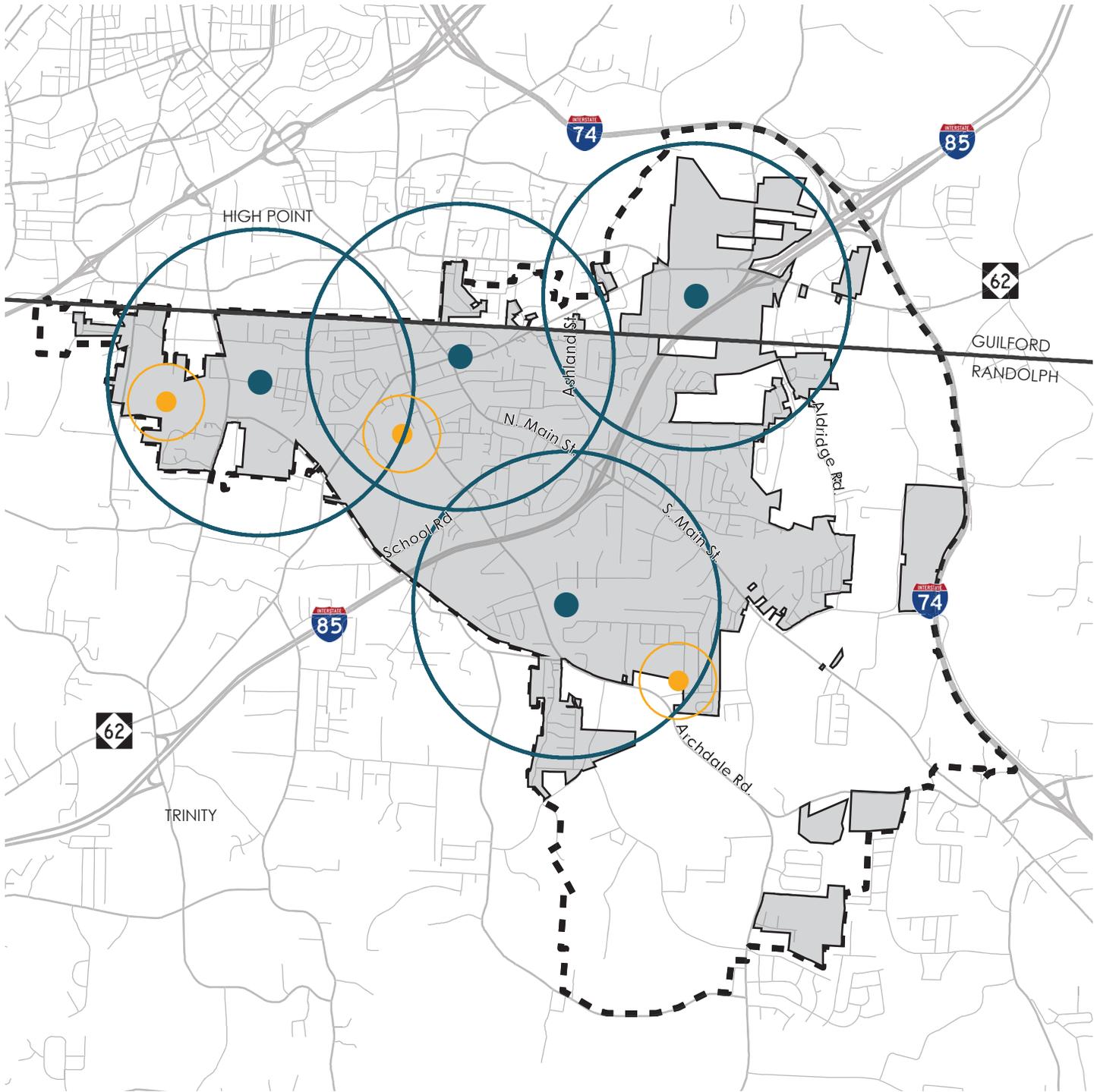
- Community Parks
- School Facilities
- Private Facilities

- City Limits
- Planning Area Boundary



1 Mile

▼ MAP B.17 COMPREHENSIVE PARKS AND RECREATION PLAN RECOMMENDATIONS

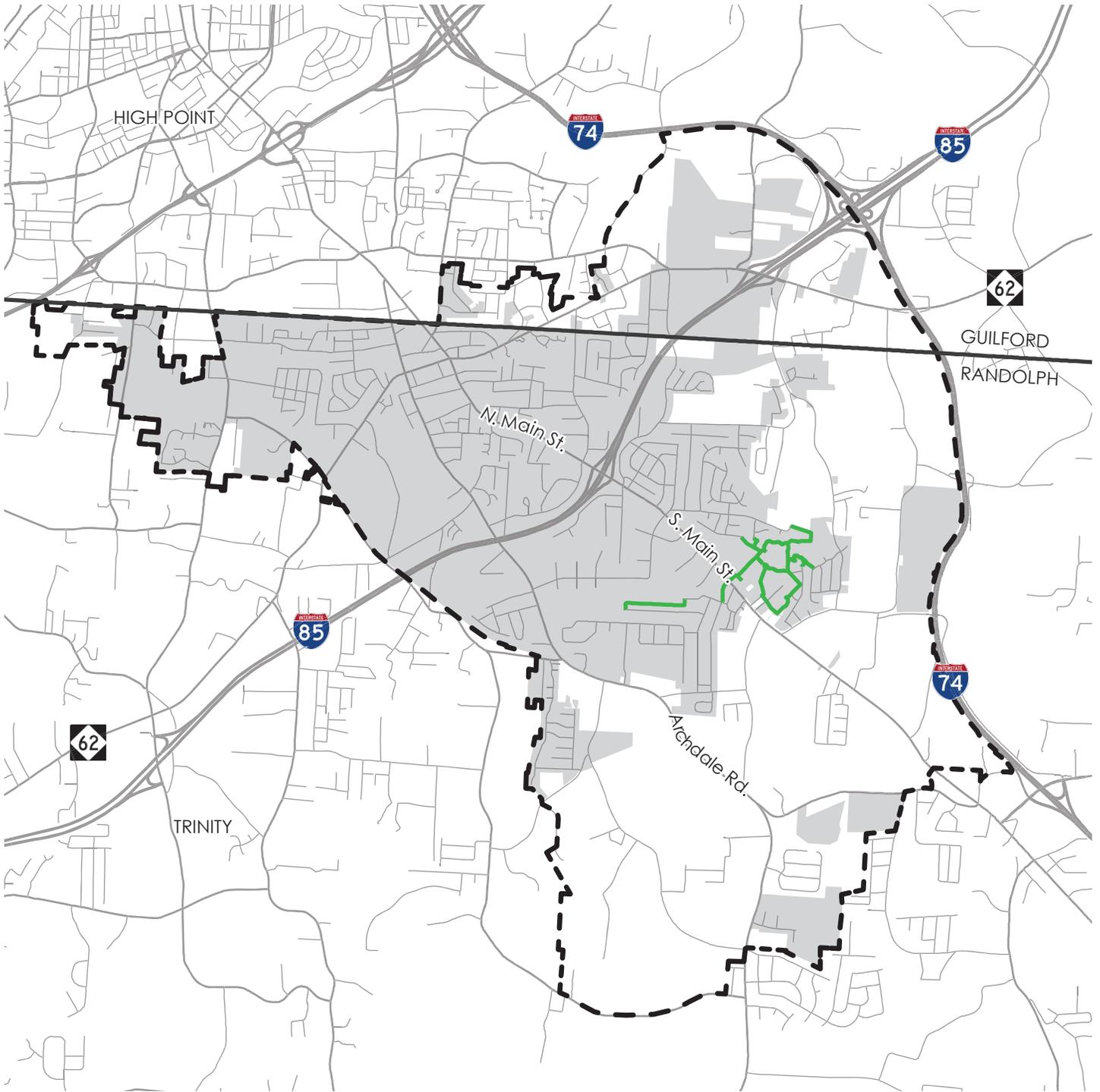


- Proposed Neighborhood Parks (General Location)
- Neighborhood Park Service Area (1 mile)
- Proposed Pocket Parks (General Location)
- Pocket Park Service Area (1/4 mile)
- City Limits
- Planning Area Boundary



1 Mile

▼ MAP B.18 EXISTING GREENWAY TRAILS



— Existing Greenway / Shared Use Path

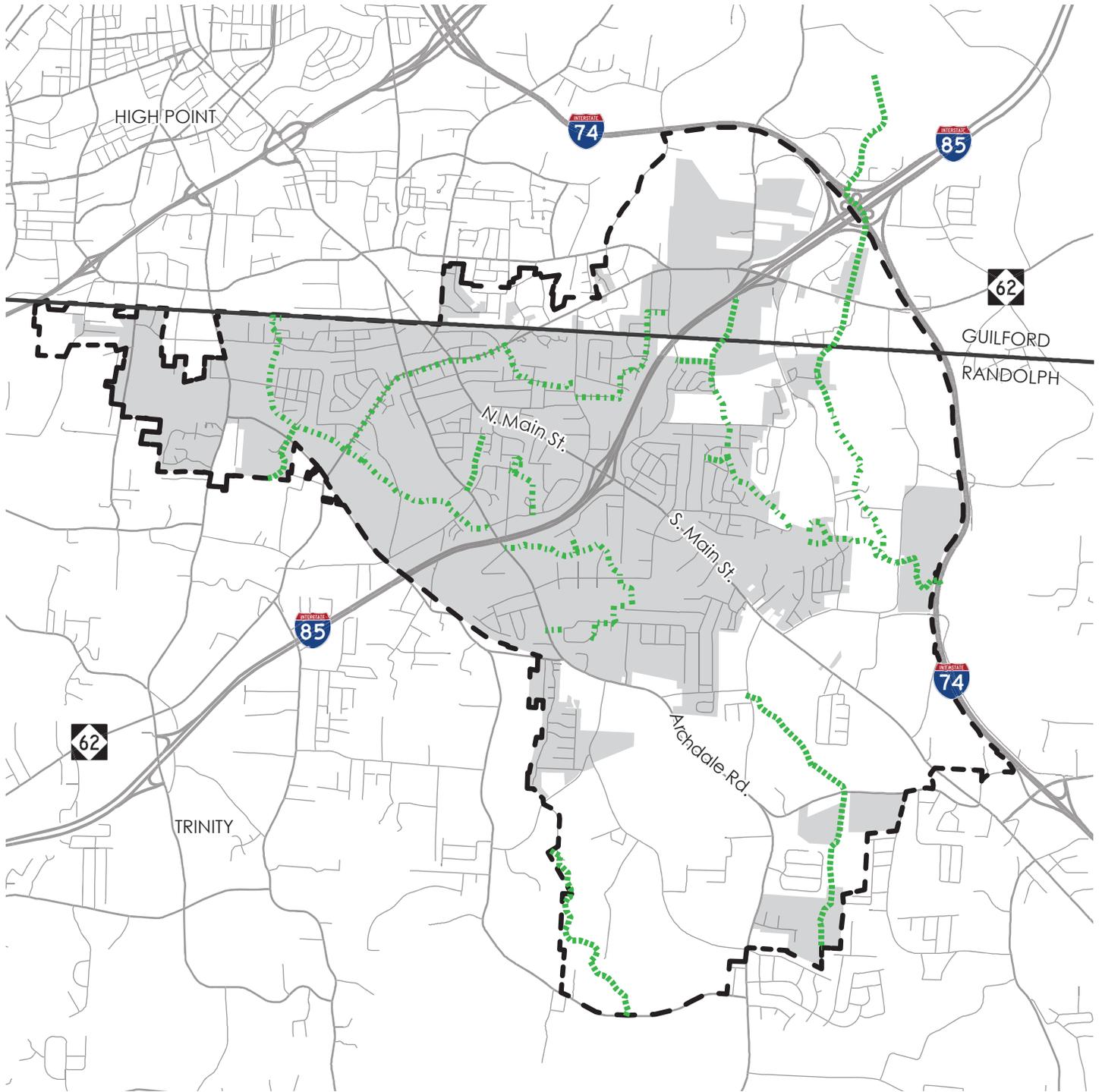
- - - Planning Area Boundary

City Limits



1 Mile

▼ MAP B.19 PEDESTRIAN AND TRAILS MASTER PLAN - RECOMMENDED GREENWAY / SHARED USE PATHS



..... Proposed Greenway / Shared Use Path

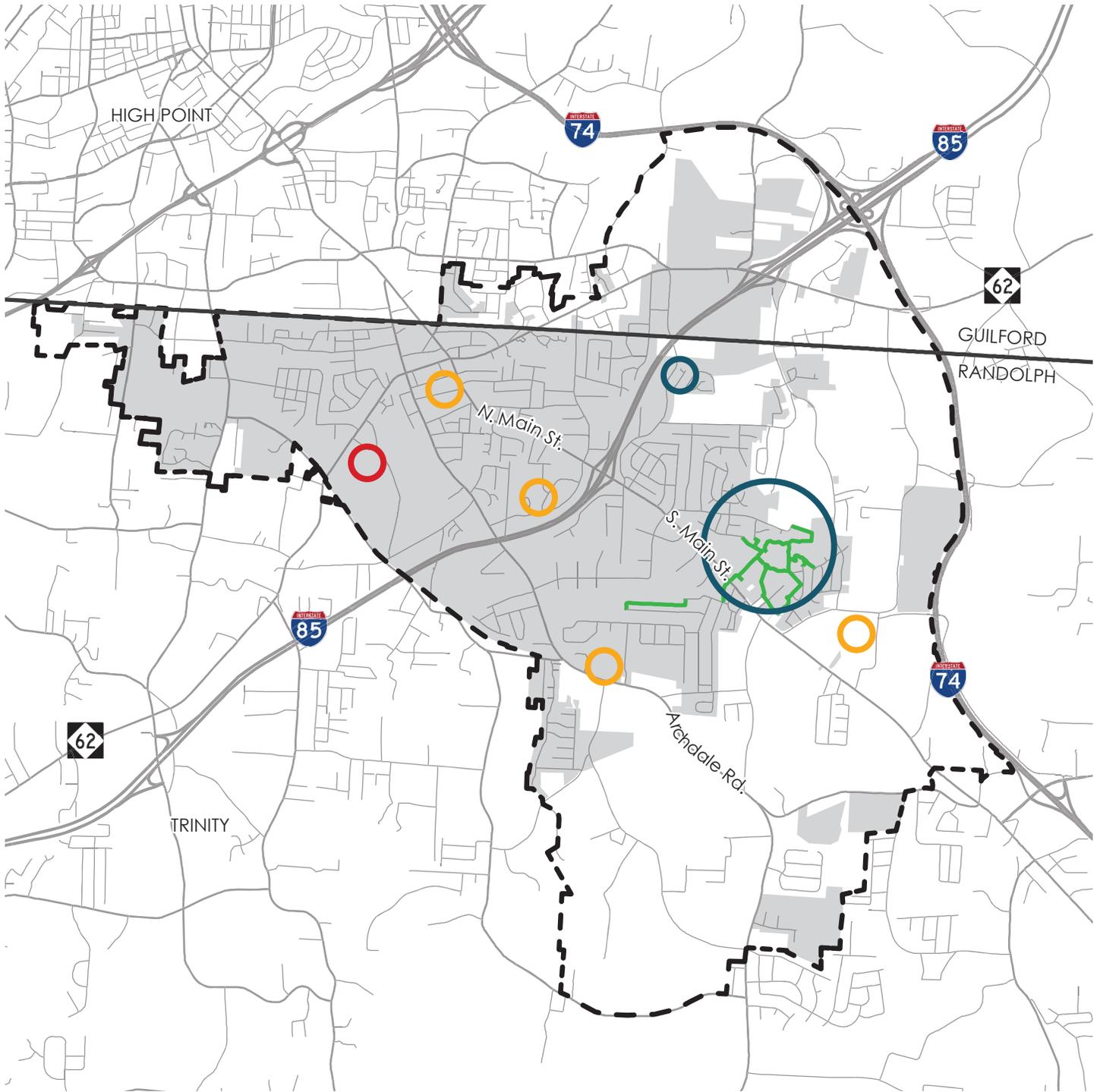
--- Planning Area Boundary

City Limits



1 Mile

▼ MAP B.20 EXISTING PARKS AND RECREATION FACILITIES



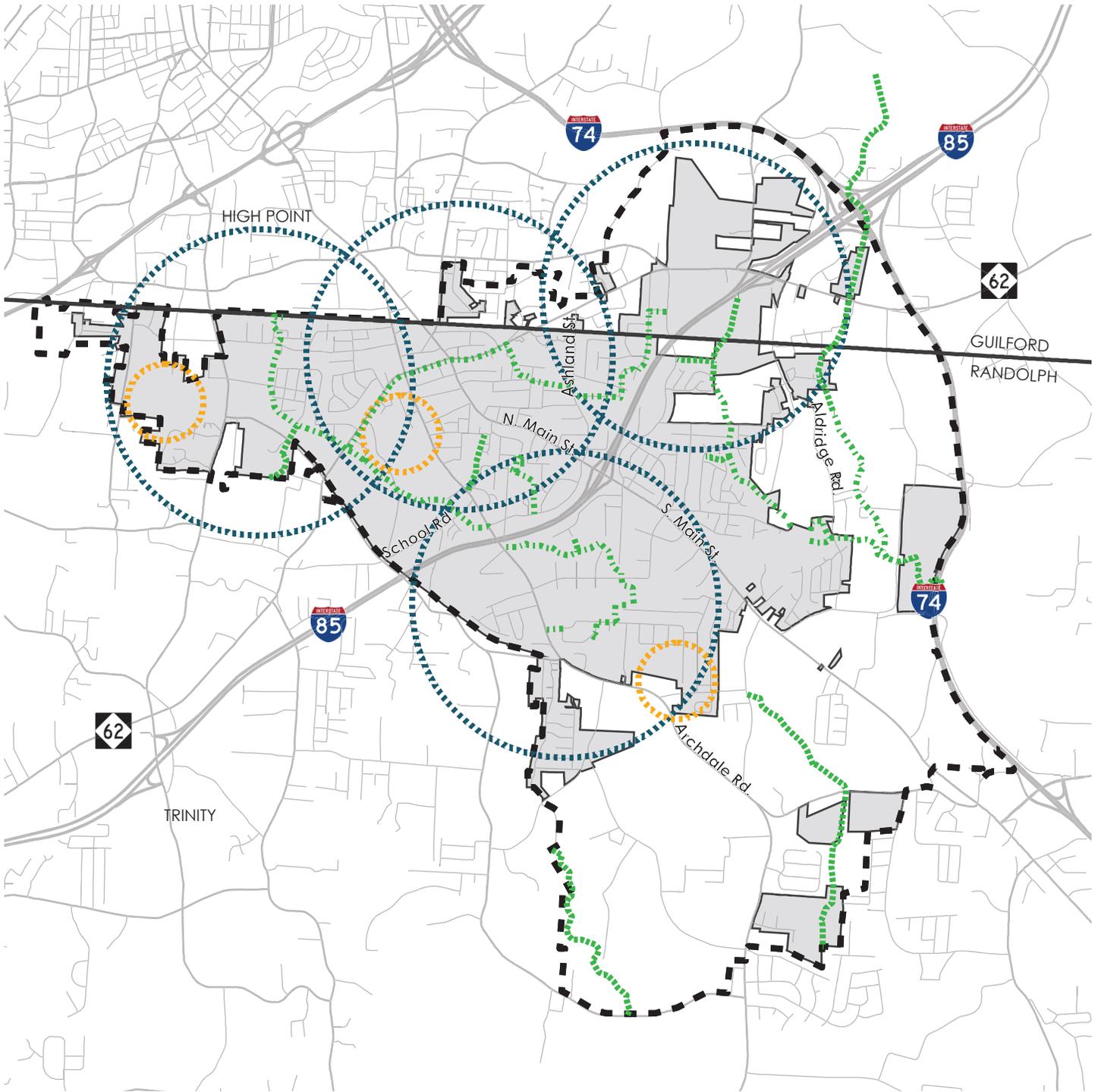
-  Community Parks
-  School Facilities
-  Private Facilities
-  Existing Greenway / Shared Use Path

-  City Limits
-  Planning Area Boundary



1 Mile

▼ MAP B.21 ADOPTED PLAN RECOMMENDATIONS FOR PARKS AND GREENWAYS



 Proposed Neighborhood Parks (1 mile area)

 Proposed Pocket Parks (1/4 mile area)

 Proposed Greenway / Shared Use Path

 City Limits

 Planning Area Boundary



1 Mile