

Town of Apex

**Western Big Branch Area Plan:
Encompassing Portions of the Friendship and
New Hill Communities**
Adopted November 21, 2024

Prepared by
The Town of Apex Planning Department



Contents

Executive Summary.....	4
Introduction	10
Summary of Issues, Constraints, and Opportunities	13
Summary of Public Input.....	18
Vision & Goals	22
Recommendations	22
Conclusion.....	34

List of Figures

Figure 1. Study Area Map.....	10
Figure 2. Municipal Jurisdictions.....	15
Figure 3. Current Zoning in Town of Apex, Town of Holly Springs, and Wake County.....	16
Figure 4. Development in Apex and Holly Springs	16
Figure 5. Community Resources	17
Figure 6. Transportation Crashes.....	17
Figure 7. Transportation Volumes and Congestion	18
Figure 8. Public Meeting at Apex Friendship High School	19
Figure 9. Public Meeting at New Hill Community Center	19
Figure 10. Graffiti Board Results from Public Meetings	20
Figure 11. Recommended Plan Amendments	24
Figure 12. Recommended Context Areas	29
Figure 13. Two-Lane Rural Thoroughfare Typical Roadway Section.....	30

List of Tables

Table 1. Recommended Plan Amendments and Reasoning.....	24
Table 2. Additional Plan Recommendations.....	30

List of Appendices

(Available in separate documents)

- Appendix A. Summer 2023 Public Input Summary
- Appendix B. Fall 2023 Draft Vision & Goals Public Input Summary
- Appendix C. Spring 2024 Graphic Public Input Summary
- Appendix D. Spring 2024 Public Input Summary and Staff Responses
- Appendix E. Spring 2024 Plan Amendment Scenarios Public Input Summary and Staff Responses
- Appendix F. Draft Plan Public Input Summary and Staff Responses
- Appendix G. Revised Draft Plan Public Input Summary and Staff Responses



Appendix H. Recommended Plan Amendments

Appendix I. Land Use Map and Transportation Plan Legend

Appendix J. Review of Allowable Agricultural Business and Agritourism Uses

Appendix K. Development Restriction Mechanisms and Considerations

Executive Summary

Purpose

The *Western Big Branch Area Plan: Encompassing Portions of the Friendship and New Hill Communities* (the Plan), documents recommended amendments to the Town of Apex 2045 Land Use Map and 2045 Transportation Plan for the area shown in Figure ES - 1.

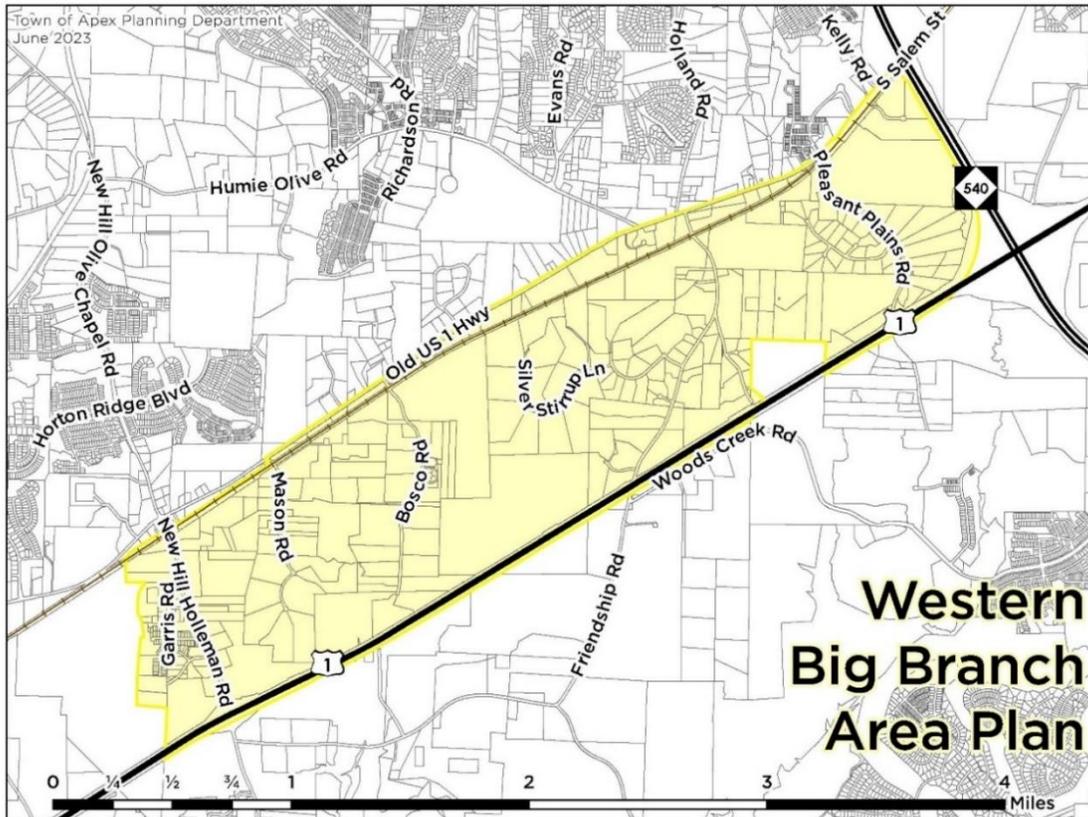


Figure ES - 1 Study Area

This plan was developed because:

- Substantial development has occurred around the study area, including in both Apex's and Holly Springs's current and future planning jurisdictions.
- Property owners and residents expressed concern about approved development and requested that they be included in the conversations regarding how future development might occur.
- The Big Branch Pump Station and Force Main project would make access to Town sewer services possible within the study area, increasing the potential for new development.

Planning Process

The planning process began in April 2023. It was led by the Town of Apex Planning Department and informed by a cross-departmental Project Team of Town staff, including representatives from: Police; Water Resources; Transportation, Infrastructure, and Development; Fire; Diversity, Equity, and Inclusion; Parks, Recreation, and Cultural Resources; and Community Development and Neighborhood

Connections. Regional partners were consulted throughout the planning process. The plan recommendations were informed by public input gathered through meetings and online surveys. Additionally, the plan recommendations were informed by an analysis of existing conditions, environmental features, development proposals, the Friendship Road Hot Spot Interchange Study, and the regional travel demand model.

Study Area Vision & Goals

The study area vision and goals were used to develop the proposed Land Use Map amendments, Transportation Plan amendments, and the Additional Plan Recommendations.

Study Area Vision

The *Western Big Branch Area Plan: Encompassing Portions of the Friendship and New Hill Communities* envisions a future where the rural residential and agricultural character of the study area is valued and actively protected, the unique history of the New Hill and Friendship communities is acknowledged and celebrated, new development is responsive to the needs of surrounding residents, and multimodal travel is safe and context sensitive.

Study Area Goals

1. Preserve rural residential land, agriculture, and open space
2. Maintain and enhance the tree canopy
3. Protect water resources
4. Honor the history of the Friendship and New Hill communities
5. Encourage development of a small-scale downtown near the intersection of Humie Olive Road and Old US 1
6. Encourage development of grocery/convenience offerings near the intersection of New Hill Holleman Road and US 1
7. Encourage economic development along the Richardson Road corridor south of Old US 1 and at the future Richardson Road/US 1 interchange
8. Improve the safety of area roadways for motorists, cyclists, and pedestrians
9. Mitigate the impact of surrounding development on existing roads
10. Provide trails, greenways, and trailheads

Recommendations

Recommended amendments to the 2045 Transportation Plan and 2045 Land Use Map for the study area are shown in Figure ES - 2. Overall, the plan reflects a vision of low-intensity residential land uses, with a substantial portion of the study area designated as either Rural Density (one residential unit per five acres) or Rural Transition Residential (one residential unit per acre). This is a lower density than currently allowed in areas outside of the Town's extraterritorial jurisdiction with Wake County zoning designated as Residential-30 (maximum density of 1.45 dwelling units per acre) and will likely result in very limited redevelopment and annexation of these areas. Roadway improvements typically occur through private development and must have a rational nexus and rough proportionality to the development that occurs. Given the vision of low-intensity residential land uses and limited expectation of redevelopment, there are also limited opportunities for roadway improvements in residential areas. Study area residents should anticipate limited improvements to existing roads in residential areas and little connectivity. This may result in time periods of congestion on existing thoroughfares and at major intersections. Future construction of bicycle and pedestrian facilities will be limited to frontage

improvements for the extent of any new residential development. Standalone projects for bicycle and pedestrian facilities along existing roads would not be a high priority for limited local funds in Apex Corporate Limits and Wake County does not construct these facilities.

Non-residential and higher-intensity residential land uses are envisioned in limited areas along roadway corridors that are critical for regional mobility, including New Hill Holleman Road, the future Richardson Road extension, and Friendship Road north of the railroad tracks. These uses would support construction or improvement of these roadways and would provide an opportunity to address goals to provide some commercial opportunities and multi-modal travel opportunities in the study area. Additionally, collector streets are only shown only where connectivity is critical, and the land use designations would provide an opportunity for their construction.

A set of Additional Plan Recommendations, separate from the long-range plan amendments, are identified to implement the study area vision and goals. These recommendations are listed in Table ES - 1. These recommendations are divided into five planning themes: Future Land Use, Transportation, Quality of Life, Environment, and History.

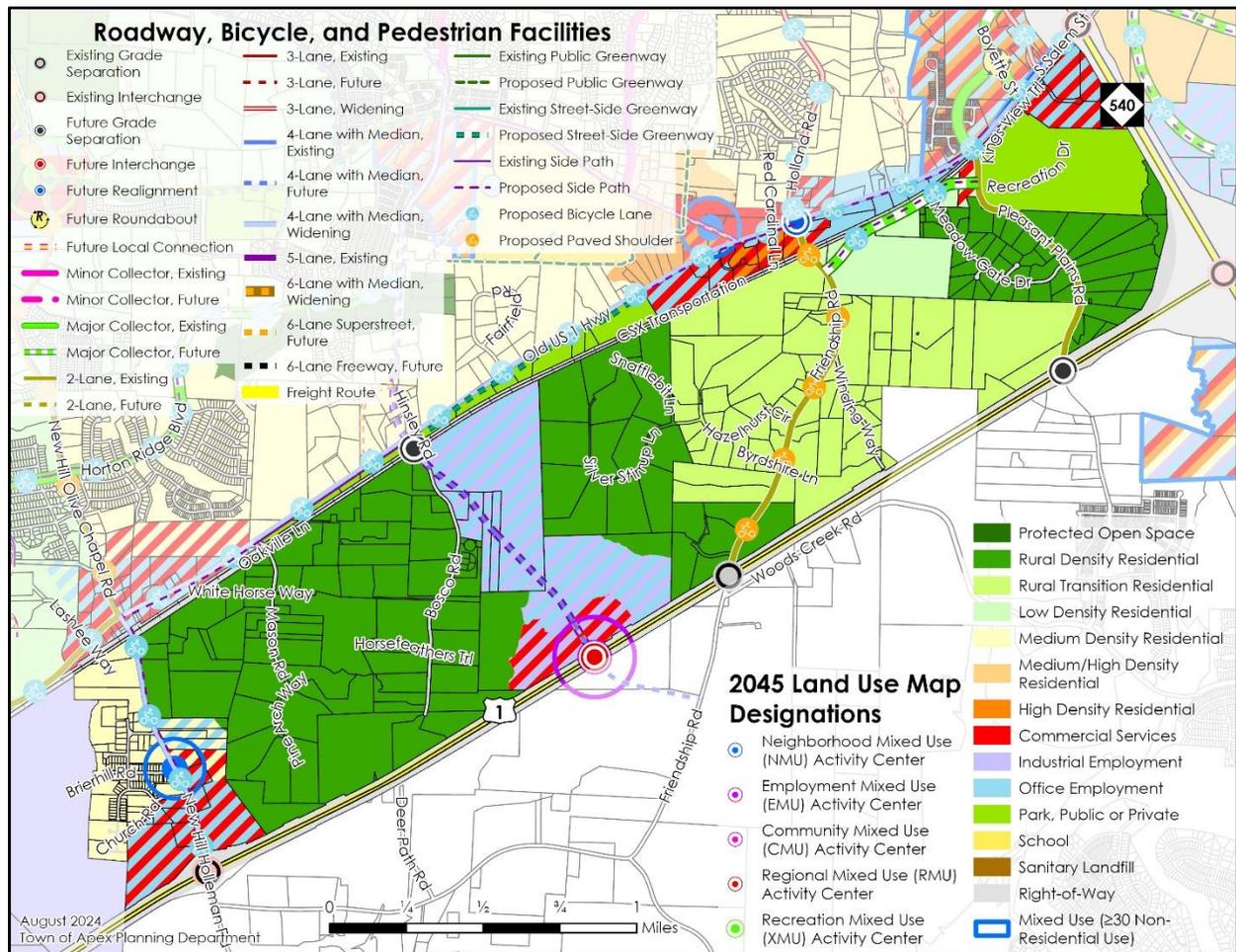


Figure ES - 2. Recommended Plan Amendments

Table ES - 1. Additional Plan Recommendations

Reference Number	Recommendation	Study Area Goal	Role Assignment	Code/ Policy	Program/ Study	Capital Project	Term
1 Future Land Use							
1A	Encourage development of a small-scale downtown near the intersection of Humie Olive Road and Old US 1.	5	Planning & Economic Development	X			Long
1B	Encourage development of grocery/convenience offerings near the intersection of New Hill Holleman Road and US 1.	6	Planning & Economic Development	X			Near
1C	Propose an amendment to the Unified Development Ordinance to allow the “Zoological garden” use and the “Greenhouse or nursery, wholesale” use by-right under the Planned Unit Development zoning district.	1	Planning	X			Near
1D	Prepare a staff-recommended list of possible zoning conditions for properties designated as Rural Density Residential, Rural Transition Residential, and Low Density Residential on the 2045 Land Use Map that would be provided to developers to consider proffering.	1, 2 & 4	Planning	X			Near

Reference Number	Recommendation	Study Area Goal	Role Assignment	Code/ Policy	Program/ Study	Capital Project	Term
2 Transportation							
2A	Study and potentially invest in turn lanes and a traffic signal at the intersection of Friendship Road and Old US 1.	8	Transportation and Infrastructure Development		X	X	Ongoing
2B	Conduct a feasibility study for a potential grade separation at either NC 540 or S Salem Street to improve vehicular, bicycle, and pedestrian access to Pleasant Park.	8	Planning, Transportation and Infrastructure Development, & Parks, Recreation, and Cultural Resources		X		Mid
2C	Coordinate with NCDOT on its annual resurfacing contract for opportunities to stripe bicycle lanes and/or provide bicycle signage within the study area.	8	Transportation and Infrastructure Development & Planning		X		Ongoing
2D	Coordinate with regional partners on transportation requirements for motorists, cyclists, and pedestrians associated with new development in the vicinity of the study area.	9	Transportation and Infrastructure Development & Planning		X		Ongoing
2E	Further explore a potential transit connection between downtown Apex and Pleasant Park.	8 & 9	Planning & Parks, Recreation, and Cultural Resources		X	X	Mid
3 Quality of Life							
3A	Encourage economic development along the Richardson Road corridor at the future	7	Economic Development	X			Long

Reference Number	Recommendation	Study Area Goal	Role Assignment	Code/ Policy	Program/ Study	Capital Project	Term
	Friendship Road/US 1 interchange.						
3B	Utilize the Town of Apex Affordable Housing Incentive Zoning Policy to encourage mixed housing options in the study area.	7	Community Development & Neighborhood Connections	X			Long
3C	Consider requests from area residents for involvement in Citizen Advisory Committees and Boards and determine strategies to engage area stakeholders.	1, 4 & 9	Town Clerk's Office	X			Mid
4 Environment							
4A	Review best practices and develop a policy to encourage the preservation of forested areas.	1 & 2	Planning	X			Near
4B	Coordinate with Wake County to allow Voluntary Agricultural Districts (VADs) and Enhanced Voluntary Agricultural Districts (EVADs) within the Apex corporate limits and ETJ.	1 & 3	Administration	X			Near
5 History							
5A	Encourage residents of the Friendship and New Hill communities to participate in the Town of Apex Historical Marker Program.	4	Planning		X		Near

Introduction

Purpose

The purpose of the plan is to update the 2045 Land Use Map and 2045 Transportation Plan in the study area to reflect community input, regional needs, and the latest available data. The study area encompasses portions of the New Hill and Friendship communities and is located within the western Big Branch Basin watershed. The study area was selected for a targeted planning initiative as the surrounding areas are growing rapidly. Additionally, there are opportunities for future development in the study area as the Big Branch Pump Station and Force Main project would make access to Town sewer services possible within this area.

Study Area

The study area includes the area roughly bounded by NC 540, Old US 1 Hwy, existing development west of New Hill Holleman Road, and US 1.

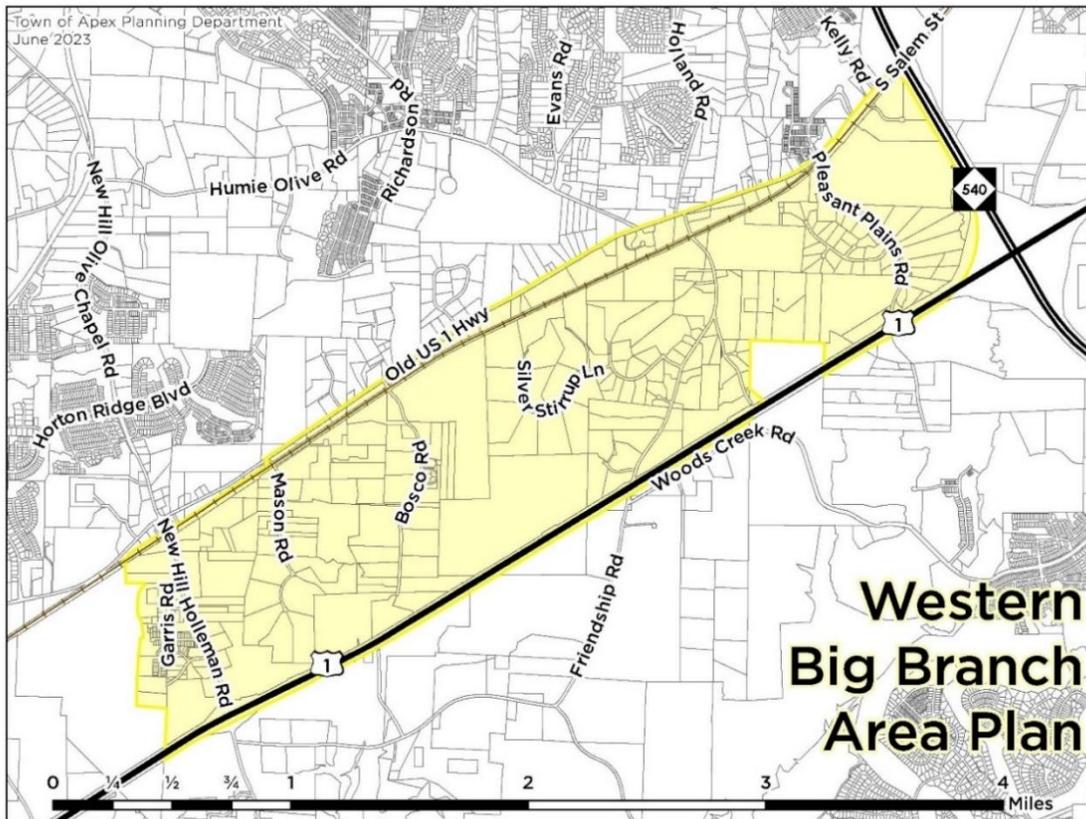


Figure 1. Study Area Map

Planning Process and Summary of Public Input

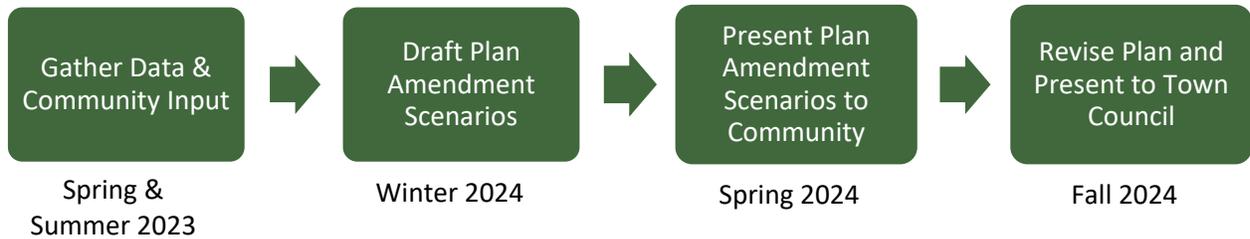
The plan was led by the Town of Apex Planning Department and informed by a cross-departmental Project Team of Town staff, including representatives from: Police; Water Resources; Transportation, Infrastructure, and Development; Fire; Diversity, Equity, and Inclusion; Parks, Recreation, and Cultural Resources; and Community Development and Neighborhood Connections. Regional partners engaged throughout the study included: the Town of Holly Springs, Wake County, Capital Area Metropolitan

Planning Organization (CAMPO), North Carolina Department of Transportation, and Capital Area Preservation.

A range of data sources were used to inform plan development. The plan recommendations were informed by an analysis of existing conditions, crash locations, forecasted traffic volumes, forecasted roadway capacity, development proposals, the CAMPO Friendship Road Hot Spot Interchange Study, the adopted 2045 Transportation Plan, environmental features, Voluntary Agricultural Districts, and historic sites and districts. Residents throughout the study area and others attended the two rounds of in-person public meetings and provided input that informed the plan recommendations.

Community Engagement Process

Two sets of public meetings were held in August 2023 and March 2024, and online surveys were released to gather input on the draft study area vision and goals and on three plan amendment scenarios. In general, the public expressed a desire to limit residential development in the study area to low densities. It is a priority for the public to maintain the rural and agricultural character in the study area and to encourage agricultural business and agritourism when development occurs. Concerns were shared regarding traffic congestion along Friendship Road and Old US 1.



Frequently Asked Questions

Why is the Town of Apex developing a long-range plan for land in Wake County's jurisdiction?

The 2045 Land Use Map includes a future land use classification for all parcels within the Town of Apex Corporate Limits, Town of Apex Extraterritorial Jurisdiction, and Town of Apex Future Planning Area. The Western Big Branch Study Area is located within these boundaries. See Figure 2 for an exhibit that displays these boundaries within the vicinity of the study area.

What is the 2045 Land Use Map and how is it used?

A land use map establishes long-range land use patterns for the Town, sets expectations for future development, and influences infrastructure improvements. The 2045 Land Use Map, available at: <https://www.apexnc.org/DocumentCenter/View/478/2045-Land-Use-Map-PDF>, is used by the Town to review rezoning and development proposals for consistency with the long-range vision and to appropriately plan for infrastructure needed to support the land use vision. Actual changes in how property is used typically does not occur until property owners choose to sell their property for future development. The 2045 Land Use Map is a guide, while the Town's Official Zoning District Map is law. See Figure 3 for an exhibit that displays the current Town of Apex zoning.

The maps depicting the Town's long-range transportation and land use plans are "living" documents, regularly updated based on new information and development. Any updates to the maps are presented during a public hearing for consideration by both the Planning Board and Town Council.

What is Advance Apex: The 2045 Transportation Plan and how is it used?

Advance Apex: The 2045 Transportation Plan (Advance Apex), available at: <https://www.apexnc.org/1193/Advance-Apex>, identifies transportation needs and recommendations for motorists, bicyclists, pedestrians, transit, and freight. The plan establishes a vision for the transportation network in Apex and identifies a set of projects, policies, and actions that will allow for incremental progress toward that vision. Advance Apex addresses existing issues and concerns in addition to future needs through the year 2045.

Having an adopted plan helps leaders when making transportation decisions that will largely impact the community. With a long-range plan in place, each decision will work toward achieving the goals and objectives established by the community. It also gives stakeholders, like residents and developers, a transparent picture of the future roadway network and what can be expected. In addition to guiding future transportation decisions, a long-range transportation plan helps inform local investments in infrastructure and improves the Town's chances of being awarded regional, state, and federal funds for transportation improvements. Finally, it is used to guide what transportation infrastructure will be built as part of private development projects.

Advance Apex does not require a schedule for implementation, nor does it set aside funding for improvements. The maps depicting the Town's long-range transportation and land use plans are "living" documents, regularly updated based on new information and development. Any updates to the maps are presented during a public hearing for consideration by both the Planning Board and Town Council.

Summary of Issues, Constraints, and Opportunities

A series of issues and needs, constraints, and opportunities in the study area were identified through the planning process. The figures displayed at the end of this section were used to inform the study area recommendations. These figures include:

- Figure 2. Municipal Jurisdictions
- Figure 3. Current Zoning in Town of Apex, Town of Holly Springs, and Wake County
- Figure 4. Development in Apex and Holly Springs
- Figure 5. Community Resources
- Figure 6. Transportation Crashes
 - NOTE: Crashes that occurred on US 1 Highway are not depicted on this map and are not included in the summary of Issues and Needs below.
- Figure 7. Transportation Volumes and Congestion

The following lists highlight key takeaways from these figures, public feedback, and additional factors that impact the study area.

Issues and Needs

- The region's travel demand model, Triangle Regional Model, provides traffic volume forecasts for the year 2050, based on the roadway network anticipated to be in place at that time. According to the Triangle Regional Model, in 2050:
 - Traffic volumes will exceed capacity along Old US 1 between future Richardson Road and New Hill Holleman Road. Traffic volumes will be at or below capacity along Old US 1 between Kelly Road and just east of future Richardson Road. This model assumes Old US1 will be widened to four lanes from Apex Peakway to Humie Olive Road. This model does not account for the planned extension of Richardson Road between Humie Olive Road and Old US 1.
 - Traffic volumes will be at or above capacity along most of US 1 in the study area. This model assumes there will be no widening along US 1, west of the NC 540 interchange. This model assumes construction of Richardson Road from Old US 1 to US 1, with an interchange at US 1.
 - Traffic volumes will not exceed roadway capacity along Friendship Road or Pleasant Plains Road. The model assumes no roadway widening along these roadways in the study area. Again, this model assumes construction of Richardson Road from Old US 1 to US 1, with an interchange at US 1.
 - Traffic volumes will be below capacity along New Hill Holleman Road within the study area. The model assumes the roadway will be widened to include two travel lanes in each direction.
- In June 2022, CAMPO led development of the Friendship Road Hot Spot Interchange Study, which included additional model analysis with the extension of Richardson Road to Humie Olive Road and widening of Richardson Road from Humie Olive Road to Olive Chapel Road. The Hot Spot Study confirmed the need for Richardson Road to be a four-lane median divided roadway.
- Based on the July 2019 – June 2024 crash data, most crashes in the study area occurred along Old US 1 and New Hill Holleman Road.

- There have been no fatal crashes in the study area between July 2019 – June 2024. One serious injury crash occurred during this time period at the intersection of Old US 1 and Holland Road.
- No bicycle or pedestrian crashes were reported within the study area from July 2019 – June 2024.
- Substantial development has occurred around the study area, including in both Apex’s and Holly Springs’s current and future planning jurisdictions. Wake County is a highly-desirable location for businesses and residents, so development pressure is high throughout the County.

Constraints

- The railroad tracks and trains, running parallel to Old US 1, pose a constraint for emergency access and overall transportation access in the study area, particularly to Pleasant Park.
- Transportation improvements within the study area would primarily be constructed through private development, and the community expressed a desire to limit new development.
- The Town of Apex participates in the State Transportation Improvement Program (STIP) through coordination with the Capital Area Metropolitan Planning Organization (CAMPO) in their development of the Metropolitan Transportation Plan (MTP). The MTP guides project requests to the STIP. Public projects to improve existing NCDOT roads that are outside of the corporate limits of the Town of Apex would need to be requested for prioritization by NCDOT Division 5 or Wake County. There is one project in the STIP with committed funding in the study area, referred to as HE-0010. This project includes interchange improvements at US 1/New Hill Holleman Road and improvements at the intersections of New Hill Holleman Road at Friendship Road and Friendship Road at Holly Springs New Hill Road. Design of this project is underway. Right-of-way acquisition is anticipated in 2025-2026. Construction is anticipated in 2026-2028. There is one unfunded project, referred to as U-6101, that would convert roadway facilities to managed freeways and include ramp metering. This project includes I-40, I-87, I-440, and US 1 / US 64. Improvements along Friendship Road would need to be funded through the STIP at the “Division Needs” level. There is a negative balance for roadway projects that are Division Needs, so funding through the STIP is very unlikely.

Opportunities

- Current property owners can choose if and when to develop their property. Under North Carolina state law, no property can be annexed without the written petition of the property owner requesting annexation. The most common reason a property owner petitions for annexation is to gain access to Town services, particularly Town water and/or sewer utilities.
- The Big Branch Pump Station and Force Main project would make access to Town sewer services possible within the study area.
- The Richardson Road extension to US 1 is envisioned to expand economic development opportunities with the addition of an interchange at US 1.
- The addition of Pleasant Park has provided a new recreational facility for the residents of the study area and surrounding region.
- The rural residential properties and farm properties have been identified as resources that the community would like to preserve. These resources provide the opportunity to expand agritourism.
- The Voluntary Agricultural Districts and Enhanced Voluntary Agricultural Districts in the study area support the community’s desire to encourage the preservation of farmland.

- The designation of New Hill as a National Register Historic District provides recognition from the North Carolina State Historic Preservation Office. The only protection that is granted from this designation is in the form of Section 106 Review under the National Historic Preservation Act of 1966.
- The Apex Land Cover Analysis & Tree Canopy Assessment prepared by Wake County highlights that existing tree canopy provides environmental benefits such as carbon sequestration, mitigation of stormwater runoff, and removal of air pollution.¹
- Community members have demonstrated a strong interest in participating in planning and work collaboratively among neighbors.

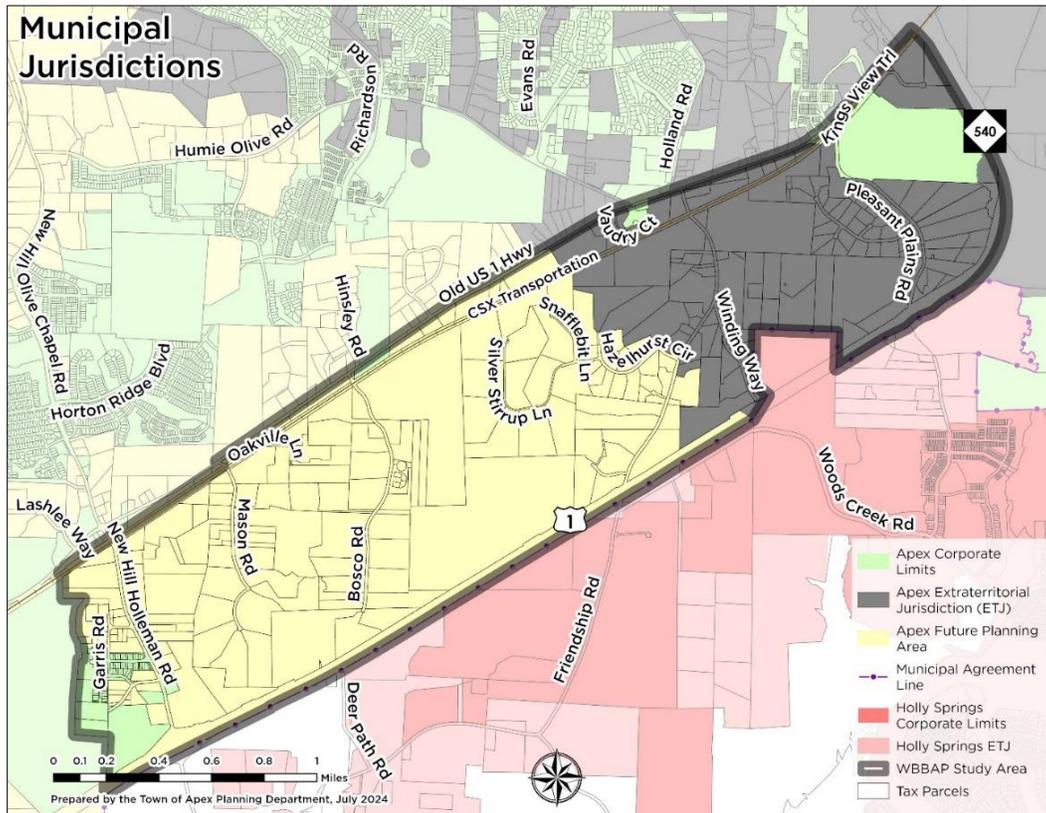


Figure 2. Municipal Jurisdictions

¹ “Apex Land Cover Analysis & Tree Canopy Assessment | Community Report, Town of Apex,” Wake County, North Carolina. Summer 2023. https://s3.us-west-1.amazonaws.com/wakegov.com-if-us-west-1/s3fs-public/documents/2023-09/Apex%20Report_pages_R.pdf

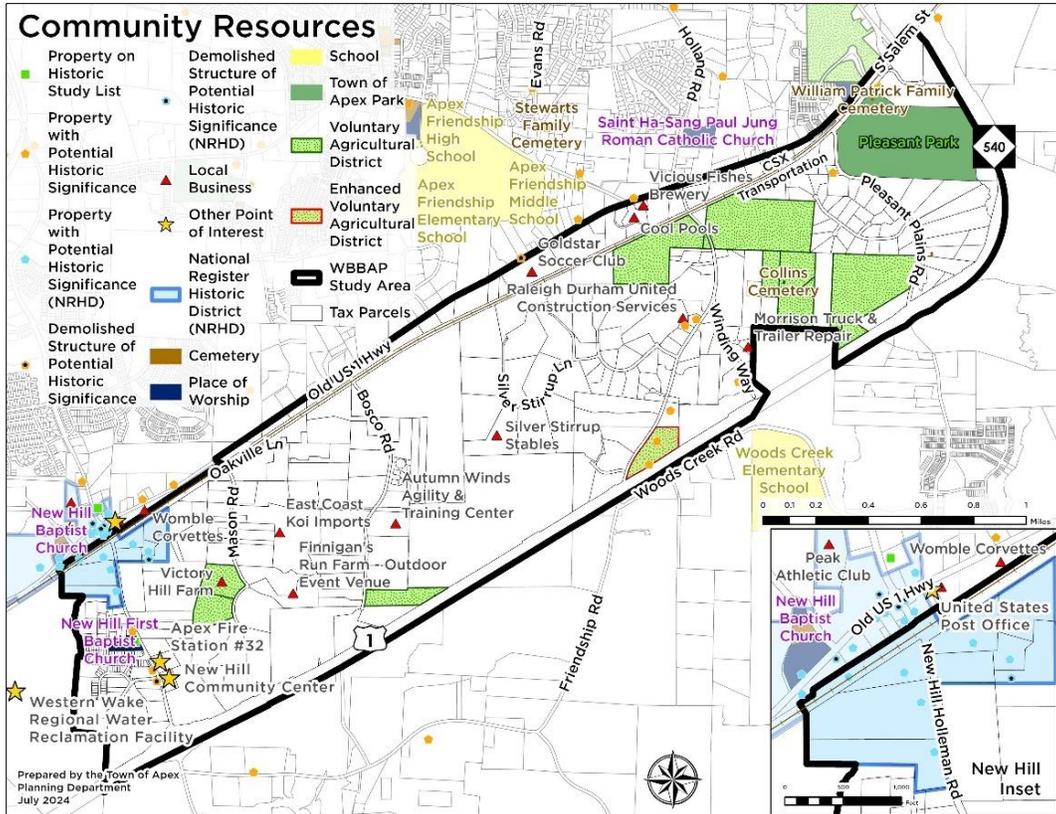


Figure 5. Community Resources

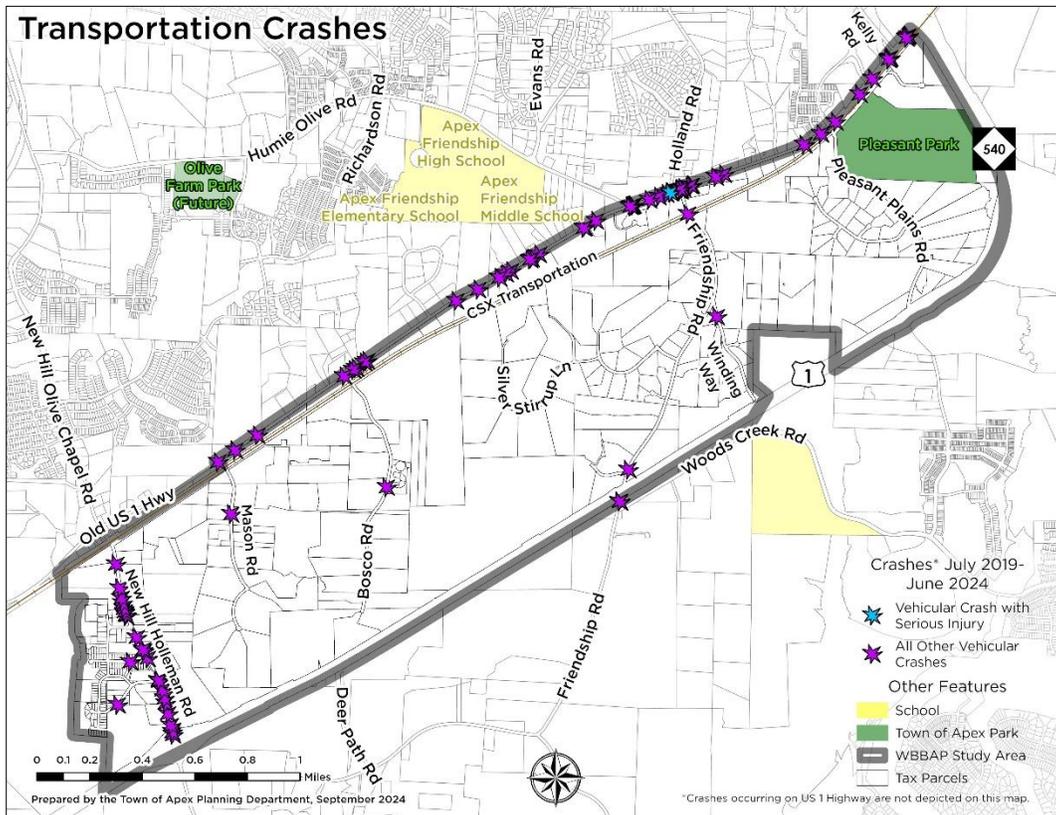


Figure 6. Transportation Crashes

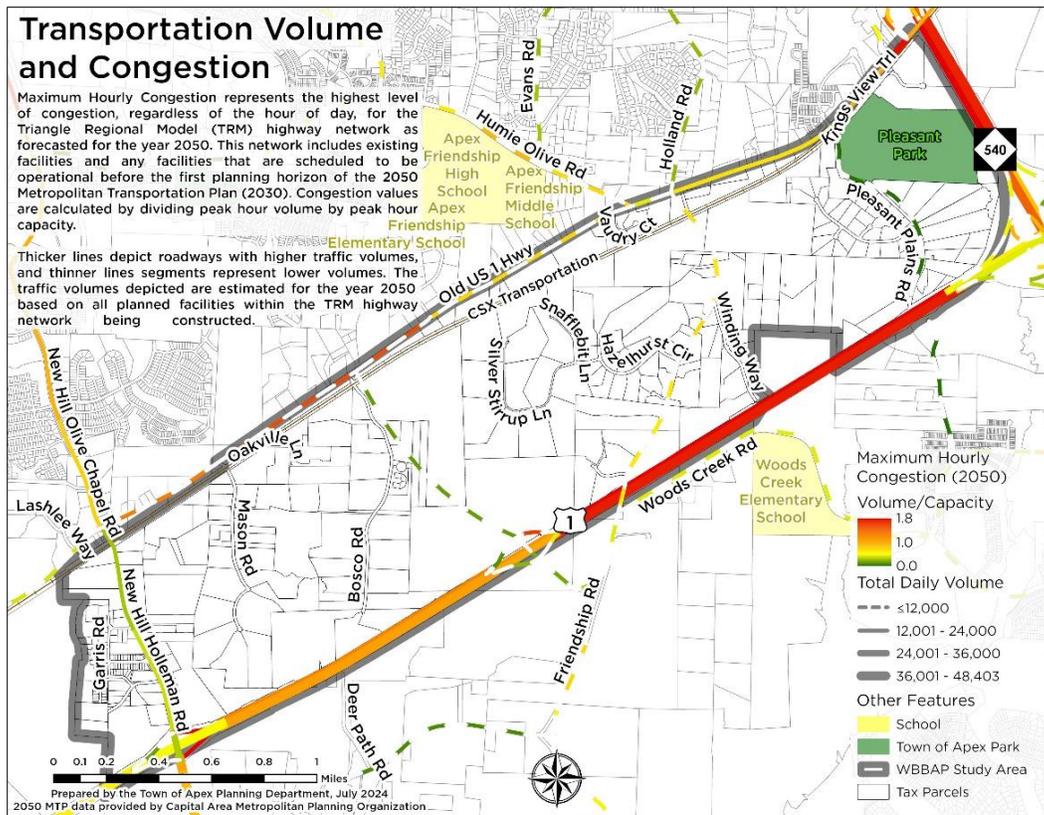


Figure 7. Transportation Volumes and Congestion

Summary of Public Input

The public engagement was robust and was targeted to the study area but available to anyone. Online surveys and in-person engagement opportunities were leveraged to gather input and community preferences. Five in-person meetings were held throughout the planning process. Four of the five in-person meetings were held in the vicinity of the study area. More detailed public input summaries are available in the appendix.

Public Engagement Statistics

- Five in-person meetings.
- 266 attendees at the in-person meetings.
- 71 participants in the online survey on the draft vision & goals.
- 81 participants in the survey on the three plan amendment scenarios and draft additional plan recommendations.
- 474 views of the recorded presentation, available at: <https://www.youtube.com/watch?v=vtPeUBcIfFo&t=42s>, on YouTube describing the three plan amendment scenarios.
- 29 participants in the online survey on the Draft Plan.
- Zero participants in the online survey on the Revised Draft Plan. Emailed comments from one person and petition from 28 property owners.

Summer 2023 Public Meetings

During the first round of public meetings held in August 2023, Town of Apex staff gathered public input on general land use and development preferences; parts of the study area that need to be preserved or could be improved; transportation needs regarding vehicular, bicycle, and pedestrian travel; and the community's vision for the study area. These meetings were held at Apex Friendship High School and the New Hill Community Center. A detailed public input summary is available in Appendix A.



Figure 8. Public Meeting at Apex Friendship High School

Land Use & Transportation Key Takeaways

- Land Use Preferences
 - Meeting attendees overwhelmingly preferred more Rural and Rural Transition densities for residential development.
 - Attendees preferred to see less High Density and Medium/High Density residential development, but there was some interest in limited mixed housing options in the right places.
 - For future non-residential and mixed-use development, open house attendees wanted to see more:
 - One- to Two-Story Downtown
 - One Story Offices
 - Parks
 - Attendees wanted to see less:
 - Large Scale Commercial
 - Industrial
 - Two- to Three-Story Mixed Use
- The most frequent roadway concerns expressed by attendees included:
 - Safety and congestion on Friendship Road at Old US 1.
 - Congestion along Friendship Road or comments against the Friendship Road widening.
 - Comments to close or to convert the Friendship Road bridge to a bicycle and pedestrian bridge.
 - Congestion along Old US 1.
- The most frequent bicycle and pedestrian concerns expressed by attendees included:
 - Cycling safety and opportunities along Old US 1 and along Friendship Road.



Figure 9. Public Meeting at New Hill Community Center

Pleasant Plains Baptist Church, and the New Hill Community Center. A graphic public input summary is available in Appendix C. A written public input summary with staff responses is available in Appendix D. A summary of input on the plan amendment scenarios with staff responses is available in Appendix E.

Key Takeaways

- Survey respondents overwhelmingly preferred Scenario One, titled “Minimize Change”. Under this scenario, land use intensities generally decreased in comparison to the adopted 2045 Land Use Map, and the transportation network is limited.
- There was strong support for Rural (one unit per five acres) and Rural Transition (one unit per acre) residential densities.
- Concerns were noted regarding the impacts of the proposed Richardson Road alignment to Bosco Road and Country Haven Lane areas.

During the Spring 2024 public engagement, 118 property owners signed a petition to propose a neighborhood conservation overlay district called the “Historical Farm Overlay District”. The proposal noted that the purpose of this zoning overlay district is to preserve and enhance the general quality and appearance of established neighborhoods by regulating built environmental characteristics such as lot size and frontage, building setback, and building height. The residents noted this district is intended to reduce conflicts between new construction and existing development and encourage compatible infill development. In addition to the overlay district proposal, the community members provided feedback regarding the Land Use Map and Transportation Plan.

Draft Plan Review

In July 2024, the Draft Plan was released. The public comment period was open from July 17, 2024 – August 7, 2024 and comments were collected through an online input form. In addition to the comment form responses, a separate set of questions was submitted from a group of property owners. Appendix F includes a summary of public input provided on the Draft Plan with staff responses. Appendix F also includes information about revisions made to the Plan based on public input provided on the Draft Plan.

Revised Draft Plan Review

Based on the public comments received on the Draft Plan, four substantive changes were made to the proposed Transportation Plan amendments and Land Use Map amendments:

- Add Proposed Paved Shoulder to Friendship Road.
- Remove the New Hill Loop collector.
- Change properties listed below to Rural Density Residential.
 - 0 Womble Circle
 - 3521 Womble Circle
 - 3501 Womble Circle
 - 3529 Womble Circle
 - 2921 New Hill Holleman Road
 - 2917 New Hill Holleman Road
- Change 3413 Pleasant Plains Road to Low Density Residential and Commercial Services.

Given these changes, staff released a Revised Draft Plan for additional public review. In September 2024, the Revised Draft Plan was released. The public comment period was open from September 5, 2024 – September 22, 2024. No responses were submitted through the survey. A group of property owners in

the vicinity of Pleasant Plains Road submitted a petition against the land use map amendment to add Commercial Services to 3413 Pleasant Plains Road. Appendix G includes a summary of public input provided on the Revised Draft Plan with staff responses. No revisions were made to the Plan based on the public input provided on the Revised Draft Plan.

Vision & Goals

The study area vision and goals establish the overall guidance for the Plan and were used to develop the proposed Land Use Map amendments, Transportation Plan amendments, and the Additional Plan Recommendations.

Study Area Vision

The *Western Big Branch Area Plan: Encompassing Portions of the Friendship and New Hill Communities* envisions a future where the rural residential and agricultural character of the study area is valued and actively protected, the unique history of the New Hill and Friendship communities is acknowledged and celebrated, new development is responsive to the needs of surrounding residents, and multimodal travel is safe and context sensitive.

Study Area Goals

1. Preserve rural residential land, agriculture, and open space
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7. Encourage economic development along the Richardson Road corridor south of Old US 1 and at the future Richardson Road/US 1 interchange
8. Improve the safety of area roadways for motorists, cyclists, and pedestrians
9. Mitigate the impact of surrounding development on existing roads
10. Provide trails, greenways, and trailheads

Recommendations

Land Use Map and Transportation Plan Amendments

Overall, the recommendations reflect a vision of low-intensity residential land uses, with a substantial portion of the study area designated as either Rural Density (one residential unit per five acres) or Rural Transition Residential (one residential unit per acre). This is a lower density than currently allowed in areas outside of the Town's extraterritorial jurisdiction with Wake County zoning designated as Residential-30 (maximum density of 1.45 dwelling units per acre), and will likely result in very limited redevelopment and annexation of these areas. Roadway improvements typically occur through private development and must have a rational nexus and rough proportionality to the development that occurs. Given the vision of low-intensity residential land uses and limited expectation of redevelopment, there are also limited opportunities for roadway improvements in residential areas. Study area residents should anticipate limited improvements to existing roads in residential areas and little connectivity. This may result in time periods of congestion on existing thoroughfares and at major intersections. Future

construction of bicycle and pedestrian facilities will be limited to frontage improvements for the extent of any new residential development. Standalone projects for bicycle and pedestrian facilities along existing roads would not be a high priority for limited local funds in Apex Corporate Limits and Wake County does not construct these facilities.

Non-residential and higher-intensity residential land uses are envisioned in limited areas along roadway corridors that are critical for regional mobility, including New Hill Holleman Road, the future Richardson Road extension, and Friendship Road north of the railroad tracks. These uses would support construction or improvement of these roadways and would provide an opportunity to address goals to provide some commercial opportunities and multi-modal travel opportunities in the study area. Additionally, collector streets are only shown only where connectivity is critical, and the land use designations would provide an opportunity for their construction.

Recommended amendments to the 2045 Transportation Plan and 2045 Land Use Map for the study area are shown in Figure 11. The Map IDs in Table 1 correspond with the labels on Figure 11. A large-scale exhibit of the Land Use Map and Transportation Plan amendments is available in Appendix H. Appendix I is a legend that describes the Land Use Map designations and Transportation Plan facilities that are included in Figure 11.

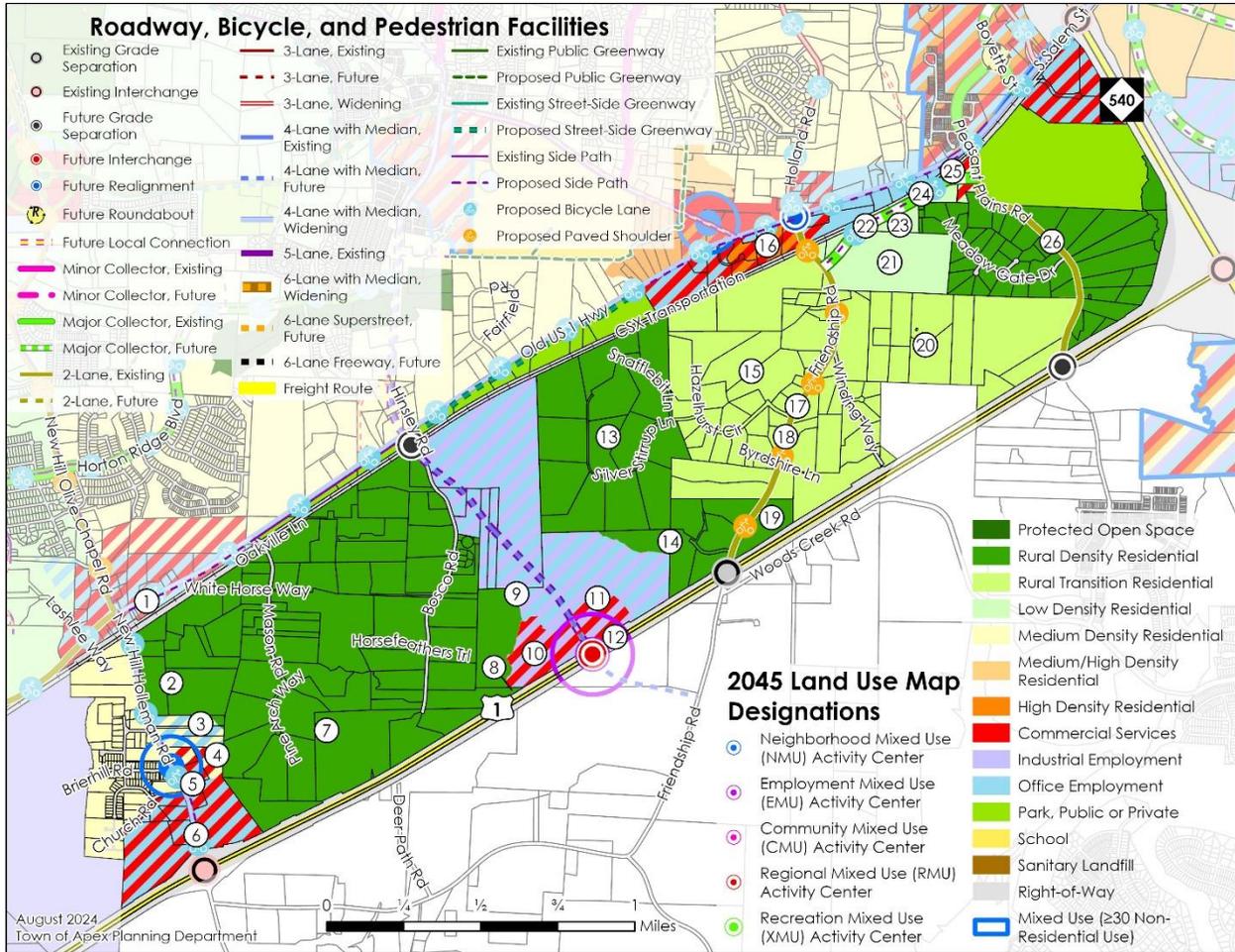


Figure 11. Recommended Plan Amendments

Table 1. Recommended Plan Amendments and Reasoning

Map ID	Plan Amendment	Reasoning
1	Add Proposed Side Path along the south side of Old US 1 from Richardson Road to New Hill Holleman Road (partially outside of the study area).	Proposed Street-Side Greenway currently ends along the south side of Old US 1 at the intersection with future Richardson Road. Public comments included requests for additional trails and greenway connections in the study area.
2	Change Low Density Residential and Office Employment designations to Rural Density Residential.	In response to property owner requests.
3	Change Low Density Residential and Office Employment designations to Medium Density Residential and Office Employment.	The west side of New Hill Holleman Road, south of Old US1, has been developed as Medium Density Residential.

Map ID	Plan Amendment	Reasoning
4	Change Low Density Residential and Office Employment designations to Medium Density Residential and Commercial Services.	The New Hill Holleman/US 1 interchange is a major transportation corridor. Higher land use intensities are recommended as they can be supported by the surrounding land use designations and transportation access.
5	Recenter the Neighborhood Mixed Use Activity Center over the Brierhill Road intersection.	The intersection of New Hill Holleman Road and Brierhill Road is more suitable for a Neighborhood Mixed Use Activity Center given the transportation access as well as the surrounding Office Employment, Medium Density, and Commercial Services Land Use Map designations.
6	Change Proposed Paved Shoulder on New Hill Holleman Road to Proposed Bicycle Lanes.	New Hill Holleman Road is a popular route for cyclists as a connection between Old US 1, Friendship Road, and Shearon Harris Road.
7	Remove the Future Major Collector connecting New Hill Holleman Road to Bosco Road and Future Richardson Road.	The Rural Density Residential land use designation does not support construction of a Major Collector.
8	Change High Density Residential to Rural Density Residential.	The subject parcel is a Voluntary Agricultural District.
9	Change Rural Density Residential to Office Employment and Industrial Employment for the small portion of land that fronts Future Richardson Road.	This change established a consistent land use along the west side of Future Richardson Road.
10	Change High Density Residential to Commercial Services and Industrial Employment west of the Future Interchange.	In response to public comments against High Density Residential in the study area. Economic development opportunities are recommended along critical transportation corridors and near interchanges.
11	Change Commercial Services and Office Employment to Commercial Services and Industrial Employment east of the Future Interchange.	The likelihood and economic development benefits of Industrial Employment are greater than Office Employment at this location. Additionally, this change is in response to public comments from adjacent property owners in favor of Industrial Employment.
12	Update US 1/Richardson Road Future Interchange location, Future Richardson Road alignment, and Activity Center per Friendship Road Hot Spot Interchange Study.	The Friendship Road Hot Spot Interchange Study considered six alternative alignments of the US 1/Future Richardson Road interchange. The recommended alternative was selected as it avoids ramp conflicts with the Friendship Road bridge and accommodates the new access to the Amgen facility. Additionally, the recommended alternative includes the least right-of-way acquisition in comparison to the other alternatives.
13	Change Creeks Bend Farms properties from Low Density Residential to Rural Density Residential.	In response to public comments from property owners to change the land use designation to Rural Density Residential.

Map ID	Plan Amendment	Reasoning
14	Change Kilcastle Farm properties from Medium Density Residential, and a portion north of the stream from Low Density Residential, to Rural Density Residential.	In response to public comments from property owners to change the land use designation to Rural Density Residential.
15	Change Medium Density Residential to Rural Transition Residential for parcels south of CSX Railroad and west of Friendship Road.	In response to public comments in support of Rural Transition Residential throughout the study area.
16	Change Commercial Services and Office Employment to High Density Residential and Commercial Services west of Friendship Road.	Public comments included interest in a small-scale downtown in the study area. This is the most suitable location for such development in the study area. High Density Residential is needed to support a small-scale downtown development style.
17	Lower classification of Friendship Road from a Future 4-Lane Median-Divided Thoroughfare to an Existing 2-Lane Thoroughfare.	Public comments included preservation of the rural character of the study area and a preference for Rural and Rural Transition Residential development. The recommended Rural Transition Residential (one unit per acre) along both sides of Friendship Road limits the opportunity for roadway improvements. In addition, the existing two-lane bridge over US 1 is a constraint to widening.
18	Change Proposed Bicycle Lanes on Friendship Road to Proposed Paved Shoulders.	In response to public comments in support of a bicycle facility along Friendship Road, Aa paved shoulder is included in the 2-Lane Rural Thoroughfare typical section. An image of this typical section is available in Figure 13 of the Plan. Due to the low-density land uses along most of Friendship Road, there are limited opportunities to change the width of Friendship Road from the current conditions. It is not expected the paved shoulder would be constructed as a stand-alone project but could be planned for with development that does occur. Roadways are typically constructed and improved through private development. Due to the limited development opportunities along Friendship Road, proposed bicycle lanes have been removed from Friendship Road.
19	Change Medium Density Residential to Rural Density Residential.	In response to public comment from the property owner to change the land use designation to Rural Density Residential.
20	Change Medium Density Residential to Rural Transition Residential for parcels not	In response to public comments in support of Rural Transition Residential along Friendship Road.

Map ID	Plan Amendment	Reasoning
	fronting CSX Railroad east of Friendship Road.	
21	Change Medium Density Residential to Low Density Residential for parcels fronting CSX Railroad.	Public comments were submitted in support of Rural Transition Residential in this area. The recommendation is to lower the Land Use classification to Low Density Residential to allow for construction of a critical east-west collector street to improve public access and emergency service access to Pleasant Park.
22	Remove Future Minor Collector and realign Future Major Collector (Friendship Collector) between Pleasant Plains Road and Friendship Road closer to CSX Railroad.	The Future Minor Collector was removed as the surrounding land uses do not support its construction. The Future Friendship Collector was realigned to follow the recommended Low Density Residential land use designation between Friendship Road and Pleasant Plains Road.
23	Add Proposed Bicycle Lanes along the Future Friendship Collector.	The Major Collector standard specification includes bicycle lanes. Additionally, Friendship Road is a popular route for road cyclists. This roadway will provide a direct connection to Pleasant Park.
24	Add Proposed Side Path along the Future Friendship Collector.	The Proposed Side Path provides a connection to Pleasant Park. The inclusion of side path along this collector will enhance bicycle and pedestrian access to the park.
25	Change Rural Density Residential to Low Density Residential and Commercial Services.	In response to property owner's request and to provide an opportunity for commercial use supported by visitors to Pleasant Park.
26	Remove Proposed Bicycle Lanes from Pleasant Plains Road.	Public comments included preservation of the rural character of the study area and a preference for Rural and Rural Transition Residential development. The recommended Rural Density Residential along both sides of Pleasant Plains Road limits the opportunity for roadway improvements, including widening for bicycle lanes.

Public Transportation

Existing Service

The study area is within GoWake Access's Rural Transportation Area and Elderly and Disabled Systems Transit Areas. Fixed route transit service is not available within the study area.

Future Considerations

A general concept of a transit connection between downtown Apex and Pleasant Park has been identified. Fixed route transit serving most of the study area is not proposed given the designation of Rural Density Residential and Rural Transition Residential for most of the study area. No amendments to the Transit Plan Map are recommended.

During the public meetings, community members requested transit service to the study area. There have been separate community requests for transit access to parks in general, Apex Nature Park, Apex Friendship Schools, Scotts Mill, and downtown Apex. It is recommended that the Town of Apex consider

potential transit service in these areas.

Agricultural Business and Agritourism Recommendation

Community members requested that commercial development within the study area promote agricultural business. Based on this input, it is recommended that the Town of Apex encourage agricultural business and agritourism throughout the study area. The National Agricultural Law Center defines agritourism as the link between agricultural production and/or processing with tourism to attract visitors onto a farm, ranch, or other agricultural business for the purposes of entertaining or educating the visitors while generating income for the farm, ranch, or business owner.²

The following agricultural business and agritourism uses are allowable in Apex either by right or with a Special Use Permit within an allowable zoning district under the Land Use Classifications that comprise a substantial portion of the study area. These Land Use Classifications include: Rural Density Residential, Rural Transition Residential, Industrial Employment, Office Employment, and Commercial Services. Appendix J includes tables that outline: (1) Allowable zoning districts within the Land Use Classifications that comprise a substantial portion of the study area and (2) Agricultural business and agritourism uses that are permitted by-right or with a Special Use Permit within an allowable zoning district.

- Active farm (includes winery)
- Bed and breakfast
- Farmer’s market
- Fish hatchery and fish pond
- Flea market
- Greenhouse or nursery, retail
- Horse boarding and riding stable
- Restaurant, general
- Retail sales, general



The “Zoological garden” use is currently allowable with a Special Use Permit under the Residential Agricultural District and the Rural Residential District. Of the Land Use Classifications reviewed, Greenhouse or nursery, wholesale is only allowable within the Rural Agricultural District. It is recommended that the Unified Development Ordinance be amended to allow the “Zoological garden” use and the “Greenhouse or nursery, wholesale” use to be allowable by-right under the Planned Unit Development District.

Bona Fide farms are exempt from zoning regulations. The University of North Carolina School of Government notes, the idea of the farm exemption is that the county or local government should not be telling the farmer when to plow their field, where to build their barn, or how many cattle to graze in their pasture.³

² “Agritourism – An Overview.” The National Agricultural Law Center, 2024, <https://nationalaglawcenter.org/overview/agritourism/>.

³ Adam Lovelady, “Bona Fide Farms and Housing”, Coates’ Canons NC Local Government Law, University of North Carolina School of Government, March 24, 2022, <https://canons.sog.unc.edu/2022/03/bona-fide-farms-and-housing/>.

Context Areas Map Amendment Recommendations

Advance Apex, the Town's 2045 Transportation Plan, separated the Town of Apex Planning area into four context types: Rural, Suburban, Transit-Oriented Development, and Town Center. These contexts are used to describe the development style, travel mode priorities, and street design considerations. They are also used to prioritize funding for pedestrian improvement projects, which are targeted to the Transit-Oriented Development and Town Center context areas first, followed by Suburban, then Rural. The suburban context is expanded west to include the west side of New Hill Holleman Road to reflect existing conditions and the Land Use Map designations, as displayed in Figure 12. The rural context is extended east to include the Rural Density Residential, Rural Transition Residential, and Low Density Residential portions of the study area, as displayed in Figure 12. The Richardson Road corridor continues to be located in the suburban context. The rural context designation currently ends at New Hill Holleman Road. Including Friendship Road and Pleasant Plains Road in the rural context allows the two-lane rural thoroughfare roadway design to be used if changes are made to these roadways. The two-lane rural thoroughfare design includes paved shoulder, a wide ditch, and sidewalk on each side of the roadway. The typical roadway section for a two-lane thoroughfare is displayed in Figure 13.

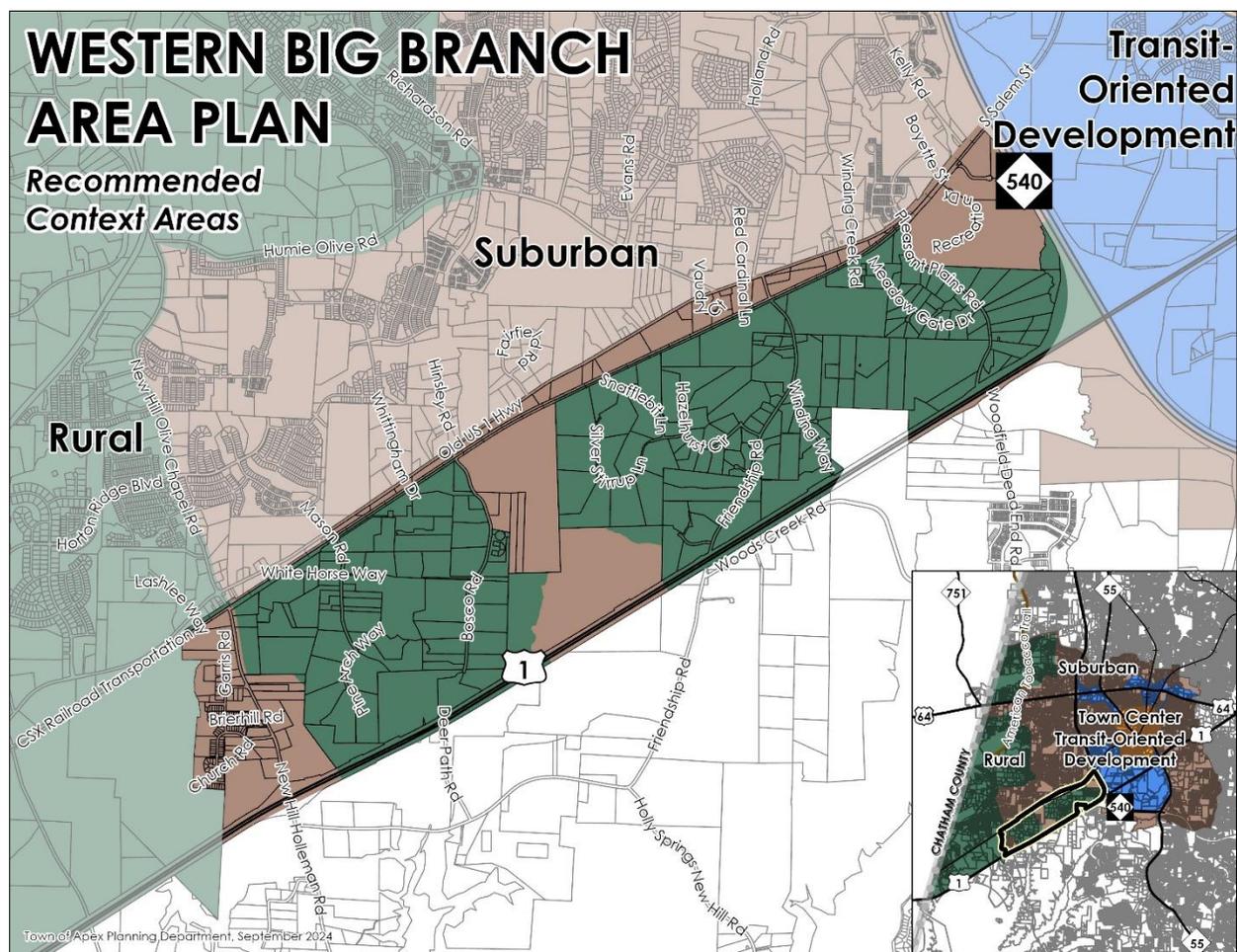


Figure 12. Recommended Context Areas

Reference Number	Recommendation	Study Area Goal	Role Assignment	Code/Policy	Program/Study	Capital Project	Term
	Humie Olive Road and Old US 1.						
1B	Encourage development of grocery/convenience offerings near the intersection of New Hill Holleman Road and US 1.	6	Planning & Economic Development	X			Near
1C	Propose an amendment to the Unified Development Ordinance to allow the “Zoological garden” use and the “Greenhouse or nursery, wholesale” use by-right under the Planned Unit Development zoning district.	1	Planning	X			Near
1D	Prepare a staff-recommended list of possible zoning conditions for properties designated as Rural Density Residential, Rural Transition Residential, and Low Density Residential on the 2045 Land Use Map that would be provided to developers to consider proffering.	1, 2 & 4	Planning	X			Near
2 Transportation							
2A	Study and potentially invest in turn lanes and a traffic signal at the intersection of	8	Transportation and Infrastructure Development		X	X	Ongoing

Reference Number	Recommendation	Study Area Goal	Role Assignment	Code/ Policy	Program/ Study	Capital Project	Term
	Friendship Road and Old US 1.						
2B	Conduct a feasibility study for a potential grade separation at either NC 540 or S Salem Street to improve vehicular, bicycle, and pedestrian access to Pleasant Park.	8	Planning, Transportation and Infrastructure Development, & Parks, Recreation, and Cultural Resources		X		Mid
2C	Coordinate with NCDOT on its annual resurfacing contract for opportunities to stripe bicycle lanes and/or provide bicycle signage within the study area.	8	Transportation and Infrastructure Development & Planning		X		Ongoing
2D	Coordinate with regional partners on transportation requirements for motorists, cyclists, and pedestrians associated with new development in the vicinity of the study area.	9	Transportation and Infrastructure Development & Planning		X		Ongoing
2E	Further explore a potential transit connection between downtown Apex and Pleasant Park.	8 & 9	Planning & Parks, Recreation, and Cultural Resources		X	X	Mid
3 Quality of Life							
3A	Encourage economic development along the Richardson Road corridor at the future Friendship Road/US 1 interchange.	7	Economic Development	X			Long

Reference Number	Recommendation	Study Area Goal	Role Assignment	Code/Policy	Program/Study	Capital Project	Term
3B	Utilize the Town of Apex Affordable Housing Incentive Zoning Policy to encourage mixed housing options in the study area.	7	Community Development & Neighborhood Connections	X			Long
3C	Consider requests from area residents for involvement in Citizen Advisory Committees and Boards and determine strategies to engage area stakeholders.	1, 4 & 9	Town Clerk's Office	X			Mid
4 Environment							
4A	Review best practices and develop a policy to encourage the preservation of forested areas.	1 & 2	Planning	X			Near
4B	Coordinate with Wake County to allow Voluntary Agricultural Districts (VADs) and Enhanced Voluntary Agricultural Districts (EVADs) within the Apex corporate limits and ETJ.	1 & 3	Administration	X			Near
5 History							
5A	Encourage residents of the Friendship and New Hill communities to participate in the Town of Apex Historical Marker Program.	4	Planning		X		Near

Conclusion

The *Western Big Branch Area Plan: Encompassing Portions of the Friendship and New Hill Communities* was prepared as a targeted initiative to focus on Land Use Map and Transportation Plan amendments in the study area based on data analysis, regional coordination, and extensive public engagement. A series of action items in the Additional Plan Recommendations have been identified for Town staff to prioritize and implement. The public input collected and the resulting plan recommendations will be used to inform future land use planning and transportation planning processes in Apex.