

DETAILED STUDY ALTERNATIVES CARRIED FORWARD

Wadesboro Bypass

Construct freeway on new location from U.S. 74 east of Polkton to U.S. 74 west of Lilesville

Anson County

STIP Project R-5878

North Carolina Department of Transportation

Project Management Unit, Division 10



MERGER CONCURRENCE POINT NUMBER 2

December 10, 2025 / 10:00 AM

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1. Introduction

Table 1.1. R-5878 Agencies and Points of Contact

Agency	Name
Federal Highway Administration (FHWA)	Seth Wilcher
U.S. Army Corps of Engineers (USACE)	Steve Brumagin
North Carolina Department of Water Resources (NCDWR)	Beth Plummer
North Carolina Department of Transportation	Bryan Key, Beth Smyre
Stantec	Andrea Dvorak-Grantz

The purpose of this meeting is to reach concurrence on CP 2 and define the Detailed Study Alternatives to carry forward.

1.1. Project Description

The North Carolina Department of Transportation (NCDOT) proposes to construct a facility on new location from U.S. 74 east of Polkton to U.S. 74 west of Lilesville in Anson County, North Carolina. The project is approximately 13 miles long and is identified in the State Transportation Improvement Program (STIP) as Project No. R-5878, WBS No. 48407.1.1. The project study area under evaluation is shown

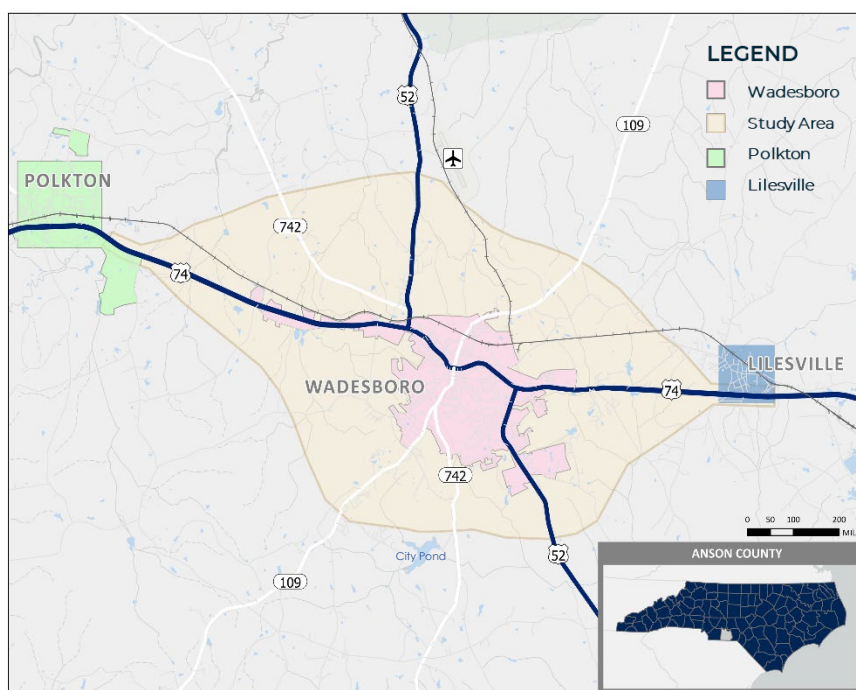


Figure 1. R-5878 Project Vicinity Map

in **Figure 1**. The western project study limit is defined as just east of Bridges #0032 and #0033 over Browns Creek and the eastern project study limit is defined as approximately 0.53 mile west of the S.R. 1734 bridge over U.S. 74 in Lilesville. The Anson County Airport serves as a geographic feature limiting the northern bounds of the project study area and City Pond, between N.C. 109 and N.C. 742 south of Polkton, serves as the geographic feature limiting the southern boundary of the project study area.

1.2. Cost Estimate and Project Schedule

The proposed project is recommended in the Draft Anson County Comprehensive Transportation Plan (CTP) to address congestion and mobility issues on U.S. 74. The proposed action is also included in the NCDOT's 2024-2033 STIP and is divided into "A" and "B" sections for programming purposes. Section A extends from U.S. 74, just east of Polkton to U.S. 52 north of Wadesboro. Section B

extends from U.S. 52 north of Wadesboro to U.S. 74 just west of Lilesville. Section A is not funded in the current STIP and Section B is funded for preliminary engineering using Highway Trust Funds. The proposed action is also included in the NCDOT Strategic Transportation Corridor (STC) Network as “Corridor U”. The Strategic Mobility Formula, part of the Strategic Transportation Investments law, ranked the project high in the following categories: Freight (93.19), Economic Competitiveness (98.64), and Accessibility/Connectivity (92.88). The current estimated costs for Section B of the project are shown in **Table 1.2**. The proposed project schedule is included in **Table 1.3**. The schedule and cost estimates are drafts and subject to change.

Table 1.2. R-5878B Cost Estimate*

Section B	Estimated Costs
Right-of-Way	\$31,100,000
Utilities	\$11,200,000
Construction	\$315,700,000
Total	\$358,000,000

**NCDOT cost estimate verification letter dated January 8, 2025*

Table 1.3. Project R-5878 Schedule

Tasks	Anticipated Format	Schedule*
Public Information & Local Officials Meeting	In-Person	May 2024
CP 1 Meeting	In-Person/Virtual	December 2024
CP 2	In-Person/Virtual	December 2025
Stakeholder Meetings	In-Person/Virtual	TBD
CP 2A	In-Person/Virtual	TBD
Draft Environmental Document	In-Person/Virtual	TBD
CP3	In-Person/Virtual	TBD
CP4A	In-Person/Virtual	TBD
Final Environmental Document	In-Person/Virtual	TBD
*tentative, subject to change		

2. Summary of CP 1 Project Purpose and Need

2.1. Identified Needs

Roadway Network Reliability

U.S. 74 through Wadesboro is not unlike major thoroughfares through many community centers, rife with an abundance of access points for the various commercial and service parcels along the corridor. The geometry of the roadway accommodating the undulating terrain, combined with a greater percentage of heavy trucks, as well as closely spaced access points result in network

turbulence that impede consistent flow through the corridor, especially during times of peak demand. The results of the Anson County CTP traffic analysis show that travel times through the corridor in both the existing and future no-build scenarios will be susceptible to these compounded factors.

Inter-Regional Mobility and System Connectivity

U.S. 74 is the principal east-west regional route stretching along the North Carolina side of the North Carolina-South Carolina border. It extends from the southwest corner of the state near Chattanooga, Tennessee to Wilmington, connecting the Asheville, Charlotte, and Wilmington metropolitan areas, and the rural communities between them. Additionally, U.S. 74 connects with major north-south oriented highways such as I-26, I-73, I-74, I-77, and I-95. A key function of the U.S. 74 corridor is to support high-speed travel from the Port of Wilmington to the Charlotte Metro area in support of high-level economic activity.

As similarly stated with regard to network reliability, the confluence of thru volumes in several directions coupled with the commercial nature of U.S. 74 through downtown Wadesboro results in reduced ability of the area network to accommodate the existing and expected future traffic volumes.

Connecting Primary Activity Centers

Activity centers are areas that generate economic activity and serve as major origins or destinations for traffic. The following activity centers are located in the vicinity of the U.S. 74 corridor:

- Charlotte Douglas International Airport
- Port of Wilmington
- North Carolina Ports Authority, Charlotte Inland Port, CSX Intermodal Terminal
- Norfolk Southern Charlotte Intermodal Terminal
- Charlotte Regional Employment and Distribution Centers
- Universities: UNC-Charlotte, UNC-Pembroke, UNC-Wilmington, and other private universities
- Charlotte regional medical centers
- New Hanover Regional Medical Center
- Southeastern North Carolina beaches and the South Carolina Grand Strand

Regional Freight Corridor

U.S. 74 is a regional freight corridor, serving as a primary route for freight originating at or destined for the Charlotte Metropolitan area and the Wilmington area port terminals. The portion of U.S. 74 between Charlotte and Wilmington is designated as a component of the USDOT Primary High Freight System (PHFS) and the North Carolina Priority Highway Freight Network. Over 66.4 million tons of freight moved in, out, or around the Charlotte region in 2012. Trucks moved 77 percent (51.1 million tons) of this freight. Total freight tonnage from, to and within the Charlotte region is projected to increase 35 percent from 2015 to 2045, or at a compound annual growth rate of 1.1 percent per year, with U.S. 74 being the primary route for freight to and from Wilmington. In 2015, about 95 percent of total freight tons in the region were domestic and these volumes are projected to grow by 30 percent. U.S. 52, just south of U.S. 74 in Wadesboro, also serves as a freight corridor, acting as a conduit for freight between the Charlotte region and distribution centers in and around Florence, SC. In 2022, U.S. 52 south of U.S. 74 in Wadesboro carried an average of 920 trucks per

day. Wadesboro was identified as a medium-high crash area in the 2016 Charlotte Regional Freight Plan. The following regional freight goals were identified in the 2016 Charlotte Regional Freight Plan:

- Develop, integrate, and support a freight transportation system supporting the region's position as a major freight hub via a network of highways, railroads and airports.
- Reduce the number of high crash locations that involve trucks or at-grade rail crossings.
- Reduce the frequency of recurring and non-recurring congestion on the freight system.

Local Commuting Patterns

The U.S. 74 corridor also provides both local and regional mobility for employment commuters in Anson County. It is the primary east-west connection to Monroe and Rockingham. The majority of Anson County's workforce works and lives in Anson County (54.8 percent), while 40.7 percent work outside of Anson County and 4.4 percent work outside the state of North Carolina. This is significantly higher than the state average of 35.5 percent and 2.2 percent, respectively, but expected given the employment opportunities available in Anson County and its location along the South Carolina border. In 2019, Anson County's daily commuter outflow was 1,866, while the inflow was 1,219 commuters daily.

North Carolina Strategic Transportation Corridor (STC) Policy

As noted in previous sections, the reduced network reliability and the overlapping regional routes through Wadesboro are contrary to the NC STC Policy's vision of providing efficient connections critical to interstate commerce and national defense. Roadway geometry, proposed volumes, access points, and intersection control all combine to reduce the ability of people and goods to move between regional centers and interstate facilities. This reduction in the ability to move people and goods also limits the potential for economic prosperity of the region.

2.2. Purpose & Need Statement

The purpose of the proposed project is to improve the roadway network reliability and inter-regional mobility in the project study area in a manner that meets the intent of the North Carolina Strategic Transportation Corridor (STC) policy.

2.3. Other Potential Desirable Outcomes

- Separation of local and through traffic
- Reduction in crashes along U.S. 74 within the study area
- Reduction of freight traffic through Wadesboro
- Connectivity and system linkage improvements
- Improvement of travel conditions for local roadway users
- Consistency with local and state-level planning efforts

The need of the proposed roadway improvements is demonstrated by that fact that U.S. 74, which is designated as Strategic Transportation Corridor "U" serves as the primary regional corridor for connecting the Charlotte metropolitan area with southeastern North Carolina activity centers and regional interstate highways. Segments of U.S. 74 in the project study area are currently over capacity and additional segments are anticipated to be over capacity in the Design Year (2050), diminishing the reliability of the corridor to support the movement of commuters, vacationers, and

regional freight. By providing an alternate east-west route, the operational efficiency of the roadway network can be enhanced, thereby promoting tourism through this region and the state.

3. Project Study Area

The Project Study Area is shown in further detail in **Figure 2**, and there have been no changes to the study area since CP 1.

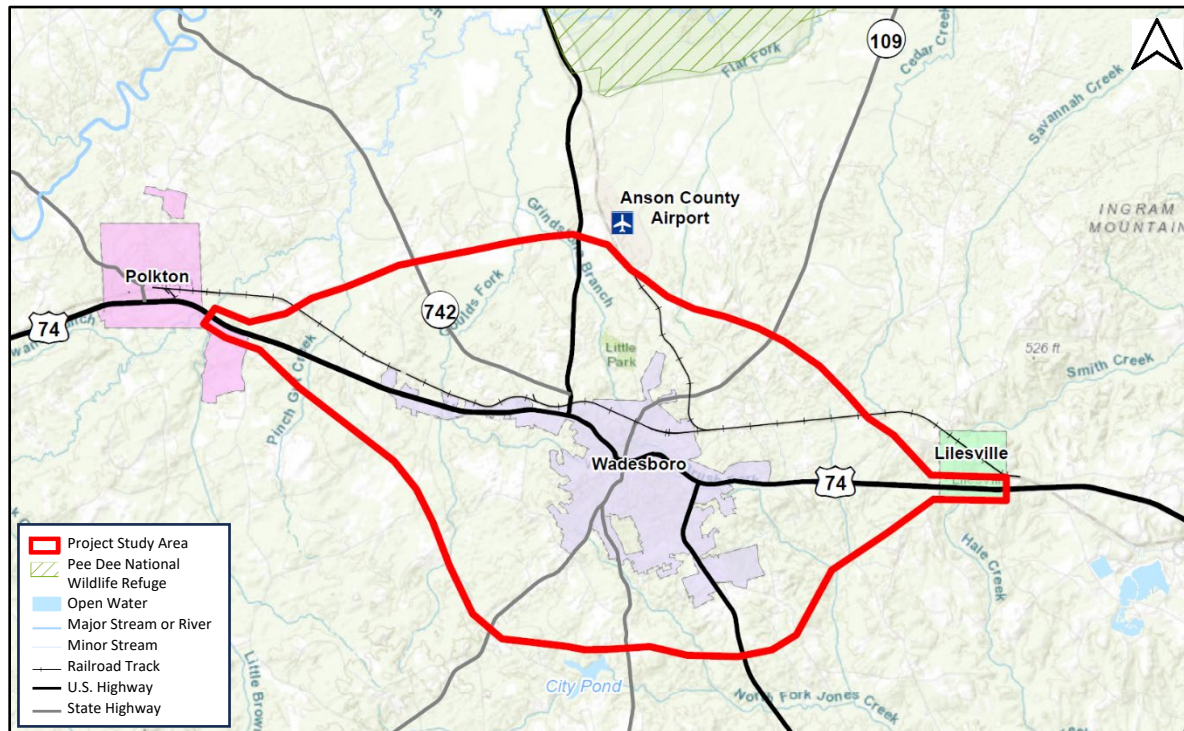


Figure 2. R-5878 Project Study Area

4. Summary of Public Involvement

A Public Information Meeting was held on May 9, 2024, from 4:00pm to 7:00pm at the Lockhart-Taylor Center (514 N. Washington Street). A Local Officials Meeting was also held on the same day. Early engagement was conducted to introduce the project to residents and stakeholders, understand the location and prevalence of existing resources, and collect preliminary feedback from the public. A total of 52 individuals participated at the Public Information Meeting and 67 comments were received by the project team as of June 7, 2024. All support the project in principle. Topics mentioned in the comments included the following:

- 16 prefer a northern route.
- 4 state that the southern side of town should be preserved.
- 3 state that homes should be avoided as much as possible.
- 2 state that City Pond should be protected.

A second Public Information Meeting will be planned after CP2 reaches concurrence with a goal to update the public on anticipated build alternative corridors. A formal Public Hearing is anticipated post CP3.

5. Summary of Alternatives Considered

5.1. No Build Alternative

The No-Build Alternative only includes minor restoration activities to ensure the safety, maintenance, and continued operation of the existing highway. It does not require additional right-of-way or any improvements to the highway that would generate impacts to human or natural resources. Although it will not provide increased mobility and connectivity required to meet the Purpose and Need of the project, the No-Build Alternative will be carried forward to provide a basis for comparison with other alternatives carried forward for detailed study for this proposed action.

The NC Strategic Vision Plan for Corridor U also includes two projects that would occur on U.S. 74 and is assumed part of the No Build Alternative. Project Number R-5798 proposes to construct a median along U.S. 74 through Wadesboro from Graham Street to Allen Pond Road (S.R. 1749) to improve access management. Project Number R-5871 involves access management improvements on U.S. 74 from N.C. 742 (Graham Street) to Anson High School Road. Neither of these projects will add capacity to U.S. 74.

5.2. Build Alternatives

Improving the U.S. 74 corridor was initially studied as a part of the [R-4441 Feasibility Study](#), which described preliminary studies relative to the proposed U.S. 74 freeway upgrade from the bypass of Monroe to the bypass of Rockingham. In consideration of avoiding or minimizing impacts to environmental resources, historic properties, residences, and businesses, this study resulted in a recommendation to construct a bypass of the Town of Wadesboro. The Build Alternatives consist of four new location bypass alternatives (Alternatives 1, 3, 4, and 5) and Alternative 2, which proposes to improve existing U.S. 74 within the study area.

Two northern bypass routes and two southern bypass routes were studied. The team began at the existing alignment and proceeded outward from the town until the first reasonable and feasible bypass route was found (factoring in physical constraints, potential impacts, and length of alternative). The team continued outward from the town until the next reasonable and feasible bypass route was found. Proceeding beyond the outer alternatives would result in an excessively lengthy bypass which travelers would hesitate to use, thereby placing traffic back onto the existing route.

The four bypass alternatives satisfy design standards within A Policy on Geometric Design of Highways and Streets as well as the NCDOT Roadway Design Manual. All four alternatives are designed to interstate standards as bypasses of Wadesboro with a proposed four-lane, fully controlled-access freeway on new location, including a 51-foot depressed grass median protected with guiderail. Access is limited to interchanges with a trumpet interchange on either end connecting to existing U.S. 74 and diamond interchanges along the route at the larger crossing routes.

The proposed Build Alternatives are located within the Yadkin-Pee Dee River Basin, and the new location alternatives span two different 8-digit HUCs. The west side of each alternative is within the Upper Pee Dee watershed (HUC 03040104) and the east side is within the Lower Pee Dee watershed (HUC 03040201). More information on potential watershed impacts can be found in Section 6.1.

The goal of the proposed Build Alternatives, as shown in **Figure 3**, would be to support the purpose and need for the project by reducing traffic congestion near Wadesboro, while improving traffic flow and freight transportation between Charlotte and Wilmington. A description of each alternative is provided in the following sections. See Section 6.1 for figures of each individual Build Alternative with documented environmental resources.

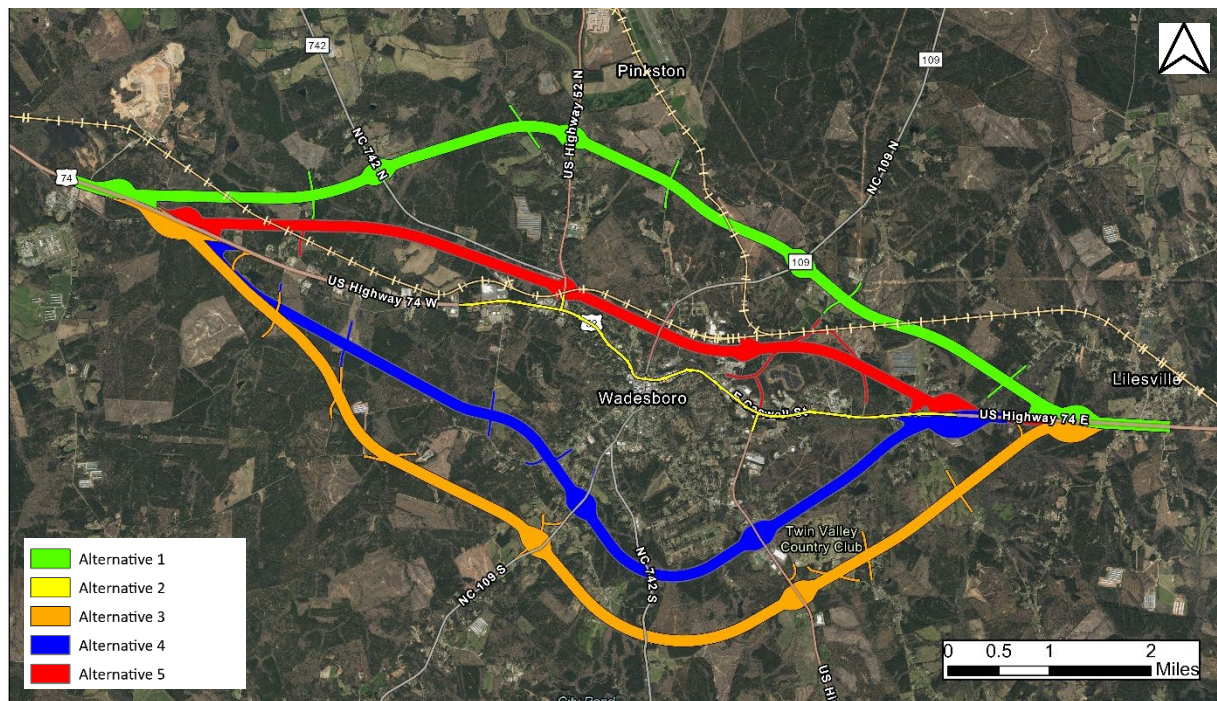


Figure 3. Overview of the R-5878 Build-Alternatives

Alternative 1 (shown in detail in **Figure 4**) is an 11.9-mile northern bypass of Wadesboro. It is a proposed four-lane, fully controlled-access freeway on new location, featuring a 51-foot depressed grass median. Alternative 1 was investigated in the previously completed feasibility study and provides a northern route that has minimum impacts on the human environment. The route is located away from town limits to avoid development, and its position north of the town allows for multimodal connections with the airport and rail lines. The route begins at Old Prison Camp Road, closely follows the alignments identified in the 2003 and 2018 Feasibility Studies, and ends just west of Camden Street in the Town of Lilesville. This alternative includes five interchanges, which would enhance accessibility to the surrounding area. The interchanges are located at the western terminus with existing U.S. 74, N.C. 742, U.S. 52, N.C. 109, and the eastern terminus with existing U.S. 74. Other intersecting roadways will either be grade-separated or terminated, depending on the availability of adjacent routes.

Service roads are possible along this route, and a service road study will be conducted to determine how many are needed. A 600-foot preliminary corridor was evaluated to account for potential impacts, future service roads, and alignment adjustments. The final right-of-way width for the corridor will be substantially reduced during the preliminary design phase of the project and will incorporate avoidance and minimization measures.

Alternative 2 (Improve Existing) (shown in detail in **Figure 5**) is a 5.4-mile widening of the existing route through Wadesboro. It is a four-lane Reduced Conflict Intersection (RCI) corridor with a 23-foot raised grass median and controlled access provided only at U-turn bulbs. Alternative 2 was studied to determine if an option for improving the existing alignment through town would meet purpose and need.

Since Alternative 2 wouldn't have full access control, speed limits would need to be posted lower in comparison to new location bypass alternatives. The route begins west of Anson High School Road, follows the existing U.S. 74 alignment, and ends at West Wall Street. Left-over intersections are included at locations with significant traffic volumes, and U-turn bulbs are provided along the corridor to maintain accessibility to the surrounding area. Signal evaluations for these intersections will be conducted during final design.

The proposed designs for Alternative 2 would replace the proposed designs for R-5798/R-5871 projects that are currently under development. The R-5798/R-5871 projects will continue to be considered as a part of the No-Build Alternative.

Alternative 3 (shown in detail in **Figure 6**) is a 13.3-mile southern bypass of the Town of Wadesboro. It is a proposed four-lane, fully controlled-access freeway on new location, featuring a 51-foot depressed grass median. Alternative 3 provides a southern route that has minimum impacts on the human environment and is located away from town limits to avoid development.

The route begins at Old Prison Camp Road, proceeds south of Wadesboro—beyond most of the town's development—and ends just west of Camden Street in Lilesville. Four interchanges are included in Alternative 3, which will provide increased accessibility to the surrounding area. These are located at the western terminus with existing U.S. 74, N.C. 109, U.S. 52, and the eastern terminus with existing U.S. 74. In accordance with AASHTO guidance, which recommends interchange spacing of two miles in rural areas, an interchange was not placed at N.C. 742; however, the alignment of Alternative 3 has been designed to accommodate a future interchange at N.C. 742 if needed. Other intersecting roadways will either be grade-separated or terminated, depending on the availability of adjacent routes. Service roads are anticipated along this route, and a service road study will be conducted to determine the number required. A 600-foot preliminary corridor was evaluated to account for potential impacts, future service roads, and alignment adjustments. The final right-of-way width for the corridor will be substantially reduced during the preliminary design phase of the project and will incorporate avoidance and minimization measures.

Alternative 4 (shown in detail in **Figure 7**) is an 11.6-mile southern bypass of Wadesboro. It is a proposed four-lane, fully controlled-access freeway on new location, featuring a 51-foot depressed grass median. Alternative 4 provides a shorter southern route with less impacts on the natural environment and construction costs but with greater human environmental impacts than the outer alternatives.

The route begins near Dozer Road, proceeds south of Wadesboro—beyond some of the town's development—and ends just west of Camden Street in Lilesville. Four interchanges are included in Alternative 4, which will provide increased accessibility to the surrounding area. These are located at the western terminus with existing U.S. 74, N.C. 109, U.S. 52, and the eastern terminus with existing U.S. 74. In accordance with AASHTO guidance, which recommends interchange spacing of two miles

in rural areas, an interchange was not placed at N.C. 742; however, a collector/distributor road system connecting the three interchanges is recommended if an interchange at N.C. 742 is proposed in the future.

Other intersecting roadways will either be grade-separated or terminated, depending on the availability of adjacent routes. Service roads are also anticipated along this route, and a service road study will be conducted to determine how many are needed. A 600-foot preliminary corridor was used to encompass all potential impacts, future service roads, and alignment adjustments. The final right-of-way width for the corridor will be substantially reduced during the preliminary design phase of the project and will incorporate avoidance and minimization measures.

Alternative 5 (shown in detail in **Figure 8**) is a 9.4-mile northern bypass of Wadesboro. It is a proposed four-lane, fully controlled-access freeway on new location, featuring a 51-foot depressed grass median. Alternative 5 provides a shorter northern route with less impacts on the natural environment and construction costs but with greater human environmental impacts than the outer alternatives.

The route begins near Dozer Road, proceeds slightly north of Wadesboro—beyond some of the town’s development—and ends just west of Camden Street in Lilesville. Four interchanges are included in Alternative 5, which will provide increased accessibility to the surrounding area. These are located at the western terminus with existing U.S. 74, U.S. 52/N.C. 742, the U.S. 52 extension, and the eastern terminus with existing U.S. 74. In accordance with AASHTO guidance, which recommends interchange spacing of two miles in rural areas, an interchange was not placed at N.C. 109; however, a collector/distributor road system connecting the three interchanges is recommended if an interchange at N.C. 109 is proposed in the future.

Other intersecting roadways will either be grade-separated or terminated, depending on the availability of adjacent routes. Service roads are anticipated along this route, and a service road study will be conducted to determine how many are needed. A 600-foot preliminary corridor was evaluated to account for potential impacts, future service roads, and alignment adjustments. The final right-of-way width for the corridor will be substantially reduced during the preliminary design phase of the project and will incorporate avoidance and minimization measures.

6. Analysis of Build Alternatives

Table 6.1 shows preliminary impacts on existing resources within the 600-foot corridor for each proposed study alternative, except for Alternative 2 (Improve Existing), which has a 150-foot corridor. The 600-foot-wide corridor was used to conservatively encompass all resources (Socioeconomic, Cultural, Natural, and Physical Resources) that may be potentially impacted by each alternative and represents a worst-case scenario and overestimates potential impacts.

Streams and wetlands were digitized using ATLAS streams, NHD, NWI, NRCS soils, high resolution DEMs, and high-resolution aerial photography with some areas of ground truthing. Additional information regarding specific impacts anticipated under each proposed alternative can be reviewed in Section 6.1.

Table 6.1. Preliminary Impact Summary for the Proposed Build Alternatives

Resource Category	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Approximate Length (miles)	11.9	5.4	13.3	11.6	9.4
Railroad Crossings (#)	3	0	0	0	5
Utility Conflicts (low/med/high) (Power tower impacts or utility relocations)	Medium	High	Medium	Medium	Medium
Constructability Issues (low/med/high)	Low	High	Low	Low	Medium
Right of Way Impact Potential					
Resource Category	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Parcel Impacts (#)	196	263	231	309	341
Section 6(f) or Section 4(f) (Recreational) (yes/no)	No	No	No	No	No
Building Impacts (#)					
Single-Family Residential	52	29	63	147	109
Multi-Family Residential	0	1	1	2	4
Commercial	2	29	2	2	15
Institutional	2	2	2	2	4
TOTAL BUILDINGS	58	61	68	153	132
Cultural Resources					
Resource Category	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
NRHP Listed or Determined Eligible Historic Properties/Districts (#)	1	3	0	0	0
Tribal Coordination (yes/no)	Yes	Yes	Yes	Yes	Yes
Cemetery (#)	1	1	1	1	1

Natural Resources					
Resource Category	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Known Occurrences of Protected Species (yes/no)	No	No	Yes	No	No
Wetland Impacts (acres)	37.1	0.1	38.8	30.4	47.8
Open Water Impacts (acres)	2.5	0.0	3.9	2.5	3.1
Stream Impacts (linear feet)	40,876	911	44,044	34,359	27,985
Managed Area (acres)	4.3	0	0	0	0
Water Supply Watershed* (acres)	0	0	169.8	0.26	0
Water Supply Critical Area (acres)	0	0	27.7	0	0
Physical Resources					
Resource Category	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Floodplains (acres)	78.9	1.8	41.7	52.6	41.9
Farmland (Prime acres)	484.2	28.9	614.9	374.1	324.8
Farmland (Statewide Importance acres)	261.9	18.0	248.4	219.0	211.4
Voluntary Agricultural Districts (# / acres)	0	0	2 parcels 36 acres	2 parcels 144 acres	1 parcel 1 acre
GeoEnvironmental Sites (#)	0	4	0	0	2

**Water Supply Watershed total includes critical area*

6.1. Potential Impact Details

Alternative 1 Potential Impacts

Alternative 1, shown in **Figure 4**, would involve a moderate number of railroad crossings (3), medium utility conflicts, and low constructability issues. It is anticipated that it would affect 196 parcels and 58 buildings, including one National Register of Historic Places (NRHP) determined eligible historic property (Winston-Salem Southbound Railway), the Lilesville Elementary School, one NC Department of Motor Vehicles (DMV) office, and one potential cemetery. This alternative would have the highest estimated floodplain impact (78.9 acres) and the second greatest impact on prime farmland (484.2 acres) and streams (40,876 linear feet). Moderate impacts would be anticipated for wetland (37.1 acres) and open water (2.5 acres) resources. The managed area noted in **Table 6.1** includes undeveloped land owned by Anson County directly north of a Section 6(f) resource, Little Park (which is not anticipated to be impacted by Alternative 1). There is a potential contiguous land swap solution to mitigate for the managed area impact.

Stream crossings include Pinch Gut Creek, Goulds Fork, Grindstone Branch, Derita Creek, Reedy Fork and Hale Creek as well as some unnamed tributaries. Riparian wetlands are likely present within the larger floodplain areas along the route. 100-year floodplains are mapped on many of the named stream crossings, especially on the western side of the study area. All streams are classified as "C" by the NCDWR which means that the water is suitable for aquatic life propagation, fishing, wildlife, secondary recreation, and agriculture. There are no 303d listed streams or waters designated as High Quality Waters (HQW), Outstanding Resource Waters (ORW) or Water Supply Watersheds within Alternative 1.

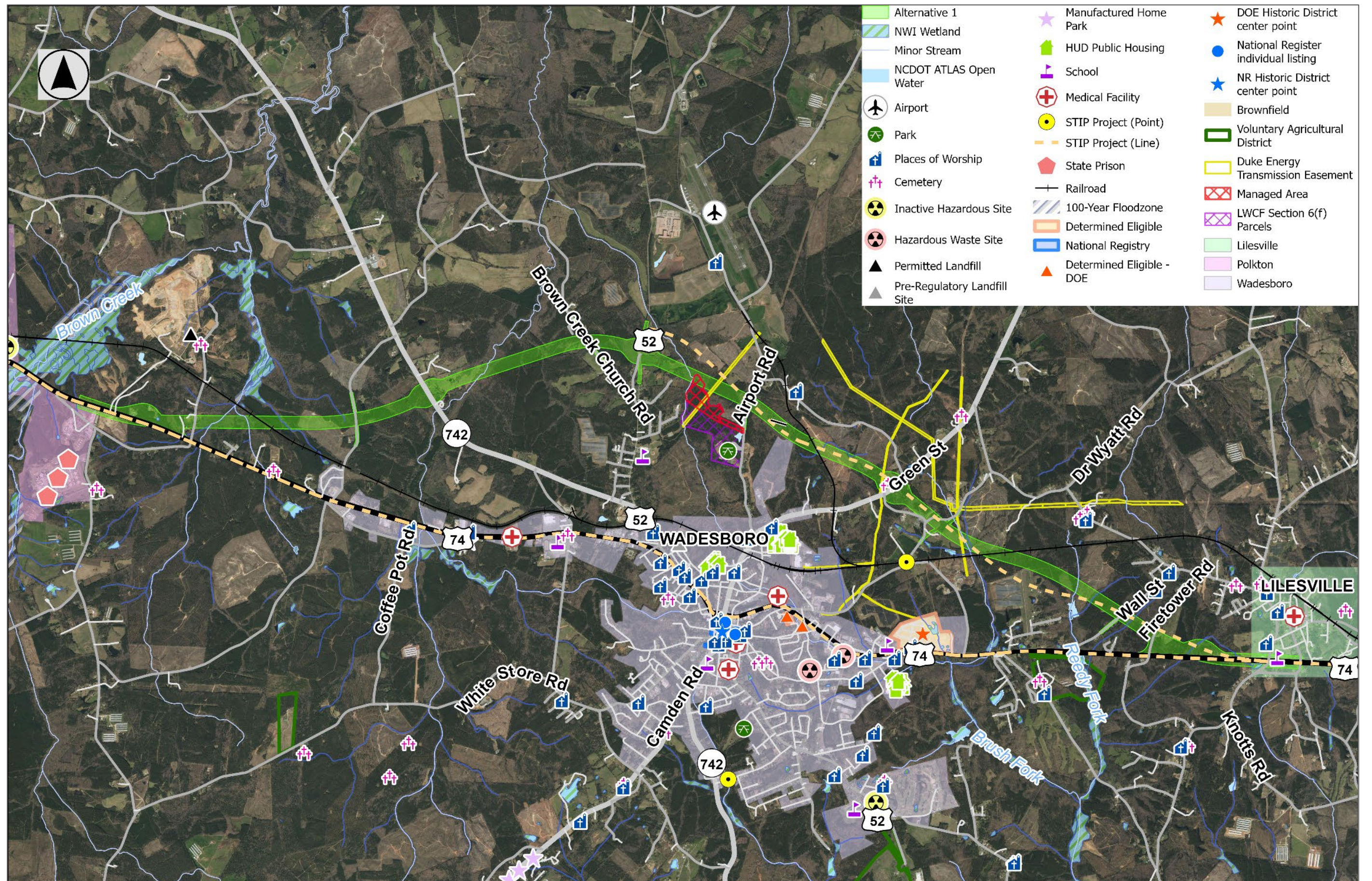


Figure 4. Alternative 1 located on the north side of Wadesboro

Alternative 2 Potential Impacts

Although it has no railroad crossings, Alternative 2, shown in **Figure 5**, would present complex challenges with high utility conflicts and constructability issues. It is estimated that Alternative 2 would affect 263 parcels and 61 buildings, including one nursing home, one cemetery, and three NRHP determined eligible historic properties. The determined eligible historic properties include the Wade Manufacturing Company and Mill Village Historic District, the Valley Motor Court property, and the Caudle Family House property. The potentially impacted cemetery, Magnolia Summit Cemetery, has an estimated 48 memorials and includes the final resting place of Riden Tyler Bennett, a Civil War Confederate Army Colonel and U.S. Congressman who died in 1913. Alternative 2 would also include the highest impact on documented geoenvironmental sites of concern (four), which could complicate permitting and mitigation efforts. This alternative would have low floodplain (1.8 acres), prime farmland (28.9 acres), stream (911 linear ft), wetland (0.1 acres), and open water (0 acres) impacts, which can be attributed to the developed nature of the existing roadway.

Stream crossings within Alternative 2 include Brush Fork and Derita Creek, as well as some unnamed tributaries. All streams are classified as "C" stream by the NCDWR. There are no 303d listed streams or waters designated as HQW, ORW, or water supply watersheds within Alternative 2.

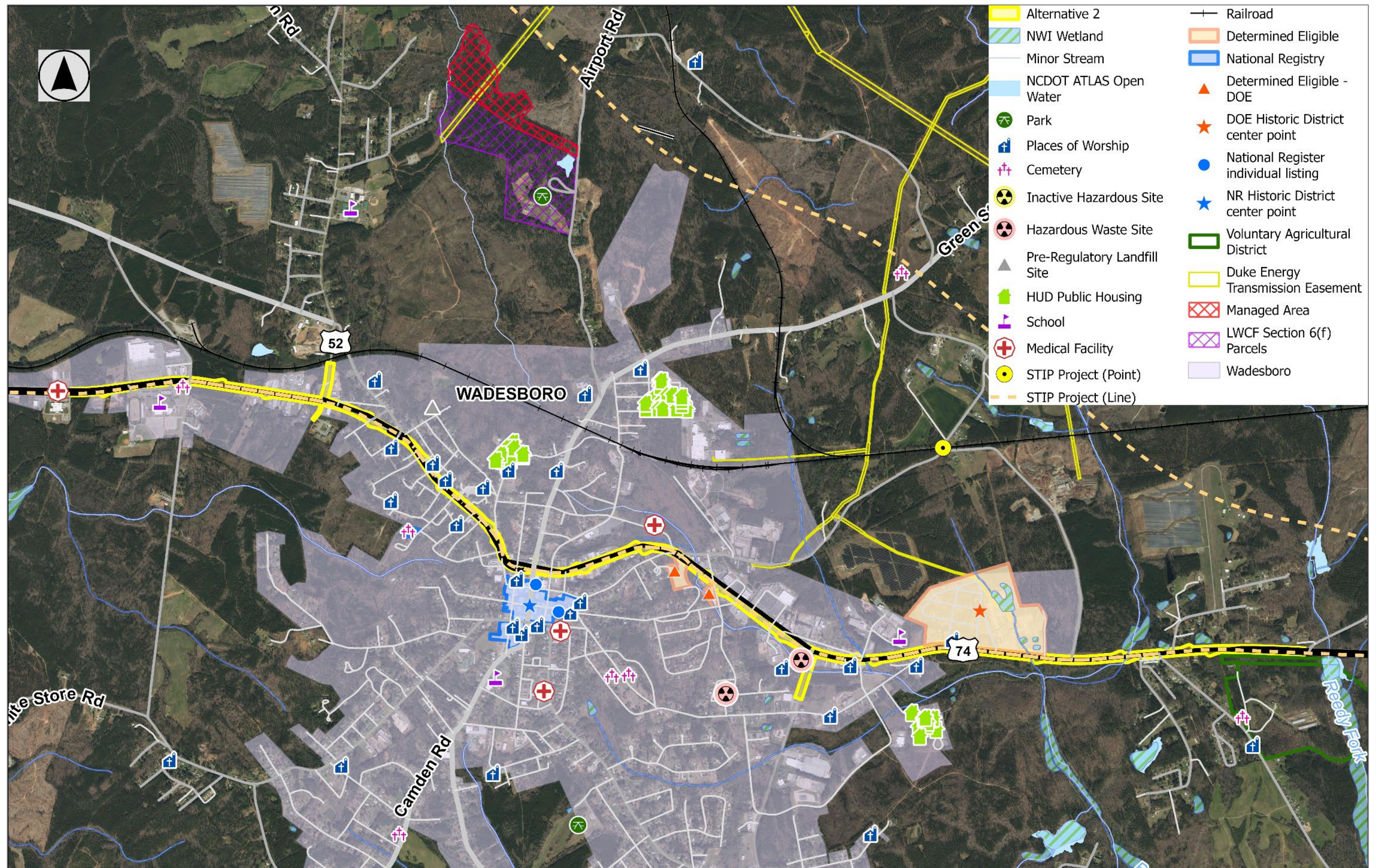


Figure 5. Alternative 2 located on the existing U.S. 74 corridor

Alternative 3 Potential Impacts

Alternative 3, shown in **Figure 6**, is similar to Alternative 2 in terms of the total number of parcel and building impacts (231 parcels and 68 buildings), but it would avoid NRHP resources and geoenvironmental site conflicts associated with Alternative 2. Note that there are an estimated 10-19 units in the multi-family building count, which would increase the number of potential residential displacements; however, this count could not be confirmed via desktop review. The Lilesville Elementary School and one NC DMV office are included in the institutional impact count. Anson Memorial Park would also be impacted under this alternative, which contains an estimated 1,939 memorials. Alternative 3 would likely have medium utility conflicts and low constructability issues; however, it would also have moderate floodplain (41.7 acres) and wetland (38.8 acres) impacts and the highest impact on prime farmland (614.9 acres), open water (3.9 acres) and streams (44,043 linear feet). Approximately 35.7 acres of protected Voluntary Agricultural District (VAD) land would be impacted.

Stream crossings within Alternative 3 include Pinch Gut Creek, Goulds Fork, Lampley Branch, Brush Fork, Reedy Fork and Hale Creek, as well as some unnamed tributaries. Narrow riparian wetlands may be present within the floodplain areas along the route, and 100-year floodplains are mapped on some of the named stream crossings. In the vicinity of N.C. 109, there are a number of unnamed tributaries to North Fork Jones Creek / Wadesboro Municipal Lake that are designated a Water Supply Watershed stream classification (WS-II) and HQW. All other streams along Alternative 3 are classified as "C" by the NCDWR.

In addition, Alternative 3 is the only alternative with known occurrences of protected species (Schweinitz's Sunflower). It should be noted that protected species may also be found in other areas near Wadesboro, but none have been documented within the boundaries of the other Build Alternatives.

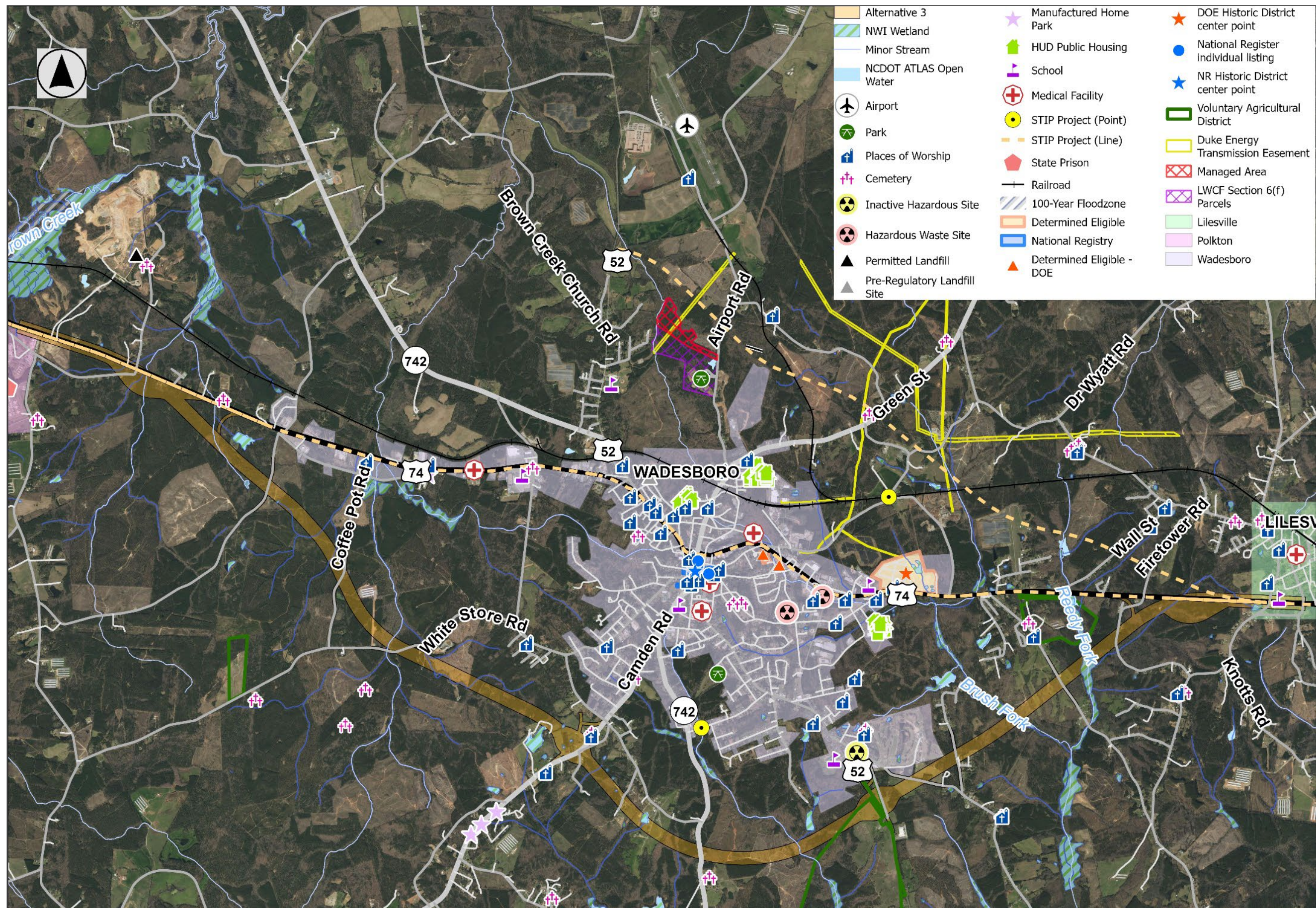


Figure 6. Alternative 3 located on the south side of Wadesboro

Alternative 4 Potential Impacts

Alternative 4, shown in **Figure 7**, has the highest number of buildings impacted (153) and substantial parcel impacts (309). Parcel impacts would include encroachment on Tarlton Cemetery, which hosts an estimated 72 memorials. While it is anticipated to have low constructability issues and would avoid NRHP resource conflicts, it would be expected to have medium utility conflicts and higher floodplain (52.6 acres) and stream (34,358 linear feet) impacts. Prime farmland impacts would be moderate (374.1 acres) and two protected VAD parcels would need conversion (144.8 acres). Moderate impacts would also be anticipated for wetland (30.5 acres) and open water (2.5 acres) resources.

Stream crossings include Pinch Gut Creek, Goulds Fork, Lampley Branch, Lake Maree, Brush Fork, and Reedy Fork, as well as some unnamed tributaries. Narrow riparian wetlands may be present within the floodplain areas along the route, and 100-year floodplains are mapped on some of the named stream crossings. All streams are classified as "C" by the NCDWR. There are no 303d listed streams or waters designated as HQW, ORW, or Water Supply Watersheds within Alternative 4.

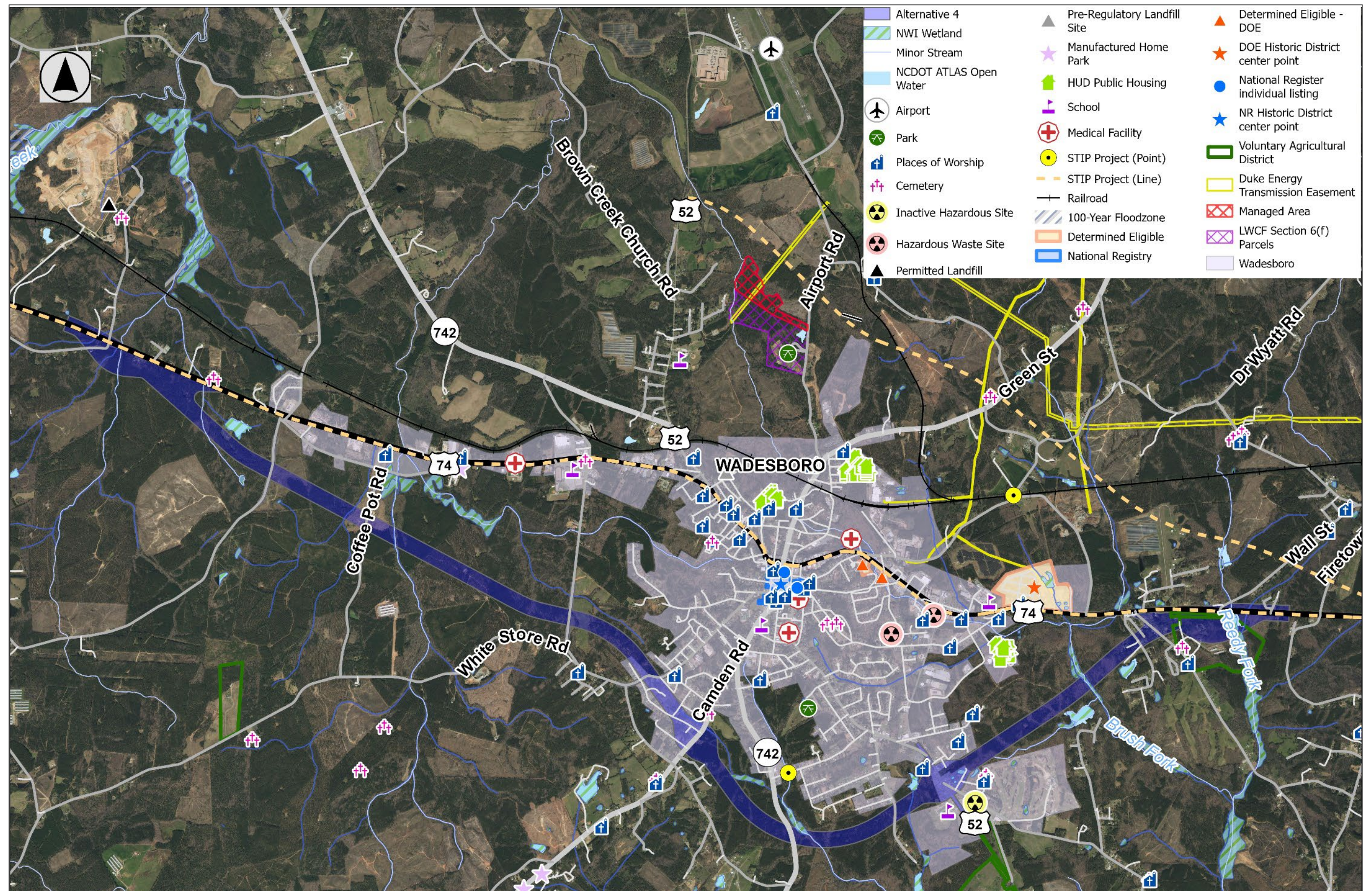


Figure 7. Alternative 4 located on the south side of Wadesboro

Alternative 5 Potential Impacts

Alternative 5, shown in **Figure 8**, also has substantial building impacts (132) and parcel impacts (341). An estimated 12 units are included in the multi-family building count, which would increase the number of potential residential displacements. These multi-family units are also categorized as U.S. Department of Housing and Urban Development (HUD) subsidized housing for low-income residents. The Westview Memorial Park is also included in the parcel impact count and hosts an estimated 1,553 memorials; however, Alternative 5 is not anticipated to hit any of the current gravesites since it impacts a suspected undeveloped portion of the parcel. Alternative 5 would have medium utility conflicts and constructability issues, with up to five railroad crossings – the most of any alternative. While it would avoid cultural resource conflicts, Alternative 5 would have moderate floodplain (42.0 acres) and prime farmland (324.8 acres) impacts, including an estimated 1.1-acre impact to a protected VAD. Wetland impacts are the most of any alternative with an estimated 47.8 acres. One Hazardous Waste (CVS Pharmacy #3815) and one Pre Regulatory Landfill Site (Wadesboro Landfill) would also expect impacts.

Stream crossings include Pinch Gut Creek, Goulds Fork, Grindstone Branch, Brush Fork, Derita Creek, and Reedy Fork as well as some unnamed tributaries. Narrow riparian wetlands may be present within the floodplain areas along the route, and 100-year floodplains are mapped on some of the named stream crossings. All streams are classified as "C" by the NCDWR. There are no 303d listed streams or waters designated as HQW, ORW, or Water Supply Watersheds within Alternative 5.

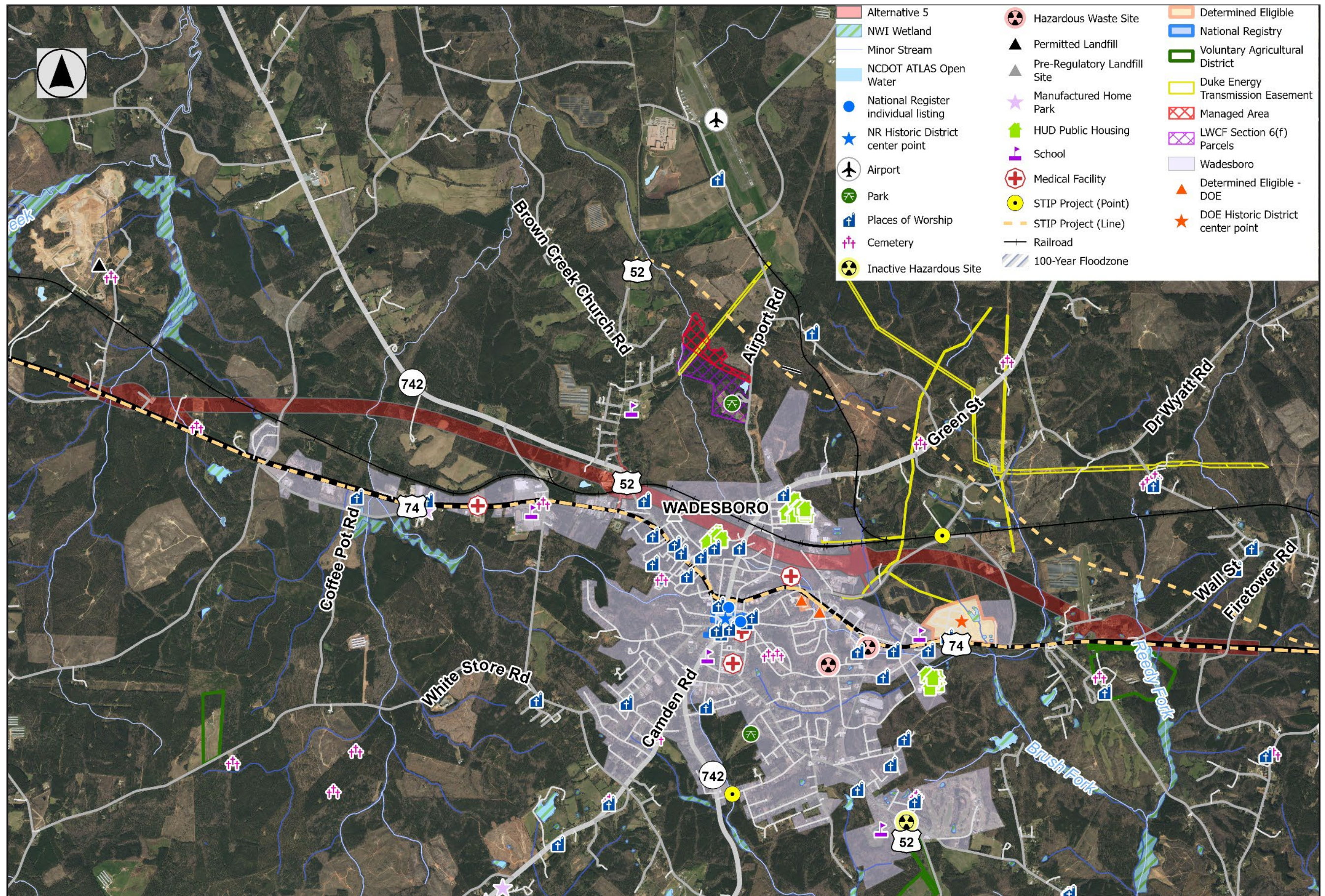


Figure 8. Alternative 5 located on the north side of Wadesboro

6.2. Summary of Recommendations

Table 6.2 includes a summary of the recommendations for each of the proposed Build Alternatives. Each alternative that is not recommended for further detailed study is explained below.

Table 6.2. Recommendation Summary for the Proposed Build Alternatives

Design Option	Recommended for Detailed Study?	Notes
No-Build	Yes	Does not meet the project's Purpose & Need, but will be carried forward as a point of comparison
Alt 1	Yes	Meets project's Purpose & Need with moderate anticipated impacts
Alt 2	No	Does not meet the project's Purpose & Need
Alt 3	Yes	Meets project's Purpose & Need with moderate anticipated impacts
Alt 4	TBD	Meets project's Purpose & Need; Alternative 4 has the lowest wetland acreage impacts of the four evaluated bypass alternatives. This alternative has the highest number of anticipated residential displacements and parcel impacts, more than double the amount of building impacts as compared to Alternative 1, 2, or 3. Alternative 4 would also bisect two neighborhoods, thus impacting existing community cohesion.
Alt 5	No	Meets project's Purpose & Need; however, a high level of impacts is anticipated to existing residential and commercial properties and wetlands. Additionally, there are moderate potential constructability issues associated with this alternative.

Alternative 2 is not recommended for further analysis since it does not fulfill the goals of the project's Purpose and Need. The proposed RCI corridor is not consistent with other facilities along the U.S. 74 corridor because it does not provide a 55 MPH or greater four-lane new location with controlled access; therefore, it does not satisfy the objective for a consistent network nor the goal for a higher speed limit and improved mobility. In addition, Level of Service (LOS) and general reliability will decrease on a non-controlled-access RCI corridor over time as development increases. In addition, Alternative 2 has the highest number of impacts to NRHP listed resources and commercial buildings. It also has anticipated high utility impacts and constructability issues due to the developed nature of the existing corridor.

Alternative 5 is not recommended for further analysis due to substantial impacts to the human and natural environment, including a high number of anticipated residential and commercial displacements, as well as having the highest potential wetland impacts. Anticipated residential relocations include up to 12 units within the multi-family building impacts, which would elevate the

number of families impacted by displacement. It also has the highest institutional displacements of any build-alternative, which include up to four buildings associated with places of worship.

Additionally, Alternative 5 has moderate constructability issues due to the high number of proposed railroad crossings for both the mainline and Y-lines. Anticipated constructability challenges may result in higher costs at the Alternative 5 interchange with U.S. 52/N.C. 742. Maintaining traffic on U.S. 52 and N.C. 742 during construction would also be challenging due to the proximity of the interchange to existing U.S. 74. It would not be possible to provide 1,000 feet of controlled access south of the southern ramp terminals. This limitation would prevent the interchange and the adjacent U.S. 52/U.S. 74 intersection from functioning optimally.

These issues could be partially minimized by shifting the interchange north; however, doing so would require realigning N.C. 742. Even with this adjustment, the interchange would still impact the adjacent railroad.

7. Avoidance and Minimization

During project scoping the Project Study Area boundary was chosen to avoid impacts on the Town of Polkton, Town of Lilesville, City Pond (drinking water supply and recreational resource), and Anson County Airport. Additionally, all proposed bypass alternatives avoid impacts to Section 4(f) recreation and Section 6(f) resources.

Where feasible, avoidance and minimization were addressed in the development of the proposed alternative corridors by shifting the roadway alignment to avoid and minimize impacts to the resources lying within the corridor. This included adding sufficient distances from streams running parallel to the corridor to maintain a buffer between the potential right-of-way and adjacent streams. An attempt was made to cross stream perpendicularly while also maintaining adherence to AASHTO roadway design standards.

With the exception of Alternative 2, which widens the existing route and the U.S. 52 connector routes, all other Alternatives would have a 51-foot depressed median, the minimum width for freeways or interstates. This reduced median is in lieu of the standard 75 feet, thereby further avoiding and minimizing impacts to resources. The 51-foot median width would also allow for future lanes with a 27-foot median and concrete barrier.

In accordance with current state and federal highway design standards, new-location freeways constructed in rolling terrain generally require a right-of-way width of approximately 300 feet. This width is considered sufficient to accommodate the proposed roadway cross-section, drainage features, and necessary safety clear zones. To ensure design flexibility and allow for the evaluation of potential environmental and community impacts, all build alternatives—except for Alternative 2—were analyzed within a 600-foot study corridor. The wider study corridor accounts for potential service roads for properties where direct access may be removed as well as providing additional opportunities to adjust the final alignment as needed during the detailed design phase and provides sufficient flexibility to avoid and/or minimize environmental and community impacts to the greatest extent practicable.

For comparison purposes, avoidance and minimization measures for the proposed Alternatives are summarized below:

Alternative 1 Avoidance & Minimization

- Takes off from existing U.S. 74 with an interchange at a point which minimizes impacts to the homes and businesses lining existing U.S. 74. If this alternative is carried forward, this takeoff point will be further studied after CP2 to minimize the service road length required to access the landfill and to possibly shorten the overall length of this alternative.
- Crosses CSX Railroad with skewed bridges prioritizing the minimization of impacts to natural resources.
- Avoids impacts to wetland and surface water farm ponds while crossing streams and near perpendicular and avoids impacts to parallel streams with the final 300' corridor.
- Crosses N.C. 742 at a place that minimizes impacts to existing homes.
- Crosses wetlands at their narrowest point to the greatest extent practicable.
- Perpendicular stream crossings to the greatest practicable extent.
- Stays north of most homes along Brown Creek Road and U.S. 52, north of the solar farm and north of Anson Middle School.
- Stays south of Anson County Airport
- Crosses U.S. 52 at a place that minimizes impacts to existing homes.
- Stays south of a large area of contiguous wetlands but does clip the northern tip of NC Natural Heritage Program Managed Area (owned by Anson County) potentially impacting approximately 4 acres of land.
- Avoids impacting parallel running streams within the corridor to the greatest practicable extent.
- Crosses the Winston-Salem Southbound Railway with skewed bridges in order to cross the adjacent stream perpendicularly to minimize impacts to the stream.
- Crosses N.C. 109 at a place that minimizes impacts to existing homes as well as minimizes the realignment of adjacent roads in the area.
- Stays north of a solar farm.

Alternative 2 Avoidance & Minimization

- Features a four-lane Reduced Conflict Intersection Corridor (RCI) with a 23-foot raised grass median with controlled access limited to U-turn bulbs, reducing the impact compared to a depressed median design.
- Begins west of Anson High School Road where the existing U.S. 74 divided depressed median ends. This minimizes the length, and therefore the impact of this alternative.
- Follows the existing U.S. 74 alignment.
- Ends at West Wall Street where the existing U.S. 74 divided depressed median begins. This minimizes the length and therefore minimizes the impact of this alternative.
- Provides left-over turn lanes at the intersections with significant traffic to minimize travel time for the left turning traffic while still providing for heavy through movement.
- Provides U-turn bulbs along the route for accessibility to the surrounding area and minimization of travel time while still providing for heavy through movement.

Alternative 3 Avoidance & Minimization

- Crossing streams perpendicularly to minimize impacts.
- Avoids open water ponds.
- Avoids a newly constructed large turkey farm and a second previously existing turkey farm.
- Avoids two mobile home communities.

- Avoids the City Pond Stream Restoration Site ~1000 LF of restored streams.
- Stays south of the Hanah Chapel Methodist church and cemetery to place the N.C. 109 interchange.
- Avoids multiple cemeteries.
- Stays south Twin Valley Country Club.
- Avoids most residences within the corridor.
- Crosses a wetland at its narrowest point minimizing impacts.
Connects back to existing U.S. 74 with an interchange at a point which minimizes impacts to the homes and businesses lining existing U.S. 74.

Alternative 4 Avoidance & Minimization

- Takes off from existing U.S. 74 with an interchange at a point which minimizes impacts to the homes and businesses lining existing U.S. 74.
- Crosses streams perpendicularly.
- Avoids impacts to two open water ponds.
- Avoids NC Natural Heritage Program Managed Area.
- Stays north of Wadesboro Primary School.
- Minimizes impacts to wetlands within the corridor.
- Crosses wetlands at their narrowest point.

Alternative 5 Avoidance & Minimization

- Crosses streams perpendicularly.
- Crosses CSX Railroad with skewed bridges prioritizing the minimization of natural resource impacts.
- Stays north of an open water pond and crosses a stream almost perpendicularly.
- Stays south of existing N.C. 742 to avoid relocation.
- Stays south of CSX Railroad when possible.
- Stays south of landscaping business and solar farm.
- Avoids N.C. Natural Heritage Program Managed Area.

8. Merger Plan Review/Next Steps

Based on the proposed Merger Plan for the project, NCDOT proposes the next Merger Meeting will be CP 2A (Bridging Decisions and Alignment Review). Prior to the next Merger Meeting, NCDOT will continue developing technical reports, including the Hydraulic Planning Report and the Natural Resources Technical Report with associated field surveys to confirm WOTUS limits. A detailed study of alternative designs will be developed based on results from CP2. Merger Team members will be notified of any changes that require a revision of this timetable.