



Board of Commissioners
Regular Meeting
May 7, 2024 – 7:00 PM
502 Southtown Circle, Rolesville, NC 27571

Agenda

1. Call to Order

2. Pledge of Allegiance

3. Invocation

4. Proclamations and Awards

National Small Business Week Proclamation – April 28th – May 4th

National Police Appreciation Week Proclamation – May 11th – 17th

National Public Works Week Proclamation – May 19th – 25th

5. Consider Approval of the Agenda.

6. Consider Approval of the Consent Agenda:

6.a. Consent: Minutes of April 2, 2024 and April 16, 2024.

6.b. Consent: Town Code Amendment(s) Section 130.04 – Unnecessary Noise

6.c. Consent: Wallbrook Multiuse Path Encroachment Agreement.

6.c. Consent: Waive Alcohol Restriction for Juneteenth event.

7. Public Invited to be Heard.

Individuals wishing to speak during the Public Invited to be Heard proceedings are encouraged to be prepared and individuals will be limited to three (3) minutes. Written comments are welcome and should be given to the Town Clerk prior to the start of the meeting.

8. Town Board Liaison Reports

8.a. Commissioner Alston – Veterans

8.b. Commissioner Long – Public Safety

8.c. Commissioner Paul – Senior Citizens

8.d. Commissioner Sneed – Planning Board

8.e. Commissioner Vilga – Parks & Recreation Advisory Board

9. Communication from Town Staff

9.a. Parks & Recreation

10. Old Business

NONE

11. New Business

Hearings

11.a. Legislative Hearing(s): ANX-24-01/REZ-24-02 Hills at Harris Creek.

11.b. Legislative Hearing(s): REZ-23-07 111/113/115 W. Young Street

End of Hearings

11.c. Yard Waste – Consider Authorizing Town Manager to Execute and adopt Budget Ordinance Amendment.

12. Communications

12.a. Town Attorney

12.b. Interim Town Manager – Planning Space Lease Report

12.c. Town Board

13. Closed Session - Personnel

14. Adjourn

The Town of Rolesville will make reasonable accommodations for access to Town services, programs, and activities and will make special communication arrangements for persons with disabilities. Please call (919) 556-3506 by noon on the Thursday prior to the meeting to make arrangements.

Future Meetings Calendar



Proclamation of the Town of Rolesville

Recognizing National Small Business Week 2024

WHEREAS, from the storefront shops that anchor Main Street to the high-tech startups that keep America on the cutting edge, small businesses are the backbone of our economy and the cornerstones of our nation's promise; and

WHEREAS, when we support small business, jobs are created, and local communities preserve their unique culture; and

WHEREAS, because this country's 33 million small businesses create nearly two out of three net new jobs in our economy, we cannot resolve ourselves to create jobs and spur economic growth in America without discussing ways to support our entrepreneurs; and

WHEREAS, the President of the United States has proclaimed National Small Business Week every year since 1963 to highlight the programs and services available to entrepreneurs through the U.S. Small Business Administration and other government agencies; and

WHEREAS, Rolesville supports and joins in this national and regional effort, along with Wake County and other communities in the Triangle Region, to help America's small businesses do what they do best - grow their business, create jobs, and ensure that our communities remain as vibrant tomorrow as they are today.

NOW THEREFORE, I, Ron Currin, Mayor of the Town of Rolesville do hereby proclaim April 28 – May 4, 2024 as Small Business Week and encourage our citizens to Shop Small and support their local small businesses here in Rolesville.

IN WITNESS WHEREOF, I do hereby set my hand and cause the seal of Rolesville to be affixed this 7th Day of May, 2024.

Ronnie I. Currin, Mayor

ATTEST:

Robin E. Peyton, Town Clerk



PROCLAMATION
NATIONAL POLICE APPRECIATION WEEK
May 11 - May 17, 2024

WHEREAS, in 1963 the Congress and President of the United States have designated May 15 as Peace Officers' Memorial Day, and the week in which May 15 falls as National Police Week; and

WHEREAS, there are approximately 900,000 law enforcement officers serving across the United States, including the dedicated members of the Town of Rolesville Police Department; and

WHEREAS, the members of the Rolesville Police Department play an essential role in safeguarding the rights and freedoms of our community; and

WHEREAS, it is important that all citizens know and understand the duties, responsibilities, and sacrifices of their law enforcement agencies, and that officers of the Town of Rolesville recognize their duty to serve the people by safeguarding life and property, by protecting them against violence and disorder, and by protecting the innocent against deception and the weak against oppression; and

WHEREAS, the men and women of law enforcement of the Town of Rolesville unceasingly provide a vital public service by their faithful and loyal devotion to their responsibilities have rendered a dedicated service to this community and in so doing, have established for themselves an enviable and enduring reputation for preserving the rights and security of all citizens;

NOW, THEREFORE, the Town of Rolesville Board of Commissioners proclaims the week of May 11 – May 17, 2024 as Police Week and call upon all citizens of Rolesville and upon all patriotic, civic, and educational organizations to observe May 15, 2024, as Peace Officers' Memorial Day in which people may join in commemorating law enforcement officers, past and present, who have made the ultimate sacrifice in service to their community or have become disabled in the performance of their duty.

ADOPTED this the 7th day of May 2024.

SEAL

Ronnie I. Currin - Mayor

Robin E. Peyton, CMC – Town Clerk

Town of Rolesville

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.556.3506



**PROCLAMATION
NATIONAL PUBLIC WORKS WEEK
May 19 – May 25, 2024**

WHEREAS, Public Works professionals focus on infrastructure, facilities, and services that are of vital importance to sustainable and resilient communities and the public health, high quality of life, and well-being of the citizens of Rolesville; and

WHEREAS, those facilities and services could not be provided without the dedicated efforts of Public Works Professionals; and

WHEREAS, those individuals build, operate, maintain, and administer the streets, sidewalks, stormwater infrastructure, solid waste and recycling collections, public buildings, and other structures and facilities that are vital to the citizens of Rolesville; and

WHEREAS, it is in the interest of the public for citizens, civic leaders and children to continue to gain information and to understand the role Public Works plays in the Town of Rolesville; and

WHEREAS, 2024 marks the 64th annual National Public Works Week;

NOW, THEREFORE, the Board of Commissioners of the Town of Rolesville joins the American Public Works Association in recognizing the contributions of Public Works professionals to the health, safety, and quality of life in Rolesville. The Board of Commissioners also encourages all residents of Rolesville to thank the Public Works Professionals for their continued dedication and hard work to this community. We the Board of Commissioners of the Town of Rolesville proclaim the week of May 19 through May 25, 2024 as “National Public Works Week.”

ADOPTED this the 7th day of May 2024

Ronnie I. Currin – Mayor

Seal

Robin E. Peyton, CMC – Town Clerk



**Board of Commissioners
Regular Meeting**
April 2, 2024 – 7:00 PM
502 Southtown Circle, Rolesville, NC 27571

Minutes

Present: Mayor Ronnie Currin
Commissioner Dan Alston
~~Commissioner Michael Paul~~
Interim Town Manager Eric Marsh
Town Attorney Dave Neill
Planning Director Meredith Gruber
Comm & Econ Dev. Mgr. Mical McFarland

Mayor Pro Tem April Sneed
Commissioner Lenwood Long
Commissioner Paul Vilga
Town Clerk Robin Peyton
Police Chief David Simmons
Parks & Rec Director June Greene

1. [Call to Order](#)

Mayor Currin called the meeting to order at 7:00 p.m.

2. [Pledge of Allegiance](#)

Mayor Currin led the Pledge of Allegiance

3. [Invocation](#)

Commissioner Long gave the invocation.

4. [Proclamations and Awards](#)

4.a. Proclamation Recognizing Rolesville High School Lady Rams Basketball Team.
The final moments of the State Championship game were played on the monitors in the C. Frank Eagles Board Room, after which Mayor Currin read aloud the Proclamation. The Proclamation was presented to Coach Warren and members of the team.

4.b. Proclamation Recognizing Arbor Day.
Mayor Currin read aloud the Proclamation. The Town's Arbor Day event will be held on April 27th at Main Street Park. Saplings and pollinator plants will be given out.

5. [Consider Approval of the Agenda.](#)

Moved by Commissioner Long to approve the agenda; seconded by Commissioner Vilga. Motion to approve carried by unanimous vote.

6. [Consider Approval of the Consent Agenda](#)

Moved by Commissioner Vilga to approve the Consent Agenda as presented and consisting of the following:

6.a. Minutes of March 5, 2024 and March 19, 2024.

6.b. Budget Amendment – Comprehensive Land Use Plan/Economic Development.

6.c. Voluntary Annexation Petition ANX24-01, Hills at Harris Creek – Call for Clerk to Investigate Sufficiency / Call for Legislative Hearing on May 7, 2024.

- 6.d. Reclassification of Senior Planner to Assistant Planning Director.
- 6.e. Recommended High School Parks & Recreation Advisory Board Applicant.

Motion to approve the Consent Agenda seconded by Commissioner Alston and carried by unanimous vote.

7. [Public Invited to be Heard](#)

Elfi Shaak, 521 Kenton Mill Court, Rolesville, NC

Ms. Shaak, a resident, came requesting that she be allowed to serve as a volunteer in the areas of oversight of laws, rules, management, communication, community involvement, land development, and on the tree committee. Ms. Shaak also asked that she be allowed to provide feedback about questionnaires sent in the weekly news blasts before they are sent out.

Commissioner Paul Vilga followed up with her asking that she complete the application to be considered as a tree committee member.

Brad Shaak, 521 Kenton Mill Court, Rolesville, NC

Mr. Shaak, President of the Barrington Townes HOA Board of Directors, came seeking guidance on transitioning the still developer-run board to a Barrington Subdivision Homeowners Association as the townhome parcels were incorrectly deeded to Barrington Townes HOA, Inc. in Zebulon, NC, and the Board of Directors was never provided specific responsibilities related to the stormwater control measure system located on one of the parcels. Mr. Shaak reported that the Townhome Board of Directors engaged an attorney following the developer's dissolution of its company.

8. [Town Board Liaison Reports](#)

8.a. [Commissioner Alston – Veterans](#)

- Coffee with a Veteran meets on the third Saturday of each month at 9:00 a.m. at Arise Coworking space. The next coffee is scheduled for April 20th.
- The Veterans Fellowship Breakfast meets the last Wednesday of every month at 9:00 a.m. at IHOP in Knightdale. Contact MSgt Retired Jerry Mangum jmangum07@gmail.com.
- The Veteran Resource Fair will be held on April 27th from 8:30 a.m. to 1:30 p.m. in the Family Life Center of Greystone Church located at 2601 Hillsborough Road in Durham.
- Join the Garden Club of Rolesville and Town of Rolesville Parks & Recreation on Veterans Day, May 27th at 11:00 a.m. for the Memorial Mile. Meet at Town Hall. For more information visit <https://www.rolesvillenc.gov/parks-recreation/special-events/memorial-day>.
- The Navy National Defense Corps Area Assist Commander in Raleigh reported that Rolesville's approval is pending for something at Rolesville High School and discussion is ongoing as to it being a Navy National Defense Corps or a Jr. ROTC program. Funding for personnel would be split between Wake County and the Navy.

8.b. [Commissioner Long – Public Safety](#)

- The Town of Rolesville and the Rolesville Rural Fire Department are progressing towards unification.

8.c. Commissioner Paul – Senior Citizens

Commissioner Paul was not present to provide a report. Mayor Currin shared praise from the Rolesville Chamber of Commerce and himself to the Town of Rolesville Parks & Recreation Department for their Senior Citizen programs.

8.d. [Commissioner Sneed – Planning Board](#)

- The Planning Board met on March 25th and reviewed two planning cases:
- 11, 113, 115 - the Joel Fund which will come speak to the Town Board in May; and
- Hills at Harris Creek. More information will come under the Planning report.
- Next Planning board meeting is April 22nd.

8.e. [Commissioner Vilga – Parks & Recreation Advisory Board](#)

- The meeting was held on March 27th.
- Discussed applying for grants.
- Reviewed the greenway for the Scarboro Apartments Development.
- Approved the mission statement for the Parks & Recreation Department.
- The Arbor Day event will be held April 22nd from 12:00 p.m. to 2:00 p.m.
- Picked the art for the Trail Art program to be held in June.

9. Communication from Town Staff

9.a. [Planning](#)

- A 2023 annual report was provided containing the number of development review applications received.
- New employee information was provided.
- The Comprehensive Plan update consultant selection is expected to occur in April or May 2024.
- The Affordable Housing Plan draft is expected to be completed in August 2024.

9.b. [Economic Development/Communications](#)

- The list of the top 50 taxpayers in Rolesville was provided.
- An economic outlook done by NC State was provided.
- An example of the brochure for new town business owners was shared.
- The list of the twelve known businesses coming to Cobblestone Village was provided.
- Mical McFarland attended the NC Main Street annual conference in Goldsboro along with members of the Rolesville Downtown Development Association.
- Part of the Comprehensive Plan update will bring the Comprehensive Plan, the Main Street Plan, and the Economic Development Plan together.
- A Top Attractions in and near Rolesville webpage has been created.
- Community Engagement Specialist Lindse Owens provided a communication update.

10. Old Business

NONE

11. New Business

Hearings

11.a. [Legislative Hearing\(s\): MA22-08/ANX22-05 Harris Creek Farms](#)

Mayor Currin opened the legislative hearing on MA22-08/ANX22-05 – Harris Creek Farms at 7:53 p.m.

Planning Director Meredith Gruber provided a case introduction and staff report.

Samuel Morris, Longleaf Law Partners, 4509 Creedmoor Rd Suite 302, Raleigh, NC
Mr. Morris appeared and legal representation for the applicant/owner. Morris presented an overview of the petition and the existing conditions of the proposed project. Mr. Morris provided clarity regarding monies pledged to Homes for Heroes and the manner in which it will be evidenced to the town.

Steve George, President, CSC Group, 507 Rock Castle Drive, Cary, NC
Mr. George provided additional details on the proposed site greenways.

Jeremy Keeny, Morris & Ritchie Associates, 530 Hinton Pond Road, Suite 104, Knightdale, NC
Mr. Keeny provided details on the buffer separating the existing neighborhood and the proposed project neighborhood.

Lori Moss, 5005 C&L Avenue, Wake Forest, NC
Ms. Moss thanked the applicant for providing the existing neighborhood with public access to the greenway. Ms. Moss cited concern for traffic for her request that the town work with the developer and NC DOT to install a round-a-bout at the intersection on Jonesville Road, north of Harris Creek Bridge as well as a round-a-bout at the intersection of Jonesville Road and the proposed extension to Fowler Road.

Ms. Moss reported she heard that the streets in the proposed neighborhood would be named to reflect the Jonesville community and expressed her appreciation.

Richard Dowdy, 4627 Running Deer Drive, Wake Forest, NC
Mr. Dowdy expressed concern for the safety of the community wells and foundations when blasting occurs. Mr. Dowdy asked that the developer put something in writing to protect the wells and foundations to include information on how to file a claim in the event of damage. Also requested was that testing be conducted on each well and foundation before, during and after construction.

Alicia Ruiz, 3857 Jonesville Road, Wake Forest, NC
Ms. Ruiz asked that the zoning of the property remain low-density.

Marie Jarvis, 3704 Gideon Drive, Wake Forest, NC
Ms. Jarvis expressed her concern regarding not knowing what the ultimate width of Gideon Drive will be and concern about traffic congestion and ingress/egress with the emergency service vehicles and neighboring communities.

Elfie Shock, 521 Kenton Mill Court, Rolesville, NC
Ms. Shock expressed the importance of getting an agreement in place before the community is turned over to a Homeowners Association.

Margaret Watkins, 407 Melmellen Court, Wake Forest, NC

Ms. Watkins requested information on the distance between the riparian buffer and a nearby stream.

Kari Curtis, 5205 Kyle Drive, Raleigh, NC

Ms. Curtin spoke on behalf of the Universal Church of Healing and inquired regarding the church providing access and what would be given to the church in return for allowing access or acquiring land. Also requested is that the access be paved up to State or Rolesville standards and that a sidewalk be installed.

Steve George, President, CSC Group, 507 Rock Castle Drive, Cary, NC

Mr. George returned to the podium to address the requests that arose from each public comment.

There being no one remaining to speak, Mayor Currin closed the Legislative Hearing on MA22-08/ANX22-05 – Harris Creek Farms at 9:14 p.m.

Move by Commissioner Vilga to continue the Legislative Hearing on MA22-08/ANX22-05 – Harris Creek Farms to the April 16th Town Board Work Session; seconded by Mayor Pro Tem Sneed. Motion to continue carried by 4-0 vote.

End of Hearings

The board took a ten-minute recess.

11.b. [Planning Department Rezoning Briefing.](#)

Planning Director Meredith Gruber and Assistant Planning Director Michael Elabarger provided a report on the rezoning cases that will be coming before the board in the coming months.

11.c. [Grant Administration Program Updates](#)

Parks & Recreation Director June Greene and Project and Facilities Coordinator Eddie Henderson reported on the following grant application.

11.c.1. Accessibility for Parks Grant – Mill Bridge Nature Park Amphitheater Renovations

Interim Town Manager Eric Marsh reported on the following discretionary funding awards.

11.c.2. Community Project Funding.

11.c.3. Department for Environmental Quality EV Charging Grant.

12. Communications

12.a. Town Attorney

No report

12.b. Interim Town Manager

No report

12.c. Town Board

Commissioner Alston reported that Pride Boxing and Fitness Center in Garner is having free boxing classes for Veterans on Wednesday at 2:00. The center is located at 1311 Fifth Avenue in Garner.

Mayor Currin stated that Representative Deborah Ross is scheduling a check presentation for the Community Project Funding award.

Mayor Currin was appointed to a representative on the state Council of Governments.

Tune in to the Mayor's Show on April 11th with guests Tisha Baker-Lowe and Rolesville High School Coach Val.

13. Adjourn

There being no further business before the board, Mayor Currin adjourned the meeting at 10:13 p.m.

Ronnie I. Currin, Mayor

ATTEST:

Robin E. Peyton, CMC, Town Clerk



Board of Commissioners

Work Session

April 16, 2024

6:00 p.m.

MINUTES

Present: Mayor Ronnie Currin
Commissioner Dan Alston
Commissioner Michael Paul
Interim Town Manager Eric Marsh
Town Attorney Dave Neill
Planning Director Meredith Gruber
Comm & Econ Dev. Mgr. Mical McFarland
Mayor Pro Tem April Sneed
Commissioner Lenwood Long - remote
Commissioner Paul Vilga
Town Clerk Robin Peyton
Police Chief David Simmons

Call to Order

Mayor Currin called the Work Session to order at 6:00 p.m.

Mayor Currin reported that Commissioner Long was present remotely and confirmed that the Town Board and Commissioner Long could hear and see one another.

[Continued Legislative Hearing: MA22-08/ANX22-05 – Harris Creek Farms](#)

Planning Director Meredith Gruber provided an updated staff report on the case(s) under continued hearing.

Revised conditions were presented to staff and the Town Attorney by the applicant and the applicant previously confirmed that they had received comments from the Town Attorney.

There being no further presentation or discussion, it was moved by Commissioner Alston to approve Rezoning Map Amendment request MA22-08 Harris Creek Farms; seconded by Mayor Pro Tem Sneed. Motion to approve carried by the following roll call vote:

Alston: Aye

Long: Aye

Paul: Aye

Sneed: Aye

Vilga: Aye

Moved by Commissioner Alston to adopt a plan consistency statement and statement of reasonableness for MA-22-08; seconded by Commissioner Vilga. Motion carried by the following roll call vote:

Alston: Aye
Long: Aye
Paul: Aye
Sneed: Aye
Vilga: Aye

Moved by Commissioner Alston to approve the voluntary annexation petition received under NCGS 160A-31 for annexation ANX-22-05 – Harris Creek Farms; seconded by Commissioner Long. Motion to approve carried by the following roll call vote:

Alston: Aye
Long: Aye
Paul: Aye
Sneed: Aye
Vilga: Aye

[Chamber of Commerce – Memorandum of Understanding \(MOU\)/Budget Request](#)

Phillip Carter, Rolesville Chamber Director, presented the Chamber's proposed Memorandum of Understanding and Budget Request for 2024. The Chamber is asking for less money this coming year than last.

[Capital Improvement Plan Model - Davenport](#)

Finance Director Amy Stevens introduced the agenda item as well as Ted Cole of Davenport, contractor for the Capital Improvement Plan 5-Year Model.

[Noise Ordinance Discussion – Town Attorney Dave Neill](#)

Town Attorney Dave Neill led a discussion on proposed changes to the Noise Ordinance found under Town Code Section 130.04 Unnecessary Noise.

Closed Session

Moved by Mayor Pro Tem Sneed that the Board go into Closed Session to discuss a confidential personnel matter pursuant to Chapter 143, Sections 318.11(a)(3) and (a)(6) of the North Carolina General Statutes; seconded by Commissioner Paul. Motion that the board enter closed session carried by the following roll call vote:

Alston: Aye
Long: Aye
Paul: Aye
Sneed: Aye
Vilga: Aye

Adjourn

No action was taken in Closed Session and there being no further business before the board, Mayor Currin adjourned the meeting at 9:06. p.m.



Memorandum

To: Mayor & Town Board
From: June Greene, Parks & Recreation Director
Date: May 7, 2024
Re: Town Code 113.5 Alcoholic Beverages

Background

Town Staff is requesting Town Board to allow alcoholic beverages at Freedom In The Park Juneteenth Celebration at Mill Bridge Nature Park (425 Nature Park Dr.).

Board Options

- 1) Waive Town Code 113.5 *Alcoholic Beverages* provision for the events.
- 2) Do not allow alcoholic beverages at the 2024 Freedom In The Park Juneteenth Celebration.

Relationship to Current Budget/Goals

NONE

Recommended Action

Move to temporarily waive Town Code 113.5 Alcoholic Beverages provision for the 2024 Freedom In The Park.

Attachments: NONE



Memo

To: Town of Rolesville Mayor Currin and Board of Commissioners
From: Meredith Gruber, Planning Director
Date: May 7, 2024
Re: Hills at Harris Creek - Rezoning Case REZ-24-02 and Voluntary Annexation Petition ANX-24-01

Background

Rezoning – REZ-24-02

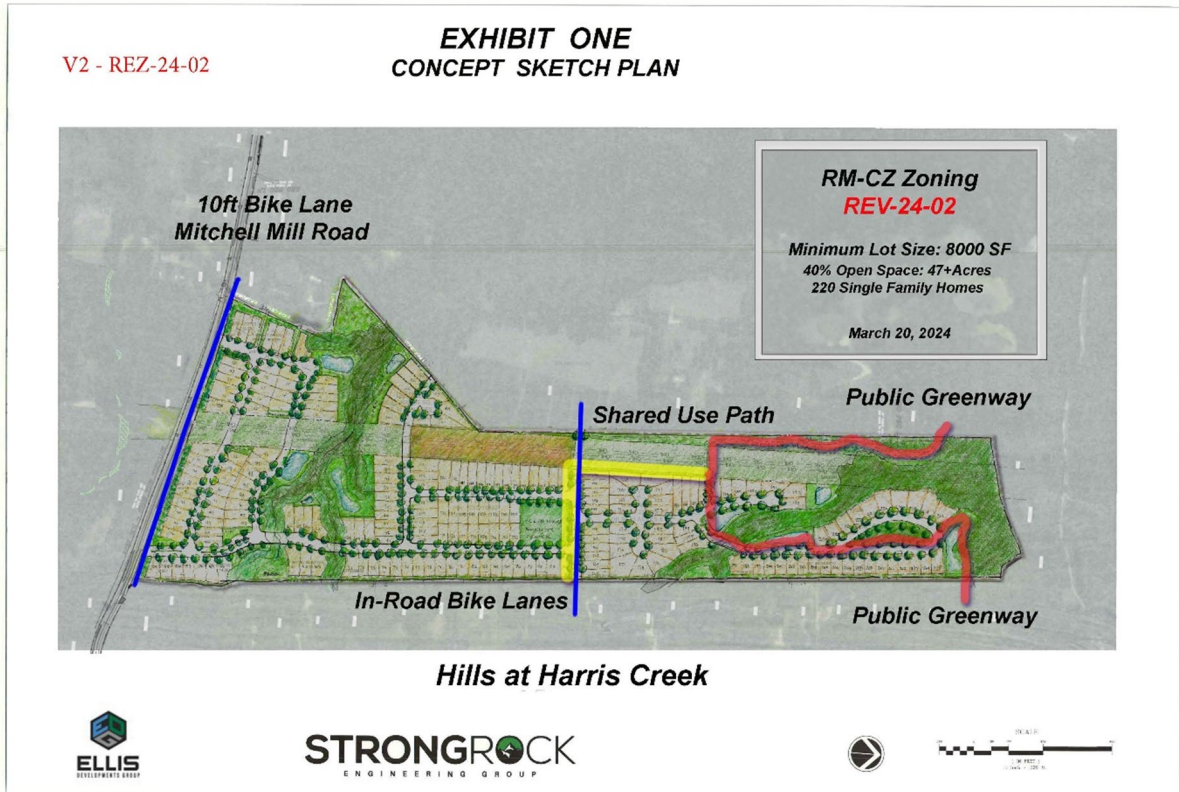
The Town of Rolesville Planning Department received this Rezoning application in February 2024, requesting to rezone approximately 116 acres consisting of four (4) tracts of land on the north side of Mitchell Mill Road, between Jonesville and Rolesville Roads, from Wake County's Residential 30 (R-30) Zoning District to the Town's Land Development Ordinance (LDO) zoning district of Residential Medium as a Conditional Zoning District (RM-CZ). This submittal includes a Concept Site Plan of a proposed residential single family detached subdivision and a set of proposed Conditions of Approval.

Prior to this current Application:

- Map Amendment (Rezoning) application MA 22-01 was processed between January and October 2022. This application requested rezoning the entire property to a Neighborhood Center (NC) as a Conditional Zoning (CZ) District. The specifics of the project were for single family attached and detached housing as well as 150,000 square feet of commercial floorspace.
- In early 2023, the Applicant chose to significantly revise the scope of the application, and REZ-23-03 was submitted to replace MA 22-01, and this application requested a small NC District with the majority of the land area proposed for the Residential High Density (RH) District, both as Conditional Zoning (CZ) Districts. The specifics of the project included maximums of 270 total residential dwellings units (combined single-family detached and attached), with no more than 115 of them being detached units, and a non-residential component in the NC-CZ District meeting the minimum requirements for that District.
- REZ-23-03 was denied by the Town Board of Commissioners on November 8, 2023.

V2 - REZ-24-02

**EXHIBIT ONE
CONCEPT SKETCH PLAN**



Hills at Harris Creek Concept Site Plan

Voluntary Annexation Petition – ANX-24-01

A voluntary annexation for the same properties noted in the following paragraph was previously considered under case number ANX-22-04 and was associated with rezoning applications MA-22-01 and REZ-23-03. MA-22-01 was withdrawn; REZ-23-03 and ANX-22-04, Hills at Harris Creek, were denied by the Town Board of Commissioners on November 8, 2023.

The Town of Rolesville received a non-contiguous voluntary annexation petition for four parcels totalling 132.66 acres located at 3645 Rock Farm Road and 5333 Mitchell Mill Road, as well as two unaddressed properties on Mitchell Mill Road, with Wake County PINs 1757761273, 1757778982, 1758850520, and 175758529, to be annexed into the Town of Rolesville Town Limits. These same four parcels comprise the subject property of the Hills at Harris Creek rezoning case, REZ-24-02.

The petition was investigated by the Town Clerk as to its sufficiency of meeting G.S. 160A-31.

Applicant Justification

The Applicant provided a brief statement regarding the submittal noting the desire to integrate seamlessly with the surrounding community (see attached application).

Neighborhood Meetings

The Applicant conducted a neighborhood meeting for this current Rezoning request on March 18, 2024; a meeting report follows this staff memo as an attachment. The Applicant conducted several such meetings related to the prior two Rezoning applications during 2022 and 2023.

Comprehensive Plan

Land Use

The 2017 Comprehensive Plan's Future Land Use Map designates the subject property, and the entire area south of Harris Creek to Mitchell Mill Road, as appropriate for Medium-Density Residential development. Per the Plan, this is defined as predominantly single-family residential uses with portions of duplex, townhomes, and/or multifamily residential. These are lots or tracts at a density range of three to five dwelling units per gross acre.

Community Transportation Plan

The Town of Rolesville's Community Transportation Plan (CTP, adopted 2021) includes recommendations for Thoroughfares, Collectors, and intersections.

Thoroughfare Recommendations

- Mitchell Mills Road is planned to be a 4-lane, Raised Median-divided section with curb & gutter, bike lanes, and sidewalks.

Collector Recommendations

- At the far northern tip of the subject property, an east/west Collector roadway is identified. As demonstrated in the Concept/Sketch Plan (Attachment 5), the Applicant is proposing a more southern route for this roadway, moving it away from the environmental features (Harris Creek) further to the north, and bringing it closer to Mitchell Mill, where it can serve as a more near-by parallel roadway to the Arterial that Mitchell Mill will eventually function as. This more southern route aligns more so with a similar alignment approved with MA 22-06, 5109 Mitchell Mill Road, which when built will connect to Jonesville Road west of this subject property/project.

Intersection Recommendations

- There are no intersection recommendations associated with the subject property.
- The closest intersection recommendations are located at Mitchell Mill and Rolesville Roads, for an intersection realignment.

Greenway and Bike Plans

As per the 2022 Greenway and Bike Plans, proposed pedestrian routes are shown in the following locations:

- A ten foot (10') greenway is shown on the northern end of the property, on the south side of Harris Creek.
- A ten foot (10') side path is illustrated on the north side of Mitchell Mill Road.
- Bicycle lane within Mitchell Mill Road.

Consistency

The Applicant's rezoning request is consistent with the Town of Rolesville's Comprehensive Plan for the following reasons:

- The proposed single family detached residential housing type fits the Medium Density Residential land use description.

- The proposed vehicular circulation network will enhance or establish Thoroughfare and Collector connections, respectively, as recommended by the Town’s Community Transportation Plan.
- The proposed greenways will establish pedestrian connections as recommended by Rolesville’s Greenway Plan.

Traffic

Traffic Impact Analysis

The consulting firm, DRMP, performed the Traffic Impact Analysis (TIA) for this project on behalf of the Town; the study analyzed the development of 220 single family detached lots. Site access is proposed via two full movement driveway connections to Mitchell Mill Road. The TIA for this proposed development was originally sealed on May 19, 2022 and approved by NCDOT. The Town of Rolesville requested the TIA be updated to match the rezoning Concept Site Plan changes that resulted in a lower trip generation. The updated TIA was sealed on February 29, 2024, and this TIA updates the analysis using the new trip generation.

Site Trip Generation						
Land Use (ITE Code)	Intensity	Daily Traffic	AM Peak Hour Trips Enter	AM Peak Hour Trips Exit	PM Peak Hour Trips Enter	PM Peak Hour Trips Exit
Single Family Housing (210)	220 Dwelling Units	2,084	38	115	131	78

Three (3) intersections were studied for capacity analysis and Level of Service (LOS) impact of this development – US 401 Bypass and Jonesville Road; US 401 Bypass and Eastern U-turn location; Mitchell Mill Road and Jonesville Road / Peebles Road.

TIA Summary – Intersection Improvements	
Recommendations	
Required Frontage Improvements per Rolesville Community Transportation Plan (CTP)	<ul style="list-style-type: none"> • Widen one-half section of Mitchell Mill Road along the site frontage to this roadway’s ultimate section (4-lane Median [raised] divided).
US 401 Bypass and Jonesville Road	<ul style="list-style-type: none"> • Conduct a full signal warrant analysis prior to Full Build-out of the proposed development and install a traffic signal if warranted and approved by NCDOT and Town.
Mitchell Mill Road and Jonesville Road / Peebles Road	<ul style="list-style-type: none"> • Construct a south-bound (Jonesville Rd) left-turn lane with at least 100 feet of storage and appropriate decel and taper. <ul style="list-style-type: none"> ○ <i>It should be noted that this improvement was also identified by the 5109 Mitchell Mill Rd TIA.</i>
	<ul style="list-style-type: none"> • Construct a westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

	<ul style="list-style-type: none"> • Conduct a full signal warrant analysis prior to Full Build-out of the proposed development and install a traffic signal if warranted and approved by NCDOT and Town.
Mitchell Mill Road and Site Access 1	<ul style="list-style-type: none"> • Construct the southbound approach (Site Access 1) as a right-in/right-out with one ingress lane and one egress lane.
	<ul style="list-style-type: none"> • Provide stop control for the southbound approach (Site Access 1).
	<ul style="list-style-type: none"> • Construct a concrete median on Mitchell Mill Road that restricts access to right-in/right-out.
Mitchell Mill Road and Site Access 2	<ul style="list-style-type: none"> • Construct the southbound approach (Site Access 2) with one ingress lane and one egress lane.
	<ul style="list-style-type: none"> • Provide stop control for the southbound approach (Site Access 2).
	<ul style="list-style-type: none"> • Construct the westbound (Mitchell Mill Road) right-lane with at least 100 feet of storage and appropriate decel and taper.

Development Review

The Technical Review Committee (TRC) reviewed one version of this current Rezoning application (but approximately five full reviews of the two other Applications prior to this), with all comments pertinent to the consideration of the proposed districts and the general development plan being resolved. Note that this does not mean that all LDO subdivision and/or site development regulations have been demonstrated, as the attached Concept Site Plan is only a conceptual plan, and not an engineered and dimensioned layout.

Planning Board Recommendation

The Planning Board met on March 25, 2024 to review and provide a recommendation on the Rezoning application. Following presentations by Staff and the Applicant, Board members asked about ingress and egress into the subdivision, the greenway, and maintenance within the Duke Power Line Easement.

The Planning Board made a recommendation of Approval (to the Town Board of Commissioners) with a 3-2 vote (3 ayes / 2 nays / 2 absent.)

Staff Recommendation

Staff recommends approval of Rezoning request REZ-24-02. The proposed housing type is consistent with the Comprehensive Plan Future Land Use Map, and the Applicant’s efforts to revise the Concept Site Plan to better fit the Town of Rolesville’s current policy direction of where or where not to locate townhomes is noted. (The proposed Concept Site Plan includes single family detached lots only; prior plans for MA-22-01 and REZ-23-03 included townhome lots as well.)

Consistency and Reasonableness

As noted above under the Comprehensive Plan section of this report, the rezoning request for the subject parcel is consistent with Rolesville’s vision. Rezoning application REZ-24-02 is thus consistent with the Comprehensive Plan and other applicable plans and is therefore reasonable.

Proposed Motion

1. Motion to (approve or deny) rezoning REZ-24-02 – Hills at Harris Creek.
2. (Following Approval) Motion to adopt a Plan Consistency Statement and Statement of Reasonableness for REZ-24-02.
3. Motion to (approve or deny) the Voluntary Annexation Petition received under G.S. 160A-31 for ANX-24-01, Hills at Harris Creek.

Or

4. Motion to continue the Legislative Hearing and/or further consideration for REZ-24-02 and ANX-24-01 to a future Town Board of Commissioners’ meeting.

Attachments

1	Vicinity Map
2	Zoning Map
3	Future Land Use Map
4	Map Amendment (Rezoning) Application
5	Concept Site Plan and Recreational Amenities Plan
6	Proposed Conditions of Approval
7	Neighborhood Meeting Package
8	Traffic Impact Analysis (TIA) sealed dated February 29, 2024
9	Voluntary Annexation Petition and Attachments
10	Applicant Presentation

ATTACHMENT 1 - VICINITY MAP

Case: ANX 22-04, REZ 23-03
Address: 0,0,3645 Rock Farm, 5333 Mitchell Mill Road
PIN 1757750520, 1757758529, 1757761273, 1757778982
Date: 2023.07.18



Vicinity Map

Path: C:\Users\SRaby\State of North Carolina\Town of Rolesville - Documents\Development Projects\Annexations\2022 - 9\ANX 22-04 - Hills at Harris Creek\GIS\ANX-22-04 Hills at Harris Creek_Base_Map.aprx



Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

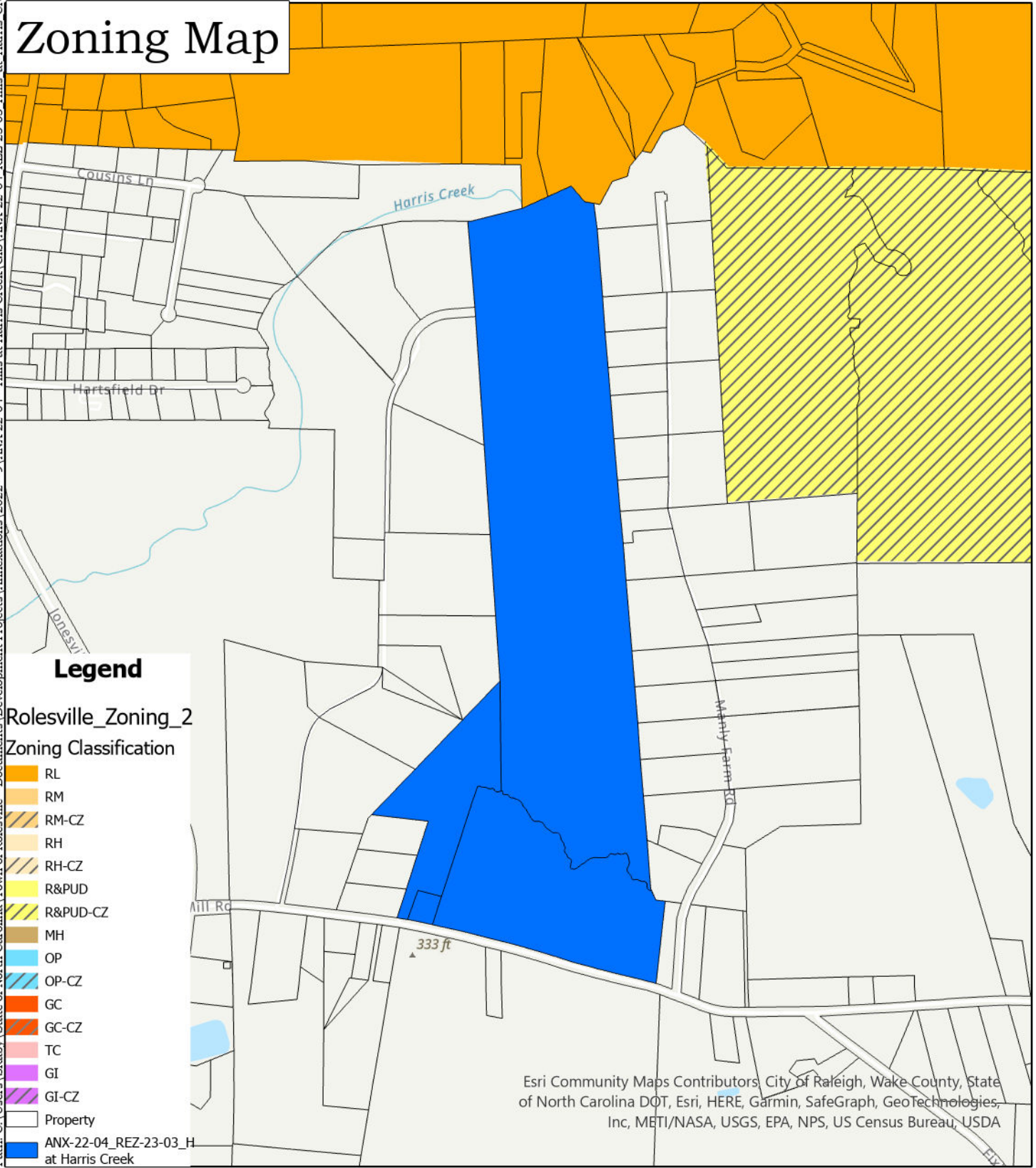




Case: ANX 22-04, REZ 23-03
 Address: 0,0,3645 Rock Farm, 5333 Mitchell Mill Road
 PIN 1757750520, 1757758529, 1757761273, 1757778982
 Date: 2023.07.18

Path: C:\Users\SRaby\State of North Carolina\Town of Rolesville\Documents\Development Projects\Annexations\2022 - 9\ANX 22-04 - Hills at Harris Creek\GIS\ANX-22-04-REZ-23-03-Hills at Harris Creek_Base_Map.aprx
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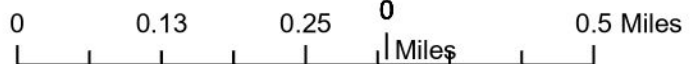
Zoning Map



Legend

- Rolesville_Zoning_2
- Zoning Classification
- RL
 - RM
 - RM-CZ
 - RH
 - RH-CZ
 - R&PUD
 - R&PUD-CZ
 - MH
 - OP
 - OP-CZ
 - GC
 - GC-CZ
 - TC
 - GI
 - GI-CZ
 - Property
 - ANX-22-04_REZ-23-03_H at Harris Creek

Esri Community Maps Contributors, City of Raleigh, Wake County, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

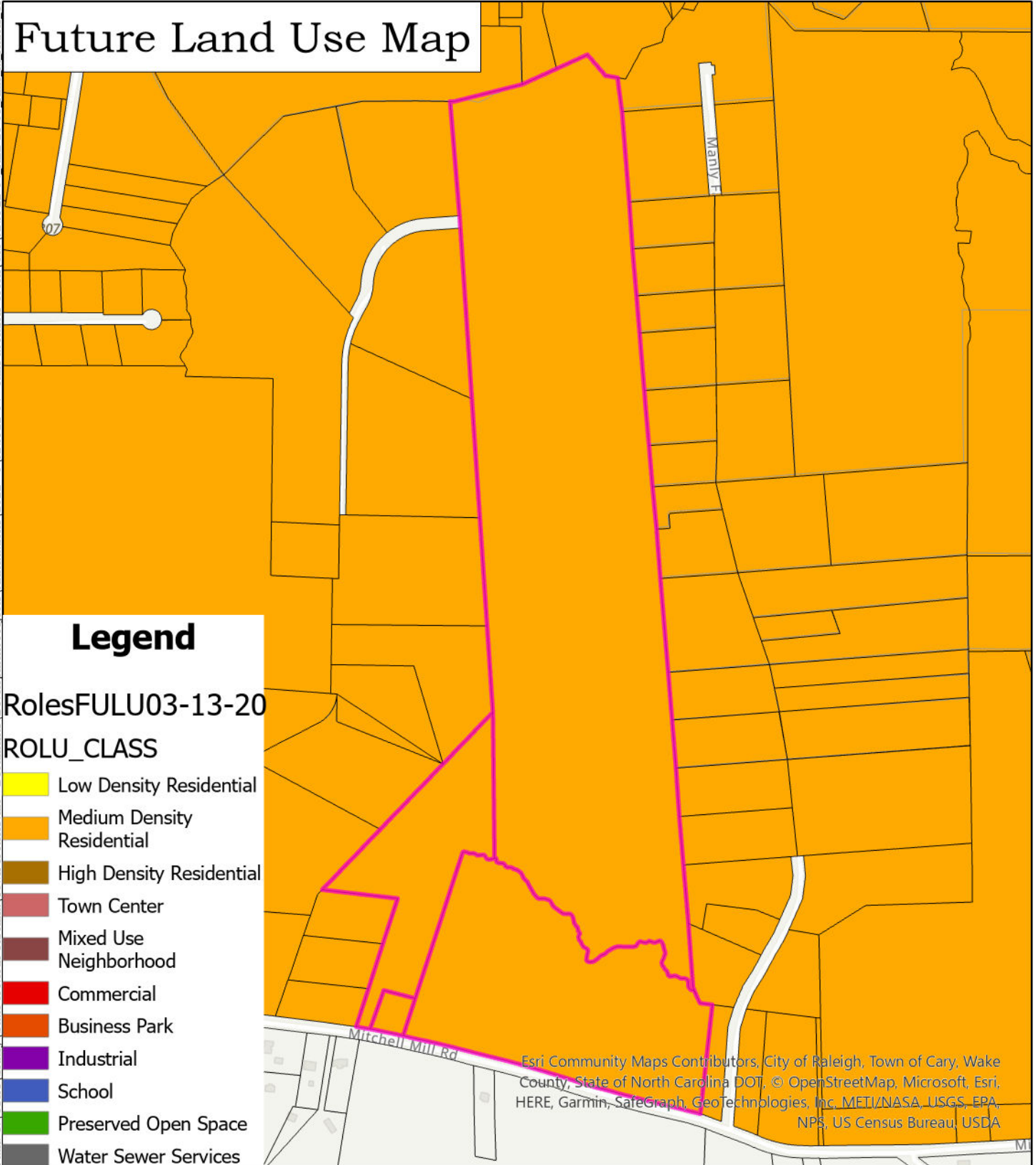




Case: ANX 22-04, REZ 23-03
Address: 0,0,3645 Rock Farm, 5333 Mitchell Mill Road
PIN 1757750520, 1757758529, 1757761273, 1757778982
Date: 2023.07.18

Path: C:\Users\SRaby\State of North Carolina\Town of Rolesville - Documents\Development Projects\Annexations\2022 - 9\ANX 22-04 - Hills at Harris Creek\GIS\ANX 22-04 - REZ 23-03 - Hills at Harris Creek_Base_Map.aprx Date Saved: 7/18/2023 10:08 AM

Future Land Use Map



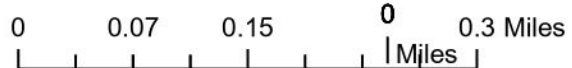
Legend

RolesFULU03-13-20

ROLU_CLASS

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Town Center
- Mixed Use Neighborhood
- Commercial
- Business Park
- Industrial
- School
- Preserved Open Space
- Water Sewer Services

Esri Community Maps Contributors, City of Raleigh, Town of Cary, Wake County, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc. METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA





Map Amendment Application

Contact Information

Property Owner Alan & Randy Watkins // Laura and Randall Watkins // Ellis Land Investment Company, LLC
 Address 305 Church at North Hills Street, Suite 1110 City/State/Zip Raleigh NC 27609
 Phone 919-824-6088 Email jason@ellisdevgroup.com


Developer Ellis Developments NC, LLC
 Contact Name Jason Pfister
 Address 305 Church at North Hills Street, Suite 1110 City/State/Zip Raleigh, NC 27609
 Phone 919-824-6088 Email jason@ellisdevgroup.com

Property Information

Address 5326 Mitchell Mill Rd
 Wake County PIN(s) 1757758529, 1757750520, 1757761273, 1757778982
 Current Zoning District Wake R30 Requested Zoning District RM-CZ
 Total Acreage 115.44

Owner Signature

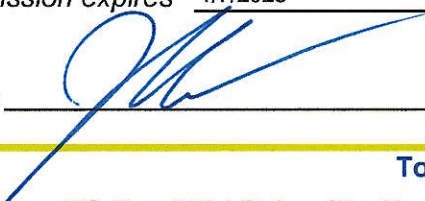
I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

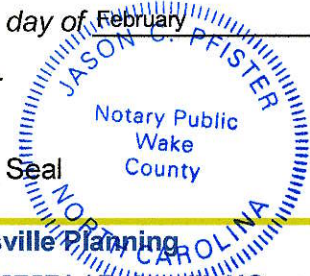
Signature  Date 12 Feb 24

STATE OF NORTH CAROLINA
 COUNTY OF WAKE

I, a Notary Public, do hereby certify that Stephen Ellis, Manager of Ellis Land Investment Company, LLC
 personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This
 the 12th day of February 2024

My commission expires 1/7/2028

Signature 



Town of Rolesville Planning



Case No. _____

Date _____

Map Amendment Application

Contact Information

Property Owner Alan & Randy Watkins // Laura and Randall Watkins // Ellis Land Investment Company, LLC

Address 305 Church at North Hills Street, Suite 1110 City/State/Zip Raleigh NC 27609

Phone 919-824-6088 Email jason@ellisdevgroup.com

Developer Ellis Developments NC, LLC

Contact Name Jason Pfister

Address 305 Church at North Hills Street, Suite 1110 City/State/Zip Raleigh, NC 27609

Phone 919-824-6088 Email jason@ellisdevgroup.com

Property Information

Address 5326 Mitchell Mill Rd

Wake County PIN(s) 1757758529, 1757750520, 1757761273, 1757778982

Current Zoning District Wake R30 Requested Zoning District RM-CZ

Total Acreage 115.44

Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature *[Handwritten Signature]* Date 13 Feb 2024

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, a Notary Public, do hereby certify that Laura Watkins + Randall Watkins personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the 13th day of February 20 24.

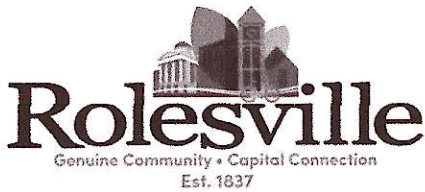
My commission expires 1-7-28.

Signature *[Handwritten Signature]*



Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Case No. _____

Date _____

Map Amendment Application

Contact Information

Property Owner Alan & Randy Watkins // Laura and Randall Watkins // Ellis Land Investment Company, LLC

Address 305 Church at North Hills Street, Suite 1110 City/State/Zip Raleigh NC 27609

Phone 919-824-6088 Email jason@ellisdevgroup.com

Developer Ellis Developments NC, LLC

Contact Name Jason Pfister

Address 305 Church at North Hills Street, Suite 1110 City/State/Zip Raleigh, NC 27609

Phone 919-824-6088 Email jason@ellisdevgroup.com

Property Information

Address 5326 Mitchell Mill Rd

Wake County PIN(s) 1757758529, 1757750520, 1757761273, 1757778982

Current Zoning District Wake R30 Requested Zoning District RM-CZ

Total Acreage 115.44

Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature *Alan Watkins Randy Watkins* Date 02/09/2024

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, a Notary Public, do hereby certify that Alan Watkins and Randy Watkins personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the 9th day of February 20 24.

My commission expires 1-7-28

Signature *[Handwritten Signature]*



Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Map Amendment Application

Metes and Bounds Description of Property

Lined area for writing the Metes and Bounds Description of Property.



Map Amendment Application

Rezoning Justification



Map Amendment Application

Property Owner Information

Wake County PIN	Property Owner	Mailing Address	Zip Code

Metes and Bounds report for Hills at Harris Creek Parcel

Beginning at an iron pipe, with North Carolina Grid Coordinates using NAD83 (2011) of Northing 775,443.03' and an Easting 2,156,848.70', the true point of beginning, thence,

N19°37'29"E for a distance of 190.11' to a point, thence

N18°40'39"E for a distance of 227.11' to a point, thence

N19°31'15"E for a distance of 230.79' to a point, thence

N83°06'35"W for a distance of 376.14' to a point, thence

N43°56'42"E for a distance of 1,191.02' to a point, thence

N03°44'09"W for a distance of 2,728.43' to a point, thence

N03°44'09"W for a distance of 235.15' to a point, thence

N75°53'40"E for a distance of 340.47' to a point, thence

N65°27'07"E for a distance of 350.10' to a point, thence

S40°38'56"E for a distance of 133.25' to a point, thence

S80°06'11"E for a distance of 62.70' to a point, thence

S04°46'37"E for a distance of 4,426.22' to a point, thence

S24°08'12"E for a distance of 83.90' to a point, thence

S00°25'56"E for a distance of 530.78' to a point, thence

N71°34'19"W for a distance of 6.89' to a point, thence

Around a curve to the left with a radius of 730.00', a length of 54.41', a chord bearing of N73°42'26"W and chord distance of 54.39' to a point, thence

Around a curve to the right with a radius of 12,981.80', a length of 667.56', a chord bearing of N75°02'09"W, and a chord distance of 667.49' to a point, thence

Around a curve to the left with a radius of 11,030.00', a length of 753.92', a chord bearing of N75°25'44"W, and a chord distance of 753.77' to a point, thence

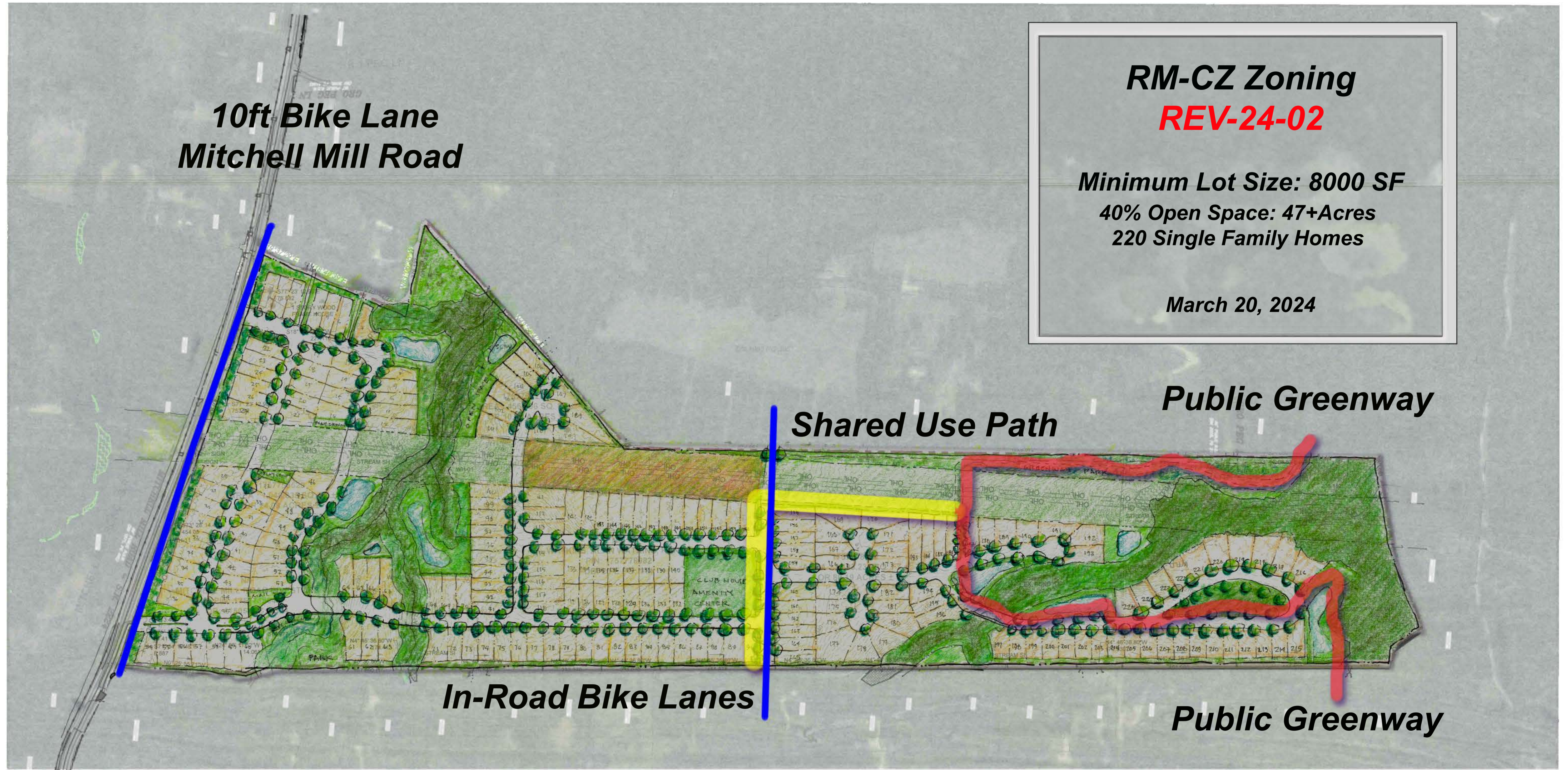
N77°23'13"W for a distance of 103.54' to a point, thence

Around a curve to the left with a radius of 1,229.93', a length of 86.32', a chord bearing of N79°23'51"W, and a chord distance of 86.30' to a point, thence

N78°33'23"W for a distance of 60.60' to the point and place of beginning. For a total of 5,029,708.11 square feet or 115.466 acres.

V2 - REZ-24-02

EXHIBIT ONE CONCEPT SKETCH PLAN

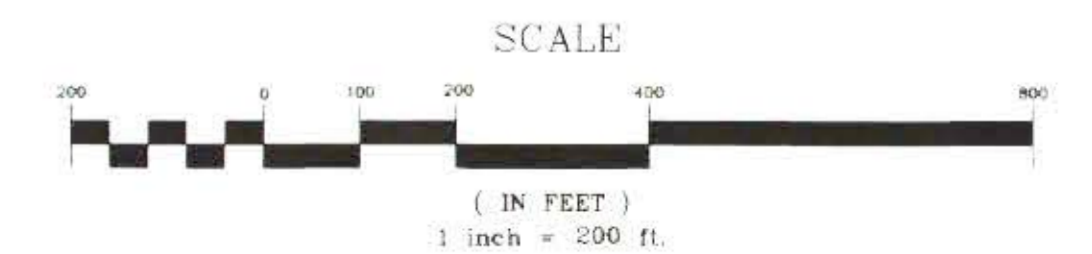


RM-CZ Zoning
REV-24-02

Minimum Lot Size: 8000 SF
40% Open Space: 47+Acres
220 Single Family Homes

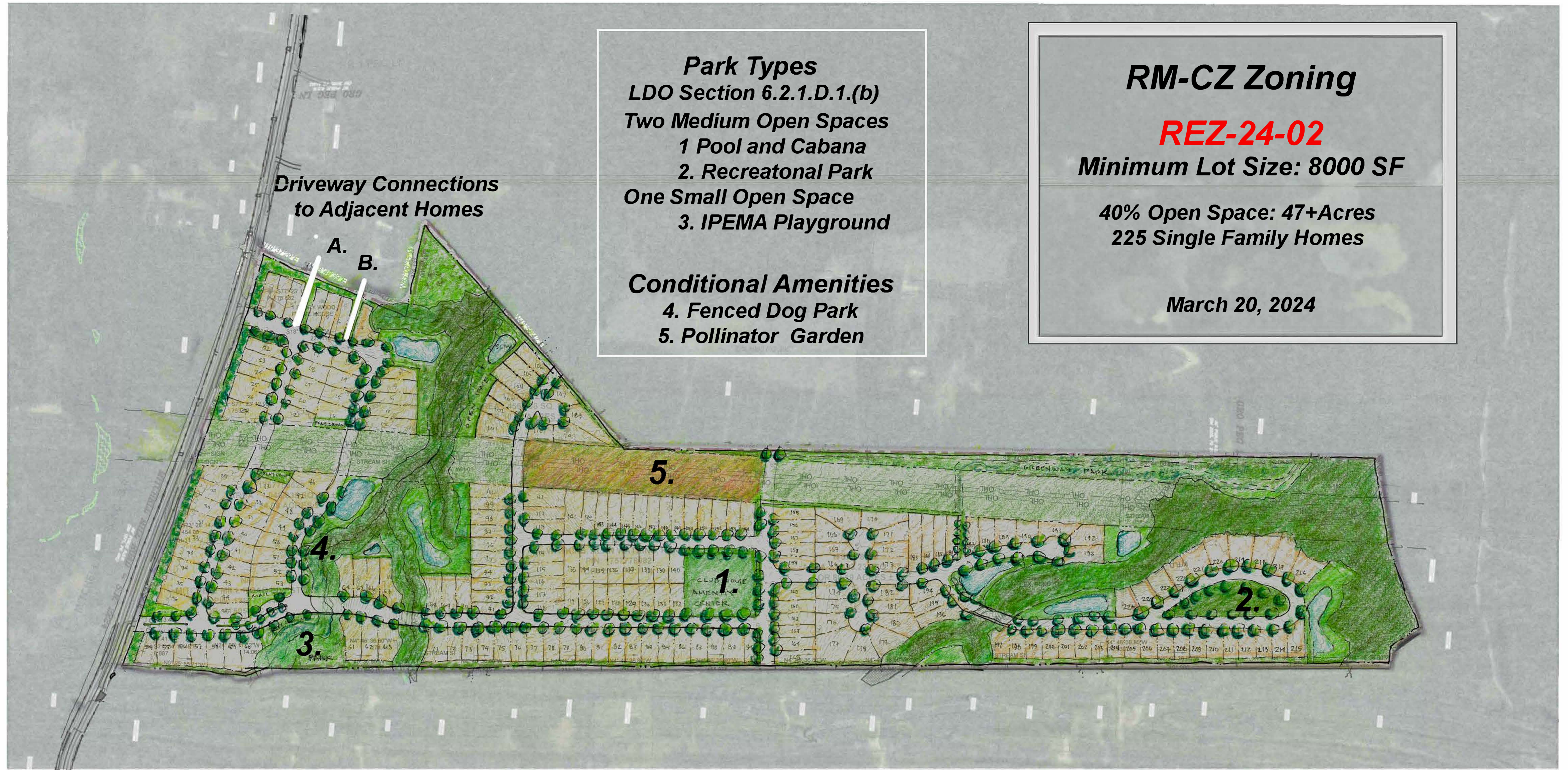
March 20, 2024

Hills at Harris Creek

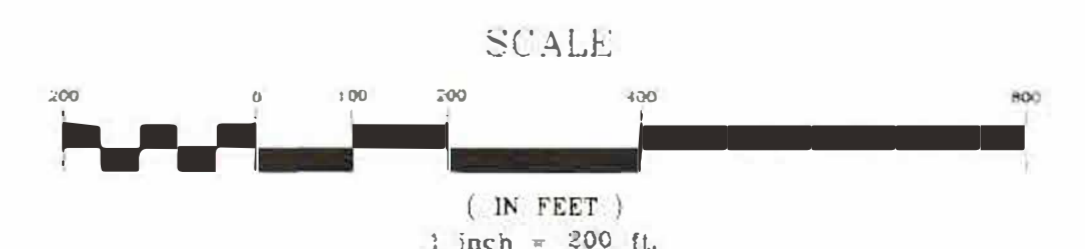


V2-REZ-24-02

EXHIBIT TWO RECREATIONAL AMENITIES PLAN



Hills at Harris Creek



Attachment 6

Exhibit Three

REZ-24-02/Hills at Harris Creek

Conditions of Approval

Date: April 30, 2024

1. The subject property shall be developed generally in accordance with the Concept Sketch Plan attached hereto as Exhibit One and incorporated herein as if fully set out. Locations shown for committed elements including, but not limited to Greenways, streets, and open space areas shown on the Concept Sketch Plan, are conceptual and provided for illustration and context only. Final locations of elements shall be determined at subsequent stages through the Town's development review approval processes.
2. Density: The property may be developed with up to a maximum of 225 single family detached dwelling units.
3. Affordable Housing: Prior to the issuance of the first building permit, Twenty Thousand Dollars and No Cents (\$20,000.00) shall be donated to Homes for Heroes (or another non-profit organization with a substantially similar mission statement). A signed and notarized affidavit from the benefitted charity shall be provided as evidence of performance of this commitment.
4. Pollinator Plantings: At least four acres of the landscaping planted within the Duke Energy power line easement on the subject property shall utilize plant materials that are listed as Native Pollinator Plants on North Carolina Wildlife Federation ("NCWF") or other resources for native plants recommended by the NCWF. This landscape element shall be identified as a "feature" in the appropriate proposed Lot within the Preliminary Subdivision Plat drawings, and then again identified and fully detailed on landscape plan drawings included in the Construction Infrastructure Drawings, and this shall be considered infrastructure that is inspected for (installation) compliance by/at the time of subdivision close-out. Applicant may provide this feature earlier in the development process by evidence of photo documentation and inspection report by the Town infrastructure inspector or other staff.
5. Recreational Amenities: The following recreational amenities shall be provided generally as shown on the Recreational Amenities Plan attached hereto as Exhibit Two as a part of the development of the subject property and shall be dedicated to the subdivision's homeowner's association (HOA). These amenities shall be identified as a "feature" in the appropriate proposed Lot within the Preliminary Subdivision Plat drawings, and then again identified and detailed in the Construction Infrastructure Drawings, and this shall be considered infrastructure that is inspected for (installation) compliance by/at the time of subdivision close-out. Applicant may provide this feature earlier in the development process by evidence of photo documentation and inspection report by the Town infrastructure inspector or other staff.
 - i. A swimming pool and cabana, including changing rooms and restrooms shall be constructed prior to the issuance of the 150th residential dwelling unit building permit;
 - ii. At least one fenced playground shall be constructed prior to the issuance of the 150th residential dwelling unit building permit;
 - iii. At least one fenced dog park shall be constructed prior to the issuance of

the 150th residential dwelling unit building permit;

- iv. At least one (1) garden park shall be provided prior to the issuance of the 200th residential dwelling unit building permit.
6. Foundations: All homes shall include either crawl space foundations or stem wall foundation (as they are generally defined in the home building industry). Any stem wall foundations shall have an average of at least eighteen inches (18") in height of reveal above the finished ground surface across the front facade of the home. There shall be no exposed concrete on any portion of the stem wall foundation on any side of the home facing and directly parallel to a public street. Compliance with this condition shall be demonstrated by noting the following on the plans submitted with the residential building permit application: i) the average stem wall height for the front façade of the stem wall foundation, and ii) the building materials to be used (stone veneer or brick) on the stem wall foundation façade on any side of the home facing a public street.
 7. Minimum Dwelling Size: Each single family detached dwelling unit shall contain a minimum gross building square footage of 2,000 square feet.
 8. Driveway Access to Neighboring Properties: Two private driveways (shown as Driveway A and Driveway B on the attached Exhibit One) shall be constructed to connect the property to the two adjacent properties (identified as Wake County PIN's 1757657746 & 1757658917) that currently access Mitchell Mill Road via the private road known as Rock Farm Road (the "Rock Farm Road Properties"). Rock Farm Road will be abandoned and removed in connection with the development of the property. Access easements shall be provided to the Rock Farm Road Properties to provide ingress/egress to the Rock Farm Road Properties through Driveway A and Driveway B prior to the abandonment and removal of Rock Farm Road.
 9. Greenway and Shared Use Path: A 10' wide public shared use path (labeled as "Shared Use Path" on the attached Exhibit One) shall be constructed and dedicated to the Town to connect to the 10' wide public greenway (labeled as the Public Greenway on the attached Exhibit One).
 10. Future Greenway Expansion: The 50' wide "Greenway Easement" as shown on Exhibit One, shall be dedicated to the Town as a future public greenway.



ELLIS
DEVELOPMENTS GROUP

305 Church at North Hills Street, Suite 1110
Raleigh, NC 27609

Notification of Neighborhood Meeting for Pending Rezoning



You have received this notice because you own property near where an application to rezone or subdivide property has been filed. This notice is to inform you of an upcoming public meeting on this proposed rezoning.

Dear Property Owner:

Please be advised that a formal application has been submitted to amend the zoning classification for four properties (Wake County Property Identification Numbers 1757750520, 1757758529, 1757761273, and 1757778982) located at 5326 Mitchell Mill Road in Rolesville. The project consists of approximately 115.94 acres which is currently zoned R-30: Residential. The parcels are currently zoned under the development jurisdiction of Wake County. However, Ellis Developments Group has also filed a pending annexation application (ANX 24-01) to annex the parcels into the town limits of Rolesville.

Ellis Developments Group has applied to rezone the parcels to RM-CZ (Residential Medium Density Conditional Zoning) to allow for the construction of up to 225 single family detached homes. We believe the proposed rezoning at this location is consistent with the Town of Rolesville Future Land Use Map which calls for medium density residential in this area.

In compliance with the requirements of the Town of Rolesville's Land Development Ordinance Code, a Neighborhood Meeting will be held to provide you with an opportunity to review a conceptual plan for the project and to give you an opportunity to ask any questions you may have about the project.

The Neighborhood Meeting will be held on Monday, March 18, 2024 from 6:30-7:30 p.m. at the Rolesville Community Center located at 514 Southtown Circle, Rolesville, NC 27571. Should you have questions prior to the meeting, please feel free to contact me via telephone at 919-824-6088 or email at jason@ellisdevgroup.com.

Sincerely,

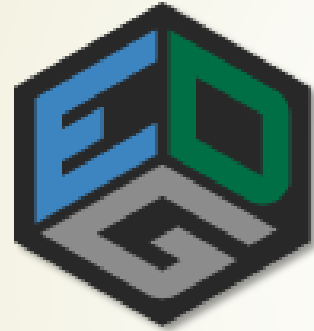
Jason Pfister
Vice President of Development

Hills at Harris Creek: Neighborhood Meeting

March 18, 2024
Rolesville Community Center



About Us



ELLIS
DEVELOPMENTS GROUP

▶ Who are We?

- ▶ Ellis Developments Group – Land Acquisition and Development Company

▶ Where are We?

- ▶ Headquarters in Raleigh with an office in Charlotte
- ▶ Projects throughout the Carolinas

▶ What is our Role?

- ▶ Develop and deliver high-quality residential development projects that meet demand for growth
- ▶ Foster relationships with landowners, municipalities, and community members to develop projects that enhance communities
Develop and deliver high quality residential development projects that enhance communities and meet demand for growth

Proposed Rezoning

Current Status

- ▶ Rural residential land
- ▶ Acreage: 115.94 acres
- ▶ Current Zoning: Wake County R-30 (allows approximately 75 lots)

Proposed Changes

- ▶ Zoning Change to Residential Medium Density Conditional Zoning
- ▶ Proposed construction of 225 single family homes with minimum 8000 sf lots (Under 2 units/acre)



ELLIS
DEVELOPMENTS GROUP

Site Plan



RM-CZ Zoning

Minimum Lot Size: 8000 SF

40% Open Space: 47+Acres
225 Single Family Homes



ELLIS
DEVELOPMENTS GROUP

Updates Since Prior Meeting

- ▶ Reduced units from 267 total homes to 225 homes
- ▶ Removed townhomes and commercial parcel
- ▶ Maintains all prior traffic improvements to minimize impacts and improve traffic flows
- ▶ Greenway trail expanded and integrated into amenity center
- ▶ Reduced density and higher price point for tax base

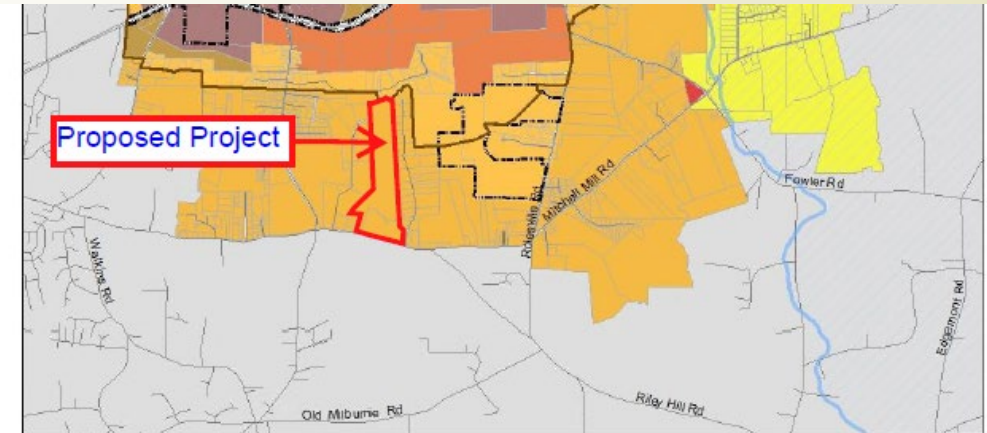
Comprehensive Plan 2017



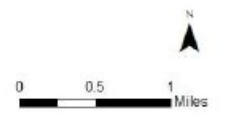
ELLIS
DEVELOPMENTS GROUP

Rezoning Proposal:

- Consistent with Comprehensive Plan
 - Future Land Use Map designates these parcels at Medium Density Residential
- Consistent with residential character of adjacent properties



Rolesville: Future Land Use Map





ELLIS
DEVELOPMENTS GROUP

Greenway Plan



RM-CZ Zoning

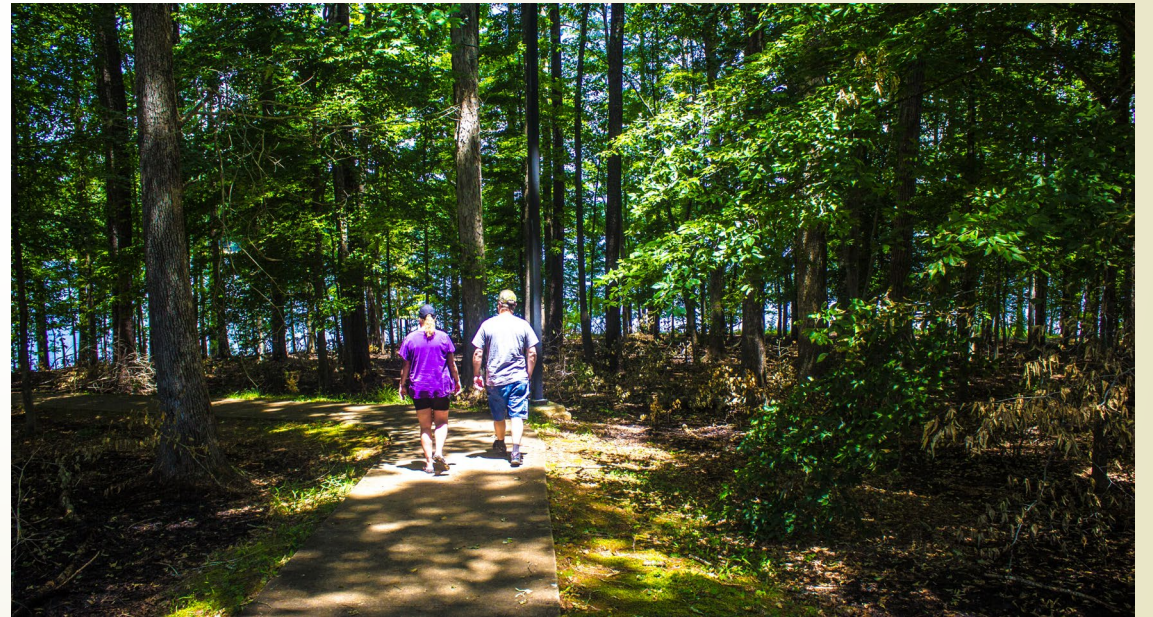
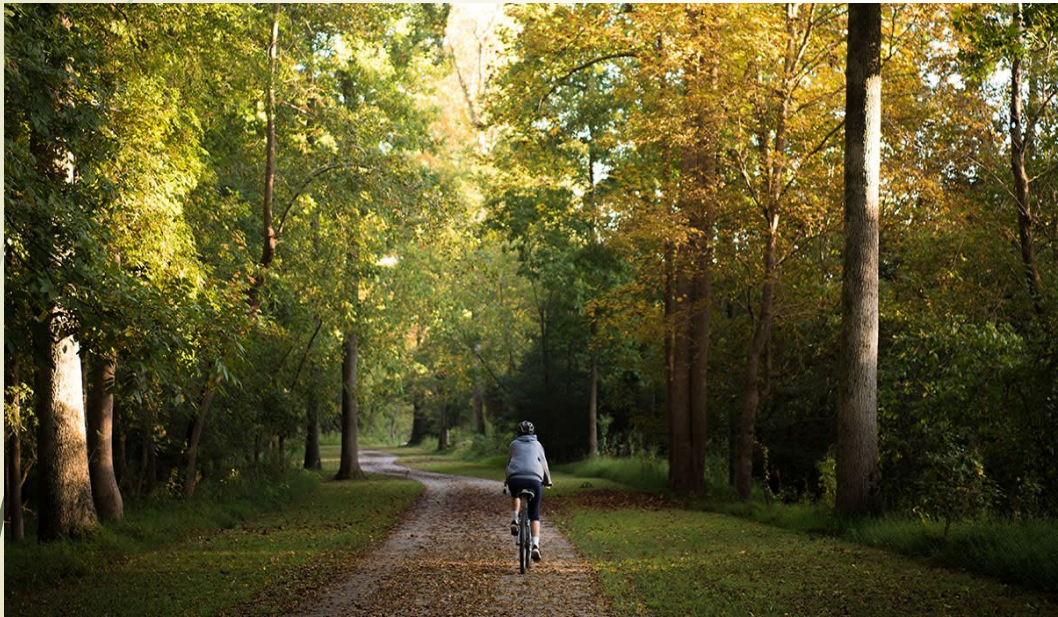
Minimum Lot Size: 8000 SF

**40% Open Space: 47+Acres
225 Single Family Homes**

March 15, 2024

Amenities

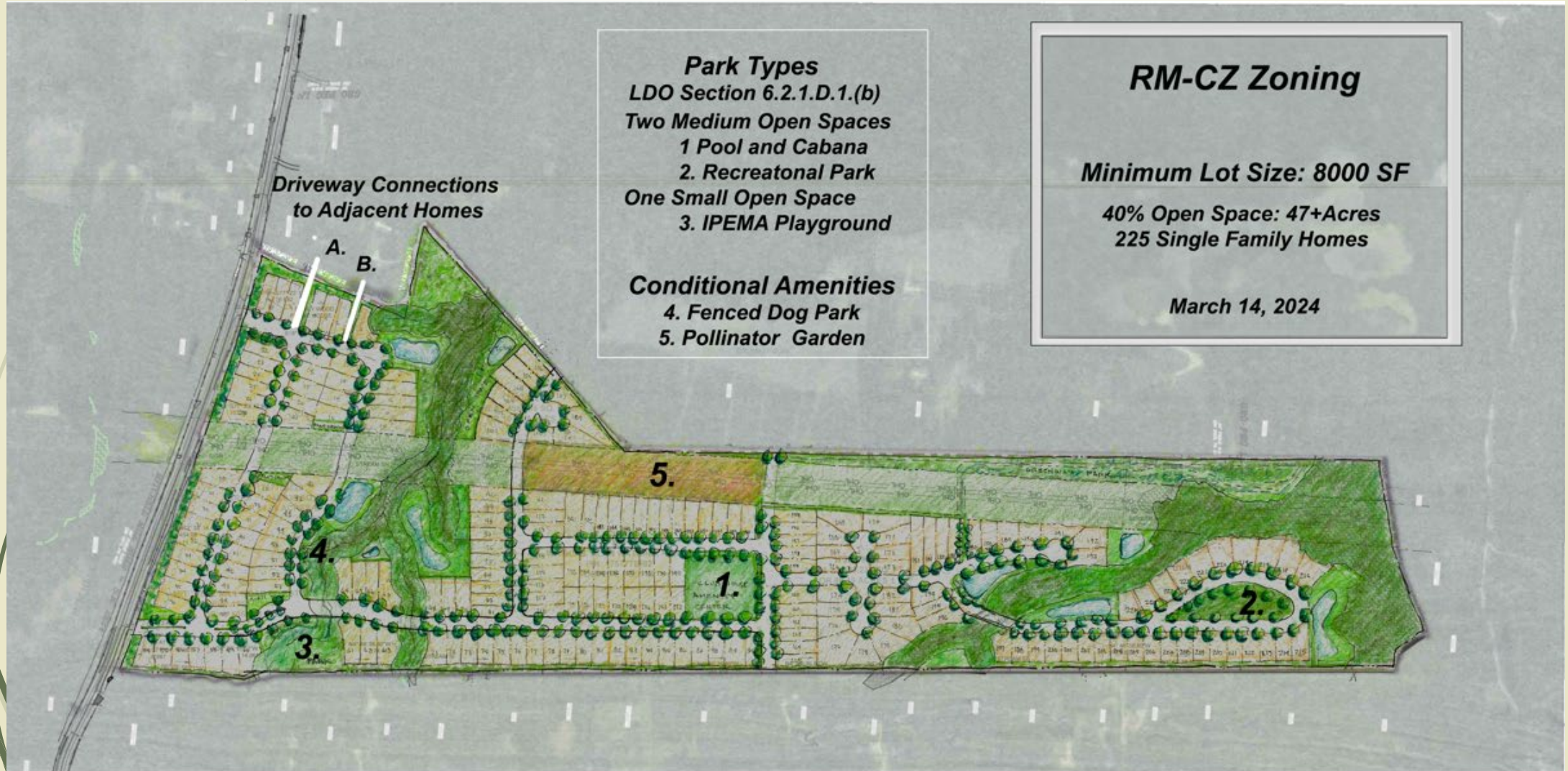
Greenway Trails





ELLIS
DEVELOPMENTS GROUP

Recreational Amenities Plan



Amenities

Community Pool and Cabana



Amenities

Dog Park





ELLIS
DEVELOPMENTS GROUP

Amenities

Pollinator/Wildflower Garden



Amenities

Landscaped Boulevard Streetscapes



Benefits of Proposed Rezoning

- ▶ Preserves and maximizes open space (40%)
 - ▶ Multiple parks; pollinator garden
- ▶ Variety of housing types and price points
- ▶ Improved connectivity and traffic flow
- ▶ Increased tax base for town



ELLIS
DEVELOPMENTS GROUP

Site Plan



RM-CZ Zoning

Minimum Lot Size: 8000 SF

40% Open Space: 47+Acres
225 Single Family Homes

Hills at Harris Creek Neighborhood Meeting Report

Ellis Developments Group (EDG) hosted an informational meeting for the proposed project on March 18, 2024 at the Rolesville Community Center. Three neighboring residents attended the meeting, all of which had attended the neighborhood meetings for the prior rezoning (attendance sheet attached). During the meeting, EDG presented an overview of the updates to the proposed project compared to the prior rezoning request and provided the attendees with an opportunity to ask questions and express any concerns about the project. More specifically, the following topics were discussed in detail:

- Process and timeline
 - Overview of the rezoning process and upcoming hearings, as well as overall anticipated construction timeline.
- Future Land Use Map
 - Explained goals and rationale behind Future Land Use Map and specifically what is allowed in Medium Density Residential
 - Explained how this project is consistent with FLUM designation for this area of Town
- Overview of project
 - Unit mix, overall goal for neighborhood look and feel
 - 225 SF homes
 - Density: less than units/acre
 - Buffers/preservation of existing trees or natural areas
 - 25' landscaped buffer
 - Described amenities green space design/walkability of community
- Well integrity/blasting
 - Residents raised concerns about rock blasting near their homes and potential damage to wells servicing their homes
 - EDG committed to ensuring that blasting contractor is sufficiently insured/bonded and steps will be taken to ensure that wells will be protected
 - Any damage caused by blasting would be liability of EDG or its subcontractors
- Traffic
 - EDG responsible for all traffic improvements called for in the TIA
 - Measures to control traffic including traffic calming boulevard entrance

Attachment 8



TRAFFIC IMPACT ANALYSIS

FOR

HILLS AT HARRIS CREEK

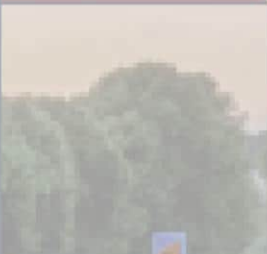
LOCATED

IN

ROLESVILLE, NORTH CAROLINA

Prepared For:

TOWN OF ROLESVILLE
502 Southtown Circle
Rolesville, NC 27571



FEBRUARY 2024

DRMP Project No. 20498 - 005

Prepared By: MW

Reviewed By: AE

**TRAFFIC IMPACT
ANALYSIS
FOR
HILLS AT HARRIS CREEK
LOCATED IN
ROLESVILLE, NORTH CAROLINA**



Prepared For:

Town of Rolesville
502 Southtown Circle
Rolesville, NC 27571

Prepared By:

DRMP, Inc.
License #F-1524

TRAFFIC IMPACT ANALYSIS HILLS AT HARRIS CREEK

Rolesville, North Carolina

EXECUTIVE SUMMARY

1. Development Overview

A Traffic Impact Analysis (TIA) was conducted for the proposed Hills at Harris Creek development in accordance with the Town of Rolesville (Town) Unified Development Ordinance (UDO) and North Carolina Department of Transportation (NCDOT) capacity analysis guidelines. The proposed development is to be located north of Mitchell Mill Road, west of Manly Farm Road, and east of Gro Peg Lane in Rolesville, North Carolina. The proposed development, anticipated to be completed in 2027, is assumed to consist of 220 single-family homes. Site access is proposed via two (2) full-movement driveway connections to Mitchell Mill Road. A TIA for this development was sealed on May 19, 2022 and approved by NCDOT. The Town requested the TIA be updated to match site plan changes that resulted in lower trip generation. This TIA updates the analysis using the new trip generation. No other scope changes were made from the previous TIA.

2. Existing Traffic Conditions

The study area for the TIA was determined through coordination with the North Carolina Department of Transportation (NCDOT) and the Town of Rolesville (Town) and consists of the following existing intersections:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location
- Mitchell Mill Road and Jonesville Road / Peebles Road

Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersection listed above, in November of 2021 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, while schools were in session for in-person learning.

Previously collected counts from the year 2021 were projected to the 2022 existing analysis year using a compounded annual growth rate of 2%. Weekday AM and PM traffic volumes were balanced between study intersections, where appropriate.

3. Future Traffic Conditions

Through coordination with the NCDOT and the Town, it was determined that an annual growth rate of 2% would be used to generate 2027 projected weekday AM and PM peak hour traffic volumes. The following adjacent developments were identified to be included as an approved adjacent development in this study:

- Cobblestone Crossing Mixed-Use
- Young Street PUD
- Wheeler Tract
- Louisbury Road Assemblage
- Kalas / Watkins Family Property

4. Site Trip Generation

Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the ITE Trip Generation Manual, 11.1th Edition. Table E-1 provides a summary of the trip generation potential for the site.

Table E-1: Site Trip Generation

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Single-Family Housing (210)	220 DU	2,084	38	115	131	78

To estimate traffic conditions with the site fully built-out, the total site trips were added to the 2027 no-build traffic volumes to determine the 2027 build traffic volumes. The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2023 Existing Traffic Conditions
- 2027 No-Build Traffic Conditions
- 2027 Build Traffic Conditions

5. Capacity Analysis Summary

The analysis considered weekday AM and PM peak hour traffic for 2022 existing, 2027 no-build, and 2027 build conditions. Refer to Section 7 of the TIA for the capacity analysis summary performed at each study intersection.

6. Recommendations

Based on the findings of this study, specific geometric and traffic control improvements have been identified at study intersections. The improvements are summarized below and are illustrated in Figure E-1.

Recommended Improvements by Developer

Required Frontage Improvements per Rolesville Community Transportation Plan

- Widen one-half section of Mitchell Mill Road along the site frontage to this roadway's ultimate section (4-lane median divided).

US 401 Bypass and Jonesville Road

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the NCDOT and the Town.

US 401 Bypass and Easten U-Turn Location

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the NCDOT and the Town.

Mitchell Mill Road and Jonesville Road / Peebles Road

- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
 - It should be noted that this improvement was also identified by the 5109 Mitchell Mill Road TIA.
- Construct a westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by NCDOT and the Town.

Mitchell Mills Road and Site Access 1

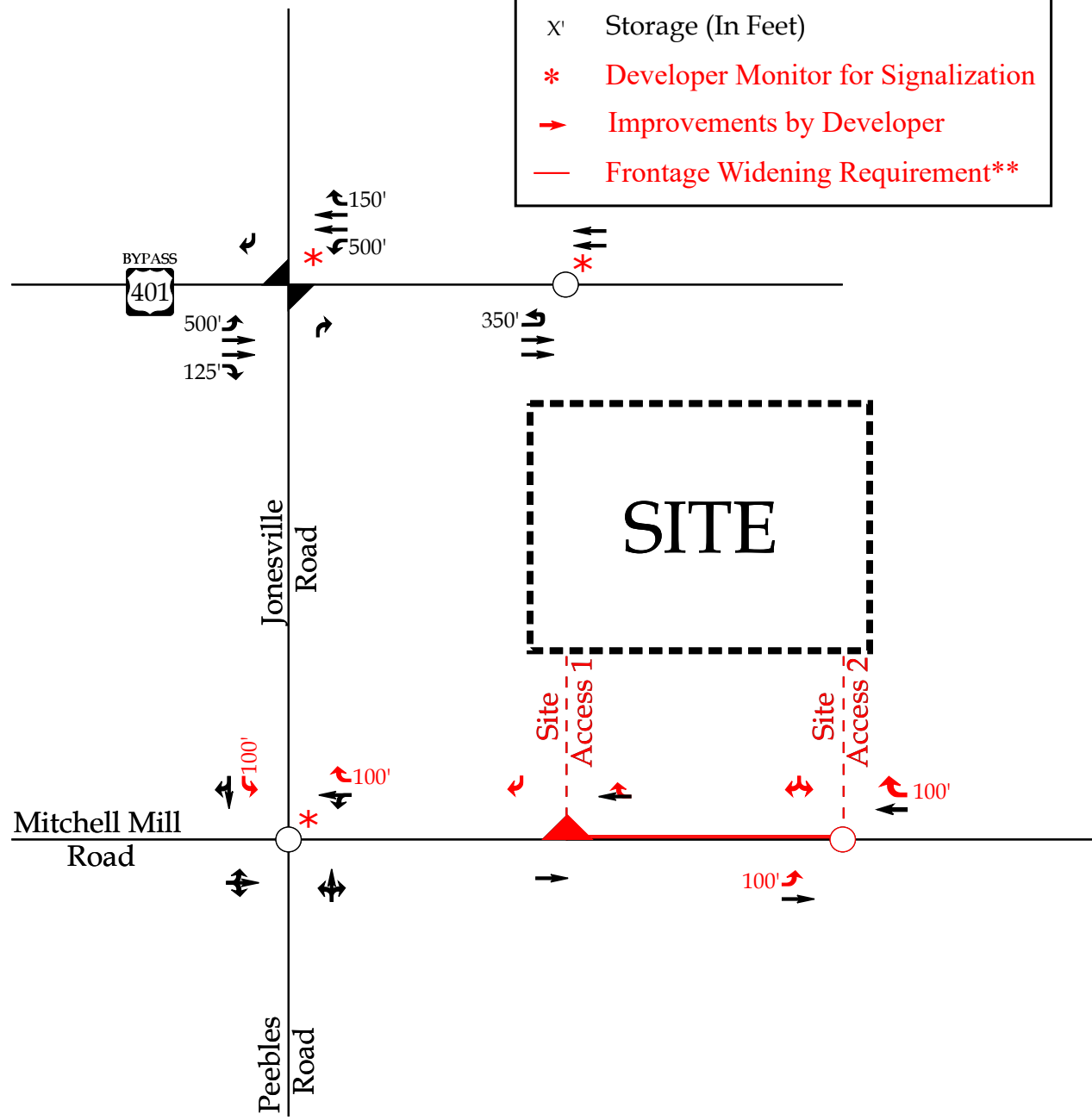
- Construct the southbound approach (Site Access 1) as a right-in/right-out with one ingress lane and one egress lane.
- Provide stop-control for the southbound approach (Site Access 1).
- Construct a concrete median on Mitchell Mill Road that restricts access to right-in/right-out.

Mitchell Mill Road and Site Access 2

- Construct the southbound approach (Site Access 2) with one ingress lane and one egress lane.
- Provide stop-control for the southbound approach (Site Access 2).
- Construct an eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

LEGEND

- Unsignalized Intersection
- ◄ Left-Over Intersection
- ▲ Right-In/Right-Out Intersection
- Existing Lane
- x' Storage (In Feet)
- * Developer Monitor for Signalization
- Improvements by Developer
- Frontage Widening Requirement**



**Refer to Section 9 of the report for more information

	Hills at Harris Creek Rolesville, NC	Recommended Lane Configurations	
			Scale: Not to Scale Figure E-1

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Appendix A:	Scoping Documentation
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Appendix I:	Turn Lane Warrants
Appendix J:	MUTCD / ITRE Signal Warrant Analysis

TRAFFIC IMPACT ANALYSIS

HILLS AT HARRIS CREEK Rolesville, North Carolina

1. INTRODUCTION

The contents of this report present the findings of the Traffic Impact Analysis (TIA) conducted for the proposed Hills at Harris Creek development in Rolesville, North Carolina. The proposed development, anticipated to be completed in 2027, is located north of Mitchell Mill Road, west of Manly Farm Road, and east of Gro Peg Lane in Rolesville, North Carolina. The purpose of this study is to determine the potential impacts to the surrounding transportation system created by traffic generated by the proposed development, as well as recommend improvements to mitigate the impacts.

The proposed development, anticipated to be completed in 2027, is assumed to consist of 220 single-family housing units.

The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2022 Existing Traffic Conditions
- 2027 No-Build Traffic Conditions
- 2027 Build Traffic Conditions

1.1. Site Location and Study Area

The development is proposed to be located north of Mitchell Mill Road, west of Manly Farm Road, and east of Gro Peg Lane in Rolesville, North Carolina. Refer to Figure 1 for the site location map.

The study area for the TIA was determined through coordination with the North Carolina Department of Transportation (NCDOT) and the Town of Rolesville (Town) and consists of the following existing intersections:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location
- Mitchell Mill Road and Jonesville Road / Peebles Road

1.2. Proposed Land Use and Site Access

The proposed development, anticipated to be completed in 2027, is assumed to consist of 220 single-family homes.

Site access is proposed via one (1) full-movement and one (1) right-in/right-out (RIRO) driveway connection along Mitchell Mill Road. Refer to Figure 2 for a copy of the preliminary site plan.

1.3. Adjacent Land Uses

The proposed development is located in an area consisting primarily of undeveloped land and residential development.

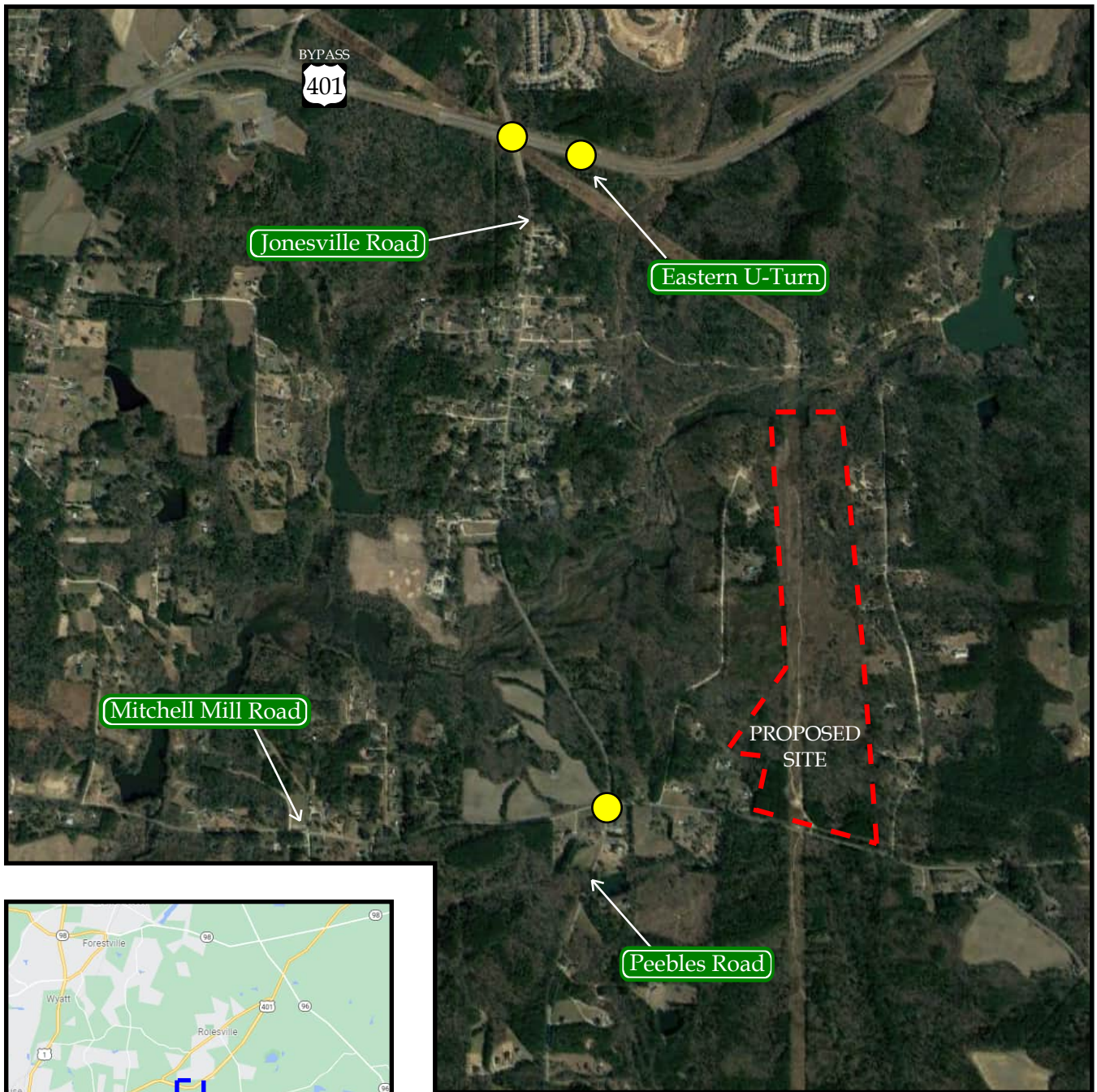
1.4. Existing Roadways

Existing lane configurations (number of traffic lanes on each intersection approach), speed limits, storage capacities, and other intersection and roadway information within the study area are shown in Figure 3. Table 1 provides a summary of this information, as well.




Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross Section	Speed Limit	2021 AADT (vpd)
US 401 Bypass		4-lane divided	55 mph	18,500
Jonesville Road	SR 2226	2-lane undivided	35 mph / 45 mph	2,210*
Mitchell Mill Road	SR 2224	2-lane undivided	45 mph	4,100
Peebles Road	SR 2929	2-lane undivided	45 mph	1,700*

***ADT based on the traffic counts from 2022 and assuming the weekday PM peak hour volume is 10% of the average daily traffic.**



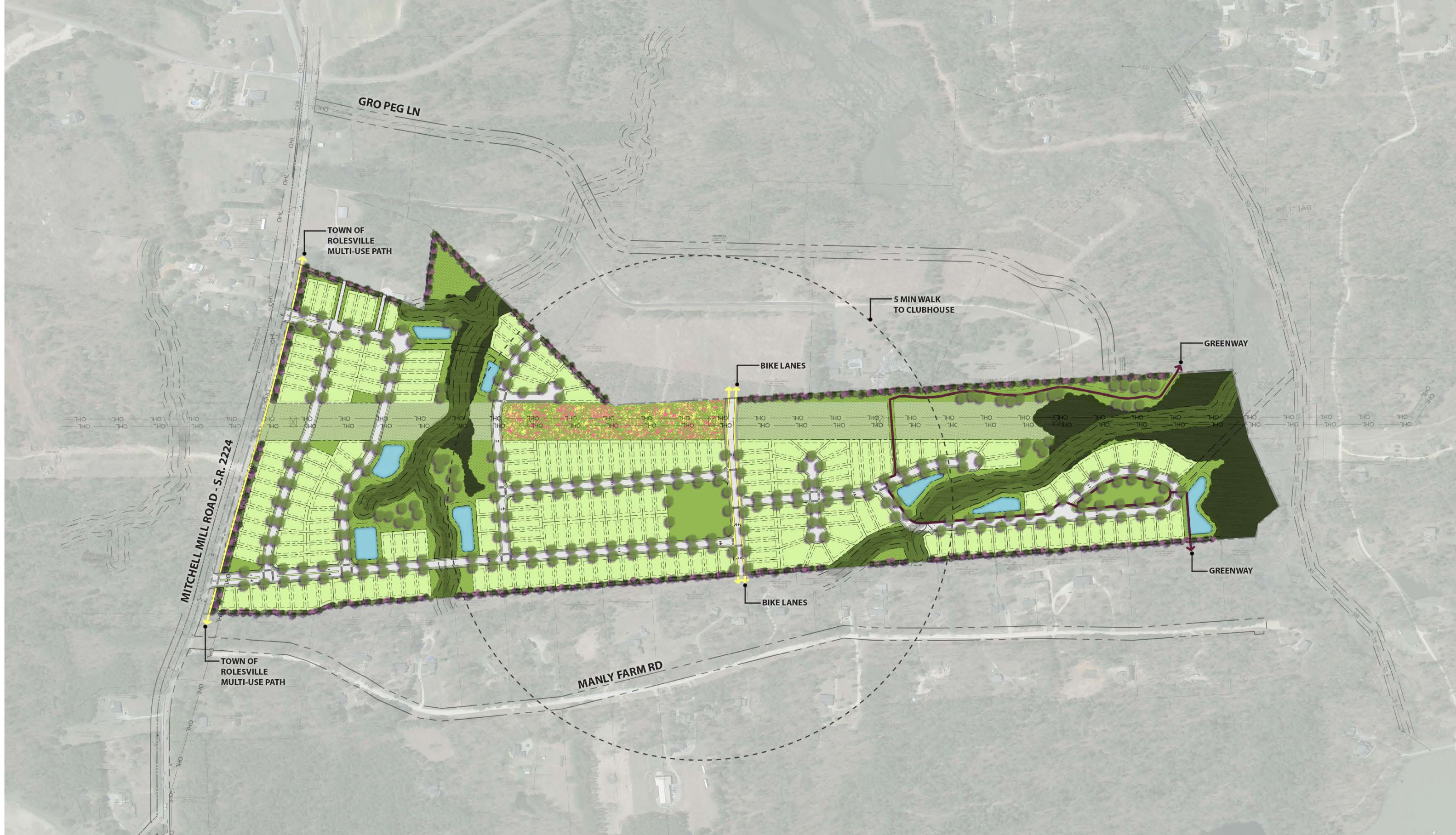
LEGEND

-  Proposed Site Location
-  Study Intersection
-  Study Area




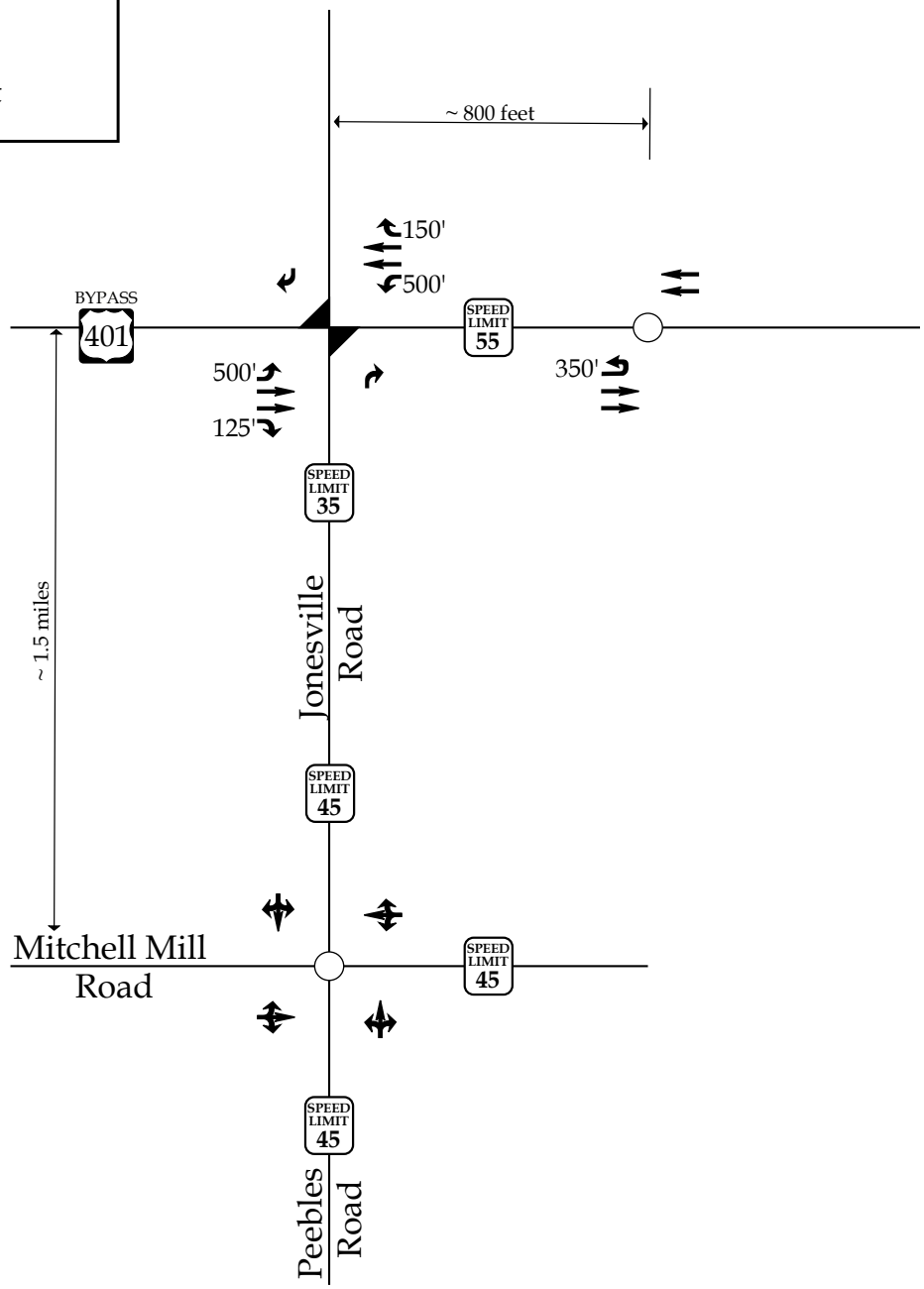
Hills at Harris Creek
Rolesville, NC

Site Location Map
Scale: Not to Scale Figure 1



LEGEND

- Unsignalized Intersection
- ◼ Left-Over Intersection
- ➔ Existing Lane
- X' Storage (In Feet)
-  Posted Speed Limit



	<p>Hills at Harris Creek Rolesville, NC</p>	<p>2022 Existing Lane Configurations</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 3</p>

2. 2022 EXISTING PEAK HOUR CONDITIONS

2.1. 2022 Existing Peak Hour Traffic Volumes

Existing peak hour traffic volumes were determined based on previously collected traffic counts conducted at the study intersections listed below, in November of 2021 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, while schools were in session for in-person learning:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location
- Mitchell Mill Road and Jonesville Road / Peebles Road

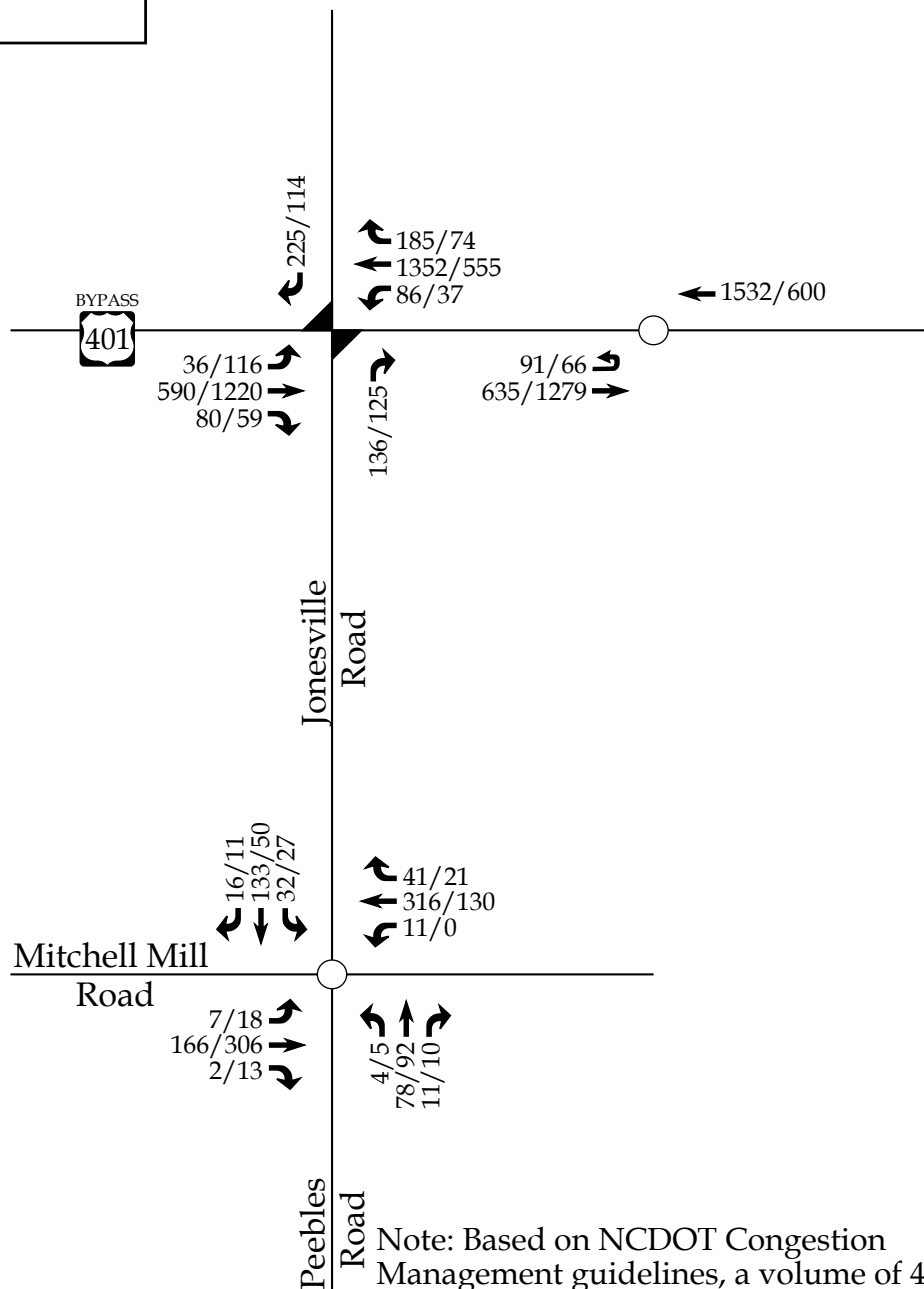
Previously collected counts from the year 2021 were projected to the 2022 existing analysis year using a compounded annual growth rate of 2%. Weekday AM and PM traffic volumes were balanced between study intersections, where appropriate. Refer to Figure 4 for 2022 existing weekday AM and PM peak hour traffic volumes. A copy of the count data is located in Appendix B of this report.

2.2. Analysis of 2022 Existing Peak Hour Traffic Conditions

The 2022 existing weekday AM and PM peak hour traffic volumes were analyzed to determine the current levels of service at the study intersections under existing roadway conditions. The results of the analysis are presented in Section 7 of this report.

LEGEND

- Unsignalized Intersection
- ◼ Left-Over Intersection
- X/Y → Weekday AM / PM Peak Hour Traffic



Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

	Hills at Harris Creek Rolesville, NC	2022 Existing Peak Hour Traffic	
		Scale: Not to Scale	Figure 4

3. 2027 NO-BUILD PEAK HOUR CONDITIONS

In order to account for the growth of traffic and subsequent traffic conditions at a future year, no-build traffic projections are needed. No-build traffic is the component of traffic due to the growth of the community and surrounding area that is anticipated to occur regardless of whether the proposed development is constructed. No-build traffic is comprised of existing traffic growth within the study area and additional traffic created as a result of adjacent approved developments.

3.1. Ambient Traffic Growth

Through coordination with NCDOT and the Town, it was determined that an annual growth rate of 2% would be used to generate 2027 projected weekday AM and PM peak hour traffic volumes. Refer to Figure 5 for 2027 projected peak hour traffic.

3.2. Adjacent Development Traffic

Through coordination with the NCDOT and the Town, the following adjacent developments were identified to be included as an approved adjacent development in this study:

- Cobblestone Crossing Mixed-Use
- Young Street PUD
- Wheeler Tract
- Louisbury Road Assemblage
- Kalas / Watkins Family Property

Table 2, on the following page, provides a summary of the adjacent developments.

Table 2: Adjacent Development Information

Development Name	Location	Build-Out Year	Land Use / Intensity	TIA Performed
Cobblestone Crossing Mixed-Use	Northwest quadrant of the intersection of Main Street and Young Street	2023	180 multi-family homes 18,200 sq. ft. municipal flex space 50,000 sq. ft. general retail	March 2021 by RKA
Young Street PUD	Along both sides of US 401 Bypass west of Young Street	2025	96 single-family homes 525 single-family homes 320 multi-family homes 122,800 sq. ft. general retail	June 2019 by Kimley Horn
Wheeler Tract	Northeast quadrant of the intersection of Rolesville Road and Mitchell Mill Road	2026	233 single-family homes 125 multi-family homes	June 2019 by RKA
Louisbury Road Assemblage	West of Louisbury Road and south of Stells Road	2025	152 single-family homes	May 2020 by RKA
Kalas / Watkins Family Property	Along the west side of Rolesville Road, north of Mitchell Mill Road	2025	439 single-family homes 96 multi-family homes	August 2019 by Stantec

Adjacent development trips are shown in Figure 6. Adjacent development information can be found in Appendix C.

3.3. Future Roadway Improvements

Based on coordination with the NCDOT and the Town, it was determined there were no future roadway improvements to consider under future conditions with this study. It should be noted that per the Rolesville Community Transportation Plan (dated May 2022), the ultimate cross-section of Jonesville Road is identified as a 2-lane roadway with a center

two-way-left-turn-lane (TWLTL) and Mitchell Mill Road is identified as a 4-lane median-divided roadway.

3.4. 2027 No-Build Peak Hour Traffic Volumes

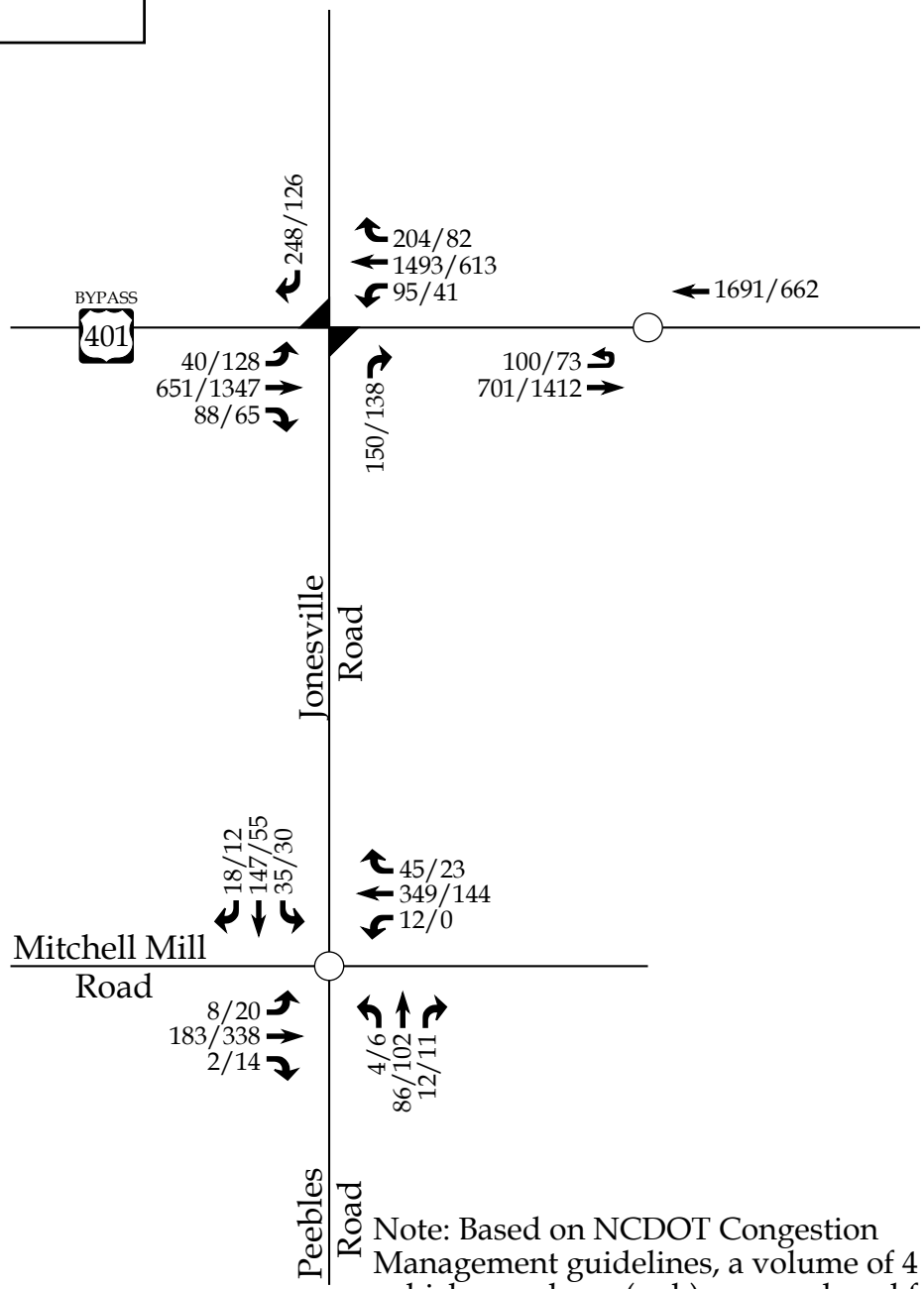
The 2027 no-build traffic volumes were determined by projecting the 2022 existing peak hour traffic to the year 2027 and adding the adjacent development trips. Refer to Figure 7 for an illustration of the 2027 no-build peak hour traffic volumes at the study intersections.

3.5. Analysis of 2027 No-Build Peak Hour Traffic Conditions

The 2027 no-build AM and PM peak hour traffic volumes at the study intersections were analyzed with existing geometric roadway conditions and traffic control. The analysis results are presented in Section 7 of this report.

LEGEND

- Unsignalized Intersection
- ◼ Left-Over Intersection
- X/Y → Weekday AM / PM Peak Hour Traffic



Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

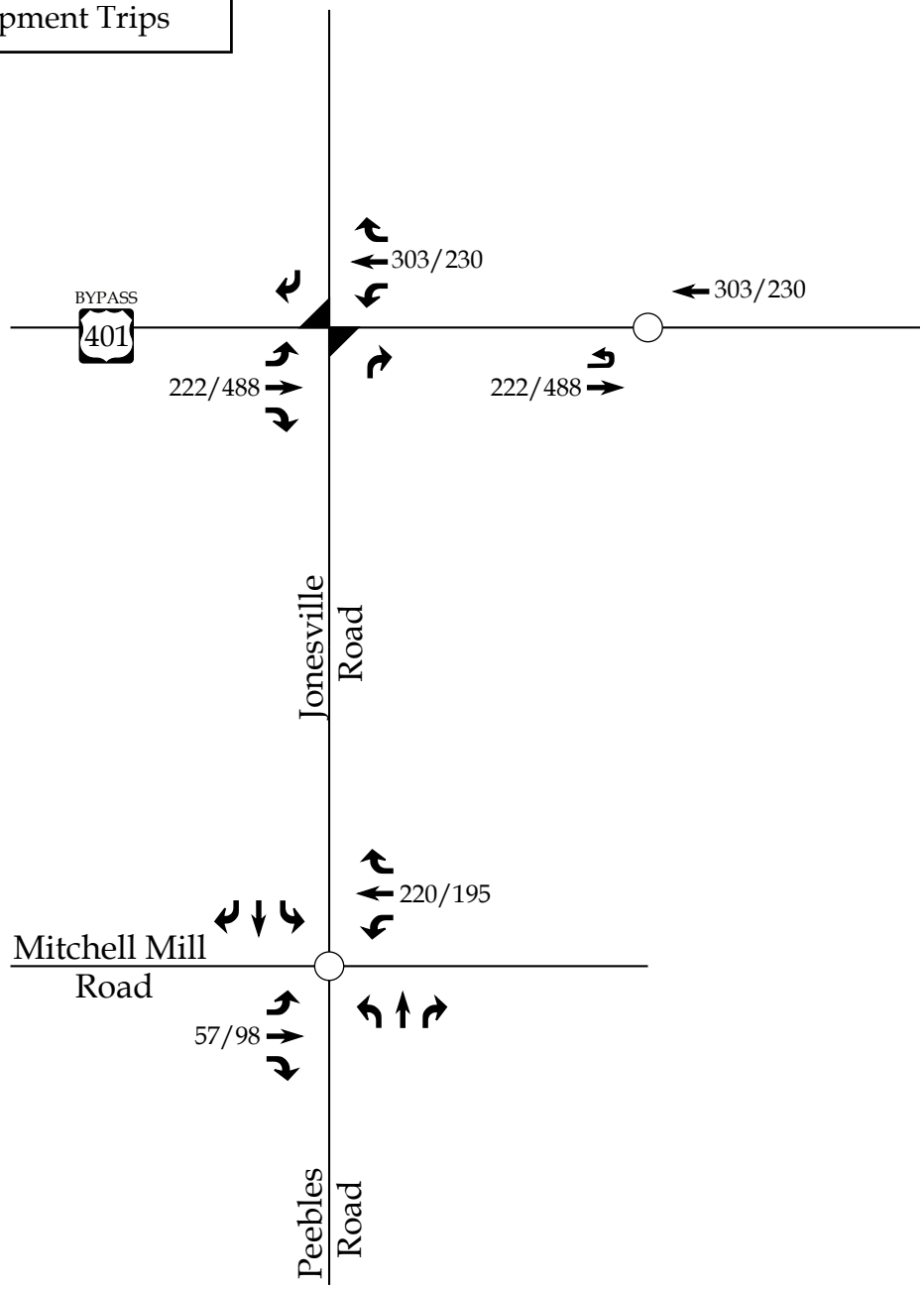
	Hills at Harris Creek Rolesville, NC	2027 Projected Peak Hour Traffic	
		Scale: Not to Scale	Figure 5

LEGEND

○ Unsignalized Intersection

◼ Left-Over Intersection

X / Y → Weekday AM / PM Peak Hour Adjacent Development Trips



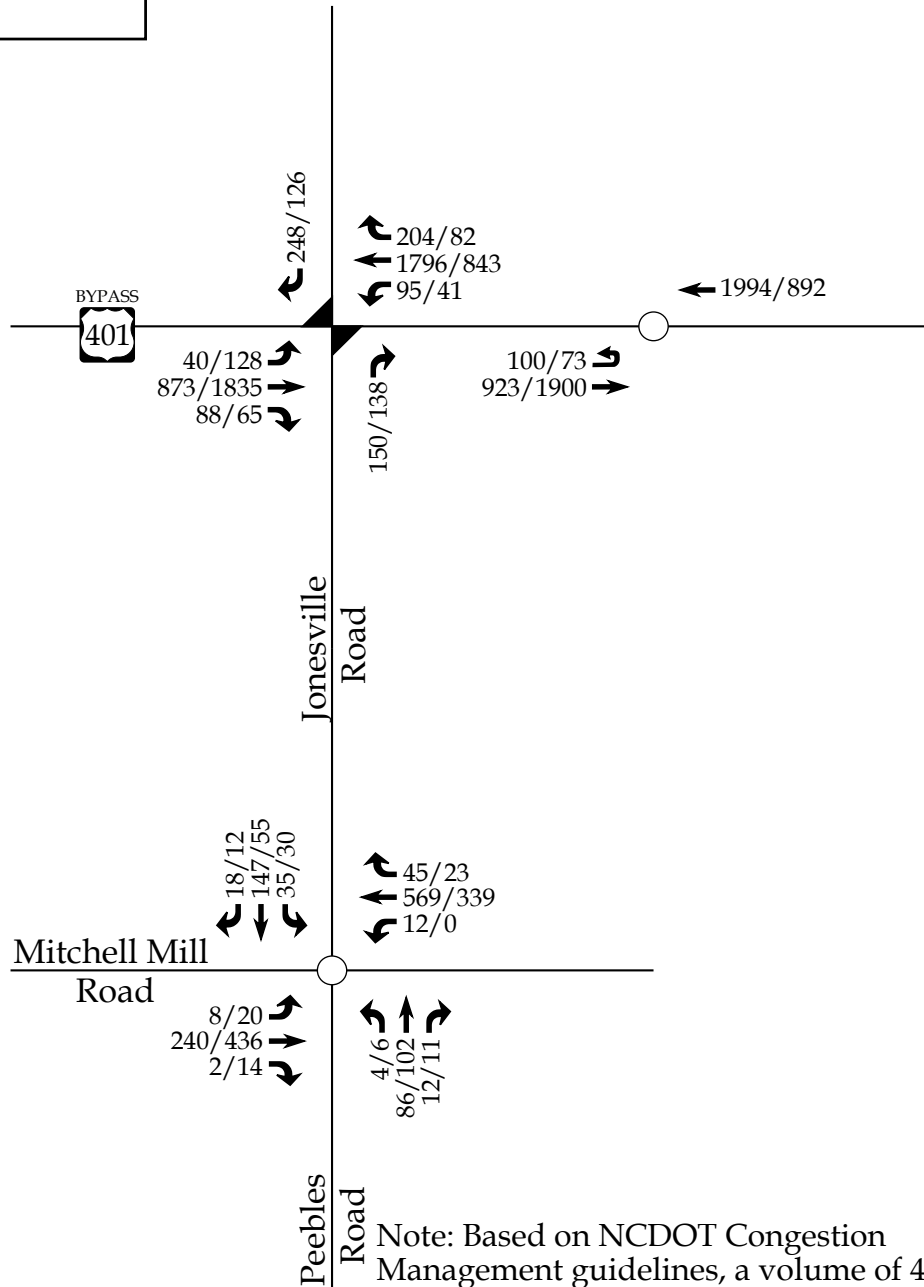
Hills at Harris Creek
Rolesville, NC

Peak Hour Adjacent
Development Trips

Scale: Not to Scale | Figure 6

LEGEND

- Unsignalized Intersection
- ◼ Left-Over Intersection
- X/Y → Weekday AM / PM Peak Hour Traffic



Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

	Hills at Harris Creek Rolesville, NC	2027 No-Build Peak Hour Traffic	
		Scale: Not to Scale	Figure 7

4. SITE TRIP GENERATION AND DISTRIBUTION

4.1. Trip Generation

The proposed development is assumed to consist of 220 single-family homes. Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the ITE Trip Generation Manual, 11th Edition. Table 3 provides a summary of the trip generation potential for the site.

Table 3: Trip Generation Summary

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Single-Family Home (210)	220 DU	2,084	38	115	131	78

It is estimated that the proposed development will generate approximately 2,084 total site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 153 trips (38 entering and 115 exiting) will occur during the weekday AM peak hour and 209 trips (131 entering and 78 exiting) will occur during the weekday PM peak hour.

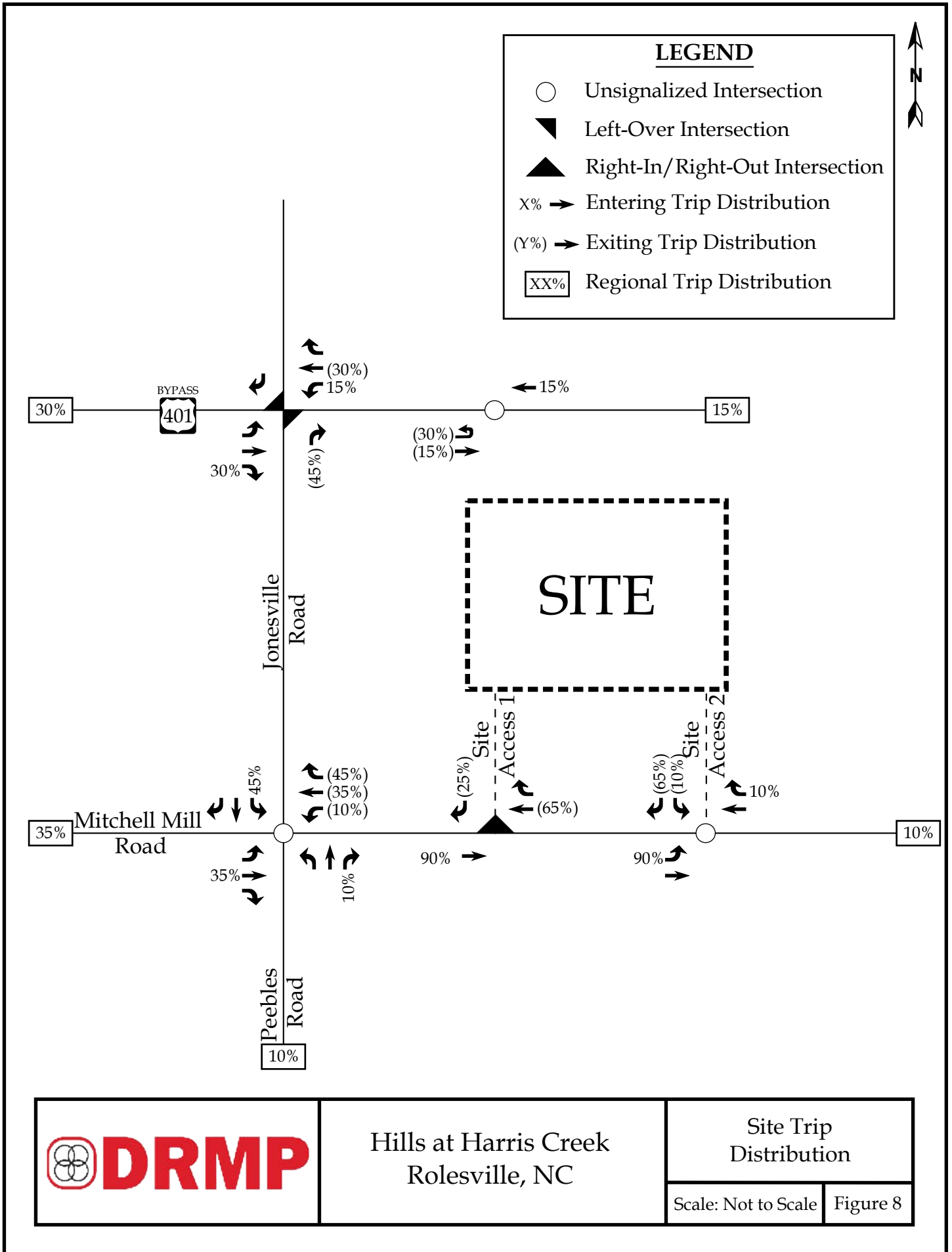
4.2. Site Trip Distribution and Assignment

Trip distribution percentages used in assigning site traffic for this development were estimated based on a combination of existing traffic patterns, population centers adjacent to the study area, and engineering judgment.

It is estimated that the site trips will be regionally distributed as follows:

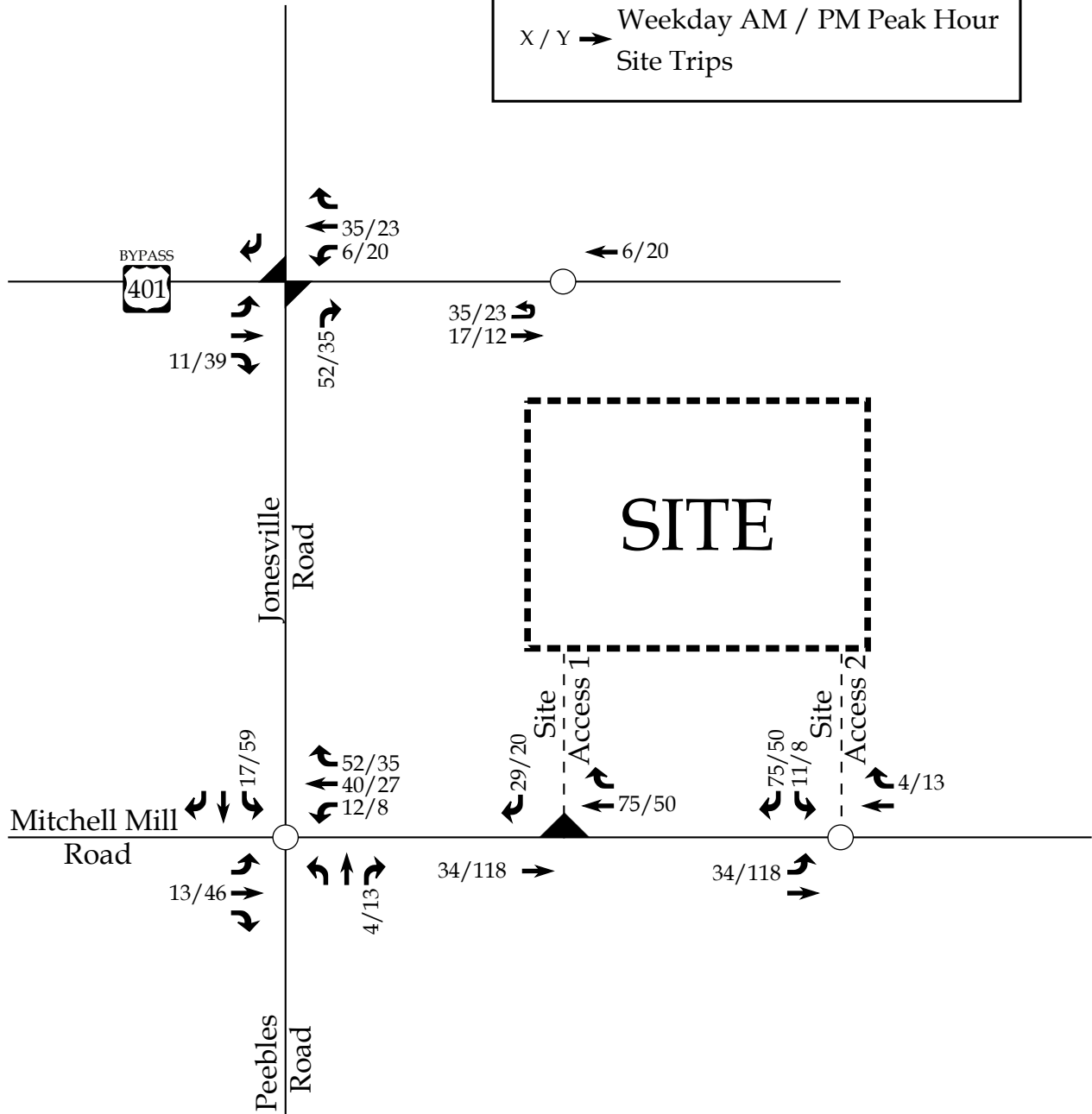
- 35% to/from the west via Mitchell Mill Road
- 30% to/from the west via US 401 Bypass
- 15% to/from the east via US 401 Bypass
- 10% to/from the south via Peebles Road
- 10% to/from the east via Mitchell Mill Road

The site trip distribution is shown in Figure 8. Refer to Figure 9 for the site trip assignment.



LEGEND

- Unsignalized Intersection
- ◄ Left-Over Intersection
- ▲ Right-In/Right-Out Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips



	Hills at Harris Creek Rolesville, NC	Site Trip Assignment	
		Scale: Not to Scale	Figure 9

5. 2027 BUILD TRAFFIC CONDITIONS

5.1. 2027 Build Peak Hour Traffic Volumes

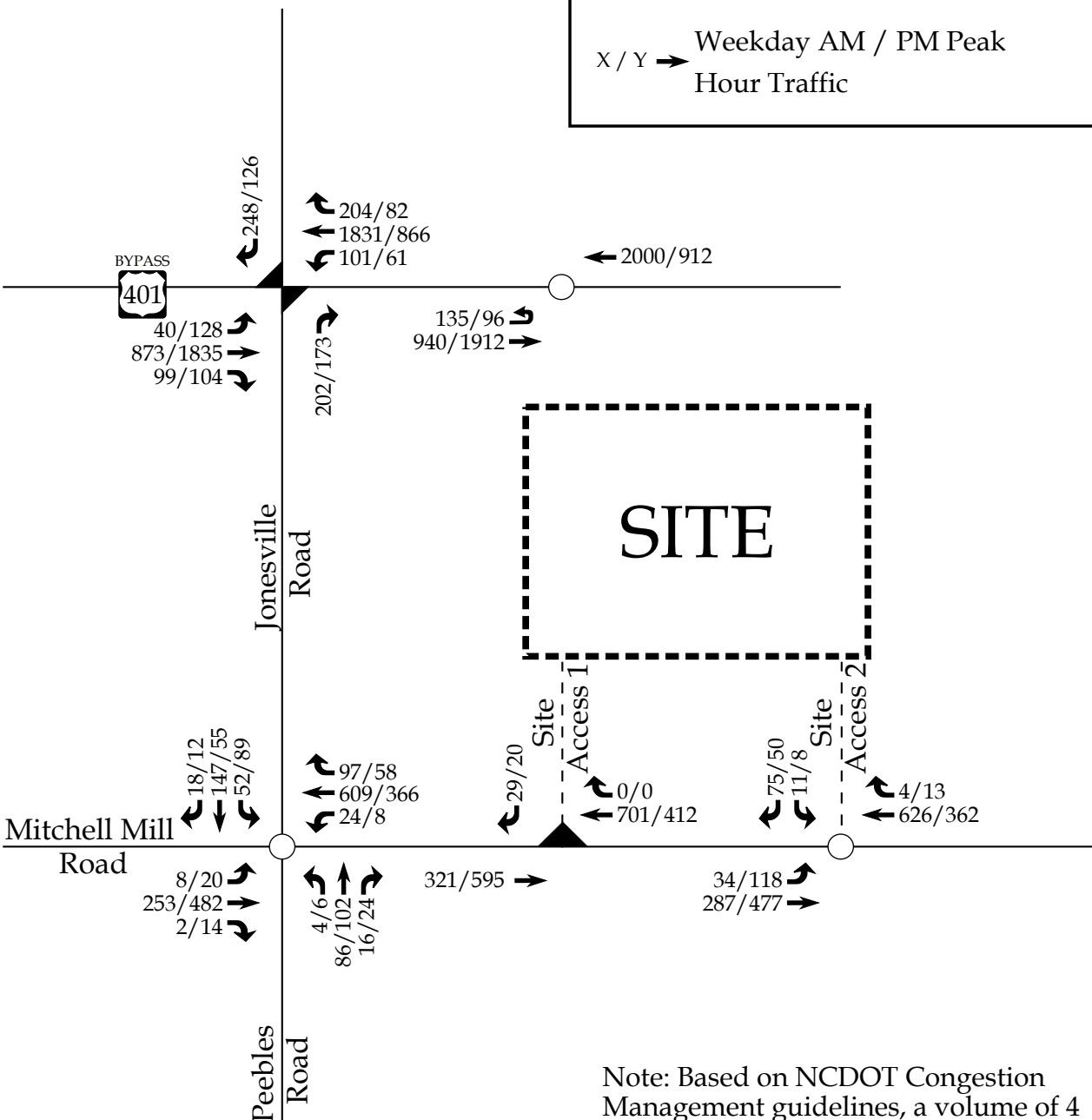
To estimate traffic conditions with the site fully built-out, the site trips were added to the 2027 no-build traffic volumes to determine the 2027 build traffic volumes. Refer to Figure 10 for an illustration of the 2027 build peak hour traffic volumes with the proposed site fully developed.

5.2. Analysis of 2027 Build Peak Hour Traffic Conditions

Study intersections were analyzed with the 2027 build traffic volumes using the same methodology previously discussed for existing and no-build traffic conditions. Intersections were analyzed with improvements necessary to accommodate future traffic volumes. The results of the capacity analysis for each intersection are presented in Section 7 of this report.

LEGEND

- Unsignalized Intersection
- ◄ Left-Over Intersection
- ▲ Right-In/Right-Out Intersection
- X / Y → Weekday AM / PM Peak Hour Traffic



Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

	Hills at Harris Creek Rolesville, NC	2027 Build Peak Hour Traffic	
		Scale: Not to Scale	Figure 10

6. TRAFFIC ANALYSIS PROCEDURE

Study intersections were analyzed using the methodology outlined in the *Highway Capacity Manual* (HCM), 6th Edition published by the Transportation Research Board. Capacity and level of service are the design criteria for this traffic study. A computer software package, Synchro (Version 11.1), was used to complete the analyses for the study area intersections. Please note that the unsignalized capacity analysis does not provide an overall level of service for an intersection; only delay for an approach with a conflicting movement.

The HCM defines capacity as “the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions.” Level of service (LOS) is a term used to represent different driving conditions and is defined as a “qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers.” Level of service varies from Level “A” representing free flow, to Level “F” where breakdown conditions are evident. Refer to Table 4 for HCM levels of service and related average control delay per vehicle for both signalized and unsignalized intersections. Control delay as defined by the HCM includes “initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay”. An average control delay of 50 seconds at a signalized intersection results in LOS “D” operation at the intersection.

Table 4: Highway Capacity Manual – Levels-of-Service and Delay

UNSIGNALIZED INTERSECTION		SIGNALIZED INTERSECTION	
LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)	LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)
A	0-10	A	0-10
B	10-15	B	10-20
C	15-25	C	20-35
D	25-35	D	35-55
E	35-50	E	55-80
F	>50	F	>80

6.1. Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to the NCDOT Congestion Management Guidelines.

7. CAPACITY ANALYSIS

The following study intersections were analyzed under 2022 existing, 2027 no-build, and 2027 build traffic conditions:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location
- Mitchell Mill Road and Jonesville Road / Peebles Road

All proposed site driveways were analyzed under 2027 build traffic conditions. Refer to Tables 5-9 for a summary of capacity analysis results. Refer to Appendices D-H for the Synchro capacity analysis reports and SimTraffic queueing reports.

7.1. US 401 Bypass and Jonesville Road

The existing unsignalized intersection of US 401 Bypass Road and Jonesville Road was analyzed under 2022 existing, 2027 no-build, and 2027 build traffic conditions with the lane configurations and traffic control shown in Table 5. Refer to Table 5 for a summary of the analysis results. Refer to Appendix D for the Synchro capacity analysis reports.

Table 5: Analysis Summary of US 401 Bypass and Jonesville Road

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing	EB WB* NB	2 TH, 1 RT 1 LT 1 RT	-- C ¹ B ²	N/A	-- E ¹ C ²	N/A
	EB** WB SB	1 LT 2 TH, 1 RT 1 RT	F ¹ -- E ²	N/A	C ¹ -- B ²	N/A
2027 No-Build	EB WB* NB	2 TH, 1 RT 1 LT 1 RT	-- D ¹ B ²	N/A	-- F ¹ E ²	N/A
	EB** WB SB	1 LT 2 TH, 1 RT 1 RT	F ¹ -- F ²	N/A	E ¹ -- B ²	N/A
2027 Build	EB WB* NB	2 TH, 1 RT 1 LT 1 RT	-- D ¹ C ²	N/A	-- F ¹ F ²	N/A
	EB** WB SB	1 LT 2 TH, 1 RT 1 RT	F ¹ -- F ²	N/A	E ¹ -- B ²	N/A

*Synchro analyzed the WB left-turns as SB through movements due to the nature of the superstreet and synchro limitations.

**Synchro analyzed the EB left-turns as NB through movements due to the nature of the superstreet and synchro limitations.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2022 existing traffic conditions indicates that the major-street left-turn movements and minor-street approaches are expected to operate at LOS C or better with the exception of the eastbound left-turn movement during the weekday AM peak hour (LOS F), the westbound left-turn movement during the weekday PM peak hour (LOS E), and the southbound minor-street approach during the weekday AM peak hour (LOS E).

Under 2027 no-build and 2027 build traffic conditions, the major-street left-turn movements are expected to operate at LOS E/F during the weekday AM and PM peak hours with the exception of the westbound left-turn movement during the weekday AM peak hour (LOS D) under 2027 no-build and 2027 build traffic conditions. The minor-street approaches are expected to operate at LOS E/F during the weekday AM and PM peak hours with the exception of the northbound approach during the weekday AM peak hour (LOS B/C) and the southbound approach during the weekday PM peak hour (LOS B) under 2027 no-build and 2027 build traffic conditions. It should be noted that the proposed development is expected to account for approximately 3% of the total traffic at this intersection during both the weekday AM and PM peak hours. The proposed development is expected to account for approximately 26% and 20% of the overall northbound approach traffic at this intersection during the weekday AM and PM peak hours, respectively.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2027 build traffic conditions to achieve acceptable levels of service. Weekday AM and PM peak hour traffic volumes were utilized in evaluating the potential need for signalization based on the guidelines contained within the Manual on Uniform Traffic Control Devices (MUTCD) and within the Guidelines for Signalization of Intersections with Two or Three Approaches Final Report, published by ITRE. Based on a review of signal warrants at this intersection, the peak hour warrant (warrant 3) from the MUTCD is expected to be met for both the weekday AM and PM peak hours under 2027 no-build and build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Based on a review of ITRE 95th percentile queue length calculations, the northbound right-turn movement demand is expected to exceed capacity during the weekday PM peak hour

under 2027 no-build and 2027 build traffic conditions. Refer to Appendix J for a copy of the MUTCD warrants and the ITRE 95th percentile queue length calculations.

Based on the Town's LDO, improvements must be identified to maintain no-build levels-of-service under build traffic conditions or to limit the degradation to less than a five percent increase in total delay on any approach for those operating at failing levels-of-service under no-build traffic conditions. Therefore, additional turn-lanes were considered for the northbound right-turn and westbound left-turn movements at this intersection to achieve acceptable operation per the Town's LDO. However, additional turn-lanes are not a realistic or practical improvement at an unsignalized intersection operating with superstreet configurations.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

7.2. US 401 Bypass and Eastern U-Turn Location

The existing unsignalized intersection of US 401 Bypass and Eastern U-Turn Location was analyzed under 2022 existing, 2027 no-build, and 2027 build traffic conditions with the lane configurations and traffic control shown in Table 6. Refer to Table 6 for a summary of the analysis results. Refer to Appendix E for the Synchro capacity analysis reports.

Table 6: US 401 Bypass and Eastern U-Turn Location

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2023 Existing	EB* WB	1 UT 2 TH	C¹ --	N/A	B¹ --	N/A
2028 No-Build	EB* WB	1 UT 2 TH	E¹ --	N/A	B¹ --	N/A
2028 Build	EB* WB	1 UT 2 TH	F¹ --	N/A	B¹ --	N/A

*Synchro analyzed the EB u-turn as a NB left-turn movement due to the nature of the superstreet and synchro limitations.

1. Level of service for major-street U-turn movement.

Capacity analysis of 2022 existing and 2027 no-build traffic conditions indicates that the major-street U-turn movement is expected to operate at LOS C or better during the weekday AM and PM peak hours, with the exception of the weekday AM peak hour under 2027 no-build conditions (LOS E).

Under 2027 build traffic conditions, the major-street u-turn movement is expected to operate at LOS F during the weekday AM peak hour and at LOS B during the weekday PM peak hour. It should be noted that the proposed development is expected to account for approximately 2% of the total traffic at this intersection during the weekday AM and PM peak hours. The proposed development is expected to account for approximately 26% and 24% of the overall northbound approach traffic at this intersection during the weekday AM and PM peak hours, respectively.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2027 build traffic conditions to achieve acceptable levels of service. Weekday AM and PM peak hour traffic volumes were utilized in evaluating the potential need for signalization based on the guidelines contained within the Manual on Uniform Traffic Control Devices (MUTCD) and within the Guidelines for Signalization of Intersections with Two or Three Approaches Final Report, published by ITRE. Based on a review of signal warrants at this intersection, the peak hour warrant (warrant 3) from the MUTCD is expected to be met for the weekday AM peak hour under 2027 no-build and 2027 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Based on a review of ITRE 95th percentile queue length calculations, the eastbound u-turn movement demand is expected to exceed capacity during the weekday AM peak hour under 2027 no-build and 2027 build traffic conditions. Refer to Appendix J for a copy of the MUTCD warrants and the ITRE 95th percentile queue length calculations.

Based on the Town's LDO, improvements must be identified to maintain no-build levels-of-service under build traffic conditions or to limit the degradation to less than a five percent increase in total delay on any approach for those operating at failing levels-of-service under no-build traffic conditions. Therefore, additional turn-lanes were considered for the eastbound u-turn movement at this intersection to achieve acceptable operation per the Town's LDO. However, additional turn-lanes are not a realistic or practical improvement at an unsignalized intersection operating with superstreet configurations.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

7.3. Mitchell Mill Road and Jonesville Road / Peebles Road

The existing unsignalized intersection of Mitchell Mill Road and Jonesville Road / Peebles Road was analyzed under 2022 existing, 2027 no-build, and 2027 build traffic conditions with the lane configurations and traffic control shown in Table 7. Refer to Table 7 for a summary of the analysis results. Refer to Appendix F for the Synchro capacity analysis reports.

Table 7: Analysis Summary of Mitchell Mill Road and Jonesville Road / Peebles Road

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing	EB WB NB SB	1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT	B ¹ B ¹ B ¹ B ¹	B (13)	B ¹ A ¹ A ¹ A ¹	B (11)
2027 No-Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT	C ¹ F ¹ B ¹ B ¹	F (51)	C ¹ C ¹ B ¹ B ¹	C (19)
2027 Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT	C ¹ F ¹ B ¹ C ¹	F (97)	F ¹ D ¹ B ¹ C ¹	E (39)
2027 Build - Improved	EB WB NB SB	1 LT-TH-RT 1 LT-TH, <u>1 RT</u> 1 LT-TH-RT <u>1 LT, 1 TH-RT</u>	C ¹ F ¹ B ¹ B ¹	F (82)	F ¹ D ¹ C ¹ B ¹	E (50)

Improvements to lane configurations by adjacent development are shown underlined.

1. Level of service for all-way stop controlled approach.

Capacity analysis of 2022 existing and 2027 no-build traffic conditions indicates that the intersection is expected to operate at an overall LOS C or better during the weekday AM and PM peak hours, with the exception of the weekday AM peak hour under 2027 no-build

traffic conditions (LOS F). Under 2027 build traffic conditions, this intersection is expected to operate at an overall LOS F during the weekday AM and PM peak hours. It should be noted that the proposed development is expected to account for approximately 10% and 15% of the total traffic at this intersection during the weekday AM and PM peak hours, respectively. The proposed development is expected to account for approximately 5% and 9% of the overall eastbound approach traffic and 14% and 16% of the overall westbound approach at this intersection during the weekday AM and PM peak hours, respectively.

Turn lanes were considered at this intersection in order to mitigate the proportional impact that the proposed site traffic is expected to have at this intersection and to improve overall operations. An exclusive left-turn lane on the southbound approach (Jonesville Road) and right-turn lane on the westbound approach (Mitchell Mill Road) are recommended by the developer. Both turn lanes are recommended to have 100 feet of storage. It should be noted that an exclusive southbound left-turn lane was also identified in the 5109 Mitchell Mill Road TIA. With these improvements, the intersection is expected to continue operating at an overall LOS F during the weekday AM and PM peak hours.

It should be noted that the overall intersection delay is expected to increase during the weekday PM peak hour as a result of the recommended improvements to the southbound and westbound approaches. This increase in delay is attributable to minor increases in delays for all approaches caused by adding additional lanes to an all-way stop-controlled intersection. No feasible improvements other than signalization would be expected to decrease delays further at this intersection.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2027 build traffic conditions to achieve acceptable levels-of-service. The peak hour warrant (warrant 3) from the Manual on Uniform Traffic Control Devices (MUTCD) was considered. Based on a review of the peak hour signal warrant at this intersection, the intersection is expected to meet the peak hour warrant for the weekday AM peak hour under 2027 no-build traffic conditions and both the weekday AM and PM peak hours under 2027 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Refer to Appendix J for a copy of the MUTCD warrants.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

7.4. Mitchell Mill Road and Site Access 1

The proposed intersection of Mitchell Mill Road and Site Access 1 was analyzed under 2027 build traffic conditions with the lane configurations and traffic control shown in Table 8. Refer to Table 8 for a summary of the analysis results. Refer to Appendix G for the synchro capacity analysis reports.

Table 8: Analysis Summary of Mitchell Mill Road and Site Access 1

ANALYSIS SCENARIO	A P P R O A C H	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2027 Build	EB WB SB	1 TH 1 TH-<u>RT</u> 1 <u>RT</u>	-- -- B¹	N/A	-- -- B¹	N/A

Improvements to lane configurations are shown underlined.

1. Level of service for minor-street approach.

Capacity analysis of 2027 build traffic conditions indicates that the minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

Based on the estimated low volume of right-turn movements into the proposed development at this intersection, an exclusive right-turn lane is not recommended. See Appendix I for the turn lane warrants.

7.5. Mitchell Mill Road and Site Access 2

The proposed intersection of Mitchell Mill Road and Site Access 1 was analyzed under 2027 build traffic conditions with the lane configurations and traffic control shown in Table 8. Refer to Table 8 for a summary of the analysis results. Refer to Appendix G for the synchro capacity analysis reports.

Table 8: Analysis Summary of Mitchell Mill Road and Site Access 1

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2027 Build	EB WB SB	<u>1 LT, 1 TH</u> <u>1 TH, 1 RT</u> <u>1 LT-RT</u>	A ¹ -- C ²	N/A	A ¹ -- B ²	N/A

Improvements to lane configurations are shown underlined.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2027 build traffic conditions indicates that the minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

The NCDOT driveway manual states that turn lanes should be considered when the major street carries 4,000 vehicles per day or more. Mitchell Mill Road carries 4,100 vehicles per day. Based on this and previous comments from NCDOT, left and right turn lanes on Mitchell Mill Road are recommended. Both turn lanes are recommended to have 100 feet of storage. See Appendix I for the turn lane warrants.

8. CONCLUSIONS

This Traffic Impact Analysis was conducted to determine the potential traffic impacts of the proposed Hills at Harris Creek development located north of Mitchell Mill Road, west of Manly Farm Road, and east of Gro Peg Lane in Rolesville, North Carolina. The development is expected to consist of 220 single-family homes and to be built-out in 2027. Site access is proposed via one (1) full-movement and one (1) right-in/right-out driveway connection along Mitchell Mill Road.

The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2022 Existing Traffic Conditions
- 2027 No-Build Traffic Conditions
- 2027 Build Traffic Conditions

Trip Generation

It is estimated that the proposed development will generate approximately 153 primary trips (38 entering and 115 exiting) during the weekday AM peak hour and 209 primary trips (131 entering and 78 exiting) during the weekday PM peak hour.

Rolesville Community Transportation Plan

Per the Rolesville Community Transportation Plan (CTP), the ultimate cross-section of Mitchell Mill Road is identified as a 4-lane median-divided roadway. It is recommended that the proposed development widen one-half section of Mitchell Mill Road along the site frontage in accordance with the Town's CTP.

Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to NCDOT Congestion Management Guidelines. Refer to section 6.1 of this report for a detailed description of any adjustments to these guidelines made throughout the analysis.

Intersection Capacity Analysis Summary

All the study area intersections (including the proposed site driveways) are expected to operate at acceptable levels-of-service under existing and future year conditions with the exception of those identified in Section 7 of this report.

9. RECOMMENDATIONS

Based on the findings of this study, specific geometric improvements have been identified and are recommended to accommodate future traffic conditions. See a more detailed description of the recommended improvements below. Refer to Figure 14 for an illustration of the recommended lane configuration for the proposed development.

Recommended Improvements by Developer

Required Frontage Improvements per Rolesville Community Transportation Plan

- Widen one-half section of Mitchell Mill Road along the site frontage to this roadway's ultimate section (4-lane median divided).

US 401 Bypass and Jonesville Road

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by NCDOT and the Town.

US 401 Bypass and Eastern U-Turn Location

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by NCDOT and the Town.

Mitchell Mill Road and Jonesville Road / Peebles Road

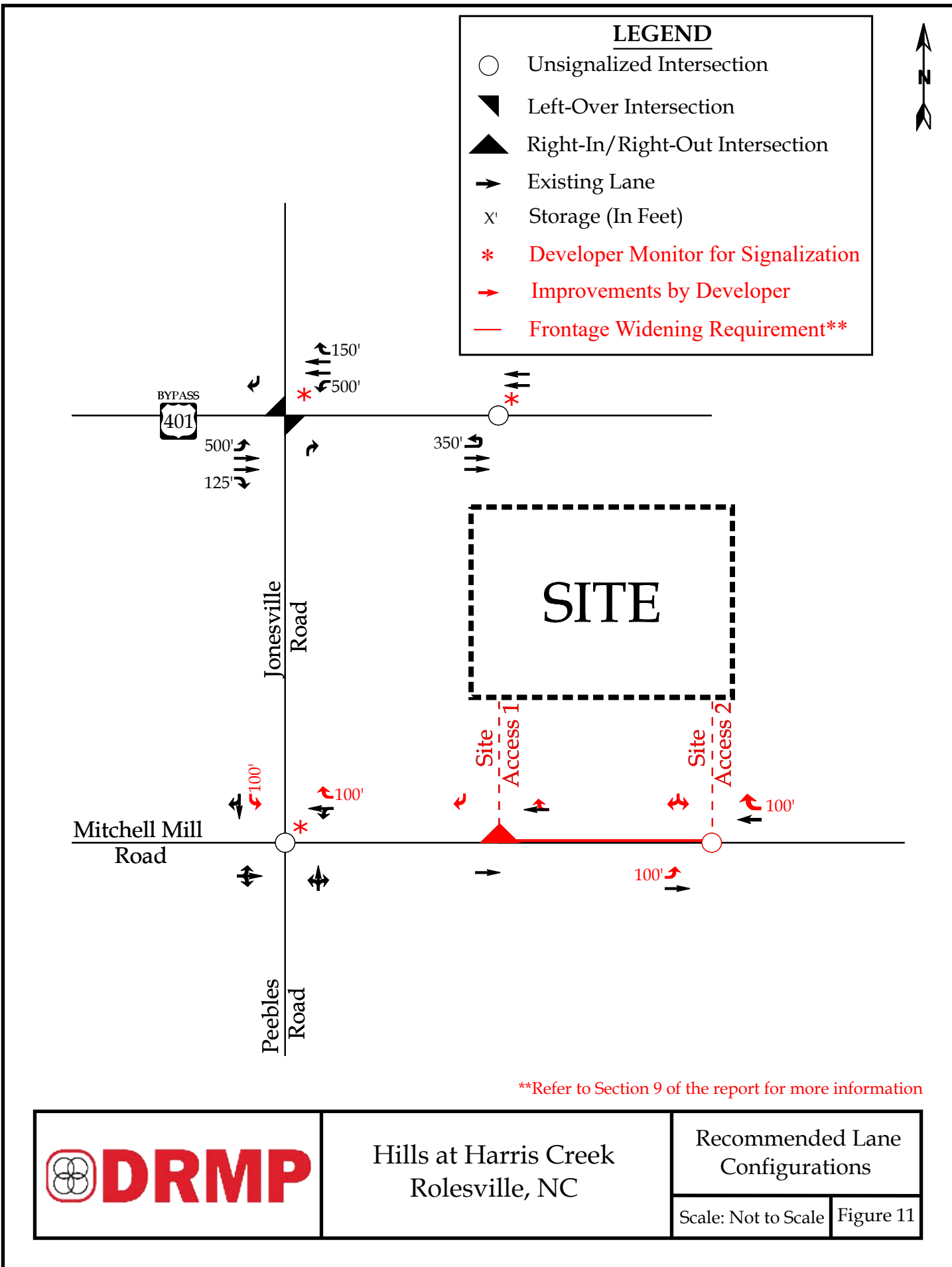
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
 - It should be noted that this improvement was also identified by the 5109 Mitchell Mill Road TIA.
- Construct a westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by NCDOT and the Town.

Mitchell Mill Road and Site Access 1

- Construct the southbound approach (Site Access 1) as a right-in/right-out with one ingress lane and one egress lane.
- Provide stop-control for the southbound approach (Site Access 1).
- Construct a concrete median on Mitchell Mill Road that restricts access to right-in/right-out.

Mitchell Mill Road and Site Access 2

- Construct the southbound approach (Site Access 2) with one ingress lane and one egress lane.
- Provide stop-control for the southbound approach (Site Access 2).
- Construct an eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.



APPENDIX A

SCOPING DOCUMENTATION

Matthew West

From: Jason Pfister <jason@ellisdevgroup.com>
Sent: Tuesday, February 20, 2024 11:18 AM
To: Andrew Eagle; Elabarger, Michael S; Gruber, Meredith; Stephen Ellis
Cc: Keith Spalding-Robbins; Matthew West; Jason Pfister
Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)
Attachments: Hills at Harris Creek 1-31.pdf



Thanks Andrew. That is still the plan and we would prefer to keep it as currently planned (reflected in attached site plan) rather than adding another full access entrance.

Jason Pfister

Vice President of Development

305 Church at North Hills Street, Suite 1110
Raleigh NC 27609
jason@ellisdevgroup.com
m 919.824.6088

From: Andrew Eagle <AEagle@drmp.com>
Sent: Tuesday, February 20, 2024 10:34 AM
To: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Gruber, Meredith <meredith.gruber@rolesville.nc.gov>; Jason Pfister <jason@ellisdevgroup.com>; Stephen Ellis <stephen@ellisdevgroup.com>
Cc: Keith Spalding-Robbins <keith@strongrockgroup.com>; Matthew West <mwest@drmp.com>
Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

Jason,

We should have a draft TIA ready by March 12, earlier if possible. Is the plan still to have the western driveway be right-in/right-out and the eastern driveway full access? The right-in/right-out restriction came from NCDOT's preference. Let me know if you want me to ask NCDOT about allowing full access instead of right-in/right-out since we have removed the commercial use.

Thanks,

Andrew Eagle, PE, PTOE

Senior Traffic Analysis Project Manager

Main: 704.549.4260 | Direct: 704.467.0325 | Cell: 704.467.0325
aeagle@drmp.com



8210 University Executive Park Drive
Suite 220, Charlotte, NC 28262



From: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>
Sent: Tuesday, February 13, 2024 9:15 AM
To: Gruber, Meredith <meredith.gruber@rolesville.nc.gov>; Andrew Eagle <AEagle@drmp.com>; Jason Pfister <jason@ellisdevgroup.com>; Stephen Ellis <stephen@ellisdevgroup.com>
Cc: Keith Spalding-Robbins <keith@strongrockgroup.com>; Taylor Geneser <tgeneser@drmp.com>
Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

Good morning,

Attached is Receipt of Payment of the TIA Pre-Pay – Andrew, please proceed with the TIA revision.

Thanks everyone for quick attention on this!
Mike Elabarger
Senior Planner

From: Gruber, Meredith <meredith.gruber@rolesville.nc.gov>
Sent: Saturday, February 10, 2024 2:57 PM
To: Andrew Eagle <AEagle@drmp.com>; Jason Pfister <jason@ellisdevgroup.com>; Stephen Ellis <stephen@ellisdevgroup.com>
Cc: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Keith Spalding-Robbins <keith@strongrockgroup.com>; Taylor Geneser <tgeneser@drmp.com>
Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

Hello Everyone,

I can sign the contract as soon as we receive a check for the prepayment of the TIA (invoice attached). Jason and/or Stephen—please have the check made out to the Town of Rolesville.

Best regards,
Meredith

Meredith A. Gruber, PLA, AICP
Planning Director
Town of Rolesville
P.O. Box 250
502 Southtown Circle
Rolesville, NC 27571
www.rolesvillenc.gov
919.554.6517



From: Andrew Eagle <AEagle@drmp.com>
Sent: Wednesday, February 7, 2024 2:31 PM
To: Jason Pfister <jason@ellisdevgroup.com>; Stephen Ellis <stephen@ellisdevgroup.com>
Cc: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Gruber, Meredith <meredith.gruber@rolesville.nc.gov>;

Keith Spalding-Robbins <keith@strongrockgroup.com>; Taylor Geneser <tgeneser@drmp.com>

Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

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Good afternoon,

We need to contract with the Town. Meredith, please send a signed contract as soon as you are able. We will determine if any of the mitigation can be reduced due to the lower trip generation. We will try to turn the TIA around quicker than the 4-week schedule I gave.

Andrew Eagle, PE, PTOE

Senior Traffic Analysis Project Manager

Main: 704.549.4260 | Direct: 704.467.0325 | Cell: 704.467.0325

aeagle@drmp.com



8210 University Executive Park Drive
Suite 220, Charlotte, NC 28262



From: Jason Pfister <jason@ellisdevgroup.com>

Sent: Tuesday, February 6, 2024 11:07 AM

To: Stephen Ellis <stephen@ellisdevgroup.com>; Andrew Eagle <AEagle@drmp.com>

Cc: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Gruber, Meredith <meredith.gruber@rolesville.nc.gov>;

Keith Spalding-Robbins <keith@strongrockgroup.com>; Taylor Geneser <tgeneser@drmp.com>; Jason Pfister

<jason@ellisdevgroup.com>

Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

Here is the signed proposal.

Jason Pfister

Vice President of Development

305 Church at North Hills Street, Suite 1110

Raleigh NC 27609

jason@ellisdevgroup.com

m 919.824.6088

From: Stephen Ellis <stephen@ellisdevgroup.com>

Sent: Tuesday, February 6, 2024 10:01 AM

To: Andrew Eagle <AEagle@drmp.com>

Cc: Jason Pfister <jason@ellisdevgroup.com>; Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Gruber,

Meredith <meredith.gruber@rolesville.nc.gov>; Keith Spalding-Robbins <keith@strongrockgroup.com>; Taylor Geneser

<tgeneser@drmp.com>

Subject: Re: [External] FW: Hills at Harris Creek (TIA revision)

Hey Andrew

This is good to go, signed doc will be over to you later from Jason.

1/ can u please push to reduce our off site impacts, I was expecting a reduction due to commercial and townhomes being both dropped.

2/ can u push this closer to front of Q so we can keep ahead of our schedule?

Many thanks

S

Sent from my iPhone

On 6 Feb 2024, at 9:54 am, Andrew Eagle <AEagle@drmp.com> wrote:

Attached is our proposal for revising the TIA and attending up to 3 public meetings. We will only bill a portion of the public meetings fee, based on the hours needed for attendance.

Andrew Eagle, PE, PTOE

Senior Traffic Analysis Project Manager

Main: 704.549.4260 | Direct: 704.467.0325 | Cell: 704.467.0325
aeagle@drmp.com



8210 University Executive Park Drive
Suite 220, Charlotte, NC 28262



From: Jason Pfister <jason@ellisdevgroup.com>

Sent: Tuesday, February 6, 2024 8:48 AM

To: Andrew Eagle <AEagle@drmp.com>

Cc: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Gruber, Meredith <meredith.gruber@rolesville.nc.gov>; Stephen Ellis <stephen@ellisdevgroup.com>; Keith Spalding-Robbins <keith@strongrockgroup.com>

Subject: Re: [External] FW: Hills at Harris Creek (TIA revision)

Thanks Andrew. I think we would want you to attend both the planning board and the commissioners meeting to be safe.

Jason C. Pfister

Sent from my iPhone

On Feb 6, 2024, at 8:43 AM, Andrew Eagle <AEagle@drmp.com> wrote:

I'll get a proposal to the Town today. Should I include any time for attending public meetings? I expect to have a draft TIA ready 4 weeks after NTP.

Andrew Eagle, PE, PTOE

Senior Traffic Analysis Project Manager

Main: 704.549.4260 | Direct: 704.467.0325 | Cell: 704.467.0325

aeagle@drmp.com



8210 University Executive Park Drive
Suite 220, Charlotte, NC 28262



From: Jason Pfister <jason@ellisdevgroup.com>

Sent: Friday, February 2, 2024 12:50 PM

To: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>; Gruber, Meredith <meredith.gruber@rolesville.nc.gov>; Andrew Eagle <AEagle@drmp.com>

Cc: Stephen Ellis <stephen@ellisdevgroup.com>; Keith Spalding-Robbins <keith@strongrockgroup.com>; Jason Pfister <jason@ellisdevgroup.com>

Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

OK, I must have misinterpreted what you said yesterday. Thanks for clarifying Mike. Andrew, do you have any ballpark estimate of how long this TIA update would take to complete?

Jason Pfister

Vice President of Development

305 Church at North Hills Street, Suite 1110

Raleigh NC 27609

jason@ellisdevgroup.com

m 919.824.6088

From: Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>

Sent: Friday, February 2, 2024 12:21 PM

To: Jason Pfister <jason@ellisdevgroup.com>; Gruber, Meredith <meredith.gruber@rolesville.nc.gov>; Andrew Eagle <AEagle@drmp.com>

Cc: Stephen Ellis <stephen@ellisdevgroup.com>; Keith Spalding-Robbins <keith@strongrockgroup.com>

Subject: RE: [External] FW: Hills at Harris Creek (TIA revision)

Hello, all,

Thanks for jumping on this asap.

No, the TIA cannot continue to express the scope of the project as (clip below). The TIA should match the existing proposed project. It's great that the OUTCOME of the TIA will be the same, but corners should NOT be cut to get there. The analysis graphs, trip

generation, movements at intersections, dropping any of that “internal capture” for the Day Care center which will be no longer, all that should be changed to reflect the new project of ~220 SFD’s.

Andrew, please work up a Cost Estimate for the changed Scope and proceed like we normally would (on a TIA revision) -- (and if I recall, didn’t this TIA go through a Revision one time originally? Or I’m confusing it with the 5109 Mitchell Mill (a Hopper project) a little east of this the year before...

Thank you,
Mike E.

<image001.png>

From: Jason Pfister <jason@ellisdevgroup.com>
Sent: Friday, February 2, 2024 10:57 AM
To: Gruber, Meredith <meredith.gruber@rolesville.nc.gov>; Elabarger, Michael S <michael.elabarger@rolesville.nc.gov>
Cc: Stephen Ellis <stephen@ellisdevgroup.com>; Keith Spalding-Robbins <keith@strongrockgroup.com>; Jason Pfister <jason@ellisdevgroup.com>
Subject: [External] FW: Hills at Harris Creek

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Meredith/Mike,

See the below response from Andrew Eagle. I agree with his recommendation to reuse the existing underlying data from the prior TIA and was thus going to ask him for an official letter confirming that the roadway improvements will be the same. Is that sufficient for your purposes?

Jason Pfister
Vice President of Development
305 Church at North Hills Street, Suite 1110
Raleigh NC 27609
jason@ellisdevgroup.com
m 919.824.6088

From: Andrew Eagle <AEagle@drmp.com>
Sent: Friday, February 2, 2024 10:36 AM
To: Jason Pfister <jason@ellisdevgroup.com>
Cc: Stephen Ellis <stephen@ellisdevgroup.com>; Keith Spalding-Robbins <keith@strongrockgroup.com>
Subject: RE: Hills at Harris Creek

Hey Jason,

I ran some quick analysis for you. The new site plan will not result in less roadway improvements. This area is experiencing high delays which leaves little room for

additional development trips. I recommend sticking with the existing TIA to save on time.

Please be aware that the attached TIA is the latest. Followed by NCDOT's final review (requirements are slightly different at one driveway). I also attached an email chain regarding the signal warrant analysis that is needed.

Andrew Eagle, PE, PTOE

Senior Traffic Analysis Project Manager

Main: 704.549.4260 | Direct: 704.467.0325 | Cell: 704.467.0325

aeagle@drmp.com

▬

8210 University Executive Park Drive
Suite 220, Charlotte, NC 28262

▬ ▬ ▬ ▬ ▬

From: Jason Pfister <jason@ellisdevgroup.com>

Sent: Wednesday, January 31, 2024 4:23 PM

To: Andrew Eagle <AEagle@rameykemp.com>; Daniel Reisfeld <dreisfeld@rameykemp.com>

Cc: Stephen Ellis <stephen@ellisdevgroup.com>; Keith Spalding-Robbins <keith@strongrockgroup.com>; Jason Pfister <jason@ellisdevgroup.com>

Subject: Hills at Harris Creek

Andrew/Daniel,

We are working on a new configuration for our Hills at Harris Creek after getting denied on the initial rezoning. The updated site plan (dropping the townhomes and commercial; about 220 single family lots only) is attached. Quick question: based on the reduced lot count and loss of the commercial, do you think the overall amount of required improvements would be reduced in a new TIA? If not, we are going to ask the planning director if we can reuse the attached TIA in order to save time on the second rezoning submission. Please give me a call if you think it makes sense to talk through this. Thanks.

<image003.png>

Jason Pfister

Vice President of Development

305 Church at North Hills Street, Suite 1110

Raleigh NC 27609

jason@ellisdevgroup.com

m 919.824.6088

Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

<Hills at Harris Creek - TIA - 02-06-2024.pdf>

RAMEY KEMP ASSOCIATES

TOGETHER WE ARE LIMITLESS

T 919 872 5115

5808 Faringdon Pl,
Raleigh, NC 27609

March 24, 2022

Meredith Gruber, PLA, AICP
Town of Rolesville - Planning Director
PO Box 250
502 Southtown Circle
Rolesville, NC 27571
meredith.gruber@rolesville.nc.gov
[Sent via Email]

Reference: Hills at Harris Creek
Rolesville, North Carolina

Subject: Memorandum of Understanding for TIA Report

Dear Ms. Gruber:

The following is a Memorandum of Understanding (MOU) outlining the proposed scope of work and assumptions related to the Traffic Impact Analysis (TIA) for the proposed Hills at Harris Creek development in Rolesville, North Carolina. The proposed development is to be located north of Mitchell Mill Road, west of Manly Farm Road, and east of Gro Peg Lane in Rolesville, NC. The development is expected to consist of 211 single-family homes, 109 townhomes, and 3.626 acres of commercial development. This MOU reflects the assumptions outlined during the initial coordination between Ramey Kemp Associates (RKA), the Town of Rolesville (Town), and the North Carolina Department of Transportation (NCDOT). Refer to the attached site location map. Site access to the proposed development is expected to be provided via two (2) full-movement driveway connections along Mitchell Mill Road. Refer to the attachments for a copy of the preliminary site plan.

The proposed development, anticipated to be completed in 2027, is expected to consist of 211 single-family homes, 109 townhomes, and 3.626 acres of commercial development. It should be noted that the commercial development land use(s) and intensity are not known at this time. Therefore, 7,000 square feet (sq. ft.) of general retail space per acre of land [approximately 25,400 sq. ft.] was assumed for the commercial development in this study. The proposed development is assumed to consist of the following land uses:

- 211 single-family homes
- 109 townhomes
- 25,400 sq. ft. of general retail



Study Area

Based on a coordination with NCDOT and Town staff, the study area is proposed to consist of the following intersections:

- Mitchell Mill Road & Jonesville Road / Peebles Road (unsignalized)
- US 401 Bypass and Jonesville Road (unsignalized)
- US 401 Bypass and Eastern U-Turn Location (unsignalized)
- Mitchell Mill Road and Site Driveways (2)

Existing Traffic Volumes

Existing peak hour traffic volumes will be determined based on previously collected traffic counts at the study intersections below, in November 2021 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, while schools were in session for in-person learning:

- Mitchell Mill Road & Jonesville Road / Peebles Road
- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location

These previously collected counts will be projected to the year 2022 using a compounded annual growth rate of 2%. Refer to the attachments for an illustration of 2022 existing peak hour traffic volumes.

Background Traffic Volumes

Based on coordination with NCDOT and the Town, background traffic volumes will be determined by projecting 2022 existing traffic volumes to the year 2027 using a 2% annual growth rate. Additionally, it was determined that the following adjacent developments are to be included in this study:

- Cobblestone Crossing Mixed-Use
- Young Street PUD
- Wheeler Tract
- Louisbury Road Assemblage
- Kalas / Watkins Family Property

Future Roadway Improvements

Based on coordination with the Town and NCDOT, it was determined that there are no future roadway improvements within the study area to consider under future traffic conditions.

Trip Generation

Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the ITE *Trip Generation Manual*, 11th Edition. Refer to

Table 1, on the following page, for a summary of the proposed site trip generation for full buildout of the proposed development.

Table 1: Trip Generation Summary

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)			Weekday PM Peak Hour Trips (vph)		
			Enter	Exit	Total	Enter	Exit	Total
Single-Family Home (210)	211 DU	2,010	38	109	147	126	74	200
Multi-Family Home (Low-Rise) (220)	109 DU	770	14	43	57	42	25	67
Retail (<40 KSF) (822)	25.4* KSF	1,300	32	21	53	75	76	151
Total Trips		4,080	84	173	257	243	175	418
<i>Internal Capture (2% AM, 1% PM)**</i>			-2	-3	-5	-5	-3	-8
Total External Trips			82	170	252	238	172	410
<i>Pass-By Trips: Shopping Center (34% PM)</i>			-	-	-	-25	-25	-50
Total Primary Trips			82	170	252	213	147	360

*Since the commercial development is unknown at this time, 7,000 SF of general retail space per acre of land [3.626 acres in total] was assumed for this land use.

**Utilizing methodology contained in the NCHRP Report 684.

It is estimated that the proposed development will generate approximately 4,080 site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 257 trips (84 entering and 173 exiting) will occur during the weekday AM peak hour and 418 trips (243 entering and 175 exiting) will occur during the weekday PM peak hour.

Internal capture of trips between the retail and residential land uses was considered in this study. Internal capture is the consideration for trips that will be made within the site between different land uses, so the vehicle technically never leaves the internal site but can still be considered as a trip to that specific land use. Based on NCHRP Report 684 methodology, weekday AM and PM peak hour internal capture rates of 2% and 1%, respectively, were applied to the trips generated from the development. The internal capture reductions are expected to account for approximately 5 trips (2 entering and 3 exiting) during the weekday AM peak hour and 8 trips (5 entering and 3 exiting) during the weekday PM peak hour. Refer to the attached NCHRP internal capture reports for reference.

Pass-by trips will also be taken into consideration in this study. Pass-by trips are made by the traffic already using the adjacent roadway, entering the site as an intermediate stop on their way to another destination. Pass-by percentages are applied to site trips after adjustments for internal capture. Pass-by trips are expected to account for approximately 50 trips (25 entering and 25 exiting) during the



weekday PM peak hour. It should be noted that the pass-by trips were balanced, as it is likely that these trips would enter and exit in the same hour.

The total primary trips are the calculated site trips after the reduction for internal capture and pass-by trips. Primary site traffic is expected to generate approximately 252 trips (82 entering and 170 exiting) during the weekday AM peak hour, and 360 trips (213 entering and 147 exiting) during the weekday PM peak hour.

Trip Distribution and Assignment

Site trips are distributed based on the locations of existing traffic patterns, population centers adjacent to the study area, and engineering judgment. A summary of the overall distributions is below.

Residential

- 30% to/from the west via US 401 Bypass
- 15% to/from the east via US 401 Bypass
- 10% to/from the south via Peebles Road
- 35% to/from the west via Mitchell Mill Road
- 10% to/from the east via Mitchell Mill Road

Commercial

- 25% to/from the west via US 401 Bypass
- 15% to/from the east via US 401 Bypass
- 10% to/from the south via Peebles Road
- 40% to/from the west via Mitchell Mill Road
- 10% to/from the east via Mitchell Mill Road

Refer to the attached site trip distribution figures.

Analysis Scenarios

All capacity analyses will be performed utilizing Synchro (Version 10.3). All study intersections will be analyzed during the weekday AM and PM peak hours under the following proposed traffic scenarios:

- 2022 Existing Traffic Conditions
- 2027 No-Build Traffic Conditions
- 2027 Build Traffic Conditions

Report

The TIA report will be prepared based on the Town and NCDOT requirements.

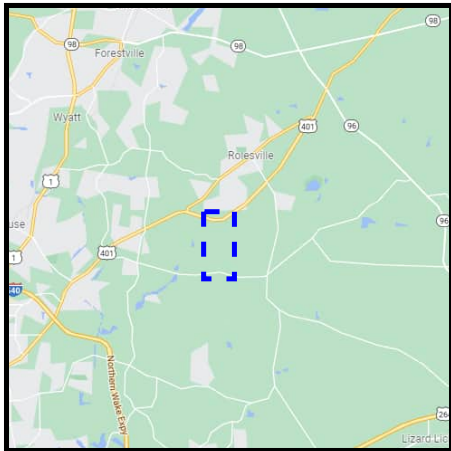
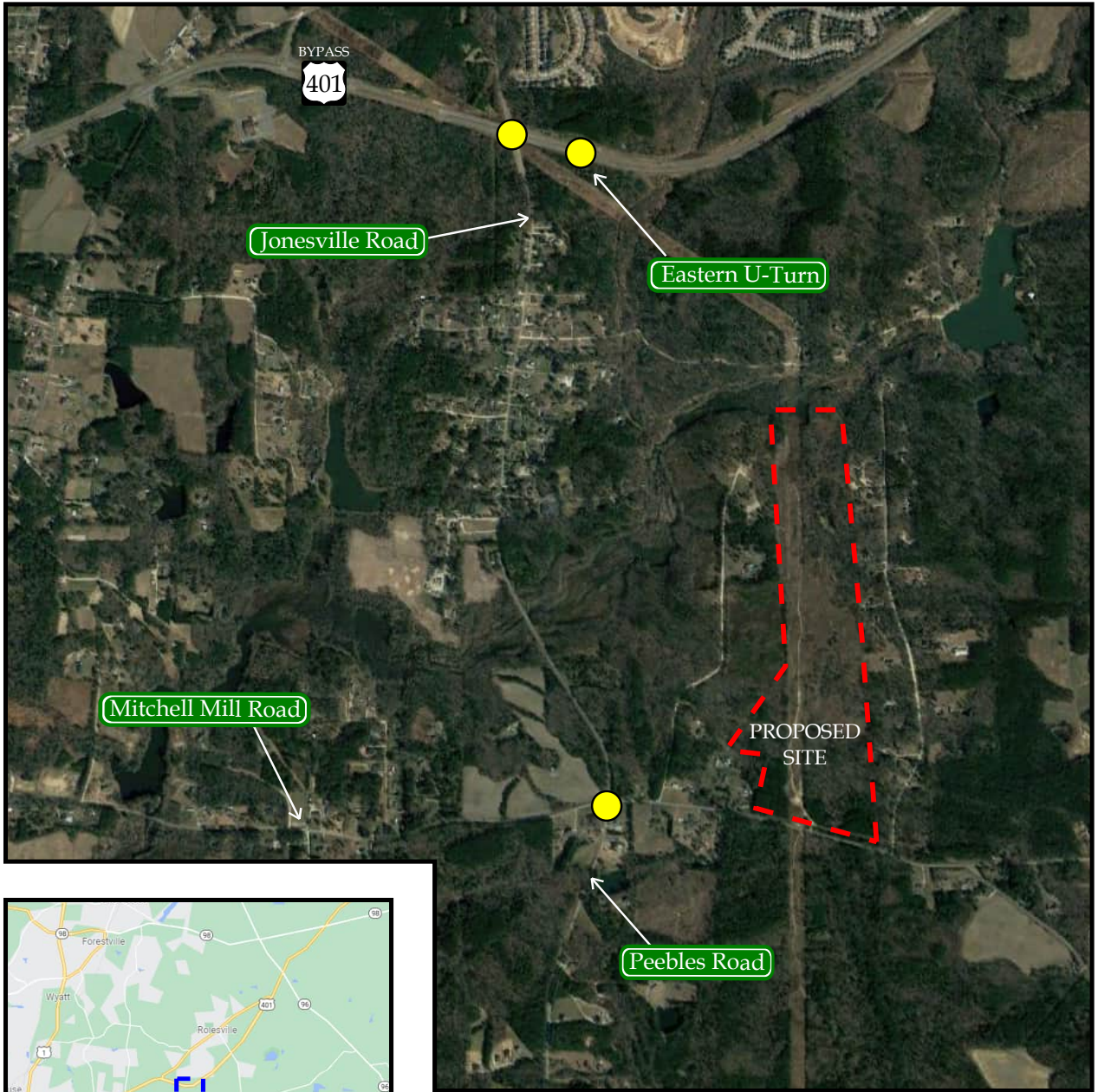
If you find this memorandum of understanding acceptable, please let me know so that we may include it in the TIA report. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,
Ramey Kemp Associates,






Michael Karpinski, P.E.
Traffic Engineering Project Manager

Attachments: Site Location Map
 Site Plan
 2022 Existing Traffic Volumes Figure
 NCHRP 684 Internal Capture Reports
 Proposed Site Trip Distribution Figures



LEGEND

-  Proposed Site Location
-  Study Intersection
-  Study Area



Hills at Harris Creek
Rolesville, NC

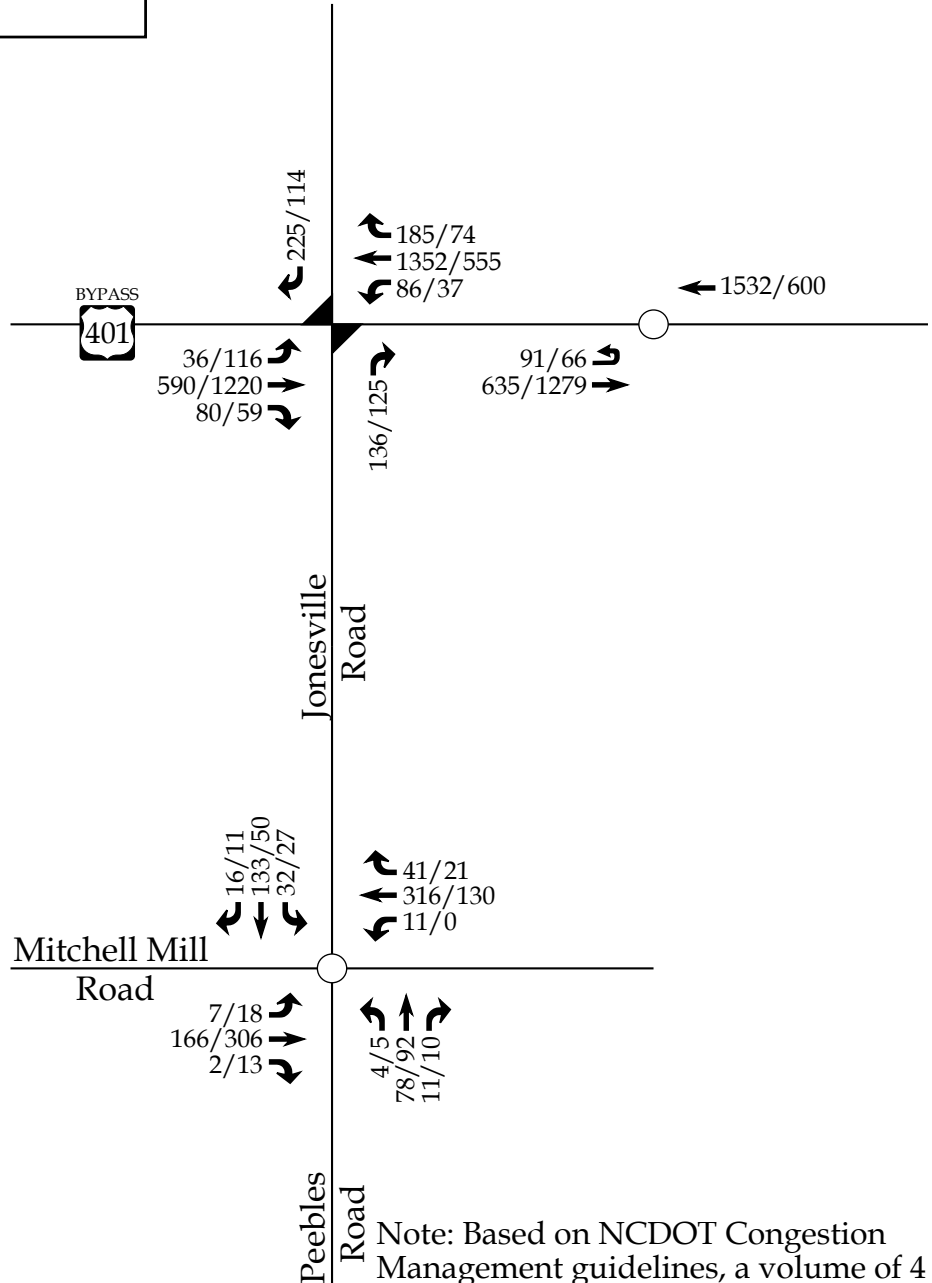
Site Location Map	
Scale: Not to Scale	






LEGEND

- Unsignalized Intersection
- ◼ Left-Over Intersection
- X/Y → Weekday AM / PM Peak Hour Traffic

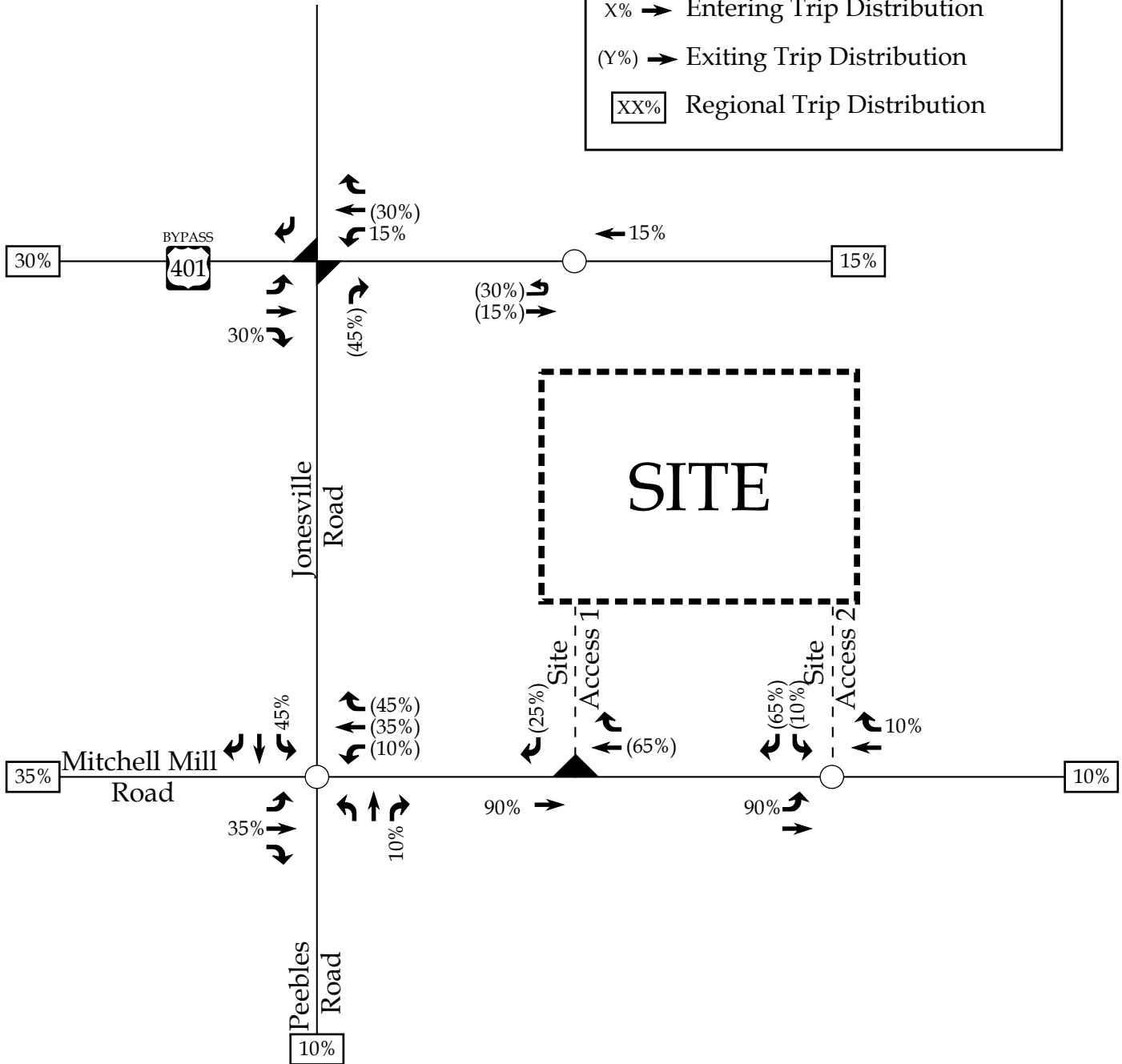


Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

	Hills at Harris Creek Rolesville, NC	2022 Existing Peak Hour Traffic	
		Scale: Not to Scale	

LEGEND

- Unsignalized Intersection
- ◄ Left-Over Intersection
- ▲ Right-In/Right-Out Intersection
- X% → Entering Trip Distribution
- (Y%) → Exiting Trip Distribution
- XX% Regional Trip Distribution

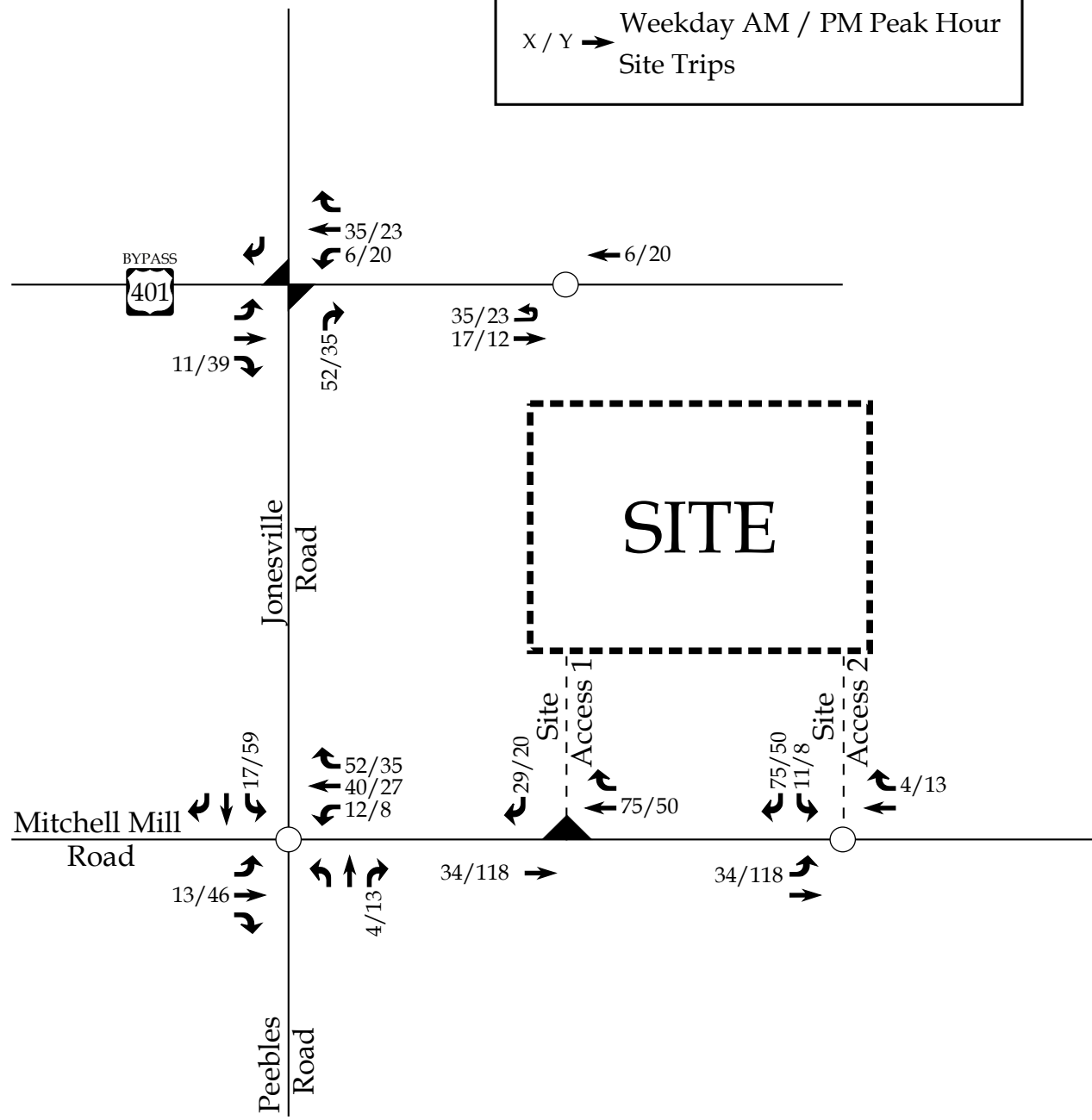


	Hills at Harris Creek Rolesville, NC	Site Trip Distribution
	Scale: Not to Scale	



LEGEND

- Unsignalized Intersection
- ◄ Left-Over Intersection
- ▲ Right-In/Right-Out Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips



	Hills at Harris Creek Rolesville, NC	Site Trip Assignment	
		Scale: Not to Scale	

APPENDIX B

TRAFFIC COUNTS



TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Jonesville)AM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 1

Groups Printed- Cars + - Trucks

Start Time	Jonesville Road Southbound				US 401 Westbound				Jonesville Road Northbound				US 401 Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	63	0	0	63	24	380	21	425	23	0	0	23	18	182	3	203	714
07:15 AM	42	0	0	42	39	362	24	425	37	0	0	37	11	125	7	143	647
07:30 AM	51	0	0	51	80	318	23	421	48	0	0	48	24	136	15	175	695
07:45 AM	65	0	0	65	38	249	16	303	25	0	0	25	25	135	10	170	563
Total	221	0	0	221	181	1309	84	1574	133	0	0	133	78	578	35	691	2619
08:00 AM	61	0	0	61	26	236	13	275	23	0	0	23	30	120	10	160	519
08:15 AM	36	0	0	36	12	233	9	254	16	0	0	16	13	94	9	116	422
08:30 AM	24	0	0	24	10	213	5	228	9	0	0	9	6	91	3	100	361
08:45 AM	28	0	0	28	9	145	5	159	10	0	0	10	11	85	2	98	295
Total	149	0	0	149	57	827	32	916	58	0	0	58	60	390	24	474	1597
Grand Total	370	0	0	370	238	2136	116	2490	191	0	0	191	138	968	59	1165	4216
Apprch %	100	0	0		9.6	85.8	4.7		100	0	0		11.8	83.1	5.1		
Total %	8.8	0	0	8.8	5.6	50.7	2.8	59.1	4.5	0	0	4.5	3.3	23	1.4	27.6	
Cars +	366	0	0	366	233	2094	114	2441	188	0	0	188	135	916	57	1108	4103
% Cars +	98.9	0	0	98.9	97.9	98	98.3	98	98.4	0	0	98.4	97.8	94.6	96.6	95.1	97.3
Trucks	4	0	0	4	5	42	2	49	3	0	0	3	3	52	2	57	113
% Trucks	1.1	0	0	1.1	2.1	2	1.7	2	1.6	0	0	1.6	2.2	5.4	3.4	4.9	2.7

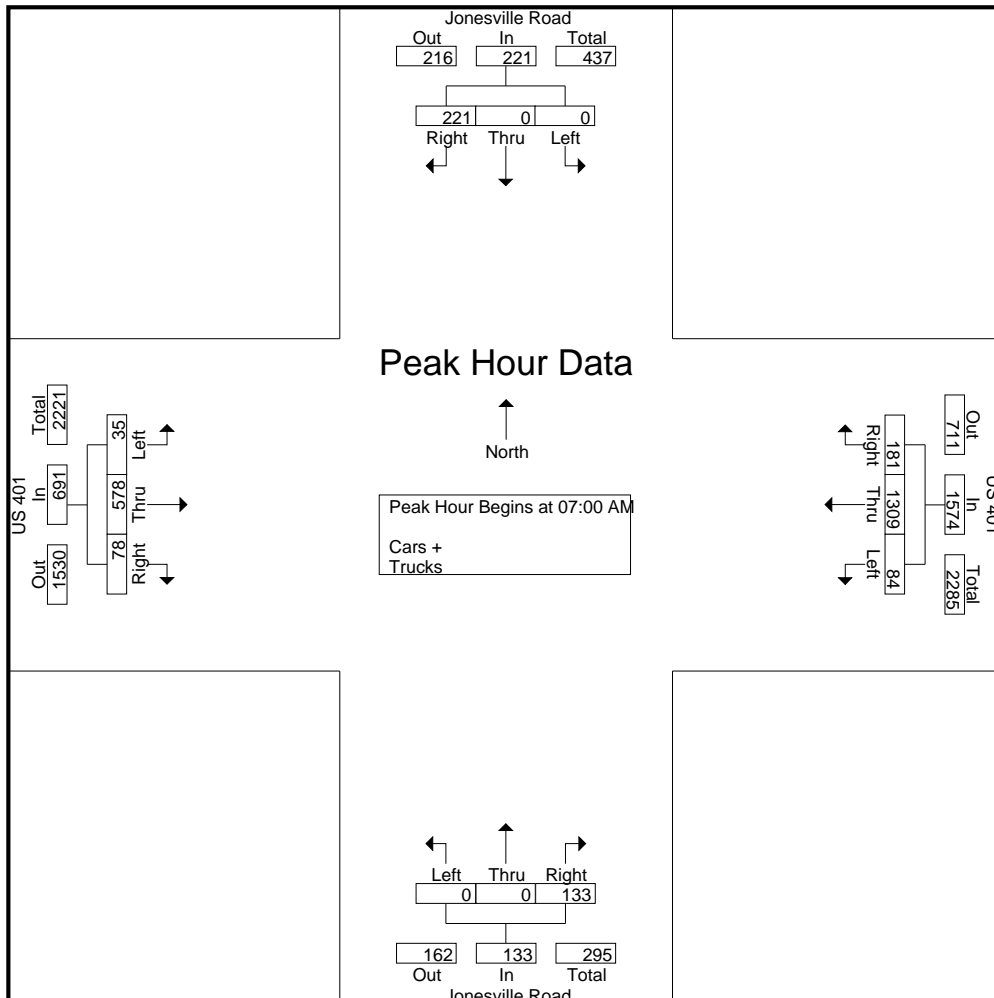


TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Jonesville)AM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 2

Start Time	Jonesville Road Southbound				US 401 Westbound				Jonesville Road Northbound				US 401 Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	63	0	0	63	24	380	21	425	23	0	0	23	18	182	3	203	714
07:15 AM	42	0	0	42	39	362	24	425	37	0	0	37	11	125	7	143	647
07:30 AM	51	0	0	51	80	318	23	421	48	0	0	48	24	136	15	175	695
07:45 AM	65	0	0	65	38	249	16	303	25	0	0	25	25	135	10	170	563
Total Volume	221	0	0	221	181	1309	84	1574	133	0	0	133	78	578	35	691	2619
% App. Total	100	0	0		11.5	83.2	5.3		100	0	0		11.3	83.6	5.1		
PHF	.850	.000	.000	.850	.566	.861	.875	.926	.693	.000	.000	.693	.780	.794	.583	.851	.917

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM





TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Jonesville)PM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 1

Groups Printed- Cars + - Trucks

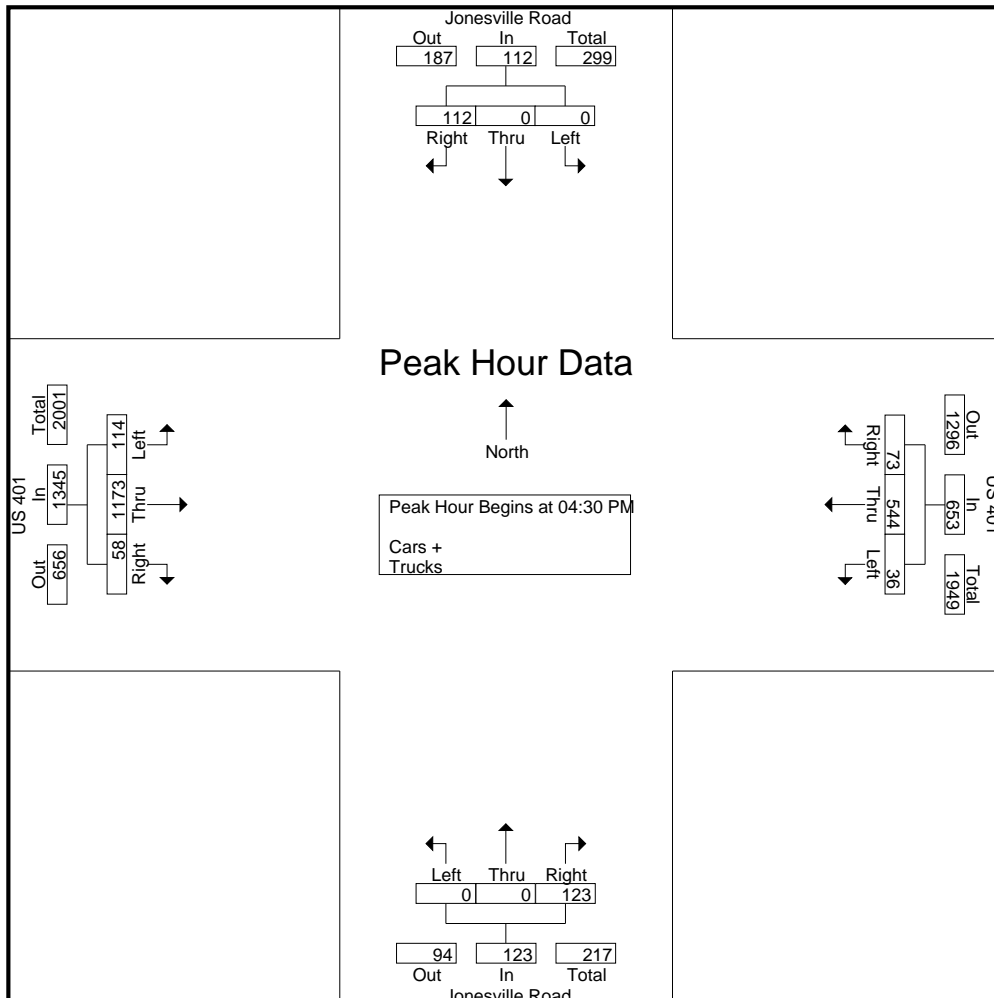
Start Time	Jonesville Road Southbound				US 401 Westbound				Jonesville Road Northbound				US 401 Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	47	0	0	47	13	124	6	143	21	0	0	21	37	217	22	276	487
04:15 PM	34	0	0	34	13	119	6	138	26	0	0	26	15	231	20	266	464
04:30 PM	30	0	0	30	19	118	12	149	32	0	0	32	12	291	28	331	542
04:45 PM	15	0	0	15	22	137	6	165	32	0	0	32	8	303	30	341	553
Total	126	0	0	126	67	498	30	595	111	0	0	111	72	1042	100	1214	2046
05:00 PM	37	0	0	37	10	143	7	160	23	0	0	23	23	322	30	375	595
05:15 PM	30	0	0	30	22	146	11	179	36	0	0	36	15	257	26	298	543
05:30 PM	39	0	0	39	20	145	3	168	34	0	0	34	23	262	14	299	540
05:45 PM	24	0	0	24	10	112	9	131	22	0	0	22	11	227	21	259	436
Total	130	0	0	130	62	546	30	638	115	0	0	115	72	1068	91	1231	2114
Grand Total	256	0	0	256	129	1044	60	1233	226	0	0	226	144	2110	191	2445	4160
Apprch %	100	0	0		10.5	84.7	4.9		100	0	0		5.9	86.3	7.8		
Total %	6.2	0	0	6.2	3.1	25.1	1.4	29.6	5.4	0	0	5.4	3.5	50.7	4.6	58.8	
Cars +	252	0	0	252	127	1020	60	1207	223	0	0	223	142	2051	191	2384	4066
% Cars +	98.4	0	0	98.4	98.4	97.7	100	97.9	98.7	0	0	98.7	98.6	97.2	100	97.5	97.7
Trucks	4	0	0	4	2	24	0	26	3	0	0	3	2	59	0	61	94
% Trucks	1.6	0	0	1.6	1.6	2.3	0	2.1	1.3	0	0	1.3	1.4	2.8	0	2.5	2.3



TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Jonesville)PM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 2

Start Time	Jonesville Road Southbound				US 401 Westbound				Jonesville Road Northbound				US 401 Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	30	0	0	30	19	118	12	149	32	0	0	32	12	291	28	331	542
04:45 PM	15	0	0	15	22	137	6	165	32	0	0	32	8	303	30	341	553
05:00 PM	37	0	0	37	10	143	7	160	23	0	0	23	23	322	30	375	595
05:15 PM	30	0	0	30	22	146	11	179	36	0	0	36	15	257	26	298	543
Total Volume	112	0	0	112	73	544	36	653	123	0	0	123	58	1173	114	1345	2233
% App. Total	100	0	0		11.2	83.3	5.5		100	0	0		4.3	87.2	8.5		
PHF	.757	.000	.000	.757	.830	.932	.750	.912	.854	.000	.000	.854	.630	.911	.950	.897	.938





TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Eastern U Turn)AM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 1

Groups Printed- Cars + - Trucks

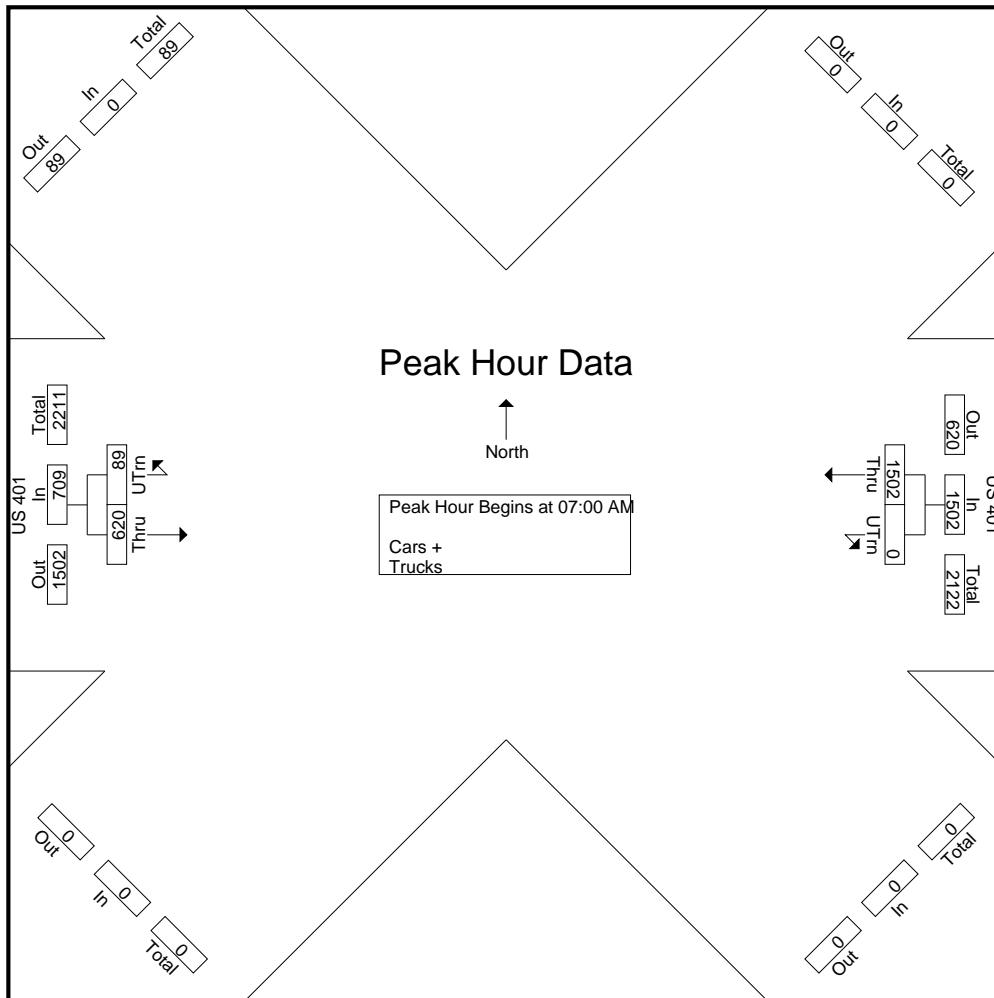
Start Time	US 401 Westbound			US 401 Eastbound			Int. Total
	Thru	UTrn	App. Total	Thru	UTrn	App. Total	
07:00 AM	421	0	421	198	12	210	631
07:15 AM	410	0	410	136	24	160	570
07:30 AM	392	0	392	149	36	185	577
07:45 AM	279	0	279	137	17	154	433
Total	1502	0	1502	620	89	709	2211
08:00 AM	253	0	253	130	20	150	403
08:15 AM	243	0	243	98	13	111	354
08:30 AM	223	0	223	94	7	101	324
08:45 AM	147	0	147	85	9	94	241
Total	866	0	866	407	49	456	1322
Grand Total	2368	0	2368	1027	138	1165	3533
Apprch %	100	0		88.2	11.8		
Total %	67	0	67	29.1	3.9	33	
Cars +	2318	0	2318	973	136	1109	3427
% Cars +	97.9	0	97.9	94.7	98.6	95.2	97
Trucks	50	0	50	54	2	56	106
% Trucks	2.1	0	2.1	5.3	1.4	4.8	3



TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Eastern U Turn)AM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 2

Start Time	US 401 Westbound			US 401 Eastbound			Int. Total
	Thru	UTrn	App. Total	Thru	UTrn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 07:00 AM							
07:00 AM	421	0	421	198	12	210	631
07:15 AM	410	0	410	136	24	160	570
07:30 AM	392	0	392	149	36	185	577
07:45 AM	279	0	279	137	17	154	433
Total Volume	1502	0	1502	620	89	709	2211
% App. Total	100	0		87.4	12.6		
PHF	.892	.000	.892	.783	.618	.844	.876





TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Eastern U Turn)PM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 1

Groups Printed- Cars + - Trucks

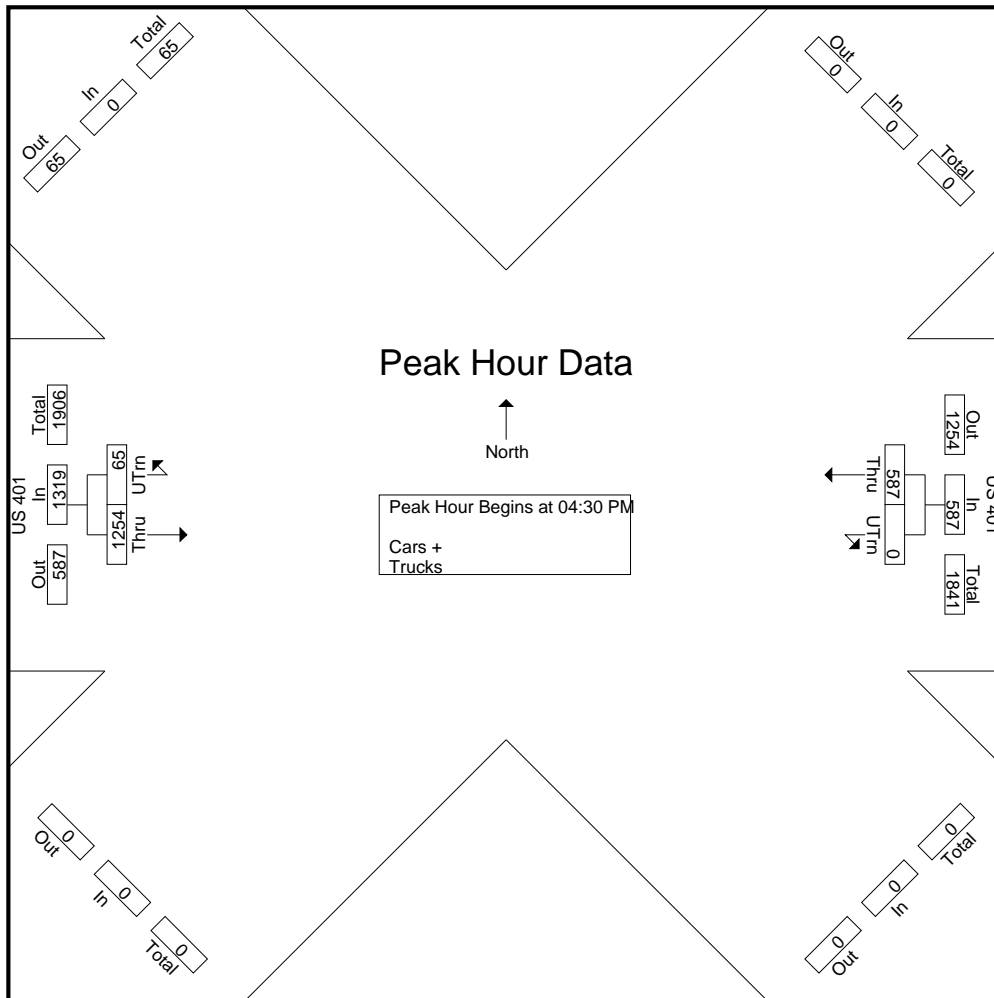
Start Time	US 401 Westbound			US 401 Eastbound			Int. Total
	Thru	UTrn	App. Total	Thru	UTrn	App. Total	
04:00 PM	130	0	130	240	12	252	382
04:15 PM	128	0	128	237	15	252	380
04:30 PM	129	0	129	311	19	330	459
04:45 PM	149	0	149	317	19	336	485
Total	536	0	536	1105	65	1170	1706
05:00 PM	149	0	149	342	8	350	499
05:15 PM	160	0	160	284	19	303	463
05:30 PM	161	0	161	273	22	295	456
05:45 PM	120	0	120	235	12	247	367
Total	590	0	590	1134	61	1195	1785
Grand Total	1126	0	1126	2239	126	2365	3491
Apprch %	100	0		94.7	5.3		
Total %	32.3	0	32.3	64.1	3.6	67.7	
Cars +	1101	0	1101	2175	125	2300	3401
% Cars +	97.8	0	97.8	97.1	99.2	97.3	97.4
Trucks	25	0	25	64	1	65	90
% Trucks	2.2	0	2.2	2.9	0.8	2.7	2.6



TRAFFIC DATA COLLECTION

File Name : Rolesville(US 401 and Eastern U Turn)PM Peak
 Site Code :
 Start Date : 11/9/2021
 Page No : 2

Start Time	US 401 Westbound			US 401 Eastbound			Int. Total
	Thru	UTrn	App. Total	Thru	UTrn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 04:30 PM							
04:30 PM	129	0	129	311	19	330	459
04:45 PM	149	0	149	317	19	336	485
05:00 PM	149	0	149	342	8	350	499
05:15 PM	160	0	160	284	19	303	463
Total Volume	587	0	587	1254	65	1319	1906
% App. Total	100	0		95.1	4.9		
PHF	.917	.000	.917	.917	.855	.942	.955





TRAFFIC DATA COLLECTION

File Name : Rolesville(Jonesville and Mitchell Mill)AM Peak
 Site Code :
 Start Date : 11/30/2021
 Page No : 1

Groups Printed- Cars + - Trucks

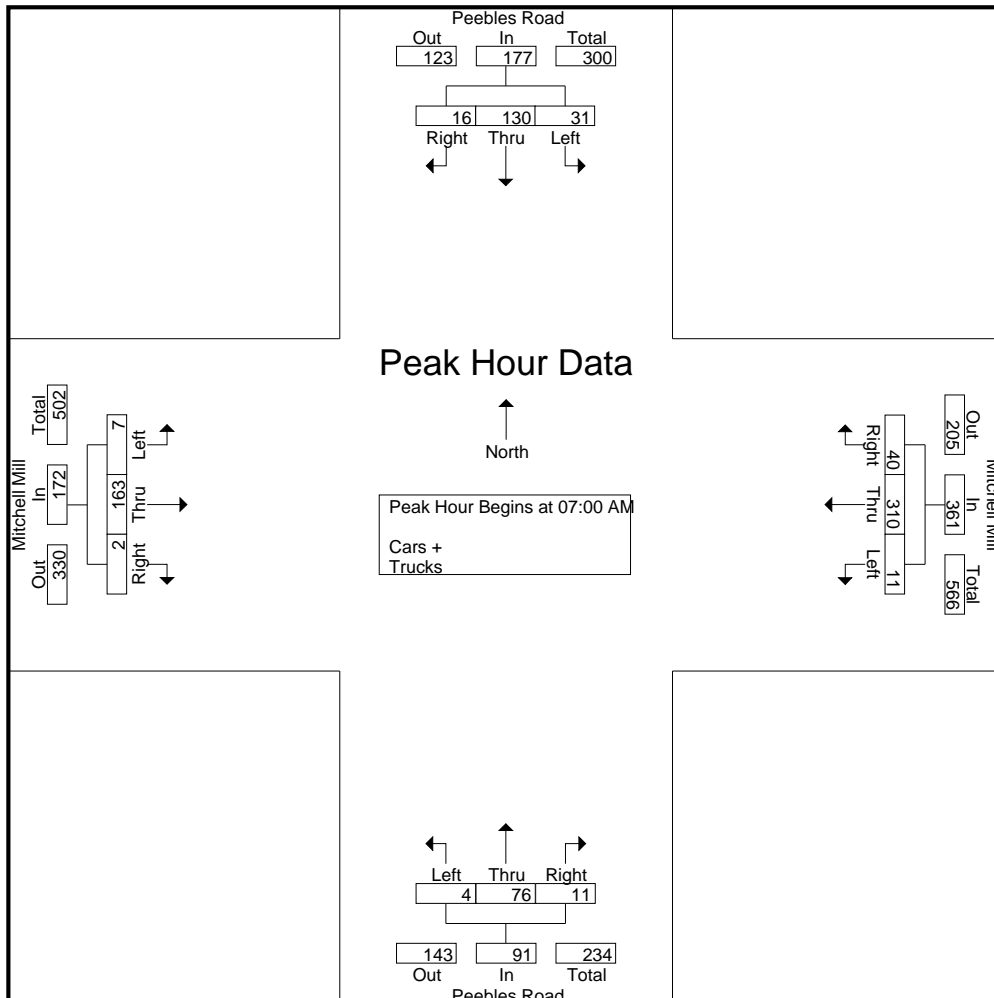
Start Time	Peebles Road Southbound				Mitchell Mill Westbound				Peebles Road Northbound				Mitchell Mill Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	4	17	13	34	8	73	5	86	6	11	3	20	0	74	1	75	215
07:15 AM	4	36	7	47	8	101	2	111	3	26	1	30	0	32	1	33	221
07:30 AM	6	34	5	45	16	87	3	106	0	24	0	24	1	33	1	35	210
07:45 AM	2	43	6	51	8	49	1	58	2	15	0	17	1	24	4	29	155
Total	16	130	31	177	40	310	11	361	11	76	4	91	2	163	7	172	801
08:00 AM	7	31	12	50	4	53	1	58	1	8	2	11	0	28	3	31	150
08:15 AM	12	17	3	32	1	37	1	39	1	7	0	8	1	24	1	26	105
08:30 AM	6	4	2	12	3	49	2	54	1	4	2	7	0	19	0	19	92
08:45 AM	1	13	3	17	4	32	1	37	1	3	1	5	1	18	2	21	80
Total	26	65	20	111	12	171	5	188	4	22	5	31	2	89	6	97	427
Grand Total	42	195	51	288	52	481	16	549	15	98	9	122	4	252	13	269	1228
Apprch %	14.6	67.7	17.7		9.5	87.6	2.9		12.3	80.3	7.4		1.5	93.7	4.8		
Total %	3.4	15.9	4.2	23.5	4.2	39.2	1.3	44.7	1.2	8	0.7	9.9	0.3	20.5	1.1	21.9	
Cars +	42	195	50	287	52	479	16	547	15	98	9	122	4	249	13	266	1222
% Cars +	100	100	98	99.7	100	99.6	100	99.6	100	100	100	100	100	98.8	100	98.9	99.5
Trucks	0	0	1	1	0	2	0	2	0	0	0	0	0	3	0	3	6
% Trucks	0	0	2	0.3	0	0.4	0	0.4	0	0	0	0	0	1.2	0	1.1	0.5



TRAFFIC DATA COLLECTION

File Name : Rolesville(Jonesville and Mitchell Mill)AM Peak
 Site Code :
 Start Date : 11/30/2021
 Page No : 2

Start Time	Peebles Road Southbound				Mitchell Mill Westbound				Peebles Road Northbound				Mitchell Mill Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	17	13	34	8	73	5	86	6	11	3	20	0	74	1	75	215
07:15 AM	4	36	7	47	8	101	2	111	3	26	1	30	0	32	1	33	221
07:30 AM	6	34	5	45	16	87	3	106	0	24	0	24	1	33	1	35	210
07:45 AM	2	43	6	51	8	49	1	58	2	15	0	17	1	24	4	29	155
Total Volume	16	130	31	177	40	310	11	361	11	76	4	91	2	163	7	172	801
% App. Total	9	73.4	17.5		11.1	85.9	3		12.1	83.5	4.4		1.2	94.8	4.1		
PHF	.667	.756	.596	.868	.625	.767	.550	.813	.458	.731	.333	.758	.500	.551	.438	.573	.906





TRAFFIC DATA COLLECTION

File Name : Rolesville(Jonesville and Mitchell Mill)PM Peak
 Site Code :
 Start Date : 11/30/2021
 Page No : 1

Groups Printed- Cars + - Trucks

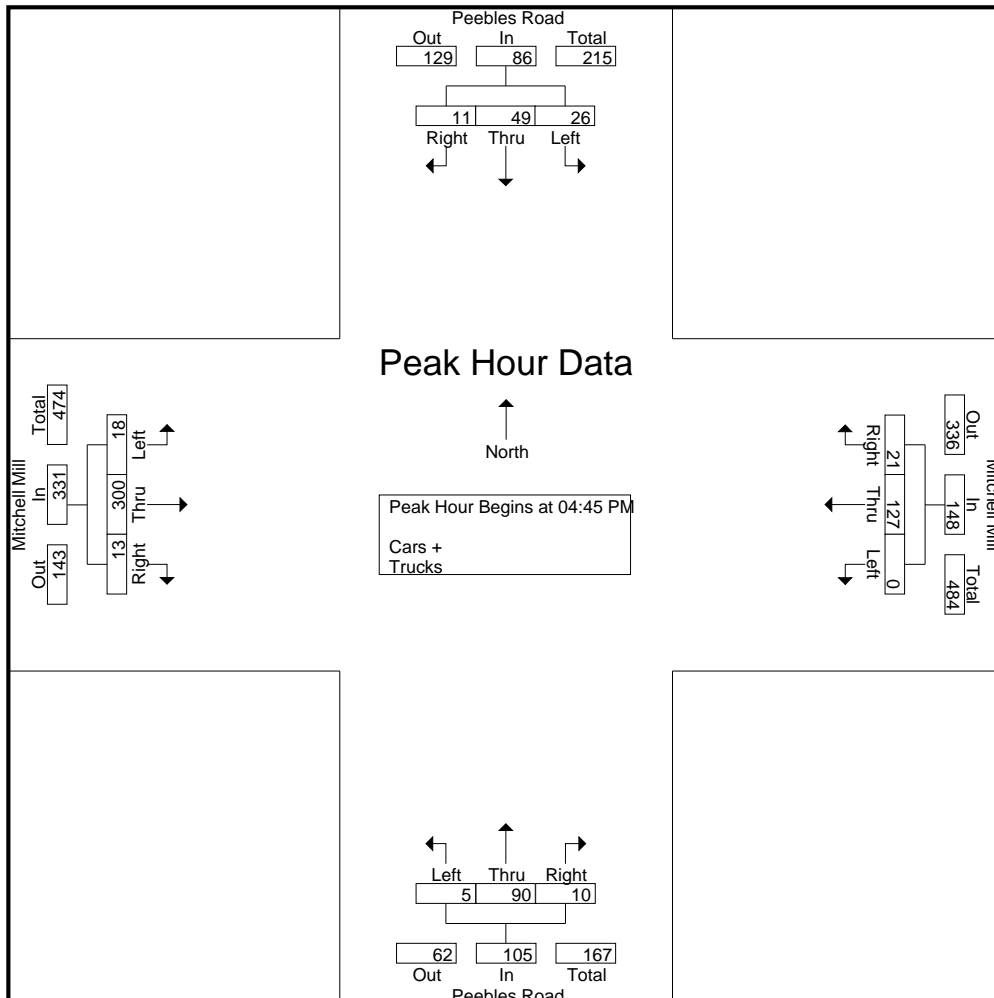
Start Time	Peebles Road Southbound				Mitchell Mill Westbound				Peebles Road Northbound				Mitchell Mill Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	7	11	13	31	6	25	1	32	1	14	1	16	2	44	6	52	131
04:15 PM	6	11	4	21	2	27	2	31	1	17	3	21	1	62	4	67	140
04:30 PM	3	13	3	19	4	30	2	36	0	27	1	28	3	64	3	70	153
04:45 PM	2	8	5	15	4	37	0	41	3	18	0	21	3	71	3	77	154
Total	18	43	25	86	16	119	5	140	5	76	5	86	9	241	16	266	578
05:00 PM	1	15	6	22	5	31	0	36	3	19	2	24	1	78	5	84	166
05:15 PM	3	15	6	24	4	23	0	27	3	26	1	30	4	89	7	100	181
05:30 PM	5	11	9	25	8	36	0	44	1	27	2	30	5	62	3	70	169
05:45 PM	1	7	4	12	2	21	1	24	2	13	2	17	4	55	6	65	118
Total	10	48	25	83	19	111	1	131	9	85	7	101	14	284	21	319	634
Grand Total	28	91	50	169	35	230	6	271	14	161	12	187	23	525	37	585	1212
Apprch %	16.6	53.8	29.6		12.9	84.9	2.2		7.5	86.1	6.4		3.9	89.7	6.3		
Total %	2.3	7.5	4.1	13.9	2.9	19	0.5	22.4	1.2	13.3	1	15.4	1.9	43.3	3.1	48.3	
Cars +	28	91	50	169	35	229	6	270	14	161	12	187	23	524	37	584	1210
% Cars +	100	100	100	100	100	99.6	100	99.6	100	100	100	100	100	99.8	100	99.8	99.8
Trucks	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
% Trucks	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0	0.2	0	0.2	0.2



TRAFFIC DATA COLLECTION

File Name : Rolesville(Jonesville and Mitchell Mill)PM Peak
 Site Code :
 Start Date : 11/30/2021
 Page No : 2

Start Time	Peebles Road Southbound				Mitchell Mill Westbound				Peebles Road Northbound				Mitchell Mill Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	2	8	5	15	4	37	0	41	3	18	0	21	3	71	3	77	154
05:00 PM	1	15	6	22	5	31	0	36	3	19	2	24	1	78	5	84	166
05:15 PM	3	15	6	24	4	23	0	27	3	26	1	30	4	89	7	100	181
05:30 PM	5	11	9	25	8	36	0	44	1	27	2	30	5	62	3	70	169
Total Volume	11	49	26	86	21	127	0	148	10	90	5	105	13	300	18	331	670
% App. Total	12.8	57	30.2		14.2	85.8	0		9.5	85.7	4.8		3.9	90.6	5.4		
PHF	.550	.817	.722	.860	.656	.858	.000	.841	.833	.833	.625	.875	.650	.843	.643	.828	.925



APPENDIX C

ADJACENT DEVELOPMENT INFORMATION

TRAFFIC IMPACT ANALYSIS

FOR

COBBLESTONE CROSSING MIXED-USE

LOCATED

IN

ROLESVILLE, NORTH CAROLINA

Prepared For:
Town of Rolesville
502 Southtown Circle
Rolesville, NC 27571

Prepared By:
Ramey Kemp & Associates, Inc.
5808 Faringdon Place, Suite 100
Raleigh, NC 27609
License #C-0910



MARCH 2021




RKA Project No. 20498

Prepared By: TF

Reviewed By: MK



LEGEND

-  Proposed Site Location
-  Study Intersection
-  Study Area

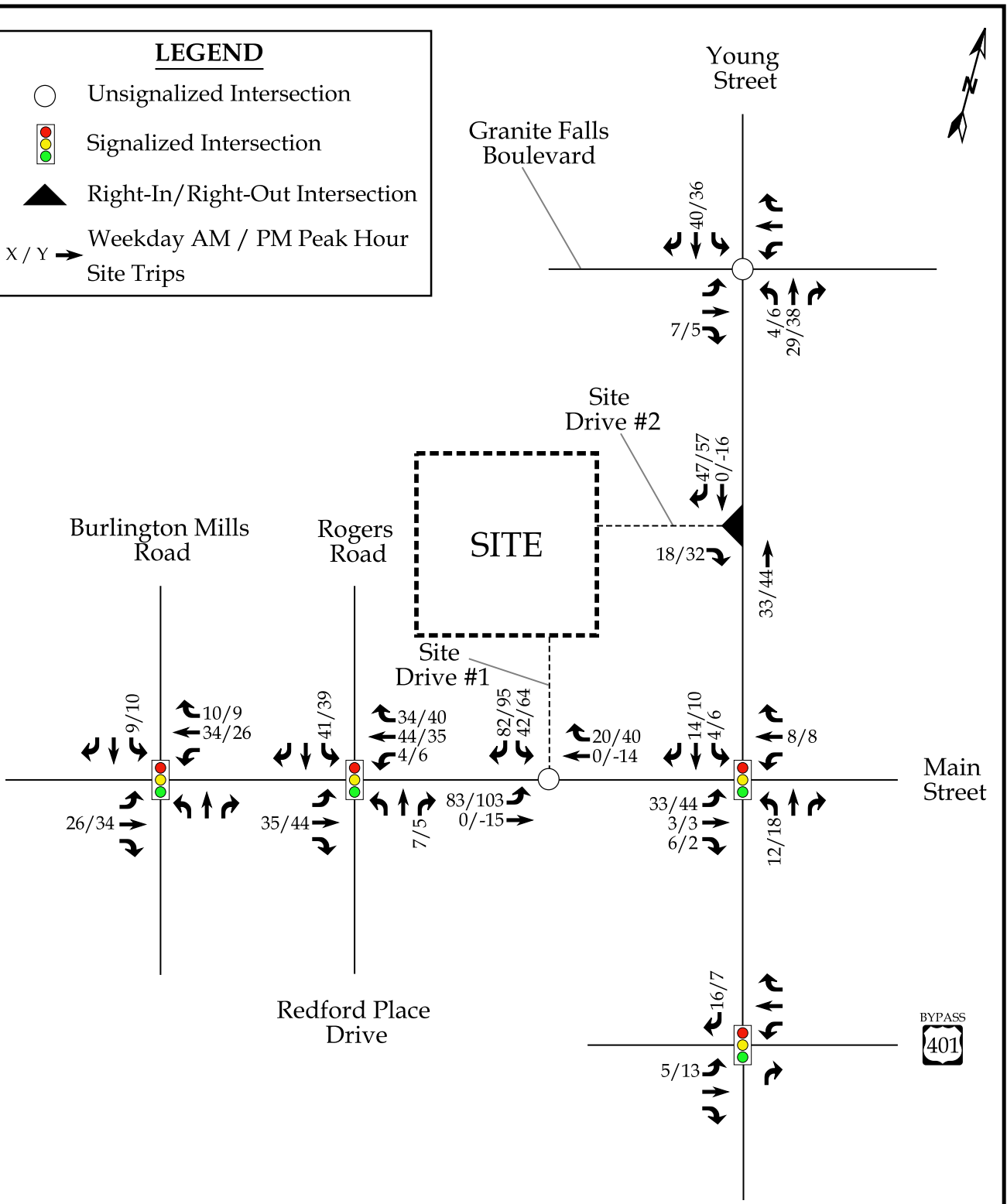


Cobblestone Crossing
Mixed-Use
Rolesville, NC

Site Location Map	
Scale: Not to Scale	Figure 1

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ▲ Right-In/Right-Out Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips



Cobblestone Crossing
Mixed-Use
Rolesville, NC

Total Site Trip
Assignment

Scale: Not to Scale | Figure 12

9. RECOMMENDATIONS

Based on the findings of this study, specific geometric improvements have been identified and are recommended to accommodate future traffic conditions. See a more detailed description of the recommended improvements below. Refer to Figure 14 for an illustration of the recommended lane configuration for the proposed development.

Improvements by STIP U-6241

STIP U-6241 is expected to realign Burlington Mills Road and install a traffic signal at the relocated intersection on Main Street. STIP U-6241 is also expected to provide improvements to the pedestrian and bike facilities along Main Street and add a concrete median island along Main Street west of Rogers Road. These improvements associated with STIP U-6241 will alter the existing lane configurations at the study intersections along Main Street.

Recommended Improvements by Developer

Main Street and Site Drive 1

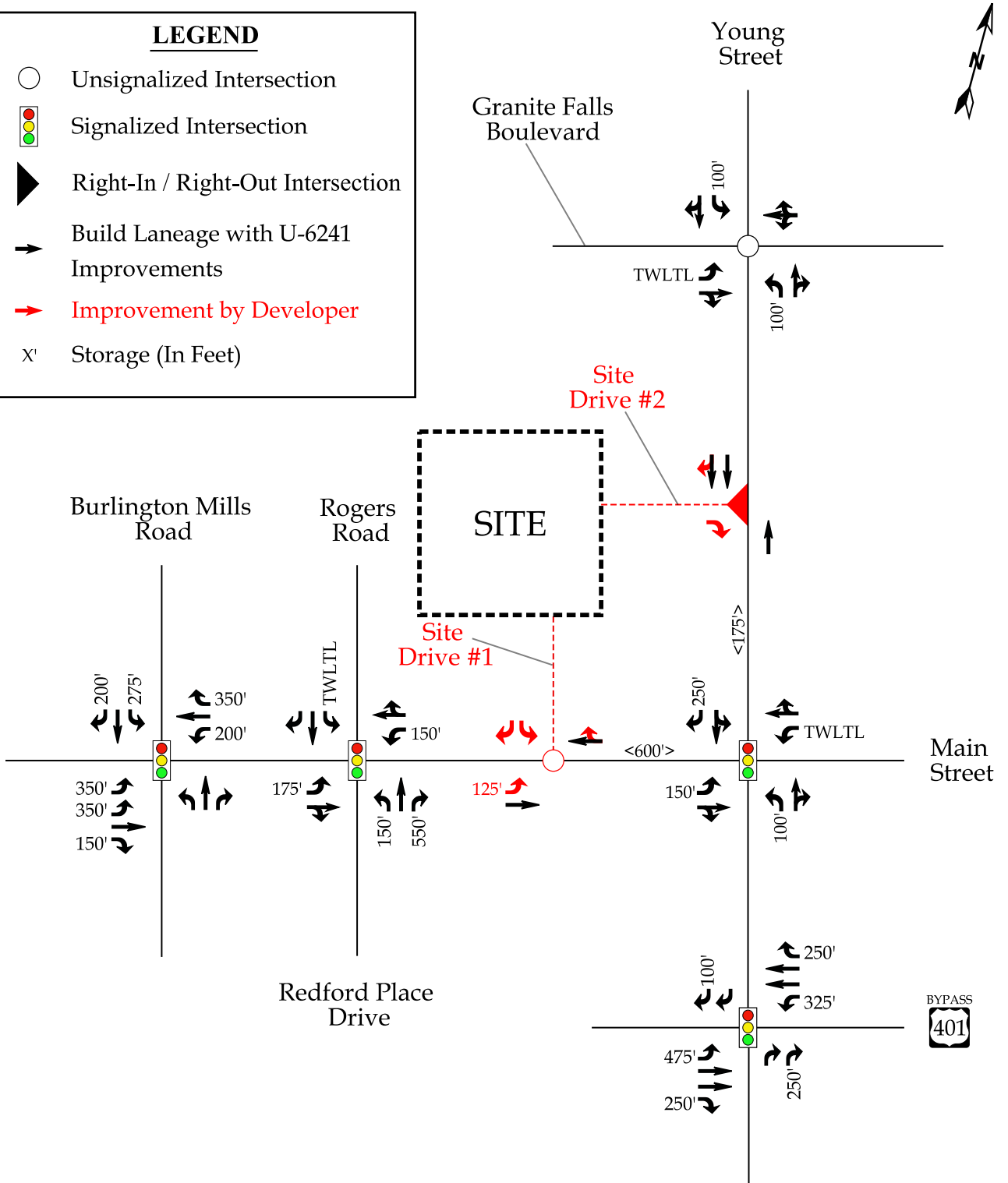
- Construct the southbound approach with one ingress and two egress lanes.
- Provide stop control for the southbound approach.
- Install an eastbound left-turn lane with at least 125 feet of storage and appropriate decel and taper.

Young Street and Site Drive 2

- Construct the eastbound approach with one ingress and egress lane.
- Provide stop control for the eastbound approach.

LEGEND

- Unsignalized Intersection
- ◫ Signalized Intersection
- ▶ Right-In / Right-Out Intersection
- ➔ Build Laneage with U-6241 Improvements
- ➔ Improvement by Developer
- X' Storage (In Feet)



Moving forward.



RAMEY KEMP ASSOCIATES

Cobblestone Crossing
Mixed-Use
Rolesville, NC

Recommended Lane
Configurations

Scale: Not to Scale

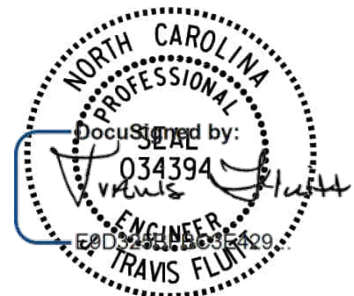
Figure 14

Revised Traffic Impact Analysis for
Young Street PUD
Rolesville, North Carolina

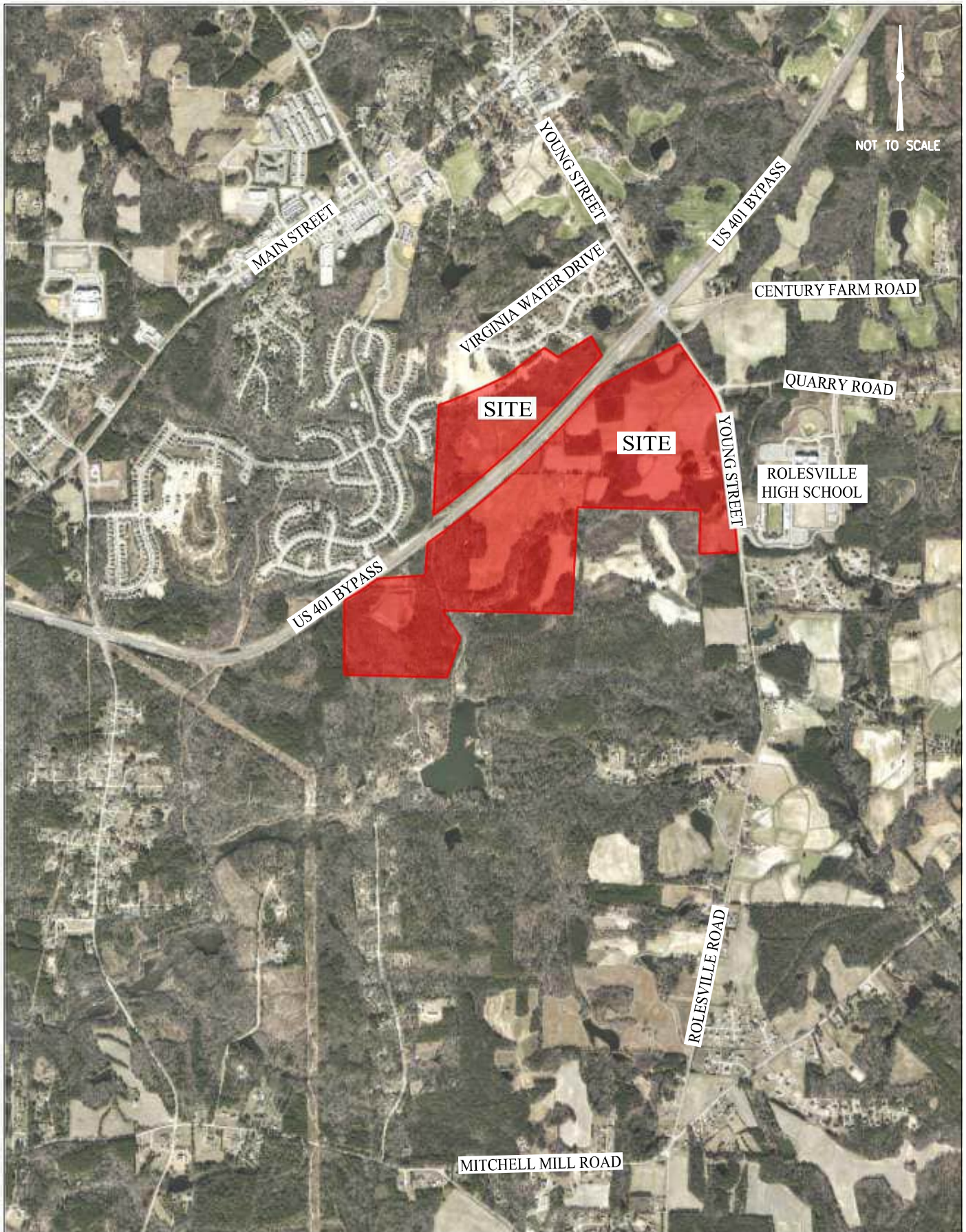
Prepared for:
Ashton Woods
Raleigh, North Carolina

Prepared by:
Kimley-Horn and Associates, Inc.
NC License #F-0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

June 2019
015956012



6/13/2019

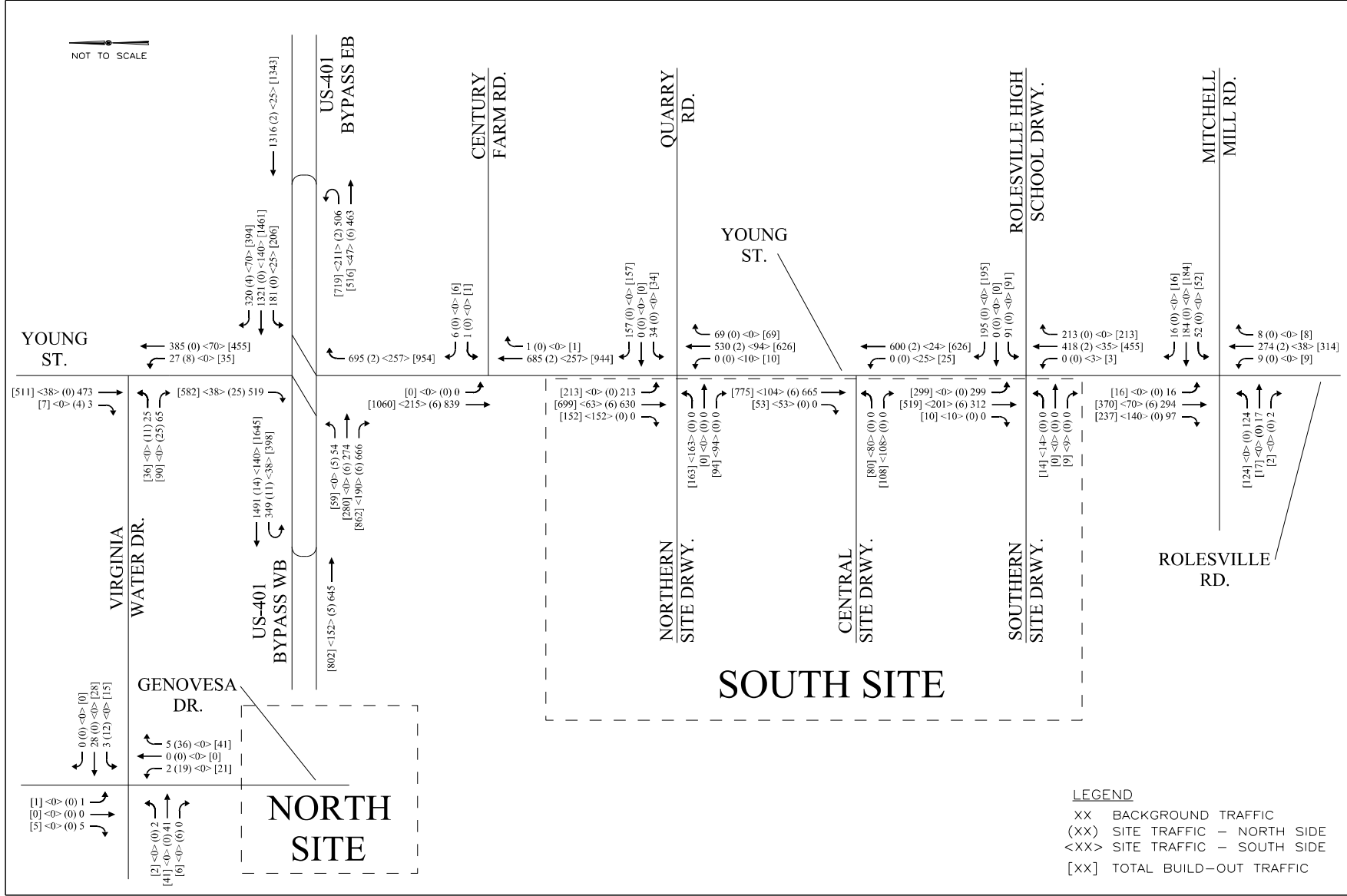
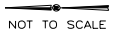


YOUNG STREET PUD
 ROLESVILLE, NC
 TRAFFIC IMPACT ANALYSIS

SITE LOCATION

FIGURE
 1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND

XX BACKGROUND TRAFFIC
 (XX) SITE TRAFFIC - NORTH SIDE
 <XX> SITE TRAFFIC - SOUTH SIDE
 [XX] TOTAL BUILD-OUT TRAFFIC

FIGURE 14

PROJECTED (2025) BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES - COMMERCIAL BUILD-OUT

YOUNG STREET PUD ROLESVILLE, NC TRAFFIC IMPACT ANALYSIS



THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

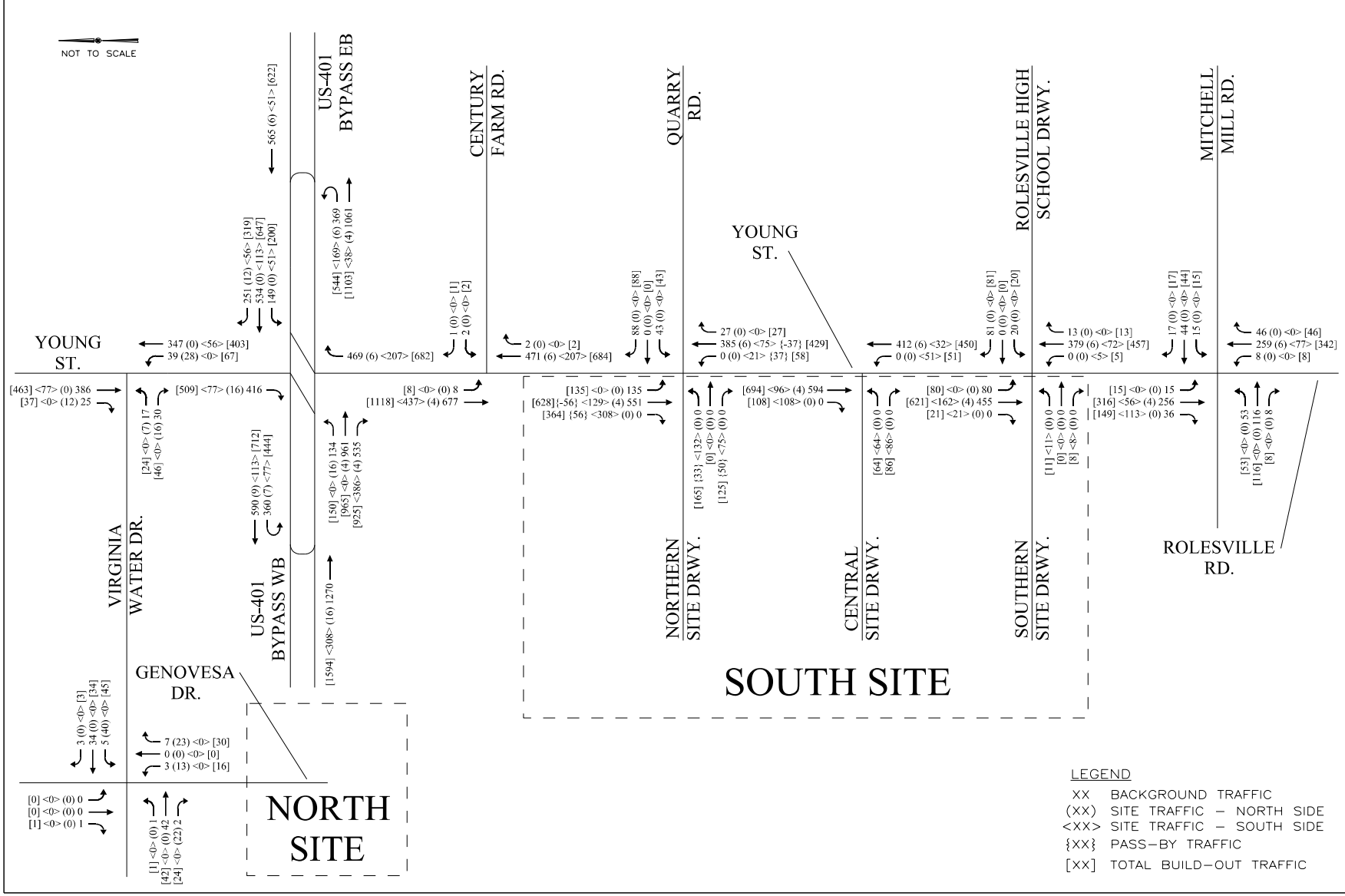
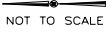


FIGURE 16

PROJECTED (2025) BUILD-OUT PM PEAK HOUR TRAFFIC VOLUMES - COMMERCIAL BUILD-OUT

YOUNG STREET PUD ROLESVILLE, NC TRAFFIC IMPACT ANALYSIS



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7.0 Recommendations

Residential Build-out

The following improvements are recommended to be performed to accommodate projected site traffic volumes at build-out of the residential portion of the development:

US 401 Bypass:

- Coordinate the traffic signals at the intersections of US 401 at Young Street and the Superstreet U-turns

Young Street at Quarry Road/North Site Driveway:

- Construct a northbound left-turn lane on Young Street with 100 feet of storage and appropriate tapers
- Construct a southbound right-turn lane on Young Street with 100 feet of storage and appropriate tapers
- Restripe the existing westbound left-turn lane on Quarry Road to a shared left/through lane
- Provide an exclusive left-turn lane with 275 feet of storage and appropriate tapers and a shared through/right lane on the North Site Driveway
- Install a traffic signal when warranted

Young Street at Central Site Driveway:

- Construct a northbound left-turn lane on Young Street with 100 feet of storage and appropriate tapers
- Construct a southbound right-turn lane on Young Street with 100 feet of storage and appropriate tapers
- Provide exclusive left and right-turn lanes on the Central Site Driveway with 125 feet of storage and appropriate tapers for the left-turn lane

Young Street at Rolesville High School Driveway/South Site Driveway:

- Construct a northbound left-turn lane on Young Street with 50 feet of storage and appropriate tapers
- Provide one egress lane on the South Site Driveway

Rolesville Road at Mitchell Mill Road:

- Install a traffic signal when warranted

Analyses indicate that with the recommended improvements in place, all of the study intersections except for Young Street at Century Farm Road and Young Street at Rolesville High School Driveway/South Site Driveway are expected to operate at an acceptable LOS at build-out of the residential-only phase of the development.

Analyses indicate that the intersection of Young Street at Century Farm Road is expected to operate with long delays on the minor street approach (Century Farm Road) in the AM peak hour at project build-out. However, it is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours while the majority of the traffic moving through the intersection on the major street experiences little or no delay. SimTraffic traffic simulations indicate that no queuing issues are expected at this intersection.

Analyses indicate that the intersection of Young Street at the Rolesville High School Driveway/South Site Driveway is expected to operate with long delays on the minor street approach (Rolesville High School Driveway) in the AM peak hour and school PM peak hour with or without the proposed project in place in the study year 2025. SimTraffic traffic simulations also indicate the possibility of long queues on the westbound left-turn movement at this intersection in the AM peak hour and school PM peak hour. However, it is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. This intersection is not expected to meet 4-hour or 8-hour MUTCD traffic signal warrants.

Commercial Build-out

The following additional improvements are recommended to be performed in addition to those recommended above for the residential phase to accommodate projected site traffic volumes when the retail portion of the site is developed:

US 401 Bypass Eastbound at Young Street:

- Extend the storage of the existing eastbound right-turn lane on US 401 Bypass by approximately 175 feet to provide 400 feet of storage and appropriate tapers

Young Street at Quarry Road/North Site Driveway:

- Construct a northbound right-turn lane on Young Street with 100 feet of storage and appropriate tapers
- Modify the traffic signal to accommodate the additional laneage

Analyses indicate that with the recommended improvements in place, all of the study intersections except for Young Street at Century Farm Road, Young Street at the Central Site Driveway, and Young Street at Rolesville High School Driveway/South Site Driveway are expected to operate at acceptable LOS at commercial build-out of the development.

Analyses indicate that the intersection of Young Street at Century Farm Road is expected to operate with long delays on the minor street approach (Century Farm Road) in the AM peak hour at project build-out. It is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. SimTraffic

traffic simulations indicate that short queues are likely on the minor street approach in the AM peak hour at commercial build-out.

Analyses indicate that the intersection of Young Street at the Central Site Driveway is expected to operate with long delays on the minor street approach (Central Site Driveway) in the AM peak hour in the commercial build-out traffic condition. It is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. SimTraffic traffic simulations indicate the possibility of long queues on the eastbound left-turn movement at this intersection in the AM peak hour in the commercial build-out condition.

Analyses indicate that the intersection of Young Street at the Rolesville High School Driveway/South Site Driveway is expected to operate with long delays on the minor street approach (Rolesville High School Driveway) in the AM peak hour and school PM peak hour with or without the proposed project in place in the study year 2025. SimTraffic traffic simulations also indicate the possibility of long queues on the westbound left-turn movement at this intersection in the AM peak hour and school PM peak hour. However, it is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. This intersection is not expected to meet 4-hour or 8-hour MUTCD traffic signal warrants.

As shown in the analysis, the impact of site traffic associated with the commercial build-out of this proposed PUD is generally consistent with the currently-approved PUD for the site. The proposed PUD is expected to generate no more than 50 additional peak hour trips in each of the studied peak hours compared to the approved PUD, and delays at commercial build-out of both plans are generally consistent at each of the study intersections.

The recommended laneage for the development is shown on **Figure 17**.

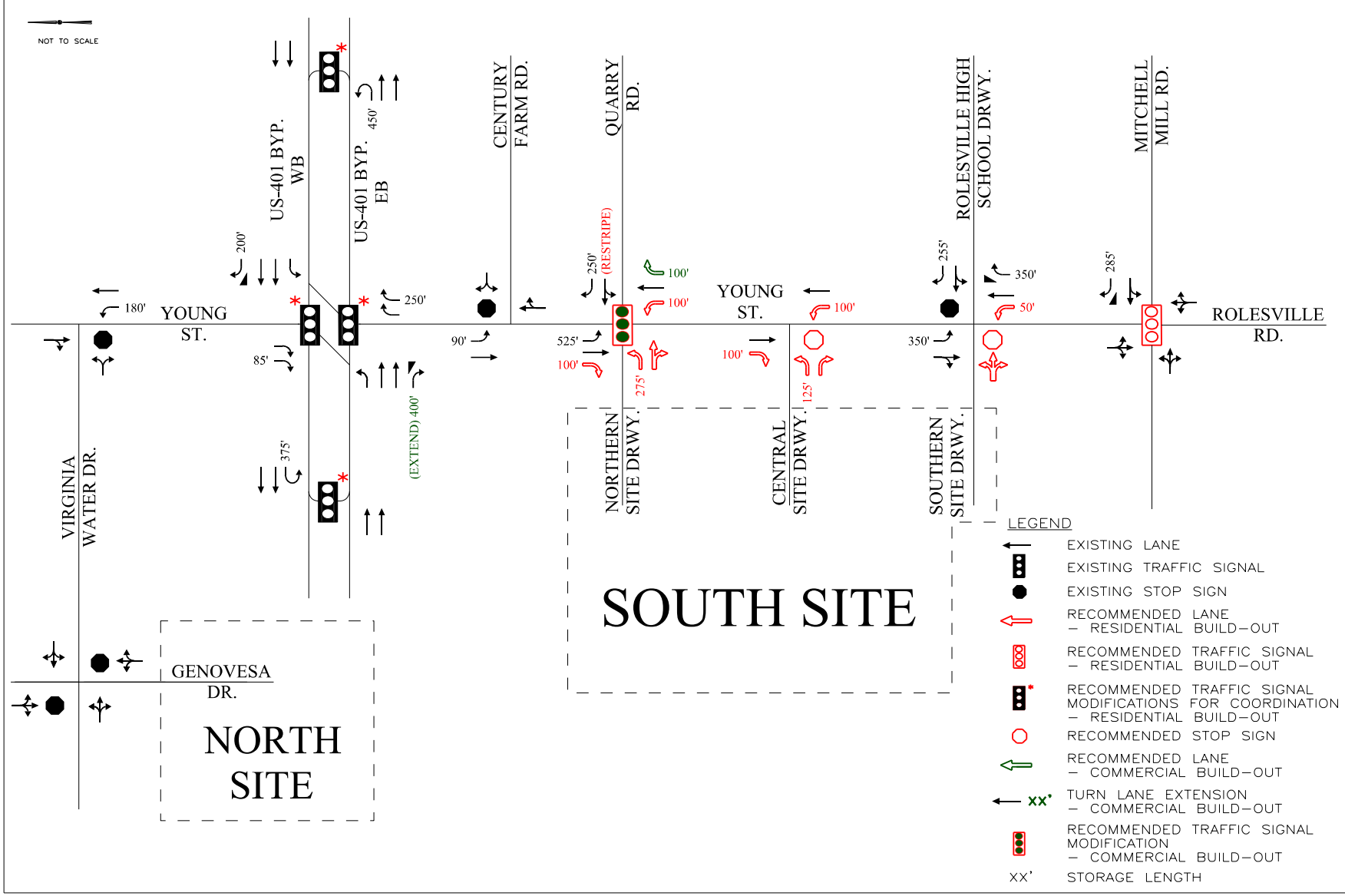


FIGURE 17

RECOMMENDED ROADWAY LANEAGE

YOUNG STREET PUD
ROLESVILLE, NC
TRAFFIC IMPACT ANALYSIS



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TRAFFIC IMPACT ANALYSIS

FOR

WHEELER TRACT

LOCATED

IN

ROLESVILLE, NC

Prepared For:
Hopper Communities
173 Paraggi Court
Clayton, NC 27527

Prepared By:
Ramey Kemp & Associates, Inc.
5808 Faringdon Place, Suite 100
Raleigh, NC 27609
License #C-0910

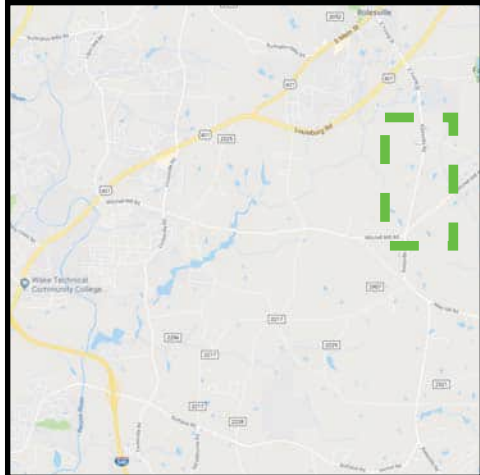
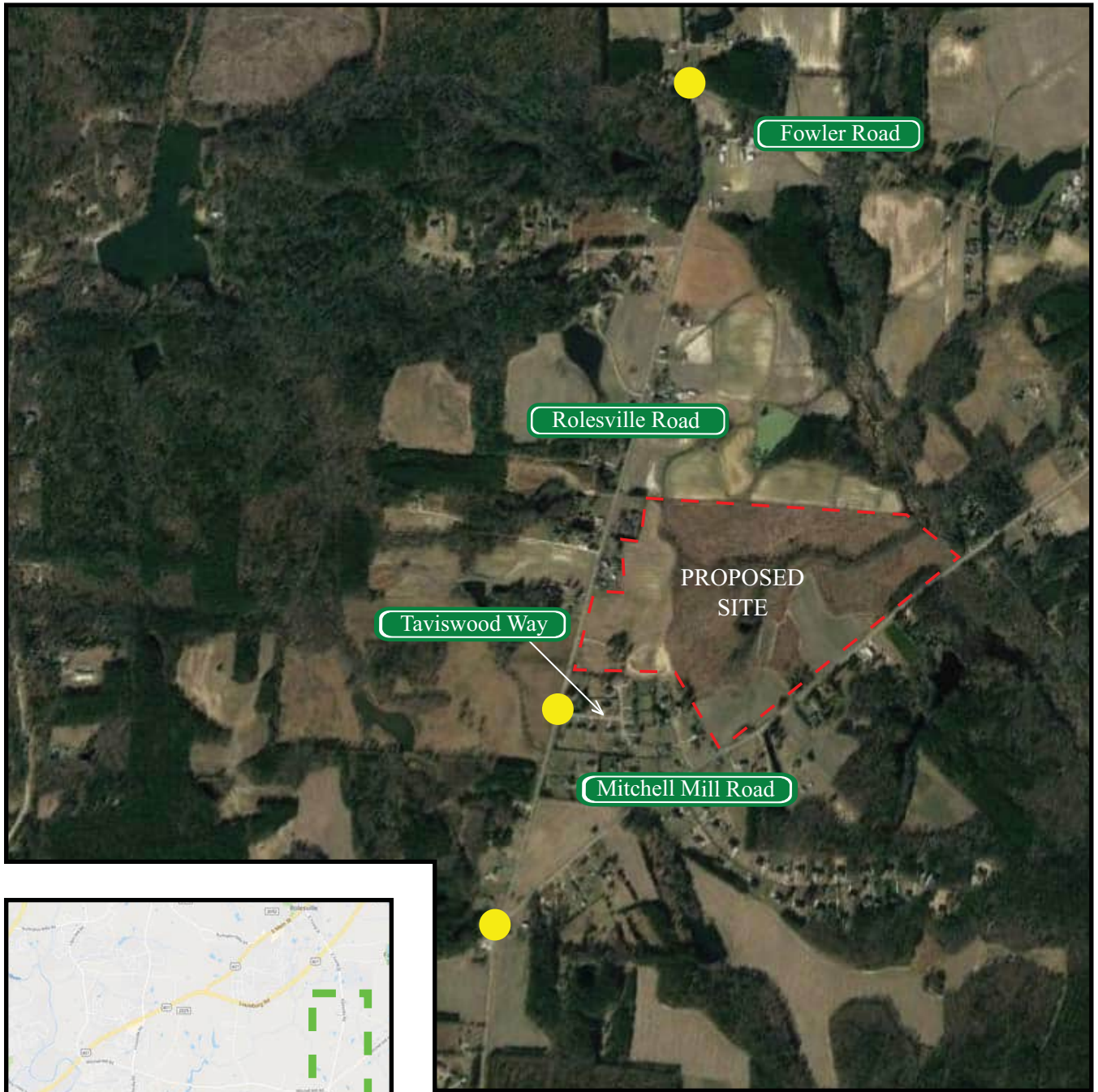
June 2019






RKA Project No. 19045

Prepared By: CAB

Reviewed By: JTR



LEGEND

-  Proposed Site Location
-  Study Intersection
-  Study Area



Wheeler Tract
Rolesville, NC

Site Location Map

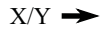
Scale: Not to Scale

Figure 1

LEGEND



Unsignalized Intersection



Weekday AM / PM
Peak Hour Site Trips

Mitchell
Mill Road

Rolesville
Road

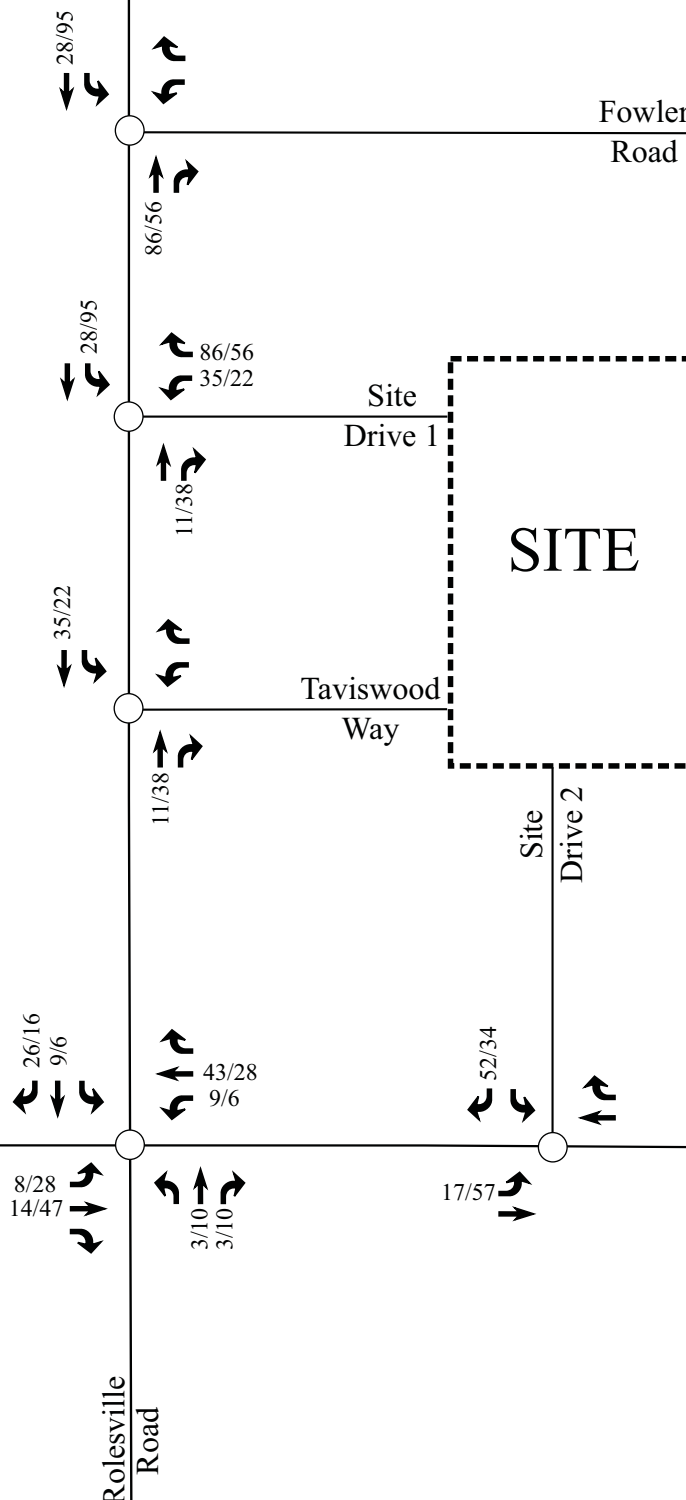
Fowler
Road

Site
Drive 1

Taviswood
Way

SITE

Site
Drive 2



Wheeler Tract
Rolesville, NC

Site
Trip Assignment

Scale: Not to Scale

Figure 9

9. RECOMMENDATIONS

Based on the findings of this study, specific geometric improvements have been identified and are recommended to accommodate future traffic conditions. See a more detailed description of the recommended improvements below. Refer to Figure 11 for an illustration of the recommended lane configuration for the proposed development.

Recommended Improvements by Developer

Rolesville Road and Mitchell Mill Road

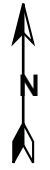
- Monitor intersection for signalization.

Rolesville Road and Site Drive 1

- Provide site access via a full movement intersection with one ingress lane and one egress lane.
- Provide stop control for westbound Site Drive 1 approach.
- Provide a designated southbound left-turn lane with at least 100 feet of storage and appropriate deceleration and taper.

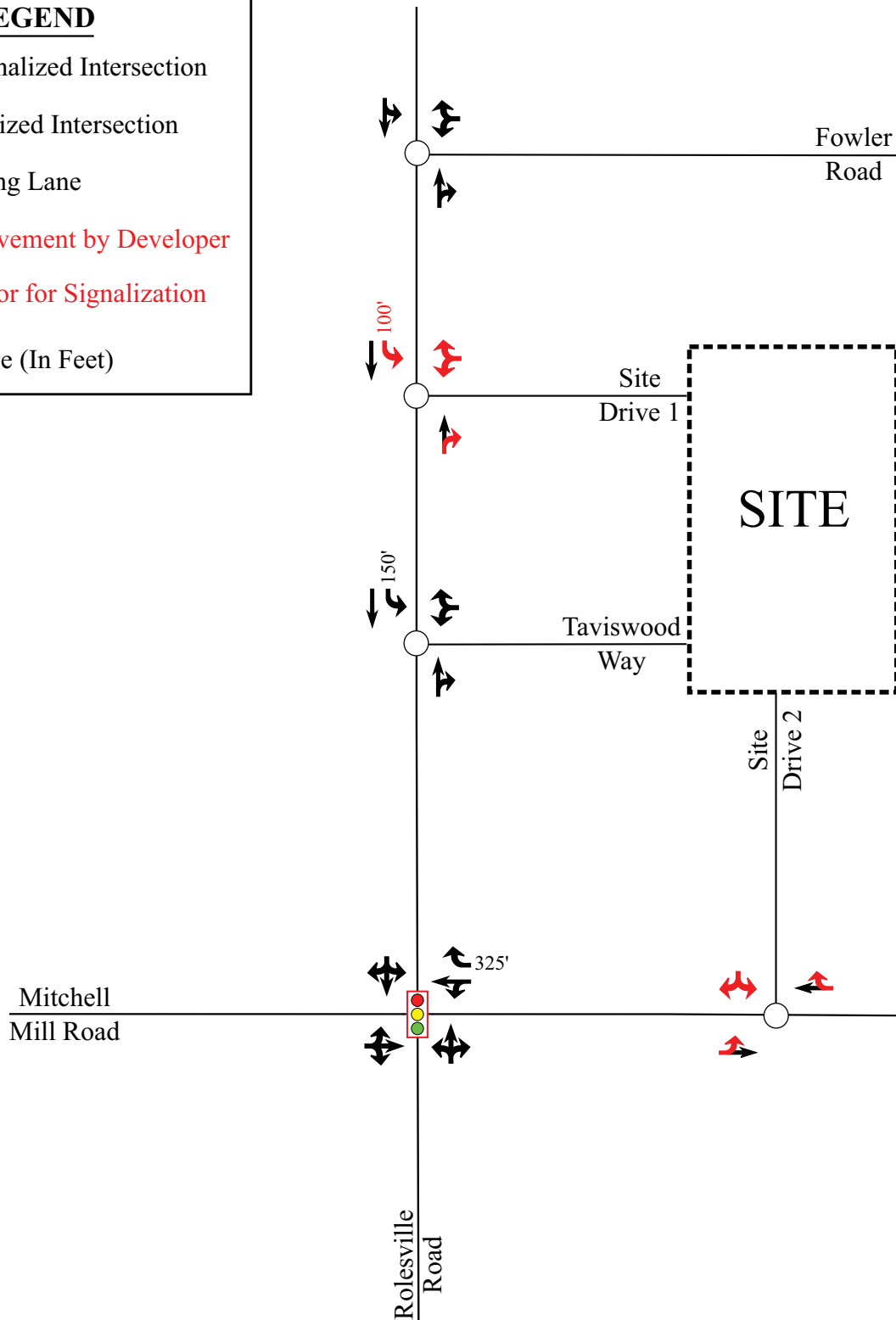
Mitchell Mill Road and Site Drive 2

- Provide site access via a full movement intersection with one ingress lane and one egress lane.
- Provide stop control for southbound Site Drive 2 approach.



LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ➡ Existing Lane
- ➡ Improvement by Developer
- 🚦 Monitor for Signalization
- X' Storage (In Feet)



Wheeler Tract
Rolesville, NC

Recommended
Lane Configurations

Scale: Not to Scale

Figure 11

TRAFFIC IMPACT ANALYSIS

FOR

LOUISBURY ROAD ASSEMBLAGE

LOCATED

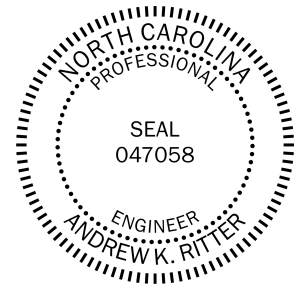
IN

RALEIGH, NC

Prepared For:
McAdams Company
2905 Meridian Parkway
Durham, NC 27713

Prepared By:
Ramey Kemp & Associates, Inc.
5808 Faringdon Place, Suite 100
Raleigh, NC 27609
License #C-0910

Andrew Kyle Ritter



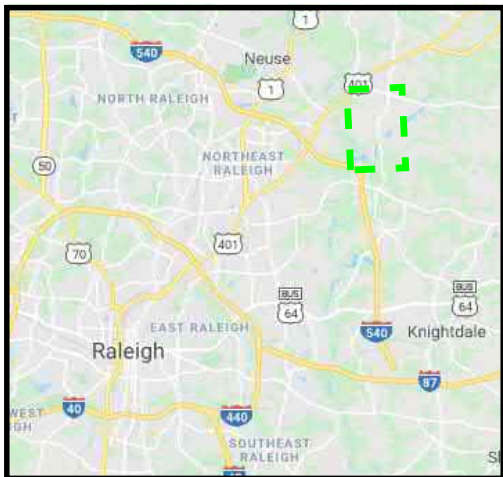
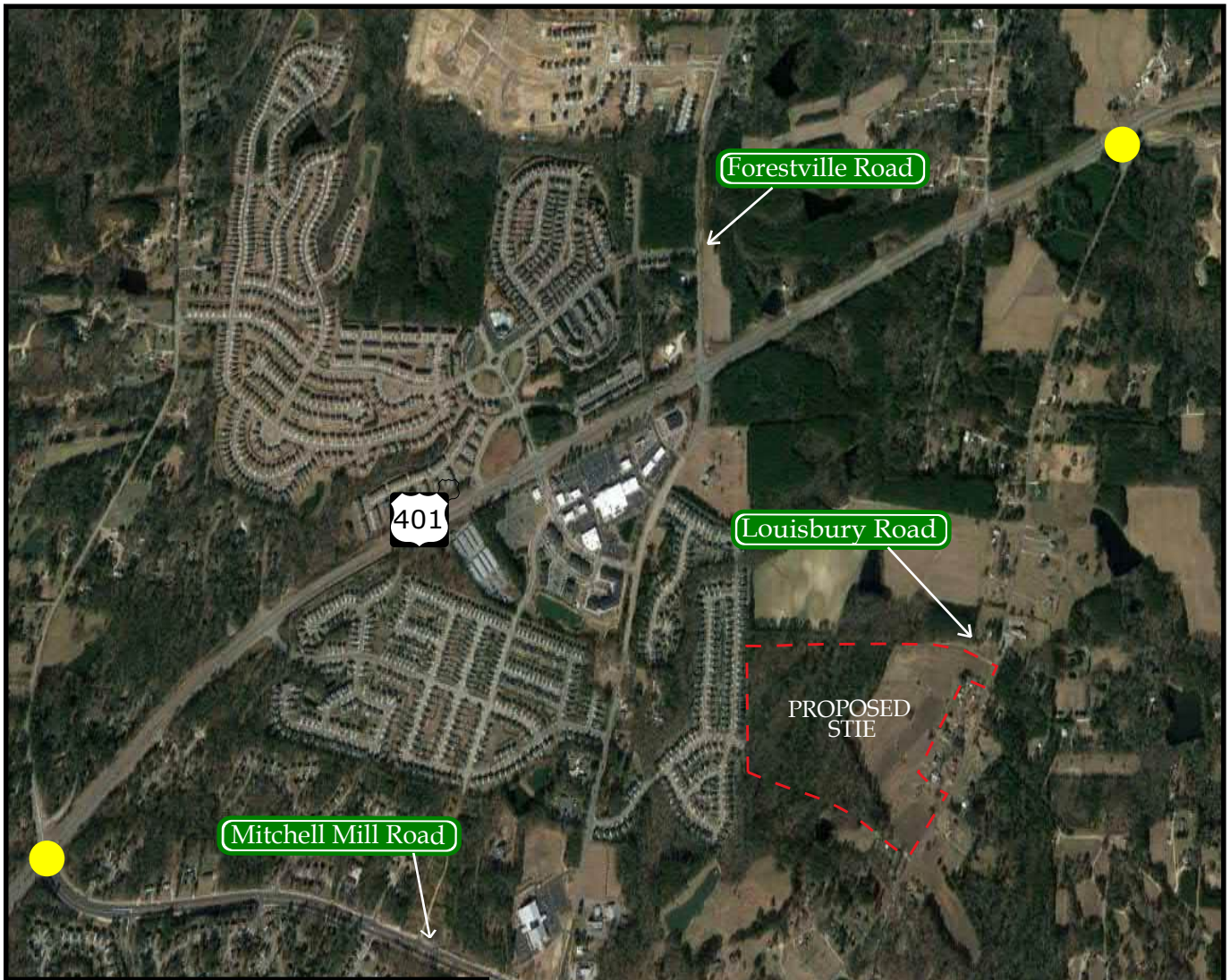
5/8/2020

May 2020

RKA Project No. 19418

Prepared By: DT

Reviewed By: DR



LEGEND

- - - Proposed Site Location
- Study Intersection
- - - Study Area

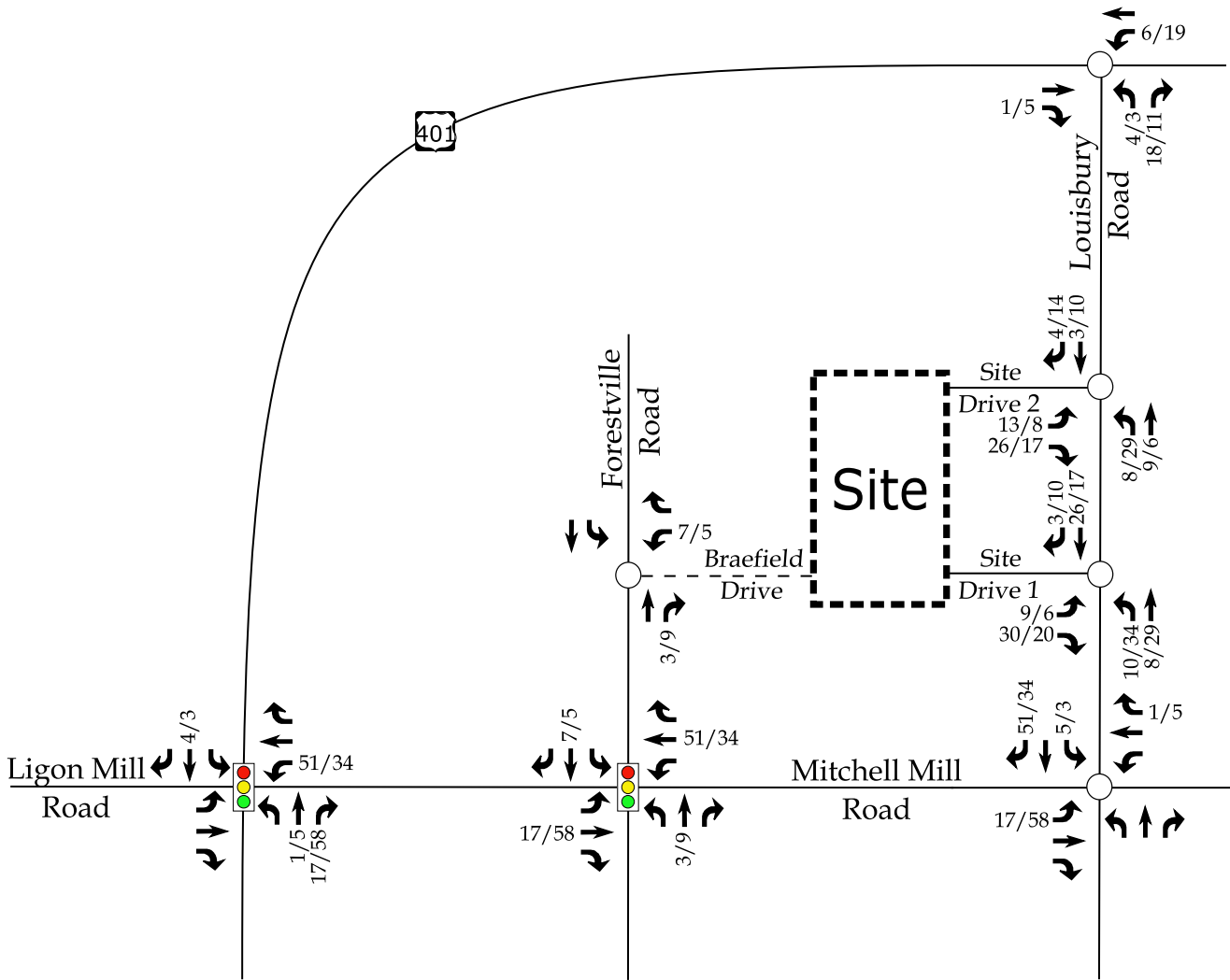


Louisbury Road Assemblage
Raleigh, NC

Site Location Map
Scale: Not to Scale | Figure 1

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips



Louisbury Road Assemblage
Raleigh, NC

Site Trip Assignment

Scale: Not to Scale Figure 7

12. RECOMMENDATIONS

Based on the findings of this study, specific geometric improvements have been identified and are recommended to accommodate future traffic conditions. See a more detailed description of the recommended improvements below. Refer to Figure 9 for an illustration of the recommended lane configuration for the proposed development.

Recommended Improvements by Developer

Mitchell Mill Road and Louisbury Road

- Monitor for signalization after site is constructed.

US 401 and Louisbury Road

- Per NCDOT, extend northbound left turn lane to 175' of storage.
- Monitor for signalization after site is constructed.

Louisbury Road and Site Drive 1

- Provide site access via full movement intersection with one (1) ingress lane and one (1) egress lane.
- Per NCDOT, provide northbound left turn lane with 100' of storage.
- Provide stop control for eastbound approach.

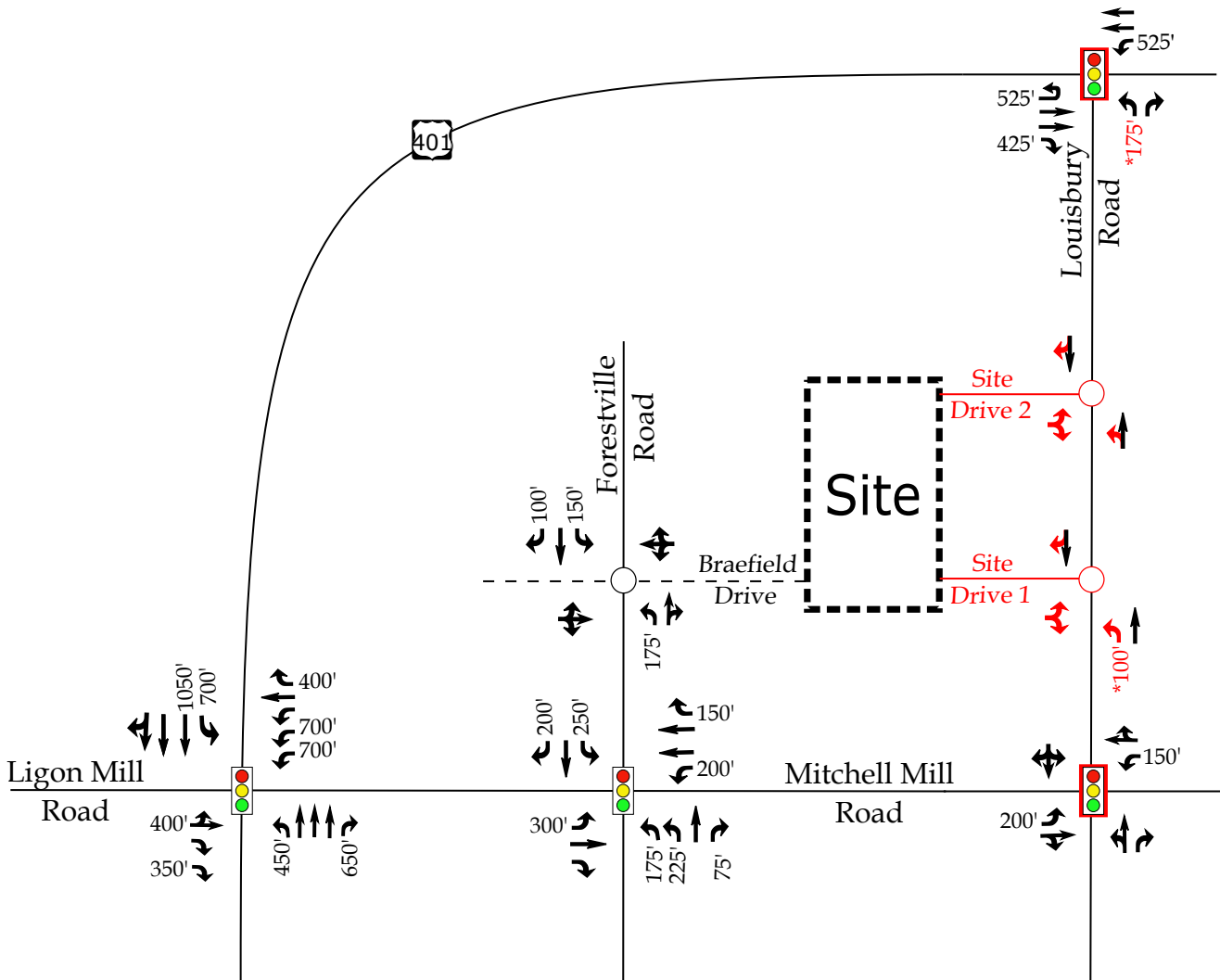
Louisbury Road and Site Drive 2

- Provide site access via full movement intersection with one (1) ingress lane and one (1) egress lane.
- Provide stop control for eastbound approach.

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- 🚦 (Red Box) Monitor for Signalization at Full Build-Out
- ➡ Existing Lane
- ➡ (Red) Improvement by Developer
- X' Storage (In Feet)

*Based on NCDOT Review



Louisbury Road Assemblage
Raleigh, NC

Recommended
Lane Configurations

Scale: Not to Scale | Figure 9



**Kalas / Watkins Family Property
Traffic Impact Analysis**

Rolesville Road, Rolesville, North Carolina

August 24, 2019

Prepared for:

Mitchell Mill Road Investors LLC
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Sign-off Sheet

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Prepared by Maggie J Rogers
(signature)

Maggie Rogers
Reviewed by [Signature]
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Matt Peach, PE, PTOE
Approved by Christa Greene
(signature)

Christa Greene, PE



8/24/2017

1.0 INTRODUCTION

The purpose of this report is to evaluate the transportation impacts of the proposed Kalas / Watkins Family Property development located on the west side of Rolesville Road just north of Mitchell Mill Road in Rolesville, NC. The project location is shown below in Figure 1.

Figure 1: Site Location

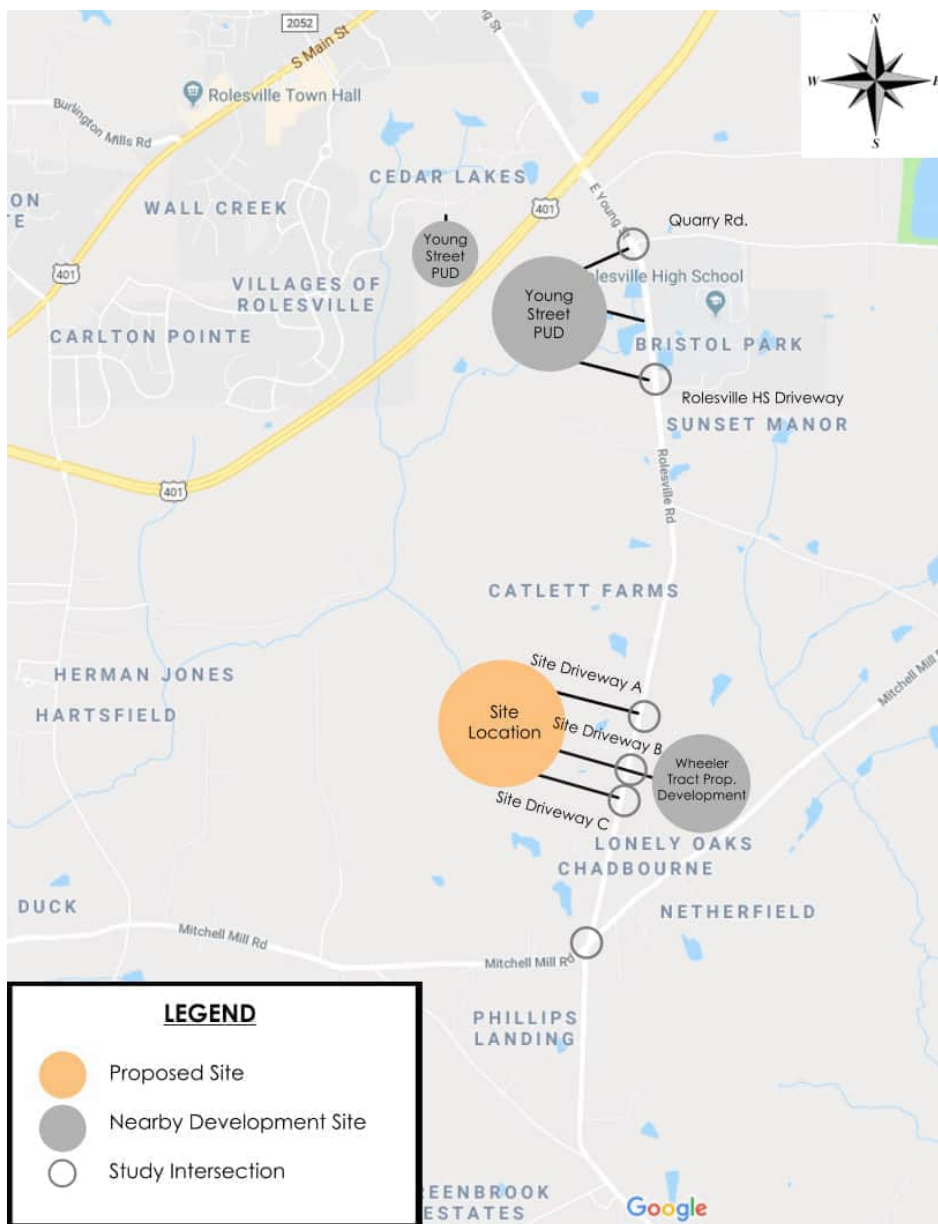
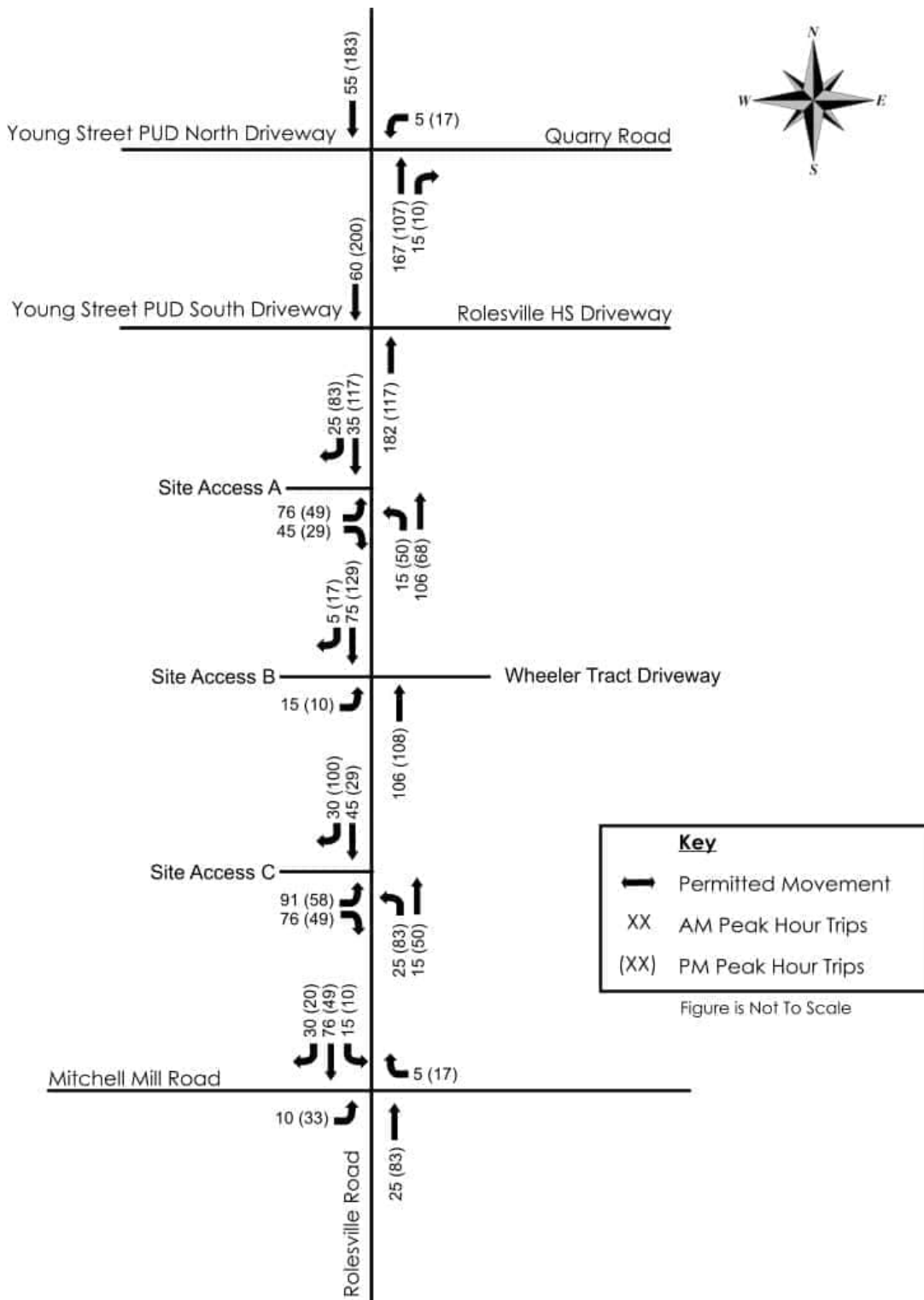


Figure 6: Site Trip Assignment



5.4 2025 BUILD WITH IMPROVEMENTS

Geometric improvements such as the installation of turn-lanes are recommended and therefore analyzed in this scenario. These items are listed below as well as in the recommendations section.

Rolesville Road at Site Driveway A

- Construct Driveway A as a full-movement access point onto Rolesville Road with one ingress lane and one egress lane.
- Construct an exclusive eastbound right-turn lane with 100 feet of full-width storage and appropriate taper on Driveway A.
- Construct an exclusive northbound left-turn lane with 100 feet of full-width storage and appropriate taper on Rolesville Road.
- Construct an exclusive southbound right-turn lane with 100 feet of full-width storage and appropriate taper on Rolesville Road.

Rolesville Road at Site Driveway B / Wheeler Tract Driveway

- Construct Driveway B as a full-movement access point onto Rolesville Road with one ingress lane and one egress lane.
- Construct an exclusive northbound left-turn lane with 100 feet of full-width storage and appropriate taper on Rolesville Road.
- Construct an exclusive southbound right-turn lane with 50 feet of full-width storage and appropriate taper on Rolesville Road.

Rolesville Road at Site Driveway C

- Construct Driveway C as a full-movement access point onto Rolesville Road with one ingress lane and one egress lane.
- Construct an exclusive eastbound right-turn lane with 100 feet of full-width storage and appropriate taper on Driveway C.
- Construct an exclusive northbound left-turn lane with 100 feet of full-width storage and appropriate taper on Rolesville Road.
- Construct an exclusive southbound right-turn lane with 100 feet of full-width storage and appropriate taper on Rolesville Road.

Accordingly, all study area intersections and approaches operate at acceptable levels of service with the following exceptions:

- The east and westbound approaches to the intersection of Rolesville Road at Rolesville High School Driveway / Young Street PUD Southern Driveway operates at LOS F in the AM peak hour. This causes high overall delays at the intersection. Furthermore, the eastbound approach operates at LOS F and westbound approach operates at LOS E in the PM peak hour.
- The east and westbound approaches at the intersection of Rolesville Road at Site Driveway B / Wheeler Tract Driveway operate at LOS E in the AM peak hour.

The east and westbound approaches to the intersection of Rolesville Road at Rolesville High School Driveway / Young Street PUD Southern Driveway performs unacceptably across analysis scenarios. These delays can be



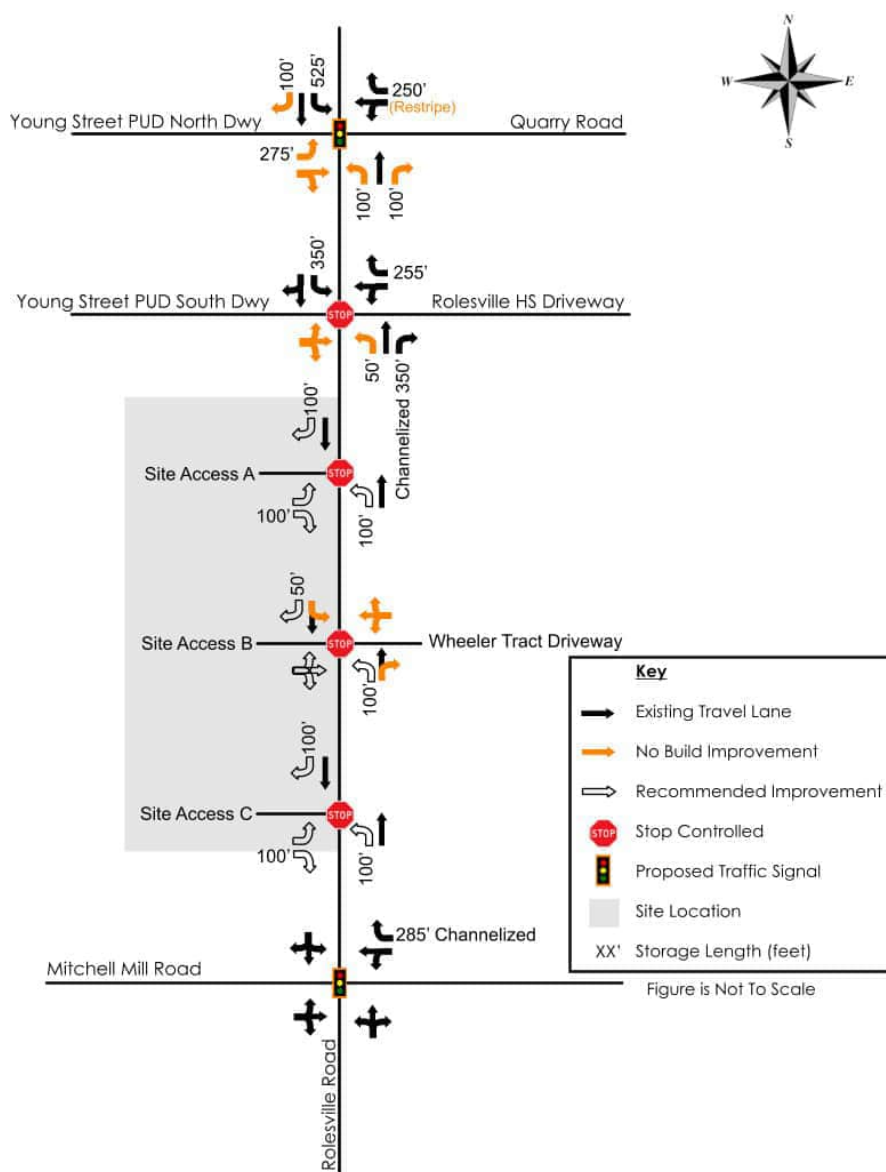
KALAS / WATKINS FAMILY PROPERTY TRAFFIC IMPACT ANALYSIS

Traffic Analysis
August 24, 2019

attributed to both the Young Street PUD and High School traffic on the side street approaches. The Kalas / Watkins development is projected to only add through volumes to the intersection and are anticipated to have a minimal impact on overall delays at this intersection.

Delays on the eastbound approach of Site Driveway B at Rolesville Road can be attributed to high thru volumes on Rolesville Road during the AM peak hour. Traffic volumes using this approach are anticipated to be minor (i.e. 15 vehicles in the AM peak hour and 10 vehicles in the PM peak hour) and side street delays should dissipate after High School Traffic passes through the network. Table 8 lists the results of the capacity analysis under the 2025 build-improved traffic conditions. The recommended improvements are illustrated in figure 14.

Figure 14: Recommended Improvements



APPENDIX D

CAPACITY ANALYSIS CALCULATIONS

US 401 BYPASS

&

JONESVILLE ROAD

HCM 6th TWSC
 1: Jonesville Road/WB Left-Over & US 401 Bypass EB

2022 Existing
 Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	590	80	0	0	0	0	0	136	0	86	0
Future Vol, veh/h	0	590	80	0	0	0	0	0	136	0	86	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	656	89	0	0	0	0	0	151	0	96	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	328	-	656	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	656	-
Critical Hdwy	-	-	-	-	-	6.94	-	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	-	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	668	0	384	0
Stage 1	0	-	-	0	0	-	0	-	0
Stage 2	0	-	-	0	0	-	0	460	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	668	-	384	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	384	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	460	-

Approach	EB	NB	SB
HCM Control Delay, s	0	12	17.5
HCM LOS		B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	668	-	-	384
HCM Lane V/C Ratio	0.226	-	-	0.249
HCM Control Delay (s)	12	-	-	17.5
HCM Lane LOS	B	-	-	C
HCM 95th %tile Q(veh)	0.9	-	-	1

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	873	88	0	0	0	0	0	150	0	95	0
Future Vol, veh/h	0	873	88	0	0	0	0	0	150	0	95	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	970	98	0	0	0	0	0	167	0	106	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	485	-	970	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	970	-
Critical Hdwy	-	-	-	-	-	6.94	-	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	-	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	528	0	252	0
Stage 1	0	-	-	0	0	-	0	-	0
Stage 2	0	-	-	0	0	-	0	330	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	528	-	252	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	252	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	330	-

Approach	EB	NB	SB
HCM Control Delay, s	0	14.9	29.2
HCM LOS		B	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	528	-	-	252
HCM Lane V/C Ratio	0.316	-	-	0.419
HCM Control Delay (s)	14.9	-	-	29.2
HCM Lane LOS	B	-	-	D
HCM 95th %tile Q(veh)	1.3	-	-	2

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	873	99	0	0	0	0	0	202	0	101	0
Future Vol, veh/h	0	873	99	0	0	0	0	0	202	0	101	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	970	110	0	0	0	0	0	224	0	112	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	485	-	970	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	970	-
Critical Hdwy	-	-	-	-	-	6.94	-	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	-	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	528	0	252	0
Stage 1	0	-	-	0	0	-	0	-	0
Stage 2	0	-	-	0	0	-	0	330	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	528	-	252	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	252	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	330	-

Approach	EB	NB	SB
HCM Control Delay, s	0	16.8	30.3
HCM LOS		C	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	528	-	-	252
HCM Lane V/C Ratio	0.425	-	-	0.445
HCM Control Delay (s)	16.8	-	-	30.3
HCM Lane LOS	C	-	-	D
HCM 95th %tile Q(veh)	2.1	-	-	2.1

HCM 6th TWSC
 1: Jonesville Road/WB Left-Over & US 401 Bypass EB

2022 Existing
 Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	1220	59	0	0	0	0	0	125	0	37	0
Future Vol, veh/h	0	1220	59	0	0	0	0	0	125	0	37	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1356	66	0	0	0	0	0	139	0	41	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	678	-	1356	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	1356	-
Critical Hdwy	-	-	-	-	-	6.94	-	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	-	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	395	0	148	0
Stage 1	0	-	-	0	0	-	0	-	0
Stage 2	0	-	-	0	0	-	0	216	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	395	-	148	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	148	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	216	-

Approach	EB	NB	SB
HCM Control Delay, s	0	19	38.4
HCM LOS		C	E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	395	-	-	148
HCM Lane V/C Ratio	0.352	-	-	0.278
HCM Control Delay (s)	19	-	-	38.4
HCM Lane LOS	C	-	-	E
HCM 95th %tile Q(veh)	1.6	-	-	1.1

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	1835	65	0	0	0	0	0	138	0	41	0
Future Vol, veh/h	0	1835	65	0	0	0	0	0	138	0	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2039	72	0	0	0	0	0	153	0	46	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	1020	-	2039	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	2039	-
Critical Hdwy	-	-	-	-	-	6.94	-	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	-	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	234	0	56	0
Stage 1	0	-	-	0	0	-	0	-	0
Stage 2	0	-	-	0	0	-	0	99	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	234	-	56	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	56	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	99	-

Approach	EB	NB	SB
HCM Control Delay, s	0	45.5	186.4
HCM LOS		E	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	234	-	-	56
HCM Lane V/C Ratio	0.655	-	-	0.813
HCM Control Delay (s)	45.5	-	-	186.4
HCM Lane LOS	E	-	-	F
HCM 95th %tile Q(veh)	4.1	-	-	3.5

HCM 6th TWSC
 1: Jonesville Road/WB Left-Over & US 401 Bypass EB

2027 Build
 Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	13.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	1835	104	0	0	0	0	0	173	0	61	0
Future Vol, veh/h	0	1835	104	0	0	0	0	0	173	0	61	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2039	116	0	0	0	0	0	192	0	68	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	1020	-	2039	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	2039	-
Critical Hdwy	-	-	-	-	-	6.94	-	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	-	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	234	0	~ 56	0
Stage 1	0	-	-	0	0	-	0	-	0
Stage 2	0	-	-	0	0	-	0	99	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	234	-	~ 56	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 56	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	99	-

Approach	EB	NB	SB
HCM Control Delay, s	0	65.7	\$ 309.6
HCM LOS		F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	234	-	-	56
HCM Lane V/C Ratio	0.821	-	-	1.21
HCM Control Delay (s)	65.7	-	-	\$ 309.6
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	6.3	-	-	5.8

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 7: EB Left-Over/Jonesville Road & US 401 Bypass WB

2022 Existing
 Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑				↑
Traffic Vol, veh/h	0	0	0	0	1352	185	0	36	0	0	0	225
Future Vol, veh/h	0	0	0	0	1352	185	0	36	0	0	0	225
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1502	206	0	40	0	0	0	250

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	-	-	0
Stage 1	-	-	0
Stage 2	-	-	1708
Critical Hdwy	-	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	-	-	4.02
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	90
Mov Cap-2 Maneuver	-	-	90
Stage 1	-	-	-
Stage 2	-	-	145

Approach	WB	NB	SB
HCM Control Delay, s	0	73.7	36.5
HCM LOS		F	E

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	90	-	-	353
HCM Lane V/C Ratio	0.444	-	-	0.708
HCM Control Delay (s)	73.7	-	-	36.5
HCM Lane LOS	F	-	-	E
HCM 95th %tile Q(veh)	1.9	-	-	5.2

Intersection												
Int Delay, s/veh	20.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑				↑
Traffic Vol, veh/h	0	0	0	0	1796	204	0	40	0	0	0	248
Future Vol, veh/h	0	0	0	0	1796	204	0	40	0	0	0	248
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1996	227	0	44	0	0	0	276

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	-	-	0
Stage 1	-	-	0
Stage 2	-	-	2223
Critical Hdwy	-	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	-	-	4.02
Pot Cap-1 Maneuver	0	-	~ 43
Stage 1	0	-	0
Stage 2	0	-	79
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	~ 43
Mov Cap-2 Maneuver	-	-	~ 43
Stage 1	-	-	-
Stage 2	-	-	79

Approach	WB	NB	SB
HCM Control Delay, s	0	293.8	143.8
HCM LOS		F	F

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	43	-	-	242
HCM Lane V/C Ratio	1.034	-	-	1.139
HCM Control Delay (s)	293.8	-	-	143.8
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	4.2	-	-	12.5

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	22.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑				↑
Traffic Vol, veh/h	0	0	0	0	1831	204	0	40	0	0	0	248
Future Vol, veh/h	0	0	0	0	1831	204	0	40	0	0	0	248
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	2034	227	0	44	0	0	0	276

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	-	-	0
Stage 1	-	-	0
Stage 2	-	-	2261
Critical Hdwy	-	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	-	-	4.02
Pot Cap-1 Maneuver	0	-	~ 40
Stage 1	0	-	0
Stage 2	0	-	76
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	~ 40
Mov Cap-2 Maneuver	-	-	~ 40
Stage 1	-	-	-
Stage 2	-	-	76

Approach	WB	NB	SB
HCM Control Delay, s	0	\$ 333.6	157.1
HCM LOS		F	F

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	40	-	-	235
HCM Lane V/C Ratio	1.111	-	-	1.173
HCM Control Delay (s)	\$ 333.6	-	-	157.1
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	4.4	-	-	13

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 7: EB Left-Over/Jonesville Road & US 401 Bypass WB

2022 Existing
 Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑				↑
Traffic Vol, veh/h	0	0	0	0	555	74	0	116	0	0	0	114
Future Vol, veh/h	0	0	0	0	555	74	0	116	0	0	0	114
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	617	82	0	129	0	0	0	127

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	-	-	0
Stage 1	-	-	0
Stage 2	-	-	699
Critical Hdwy	-	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	-	-	4.02
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	440
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	362
Mov Cap-2 Maneuver	-	-	362
Stage 1	-	-	-
Stage 2	-	-	440

Approach	WB	NB	SB
HCM Control Delay, s	0	20.3	11.4
HCM LOS		C	B

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	362	-	-	687
HCM Lane V/C Ratio	0.356	-	-	0.184
HCM Control Delay (s)	20.3	-	-	11.4
HCM Lane LOS	C	-	-	B
HCM 95th %tile Q(veh)	1.6	-	-	0.7

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑				↑
Traffic Vol, veh/h	0	0	0	0	843	82	0	128	0	0	0	126
Future Vol, veh/h	0	0	0	0	843	82	0	128	0	0	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	937	91	0	142	0	0	0	140

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	-	-	0
Stage 1	-	-	0
Stage 2	-	-	1028
Critical Hdwy	-	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	-	-	4.02
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	310
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	233
Mov Cap-2 Maneuver	-	-	233
Stage 1	-	-	-
Stage 2	-	-	310

Approach	WB	NB	SB
HCM Control Delay, s	0	42	14
HCM LOS		E	B

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	233	-	-	541
HCM Lane V/C Ratio	0.61	-	-	0.259
HCM Control Delay (s)	42	-	-	14
HCM Lane LOS	E	-	-	B
HCM 95th %tile Q(veh)	3.6	-	-	1

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑				↑
Traffic Vol, veh/h	0	0	0	0	866	82	0	128	0	0	0	126
Future Vol, veh/h	0	0	0	0	866	82	0	128	0	0	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	0
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	962	91	0	142	0	0	0	140

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	-	-	0
Stage 1	-	-	0
Stage 2	-	-	1053
Critical Hdwy	-	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	-	-	4.02
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	301
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	225
Mov Cap-2 Maneuver	-	-	225
Stage 1	-	-	-
Stage 2	-	-	301

Approach	WB	NB	SB
HCM Control Delay, s	0	45	14.2
HCM LOS		E	B

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	225	-	-	531
HCM Lane V/C Ratio	0.632	-	-	0.264
HCM Control Delay (s)	45	-	-	14.2
HCM Lane LOS	E	-	-	B
HCM 95th %tile Q(veh)	3.8	-	-	1.1

APPENDIX E

CAPACITY ANALYSIS CALCULATIONS

US 401 BYPASS

&

EASTERN U-TURN LOCATION

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↔	
Traffic Vol, veh/h	0	0	0	1532	91	0
Future Vol, veh/h	0	0	0	1532	91	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1702	101	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 851
Stage 1	-	- 0
Stage 2	-	- 851
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 299 0
Stage 1	0	- - 0
Stage 2	0	- 379 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 299 -
Mov Cap-2 Maneuver	-	- 299 -
Stage 1	-	- - -
Stage 2	-	- 379 -

Approach	WB	NB
HCM Control Delay, s	0	23.1
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	299	-
HCM Lane V/C Ratio	0.338	-
HCM Control Delay (s)	23.1	-
HCM Lane LOS	C	-
HCM 95th %tile Q(veh)	1.4	-

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↑	
Traffic Vol, veh/h	0	0	0	1994	100	0
Future Vol, veh/h	0	0	0	1994	100	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	2216	111	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 1108
Stage 1	-	- 0
Stage 2	-	- 1108
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 204
Stage 1	0	- - 0
Stage 2	0	- 278
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 204
Mov Cap-2 Maneuver	-	- 204
Stage 1	-	- -
Stage 2	-	- 278

Approach	WB	NB
HCM Control Delay, s	0	41.9
HCM LOS		E

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	204	-
HCM Lane V/C Ratio	0.545	-
HCM Control Delay (s)	41.9	-
HCM Lane LOS	E	-
HCM 95th %tile Q(veh)	2.9	-

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↗	
Traffic Vol, veh/h	0	0	0	2000	135	0
Future Vol, veh/h	0	0	0	2000	135	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	2222	150	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 1111
Stage 1	-	- 0
Stage 2	-	- 1111
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 203
Stage 1	0	- - 0
Stage 2	0	- 277
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 203
Mov Cap-2 Maneuver	-	- 203
Stage 1	-	- -
Stage 2	-	- 277

Approach	WB	NB
HCM Control Delay, s	0	60.7
HCM LOS		F

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	203	-
HCM Lane V/C Ratio	0.739	-
HCM Control Delay (s)	60.7	-
HCM Lane LOS	F	-
HCM 95th %tile Q(veh)	4.9	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↔	
Traffic Vol, veh/h	0	0	0	600	66	0
Future Vol, veh/h	0	0	0	600	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	667	73	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 334
Stage 1	-	- 0
Stage 2	-	- 334
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 636
Stage 1	0	- - 0
Stage 2	0	- 697
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 636
Mov Cap-2 Maneuver	-	- 636
Stage 1	-	- -
Stage 2	-	- 697

Approach	WB	NB
HCM Control Delay, s	0	11.4
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	636	-
HCM Lane V/C Ratio	0.115	-
HCM Control Delay (s)	11.4	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.4	-

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↔	
Traffic Vol, veh/h	0	0	0	892	73	0
Future Vol, veh/h	0	0	0	892	73	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	991	81	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 496
Stage 1	-	- 0
Stage 2	-	- 496
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 503 0
Stage 1	0	- - 0
Stage 2	0	- 577 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 503 -
Mov Cap-2 Maneuver	-	- 503 -
Stage 1	-	- - -
Stage 2	-	- 577 -

Approach	WB	NB
HCM Control Delay, s	0	13.5
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	503	-
HCM Lane V/C Ratio	0.161	-
HCM Control Delay (s)	13.5	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.6	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↔	
Traffic Vol, veh/h	0	0	0	912	96	0
Future Vol, veh/h	0	0	0	912	96	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1013	107	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 507
Stage 1	-	- 0
Stage 2	-	- 507
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 495 0
Stage 1	0	- - 0
Stage 2	0	- 570 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 495 -
Mov Cap-2 Maneuver	-	- 495 -
Stage 1	-	- - -
Stage 2	-	- 570 -

Approach	WB	NB
HCM Control Delay, s	0	14.3
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	495	-
HCM Lane V/C Ratio	0.215	-
HCM Control Delay (s)	14.3	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.8	-

APPENDIX F

CAPACITY ANALYSIS CALCULATIONS

MITCHELL MILL ROAD

&

JONESVILLE ROAD / PEEBLES ROAD

HCM 6th AWSC
 3: Peebles Road/Jonesville Road & Mitchell Mill Road

2022 Existing
 Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	166	4	11	316	41	4	78	11	32	133	16
Future Vol, veh/h	7	166	4	11	316	41	4	78	11	32	133	16
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	184	4	12	351	46	4	87	12	36	148	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	14.9	10.1	11.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	4%	3%	18%
Vol Thru, %	84%	94%	86%	73%
Vol Right, %	12%	2%	11%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	93	177	368	181
LT Vol	4	7	11	32
Through Vol	78	166	316	133
RT Vol	11	4	41	16
Lane Flow Rate	103	197	409	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.297	0.577	0.318
Departure Headway (Hd)	5.85	5.433	5.079	5.696
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	612	661	711	629
Service Time	3.904	3.477	3.114	3.743
HCM Lane V/C Ratio	0.168	0.298	0.575	0.32
HCM Control Delay	10.1	10.8	14.9	11.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	0.6	1.2	3.7	1.4

HCM 6th AWSC
 3: Peebles Road/Jonesville Road & Mitchell Mill Road

2027 No-Build
 Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	50.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	240	4	12	569	45	4	86	12	35	147	18
Future Vol, veh/h	8	240	4	12	569	45	4	86	12	35	147	18
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	267	4	13	632	50	4	96	13	39	163	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.2	82.4	12.5	15
HCM LOS	C	F	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	3%	2%	17%
Vol Thru, %	84%	95%	91%	73%
Vol Right, %	12%	2%	7%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	252	626	200
LT Vol	4	8	12	35
Through Vol	86	240	569	147
RT Vol	12	4	45	18
Lane Flow Rate	113	280	696	222
Geometry Grp	1	1	1	1
Degree of Util (X)	0.223	0.481	1.081	0.417
Departure Headway (Hd)	7.412	6.42	5.595	7.067
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	487	566	647	513
Service Time	5.412	4.42	3.663	5.067
HCM Lane V/C Ratio	0.232	0.495	1.076	0.433
HCM Control Delay	12.5	15.2	82.4	15
HCM Lane LOS	B	C	F	B
HCM 95th-tile Q	0.8	2.6	19.6	2

Intersection	
Intersection Delay, s/veh	96.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	253	4	24	609	97	4	86	16	52	147	18
Future Vol, veh/h	8	253	4	24	609	97	4	86	16	52	147	18
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	281	4	27	677	108	4	96	18	58	163	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.9	161.3	13.4	16.8
HCM LOS	C	F	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	3%	3%	24%
Vol Thru, %	81%	95%	83%	68%
Vol Right, %	15%	2%	13%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	265	730	217
LT Vol	4	8	24	52
Through Vol	86	253	609	147
RT Vol	16	4	97	18
Lane Flow Rate	118	294	811	241
Geometry Grp	1	1	1	1
Degree of Util (X)	0.236	0.517	1.29	0.459
Departure Headway (Hd)	7.968	6.819	5.727	7.548
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	453	533	633	480
Service Time	5.968	4.819	3.789	5.548
HCM Lane V/C Ratio	0.26	0.552	1.281	0.502
HCM Control Delay	13.4	16.9	161.3	16.8
HCM Lane LOS	B	C	F	C
HCM 95th-tile Q	0.9	2.9	32	2.4

HCM 6th AWSC
 3: Peebles Road/Jonesville Road & Mitchell Mill Road

2027 Build - Improved
 Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	81.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔		↔		↔	↔	
Traffic Vol, veh/h	8	253	4	24	609	97	4	86	16	52	147	18
Future Vol, veh/h	8	253	4	24	609	97	4	86	16	52	147	18
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	281	4	27	677	108	4	96	18	58	163	20
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay	19.8	134.2	14.5	15
HCM LOS	C	F	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	4%	3%	4%	0%	100%	0%
Vol Thru, %	81%	95%	96%	0%	0%	89%
Vol Right, %	15%	2%	0%	100%	0%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	265	633	97	52	165
LT Vol	4	8	24	0	52	0
Through Vol	86	253	609	0	0	147
RT Vol	16	4	0	97	0	18
Lane Flow Rate	118	294	703	108	58	183
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.258	0.571	1.263	0.172	0.13	0.382
Departure Headway (Hd)	8.565	7.416	6.465	5.733	8.673	8.078
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	489	563	623	416	449
Service Time	6.565	5.416	4.225	3.492	6.373	5.778
HCM Lane V/C Ratio	0.28	0.601	1.249	0.173	0.139	0.408
HCM Control Delay	14.5	19.8	153.3	9.7	12.7	15.7
HCM Lane LOS	B	C	F	A	B	C
HCM 95th-tile Q	1	3.5	27.6	0.6	0.4	1.8

HCM 6th AWSC
 3: Peebles Road/Jonesville Road & Mitchell Mill Road

2022 Existing
 Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	18	306	13	4	130	21	5	92	10	27	50	11
Future Vol, veh/h	18	306	13	4	130	21	5	92	10	27	50	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	340	14	4	144	23	6	102	11	30	56	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.2	9.5	9.6	9.4
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	5%	3%	31%
Vol Thru, %	86%	91%	84%	57%
Vol Right, %	9%	4%	14%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	337	155	88
LT Vol	5	18	4	27
Through Vol	92	306	130	50
RT Vol	10	13	21	11
Lane Flow Rate	119	374	172	98
Geometry Grp	1	1	1	1
Degree of Util (X)	0.175	0.489	0.233	0.146
Departure Headway (Hd)	5.312	4.702	4.878	5.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	668	760	728	659
Service Time	3.407	2.766	2.957	3.477
HCM Lane V/C Ratio	0.178	0.492	0.236	0.149
HCM Control Delay	9.6	12.2	9.5	9.4
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.6	2.7	0.9	0.5

Intersection	
Intersection Delay, s/veh	19.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	436	14	4	339	23	6	102	11	30	55	12
Future Vol, veh/h	20	436	14	4	339	23	6	102	11	30	55	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	484	16	4	377	26	7	113	12	33	61	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	24.7	17.3	11.8	11.5
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	4%	1%	31%
Vol Thru, %	86%	93%	93%	57%
Vol Right, %	9%	3%	6%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	470	366	97
LT Vol	6	20	4	30
Through Vol	102	436	339	55
RT Vol	11	14	23	12
Lane Flow Rate	132	522	407	108
Geometry Grp	1	1	1	1
Degree of Util (X)	0.245	0.777	0.621	0.203
Departure Headway (Hd)	6.682	5.357	5.493	6.79
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	541	668	651	531
Service Time	4.682	3.437	3.578	4.796
HCM Lane V/C Ratio	0.244	0.781	0.625	0.203
HCM Control Delay	11.8	24.7	17.3	11.5
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	1	7.4	4.3	0.8

HCM 6th AWSC
 3: Peebles Road/Jonesville Road & Mitchell Mill Road

2027 Build
 Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	39
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	482	14	8	366	58	6	102	24	89	55	12
Future Vol, veh/h	20	482	14	8	366	58	6	102	24	89	55	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	536	16	9	407	64	7	113	27	99	61	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	56.2	34.5	14.2	15.3
HCM LOS	F	D	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	4%	2%	57%
Vol Thru, %	77%	93%	85%	35%
Vol Right, %	18%	3%	13%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	516	432	156
LT Vol	6	20	8	89
Through Vol	102	482	366	55
RT Vol	24	14	58	12
Lane Flow Rate	147	573	480	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.313	0.975	0.844	0.372
Departure Headway (Hd)	7.69	6.238	6.331	7.725
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	468	585	576	466
Service Time	5.727	4.238	4.331	5.758
HCM Lane V/C Ratio	0.314	0.979	0.833	0.371
HCM Control Delay	14.2	56.2	34.5	15.3
HCM Lane LOS	B	F	D	C
HCM 95th-tile Q	1.3	13.7	9	1.7

Intersection	
Intersection Delay, s/veh	49.6
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	20	482	14	8	366	58	6	102	24	89	55	12
Future Vol, veh/h	20	482	14	8	366	58	6	102	24	89	55	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	536	16	9	407	64	7	113	27	99	61	13
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay	88.3	26.8	15.5	13.5
HCM LOS	F	D	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	5%	4%	2%	0%	100%	0%
Vol Thru, %	77%	93%	98%	0%	0%	82%
Vol Right, %	18%	3%	0%	100%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	516	374	58	89	67
LT Vol	6	20	8	0	89	0
Through Vol	102	482	366	0	0	55
RT Vol	24	14	0	58	0	12
Lane Flow Rate	147	573	416	64	99	74
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.327	1.081	0.773	0.107	0.232	0.162
Departure Headway (Hd)	8.437	6.788	6.965	6.236	8.839	8.191
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	539	524	578	408	441
Service Time	6.437	4.788	4.665	3.936	6.539	5.891
HCM Lane V/C Ratio	0.343	1.063	0.794	0.111	0.243	0.168
HCM Control Delay	15.5	88.3	29.5	9.7	14.2	12.5
HCM Lane LOS	C	F	D	A	B	B
HCM 95th-tile Q	1.4	17.6	6.9	0.4	0.9	0.6

APPENDIX G

CAPACITY ANALYSIS CALCULATIONS

MITCHELL MILL ROAD

&

SITE ACCESS 1

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	321	701	4	0	29
Future Vol, veh/h	0	321	701	4	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	357	779	4	0	32

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	395
HCM Lane V/C Ratio	-	-	-	0.082
HCM Control Delay (s)	-	-	-	14.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	595	412	4	0	20
Future Vol, veh/h	0	595	412	4	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	661	458	4	0	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	601
HCM Lane V/C Ratio	-	-	-	0.037
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

APPENDIX H

CAPACITY ANALYSIS CALCULATIONS

MITCHELL MILL ROAD

&

SITE ACCESS 2

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↑	↗	↘	↘
Traffic Vol, veh/h	34	287	626	4	11	75
Future Vol, veh/h	34	287	626	4	11	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	319	696	4	12	83

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	700	0	-	0	1091 696
Stage 1	-	-	-	-	696 -
Stage 2	-	-	-	-	395 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	897	-	-	-	238 442
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	681 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	-	228 442
Mov Cap-2 Maneuver	-	-	-	-	228 -
Stage 1	-	-	-	-	474 -
Stage 2	-	-	-	-	681 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	897	-	-	-	395
HCM Lane V/C Ratio	0.042	-	-	-	0.242
HCM Control Delay (s)	9.2	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	287	626	4	11	75
Future Vol, veh/h	34	287	626	4	11	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	319	696	4	12	83

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	700	0	-	0	1091 696
Stage 1	-	-	-	-	696 -
Stage 2	-	-	-	-	395 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	897	-	-	-	238 442
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	681 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	897	-	-	-	228 442
Mov Cap-2 Maneuver	-	-	-	-	228 -
Stage 1	-	-	-	-	474 -
Stage 2	-	-	-	-	681 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	897	-	-	-	395
HCM Lane V/C Ratio	0.042	-	-	-	0.242
HCM Control Delay (s)	9.2	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗	↖	↖	↗
Traffic Vol, veh/h	118	477	362	13	8	50
Future Vol, veh/h	118	477	362	13	8	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	530	402	14	9	56

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	416	0	-	0	1194 402
Stage 1	-	-	-	-	402 -
Stage 2	-	-	-	-	792 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1143	-	-	-	206 648
Stage 1	-	-	-	-	676 -
Stage 2	-	-	-	-	446 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1143	-	-	-	182 648
Mov Cap-2 Maneuver	-	-	-	-	182 -
Stage 1	-	-	-	-	598 -
Stage 2	-	-	-	-	446 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1143	-	-	-	479
HCM Lane V/C Ratio	0.115	-	-	-	0.135
HCM Control Delay (s)	8.6	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	118	477	362	13	8	50
Future Vol, veh/h	118	477	362	13	8	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	530	402	14	9	56

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	416	0	-	0	1194 402
Stage 1	-	-	-	-	402 -
Stage 2	-	-	-	-	792 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1143	-	-	-	206 648
Stage 1	-	-	-	-	676 -
Stage 2	-	-	-	-	446 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1143	-	-	-	182 648
Mov Cap-2 Maneuver	-	-	-	-	182 -
Stage 1	-	-	-	-	598 -
Stage 2	-	-	-	-	446 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	13.7
HCM LOS			B

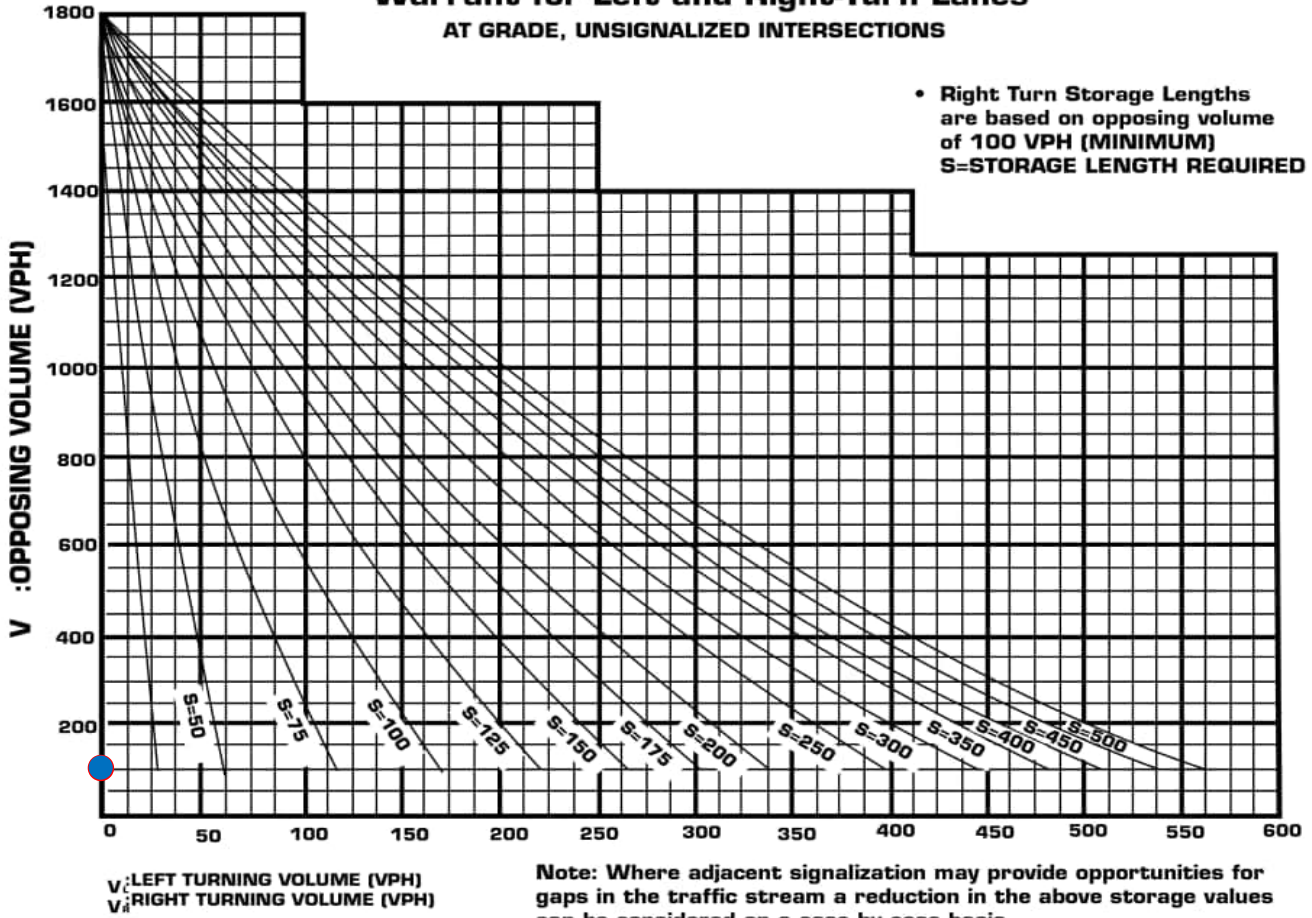
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1143	-	-	-	479
HCM Lane V/C Ratio	0.115	-	-	-	0.135
HCM Control Delay (s)	8.6	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5

APPENDIX I

TURN LANE WARRANTS

HILLS AT HARRIS CREEK
TURN LANE STORAGE WARRANTS

Warrant for Left and Right-Turn Lanes
AT GRADE, UNSIGNALIZED INTERSECTIONS



Policy On Street And Driveway Access to North Carolina Highways

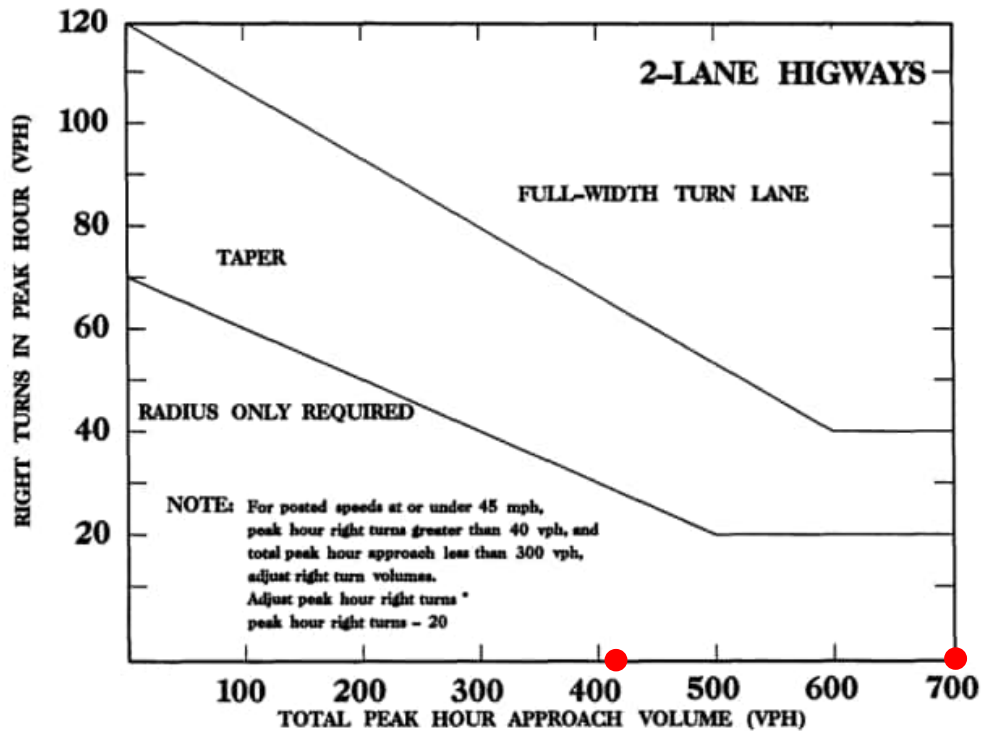
INTERSECTION: Mitchell Mill Road & Site Access 1

SCENARIO	Movement	Turn Lane	Turning Volume (V _r /V _l)	Approach / Opposing Volume (V _r /V _o)	Symbol
AM Build	WBR	Right	0	100	●
PM Build	WBR	Right	0	100	●
					●
					●

Mitchell Mill Road and Site Access 1

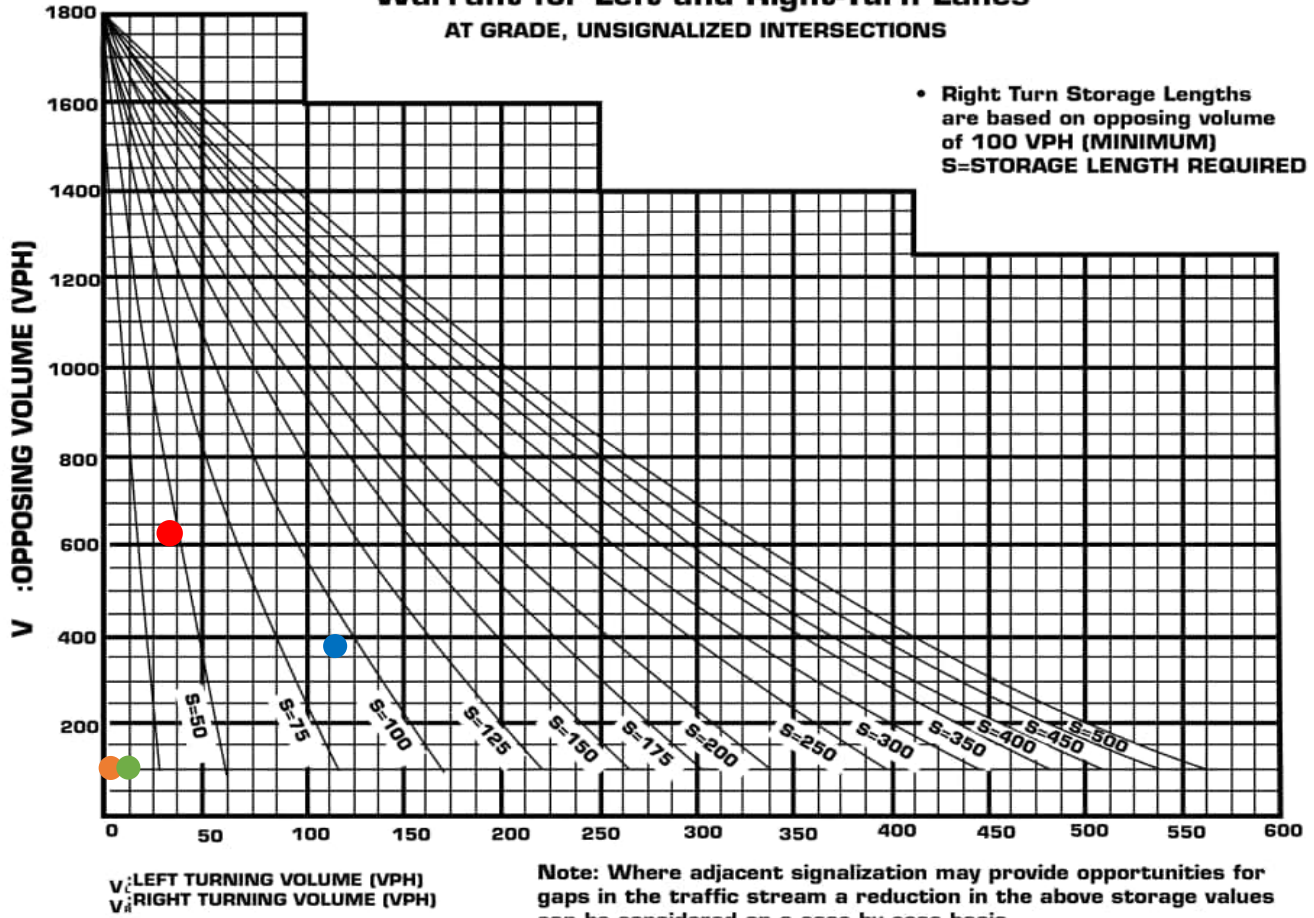
2027 Build				
Peak Hour	Approach	Right Turn Volume	Approach Volume	Warranted?
AM	Westbound	0	701	No
PM	Westbound	0	412	No

RIGHT TURN LANE WARRANTS



HILLS AT HARRIS CREEK
TURN LANE STORAGE WARRANTS

Warrant for Left and Right-Turn Lanes
AT GRADE, UNSIGNALIZED INTERSECTIONS



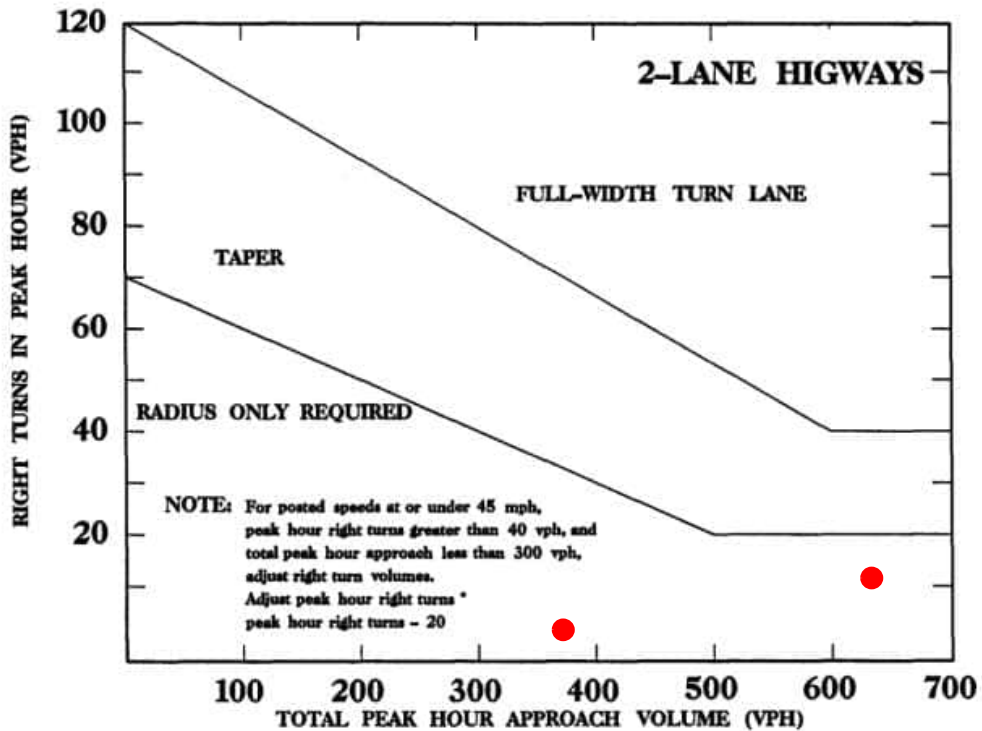
INTERSECTION: Mitchell Mill Road & Site Access 2

SCENARIO	Movement	Turn Lane	Turning Volume (V _R /V _L)	Approach / Opposing Volume (V _A /V _O)	Symbol
AM Build	EBL	Left	34	630	●
PM Build	EBL	Left	118	375	●
AM Build	WBR	Right	4	100	●
PM Build	WBR	Right	13	100	●

Mitchell Mill Road and Site Access 2

2027 Build				
Peak Hour	Approach	Right Turn Volume	Approach Volume	Warranted?
AM	Westbound	4	630	No
PM	Westbound	13	375	No

RIGHT TURN LANE WARRANTS



APPENDIX J

MUTCD / ITRE SIGNAL WARRANT ANALYSIS

Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Hills at Harris Creek
Project/File #	20498 - 05
Scenario	2027 No-Build

Intersection Information			
Major Street (E/W Road)	US 401 Bypass	Minor Street (N/S Road)	Jonesville Road / WB Left-Over
Analyzed with	2 or more approach lanes	Analyzed with	1 Approach Lane
Total Approach Volume	2861 vehicles	Total Approach Volume	424 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	100 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

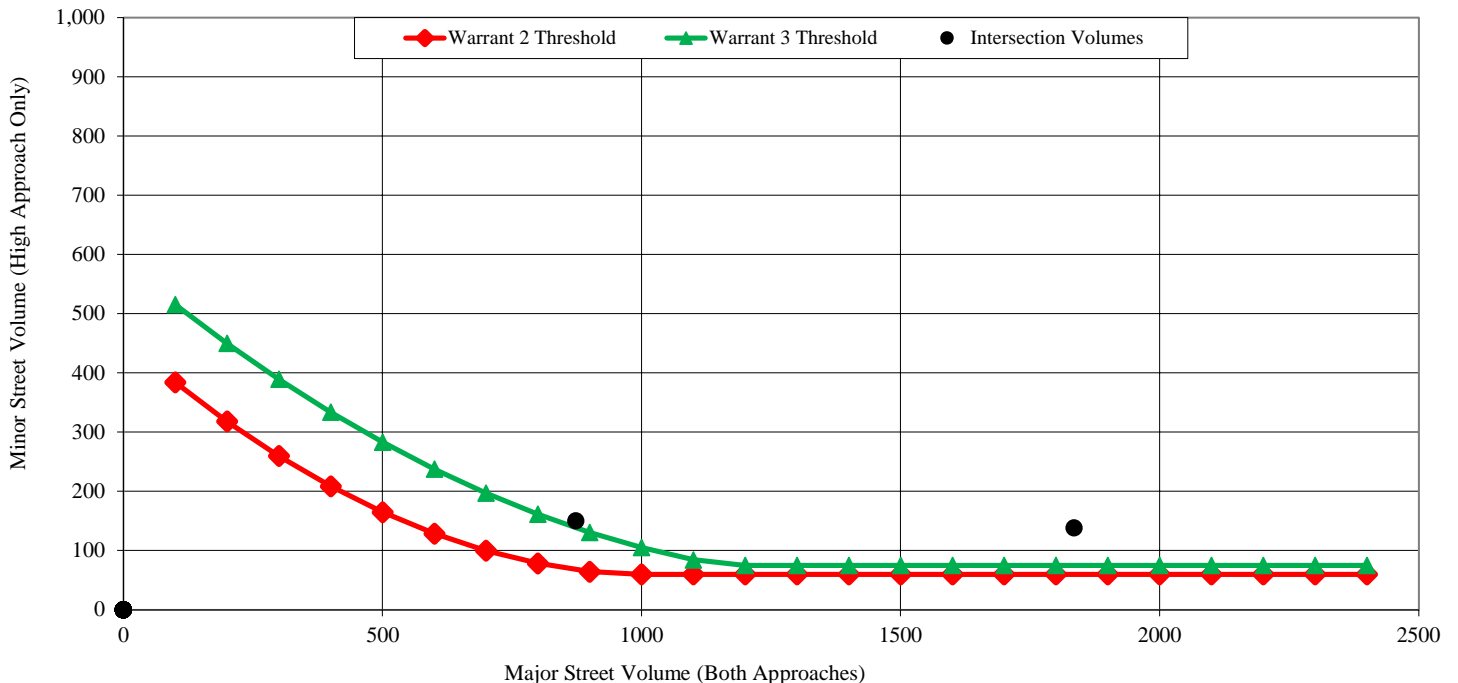
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	2 hours	2 hours	2 (Cond. A) & 2 (Cond. B)
Criteria - Major Street (veh/hr)	420	630	336 (Cond. A) & 504 (Cond. B)
Criteria - Minor Street (veh/hr)	105	53	84 (Cond. A) & 42 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Satisfied
Required values reached for	1941 total, 41 minor, 0 delay	2 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-2 (Warrant 2 - 70% Factor) & Figure 4C-4 (Warrant 3 - 70% Factor)



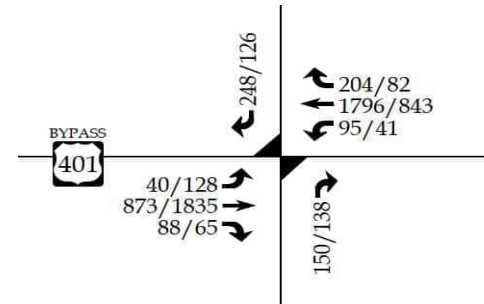
US 401 Bypass & Jonesville Road [Major-Street Left-Turn] [No-Build]

AM Peak Hour				
vph	g/c	a	b	c
900	0.7	0.00004	0.0097	0.4284
961	0.7	4.0E-05	0.009192	0.460018
1080	0.7	0.00004	0.0082	0.5217

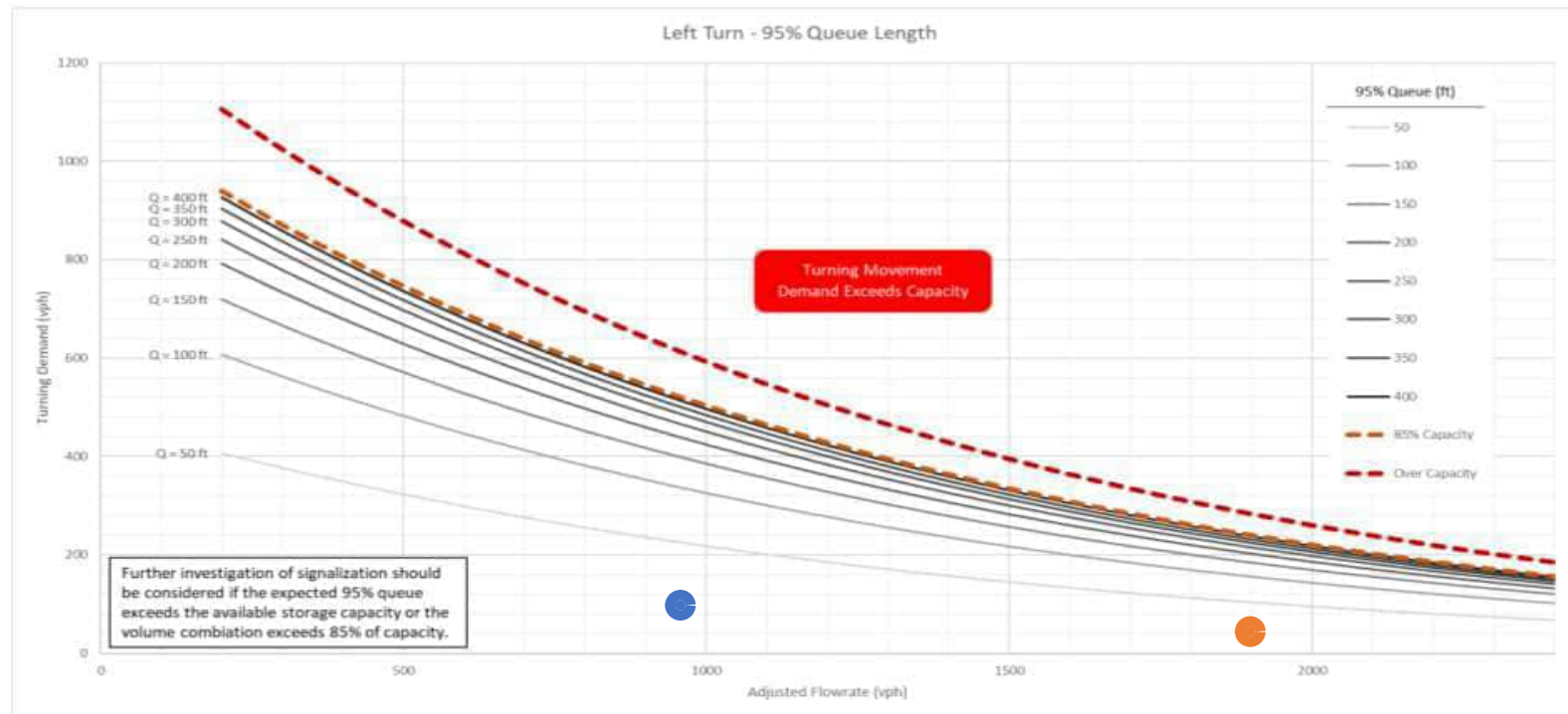
CVAF	1
Conflicting Volume (vph)	961
Adjusted Conflicting (vph)	961
Turning Volume (vph)	95

PM Peak Hour				
vph	g/c	a	b	c
1800	0.7	0.00004	0.0097	0.4284
1900	0.7	4.0E-05	0.008867	0.480233
1980	0.7	0.00004	0.0082	0.5217

CVAF	1
Conflicting Volume (vph)	1900
Adjusted Conflicting (vph)	1900
Turning Volume (vph)	41



Distance to Upstream Signal	8800	ft
Posted Speed Limit	55	mph
Travel Time	109.09	s



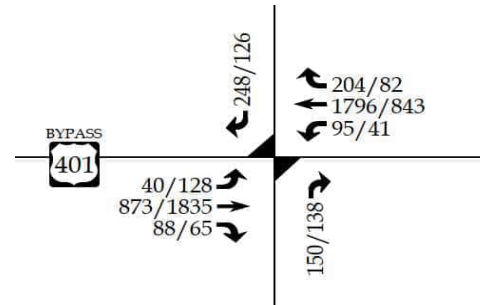
US 401 Bypass & Jonesville Road [Minor-Street Right-Turn] [No-Build]

AM Peak Hour				
vph	g/c	a	b	c
720	0.7	0.00004	0.0108	0.2587
873	0.7	3.2E-05	0.009525	0.34557
900	0.7	0.00003	0.0093	0.3609

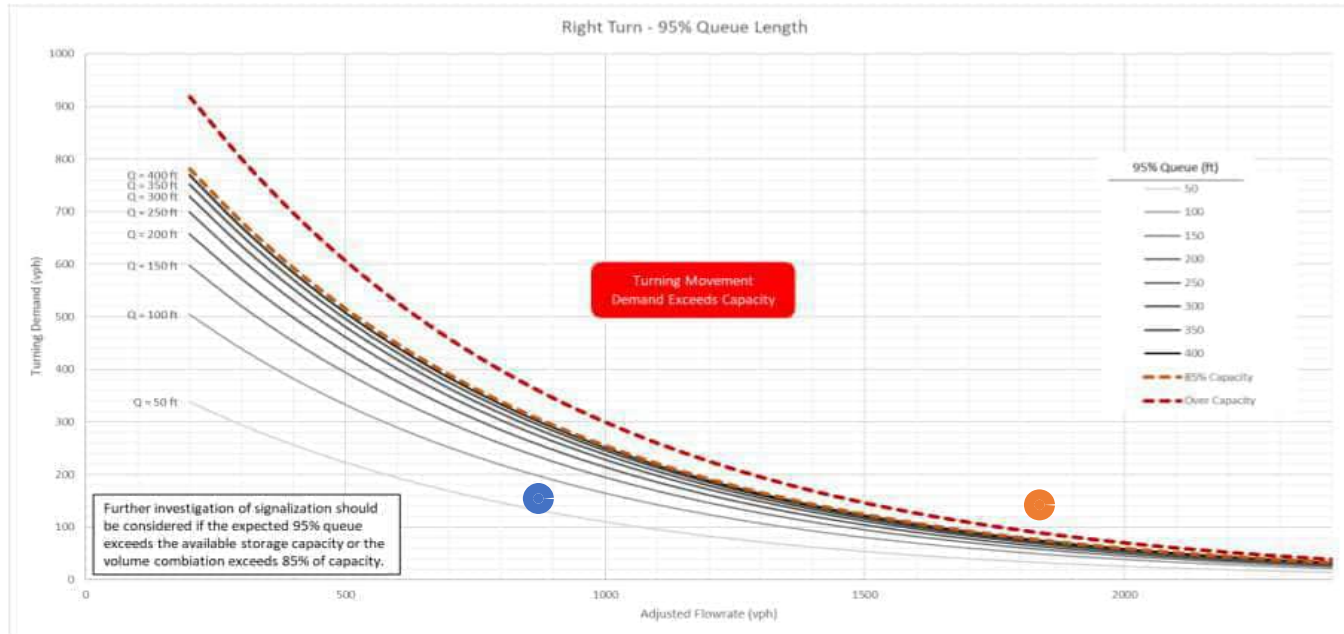
CVAF	
Conflicting Volume (vph)	873
Adjusted Conflicting (vph)	873
Turning Volume (vph)	150

PM Peak Hour				
vph	g/c	a	b	c
1800	0.7	0.00004	0.0108	0.2587
1835	0.7	3.8E-05	0.010508	0.278572
1980	0.7	0.00003	0.0093	0.3609

CVAF	
Conflicting Volume (vph)	1835
Adjusted Conflicting (vph)	1835
Turning Volume (vph)	138



Distance to Upstream Signal	8800	ft
Posted Speed Limit	55	mph
Travel Time	109.09	s



Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Hills at Harris Creek
Project/File #	20498 - 05
Scenario	2027 Build

Intersection Information			
Major Street (E/W Road)	US 401 Bypass	Minor Street (N/S Road)	Jonesville Road / WB Left-Over
Analyzed with	2 or more approach lanes	Analyzed with	1 Approach Lane
Total Approach Volume	2911 vehicles	Total Approach Volume	537 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	100 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

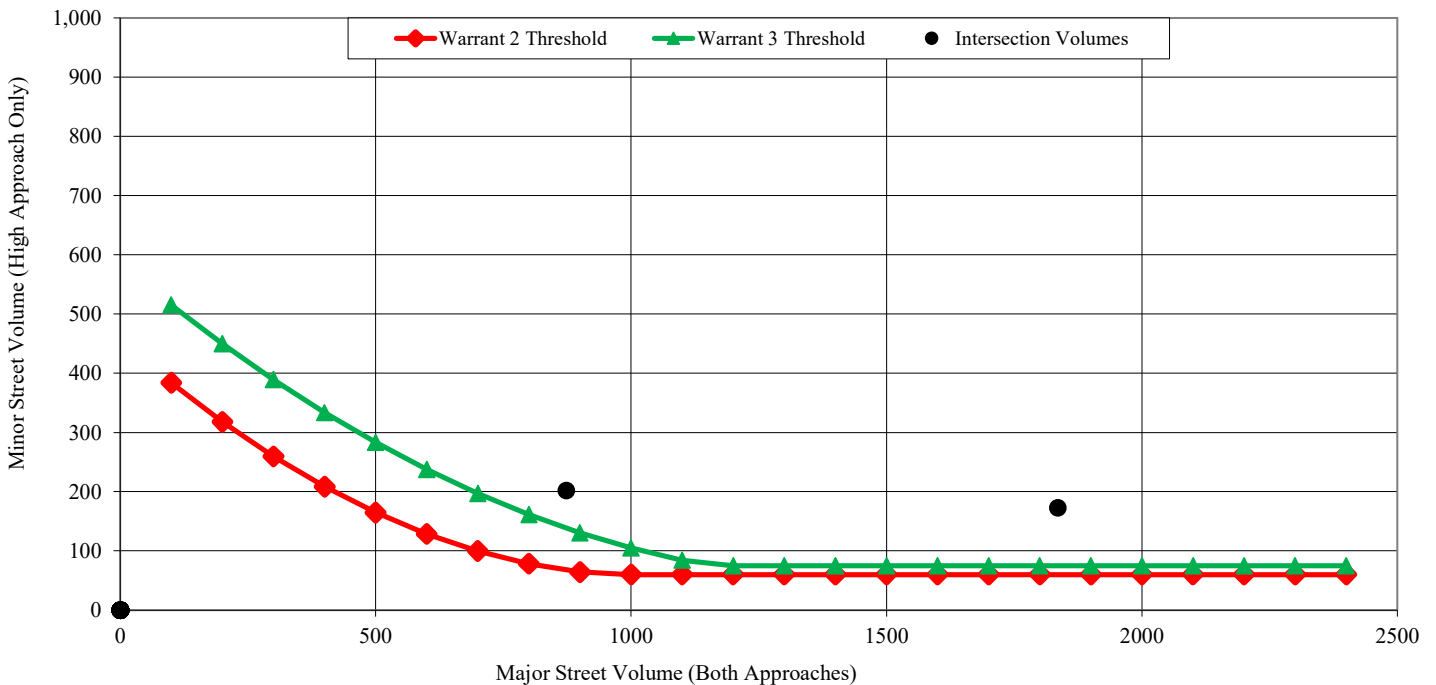
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	2 hours	2 hours	2 (Cond. A) & 2 (Cond. B)
Criteria - Major Street (veh/hr)	420	630	336 (Cond. A) & 504 (Cond. B)
Criteria - Minor Street (veh/hr)	105	53	84 (Cond. A) & 42 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Satisfied
Required values reached for	2000 total, 61 minor, 0 delay	2 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-2 (Warrant 2 - 70% Factor) & Figure 4C-4 (Warrant 3 - 70% Factor)



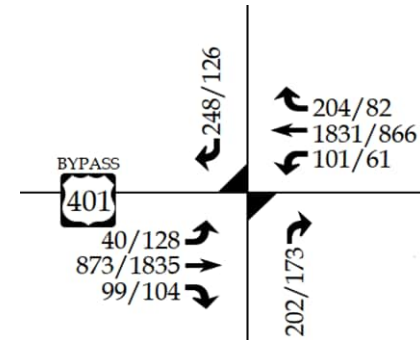
US 401 Bypass & Jonesville Road [Minor-Street Right-Turn] [Build]

AM Peak Hour				
vph	g/c	a	b	c
720	0.7	0.00004	0.0108	0.2587
873	0.7	3.2E-05	0.009525	0.34557
900	0.7	0.00003	0.0093	0.3609

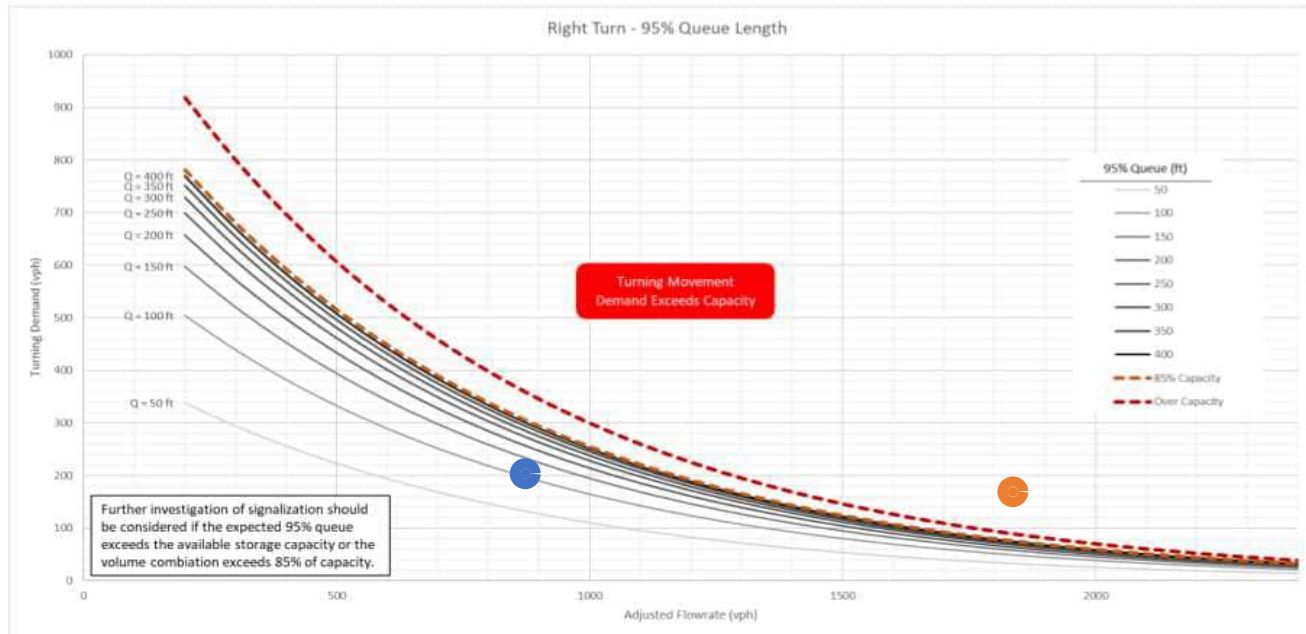
CVAF	
Conflicting Volume (vph)	873
Adjusted Conflicting (vph)	873
Turning Volume (vph)	200

PM Peak Hour				
vph	g/c	a	b	c
1800	0.7	0.00004	0.0108	0.2587
1835	0.7	3.8E-05	0.010508	0.278572
1980	0.7	0.00003	0.0093	0.3609

CVAF	
Conflicting Volume (vph)	1835
Adjusted Conflicting (vph)	1835
Turning Volume (vph)	165



Distance to Upstream Signal	8800	ft
Posted Speed Limit	55	mph
Travel Time	109.09	s



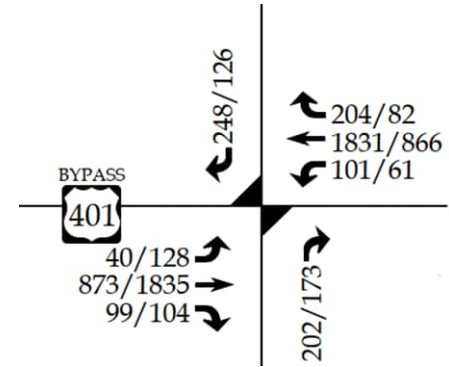
US 401 Bypass & Jonesville Road [Major-Street Left-Turn] [Build]

AM Peak Hour				
vph	g/c	a	b	c
900	0.7	0.00004	0.0097	0.4284
972	0.7	4.0E-05	0.0091	0.46572
1080	0.7	0.00004	0.0082	0.5217

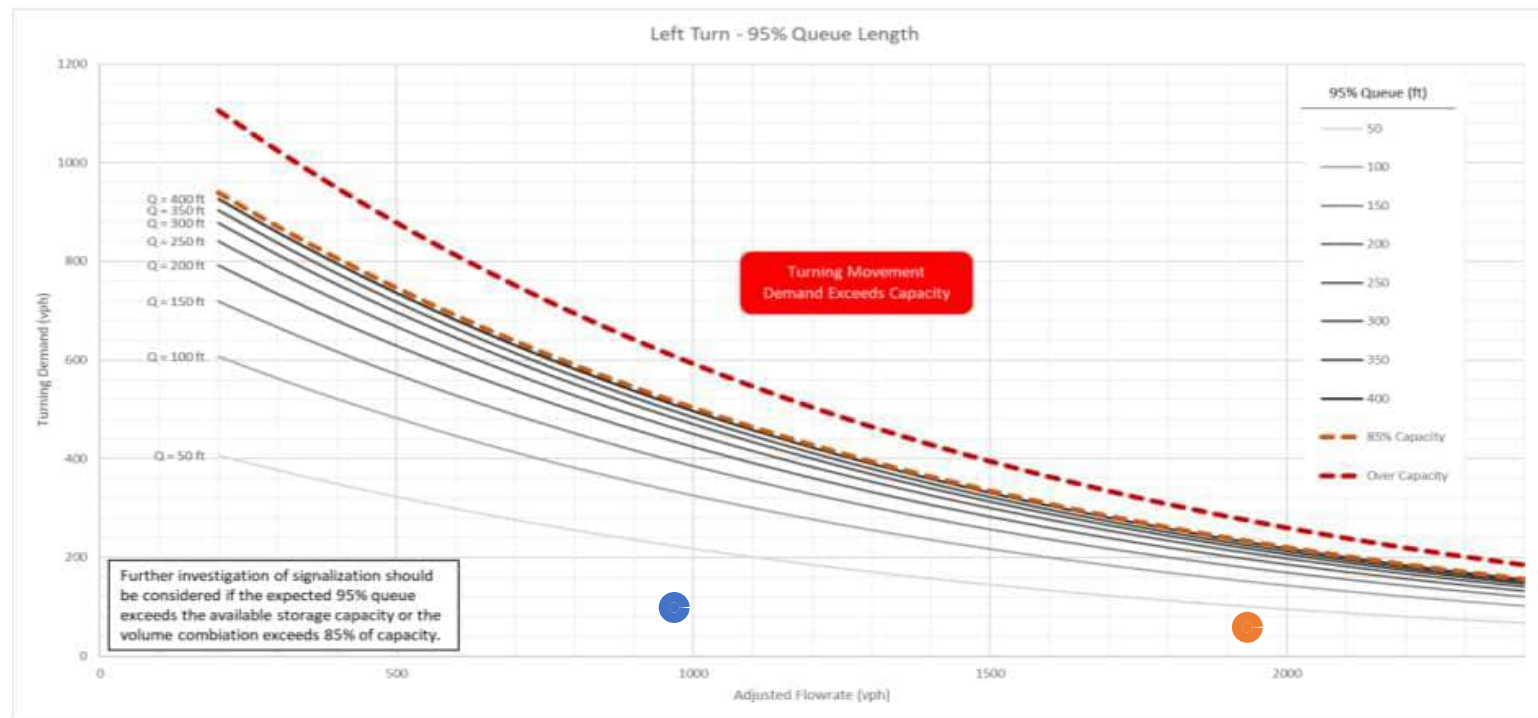
CVAF	
Conflicting Volume (vph)	972
Adjusted Conflicting (vph)	972
Turning Volume (vph)	101

PM Peak Hour				
vph	g/c	a	b	c
1800	0.7	0.00004	0.0097	0.4284
1939	0.7	4.0E-05	0.008542	0.500448
1980	0.7	0.00004	0.0082	0.5217

CVAF	
Conflicting Volume (vph)	1939
Adjusted Conflicting (vph)	1939
Turning Volume (vph)	61



Distance to Upstream Signal	8800	ft
Posted Speed Limit	55	mph
Travel Time	109.09	s



Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Hills at Harris Creek
Project/File #	20498 - 05
Scenario	2027 No-Build

Intersection Information			
Major Street (E/W Road)	US 401 Bypass	Minor Street (N/S Road)	Eastern U-Turn Location
Analyzed with	2 or more approach lanes	Analyzed with	1 Approach Lane
Total Approach Volume	2886 vehicles	Total Approach Volume	173 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

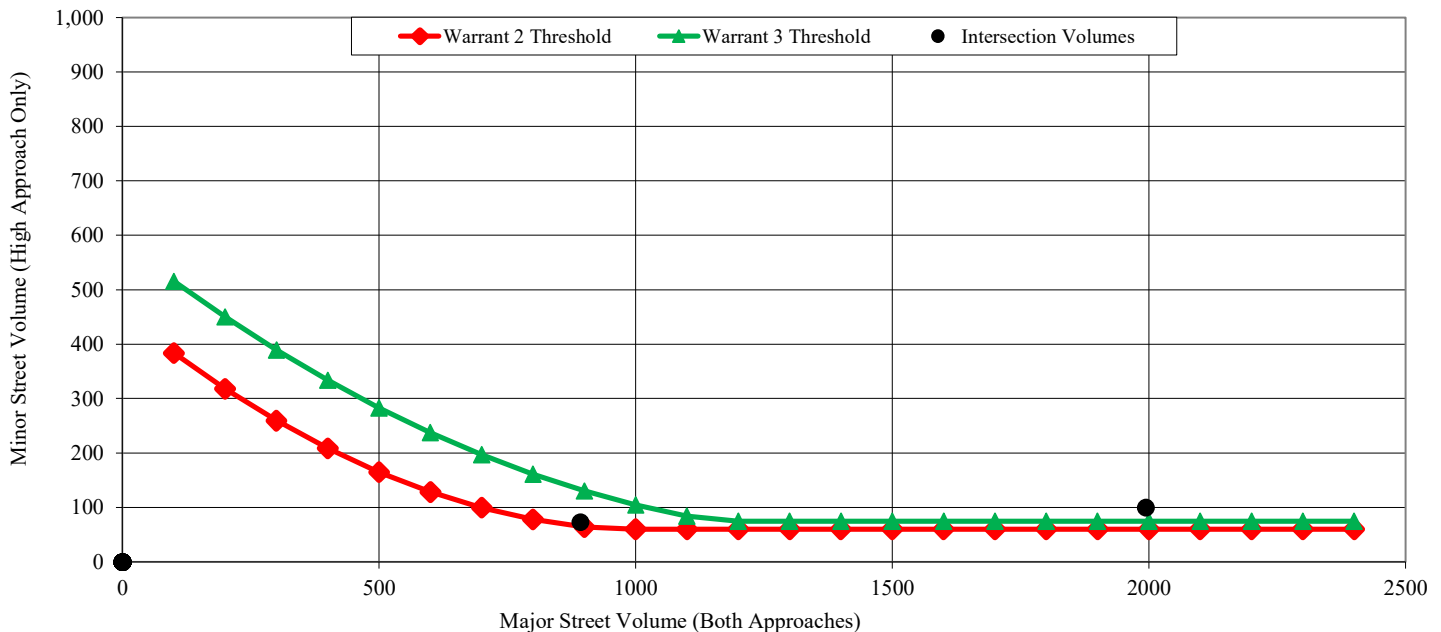
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	0 hours	2 hours	1 (Cond. A) & 2 (Cond. B)
Criteria - Major Street (veh/hr)	420	630	336 (Cond. A) & 504 (Cond. B)
Criteria - Minor Street (veh/hr)	105	53	84 (Cond. A) & 42 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Satisfied
Required values reached for	2094 total, 100 minor, 0 delay	1 hour
Criteria - Total Approach Volume (veh in one hour)	650	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-2 (Warrant 2 - 70% Factor) & Figure 4C-4 (Warrant 3 - 70% Factor)



US 401 Bypass & Eastern U-Turn Location [Major-Street U-Turn] [No-Build]

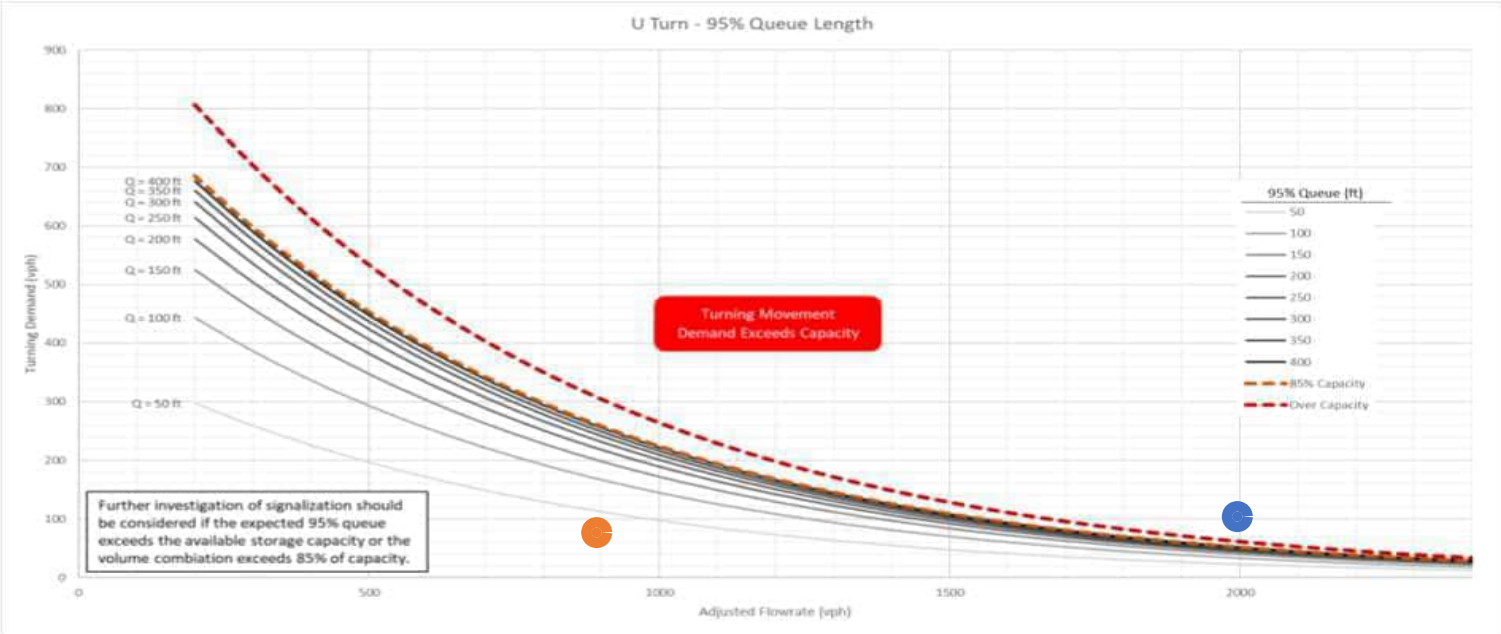
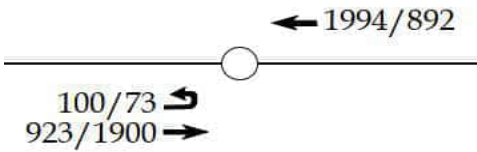
AM Peak Hour				
vph	g/c	a	b	c
1800	0.7	0.00003	0.0072	0.5106
1994	0.7	3.0E-05	0.006984	0.539484
1980	0.7	0.00003	0.007	0.5374

PM Peak Hour				
vph	g/c	a	b	c
720	0.7	0.00003	0.0072	0.5106
892	0.7	3.0E-05	0.007009	0.536209
900	0.7	0.00003	0.007	0.5374

CVAF	
CVAF	1
Conflicting Volume (vph)	1994
Adjusted Conflicting (vph)	1994
Turning Volume (vph)	100

CVAF	
CVAF	1
Conflicting Volume (vph)	892
Adjusted Conflicting (vph)	892
Turning Volume (vph)	73

Distance to Upstream Signal	10000	ft
Posted Speed Limit	55	mph
Travel Time	123.97	s



Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Hills at Harris Creek
Project/File #	20498 - 05
Scenario	2027 Build

Intersection Information			
Major Street (E/W Road)	US 401 Bypass	Minor Street (N/S Road)	Eastern U-Turn Location
Analyzed with	2 or more approach lanes	Analyzed with	1 Approach Lane
Total Approach Volume	2912 vehicles	Total Approach Volume	231 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

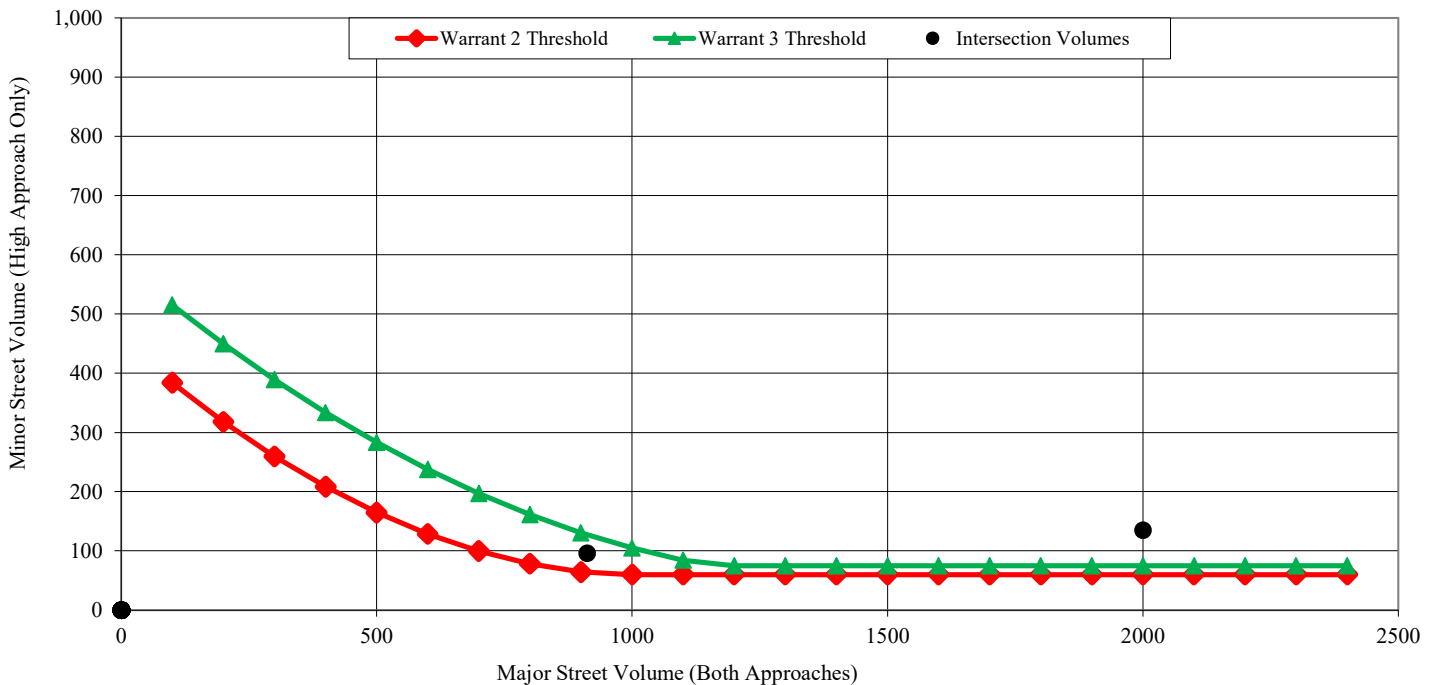
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	1 hour	2 hours	2 (Cond. A) & 2 (Cond. B)
Criteria - Major Street (veh/hr)	420	630	336 (Cond. A) & 504 (Cond. B)
Criteria - Minor Street (veh/hr)	105	53	84 (Cond. A) & 42 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Satisfied
Required values reached for	2135 total, 135 minor, 0 delay	1 hour
Criteria - Total Approach Volume (veh in one hour)	650	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

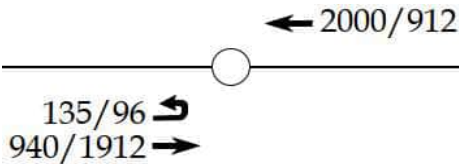
Figure 4C-2 (Warrant 2 - 70% Factor) & Figure 4C-4 (Warrant 3 - 70% Factor)



US 401 Bypass & Eastern U-Turn Location [Major-Street U-Turn] [Build]

AM Peak Hour				
vph	g/c	a	b	c
1980	0.7	0.00003	0.007	0.5374
2000	0.7	3.0E-05	0.006978	0.542078
2160	0.7	0.00003	0.0068	0.5795

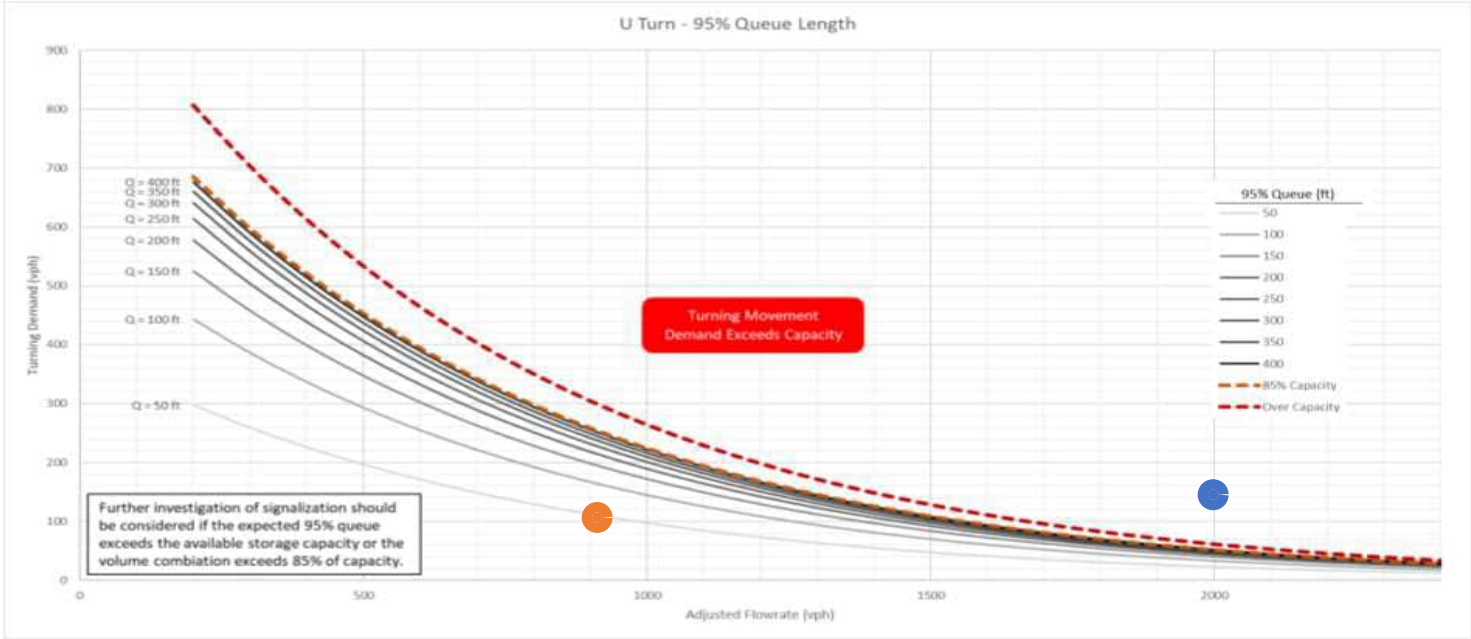
CVAF	
CVAF	1
Conflicting Volume (vph)	2000
Adjusted Conflicting (vph)	2000
Turning Volume (vph)	135



PM Peak Hour				
vph	g/c	a	b	c
900	0.7	0.00003	0.007	0.5374
912	0.7	3.0E-05	0.006987	0.540207
1080	0.7	0.00003	0.0068	0.5795

CVAF	
CVAF	1
Conflicting Volume (vph)	912
Adjusted Conflicting (vph)	912
Turning Volume (vph)	96

Distance to Upstream Signal	10000	ft
Posted Speed Limit	55	mph
Travel Time	123.97	s



Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Hills at Harris Creek
Project/File #	20498 - 05
Scenario	2027 No-Build

Intersection Information			
Major Street (E/W Road)	Mitchell Mill Road	Minor Street (N/S Road)	Jonesville Road
Analyzed with	1 approach lane	Analyzed with	1 Approach Lane
Total Approach Volume	1708 vehicles	Total Approach Volume	518 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	100 percent applied	Right turn reduction of	100 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

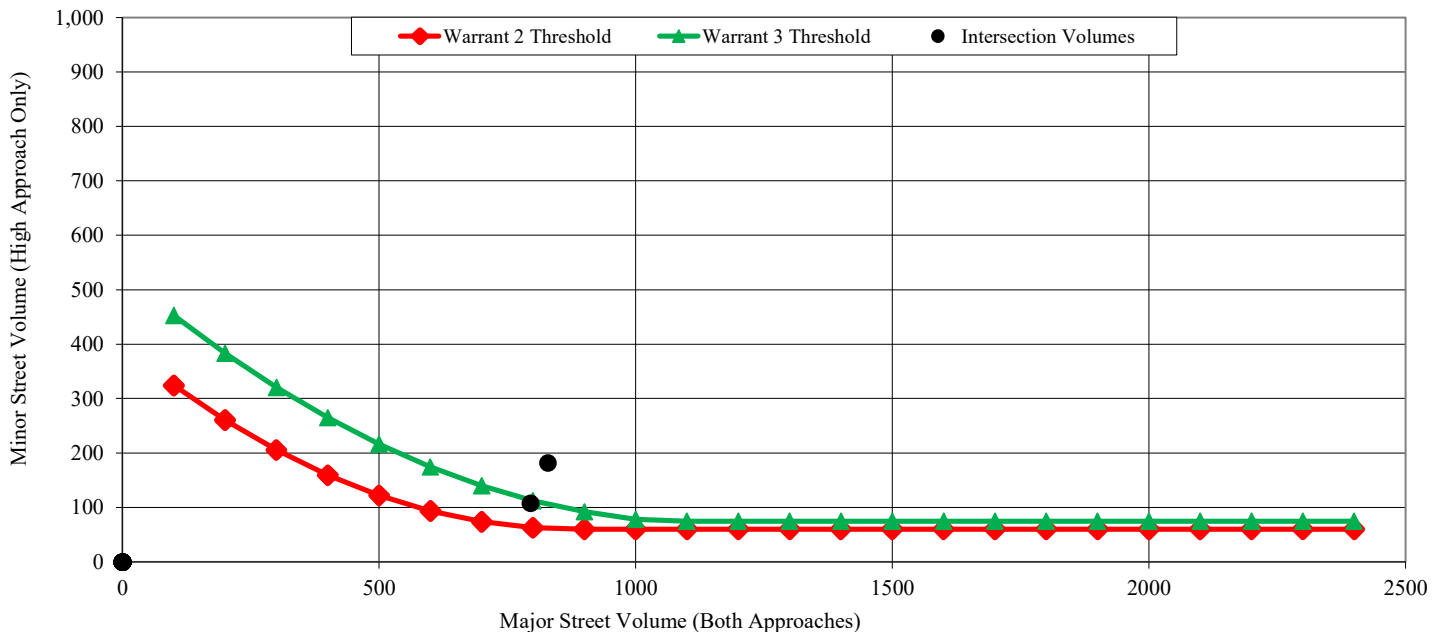
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	2 hours	2 hours	2 (Cond. A) & 2 (Cond. B)
Criteria - Major Street (veh/hr)	350	525	280 (Cond. A) & 420 (Cond. B)
Criteria - Minor Street (veh/hr)	105	53	84 (Cond. A) & 42 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Satisfied
Required values reached for	1178 total, 200 minor, 0 delay	1 hour
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-2 (Warrant 2 - 70% Factor) & Figure 4C-4 (Warrant 3 - 70% Factor)



Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Hills at Harris Creek
Project/File #	20498 - 05
Scenario	2027 Build

Intersection Information			
Major Street (E/W Road)	Mitchell Mill Road	Minor Street (N/S Road)	Jonesville Road
Analyzed with	1 approach lane	Analyzed with	1 Approach Lane
Total Approach Volume	1941 vehicles	Total Approach Volume	611 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	100 percent applied	Right turn reduction of	100 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

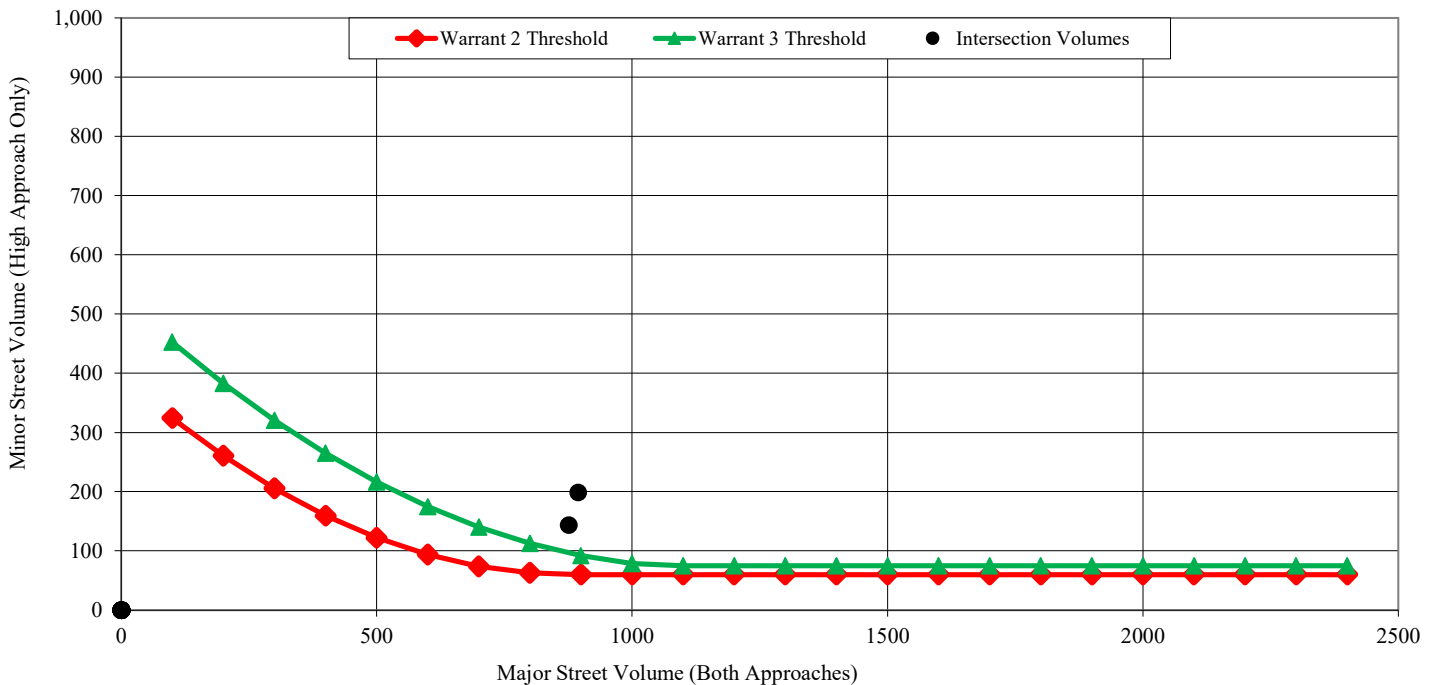
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	2 hours	2 hours	2 (Cond. A) & 2 (Cond. B)
Criteria - Major Street (veh/hr)	350	525	280 (Cond. A) & 420 (Cond. B)
Criteria - Minor Street (veh/hr)	105	53	84 (Cond. A) & 42 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Satisfied
Required values reached for	1316 total, 217 minor, 0 delay	2 hours
Criteria - Total Approach Volume (veh in one hour)	800	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-2 (Warrant 2 - 70% Factor) & Figure 4C-4 (Warrant 3 - 70% Factor)





TOWN OF ROLESVILLE PETITION FOR ANNEXATION

The items below are required in order to complete your application and shall be submitted when the application is filed.

1. A complete copy of the last deed of record for proof of ownership
2. An annexation boundary plat/map for recordation at the Wake County Register of Deeds Office (mylar plat) prepared by a professional land surveyor showing the boundaries of the area or property for annexation into the Town of Rolesville.
3. A complete copy of the written metes and bounds description based on the annexation boundary plat/map.

SECTION 1 - LOCATION

Is the area contiguous with the existing primary corporate limits? Satellite corporate limits is not primary. Yes or No

Note: If the land is contiguous to any existing corporate limits, the proposed annexation boundary will include all intervening right-of-ways for streets, easements, and other areas as stated in North Carolina General Statute §160-131(1).

SECTION 2 - VESTED RIGHTS

NC General Statutes require petitioners of both contiguous and non-contiguous annexations to file a signed statement declaring whether vested rights have been established in accordance with G.S. 160A-385.1 or 153A-344.1 for properties subject to the petition. Do you declare vested rights for the property subject to this petition? Yes or No


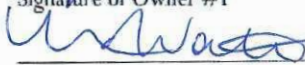
SECTION 3 - PROPERTY DETAILS

PIN Number	Real Estate ID Number	Deed Book Number	Page Number	Acreage To Be Annexed	Wake County Assessed Value
1757761273	0443802	DB016701	PG 00363	10.48	\$ 196,750
		DB	PG		\$
		DB	PG		\$

SECTION 4 - SIGNATURES AND VERIFICATION

We, the undersigned owners of the real properties contained in the metes and bounds description and plat/map attached hereto, respectfully request that the area described above be annexed and made part of the Town of Rolesville, North Carolina. By signing below, we acknowledge that all information is correct.

- If property owned by INDIVIDUALS (NOTE: All legal owners must sign including both husband and wife)


 Signature of Owner #1 **Randall & Laura Watkins 3544** 3/21/22
Donlin Dr, Wake Forest NC 27587 Date Signed

 Signature of Owner #2 Date Signed 21 Mar 2022

- If property owned by a COMPANY OR CORPORATION (NOTE: The company or corporation must be legally registered with the State of North Carolina – Office of the Secretary of State)

Name of Corporation

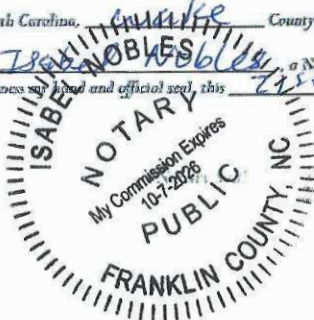
Printed Name of Registered Agent


Signature of Registered Agent

Address, State, Zip of Registered Office:

North Carolina, _____ County

I, SABER NOBLES, a Notary Public for said County and State, do hereby certify that the above signed individual(s) appeared before me this day and signed the foregoing instrument. Witness my hand and official seal, this 21st day of MARCH, 2022




Notary Public
My commission expires: 10/1/26

TOWN OF ROLESVILLE PETITION FOR ANNEXATION

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SECTION 2 - VESTED RIGHTS

NC General Statutes require petitioners of both contiguous and non-contiguous annexations to file a signed statement declaring whether vested rights have been established in accordance with G.S. 160A-385.1 or 153A-344.1 for properties subject to the petition. Do you declare vested rights for the property subject to this petition? Yes or No

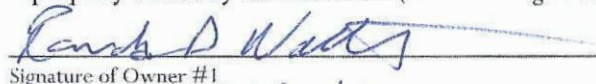
SECTION 3 - PROPERTY DETAILS

PIN Number	Real Estate ID Number	Deed Book Number	Page Number	Acreage To Be Annexed	Wake County Assessed Value
1757778982	0443803	DB20-E	PG 114	97.41	\$ 1,954,590
1757750520	0074789	DB20-E	PG 114	0.69	\$ 179,871
		DB	PG		\$

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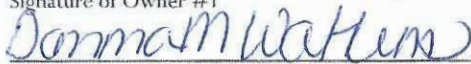
- If property owned by INDIVIDUALS (NOTE: All legal owners must sign including both husband and wife)



Signature of Owner #1

**3609 Rock Farm Rd, Wake
Forest NC 27587-6872**

3/15/2022
Date Signed



Signature of Owner #2

3-15-2022
Date Signed

- If property owned by a COMPANY OR CORPORATION (NOTE: The company or corporation must be legally registered with the State of North Carolina – Office of the Secretary of State)

Name of Corporation

Printed Name of Registered Agent

Signature of Registered Agent

Address, State, Zip of Registered Office:

North Carolina, Wake County

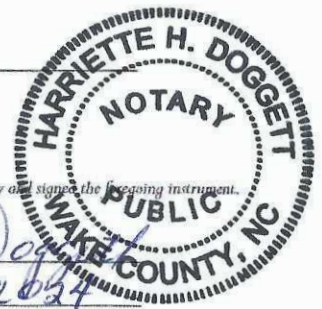
I, Harriette H. Doggett, a Notary Public for said County and State, do hereby certify that the above signed individual(s) appeared before me this day and signed the foregoing instrument.
Witness my hand and official seal, this 15th day of March.

Notary Seal



Notary Public

My commission expires: 8/07, 2024





TOWN OF ROLESVILLE PETITION FOR ANNEXATION

The items below are required in order to complete your application and shall be submitted when the application is filed.

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SECTION 3 - PROPERTY DETAILS

PIN Number	Real Estate ID Number	Deed Book Number	Page Number	Acreage To Be Annexed	Wake County Assessed Value
1757778982	0443803	DB 20-E	PG 114	97.41	\$ 1,954,590
1757750520	0074789	DB 20-E	PG 114	0.69	\$ 179,871
		DB	PG		\$

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- If property owned by INDIVIDUALS (NOTE: All legal owners must sign including both husband and wife)

Alan D. Wathkins

Signature of Owner #1

3609 Rock Farm Rd,
Wake Forest, NC

3/15/2022
Date Signed

Melody L. Lalatkyne

Signature of Owner #2

27587-6872

3/15/2022
Date Signed

- If property owned by a COMPANY OR CORPORATION (NOTE: The company or corporation must be legally registered with the State of North Carolina – Office of the Secretary of State)

Name of Corporation

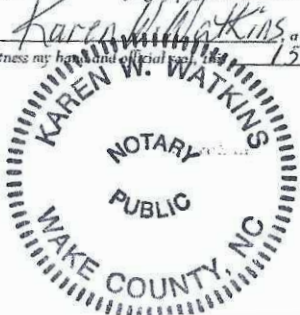
Printed Name of Registered Agent

Signature of Registered Agent

Address, State, Zip of Registered Office:

North Carolina, Wake County

I, Karen W. Watkins, a Notary Public for said County and State, do hereby certify that the above signed individual(s) appeared before me this day and signed the foregoing instrument.
Witness my hand and official seal this 15 day of March, 20 22



Karen W. Watkins
Notary Public
My commission expires: 9/21/26

TOWN OF ROLESVILLE PETITION FOR ANNEXATION

The items below are required in order to complete your application and shall be submitted when the application is filed.

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2. An annexation boundary plat/map for recordation at the Wake County Register of Deeds Office (mylar plat) prepared by a professional land surveyor showing the boundaries of the area or property for annexation into the Town of Rolesville.
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SECTION 2 - VESTED RIGHTS

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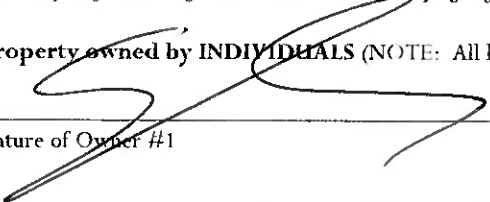
SECTION 3 - PROPERTY DETAILS

PIN Number	Real Estate ID Number	Deed Book Number	Page Number	Acreage To Be Annexed	Wake County Assessed Value
1757758529	0493307	DB 018921	PG 00370	24.08	\$
		DB	PG		\$
		DB	PG		\$

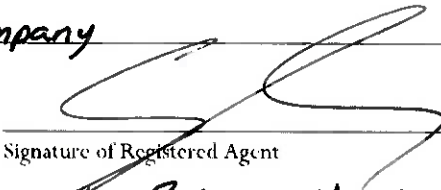
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We, the undersigned owners of the real properties contained in the metes and bounds description and plat/map attached hereto, respectfully request that the area described above be annexed and made part of the Town of Rolesville, North Carolina. By signing below, we acknowledge that all information is correct.

- If property owned by INDIVIDUALS (NOTE: All legal owners must sign including both husband and wife)


 Signature of Owner #1 _____ Date Signed _____
 Signature of Owner #2 _____ Date Signed _____

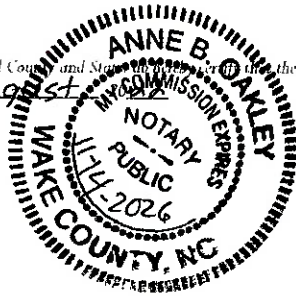
- If property owned by a COMPANY OR CORPORATION (NOTE: The company or corporation must be legally registered with the State of North Carolina - Office of the Secretary of State)

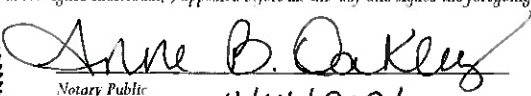
Ellis Land Investment Company
 Name of Corporation _____
Stephen Ellis
 Printed Name of Registered Agent _____

 Signature of Registered Agent _____
6801 Falls of Neuse Rd. Suite 108 Raleigh, NC 27615
 Address, State, Zip of Registered Office: _____

North Carolina, Wake County

I, Anne B. Oakley, a Notary Public for said County and State, do hereby certify that the above signed individual(s) appeared before me this day and signed the foregoing instrument. Witness my hand and official seal, this 16th day of August.

Notary Seal




 Notary Public
 My commission expires: 11/14/2026

NORTH CAROLINA
WAKE COUNTY

BOOK 1318 PAGE 333

WARRANTY DEED

THIS DEED, made this 24th day of March, 1959, by Romie C. Watkins and wife, Irma Kirkland Watkins; Claiborne Watkins and wife, Elizabeth Watkins; Ione Ayscue and husband, Ervin R. Ayscue; Milton Watkins and wife, Excell Watkins; Jane Watkins Puffin and husband, Carlie Ruffin; Louis Watkins and wife, Nevada Watkins; David M. Watkins, single, all of Wake County, North Carolina, and Lois Watkins Ward and husband, Leo Ward, of Durham County, North Carolina, of the first part, to Donnell Watkins and wife, Daisy Watkins, of Wake County, North Carolina, of the second part;

W I T N E S S E T H:

That said parties of the first part, in consideration of One Hundred (\$100.00) Dollars, and other valuable considerations to them paid by said parties of the second part, the receipt of which is hereby acknowledged, have bargained and sold, and by these presents do grant, bargain, sell, and convey to said parties of the second part, their heirs and assigns, a certain tract or parcel of land in Wake County, State of North Carolina, adjoining the lands of J. M. Jones, Mrs. A. P. Upchurch, and others, and bounded as follows:

BEGINNING at stake on the North side of the Traboro Road, corner of Lot No. 4; thence along the lines of Lot No. 4, N. 22° 30' E. 658 feet to a stake; thence N. 47° 30' E. 1223 feet to a stake; thence N. 3100 feet to a stake and pointers on the south side of Powell's Creek; thence up with the various courses of said Creek to a stake corner of Lot No. 2; thence South along the line of Lot No. 2, 4600 feet to a stake on the Kelly Branch 50 feet West of J. M. Jones' corner; thence down with the various courses of said branch to a stake corner of J. M. Jones; thence along Jones line S. 23° W. 226 feet to a stake on the North side of the Traboro Road; thence along said road N. 81° W. 600 feet to the BEGINNING, containing 114-3/4 acres and being Lot No. 3 of the division of the lands of the late John M. Watkins, a map of which is recorded in Book of Maps in the Register of Deeds office for Wake County; and being the same property conveyed by deed recorded in Book 752, page 599, Wake County Registry.

There is excepted from the above described tract of land a one (1) acre tract, more or less, and more particularly described as follows:

All that certain tract or parcel of land located in Wake Forest Township, Wake Forest, North Carolina, and being on the North side

ELLIS NASSIF
ATTORNEY AT LAW
RALEIGH, N. C.

BOOK 1318 PAGE 334

of the Tarboro Road, and containing 1 acre, more or less, and more particularly described as follows:

BEGINNING at a point in the center of the Tarboro Road, corner with the land of J. M. Jones; running thence along the center of said Tarboro Road N. 19° W. 210 feet to a point, corner with the land of R. O. Watkins; running thence along the R. O. Watkins' line N. 23° E. 210 feet to a point, another corner with the lands of R. O. Watkins; running thence along R. O. Watkins' line S. 18° E. 210 feet to a point in the line of J. M. Jones; running thence with the line of J. M. Jones S. 25° W. 210 feet to the point and place of BEGINNING, and being a part of Lot No. 3 of the J. M. Watkins' farm, according to a map and survey made by Pittman Stell, Surveyor, dated April, 1925.

TO HAVE AND TO HOLD the aforesaid tract or parcel of land, and all privileges and appurtenances thereto belonging, to the said parties of the second part, their heirs and assigns, to their only use and behoof in fee simple absolute forever.

And the said parties of the first part, for themselves and their heirs, executors, and administrators, covenant with said parties of the second part, their heirs and assigns, that they are seized of said premises in fee and have right to convey in fee simple; that the same are free and clear from all encumbrances, and that they do hereby forever warrant and will forever defend the said title to the same against the lawful claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the said parties of the first part have hereunto set their hands and seals, the day and year first above written.

Rome O. Watkins (SEAL) ✓
 Romie O. Watkins

Irma Kirkland Watkins (SEAL) ✓
 Irma Kirkland Watkins

Claiborne Watkins (SEAL) ✓
 Claiborne Watkins

Elizabeth Watkins (SEAL) ✓
 Elizabeth Watkins

Jone Ayscue (SEAL) ✓
 Jone Ayscue

Ervin R. Ayscue (SEAL) ✓
 Ervin R. Ayscue

Wilton Watkins (SEAL) ✓
 Wilton Watkins

Excell Watkins (SEAL) ✓
 Excell Watkins

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Jane Watkins Ruffin (SEAL) ✓
 Jane Watkins Ruffin

Carlie Ruffin (SEAL) ✓
 Carlie Ruffin

Louis Watkins (SEAL) ✓
 Louis Watkins

Nevassa Watkins (SEAL) ✓
 Nevassa Watkins

David M. Watkins (SEAL) ✓
 David M. Watkins

Lois Watkins Ward (SEAL) ✓
 Lois Watkins Ward

Leo Ward (SEAL) ✓
 Leo Ward

NORTH CAROLINA
WAKE COUNTY

I, Bettie Jernigan, Notary Public, do hereby certify that Romie O. Watkins, Irma Kirkland Watkins, Claiborne Watkins, Elizabeth Watkins, Ione Ayscue, Milton Watkins, Excell Watkins, Jane Watkins Ruffin, Louis Watkins, Nevassa Watkins, David M. Watkins, Lois Watkins Ward, and Leo Ward, each personally appeared before me this day and acknowledged the due execution of the foregoing instrument.



WITNESS my hand and Notarial seal, this the 31 day of March,

Bettie Jernigan
Notary Public

My commission expires: Mar-23-1959

NORTH CAROLINA
DURHAM COUNTY

I, Mae S. Sellens, Notary Public, do hereby certify that Ervin R. Ayscue personally appeared before me this day and acknowledged the due execution of the foregoing instrument.



WITNESS my hand and Notarial seal, this the 25 day of March,

Mae S. Sellens
Notary Public

My commission expires: 9-13-59

NORTH CAROLINA
Wake County

BOOK 1318 PAGE 336

I, Henry Isaac Rhoads, Notary Public, do hereby certify that Carlie Buffin personally appeared before me this day and acknowledged the due execution of the foregoing instrument.



WITNESS my hand and Notarial seal, this the 26 day of March,

Henry Isaac Rhoads
Notary Public

My commission expires: 3-1-196

STATE OF NORTH CAROLINA:
Wake County:

The foregoing Certificate(s) of
Bethi Jennigan A Notary Public of Wake County, State of North Carolina
Mac A. Bellato A Notary Public of Durham County, State of North Carolina
Henry Isaac Rhoads A Notary Public of Wake County, State of North Carolina

are adjudged to be in due form and correct. Let the instrument, with the certificate be registered.

Witness my hand this the 6 day of June, 1958
George L. ...
Deputy Clerk Superior Court, Wake County, N. C.

Filed for registration at 1:50 PM 6 day of June, 1958
and registered in the office of the Register of Deeds for Wake County,
in Book 1318 Page 333

Probate 25¢ Paid

Registration \$ _____

W. H. ...
Register of Deeds.

STATE OF NORTH CAROLINA
WAKE COUNTY

FROM Remie O. Watkins
TO Drma Kirkland Watkins

THIS DEED, Made this 25th day of February, 1938, by
of Wake County and State of North Carolina of the first part, to Drma Kirkland Watkins
of Wake County and State of North Carolina, of the second part:

WITNESSETH, That said Remie O. Watkins
in consideration of love and affection Dollars, to
him paid by Drma Kirkland Watkins
the receipt of which is hereby acknowledged, has bargained and sold, and by these presents do sell grant, bargain, sell and convey to said
Drma Kirkland Watkins, for the period of her natural life & to her heirs and assigns, a certain tract or
parcel of land in Wake County, State of North Carolina, adjoining the lands of
J. M. Jones, Mrs. A. T. Upchurch and others, and bounded as follows, viz:

Beginning at stake on the N. side of the Larboro Road, corner of lot No.4; thence along the
lines of lot No.4, N. 22 deg. 30' E. 658' to a stake; thence N. 47 deg. 30' E. 1223' to a
stake, thence N. 3100 ft. to a stake and pointers on the south side of Powell's Creek;
thence up with the various courses of said Creek to a stake corner of lot No.2; thence south
along the line of lot No.2, 4600' to a stake on the Kelly Branch 50' West of J. M. Jones'
corner, thence down with the various courses of said Branch to a stake corner of J. M. Jones;
thence along Jones line s. 23 deg. W. 886' to a stake on the north side of the Larboro Road,
thence along said road N. 81 deg. W. 600' to the beginning, containing one hundred and
fourteen and three-fourths acres (114 ³/₄) and being lot No.3 or the Division of the lands of
the late John M. Watkins, a map of which is recorded in the book of maps in the Register of
Deeds office for Wake County .

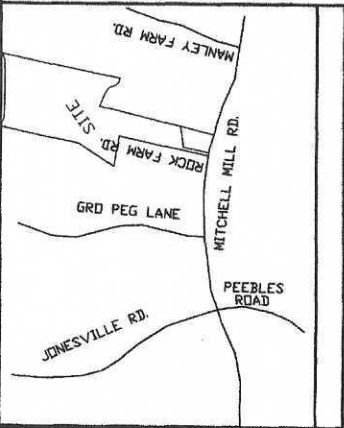
TO HAVE AND TO HOLD the aforesaid tract or parcel of land, and all privileges and appurtenances thereto belonging, to the said
Drma Kirkland Watkins her heirs and assigns, to her only use and behoof forever.
And the said Remie O. Watkins, for him self
and his heirs, executors and administrators, covenanted with said Drma Kirkland Watkins, her
heirs and assigns, that he is seized of said premises in fee and has right to convey in fee simple, that the same are free and clear from all encum-
brances, and that he do not hereby forever warrant and will forever defend the said title to the same against the claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the said Remie O. Watkins
has hereunto set his hand and seal, the day and year first above written. Remie O. Watkins (Seal)
Attest: W. T. Booker (Seal)
(Seal)
(Seal)
(Seal)

STATE OF NORTH CAROLINA, Wake County
I, W. T. Booker, Justice of the Peace, do, hereby certify that
Remie O. Watkins and his wife, personally appeared
before me this day and acknowledged the due execution of the annexed Deed of Conveyance; and the said
being by me privately examined, separate and apart from her said husband, touching her voluntary execution of the same, both state that she signed the same freely and
voluntarily, without fear or compulsion of her said husband or any other person, and that she doth still voluntarily assent thereto. Let the instrument, with this certifi-
cate, be registered.

Witness my hand and private seal, this 1st day of March, A.D. 1938
My commission expires W. T. Booker J. P. N.P. (Seal)

NORTH CAROLINA—WAKE COUNTY
The foregoing certificate of W. T. Booker, Justice of the Peace of Wake
County, State of North Carolina, is adjudged to be correct. Let the instrument, with the certificates, be registered.
Witness my hand, this 1st day of March, A.D. 1938. Hallie Whitlock, J. P.
Filed for registration on the 1st day of March, 1938, at 9 o'clock A.M., and registered in the office of the Register of
Deeds for Wake County, N. C., this 9th day of March, 1938, in Book 752 of Deeds, on page 579.
Walter E. Blanton Register of Deeds.
By W. T. Booker, Deputy.



NOTE: BEING A PORTION OF PIN # 1757-02-77-8942 ZONED R-30

REFERENCES: DEED BOOK 1169, PG. 328
DEED BOOK 1310, PG. 333
BOOK OF MAPS 1987, PG. 985
MAP BY KENNETH CLOSE, INC. DATED 07-10-03 ENTITLED "BOUNDARY SURVEY OF HAMPTON AND COLE"

NOTE: NO CGCS MONUMENT WITHIN 200'.
NOTE: AREA COMPUTED BY COORDINATE METHOD.
NOTE: IMPERVIOUS SURFACE COVERAGE SHALL NOT EXCEED 15% ON ANY INDIVIDUAL LOT.

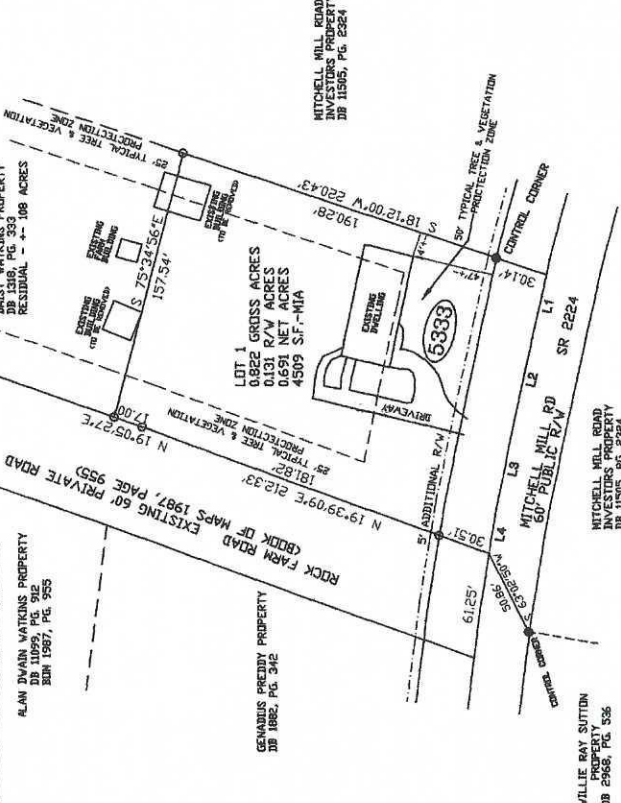
ANY FURTHER SUBDIVISION OF THESE TRACTS SHALL BE SUBJECT TO THE SAME STANDARDS, INCLUDING APPLICABLE ROAD STANDARDS.

Course	Bearing	Distance
L1	N 77°21'31" W	34.64'
L2	N 77°55'30" W	52.41'
L3	N 78°51'09" W	52.50'
L4	N 80°51'18" W	24.02'

ALAN JIVAIN WATKINS PROPERTY
DB 1099, PG. 912
SR 1987, PG. 525



ADOPTED FROM MAP BY KENNETH CLOSE, INC. DATED 07-10-03 AND ENTITLED "BOUNDARY SURVEY FOR HAMPTON AND COLE PROPERTY"



IMPERVIOUS SURFACE COVERAGE - LOT 1
1870 S.F. - HOUSE
1746 S.F. - DRIVEWAY
3616 TOTAL S.F. - COVERAGE
6909 S.F. - ALLOWABLE COVERAGE
693 S.F. - AVAILABLE COVERAGE

LEGEND
● EXISTING IRON PIPE
○ NEW IRON PIPE

4/10/05

[Signature]
Subdivision Administrator/Review Officer

Approval expires if not recorded on or before



WILLIAMS - PEARCE & ASSOC., P.A.

Professional Land Surveyors

BOOK: 312605 PAGE: 102287

P.O. Box 892, Zebulon, N.C. Phone (919)269-9605

Book 2005 Aug 02287

DRAWN BY: CTP & RBV
CHECKED BY: CTP
DATE: 08-17-2005
SCALE: 1" = 50'
JOB: /NEWMAPS/DAISY WATKINS/APP97 OF 98

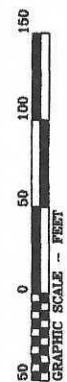
HAKE COUNTY, NC 249
LAURA H RIDDICK
REGISTER OF DEEDS
PRESENTED & RECORDED ON
11/21/2005 AT 10:15:00

This statement is to advise that one or more of the roads serving this subdivision are designated as private roads, not public roads. All owners of property within the subdivision are to be held responsible for the maintenance and repair of such roads. The responsibility for maintenance of such private roads shall rest with the owners within the subdivision. No representation is made that the private roads within this subdivision are suitable for use as public roads. The North Carolina Department of Transportation will eventually assume maintenance of such roads. However, if such maintenance is not assumed by the Department of Transportation, the owners, providers and public service vehicles may be unable to provide adequate service to the residents of the subdivision.

There shall be no filling or the erection of permanent structures in the areas of Wake County Flood Hazard Soil or F.E.M.A. zones until a Flood Study is approved by Wake County or F.E.M.A.

* Before acquiring a building permit for lots marked by "M", the applicant shall obtain the Hazard Mitigation Permit from the County Zoning Administrator. The building permit for construction, or surveyor must certify on any such permit that all flood hazard requirements are met.

MINOR SUBDIVISION FOR
DAISY WATKINS
WAKE FOREST TOWNSHIP
WAKE COUNTY
NORTH CAROLINA



NORTH CAROLINA SPECIAL WARRANTY DEED

Excise Tax: \$1445.00

Wake County REID Out of 0046970

Mail/Box to: Grantee

This instrument was prepared by: Kenneth L. Eagle, 105 Weston Estates Way, Cary, NC 27513

Brief description for the Index: 25.125 Acres, north side of Mitchell Mill Road (NCSR 2224)

THIS DEED made this 15 day of February 2022, by and between

GRANTOR	GRANTEE
Mitchell Mill Road Investors LLC, a North Carolina limited liability company Address: 105 Weston Estates Way Cary, NC 27513	Ellis Land Investment Company, LLC, a North Carolina limited liability company Address: 6801 Falls of Neuse Road, Suite 108 Raleigh, NC 27615

Enter in appropriate block for each Grantor and Grantee: name, mailing address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in Wake Forest Township, Wake County, North Carolina and more particularly described as follows (the "Property"):

SEE EXHIBIT A ATTACHED HERETO AND INCORPORATED BY REFERENCE.

The Property was acquired by Grantor by instrument recorded in Book 11505, Page 2324.

None of the Property herein conveyed includes the primary residence of Grantor.

Submitted electronically by Ellis & Winters LLP in compliance with North Carolina statutes governing recordable documents and the terms of the submitter agreement with the Wake County Register of Deeds.

TO HAVE AND TO HOLD the Property and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor has done nothing to impair such title as Grantor received, and Grantor will warrant and defend the title against the lawful claims of all persons claiming by, under or through Grantor, other than the following exceptions:

1. Ad valorem property taxes for 2022 and subsequent years.
2. Right of way of Mitchell Mill Road (North Carolina Secondary Road 2224).
3. All rights of way, easements, restrictions, agreements, and other matters of record affecting the Property recorded in the office of the Register of Deeds for Wake County, North Carolina, including, without limitation, the following:
 - a. Easement to Carolina Power and Light Company recorded in Book 2830, Page 24.
 - b. Rights of others entitled thereto in and to the continued uninterrupted flow of any portion of Kelly Branch on or adjoining the Property.
 - c. Riparian or littoral rights incident to any branches, creeks, streams, or other waters on or adjoining the Property.
 - d. Rights of adjoining property owners in and to any ditches on or adjoining the Property.
 - e. Matters that would be shown by a current survey of the Property.

IN WITNESS WHEREOF, the Grantor has caused this Deed to be executed in its company name by its duly authorized official, as of the day and year first above written.

Mitchell Mill Road Investors LLC,
a North Carolina limited liability company

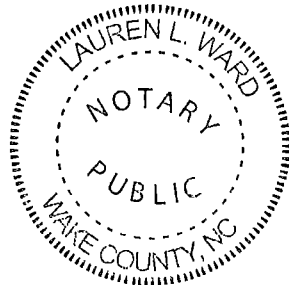
By: Timothy R. Smith
Name: Timothy R. Smith
Title: Vice President

Wake County, North Carolina

I certify that the following person personally appeared before me this day and acknowledged to me that he executed the foregoing Deed: Timothy R. Smith

Date: February 15, 2022

(affix seal or stamp here)



Lauren L. Ward
Notary Public
Printed/Typed Name: Lauren L. Ward
My Commission Expires: Aug. 3, 2024

**EXHIBIT A
PROPERTY DESCRIPTION**

LYING AND BEING in Wake Forest Township, Wake County, North Carolina, adjoining the right of way of Mitchell Mill Road (North Carolina Secondary Road 2224), and being more particularly described as follows (all recording references are to the office of the Register of Deeds for Wake County, North Carolina):

BEGINNING at an iron pipe found in the north right-of-way line of Mitchell Mill Road, said point being a common corner with the southeast corner of property owned now or formerly by Donnell Watkens (see Deed Book 1318, Page 333); then running along the following lines:

With the eastern boundary line of Watkens, North 18 degrees 12 minutes 00 seconds East 893.03 feet to an iron pipe set;

Continuing with the eastern boundary line of Watkens, North 18 degrees 12 minutes 00 seconds East 50.00 feet to a point in the Kelly Branch;

The along center line of Kelly Branch:

North 39 degrees 14 minutes 44 seconds East 7.31 feet;
South 56 degrees 54 minutes 35 seconds East 48.61 feet;
South 70 degrees 54 minutes 35 seconds East 24.61 feet;
North 70 degrees 48 minutes 45 seconds East 25.45 feet;
South 40 degrees 27 minutes 21 seconds East 28.19 feet;
South 89 degrees 23 minutes 35 seconds East 32.88 feet;
South 36 degrees 29 minutes 25 seconds East 17.15 feet;
North 87 degrees 07 minutes 56 seconds East 15.72 feet;
South 51 degrees 42 minutes 06 seconds East 21.14 feet;
South 89 degrees 24 minutes 42 seconds East 33.05 feet;
South 02 degrees 01 minutes 35 seconds East 17.48 feet;
South 81 degrees 55 minutes 17 seconds East 15.31 feet;
North 69 degrees 56 minutes 02 seconds East 14.47 feet;
South 47 degrees 41 minutes 48 seconds East 9.88 feet;
South 10 degrees 48 minutes 42 seconds West 17.64 feet;
South 60 degrees 44 minutes 48 seconds East 46.31 feet;
South 37 degrees 39 minutes 08 seconds East 49.81 feet;
South 12 degrees 22 minutes 12 seconds East 24.12 feet;
South 29 degrees 48 minutes 24 seconds East 30.28 feet;
South 82 degrees 27 minutes 46 seconds East 31.99 feet;
South 59 degrees 14 minutes 13 seconds East 17.52 feet;
South 84 degrees 17 minutes 27 seconds East 25.35 feet;
South 34 degrees 56 minutes 33 seconds East 75.35 feet;
South 76 degrees 29 minutes 04 seconds East 27.94 feet;
South 53 degrees 56 minutes 59 seconds East 23.48 feet;
North 62 degrees 42 minutes 03 seconds East 27.98 feet;
South 12 degrees 06 minutes 52 seconds East 39.01 feet;
South 19 degrees 20 minutes 23 seconds East 50.44 feet;

South 77 degrees 09 minutes 16 seconds East 19.10 feet;
South 07 degrees 23 minutes 00 seconds East 8.05 feet;
South 27 degrees 33 minutes 46 seconds West 17.80 feet;
South 02 degrees 52 minutes 45 seconds East 17.25 feet;
South 56 degrees 32 minutes 15 seconds East 19.64 feet;
South 12 degrees 52 minutes 10 seconds East 26.30 feet;
South 77 degrees 21 minutes 17 seconds East 19.17 feet;
South 22 degrees 18 minutes 41 seconds East 19.39 feet;
South 65 degrees 53 minutes 52 seconds East 24.78 feet;
South 19 degrees 31 minutes 10 seconds West 13.15 feet;
South 71 degrees 14 minutes 44 seconds East 11.65 feet;
North 78 degrees 16 minutes 05 seconds East 30.35 feet;
North 66 degrees 40 minutes 56 seconds East 29.69 feet;
North 52 degrees 43 minutes 45 seconds East 52.03 feet;
South 84 degrees 05 minutes 40 seconds East 20.63 feet;
North 75 degrees 05 minutes 35 seconds East 16.99 feet;
South 68 degrees 27 minutes 23 seconds East 16.87 feet;
North 81 degrees 44 minutes 06 seconds East 14.34 feet;
South 74 degrees 50 minutes 19 seconds East 19.97 feet;
North 49 degrees 38 minutes 31 seconds East 44.60 feet;
South 62 degrees 45 minutes 51 seconds East 22.37 feet;
North 57 degrees 04 minutes 06 seconds East 21.98 feet;
South 85 degrees 24 minutes 11 seconds East 37.57 feet;
North 62 degrees 13 minutes 03 seconds East 23 .16 feet;
South 54 degrees 59 minutes 08 seconds East 19 .65 feet;
South 15 degrees 17 minutes 54 seconds East 38.18 feet;
South 05 degrees 38 minutes 36 seconds East 33.15 feet;
South 15 degrees 59 minutes 03 seconds West 8.22 feet;
South 53 degrees 28 minutes 36 seconds West 20. 78 feet;
South 27 degrees 04 minutes 40 seconds East 79.74 feet;
North 82 degrees 47 minutes 20 seconds East 21.90 feet;
South 66 degrees 58 minutes 30 seconds East 28.16 feet;
South 81 degrees 40 minutes 19 seconds East 27.96 feet;
South 51 degrees 33 minutes 15 seconds East 16.75 feet;
South 06 degrees 37 minutes 45 seconds West 10.90 feet;
South 19 degrees 04 minutes 40 seconds West 14.50 feet;
South 48 degrees 42 minutes 21 seconds East 17.71 feet;
South 61 degrees 22 minutes 03 seconds East 39.43 feet; and

South 36 degrees 38 minutes 48 seconds East 39.44 feet to a point in the center line of Kelly Branch, in the western boundary line of property owned now or formerly by Joseph H. Wagner (see deeds recorded in Book 5816, Page 277 and Book 2619, Page 775 and maps recorded in Book of Maps 1985, Page 2212 and Book of Maps 1993, Page 446);

then leaving the center line of Kelly Creek and running with the western boundary line of said property of Wagner along the following two (2) lines:

South 01 degrees 27 minutes 33 seconds East 19.71 feet; and
South 00 degrees 27 minutes 33 seconds East 10.00 feet to a point in the eastern boundary line of the Property herein described and a common corner with the southwest corner of said property of Wagner and with the northwest corner of property owned now or formerly by Charles Spencer Jones (see deed recorded in Book 10112, Page 1534);

then with the western boundary line of said property of Jones, along the following two (2) lines:

South 00 degrees 27 minutes 33 seconds East 10.00 feet; and
South 00 degrees 27 minutes 33 seconds East 552.55 feet to a spike set in the centerline of Mitchell Mill Road;

then along the centerline of Mitchell Mill Road the following lines:

North 71 degrees 32 minutes 39 seconds West 24.07 feet;
North 74 degrees 13 minutes 18 seconds West 51.42 feet;
North 75 degrees 48 minutes 52 seconds West 259.87 feet;
North 75 degrees 14 minutes 33 seconds West 152.68 feet;
North 74 degrees 15 minutes 20 seconds West 51.96 feet;
North 74 degrees 59 minutes 06 seconds West 50.07 feet;
North 74 degrees 05 minutes 27 seconds West 50.77 feet;
North 73 degrees 34 minutes 20 seconds West 99.95 feet;
North 72 degrees 45 minutes 42 seconds West 52.88 feet;
North 73 degrees 37 minutes 20 seconds West 98.57 feet;
North 74 degrees 31 minutes 11 seconds West 100.00 feet;
North 75 degrees 15 minutes 51 seconds West 96.96 feet;
North 75 degrees 39 minutes 32 seconds West 154.21 feet;
North 76 degrees 20 minutes 42 seconds West 100.91 feet;
North 77 degrees 07 minutes 54 seconds West 104.34 feet; and
North 77 degrees 21 minutes 31 seconds West 70.97 feet to a spike set in the centerline of Mitchell Mill Road, a common corner with the southeast corner of the aforesaid property owned now or formerly by Watkins;

then with the eastern boundary line of said property of Watkins, North 18 degrees 12 minutes 00 seconds East 30.14 feet to the point and place of BEGINNING,

and being Tract 1, containing a total of 25.125 acres (1.043 acres in the right of way of Mitchell Mill Road and 24.082 outside of the right of way of Mitchell Mill Road), as shown on a survey entitled "Boundary Survey of Hampton and Cole Property", prepared by Kenneth Close, Inc., dated July 10, 2003.

Excise Tax: \$0 Parcel# 443802

Prepared By: Gwynn & Edwards, P.A. (without title exam or tax advice)

Mail After Recording to: **GRANTEE**

NORTH CAROLINA GENERAL WARRANTY DEED

This Deed made this 15 day of February, 2017, by and between **DAISY WATKINS, GRANTOR, to RANDALL WATKINS and wife, LAURA WATKINS, GRANTEES**, whose mailing address is 3278 Landing Falls Lane, Raleigh, NC 27616.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in Wake County, North Carolina and more particularly described as follows:

BEING ALL OF TRACT 1 containing 10.524 gross acres as shown on map entitled "Exempt Subdivision for Randall Watkins, Wake Forest Township, Wake County, North Carolina" by Williams-Pearce and Assoc., Professional Land Surveyors, P.A., dated 12/08/2016 and recorded in Book of Maps 2017, Page 218, Wake County Registry.

This deed was prepared without a title search and drafting attorney makes no representation as to title or estate.

This is not the primary residence of the Grantor.

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons

Submitted electronically by "Gwynn & Edwards, PA"
in compliance with North Carolina statutes governing recordable documents
and the terms of the submitter agreement with the Wake County Register of Deeds.

whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:

- 1. 2017 ad valorem taxes; and
- 2. Any rights of way and easements of record, if any.

The property hereinabove described was conveyed to Grantor by instrument recorded in Book 1318, Page 333, Wake County Registry.

A map of the above-described property is recorded in Book of Maps 2017, Page 218, Wake County Registry.

IN TESTIMONY WHEREOF, the Grantor has hereunto set her hand and seal the day and year first above written.

Daisy Watkins

 DAISY WATKINS



STATE OF NORTH CAROLINA
~~Wake~~ COUNTY
 Franklin

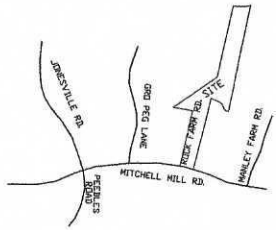
I, a Notary Public of the County and State aforesaid, certify that DAISY WATKINS personally appeared before me this day and acknowledged the voluntary execution of the foregoing instrument. Witness my hand and official stamp or seal, this 15 day of FEBRUARY, 2017.

My Commission Expires: 9-12-2021



Charlotte L. Thaxton

 NOTARY PUBLIC
 CHARLOTTE L. THAXTON



VICINITY MAP

PIN: 1757.02-77-8942

ZONED: R-30

SETBACKS:

FRONT - 30'

REAR - 30'

SIDE 10'

NOTE: AREA COMPUTED BY COORDINATE METHOD.

NOTE: NO NCCS MONUMENT WITHIN 2000'.

REFERENCES:

MAP BY: KENNETH CLOSE, INC.

ENTITLED: BOUNDARY SURVEY FOR

HAMPTON & COLE PROPERTY

DATED: 07-10-2003

PLAT BOOK 1887 PG 955

PLAT BOOK 2005 PG 2287

DEED BOOK 1318 PG 333

NOTE: THIS PROPERTY IS SUBJECT TO EASEMENTS

AND RESTRICTIONS OF RECORD.

CERTIFICATION OF OWNERSHIP

The undersigned hereby certify that I am (we are) the owner(s) of the property shown and described hereon, which is in the subdivision jurisdiction of the County of Wake and that I (we) hereby adopt this plat with my (our) free consent.

[Signature] owner 2/1/17 date

owner date

NORTH CAROLINA, Franklin COUNTY,

I, Angela G.W. Instead A NOTARY PUBLIC

FOR SAID COUNTY AND STATE DO HEREBY CERTIFY THAT

Ronald D. Watkins PERSONALLY

APPEARED BEFORE ME THIS DAY AND ACKNOWLEDGED THE DUE

EXECUTION OF THE FOREGOING INSTRUMENT. WITNESS MY

HAND February 1, 2017

Angela G.W. Instead NOTARY PUBLIC

My commission expires 4-9-18.

LEGEND

• EXISTING IRON PIPE

○ NEW IRON PIPE

I, DANNY O. WILLIAMS, PROFESSIONAL LAND SURVEYOR NO. L-2647 CERTIFY THAT THIS PLAT IS OF ANOTHER CATEGORY SUCH AS THE RECOMBINATION OF PARCELS, A COURT-ORDERED SURVEY OR OTHER CATEGORY AS DEFINED IN SUBDIVISION.

DANNY O. WILLIAMS, PROFESSIONAL LAND SURVEYOR NO. L-2647

DANNY O. WILLIAMS, PROFESSIONAL LAND SURVEYOR NO. L-2647

DANNY O. WILLIAMS, PROFESSIONAL LAND SURVEYOR NO. L-2647

DANNY O. WILLIAMS, PROFESSIONAL LAND SURVEYOR NO. L-2647

I, James Beard, Planning Director and Review Officer of Wake County, certify that this plat DOES NOT constitute a subdivision and that it meets all statutory requirements for recording. Because of its "exempt" status, the county has not reviewed this plat for compliance with applicable lot standards and other subdivision regulations (e.g., road standards). Prospective purchasers should be aware that plans for building and development may be denied for lots that DO NOT meet applicable county standards.

Date 2-2-17
 Planning Director/Review Officer *[Signature]*
 Approval expires if not recorded on or before 2-17-17

There shall be no filling or the erection of permanent structures in the areas of Wake County Flood Hazard Soils or Federal Emergency Management Agency (FEMA) 100 year flood zones until a flood study is approved by Wake County and/or FEMA.

Before acquiring a building permit for lots marked by an *, (asterisk) the builder may need to obtain a Flood Hazard Area Use Permit from Wake County Environmental Services. The builder's engineer, architect and/or surveyor (as appropriate) must certify that all flood hazard requirements are met.

Course	Bearing	Distance
L1	S 87°07'56" W	5.73'
L2	N 36°29'25" W	17.15'
L3	N 88°23'35" W	32.28'
L4	N 40°27'31" W	28.19'
L5	S 70°48'45" W	25.45'
L6	N 70°54'35" W	24.61'
L7	N 56°54'35" W	33.79'
L8	N 59°54'35" W	14.82'
L9	S 39°14'44" W	7.31'
L10	S 19°05'28" W	17.90'

PEGGY P. UNDERHILL
 BOM 1982, PG. 581

RONALD W. NEWWELL
 DB 14336, PG. 435

ALAN DWAIN WATKINS PROPERTY
 DB 11099, PG. 912

GENADIUS PREDDY PROPERTY
 DB 1892, PG. 342

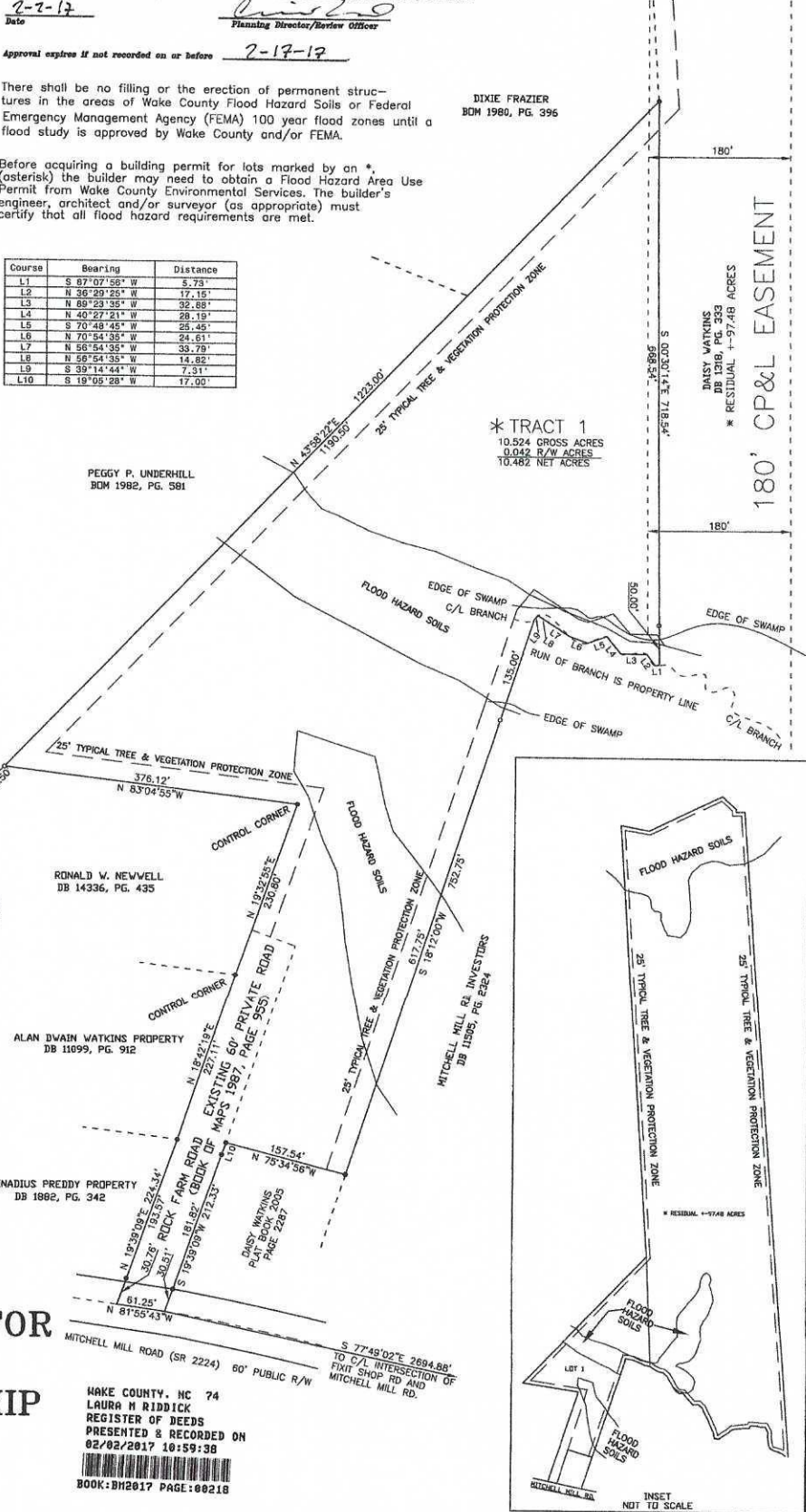
WAKE COUNTY, NC 74
 LAURA H RIDDICK
 REGISTERED & DEEDS
 PRESENTED & RECORDED ON
 02/02/2017 10:59:38
 BOOK: BH2017 PAGE: 00210

DIXIE FRAZIER
 BOM 1960, PG. 396

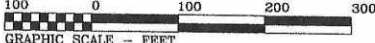
* TRACT 1
 10.524 GROSS ACRES
 0.042 R/W ACRES
 10.482 NET ACRES

BASEY WATKINS
 DB 1318, PG. 353
 * RESIDUAL +-97.48 ACRES

180' CP&L EASEMENT



EXEMPT SUBDIVISION FOR
 RANDALL WATKINS
 WAKE FOREST TOWNSHIP
 WAKE COUNTY
 NORTH CAROLINA



GRAPHIC SCALE - FEET

JOB: S:\NEWMAPS\R\RANDALL WATKINS\10+AC TRACT.DWG JHP375 CF

DRAWN BY: DOW & BCW
 CHECKED BY: DOW
 DATE: 12-08-2016
 SCALE: 1" = 100'

Bm 2017 P6218

S-333-16

LEGAL DESCRIPTIONS**5333 Mitchell Mill Road, Wake Forest, NC 27587** (PIN: 1757750520; REID: 0074789)

BEING all of Lot 1 as shown on that plat titled "Minor Subdivision for Daisy Watkins" by Williams-Pearce & Assoc., P.A., recorded in Book of Maps 2005, Page 2287, Wake County Registry.

3645 Rock Farm Road, Wake Forest, NC 27587 (PIN: 1757761273; REID: 0443802)

BEING all of Tract 1 containing 10.524 gross acres as shown on map entitled "Exempt Subdivision for Randall Watkins, Wake Forest Township, Wake County, North Carolina" by Williams-Pearce and Assoc., Professional Land Surveyors, P.A., dated 12/08/2016 and recorded in Book of Maps 2017, Page 218, Wake County Registry.

0 Mitchell Mill Road, Wake Forest, NC 27587 (PIN: 1757778982; REID: 0443803)

BEGINNING at stake on the North side of the Tarboro Road corner of Lot No. 4; thence along the lines of Lot No. 4, N. 22° 30' E. 658 feet to a stake; thence N. 47° 30' E. 1223 feet to a stake; thence N. 3100 feet to a stake and pointers on the south side of Powell's Creek; thence up with the various courses of said Creek to a stake corner of Lot No. 2; thence South along the line of Lot No. 2, 4600 feet to a stake on the Kelly Branch 50 feet West of J.M. Jones' corner; thence down with the various courses of said branch to a stake corner of J.M. Jones; thence along Jones line S. 23° W. 886 feet to a stake on the North side of the Tarboro Road; thence along said road N. 81° W. 600 feet to the BEGINNING, containing 114-3/4 acres and being Lot No. 3 of the division of the lands of the late John M. Watkins, a map of which is recorded in Book of Maps in the Register of Deeds office for Wake County; and being the same property conveyed by deed recorded in Book 752, Page 599, Wake County Registry.

There is excepted from the above described tract of land a one (1) acre tract, more or less, and more particularly described as follows:

All that certain tract or parcel of land located in Wake Forest Township, Wake Forest, North Carolina, and being on the North side of the Tarboro Road, and containing 1 acre, more or less, and more particularly described as follows:

BEGINNING at a point in the center of the Tarboro Road, corner with the land of J.M. Jones; running thence along the center of said Tarboro Road N. 18° W. 210 feet to a point, corner with the land of R.O. Watkins; running thence along the R.O. Watkins' line N. 23° E. 210 feet to a point, another corner with the lands of R.O. Watkins; running thence along R.O. Watkins' line S. 18° E. 210 feet to a point in the line of J.M. Jones; running thence with the line of J.M. Jones S. 23° W. 210 feet to the point and place of BEGINNING, and being a part of Lot No. 3 of the J.M. Watkins' farm, according to a map and survey made by Pittman Stell, Surveyor, dated April, 1925.

5326 Mitchell Mill Road, Wake Forest, NC 27587 (PIN: 1757738648; REID: 0046970)

LYING AND BEING in Wake Forest Township, Wake County, North Carolina, adjoining the right of way of Mitchell Mill Road (North Carolina State Road 2224), and being more particularly described as follows:

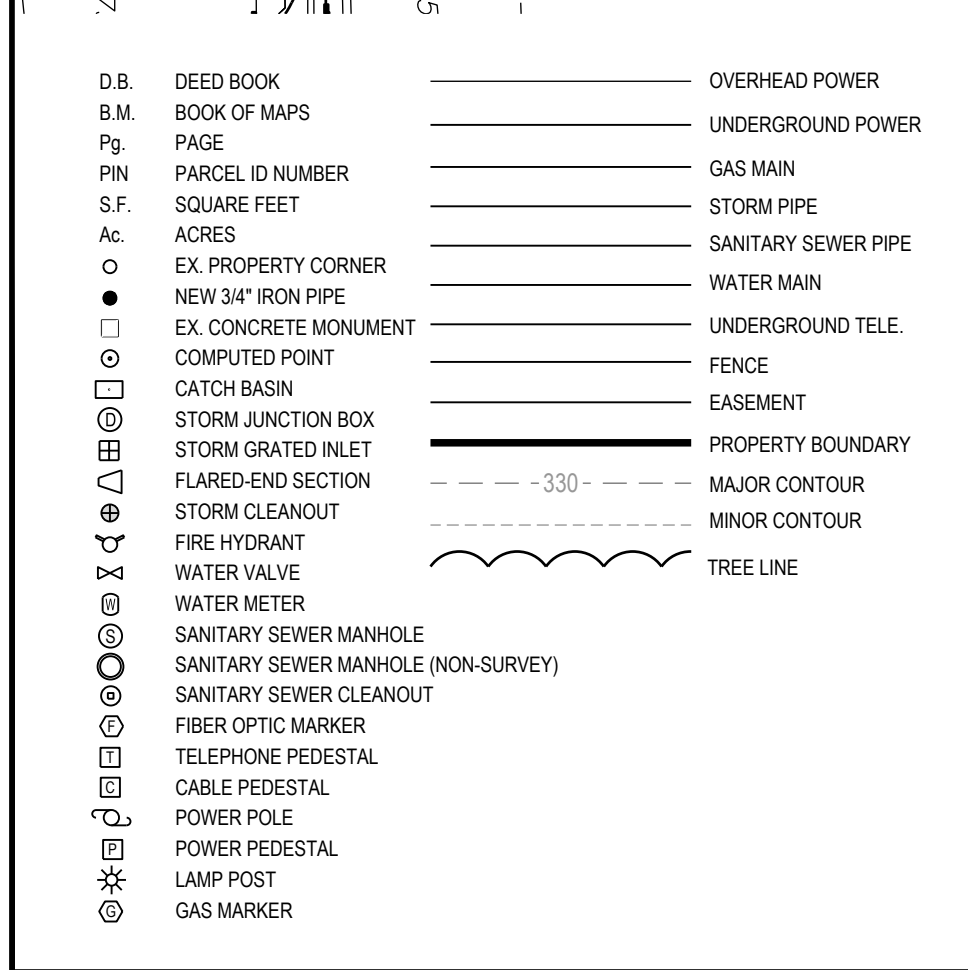
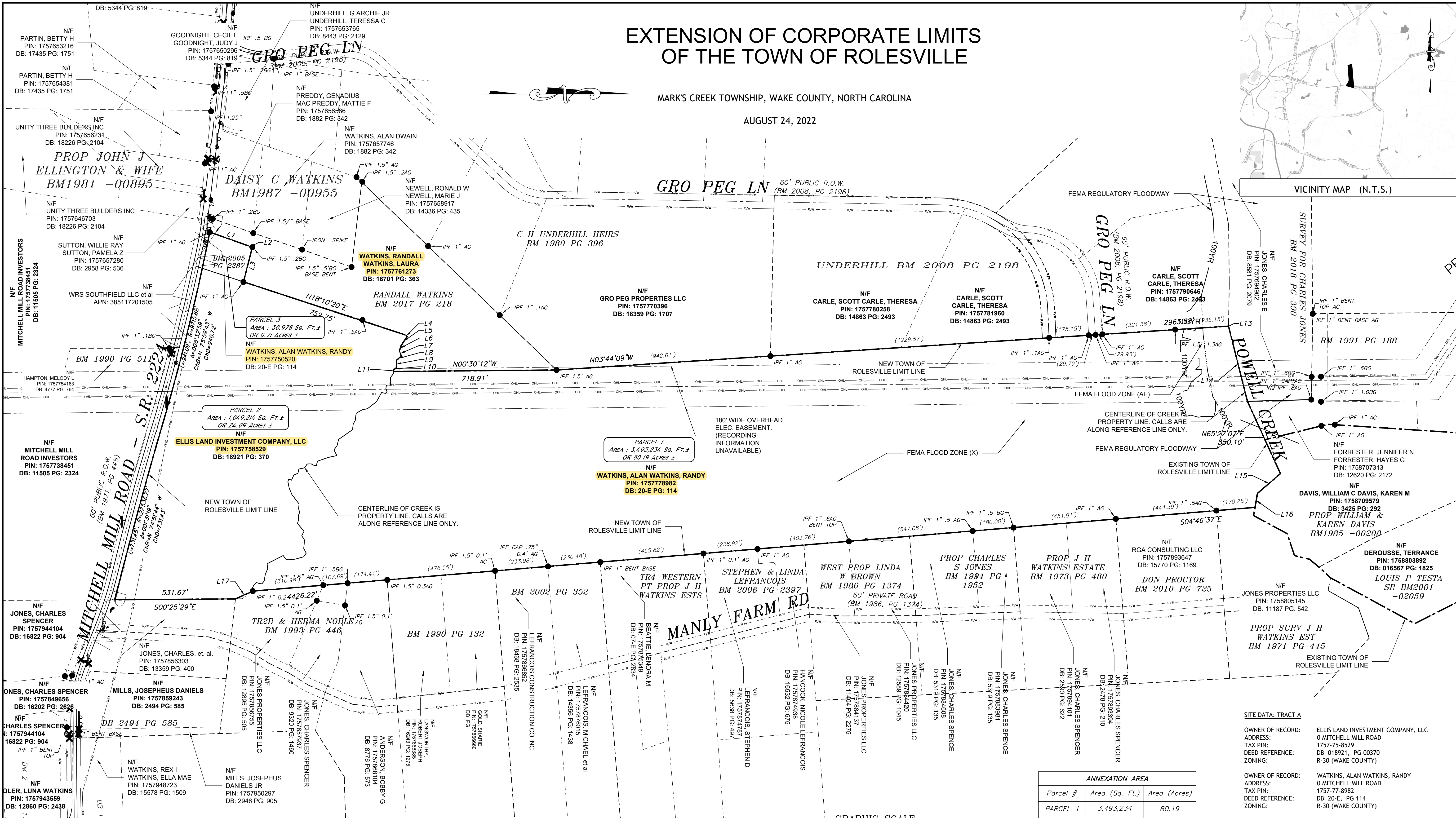
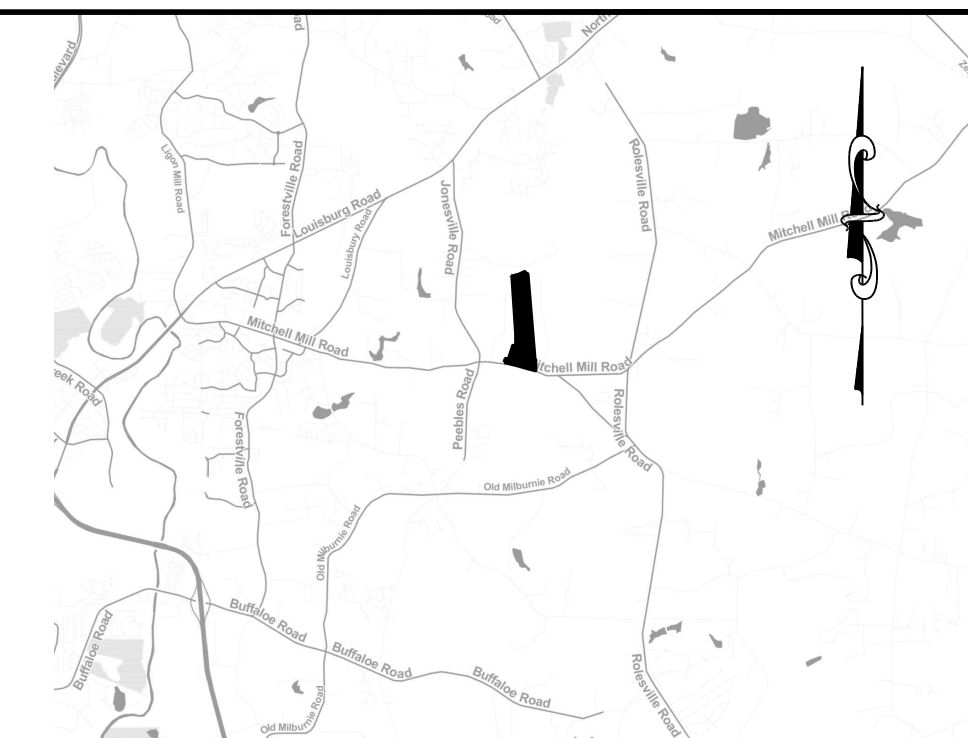
TRACT ONE:

BEGINNING at an iron pipe found in the north right-of-way line of Mitchell Mill Road, said point being the common corner of Lois Jones Merriman Heirs' property and the southeast corner of Donnell Watkens (Deed Book 1318, Page 333, Wake County Registry); thence North 18 degrees 12 minutes 00 seconds East 893.03 feet to an iron pipe set; thence North 18 degrees 12 minutes 00 seconds East 50.00 feet to a point in the Kelly Branch the following courses and distances: North 39 degrees 14 minutes 44 seconds East 7.31 feet; South 56 degrees 54 minutes 35 seconds East 48.61 feet; South 70 degrees 54 minutes 35 seconds East 24.61 feet; North 70 degrees 48 minutes 45 seconds East 25.45 feet; South 40 degrees 27 minutes 21 seconds East 28.19 feet; South 89 degrees 23 minutes 35 seconds East 32.88 feet; South 36 degrees 29 minutes 25 seconds East 17.15 feet; North 87 degrees 07 minutes 56 seconds East 15.72 feet; South 51 degrees 42 minutes 06 seconds East 21.14 feet; South 89 degrees 24 minutes 42 seconds East 33.05 feet; South 02 degrees 01 minutes 35 seconds East 17.48 feet; South 81 degrees 55 minutes 17 seconds East 15.31 feet; North 69 degrees 56 minutes 02 seconds East 14.47 feet; South 47 degrees 41 minutes 48 seconds East 9.88 feet; South 10 degrees 48 minutes 42 seconds West 17.64 feet; South 60 degrees 44 minutes 48 seconds East 46.31 feet; South 37 degrees 39 minutes 08 seconds East 49.81 feet; South 12 degrees 22 minutes 12 seconds East 24.12 feet; South 29 degrees 48 minutes 24 seconds East 30.28 feet; South 82 degrees 27 minutes 46 seconds East 31.99 feet; South 59 degrees 14 minutes 13 seconds East 17.52 feet; South 84 degrees 17 minutes 27 seconds East 25.35 feet; South 34 degrees 56 minutes 33 seconds East 75.35 feet; South 76 degrees 29 minutes 04 seconds East 27.94 feet; South 53 degrees 56 minutes 59 seconds East 23.48 feet; North 62 degrees 42 minutes 03 seconds East 27.98 feet; South 12 degrees 06 minutes 52 seconds East 39.01 feet; South 19 degrees 20 minutes 23 seconds East 50.44 feet; South 77 degrees 09 minutes 16 seconds East 19.10 feet; South 07 degrees 23 minutes 00 seconds East 8.05 feet; South 27 degrees 33 minutes 46 seconds West 17.80 feet; South 02 degrees 52 minutes 45 seconds East 17.25 feet; South 56 degrees 32 minutes 15 seconds East 19.64 feet; South 12 degrees 52 minutes 10 seconds East 26.30 feet; South 77 degrees 21 minutes 17 seconds East 19.17 feet; South 22 degrees 18 minutes 41 seconds East 19.39 feet; South 65 degrees 53 minutes 52 seconds East 24.78 feet; South 19 degrees 31 minutes 10 seconds West 13.15 feet; South 71 degrees 14 minutes 44 seconds East 11.65 feet; North 78 degrees 16 minutes 05 seconds East 30.35 feet; North 66 degrees 40 minutes 56 seconds East 29.69 feet; North 52 degrees 43 minutes 45 seconds East 52.03 feet; South 84 degrees 05 minutes 40 seconds East 20.63 feet; North 75 degrees 05 minutes 35 seconds East 16.99 feet; South 68 degrees 27 minutes 23 seconds East 16.87 feet; North 81 degrees 44 minutes 06 seconds East 14.34 feet; South 74 degrees 50 minutes 19 seconds East 19.97 feet; North 49 degrees 38 minutes 31 seconds East 44.60 feet; South 62 degrees 45 minutes 51 seconds East 22.37 feet; North 57 degrees 04 minutes 06 seconds East 21.98 feet; South 85 degrees 24 minutes 11 seconds East 37.57 feet; North 62 degrees 13 minutes 03 seconds East 23.16 feet; South 54 degrees 59 minutes 08 seconds East 19.65 feet; South 15 degrees 17 minutes 54 seconds East 38.18 feet; South 05 degrees 38 minutes 36 seconds East 33.15 feet; South 15 degrees 59 minutes 03 seconds West 8.22 feet; South 53 degrees 28 minutes 36 seconds West 20.78 feet; South 27 degrees 04 minutes 40 seconds East 79.74 feet; North 82 degrees 47 minutes 20 seconds East 21.90 feet; South 66 degrees 58 minutes 30 seconds East 28.16 feet; South 81 degrees 40 minutes 19 seconds East 27.96 feet; South 51 degrees 33 minutes 15 seconds East 16.75 feet; South 06 degrees 37 minutes 45 seconds West 10.90 feet; South 19 degrees 04 minutes 40 seconds West 14.50 feet; South 48 degrees 42 minutes 21 seconds East 17.71 feet; South 61 degrees 22 minutes 03 seconds East 39.43 feet; South 36 degrees 38 minutes 48 seconds East 39.44 feet; South 00 degrees 27 minutes 33 seconds East 19.71 feet; South 00 degrees 27 minutes 33 seconds East 10.00 feet; South 00 degrees 27 minutes 33 seconds East 10.00 feet; then South 00 degrees 27 minutes 33 seconds East 552.55 feet to a spike set in the centerline of Mitchell Mill Road; thence along the centerline of Mitchell Mill Road the following courses and distances: North 71 degrees 32 minutes 39 seconds West 24.07 feet; North 74 degrees 13 minutes 18 seconds West 51.42 feet; North 75 degrees 48 minutes 52 seconds West 259.87 feet; North 75 degrees 14 minutes 33 seconds West 152.68 feet; North 74 degrees 15 minutes 20 seconds West 51.96 feet; North 74 degrees 59 minutes 06 seconds West 50.07 feet; North 74 degrees 05 minutes 27 seconds West 50.77 feet; North 73 degrees 34 minutes 20 seconds West 99.95 feet; North 72 degrees 45 minutes 42 seconds West 52.88 feet; North 73 degrees 37 minutes 20 seconds West 98.57 feet; North 74 degrees 31 minutes 11 seconds West 100.00 feet; North 75 degrees 15 minutes 51 seconds West 96.96 feet; North 75 degrees 39 minutes 32 seconds West 154.21 feet; North 76 degrees 20 minutes 42 seconds West 100.91 feet; North 77 degrees 07 minutes 54 seconds West 104.34 feet; North 77 degrees 21 minutes 31 seconds West 70.97 feet to a spike set in the centerline of Mitchell Mill Road; thence North 18 degrees 12 minutes 00 seconds East 30.14 feet to the point and place of BEGINNING and being Tract 1 containing a total of 25.125 acres (1.043 acres in the right-of-way of Mitchell Road and 24.082 outside of the right-of-way of Mitchell Mill Road), as shown on a survey entitled "Boundary Survey of Hampton and Cole Property", prepared by Kenneth Close, Inc., dated July 10, 2003.

EXTENSION OF CORPORATE LIMITS OF THE TOWN OF ROLESVILLE

MARK'S CREEK TOWNSHIP, WAKE COUNTY, NORTH CAROLINA

AUGUST 24, 2022



LINE #	BEARING	DISTANCE
L1	N19°39'09"E	181.82'
L2	N18°12'39"E	17.06'
L3	S75°36'36"E	157.54'
L4	N39°13'04"E	7.31'
L5	S56°56'15"E	48.61'
L6	S70°56'15"E	24.61'
L7	N70°47'05"E	25.45'
L8	S40°29'01"E	28.19'
L9	S89°25'15"E	32.88'
L10	S36°31'05"E	17.15'
L11	N87°06'16"E	5.73'
L13	S88°59'15"E	0.54'
L14	N75°53'40"E	340.47'
L15	S40°38'56"E	133.25'
L16	S80°06'11"E	62.70'
L17	S24°08'12"E	83.90'

SURVEYOR NOTES:

- Field survey performed March, 2022.
- All distances shown are horizontal ground measurements in U.S. Survey Feet.
- Surveyor has made no investigation or independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence or any other facts that an accurate and current title search may disclose.
- All coordinates and bearings are based on the North American Datum of 1983 (NAD83). Units of measurement are US Survey Feet.
- Areas calculated by CAD software (coordinate geometry).
- Subject parcel is NOT located in a Special Flood Hazard Zone per FEMA Map Number 3720175700K, last revised July 19, 2022 EXCEPT as indicated herein.
- This plat is for annexation purposes only. All improvements, easements not shown hereon.

SURVEYOR CERTIFICATION

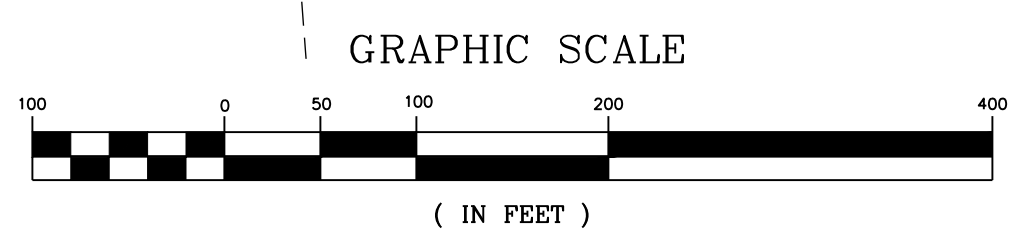
I, Dale Lovelace, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed and description recorded in Book referenced etc.); that the boundaries not surveyed are clearly indicated as drawn from information found in Book referenced; that the ratio of precision or positional accuracy as calculated exceeds 1:10,000; that this plat was prepared in accordance with G.S. 47-30 as amended.

Furthermore this survey is of another category, such as the recombination of existing parcels, a court-ordered survey, or other exception to the definition of subdivision

Witness my original signature, license number and seal this ____th day of February A.D., 2022.

Professional Land Surveyor
License Number: L-4901

Parcel #	Area (Sq. Ft.)	Area (Acres)
PARCEL 1	3,493,234	80.19
PARCEL 2	1,049,214	24.09
PARCEL 3	30,978	0.71
TOTAL AREA	4,612,910	105.90



REVISIONS

NO.	DATE	BY

PRELIMINARY

AERIAL+GROUND

SURVEYING + ENGINEERING

AERIAL AND GROUND SURVEYING, PLLC | COMPANY LICENSE # P-2586
6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKGROUP.COM

DATE

AGS PROJECT

NOT FOR CONSTRUCTION	SCALE	AS SHOWN
DESIGNED BY	DAL	
DRAWN BY	FFS	
CHECKED BY	DAL	

MITCHELL MILL ROAD

MARK'S CREEK TOWNSHIP

TOWN OF ROLESVILLE

WAKE COUNTY, NORTH CAROLINA

ANNEXATION PLAT

DRAWING SHEET

AN-1

CERTIFICATE OF SUFFICIENCY

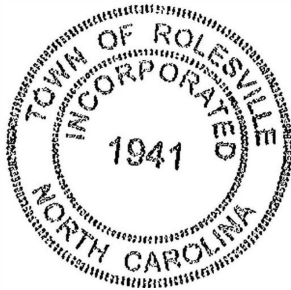
ANX24-01 - Hills at Harris Creek

To the Board of Commissioners of the Town of Rolesville, North Carolina:

I, Robin E. Peyton, Town Clerk, do hereby certify that I have investigated the attached petition and hereby make the following findings:

- a. The petition contains an adequate property description of the area(s) proposed for annexation.
- b. The area described in the petition is contiguous to the Town of Rolesville primary corporate limits as required by G.S. 160A-31.
- c. The petition is signed by all owners of real property lying in the area described therein.

In witness whereof, I have hereunto set my hand and affixed the seal of the Town of Rolesville, this 9th day of April 2024



Robin E. Peyton

Robin E. Peyton
Town Clerk

ANX-24-01_HILLS at HARRIS CREEK PROPERTY OWNER MAP



ALAN & RANDY
WATKINS- OWNERS
1 & 2

0 MITCHELL MILL

1757778982

RANDALL &
LAURA WATKINS
OWNERS 4 & 5

3645 ROCK
FARM
1757761273

ALAN & RANDY
WATKINS- OWNERS 1
& 2

5333 MITCHELL MILL

1757750520

ELLIS LAND INVESTMENT CO
OWNER 3

0 MITCHELL MILL

1757758529

Metes and Bounds City of Rolesville

All those tracts of land located in the City of Rolesville, Wake County, North Carolina being owned by Watkins, Randall Watkins, Laura (Tract 1), Watkins, Alan Watkins, Randy (Tract 2), Ellis Land Investment Company, LLC (Tract 3), and Watkins, Alan Watkins, Randy (Tract 4) being more particularly described as follows:

Tract 1:

Beginning at an Existing 1 Inch Iron Pipe at the intersection of the right-of-way of Mitchell Mill Road and Rock Farm Road a 60 Foot Private Road and having North Carolina State Plane Coordinates of N: 775,443.03 E: 2,156,848.70 NAD_83 (2011):

Thence along said Rock Farm Road and the adjoining property lines of the Preddy, Genadius Mac Preddy, Mattie F property, Watkins, Alan Dwain property, and the Newell, Ronald W Newell, Marie J property the following four courses:

1. N 19°37'29" E 190.11 Feet to an Existing 1 1/2Inch Iron Pipe:
2. N 18°40'39" E 227.11 Feet to an Existing Iron Pipe:
3. N 19°31'15" E 230.79 Feet to an Existing 1 1/2Inch Iron Pipe:
4. N 83°06'35" W 376.14 Feet to an Existing 1 1/2Inch Iron Pipe along the property line of Villanueva, Philip Shelley Villanueva, Nadia Sulta property:

Thence along said property line N 43°56'42" E 404.87 Feet to an Existing 1 Inch Iron Pipe at the Northeastern property corner of the aforementioned property and the Southwestern property corner of the Gro Peg Properties LLC property:

Thence along said property line N 43°56'42" E 438.17 Feet to an Existing 1 Inch Iron Pipe at the Northeastern property corner of the aforementioned property, the Southern property corner of the Ferlito, Christopher J Morris, Sarah L Lot 1, and the Southwestern property corner of the Ferlito, Christopher J Morris, Sarah L Lot 2 property:

Thence along said property line N 43°56'42" E 347.97 Feet to an Existing Iron Pipe along the property line of the Watkins, Alan Watkins, Randy (Tract 4) property:

Thence along said property line S 00°30'14" E 718.36 Feet to a Calculated Point along the property line of the Ellis Land Investment Company, LLC:

Thence along said property line the following nine courses:

1. S 87°04'15" W 5.86 Feet to a Calculated Point:
2. N 36°29'25" W 16.94 Feet to a Calculated Point:
3. N 89°23'35" W 32.88 Feet to a Calculated Point:
4. N 40°27'21" W 28.19 Feet to a Calculated Point:
5. S 70°48'45" W 25.45 Feet to a Calculated Point:
6. N 70°54'35" W 24.61 Feet to a Calculated Point:
7. N 56°54'35" W 48.61 Feet to a Calculated Point:
8. S 39°14'44" W 7.31 Feet to a Calculated Point:

9. S 18°10'18" W 752.73 Feet to an Existing 1 Inch Iron Pipe found at the Northeastern corner of the Watkins, Alan Watkins, Randy (Tract 2) property:

Thence along said property line the following three courses:

1. N 75°34'56" W 157.91 Feet to an Existing 1 1/2 Inch Iron Pipe:
2. S 19°05'28" W 17.00 Feet to a Calculated Point:
3. S 19°39'09" W 182.35 Feet to an Existing 1 1/2 Inch Iron Pipe along the right-of-way of Mitchell Mill Road:

Thence along said right-of-way N 78°33'23" W 60.00 Feet to the point of beginning containing 456,273 square feet or 10.47 acres, more or less, being portion of the Watkins, Randall Watkins, Laura (Tract 1) property as described in Deed Book 16701, Page 363 and Book of Maps 2017, Page 218 of the Wake County Register of Deeds.

Tract 2:

Commencing at an Existing 1 Inch Iron Pipe at the intersection of the right-of-way of Mitchell Mill Road and Rock Farm Road a 60 Foot Private Road and having North Carolina State Plane Coordinates of N: 775,443.03 E: 2,156,848.70 NAD_83 (2011):

Thence along said right-of-way S 78°33'23" E 60.00 Feet to the point of beginning at the Southeastern corner of the Watkins, Randall Watkins, Laura (Tract 1) property and the aforementioned right-of-way:

Thence leaving said right-of-way and along said property line the following three courses:

1. N 19°39'09" E 182.35 Feet to a calculated point:
2. N 19°05'28" E 17.00 Feet to an Existing 1 1/2 Inch Iron Pipe:
3. S 75°34'56" E 157.91 Feet to an Existing 1 Inch Iron Pipe along the property line of the Ellis Land Investment Company, LLC (Tract 3) property:

Thence along said property line S 18°08'19" W 190.74 Feet to a Calculated Point along the right-of-way of Mitchell Mill Road:

Thence along said right-of-way the following two courses:

1. N 77°23'13" W 76.88 Feet to a Calculated Point:
2. A curve to the left said curve having a radius of 1,254.28 Feet, a length of 86.92 Feet, and a bearing and distance of N 79°23'30" W 86.90 Feet to the point of beginning containing 31,014 square feet or 0.71 acres, more or less, being a portion of the Watkins, Alan Watkins, Randy (Tract 2) property as described in Book of Maps 2005, Page 2287 of the Wake County Register of Deeds

Tract 3:

Commencing at an Existing 1 Inch Iron Pipe at the intersection of the right-of-way of Mitchell Mill Road and Rock Farm Road a 60 Foot Private Road and having North Carolina State Plane Coordinates of N:775,443.03 E: 2,156,848.84 NAD_83 (2011):

Thence along said right of way the following three courses:

1. S 78°33'23" E 60.00 Feet to an Existing 1 Inch Iron Pipe:
2. A curve to the right said curve having a radius of 1,254.28 Feet, a length of 86.92 Feet, and a bearing and distance of S 79°23'30" E 86.90 Feet to a Calculated Point:
3. S 77°23'13" E 76.88 Feet to the point of beginning at along the aforementioned right-of-way and the Southeastern corner of the Watkins, Alan Watkins, Randy (Tract 2) property:

Thence along said property line N 18°08'19" E 190.74 Feet to an Existing 1 Inch Iron Pipe along the property line of the Watkins, Randall Watkins, Laura (Tract 1):

Thence along said property line the following nine courses

1. N 18°10'08" E 752.73 Feet to a Calculated Point:
2. N 39°14'44" E 7.31 Feet to a Calculated Point:
3. S 56°54'35" E 48.61 Feet to a Calculated Point:
4. S 70°54'35" E 24.61 Feet to a Calculated Point:
5. N 70°48'45" E 25.45 Feet to a Calculated Point:
6. S 40°27'21" E 28.19 Feet to a Calculated Point:
7. S 89°23'35" E 32.88 Feet to a Calculated Point:
8. S 36°29'25" E 16.94 Feet to a Calculated Point:
9. N 87°04'15" E 5.86 Feet to a Calculated Point along the property line of Watkins, Alan Watkins, Randy (Tract 4):

Thence along said property line the following fifty-nine courses:

1. N 87°04'15" E 9.59 Feet to a Calculated Point:
2. S 51°45'47" E 21.14 Feet to a Calculated Point:
3. S 89°28'23" E 33.05 Feet to a Calculated Point:
4. S 02°05'16" E 17.48 Feet to a Calculated Point:
5. S 81°58'58" E 15.31 Feet to a Calculated Point:
6. N 69°52'21" E 14.47 Feet to a Calculated Point:
7. S 47°45'29" E 9.88 Feet to a Calculated Point:
8. S 10°45'01" W 17.64 Feet to a Calculated Point:
9. S 60°48'29" E 46.31 Feet to a Calculated Point:
10. S 37°42'49" E 49.81 Feet to a Calculated Point:
11. S 12°25'53" E 24.12 Feet to a Calculated Point:
12. S 29°52'05" E 30.28 Feet to a Calculated Point:
13. S 82°31'27" E 31.99 Feet to a Calculated Point:
14. S 59°17'54" E 17.52 Feet to a Calculated Point:
15. S 84°21'08" E 25.35 Feet to a Calculated Point:
16. S 35°00'14" E 75.35 Feet to a Calculated Point:

17. S 76°32'45" E 27.94 Feet to a Calculated Point:
18. S 54°00'40" E 23.48 Feet to a Calculated Point:
19. N 62°38'22" E 27.98 Feet to a Calculated Point:
20. S 12°10'33" E 39.01 Feet to a Calculated Point:
21. S 19°24'04" E 50.44 Feet to a Calculated Point:
22. S 77°12'54" E 19.10 Feet to a Calculated Point:
23. S 07°12'57" E 8.05 Feet to a Calculated Point:
24. S 27°30'05" W 17.80 Feet to a Calculated Point:
25. S 02°56'26" E 17.25 Feet to a Calculated Point:
26. S 56°35'56" E 19.64 Feet to a Calculated Point:
27. S 12°55'51" E 26.30 Feet to a Calculated Point:
28. S 77°24'58" E 19.17 Feet to a Calculated Point:
29. S 22°22'22" E 19.39 Feet to a Calculated Point:
30. S 65°57'33" E 24.78 Feet to a Calculated Point:
31. S 19°27'29" W 13.15 Feet to a Calculated Point:
32. S 71°18'25" E 11.65 Feet to a Calculated Point:
33. N 78°12'24" E 30.35 Feet to a Calculated Point:
34. N 66°37'15" E 29.69 Feet to a Calculated Point:
35. N 52°40'04" E 52.03 Feet to a Calculated Point:
36. S 84°09'21" E 20.63 Feet to a Calculated Point:
37. N 75°01'54" E 16.99 Feet to a Calculated Point:
38. S 68°31'04" E 16.87 Feet to a Calculated Point:
39. N 81°40'25" E 14.34 Feet to a Calculated Point:
40. S 74°54'00" E 19.97 Feet to a Calculated Point:
41. N 49°34'50" E 44.60 Feet to a Calculated Point:
42. S 62°49'32" E 22.37 Feet to a Calculated Point:
43. N 57°00'25" E 21.98 Feet to a Calculated Point:
44. S 85°27'52" E 37.57 Feet to a Calculated Point:
45. N 62°09'22" E 23.16 Feet to a Calculated Point:
46. S 55°02'49" E 19.65 Feet to a Calculated Point:
47. S 15°21'35" E 38.18 Feet to a Calculated Point:
48. S 05°42'17" E 33.15 Feet to a Calculated Point:
49. S 15°55'22" W 8.22 Feet to a Calculated Point:
50. S 53°24'55" W 20.78 Feet to a Calculated Point:
51. S 27°08'21" E 79.74 Feet to a Calculated Point:
52. N 82°43'39" E 21.90 Feet to a Calculated Point:
53. S 67°02'11" E 28.16 Feet to a Calculated Point:
54. S 81°44'00" E 27.96 Feet to a Calculated Point:
55. S 51°36'56" E 16.75 Feet to a Calculated Point:
56. S 06°34'04" W 10.90 Feet to a Calculated Point:
57. S 19°00'59" W 14.50 Feet to a Calculated Point:
58. S 48°46'02" E 17.71 Feet to a Calculated Point:
59. S 61°25'44" E 33.69 Feet to a Calculated Point along the property line of the Jones Properties LLC property:

Thence along said property line S 24°08'05" E 71.51 Feet to a Calculated Point at the Northwestern corner of the Jones, Charles Spencer Jones, Sharon property:

Thence along said property line S 00°25'56" E 530.78 Feet to a Calculated Point along the right-of-way of Mitchel Mill Road:

Thence along said right-of-way the following six courses:

1. N 71°34'19" W 6.89 Feet to a Calculated Point:
2. A curve to the left having a radius of 730.00 Feet, a length of 54.41 Feet, and a bearing and distance of N 73°42'26" W 54.39 Feet to a Calculated Point:
3. N 75°50'32" W 213.47 Feet to a Calculated Point:
4. A curve to the right having a radius of 10,970.00 Feet, a length of 454.08 Feet, and a bearing and distance of N 74°39'23" W 454.05 Feet to a Calculated Point:
5. A curve to the left having a radius of 11,030.00 Feet, a length of 753.92 Feet, and a bearing and distance of N 75°25'44" W 753.77 Feet to a Calculated Point:
6. N 77°23'13" W 26.66 Feet to the point of beginning containing 1,049,657 square feet or 24.09 acres, more or less, being a portion of the Ellis Land Investment Company, LLC (Tract 3) as described in Deed Book 18921, Page 370 of the Wake County Register of Deeds.

Tract 4:

Commencing at an Existing Capped 2 Inch Iron Pipe at the Northeastern property corner of the Jones, Charles E property and having North Carolina State Plane Coordinates of N:780,278.25 E:2,157,644.83 NAD_83 (2011):

Thence along said property line S 01°25'49" E 281.33 Feet to the point of beginning at the Southwestern property corner of the Forrester, Jennifer N Forrester, Hayes G property:

Thence along said property line N 65°27'07" E 185.98 Feet to a Calculated Point at the Southwestern property corner of the Davis, William C Davis, Karen M property:

Thence along said property line the following three courses:

1. N 65°27'07" E 164.12 Feet to a Calculated Point:
2. S 40°38'56" E 133.25 Feet to a Calculated Point:
3. S 80°06'11" E 62.70 Feet to a Calculated Point at the Northwestern property corner of the Jones Properties LLC property:

Thence along said property line and the adjoining properties of RGA Consulting LLC, Jones, Charles Spencer property, Adams, Benjamin Adams, Whitney property, Lefrancois, Stephen D property, Beattie, Lenora M property, Lefrancois, Michael L Lefrancois, Tonia property, Lefrancois Construction CO INC, Gold, Sharie property, Hernandez, Juanita property, Anderson, Bobby G property S 04°46'37" E passing at 170.12 Feet an Existing 1 Inch Iron Pipe, 444.52 Feet an Existing 1 Inch Iron Pipe, 451.98 Feet an Existing 1 Inch Iron Pipe, 179.93 Feet an Existing 1 Inch Iron Pipe, 547.15 Feet an Existing 1 Inch Iron Pipe, 403.94 Feet an Existing 1 Inch Iron Pipe, 238.67 Feet an Existing 1 Inch Iron Pipe, 455.88 Feet an Existing 1 Inch Iron Pipe, 231.03 Feet an Existing Capped

Iron Pipe, 233.37 Feet an Existing 1 1/2 Inch Iron Pipe, 476.55 Feet an Existing 1 1/2 Inch Iron Pipe, 174.41 Feet an Existing 1 1/2 Inch Iron Pipe, 107.69 Feet an Existing 1 1/2 Inch Iron Pipe, 310.98 Feet to an Existing 1" Iron pipe along the property of the Jones Properties LLC property for a total of 4,426.22 Feet:

Thence along said property line S 24°08'47" E 12.39 Feet to a Calculated Point along the property line of Ellis Land Investment Company, LLC (Tract 3) property:

Thence along said property line the following fifty-nine courses:

1. N 61°25'44" W 33.69 Feet to a Calculated Point:
2. N 48°46'02" W 17.71 Feet to a Calculated Point:
3. N 19°00'59" E 14.50 Feet to a Calculated Point:
4. N 06°34'04" E 10.90 Feet to a Calculated Point:
5. N 51°36'56" W 16.75 Feet to a Calculated Point:
6. N 81°44'00" W 27.96 Feet to a Calculated Point:
7. N 67°02'11" W 28.16 Feet to a Calculated Point:
8. S 82°43'39" W 21.90 Feet to a Calculated Point:
9. N 27°08'21" W 79.74 Feet to a Calculated Point:
10. N 53°24'55" E 20.78 Feet to a Calculated Point:
11. N15°55'22" E 8.22 Feet to a Calculated Point:
12. N 05°42'17" W 33.15 Feet to a Calculated Point:
13. N 15°21'35" W 38.18 Feet to a Calculated Point:
14. N 55°02'49" W 19.65 Feet to a Calculated Point:
15. S 62°09'22" W 23.16 Feet to a Calculated Point:
16. N 85°27'52" W 37.57 Feet to a Calculated Point:
17. S 57°00'25" W 21.98 Feet to a Calculated Point:
18. N 62°49'32" W 22.37 Feet to a Calculated Point:
19. S 49°34'50" W 44.60 Feet to a Calculated Point:
20. N 74°54'00" W 19.97 Feet to a Calculated Point:
21. S 81°40'25" W 14.34 Feet to a Calculated Point:
22. N 68°31'04" W 16.87 Feet to a Calculated Point:
23. S 75°01'54" W 16.99 Feet to a Calculated Point:
24. N 84°09'21" W 20.63 Feet to a Calculated Point:
25. S 52°40'04" W 52.03 Feet to a Calculated Point:
26. S 66°37'15" W 29.69 Feet to a Calculated Point:
27. S 78°12'24" W 30.35 Feet to a Calculated Point:
28. N 71°18'25" W 11.65 Feet to a Calculated Point:
29. N 19°27'29" E 13.15 Feet to a Calculated Point:
30. N 65°57'33" W 24.78 Feet to a Calculated Point:
31. N 22°22'22" W 19.39 Feet to a Calculated Point:
32. N 77°24'58" W 19.17 Feet to a Calculated Point:
33. N 12°55'51" W 26.30 Feet to a Calculated Point:
34. N 56°35'56" W 19.64 Feet to a Calculated Point:
35. N 02°56'26" W 17.25 Feet to a Calculated Point:
36. N 27°30'05" E 17.80 Feet to a Calculated Point:

- 37. N 07°26'47" W 8.05 Feet to a Calculated Point:
- 38. N 77°12'57" W 19.10 Feet to a Calculated Point:
- 39. N 19°24'04" W 50.44 Feet to a Calculated Point:
- 40. N 12°10'33" W 39.01 Feet to a Calculated Point:
- 41. S 62°38'22" W 27.98 Feet to a Calculated Point:
- 42. N 54°00'40" W 23.48 Feet to a Calculated Point:
- 43. N 76°32'45" W 27.94 Feet to a Calculated Point:
- 44. N 35°00'14" W 75.35 Feet to a Calculated Point:
- 45. N 84°21'08" W 25.35 Feet to a Calculated Point:
- 46. N 59°17'54" W 17.52 Feet to a Calculated Point:
- 47. N 82°31'27" W 31.99 Feet to a Calculated Point:
- 48. N 29°52'05" W 30.28 Feet to a Calculated Point:
- 49. N 12°25'53" W 24.12 Feet to a Calculated Point:
- 50. N 37°42'49" W 49.81 Feet to a Calculated Point:
- 51. N 60°48'29" W 46.31 Feet to a Calculated Point:
- 52. N 10°45'01" E 17.64 Feet to a Calculated Point:
- 53. N 47°45'29" W 9.88 Feet to a Calculated Point:
- 54. S 69°52'21" W 14.47 Feet to a Calculated Point:
- 55. N 81°58'58" W 15.31 Feet to a Calculated Point:
- 56. N 02°05'16" W 17.48 Feet to a Calculated Point:
- 57. N 89°28'23" W 33.05 Feet to a Calculated Point:
- 58. N 51°45'47" W 21.14 Feet to a Calculated Point:
- 59. S 87°04'15" W 9.59 Feet to a Calculated Point along the property line of Watkins, Randall
Watkins, Laura (Tract 1) property:

Thence along said property line N 00°30'14" W 718.36 to an Existing Iron Pipe along the property line of Ferlito, Christopher J Morris, Sarah L property:

Thence along said property line and the adjoining property lines of GRO PEG Properties LLC, and the Carle, Scott Carle, Theresa properties N 03°44'09" W passing at 943.22 Feet an Existing Iron Pipe, 1,229.07 Feet an Existing Iron Pipe, 174.63 Feet an Existing Iron Pipe, 60 Feet an Existing Iron Pipe, 321.51 Feet an Existing Iron Pipe, 235.15 Feet to a Calculated Point along the property line of Jones, Charles E property for a total of 2,963.58 Feet:

Thence along said property line the following two courses

- 1. S 88°59'15" E 0.54 Feet to a Calculated Point:
- 2. N 75°53'40" E 340.47 Feet to the point of beginning containing 3,492,568 square feet or 80.17 acres, more or less, being a portion of the Alan Watkins, Randy (Tract 4) as described in Deed book 1318 Page 333 of the Wake County Register of Deeds.

Surveyor Signature _____



04-11-24

Hills at Harris Creek: Planning Board Meeting

May 7, 2024
Rolesville Community Center



Proposed Rezoning

Current Status

- ▶ Rural residential land
- ▶ Acreage: 115.94 acres
- ▶ Current Zoning: Wake County R-30 (allows approximately 75 lots)

Proposed Changes

- ▶ Zoning Change to Residential Medium Density Conditional Zoning (Cluster allows up to 5 units/acre)
- ▶ Proposed construction of 225 single family homes with minimum 8000 sf lots (Under 2 units/acre)



ELLIS
DEVELOPMENTS GROUP

Site Plan



RM-CZ Zoning

Minimum Lot Size: 8000 SF

40% Open Space: 47+Acres
225 Single Family Homes



ELLIS
DEVELOPMENTS GROUP

Updates Since Prior Case

- ▶ Reduced units from 267 total homes to 225 homes
- ▶ Removed townhomes and commercial parcel
- ▶ Maintains all prior traffic improvements to minimize impacts and improve traffic flows
- ▶ Greenway trail expanded and integrated into amenity center
- ▶ Reduced density and increased minimum lot size

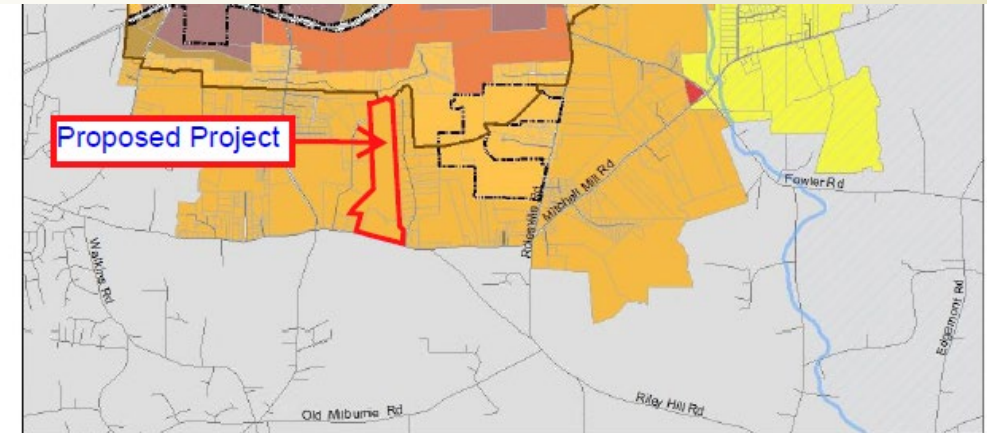
Comprehensive Plan 2017



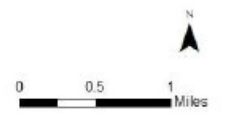
ELLIS
DEVELOPMENTS GROUP

Rezoning Proposal:

- Consistent with Comprehensive Plan
 - Future Land Use Map designates these parcels at Medium Density Residential
- Consistent with residential character of adjacent properties



Rolesville: Future Land Use Map





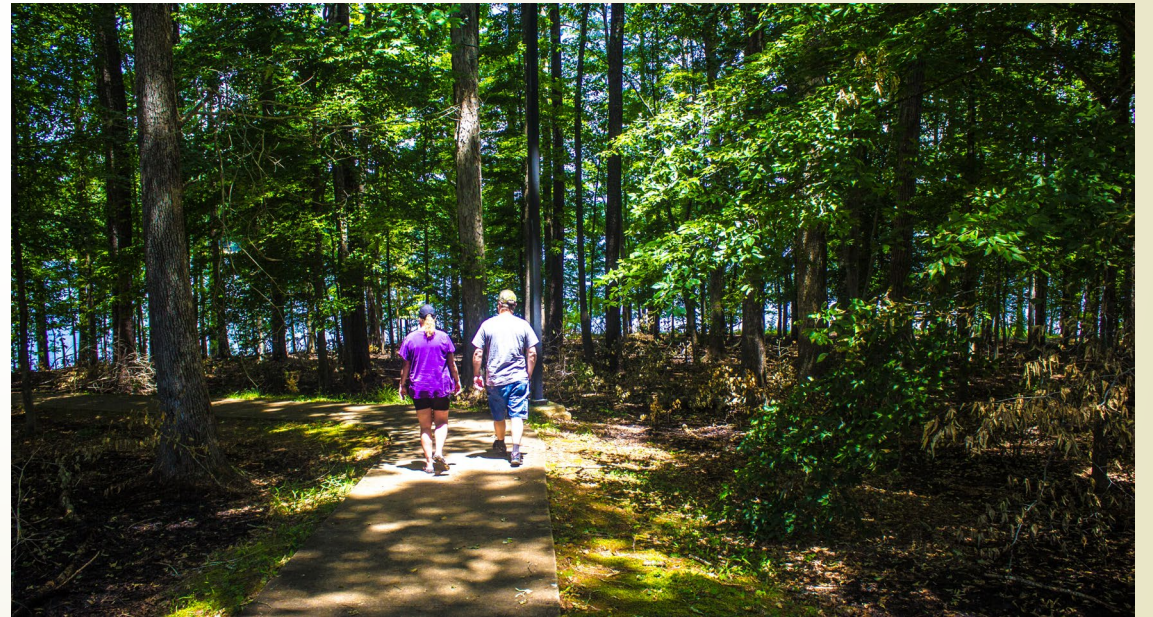
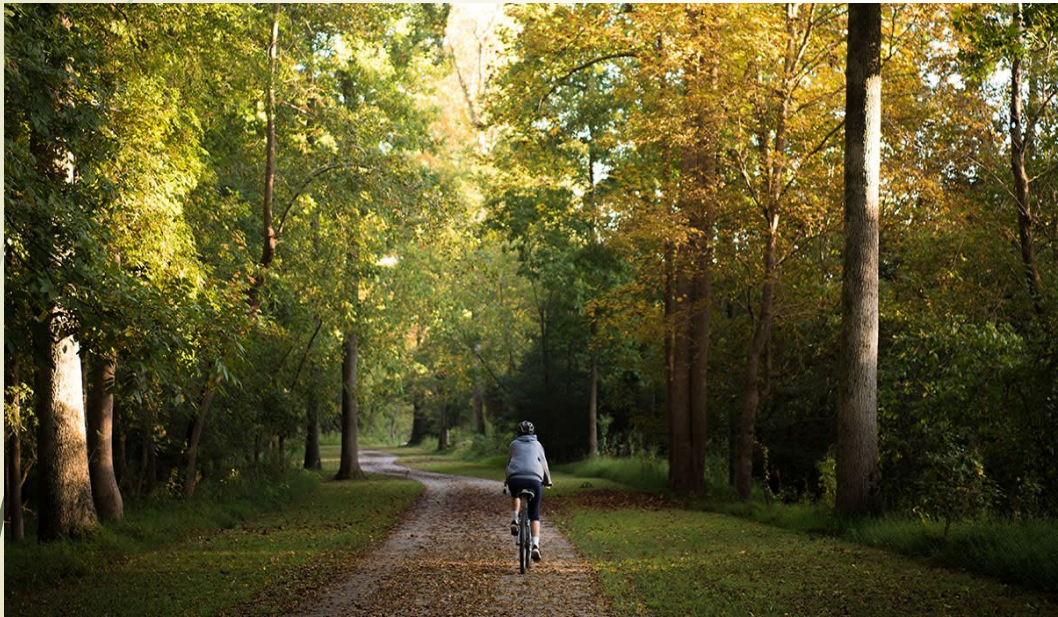
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Greenway Plan



Amenities

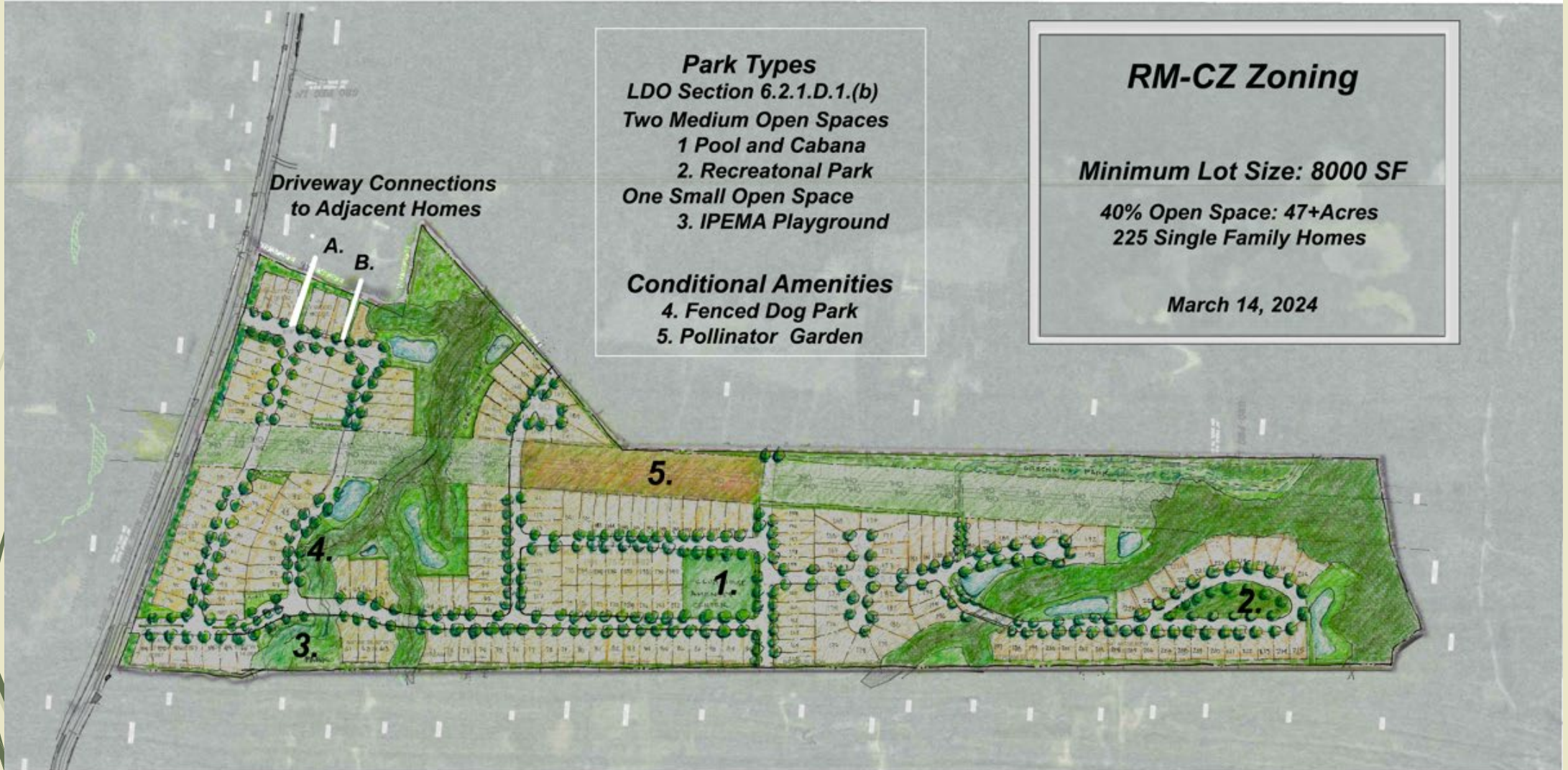
Greenway Trails





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Recreational Amenities Plan



Amenities

Community Pool and Cabana



Amenities

Dog Park





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Amenities

Pollinator/Wildflower Garden



Amenities

Landscaped Boulevard Streetscapes





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Benefits of Proposed Rezoning

- ▶ Preserves and maximizes open space (40%)
 - ▶ Multiple parks; pollinator garden
- ▶ Variety of housing types and price points
- ▶ Improved connectivity and traffic flow
- ▶ Increased tax base for town



ELLIS
DEVELOPMENTS GROUP

Site Plan



After Recording Mail to: Town of Rolesville
P. O. Box 250
Rolesville, NC 27571

AN ORDINANCE TO EXTEND THE CORPORATE LIMITS
OF THE TOWN OF ROLESVILLE UNDER THE
AUTHORITY GRANTED BY PART 1, ARTICLE 4A
CHAPTER 160A OF THE GENERAL STATUTES OF NORTH CAROLINA

ORDINANCE 2024-O-06
CASE ANX-24-01

WHEREAS, the Mayor and Board of Commissioners for the Town of Rolesville, North Carolina has adopted a resolution under G.S. 160A-31 stating its intent to annex the area described below; and

WHEREAS, the petition has been certified by the Town Clerk as to its sufficiency of meeting G.S. 160A-31; and

WHEREAS, a public hearing on the question of this annexation was held in the Town Board Room at Rolesville Town Hall located at 502 Southtown Circle, Rolesville, NC 27571 at 7:00 pm or thereafter on 7th day of May, 2024, after due notice; and

WHEREAS, the Mayor and Board of Commissioners finds that the proposed annexation meets the requirements of G.S. 160A-31;

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Board of Commissioners of the Town of Rolesville, North Carolina that:

Section 1. By the authority granted by G.S. 160A-31, the following described contiguous properties owned by Watkins, Randall Watkins, Laura (Tract 1), Watkins, Alan Watkins, Randy (Tract 2), Ellis Land Investment Company, LLC (Tract 3), and Watkins, Alan Watkins, Randy (Tract 4) is hereby annexed and made part of the Town of Rolesville effective as of the 7th day of May, 2024:

All that certain real property situated in the Town of Rolesville, Wake Forest Township, Wake County, North Carolina, described as follows:

Tract 1:

Beginning at an Existing 1 Inch Iron Pipe at the intersection of the right-of-way of Mitchell Mill Road and Rock Farm Road a 60 Foot Private Road and having North Carolina State Plane Coordinates of N: 775,443.03 E: 2,156,848.70 NAD_83 (2011):

Thence along said Rock Farm Road and the adjoining property lines of the Preddy, Genadius Mac Preddy, Mattie F property, Watkins, Alan Dwain property, and the Newell, Ronald W Newell, Marie J property the following four courses:

1. N 19°37'29" E 190.11 Feet to an Existing 1 1/2 Inch Iron Pipe:
2. N 18°40'39" E 227.11 Feet to an Existing Iron Pipe:
3. N 19°31'15" E 230.79 Feet to an Existing 1 1/2 Inch Iron Pipe:
4. N 83°06'35" W 376.14 Feet to an Existing 1 1/2 Inch Iron Pipe along the property line of Villanueva, Philip Shelley Villanueva, Nadia Sulta property:

Thence along said property line N 43°56'42" E 404.87 Feet to an Existing 1 Inch Iron Pipe at the Northeastern property corner of the aforementioned property and the Southwestern property corner of the Gro Peg Properties LLC property:

Thence along said property line N 43°56'42" E 438.17 Feet to an Existing 1 Inch Iron Pipe at the Northeastern property corner of the aforementioned property, the Southern property corner of the Ferlito, Christopher J Morris, Sarah L Lot 1, and the Southwestern property corner of the Ferlito, Christopher J Morris, Sarah L Lot 2 property:

Thence along said property line N 43°56'42" E 347.97 Feet to an Existing Iron Pipe along the property line of the Watkins, Alan Watkins, Randy (Tract 4) property:

Thence along said property line S 00°30'14" E 718.36 Feet to a Calculated Point along the property line of the Ellis Land Investment Company, LLC:

Thence along said property line the following nine courses:

1. S 87°04'15" W 5.86 Feet to a Calculated Point:
2. N 36°29'25" W 16.94 Feet to a Calculated Point:
3. N 89°23'35" W 32.88 Feet to a Calculated Point:
4. N 40°27'21" W 28.19 Feet to a Calculated Point:
5. S 70°48'45" W 25.45 Feet to a Calculated Point:
6. N 70°54'35" W 24.61 Feet to a Calculated Point:
7. N 56°54'35" W 48.61 Feet to a Calculated Point:
8. S 39°14'44" W 7.31 Feet to a Calculated Point:
9. S 18°10'18" W 752.73 Feet to an Existing 1 Inch Iron Pipe found at the Northeastern corner of the Watkins, Alan Watkins, Randy (Tract 2) property:

Thence along said property line the following three courses:

1. N 75°34'56" W 157.91 Feet to an Existing 1 1/2 Inch Iron Pipe:
2. S 19°05'28" W 17.00 Feet to a Calculated Point:
3. S 19°39'09" W 182.35 Feet to an Existing 1 1/2 Inch Iron Pipe along the right-of-way of Mitchell Mill Road:

Thence along said right-of-way N 78°33'23" W 60.00 Feet to the point of beginning containing 456,273 square feet or 10.47 acres, more or less, being portion of the Watkins, Randall Watkins, Laura (Tract 1) property as described in Deed Book 16701, Page 363 and Book of Maps 2017, Page 218 of the Wake County Register of Deeds.

Tract 2:

Commencing at an Existing 1 Inch Iron Pipe at the intersection of the right-of-way of Mitchell Mill Road and Rock Farm Road a 60 Foot Private Road and having North Carolina State Plane Coordinates of N: 775,443.03 E: 2,156,848.70 NAD_83 (2011):

Thence along said right-of-way S 78°33'23" E 60.00 Feet to the point of beginning at the Southeastern corner of the Watkins, Randall Watkins, Laura (Tract 1) property and the aforementioned right-of-way:

Thence leaving said right-of-way and along said property line the following three courses:

1. N 19°39'09" E 182.35 Feet to a calculated point:
2. N 19°05'28" E 17.00 Feet to an Existing 1 1/2 Inch Iron Pipe:
3. S 75°34'56" E 157.91 Feet to an Existing 1 Inch Iron Pipe along the property line of the Ellis Land Investment Company, LLC (Tract 3) property:

Thence along said property line S 18°08'19" W 190.74 Feet to a Calculated Point along the right-ofway of Mitchell Mill Road:

Thence along said right-of-way the following two courses:

1. N 77°23'13" W 76.88 Feet to a Calculated Point:
2. A curve to the left said curve having a radius of 1,254.28 Feet, a length of 86.92 Feet, and a bearing and distance of N 79°23'30" W 86.90 Feet to the point of beginning containing 31,014 square feet or 0.71 acres, more or less, being a portion of the Watkins, Alan Watkins, Randy (Tract 2) property as described in Book of Maps 2005, Page 2287 of the Wake County Register of Deeds

Tract 3:

Commencing at an Existing 1 Inch Iron Pipe at the intersection of the right-of-way of Mitchell Mill Road and Rock Farm Road a 60 Foot Private Road and having North Carolina State Plane Coordinates of N:775,443.03 E: 2,156,848.84 NAD_83 (2011):

Thence along said right of way the following three courses:

1. S 78°33'23" E 60.00 Feet to an Existing 1 Inch Iron Pipe:
2. A curve to the right said curve having a radius of 1,254.28 Feet, a length of 86.92 Feet, and a bearing and distance of S 79°23'30" E 86.90 Feet to a Calculated Point:

3. S 77°23'13" E 76.88 Feet to the point of beginning at along the aforementioned right-of-way and the Southeastern corner of the Watkins, Alan Watkins, Randy (Tract 2) property:

Thence along said property line N 18°08'19" E 190.74 Feet to an Existing 1 Inch Iron Pipe along the property line of the Watkins, Randall Watkins, Laura (Tract 1):

Thence along said property line the following nine courses

1. N 18°10'08" E 752.73 Feet to a Calculated Point:
2. N 39°14'44" E 7.31 Feet to a Calculated Point:
3. S 56°54'35" E 48.61 Feet to a Calculated Point:
4. S 70°54'35" E 24.61 Feet to a Calculated Point:
5. N 70°48'45" E 25.45 Feet to a Calculated Point:
6. S 40°27'21" E 28.19 Feet to a Calculated Point:
7. S 89°23'35" E 32.88 Feet to a Calculated Point:
8. S 36°29'25" E 16.94 Feet to a Calculated Point:
9. N 87°04'15" E 5.86 Feet to a Calculated Point along the property line of Watkins, Alan Watkins, Randy (Tract 4):

Thence along said property line the following fifty-nine courses:

1. N 87°04'15" E 9.59 Feet to a Calculated Point:
2. S 51°45'47" E 21.14 Feet to a Calculated Point:
3. S 89°28'23" E 33.05 Feet to a Calculated Point:
4. S 02°05'16" E 17.48 Feet to a Calculated Point:
5. S 81°58'58" E 15.31 Feet to a Calculated Point:
6. N 69°52'21" E 14.47 Feet to a Calculated Point:
7. S 47°45'29" E 9.88 Feet to a Calculated Point:
8. S 10°45'01" W 17.64 Feet to a Calculated Point:
9. S 60°48'29" E 46.31 Feet to a Calculated Point:
10. S 37°42'49" E 49.81 Feet to a Calculated Point:
11. S 12°25'53" E 24.12 Feet to a Calculated Point:
12. S 29°52'05" E 30.28 Feet to a Calculated Point:
13. S 82°31'27" E 31.99 Feet to a Calculated Point:
14. S 59°17'54" E 17.52 Feet to a Calculated Point:
15. S 84°21'08" E 25.35 Feet to a Calculated Point:
16. S 35°00'14" E 75.35 Feet to a Calculated Point:
17. S 76°32'45" E 27.94 Feet to a Calculated Point:
18. S 54°00'40" E 23.48 Feet to a Calculated Point:
19. N 62°38'22" E 27.98 Feet to a Calculated Point:
20. S 12°10'33" E 39.01 Feet to a Calculated Point:
21. S 19°24'04" E 50.44 Feet to a Calculated Point:
22. S 77°12'54" E 19.10 Feet to a Calculated Point:
23. S 07°12'57" E 8.05 Feet to a Calculated Point:
24. S 27°30'05" W 17.80 Feet to a Calculated Point:
25. S 02°56'26" E 17.25 Feet to a Calculated Point:

26. S 56°35'56" E 19.64 Feet to a Calculated Point:
27. S 12°55'51" E 26.30 Feet to a Calculated Point:
28. S 77°24'58" E 19.17 Feet to a Calculated Point:
29. S 22°22'22" E 19.39 Feet to a Calculated Point:
30. S 65°57'33" E 24.78 Feet to a Calculated Point:
31. S 19°27'29" W 13.15 Feet to a Calculated Point:
32. S 71°18'25" E 11.65 Feet to a Calculated Point:
33. N 78°12'24" E 30.35 Feet to a Calculated Point:
34. N 66°37'15" E 29.69 Feet to a Calculated Point:
35. N 52°40'04" E 52.03 Feet to a Calculated Point:
36. S 84°09'21" E 20.63 Feet to a Calculated Point:
37. N 75°01'54" E 16.99 Feet to a Calculated Point:
38. S 68°31'04" E 16.87 Feet to a Calculated Point:
39. N 81°40'25" E 14.34 Feet to a Calculated Point:
40. S 74°54'00" E 19.97 Feet to a Calculated Point:
41. N 49°34'50" E 44.60 Feet to a Calculated Point:
42. S 62°49'32" E 22.37 Feet to a Calculated Point:
43. N 57°00'25" E 21.98 Feet to a Calculated Point:
44. S 85°27'52" E 37.57 Feet to a Calculated Point:
45. N 62°09'22" E 23.16 Feet to a Calculated Point:
46. S 55°02'49" E 19.65 Feet to a Calculated Point:
47. S 15°21'35" E 38.18 Feet to a Calculated Point:
48. S 05°42'17" E 33.15 Feet to a Calculated Point:
49. S 15°55'22" W 8.22 Feet to a Calculated Point:
50. S 53°24'55" W 20.78 Feet to a Calculated Point:
51. S 27°08'21" E 79.74 Feet to a Calculated Point:
52. N 82°43'39" E 21.90 Feet to a Calculated Point:
53. S 67°02'11" E 28.16 Feet to a Calculated Point:
54. S 81°44'00" E 27.96 Feet to a Calculated Point:
55. S 51°36'56" E 16.75 Feet to a Calculated Point:
56. S 06°34'04" W 10.90 Feet to a Calculated Point:
57. S 19°00'59" W 14.50 Feet to a Calculated Point:
58. S 48°46'02" E 17.71 Feet to a Calculated Point:
59. S 61°25'44" E 33.69 Feet to a Calculated Point along the property line of the Jones Properties LLC property:
Thence along said property line S 24°08'05" E 71.51 Feet to a Calculated Point at the Northwestern corner of the Jones, Charles Spencer Jones, Sharon property:

Thence along said property line S 00°25'56" E 530.78 Feet to a Calculated Point along the right-of-way of Mitchel Mill Road:

Thence along said right-of-way the following six courses:

1. N 71°34'19" W 6.89 Feet to a Calculated Point:
2. A curve to the left having a radius of 730.00 Feet, a length of 54.41 Feet, and a bearing and distance of N 73°42'26" W 54.39 Feet to a Calculated Point:

3. N 75°50'32" W 213.47 Feet to a Calculated Point:
4. A curve to the right having a radius of 10,970.00 Feet, a length of 454.08 Feet, and a bearing and distance of N 74°39'23" W 454.05 Feet to a Calculated Point:
5. A curve to the left having a radius of 11,030.00 Feet, a length of 753.92 Feet, and a bearing and distance of N 75°25'44" W 753.77 Feet to a Calculated Point:
6. N 77°23'13" W 26.66 Feet to the point of beginning containing 1,049,657 square feet or 24.09 acres, more or less, being a portion of the Ellis Land Investment Company, LLC (Tract 3) as described in Deed Book 18921, Page 370 of the Wake County Register of Deeds.

Tract 4:

Commencing at an Existing Capped 2 Inch Iron Pipe at the Northeastern property corner of the Jones, Charles E property and having North Carolina State Plane Coordinates of N:780,278.25 E:2,157,644.83 NAD_83 (2011):

Thence along said property line S 01°25'49" E 281.33 Feet to the point of beginning at the Southwestern property corner of the Forrester, Jennifer N Forrester, Hayes G property:

Thence along said property line N 65°27'07" E 185.98 Feet to a Calculated Point at the Southwestern property corner of the Davis, William C Davis, Karen M property:

Thence along said property line the following three courses:

1. N 65°27'07" E 164.12 Feet to a Calculated Point:
2. S 40°38'56" E 133.25 Feet to a Calculated Point:
3. S 80°06'11" E 62.70 Feet to a Calculated Point at the Northwestern property corner of the Jones Properties LLC property:

Thence along said property line and the adjoining properties of RGA Consulting LLC, Jones, Charles Spencer property, Adams, Benjamin Adams, Whitney property, Lefrancois, Stephen D property, Beattie, Lenora M property, Lefrancois, Michael L Lefrancois, Tonia property, Lefrancois Construction CO INC, Gold, Sharie property, Hernandez, Juanita property, Anderson, Bobby G property S 04°46'37" E passing at 170.12 Feet an Existing 1 Inch Iron Pipe, 444.52 Feet an Existing 1 Inch Iron Pipe, 451.98 Feet an Existing 1 Inch Iron Pipe, 179.93 Feet an Existing 1 Inch Iron Pipe, 547.15 Feet an Existing 1 Inch Iron Pipe, 403.94 Feet an Existing 1 Inch Iron Pipe, 238.67 Feet an Existing 1 Inch Iron Pipe, 455.88 Feet an Existing 1 Inch Iron Pipe, 231.03 Feet an Existing Capped Iron Pipe, 233.37 Feet an Existing 1 1/2 Inch Iron Pipe, 476.55 Feet an Existing 1 1/2 Inch Iron Pipe, 174.41 Feet an Existing 1 1/2 Inch Iron Pipe, 107.69 Feet an Existing 1 1/2 Inch Iron Pipe, 310.98 Feet to an Existing 1" Iron pipe along the property of the Jones Properties LLC property for a total of 4,426.22 Feet:

Thence along said property line S 24°08'47" E 12.39 Feet to a Calculated Point along the property line of Ellis Land Investment Company, LLC (Tract 3) property:

Thence along said property line the following fifty-nine courses:

1. N 61°25'44" W 33.69 Feet to a Calculated Point:

2. N 48°46'02" W 17.71 Feet to a Calculated Point:
3. N 19°00'59" E 14.50 Feet to a Calculated Point:
4. N 06°34'04" E 10.90 Feet to a Calculated Point:
5. N 51°36'56" W 16.75 Feet to a Calculated Point:
6. N 81°44'00" W 27.96 Feet to a Calculated Point:
7. N 67°02'11" W 28.16 Feet to a Calculated Point:
8. S 82°43'39" W 21.90 Feet to a Calculated Point:
9. N 27°08'21" W 79.74 Feet to a Calculated Point:
10. N 53°24'55" E 20.78 Feet to a Calculated Point:
11. N15°55'22" E 8.22 Feet to a Calculated Point:
12. N 05°42'17" W 33.15 Feet to a Calculated Point:
13. N 15°21'35" W 38.18 Feet to a Calculated Point:
14. N 55°02'49" W 19.65 Feet to a Calculated Point:
15. S 62°09'22" W 23.16 Feet to a Calculated Point:
16. N 85°27'52" W 37.57 Feet to a Calculated Point:
17. S 57°00'25" W 21.98 Feet to a Calculated Point:
18. N 62°49'32" W 22.37 Feet to a Calculated Point:
19. S 49°34'50" W 44.60 Feet to a Calculated Point:
20. N 74°54'00" W 19.97 Feet to a Calculated Point:
21. S 81°40'25" W 14.34 Feet to a Calculated Point:
22. N 68°31'04" W 16.87 Feet to a Calculated Point:
23. S 75°01'54" W 16.99 Feet to a Calculated Point:
24. N 84°09'21" W 20.63 Feet to a Calculated Point:
25. S 52°40'04" W 52.03 Feet to a Calculated Point:
26. S 66°37'15" W 29.69 Feet to a Calculated Point:
27. S 78°12'24" W 30.35 Feet to a Calculated Point:
28. N 71°18'25" W 11.65 Feet to a Calculated Point:
29. N 19°27'29" E 13.15 Feet to a Calculated Point:
30. N 65°57'33" W 24.78 Feet to a Calculated Point:
31. N 22°22'22" W 19.39 Feet to a Calculated Point:
32. N 77°24'58" W 19.17 Feet to a Calculated Point:
33. N 12°55'51" W 26.30 Feet to a Calculated Point:
34. N 56°35'56" W 19.64 Feet to a Calculated Point:
35. N 02°56'26" W 17.25 Feet to a Calculated Point:
36. N 27°30'05" E 17.80 Feet to a Calculated Point:
37. N 07°26'47" W 8.05 Feet to a Calculated Point:
38. N 77°12'57" W 19.10 Feet to a Calculated Point:
39. N 19°24'04" W 50.44 Feet to a Calculated Point:
40. N 12°10'33" W 39.01 Feet to a Calculated Point:
41. S 62°38'22" W 27.98 Feet to a Calculated Point:
42. N 54°00'40" W 23.48 Feet to a Calculated Point:
43. N 76°32'45" W 27.94 Feet to a Calculated Point:
44. N 35°00'14" W 75.35 Feet to a Calculated Point:
45. N 84°21'08" W 25.35 Feet to a Calculated Point:
46. N 59°17'54" W 17.52 Feet to a Calculated Point:
47. N 82°31'27" W 31.99 Feet to a Calculated Point:

48. N 29°52'05" W 30.28 Feet to a Calculated Point:
49. N 12°25'53" W 24.12 Feet to a Calculated Point:
50. N 37°42'49" W 49.81 Feet to a Calculated Point:
51. N 60°48'29" W 46.31 Feet to a Calculated Point:
52. N 10°45'01" E 17.64 Feet to a Calculated Point:
53. N 47°45'29" W 9.88 Feet to a Calculated Point:
54. S 69°52'21" W 14.47 Feet to a Calculated Point:
55. N 81°58'58" W 15.31 Feet to a Calculated Point:
56. N 02°05'16" W 17.48 Feet to a Calculated Point:
57. N 89°28'23" W 33.05 Feet to a Calculated Point:
58. N 51°45'47" W 21.14 Feet to a Calculated Point:
59. S 87°04'15" W 9.59 Feet to a Calculated Point along the property line of Watkins, Randall
Watkins, Laura (Tract 1) property:

Thence along said property line N 00°30'14" W 718.36 to an Existing Iron Pipe along the property
line of Ferlito, Christopher J Morris, Sarah L property:

Thence along said property line and the adjoining property lines of GRO PEG Properties LLC, and
the Carle, Scott Carle, Theresa properties N 03°44'09" W passing at 943.22 Feet an Existing Iron
Pipe, 1,229.07 Feet an Existing Iron Pipe, 174.63 Feet an Existing Iron Pipe, 60 Feet an Existing Iron
Pipe, 321.51 Feet an Existing Iron Pipe, 235.15 Feet to a Calculated Point along the property line of
Jones, Charles E property for a total of 2,963.58 Feet:

Thence along said property line the following two courses

1. S 88°59'15" E 0.54 Feet to a Calculated Point:
2. N 75°53'40" E 340.47 Feet to the point of beginning containing 3,492,568 square feet or
80.17 acres, more or less, being a portion of the Alan Watkins, Randy (Tract 4) as described in Deed
book 1318 Page 333 of the Wake County Register of Deeds.

Section 2. That the Mayor and Board of Commissioners directs a duly certified copy of this ordinance and annexation boundary map be submitted for filing to the Office of the Register of Deeds of Wake County and the Office of the Secretary of the State of North Carolina.

Adopted this 7th day of May, 2024.

Ronnie I. Currin
Town of Rolesville Mayor

CERTIFICATION

I, Robin E. Peyton, Town Clerk for the Town of Rolesville, North Carolina, do hereby certify the foregoing to be a true copy of an ordinance duly adopted at the meeting of the Town Board of Commissioners held on this 7th day of May, 2024.

Robin E. Peyton
Town Clerk

ORDINANCE 2024-O-07

ORDINANCE OF THE BOARD OF COMMISSIONERS OF THE TOWN OF ROLESVILLE AMENDING THE OFFICIAL ZONING DISTRICT MAP OF THE TOWN OF ROLESVILLE TO CHANGE THE ZONING OF APPROXIMATELY 116 ACRES LOCATED AT 0 MITCHELL MILL ROAD, 5333 MITCHELL MILL ROAD, 3645 ROCK FARM ROAD, and 0 MITCHELL MILL ROAD , BEING WAKE COUNTY TAX PINS 1757758529, 1757750520, 1757761273, AND 1757778982 FROM THE WAKE COUNTY R-30 DISTRICT TO A RESIDENTIAL MEDIUM DENSITY CONDITIONAL ZONING DISTRICT (RM-CZ)

REZ-24-02, Hills at Harris Creek

WHEREAS, the application submitted by Ellis Land Investment Company, LLC on behalf of property owners Watkins, Randall Watkins, Laura (Tract 1), Watkins, Alan Watkins, Randy (Tract 2), Ellis Land Investment Company, LLC (Tract 3), and Watkins, Alan Watkins, Randy (Tract 4) for the rezoning of land hereinafter described was duly filed with the Planning Department; and

WHEREAS, the Planning Board was presented the application for Recommendation on March 25, 2024 and the Board of Commissioners held a Legislative hearing on May 7, 2024; and

WHEREAS, mailed notices and property sign postings were carried out in advance of the Legislative hearing pursuant to G.S. § 160D-602 and the Land Development Ordinance; and

WHEREAS, the Planning Board submitted its recommendation to the Board of Commissioners recommending Approval of said application that was generally consistent with the Comprehensive Plan for the lands hereinafter described, all in accordance with the requirements of the Town of Rolesville Land Development Ordinance and the provisions of Chapter 160D, Article 6, of the North Carolina General Statutes;

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners of the Town of Rolesville, North Carolina:

Section 1: The lands that are the subject of the Ordinance are those certain lands described in **Exhibit 1 – Legal Description**, which is incorporated herein by reference, and said lands are hereafter referred to as the “Rezoned Lands.”

Section 2: The parcels identified by the Wake County Tax Parcel Identification Numbers 1757758529, 1757750520, 1757761273, AND 1757778982, and described in **Exhibit 1**, are currently located within Wake County, but will be within the Town’s Corporate Limits upon adoption of Ordinance 2024-O-07 for ANX-24-01.

Section 3: The Town of Rolesville Land Development Ordinance, including the Town of Rolesville North Carolina Official Zoning District Map which is a part of said Ordinance, is hereby amended by changing the zoning classification of the “Rezoned Lands” from WAKE COUNTY R-30 DISTRICT TO A RESIDENTIAL MEDIUM DENSITY CONDITIONAL ZONING DISTRICT (RM-CZ), subject to the conditions stated herein.

Section 4: The “Rezoned Lands” are subject to all of the standards and conditions in **Exhibit 2 – Conditions of Approval dated April 30, 2024**, which are voluntarily imposed as part of this rezoning.

Section 5: The Administrator is hereby authorized and directed to cause the said Official Zoning District Map for the Town of Rolesville, North Carolina, to be physically revised and amended to reflect the zoning changes ordained by this Ordinance.

Section 6: After reviewing all the information presented at the Legislative hearing and the Town of Rolesville plans, policies and ordinances, the Rolesville Board of Commissioners find the Rezoning map amendment request reasonable and consistent with the 2017 Comprehensive Plan and is in the interest of the public and adopted a Plan Consistency and Reasonableness Statement.

Section 7: The “Rezoned Lands” shall be perpetually bound to the Conditions imposed including the uses authorized, unless subsequently changed or amended as provided for in the Land Development Ordinance.

Adopted and effective this the 7th day of May 2024.

Ronnie Currin
Mayor

ATTEST:

APPROVED AS TO FORM:

Robin Peyton
Town Clerk

David J. Neill
Town Attorney

Exhibit 1 to ORDINANCE 2024-O-07 for REZ-24-02

Metes and Bounds report for Hills at Harris Creek Parcel

Beginning at an iron pipe, with North Carolina Grid Coordinates using NAD83 (2011) of Northing 775,443.03' and an Easting 2,156,848.70', the true point of beginning, thence,

N19°37'29"E for a distance of 190.11' to a point, thence

N18°40'39"E for a distance of 227.11' to a point, thence

N19°31'15"E for a distance of 230.79' to a point, thence

N83°06'35"W for a distance of 376.14' to a point, thence

N43°56'42"E for a distance of 1,191.02' to a point, thence

N03°44'09"W for a distance of 2,728.43' to a point, thence

N03°44'09"W for a distance of 235.15' to a point, thence

N75°53'40"E for a distance of 340.47' to a point, thence

N65°27'07"E for a distance of 350.10' to a point, thence

S40°38'56"E for a distance of 133.25' to a point, thence

S80°06'11"E for a distance of 62.70' to a point, thence

S04°46'37"E for a distance of 4,426.22' to a point, thence

S24°08'12"E for a distance of 83.90' to a point, thence

S00°25'56"E for a distance of 530.78' to a point, thence

N71°34'19"W for a distance of 6.89' to a point, thence

Around a curve to the left with a radius of 730.00', a length of 54.41', a chord bearing of N73°42'26"W and chord distance of 54.39' to a point, thence

Around a curve to the right with a radius of 12,981.80', a length of 667.56', a chord bearing of N75°02'09"W, and a chord distance of 667.49' to a point, thence

Around a curve to the left with a radius of 11,030.00', a length of 753.92', a chord bearing of N75°25'44"W, and a chord distance of 753.77' to a point, thence

N77°23'13"W for a distance of 103.54' to a point, thence

Around a curve to the left with a radius of 1,229.93', a length of 86.32', a chord bearing of N79°23'51"W, and a chord distance of 86.30' to a point, thence

N78°33'23"W for a distance of 60.60' to the point and place of beginning. For a total of 5,029,708.11 square feet or 115.466 acres.

ORDINANCE 2024-O-07, EXHIBIT 2 - CONDITIONS OF APPROVAL

Exhibit Three

REZ-24-02/Hills at Harris Creek

Conditions of Approval

Date: April 30, 2024

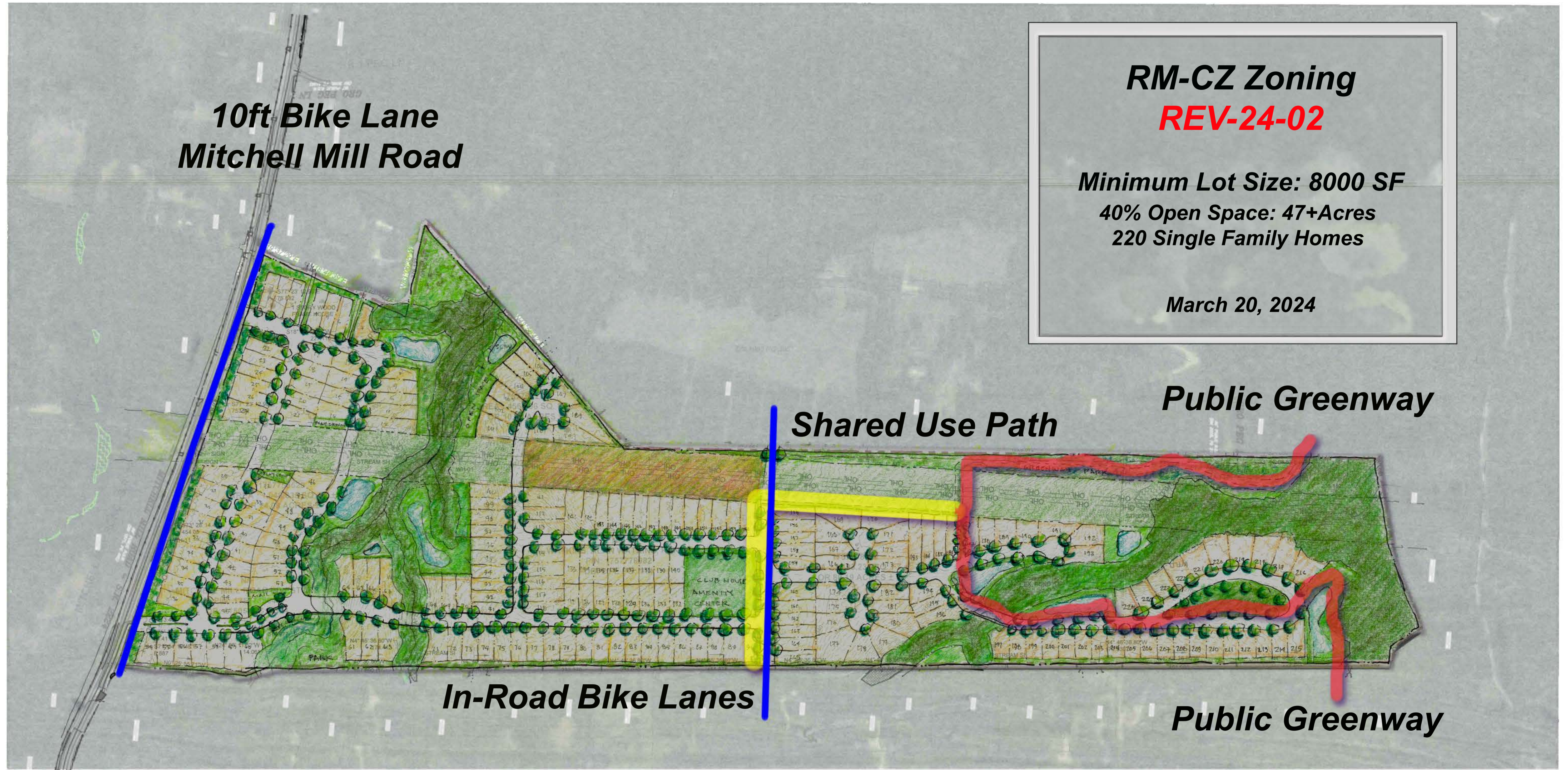
1. The subject property shall be developed generally in accordance with the Concept Sketch Plan attached hereto as Exhibit One and incorporated herein as if fully set out. Locations shown for committed elements including, but not limited to Greenways, streets, and open space areas shown on the Concept Sketch Plan, are conceptual and provided for illustration and context only. Final locations of elements shall be determined at subsequent stages through the Town's development review approval processes.
2. Density: The property may be developed with up to a maximum of 225 single family detached dwelling units.
3. Affordable Housing: Prior to the issuance of the first building permit, Twenty Thousand Dollars and No Cents (\$20,000.00) shall be donated to Homes for Heroes (or another non-profit organization with a substantially similar mission statement). A signed and notarized affidavit from the benefitted charity shall be provided as evidence of performance of this commitment.
4. Pollinator Plantings: At least four acres of the landscaping planted within the Duke Energy power line easement on the subject property shall utilize plant materials that are listed as Native Pollinator Plants on North Carolina Wildlife Federation ("NCWF") or other resources for native plants recommended by the NCWF. This landscape element shall be identified as a "feature" in the appropriate proposed Lot within the Preliminary Subdivision Plat drawings, and then again identified and fully detailed on landscape plan drawings included in the Construction Infrastructure Drawings, and this shall be considered infrastructure that is inspected for (installation) compliance by/at the time of subdivision close-out. Applicant may provide this feature earlier in the development process by evidence of photo documentation and inspection report by the Town infrastructure inspector or other staff.
5. Recreational Amenities: The following recreational amenities shall be provided generally as shown on the Recreational Amenities Plan attached hereto as Exhibit Two as a part of the development of the subject property and shall be dedicated to the subdivision's homeowner's association (HOA). These amenities shall be identified as a "feature" in the appropriate proposed Lot within the Preliminary Subdivision Plat drawings, and then again identified and detailed in the Construction Infrastructure Drawings, and this shall be considered infrastructure that is inspected for (installation) compliance by/at the time of subdivision close-out. Applicant may provide this feature earlier in the development process by evidence of photo documentation and inspection report by the Town infrastructure inspector or other staff.
 - i. A swimming pool and cabana, including changing rooms and restrooms shall be constructed prior to the issuance of the 150th residential dwelling unit building permit;
 - ii. At least one fenced playground shall be constructed prior to the issuance of the 150th residential dwelling unit building permit;
 - iii. At least one fenced dog park shall be constructed prior to the issuance of

the 150th residential dwelling unit building permit;

- iv. At least one (1) garden park shall be provided prior to the issuance of the 200th residential dwelling unit building permit.
6. Foundations: All homes shall include either crawl space foundations or stem wall foundation (as they are generally defined in the home building industry). Any stem wall foundations shall have an average of at least eighteen inches (18") in height of reveal above the finished ground surface across the front facade of the home. There shall be no exposed concrete on any portion of the stem wall foundation on any side of the home facing and directly parallel to a public street. Compliance with this condition shall be demonstrated by noting the following on the plans submitted with the residential building permit application: i) the average stem wall height for the front façade of the stem wall foundation, and ii) the building materials to be used (stone veneer or brick) on the stem wall foundation façade on any side of the home facing a public street.
 7. Minimum Dwelling Size: Each single family detached dwelling unit shall contain a minimum gross building square footage of 2,000 square feet.
 8. Driveway Access to Neighboring Properties: Two private driveways (shown as Driveway A and Driveway B on the attached Exhibit One) shall be constructed to connect the property to the two adjacent properties (identified as Wake County PIN's 1757657746 & 1757658917) that currently access Mitchell Mill Road via the private road known as Rock Farm Road (the "Rock Farm Road Properties"). Rock Farm Road will be abandoned and removed in connection with the development of the property. Access easements shall be provided to the Rock Farm Road Properties to provide ingress/egress to the Rock Farm Road Properties through Driveway A and Driveway B prior to the abandonment and removal of Rock Farm Road.
 9. Greenway and Shared Use Path: A 10' wide public shared use path (labeled as "Shared Use Path" on the attached Exhibit One) shall be constructed and dedicated to the Town to connect to the 10' wide public greenway (labeled as the Public Greenway on the attached Exhibit One).
 10. Future Greenway Expansion: The 50' wide "Greenway Easement" as shown on Exhibit One, shall be dedicated to the Town as a future public greenway.

V2 - REZ-24-02

EXHIBIT ONE CONCEPT SKETCH PLAN

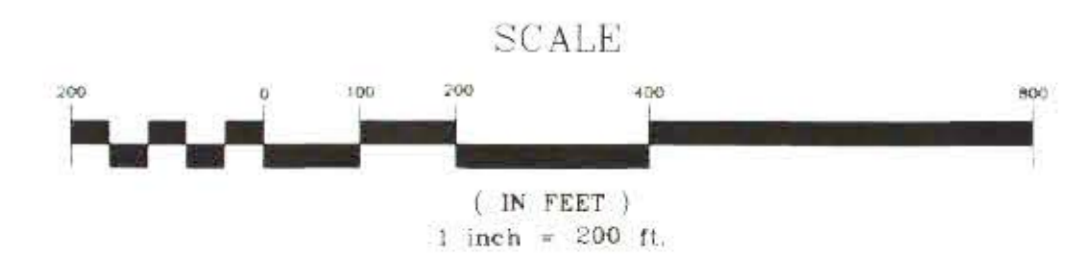


RM-CZ Zoning
REV-24-02

Minimum Lot Size: 8000 SF
40% Open Space: 47+Acres
220 Single Family Homes

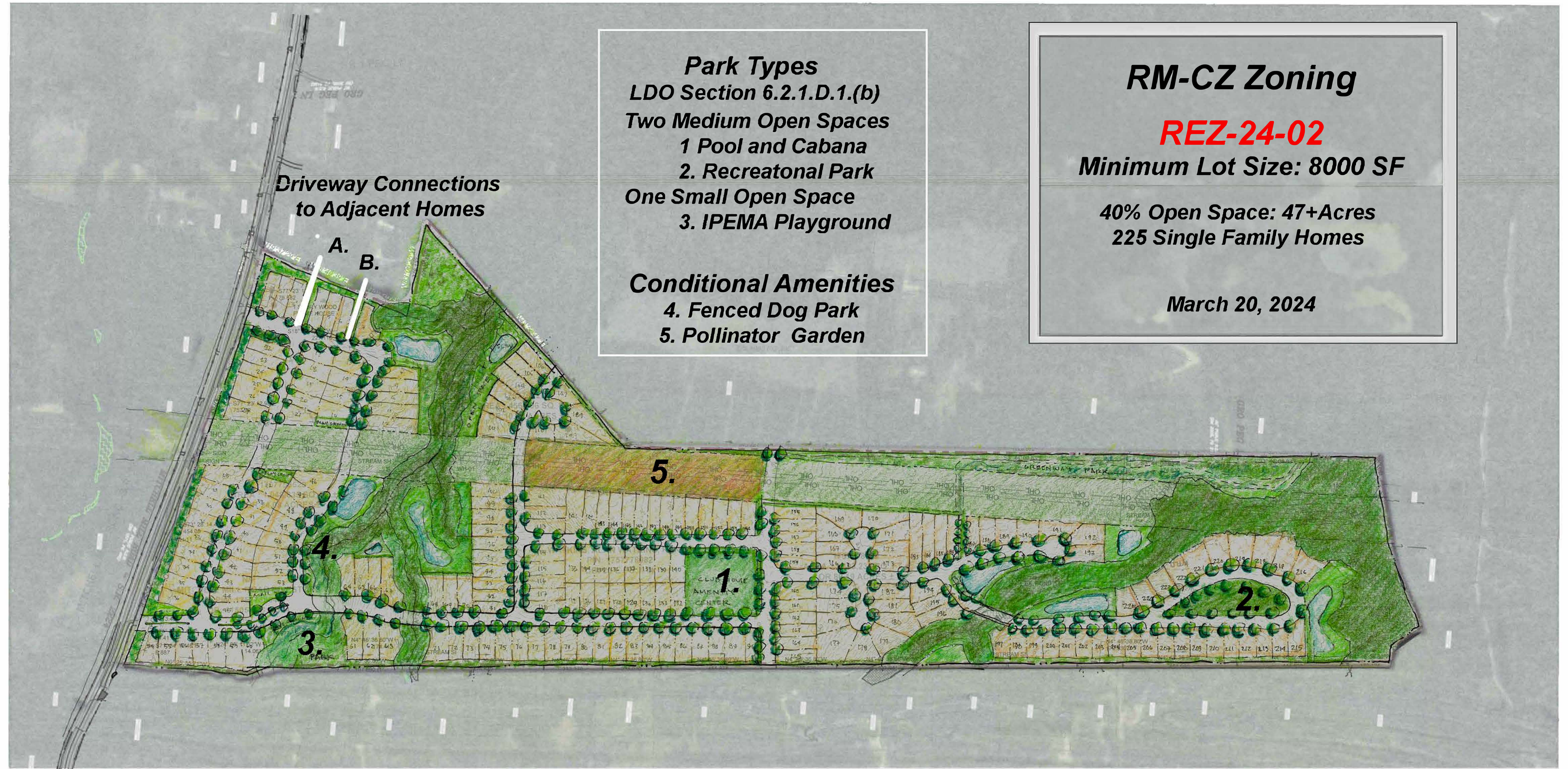
March 20, 2024

Hills at Harris Creek

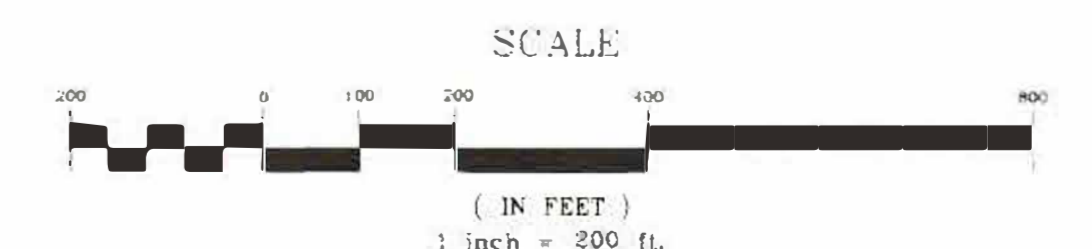


V2-REZ-24-02

EXHIBIT TWO RECREATIONAL AMENITIES PLAN



Hills at Harris Creek





Memo

To: Town of Rolesville Mayor Currin and Board of Commissioners
From: Michael Elabarger, Assistant Planning Director
Date: May 7, 2024
Re: 111-113-115 W. Young Street
Map Amendment Rezoning - REZ-23-07

Background

The Town of Rolesville Planning Department received an initial Rezoning application (Attachment 4) in November 2023 for 1.57 acres consisting of three (3) lots on the southern side of W. Young Street just west of Main Street. The properties are within the Town's corporate limits. The request is to change the zoning from the existing Residential Low (RL) zoning district to a General Commercial Conditional Zoning District (GC-CZ). The submittal includes a set of proposed Conditions of Approval (Attachment 9) which specify the intent for a project to include a maximum of seven (7) upper-story residential units and between 5,000 and 30,000 square feet of nonresidential floorspace, and information regarding an existing building located at 113 W. Young Street.

Applicant Justification

The Applicant included a justification statement (Attachment 5) with the initial application for the rezoning request. It notes the proposed Conditions of Approval will limit the types of commercial uses allowed as well as the number of upper-story dwelling units.

Neighborhood Meetings

The Applicant conducted a neighborhood meeting on February 27, 2023, and the neighborhood meeting package is attached (Attachment 6). There were no attendees at the meeting.

Policy Plans

Comprehensive Plan/Future Land Use

The 2017 Comprehensive Plan's Future Land Use Map designates the subject property as appropriate for **Medium Density Residential** development. Per the Plan, this is defined as:

Predominantly single-family residential uses with portion of duplex, townhouse, or multifamily residential. These are lots or tracts at a density range of three to five (3-5) dwelling units per gross acre including preserved open space areas along with limited non-residential uses under planned unit development or form base code provisions.

Community Transportation Plan

The Town of Rolesville’s Community Transportation Plan (CTP, adopted 2021) includes recommendations for Thoroughfares, Collectors, and intersections.

Thoroughfare Recommendations

- W. Young Street is proposed to be a two (2) lane with Two-Way Left Turn Lane, Curb & Gutter, Bike Lanes, and Sidewalk.

Intersection Recommendations

- The Young and Main Streets intersection was recommended for improvements and access management, which is being completed per the LAPP Main Street project currently under construction.

Greenway and Bike Plans

As per the 2022 Greenway and Bike Plans, proposed pedestrian and bicycle routes are shown in the following locations:

- A Sidepath is proposed along Young Street.
- Bike lanes are proposed along Young Street.

Traffic / Traffic Impact Analysis

The Applicant provided a Trip Generation letter performed by Kimley-Horn (Attachment 7). This analysis utilized the proposed scope of development contained within the proposed Conditions of Approval. See clip below detailing trip generation.

Land Use	Size	Daily		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out
Multifamily Housing, Low-Rise (LUC 220)	7 d.u.	60	60	6	19	15	9
General Office (LUC 710)	30,000 SF	204	204	52	7	10	51
Total Net New External Trips		264	264	57	27	25	60

- The analysis is based on the maximum non-residential square footage (i.e. worst case), rather than the minimum or some amount in between.
- The analysis took into account NO internal capture of trips – example, trips for the non-residential made by the 7 residential units (i.e. internal and thus no actual new trips generated), or visitors to the property visiting more than 1 use on the property (there are no controls on how the non-residential square footage is developed, it could be one tenant/end-user or it could be a multi-tenant development with complimentary uses.
- Even with the above very liberal measures, the thresholds for Daily and Peak Hour trips were just over the minimums.

Due to the above points, the Land Development Administrator (LDA) waived the requirement for a TIA at this point of rezoning entitlement, and proposed Condition #4 commits to the project/development performing a TIA if 20,000 SF or more are proposed via Site Development Plan application(s) at a later date.

Development Review

The Technical Review Committee (TRC) reviewed two (2) versions of the Rezoning application, with all comments pertinent to the consideration of the proposed District and Conditions of Approval being addressed. Planning staff and Town Attorney continued to review revisions to the proposed Conditions of Approval beyond the Planning Board meeting, and are represented in the attached version (Attachment 9).

Planning Board Recommendation

The Planning Board met on March 25, 2024, to review and provide a recommendation on the Rezoning application. Following presentations by Staff and the Applicant, Board members asked about employees, the existing well (113 W. Young), connection(s) to the Cobblestone project, Traffic impact analysis (TIA), proposed or expected tenant uses such as banks and the residential units, Operation Art, and parking plans on the site. Two members of the public in attendance were permitted to make comment to the Board. The Planning Board then made a recommendation of Approval (to the Town Board of Commissioners) with a 3-2 vote (3 ayes / 2 nays / 2 absent being Board Members Lawrence and Schwartz).

Staff Analysis & Recommendation

Staff concurs with the Planning Boards' recommendation that the Town Board of Commissioners approve Map Amendment (Rezoning) request REZ-23-07 due to the consistency with the Comprehensive Plan, appropriate proposed land uses for this assemblage of properties, and the synergy with nearby new development (Cobblestone) as well as the community as a whole.

Consistency and Reasonableness

Consistency

The Applicant's rezoning request is consistent with the Town of Rolesville's Comprehensive Plan for the following reasons:

- The proposed nonresidential floorspace and upper-story residential units, while not the predominant use in Medium Density Residential, are still appropriate in the Medium Density Residential Future Land Use designation area.
- The Main Street Vision Plan and the proposed development's downtown location, adjacent to the Cobblestone mixed use development, must also be considered. The proposed uses for 111, 113, and 115 W. Young Street will create a transition between downtown mixed use at Cobblestone to residential and lower intensity commercial uses nearby.

Proposed Motion

1. Motion to (approve or deny) Rezoning Map Amendment request [REZ-23-07 – 111-113-115 W. Young Street](#), with the included Conditions of Approval.

2. (Following approval) Motion to adopt a Plan Consistency Statement and Statement of Reasonableness for [REZ-23-07](#).

Or

3. Motion to continue the Legislative hearing and/or further consideration for [REZ-23-07](#) to a [date certain](#) future Town Board meeting.

Attachments

1	Vicinity Map
2	Existing Zoning Map
3	Future Land Use Map
4	Map Amendment Application
5	Applicant Statement of Justification
6	Neighborhood Meeting Package – Meeting held February 27, 2024
7	Trip Generation Letter dated February 12, 2024
8	Statement regarding House at 113 W. Young Street
9	Proposed Conditions of Approval dated 04-29-2024 / Signed
	Ordinance 2024-O-08 and Exhibits 1 and 2

ATTACHMENT 1



Case: REZ-23-07
Address: 111,113,115 W. YOUNG
PIN: 1769014751, 1769014840, 1769014849
Date: 2024.03.18

Vicinity Map



Esri Community Maps Co... State of North Carolina DC... TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NC CGIA, Maxar, Microsoft



ATTACHMENT 2



Case: REZ-23-07
Address: 111,113,115 W YOUNG
PIN: 1769014751, 1769014840, 1769014849
Date: 2024.03.18

Date Saved: 3/18/2024 12:39 PM
















Zoning Map

Path: C:\Users\SRaby\Desktop\GIS\2024 Projects\REZ-23-07_111,113,115 W Young_Map.aprx

Legend

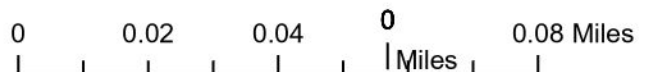
Rolesville_Zoning_2

Zoning Classification

-  RL
-  RM
-  RM-CZ
-  RH
-  RH-CZ
-  R&PUD
-  R&PUD-CZ
-  MH
-  OP
-  OP-CZ
-  GC
-  GC-CZ
-  TC
-  GI
-  GI-CZ

SITE

Esri Community Maps Contributors, Town of Cary, Wake County, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



ATTACHMENT 3



Case: REZ-23-07

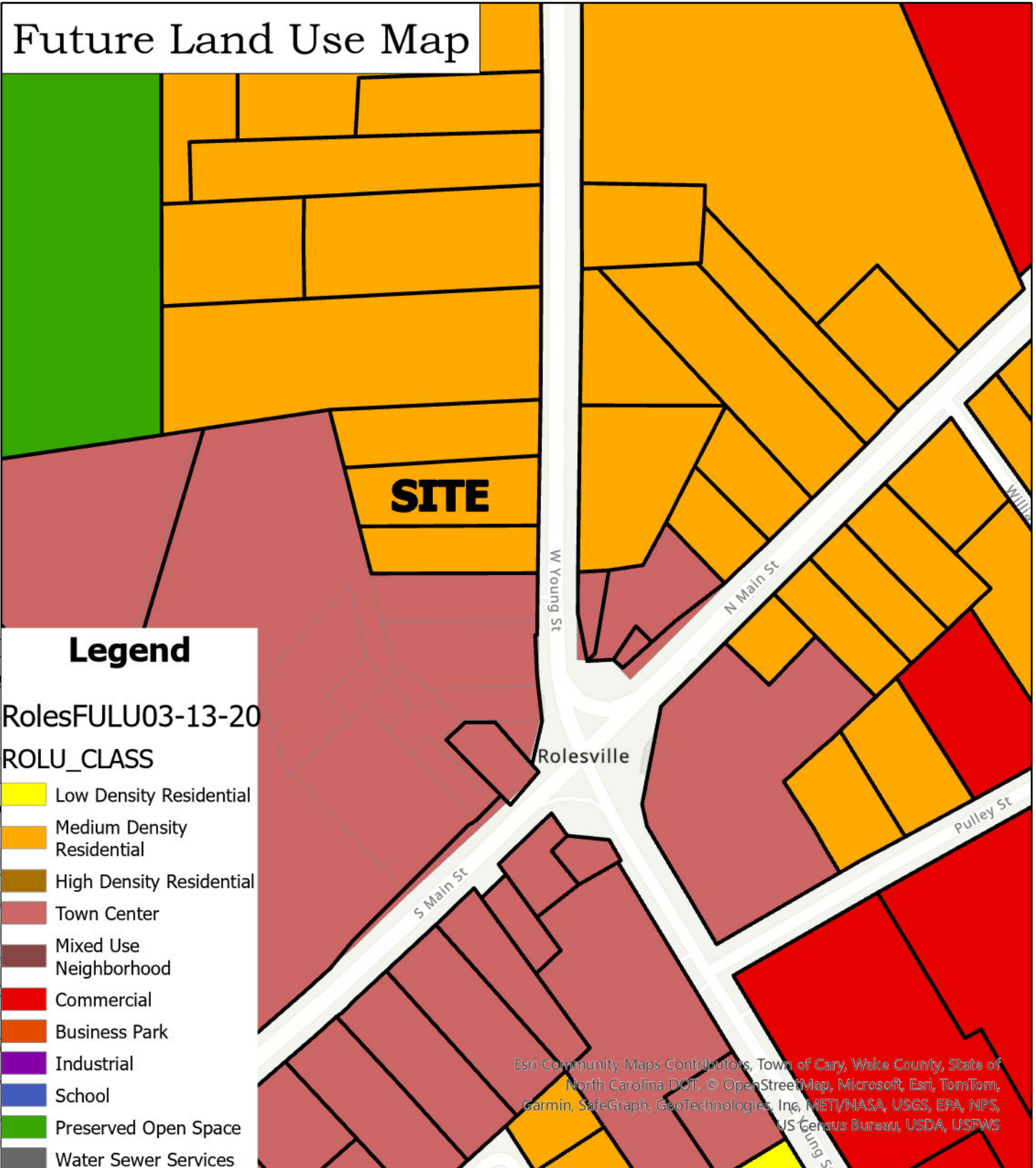
Address: 111,113,115 W YOUNG

PIN: 1769014751, 1769014840, 1769014849

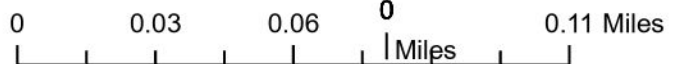
Date: 2024.03.18

Date Saved: 3/18/2024 1:17 PM

Future Land Use Map



Path: C:\Users\SRaby\Desktop\GIS\2024 Projects\REZ-23-07_111.113.115 W Young_Map.aprx





ATTACHMENT 4 - APPLICATION

Case No. REZ-23-07
Date rcvd 11-28-2023

Map Amendment Application

Contact Information

Property Owner Wesley and Roxey Wilkins

Address 115 W. Young St City/State/Zip Rolesville, NC 27571

Phone _____ Email _____

Developer The Joel Fund

Contact Name Brooke Dickart

Address 822 S. White Street City/State/Zip Wake Forest, NC 27587

Phone (919) 247-9333 Email brooke@thejoelfund.org

Property Information

Address 111, 113, and 115 W. Young Street

Wake County PIN(s) 1769-01-4751, 1769-01-4840, and 1769-01-4849

Current Zoning District RL Requested Zoning District GC-CZ

Total Acreage 1.57

Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature *Roxey Wilkins Wesley Wilkins* Date 11-27-23

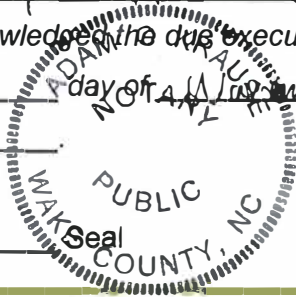
STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that Wesley Wilkins Roxey Wilkins personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the 27 day of November 2023.

My commission expires 06/08/2024

Signature *Adam C. Kraus*



Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Map Amendment Application

Metes and Bounds Description of Property

111 W. Young Street: Lot 3 on that plat recorded in Book of Maps 1964, Page 148, Wake County Registry.

113 W. Young Street: Lot 2 on that Recombination Survey recorded in Book of Maps 2009, Page 928, Wake County Registry.

115 W. Young Street: Lot 1 on that Recombination Survey recorded in Book of Maps 2009, Page 928, Wake County Registry.



Map Amendment Application

Property Owner Information

Wake County PIN	Property Owner	Mailing Address	Zip Code
See attached			

ATTACHMENT 5 - JUSTIFICATION STATEMENT

V1 - REZ-23-07

111, 113, and 115 W. Young Street **Justification Statement**

1. Is the application consistent with the Comprehensive Plan / other applicable adopted town plans?

Response. The Town's Future Land Use Map designates these three properties as Medium Density Residential. Medium Density Residential recommends residential density between three and five units per acre. The proposed conditional use rezoning request proposes a maximum of seven units total, which equates to approximately 4.5 units per acre across the assemblage. Additionally, this land use designation calls for limited non-residential uses. The proposed rezoning permits a limited range of non-residential, and at a scale that respects adjacent residential uses. Thus, the proposed conditional use rezoning application is consistent with the Rolesville Future Land Use Plan.

2. Is it in conflict with any provision of the LDO or the Town Code of Ordinances?

Response. The Project intends to comply with all parts of the LDO and Town Code of Ordinances.

3. Does the application correct any errors in the existing zoning present at the time it was adopted?

Response. The application does not correct any errors in the existing zoning.

4. Does it allow uses that are compatible with existing and allowed uses on surrounding land?

Response. The proposed conditional use rezoning would allow for seven total dwelling units and limited non-residential uses. The assemblage of property is located near the Young Street and Main Street intersection, which is the heart of the Rolesville town center and where one would expect to see a variety of nonresidential uses and dense residential development. Additionally, the properties immediately west of the assemblage are zoned Town Center (TC), which is appropriate for the core of Rolesville and permit both residential and nonresidential uses. Thus, the proposed rezoning to GC-CZ is compatible with existing and allowed land uses in the nearby area.

5. Would it ensure efficient development within the town, including the capacity and safety of the street network, public facilities, and other similar considerations?

Response. The proposed rezoning and development would require street improvements and streetscape along W. Young Street, which is classified as a "2 Lane with Two Way Left Turn Lane". Enhanced vehicular and pedestrian infrastructure along this development is important for the build out of the Rolesville town center.

6. Would it result in a logical and orderly development pattern?

Response. Yes, the rezoning and redevelopment of these three properties for a mix of uses is consistent with nearby development near the Rolesville town center.

7. Would it result in adverse impacts on water, air, noise, storm water management, wildlife, vegetation, wetlands, and the natural functioning of the environment?

Response. No, there are no environmentally sensitive areas on the assemblage. The properties were previously developed and cleared for residential uses, and there are few existing trees. The proposed uses would not have adverse noise impacts to adjacent properties.

8. Does the conditional rezoning addresses the impacts reasonably expected to be generated by the development or use of the site, can reasonably be implemented and enforced for the subject property, and if it will mitigate specific issues that would likely result if the subject property were zoned to accommodate all the uses and the minimum standards of the corresponding general zoning district.

Response. The zoning conditions limit the types of commercial uses permitted and the number of dwelling units, which will help mitigate impacts from a GC base zoning district.

ATTACHMENT 6-NEIGHBORHOOD MEETING

REZONING OF PROPERTY CONSISTING OF +/- 1.57 ACRES,
LOCATED NORTHWEST OF THE S. MAIN STREET AND W. YOUNG STREET
INTERSECTION, IN THE TOWN OF ROLESVILLE

REPORT OF MEETING WITH ADJACENT PROPERTY OWNERS AND TENANTS ON FEBRUARY 27, 2024

Pursuant to applicable provisions of the Land Development Ordinance, a meeting was held with respect to a potential rezoning with adjacent neighbors on Tuesday, February 27, 2024 at 6:00 p.m. The property considered for this potential rezoning totals approximately 1.57 acres, and is located northwest of the S. Main Street and W. Young Street intersection, in the Town of Rolesville, having Wake County Parcel Identification Numbers 1769-01-4751, 1769-01-4840, and 1769-01-4849. This meeting was held at the Rolesville Community Center, located at 502 Southtown Circle, Rolesville, NC 27571. All owners of property within 500 feet of the subject property were invited to attend the meeting. Attached hereto as **Exhibit A** is a copy of the neighborhood meeting notice. A copy of the required mailing list for the meeting invitations is attached hereto as **Exhibit B**. A summary of the items discussed at the meeting is attached hereto as **Exhibit C**. Attached hereto as **Exhibit D** is a list of individuals who attended the meeting.

EXHIBIT A – NEIGHBORHOOD MEETING NOTICE



To: Neighboring Property Owner
From: Worth Mills
Date: February 16, 2024
Re: Neighborhood Meeting for Rezoning of 111, 113, and 115 W. Young Street (REZ-23-07 / W. Young Street)

You are invited to attend an informational meeting to discuss the proposed rezoning of 111, 113 and 115 W. Young Street (with Property Identification Numbers (PINs) 1769-01-4751, 1769-01-4840, and 1769-01-4849). The meeting will be held on **Tuesday, February 27, 2024, from 6:00 PM until 7:00 PM**, at the following location:

**Rolesville Community Center
514 Southtown Circle
Rolesville, NC 27571**

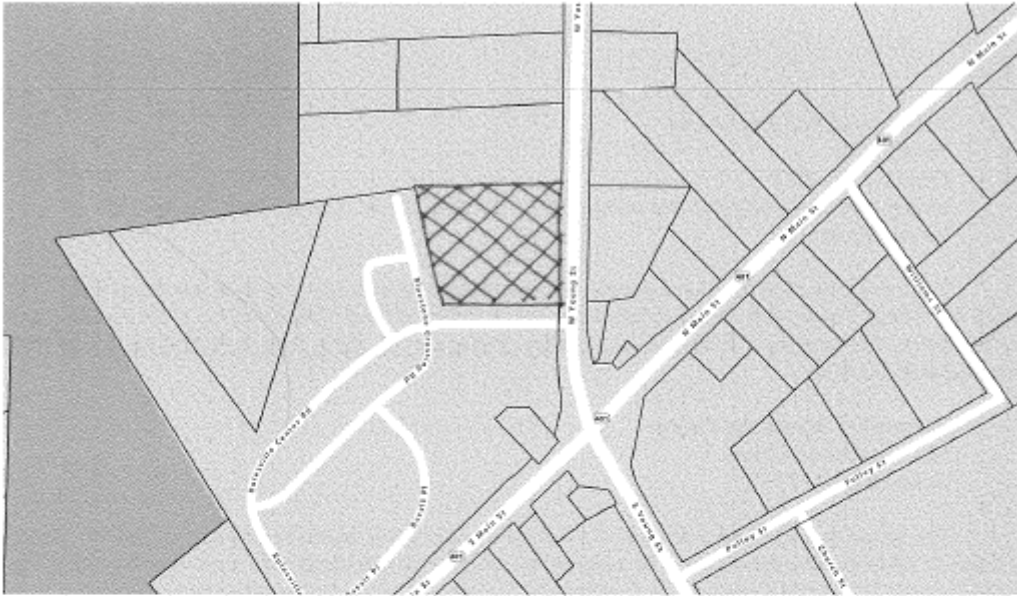
The property totals approximately 1.57 acres in size and is located northwest of the W. Young Street and S. Main Street intersection. The property is currently zoned Residential Low Density (RL). The proposed zoning is General Commercial, Conditional Zoning (TC-CZ). The purpose of the rezoning is to facilitate a veteran housing project with ground-floor meeting space.

The Town of Rolesville requires a neighborhood meeting involving the owners and tenants of property within 500 feet of the property prior to the rezoning being heard by the Planning Board. After the meeting, we will prepare a report for the Planning Department regarding the items discussed at the meeting.

Please do not hesitate to contact me directly if you have any questions or wish to discuss any issues. I can be reached at 919-645-4313 and wmills@longleaflp.com. Also, for more information about the rezoning, you may visit <https://www.rolesvillenc.gov/project/scarboro-apartments> or contact the Town of Rolesville Planning Department at 919.554.6517.

Attached to this invitation are the following materials:
1. Subject Property Current Aerial Exhibit
2. Subject Property Current Zoning Exhibit

CURRENT PROPERTY MAP



CURRENT ZONING MAP

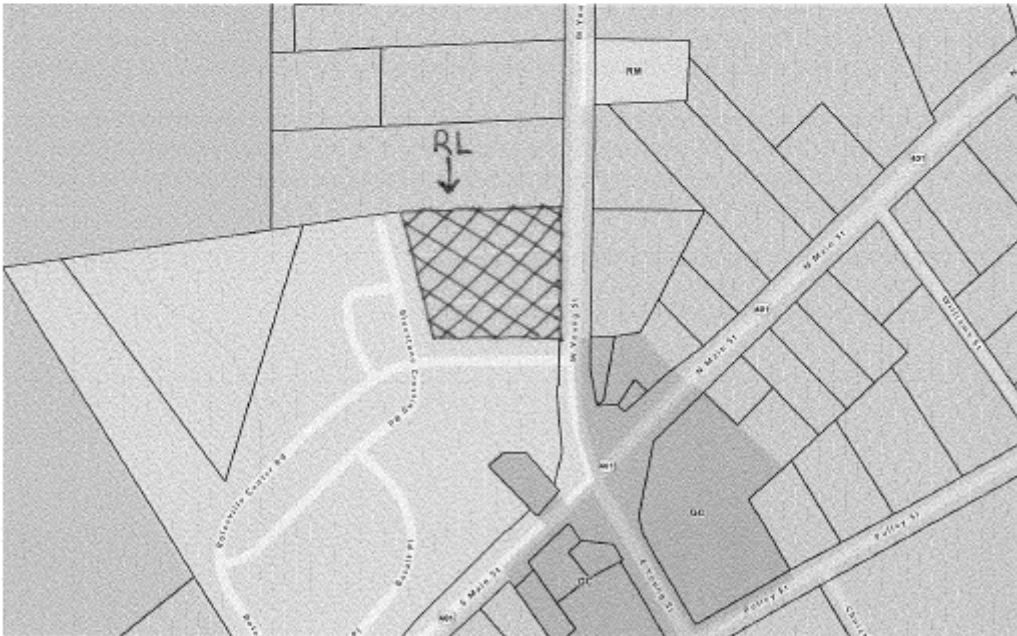


EXHIBIT B – NOTICE LIST

WOODLIEF, DONNIE LEE WOODLIEF,
PATSY EDDINS
1769021117
6609 FOWLER RD
ZEBULON NC 27597-8303

EDDINS FAMILY LLC
1769015274
6105 HOPE FARM LN
WAKE FOREST NC 27587-8426

WOODLIEF, DONNIE LEE WOODLIEF,
PATSY EDDINS
1769024116
6609 FOWLER RD
ZEBULON NC 27597-8303

LITTLE HOUSE LLC
1769120094
PO BOX 239
ROLESVILLE NC 27571-0239

WILKINS, WESLEY C WILKINS, ROXEY M
1769014849
115 W YOUNG ST
ROLESVILLE NC 27571-9516

BANNER, WENDY LEIGH
1769018744
2601 TRICKLE CT
RALEIGH NC 27615-3874

SELF, LINDA ESTELLE MERRITT WILKINS,
ROXEY M
1769014751
115 W YOUNG ST
ROLESVILLE NC 27571-9516

EDDINS FAMILY LLC
1769019527
6105 HOPE FARM LN
WAKE FOREST NC 27587-8426

EDDINS FAMILY LLC
1769110620
6105 HOPE FARM LN
WAKE FOREST NC 27587-8426

MOBLEY, TERESA P TRUSTEE PRIVETTE,
RODNEY MCCOY JR TRUSTEE
1769022455
PO BOX 263
ROLESVILLE NC 27571-0263

WOOD, MATTHEW DAVID WOOD,
MISTY LEE
1769111881
112 N MAIN ST
ROLESVILLE NC 27571-9643

ROLESVILLE TOWN OF
1769017516
PO BOX 250
ROLESVILLE NC 27571-0250

KET REAL ESTATE LLC
1769015048
321 SPRINGMOOR DR
RALEIGH NC 27615-7740

WILLIAMS, SUSIE H
1769016663
7904 AUBUBON DR
RALEIGH NC 27615

JONES, CHARLES S JONES, SHARON K
1769027000
3905 MANLY FARM RD
WAKE FOREST NC 27587-8494

PRIVETTE PROPERTIES LLC
1769015401
PO BOX 116
ROLESVILLE NC 27571-0116

WILKINS, ROXEY MANGUM WILKINS,
WESLEY C SR
1769014840
115 W YOUNG ST
ROLESVILLE NC 27571-9516

WARD, ROBERT F JR
1769110685
108 N MAIN ST
ROLESVILLE NC 27571-9643

WOODLIFE INVESTMENTS II LLC
1769018978
PO BOX 1085
WAKE FOREST NC 27588-1085

BERNARD, BLANCA C
1769111730
110 N MAIN ST
ROLESVILLE NC 27571-9643

ROLESVILLE TOWN OF
1769017654
PO BOX 250
ROLESVILLE NC 27571-0250

ROLESVILLE TOWN OF
1759922076
PO BOX 250
ROLESVILLE NC 27571-0250

MITCHELL, ROBERT L JR LILES,
MARGARET SUE
1769111411
4313 BIRMINGHAM WAY
RALEIGH NC 27604-4858

TELECOM TOWERS LLC
1759918780
PO BOX 723597
ATLANTA GA 31139-0597

EDDINS FAMILY LLC
1769016246
6105 HOPE FARM LN
WAKE FOREST NC 27587-8426

DRCW INVESTMENTS LLC
1769018892
PO BOX 1736
WAKE FOREST NC 27588-1736

EDDINS FAMILY LLC
1769018387
6105 HOPE FARM LN
WAKE FOREST NC 27587-8426

HAMILTON, ELIZABETH WILIAMS
WILLIAMS, FRED J III
1769017801
7904 AUDUBON DR
RALEIGH NC 27615-3407

MOBLEY, TERESA P TRUSTEE PRIVETTE,
RODNEY MCCOY JR TRUSTEE
1769024499
PO BOX 263
ROLESVILLE NC 27571-0263

DRAGONFLY INVESTMENTS NC LLC
1769015157
15405 NEW LIGHT RD
WAKE FOREST NC 27587-8633

COLUMBIA PARK EAST MHP-KB LLC
1769029362
8480 HONEYCUTT RD STE 200
RALEIGH NC 27615-2261

PEARCE, LINDA WILLIAMS PRYOR,
CHRISTY LYNN
1769023248
1100 SILENT BROOK RD
WAKE FOREST NC 27587-7138

MOBLEY, TERESA P TRUSTEE PRIVETTE,
RODNEY MCCOY JR TRUSTEE
1769020472
PO BOX 263
ROLESVILLE NC 27571-0263

MAY, WILLIAM A
1769023002
PO BOX 248
ROLESVILLE NC 27571-0248

HESS PROPERTY GROUP LLC
1769024347
6624 RIDGE SPRING RD
ZEBULON NC 27597-7525

PEOPLES, DAVID S III MACKO, STEVEN J
1769027139
10534 ARNOLD PALMER DR
RALEIGH NC 27617-7775

ROLESVILLE RURAL FIRE DEPT INC
1769017022
PO BOX 249
ROLESVILLE NC 27571-0249

HENDERSON, LIONEL R HENDERSON,
CYNTHIA A
1769029063
7909 RIVER RIDGE RD
WAKE FOREST NC 27587-9355

MITCHELL, ROBERT LEE
1769110317
PO BOX 81
ROLESVILLE NC 27571-0081

COBBLESTONE CROSSING SPE LLC
1769011435
8480 HONEYCUTT RD STE 200
RALEIGH NC 27615-2261

EXHIBIT C – ITEMS DISCUSSED

No topics were discussed because no neighbors attended the meeting.

EXHIBIT D – MEETING ATTENDEES

1. Worth Mills (Longleaf Law Partners)
2. Brooke Dickhart (Applicant)
3. Rick Bowers (Applicant)



KIMLEY-HORN AND ASSOCIATES, INC
NC License #F-0102

February 12, 2024

Meredith Gruber, PLA, AICP
Planning Director
Town of Rolesville
502 Southtown Circle
Rolesville, NC 27571



RE: *W. Young Street Rezoning, Rolesville, NC – Trip Generation Analysis*

Kimley-Horn has prepared an analysis of the trip generation potential of the proposed rezoning of the properties located at 111-115 W. Young Street in Rolesville, NC. It is our understanding that the proposed rezoning would allow up to 30,000 square feet (SF) of non-residential space and up to 7 upper-floor dwelling units.

The trip generation potential of the proposed rezoning was determined using data from the 11th Edition of the ITE *Trip Generation Manual*. Trips for the non-residential space were generated as general office space (LUC 710), while the top-floor dwellings were generated as low-rise multifamily (LUC 220) as that category was identified as the closest land use provided in ITE. The trip generation potential of the land uses allowed under the proposed rezoning is summarized in Table 1 below, and trip generation calculations are attached. To be conservative, no internal capture was applied between uses even though interaction between the uses is expected.

Table 1 ITE Trip Generation (Vehicles)							
Land Use	Size	Daily		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out
Multifamily Housing, Low-Rise (LUC 220)	7 d.u.	60	60	6	19	15	9
General Office (LUC 710)	30,000 SF	204	204	52	7	10	51
Total Net New External Trips		264	264	57	27	25	60

Table 1 shows that the proposed zoning maximums would generate approximately 528 new trips on a typical weekday, with 84 new trips in the AM peak hour and 85 new trips in the PM peak hour. While these calculated trips are above the Town’s thresholds of 500 daily or 50 peak hour trips, the conservative nature of the calculations (no internal capture, potential for double-counted trips between the uses, etc.) is expected to provide conservative results.

If you have any questions, please feel free to contact me at kevin.dean@kimley-horn.com.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Kevin Dean, P.E.
Project Manager

W. Young Street Rezoning

Table 1 - Trip Generation

Land Use	Intensity	Daily			AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
220 Multifamily Housing (Low-Rise)	7 d.u.	120	60	60	25	6	19	24	15	9
710 General Office Building	30,000 s.f.	408	204	204	59	52	7	61	10	51
Total Net New External Trips		528	264	264	84	57	27	85	25	60



J. Worth Mills
Email: wmills@longleaflp.com
Direct: (919) 645-4313

4509 Creedmoor Road, Ste 302
Raleigh, NC 27612
Tel: (919) 645-4300
longleaflp.com

REZ-23-07
W. Young Street
Statement on Latney Rogers House

Introduction

The Joel Fund, a local nonprofit organization dedicated to helping Wake County veterans, is requested to rezone three properties (111, 113 and 115 W. Young Street) from RL to GC-CZ. The rezoning is requested to facilitate a new community for veterans. This community would include living spaces and activity/art spaces for the veterans, plus new office space for The Joel Fund. One of Rolesville's oldest homes is located at 113 W. Young Street, and this report provides a brief history of the home, the steps that The Joel Fund has taken to preserve the home, and the offered zoning conditions to lessen the chances of the home's demolition.

History of Latney Rogers House at 113 W. Young Street

Some reports list the home as being constructed in 1789, while physical evidence suggests it was built later in 1839. It is often referred to as the "Latney Rogers House". At the time of construction, the Latney Rogers House (the "House") consisted of two rooms and an attic. In the 1960s, the House was almost completely remodeled and enlarged, yet retains its Federal style proportions and some interior building materials.

According to Gary Roth at Capital Area Preservation, Inc., the additions and changes done in the 1960s impact the House's historical integrity. However, he still thinks the House is worthy of preservation and potentially a historic landmark designation if the 1960s work can be reversed.

Steps Taken to Preserve Structure

Restoring the House will require significant time and costs. To that end, Brooke Dickhart (The Joel Fund's Founder and Executive Director) has met with Jeremy Bradham with Capital Area Preservation, Inc. and Sarah Woodard with North Carolina State Preservation Office. The Joel Fund has submitted a Study List application to the State Historic Preservation Office. This list is a preliminary step in the review of potential nominations to the National Register. Also, if approved for this list, this would allow The Joel Fund the opportunity to get a Rehab Code for the property. The Code makes it easier and less expensive to rehabilitate existing buildings. In addition, it encourages the upgrade of buildings and supports affordable housing efforts. Furthermore, the code gives more freedom in rehabbing historic buildings. Brooke has also met with multiple construction companies with experience bringing historical buildings up to Commercial Code. Based on conversations with the aforementioned parties, The Joel Fund intends to preserve the House and incorporate it into the veteran-oriented development.

Zoning Conditions Offered to Help Preserve Structure

The Joel Fund has offered two zoning conditions to increase the likelihood that the House is preserved. The first condition prohibits the property owner from filing a demolition permit for the

House within the first twelve months following the Board of Commissioners' approval of the rezoning request. The second zoning condition would apply if The Joel Fund determines that it cannot preserve the House; prior to demolishing the House, The Joel Fund must advertise and make the House available for third-party relocation to another lot. This relocation would be done at the sole cost of the third-party responsible for relocation. Given the uncertainty of the work necessary to properly renovate and restore the House, along with The Joel Fund's non-profit status and limited discretionary funds, offering a zoning condition to affirmatively preserve the House is untenable. That said, The Joel Fund has taken concrete steps to preserve the House for the benefit of both the Town of Rolesville and the future veterans living and interacting here.

REZ-23-07, W. Young Street
Conditions of Approval
April 29, 2024

1. The proposed General Commercial Conditional Zoning (GC-CZ) District shall allow Principal Uses per Exhibit A (Uses Permitted, Uses by Special Use Permit, Uses Prohibited).
2. No more than seven (7) upper-story dwelling units shall be permitted on the Property.
3. Nonresidential uses shall not be less than 5,000 square feet of gross floor area, and shall not exceed 30,000 square feet of gross floor area.
4. A traffic impact analysis shall be required for a Site Development Plan that includes at least 20,000 square feet of gross floor area of Office and Medical Uses as defined in LDO Section 5.1.1.
5. No demolition permit for the existing home at 113 W. Young Street (PIN 1769-01-4840) (Deed Book 16593, Page 1043, Wake County Registry) shall be filed within 365 days following approval of REZ-23-07.
6. Prior to the submittal of a demolition permit for the removal of the single-family home at 113 W. Young Street (PIN 1769-01-4840), the Development shall document the existing structure through photographs and detailed exterior elevation drawings. The Development shall send the documentation to the Town of Rolesville Planning Department and Board of Commissioners. Prior to the demolition, the Development will allow any non-profit entity, individual, or for-profit entity to relocate any of the existing single-family home at no cost to the Development and without payment to the Development, so long as the party relocating the single-family home is solely responsible for the relocation, including, without limitation, securing all permits and approvals required by law. The Development will provide general public notice in the News & Observer of the offer for relocation. Public notice shall occur at least 180 days prior to the scheduled demolition of the single-family home. Prior to demolition of the single-family home that has not been relocated within 30 days prior to demolition, and after the Development has removed any items or building materials for its reuse, the Development will allow the Town of Rolesville or any local organization at least 15 days to remove items of historic significance and building materials for reuse.


Wesley C. Wilkins


Roxey M. Wilkins

EXHIBIT A

REZ-23-07 / 111, 113, 115 W. Young Street --- LDO Table 5.1 Permitted Principal Use Table.

- The General Commercial (GC) District Permits 48 total Zoning Uses – 40 are Permitted By-right, while 8 Require a Special Use Permit approval by Town BOC.
- The Property shall be governed by the below modified list of Permitted Uses - **Prohibiting 20** and thereby Permitting **24 By-right**, and 4 by Special Use Permit.

PERMITTED – 24

RESIDENTIAL	CIVIC	COMMERCIAL	OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE			
Dwelling, Upper-Story Unit	Assembly / Church	Public Safety Facility	Eating Establish.	Event Center	Retail Sales & Service, Neighborhood	Dental Facility	Artisanal Manufacturing	Minor Utility
	Cultural Facility	Parks / Public Recreation		Funeral Home	Retail Sales & Service – Community	Medical Facility		Major Utility
	Govt. Office	Preserved Open Space		Recreation, Indoor		Professional Office		Minor Transportation Installation
	Lodge or Private clubs	Public Facilities		Recreation, Outdoor				Water Storage Tank

Permitted by Special Use Permit – 4

RESIDENTIAL	CIVIC	COMMERCIAL	OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE
	Social Services	Lodging			Major Transportation Installation
					Telecom. Tower

PROHIBITED – 20

RESIDENTIAL	CIVIC	COMMERCIAL	OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE			
	College/University	Schools K-12	Bank	Commercial Parking	Golf Course	Animal Care	Flex	
	Day Care		Bars and Nightclubs	Carwash	Retail Sales & Service – Shopping Center	Hospital	Fulfillment Center	
			Breweries and Distilleries	Gas Station	Tattoo Establishment	Urgent Care		
			Vehicle Rental and Sales	Vehicle, Minor Service	Vape & Tobacco Store			

ATTACHMENT 10

111, 113 and 115 W. Young Street

REZ-23-07

The Joel Fund

Rolesville Board of Commissioners

May 7, 2024

Overview of REZ-23-07

- 111, 113 and 115 W. Young Street total **1.57 acres**
- Current zoning: Residential Low Density (**RL**)
- Proposed zoning: General Commercial Conditional Zoning (**GC-CZ**)
- Purpose of the rezoning is to create a small community for veterans
 - Meeting and activity space for veterans on ground floor
 - Office space for The Joel Fund
 - Residential units above the meeting and activity space



MISSION

To Reconnect Veterans to
Life at Home

We use the power of community to
engage, educate and encourage veterans
and their families.



Operation ART



Operation Connect

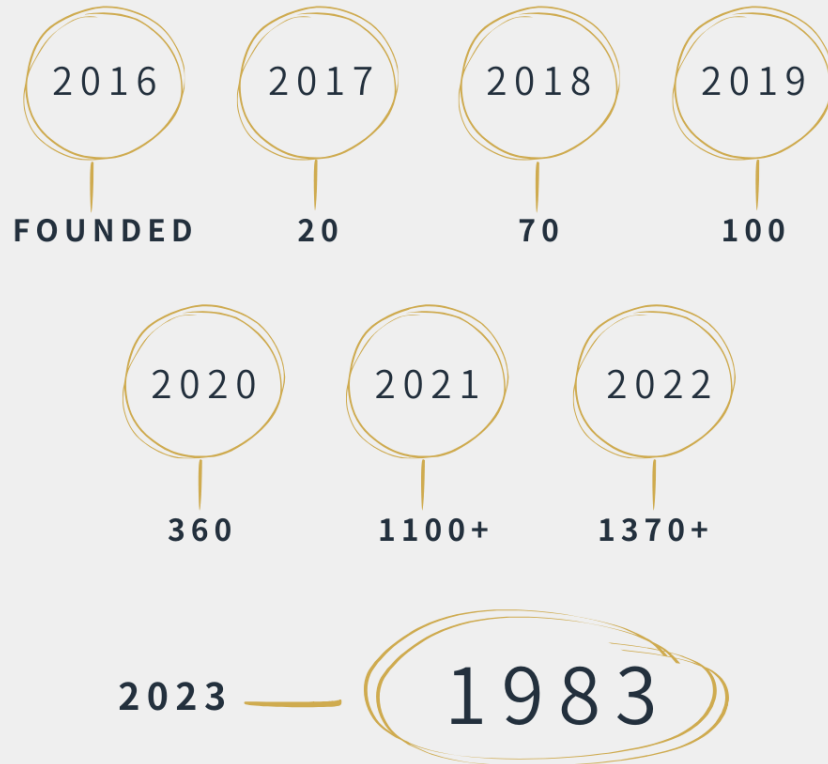


Operation Furnish



IMPACT

TOTAL VETERANS AND FAMILY MEMBERS SERVED



\$1.1M

TOTAL RAISED SINCE 2016

Existing Conditions



111 W. Young Street



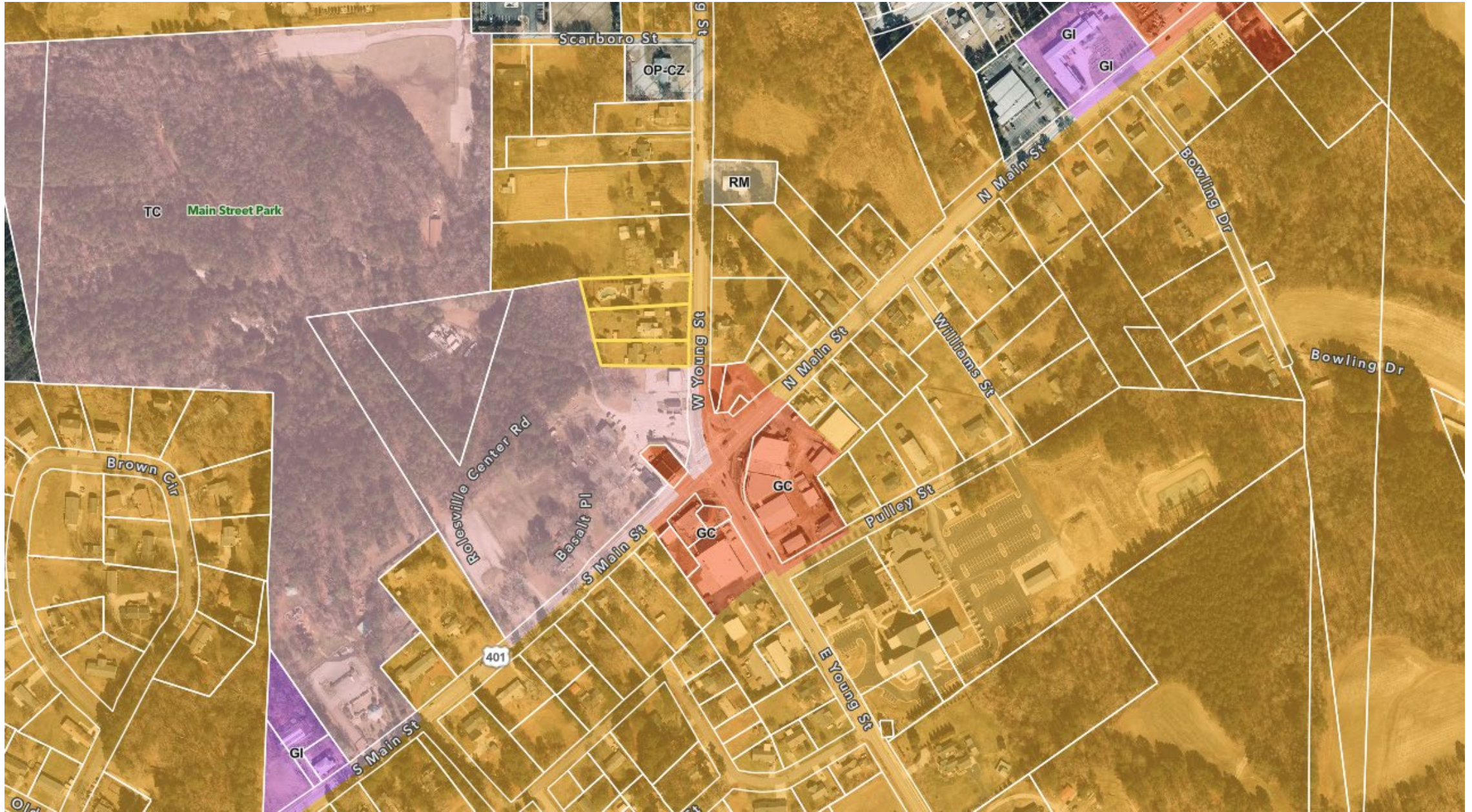
113 W. Young Street

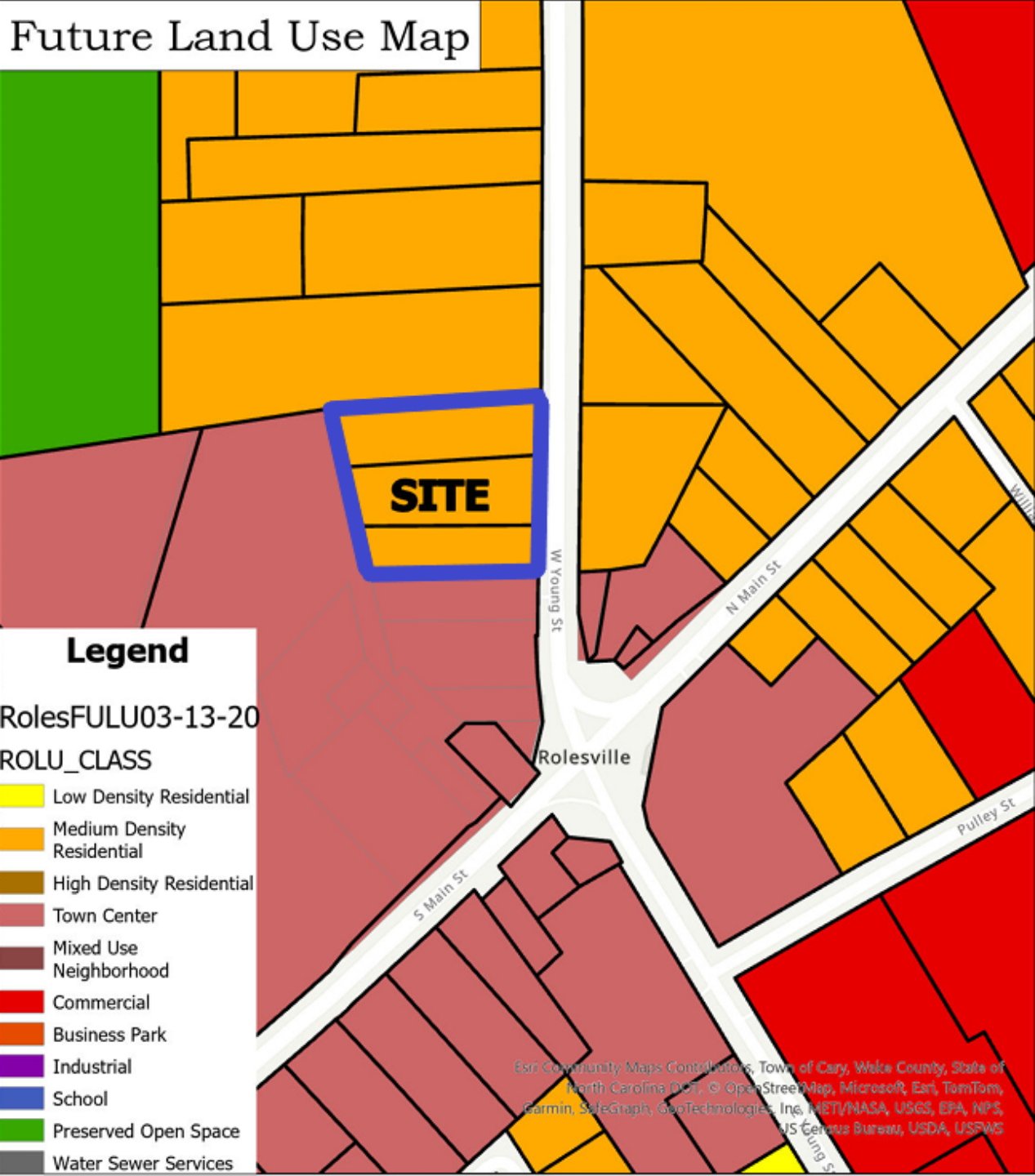


115 W. Young Street



Current Zoning





Future Land Use Map

- Recommends a range of housing types (single-family, duplexes, townhouses and multifamily)
- Density: 3-5 units per acre
- Also recommends limited nonresidential uses
- REZ-23-07, which limits development to 7 dwelling units and 30,000 square feet of nonresidential space, is consistent with the Medium Density Residential FLUM designation

1. No more than seven (7) dwelling units
2. Nonresidential uses not to exceed 30,000 ft²
3. TIA required if a Site Development Plan includes at least 20,000 ft² of Office Uses

PERMITTED – _#_								
RESIDENTIAL	CIVIC		COMMERCIAL			OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE
Dwelling, Upper-Story Unit	Assembly / Church	Public Safety Facility		Event Center	Retail Sales & Service, Neighborhood		Artisanal Manufacturing	Minor Utility
	Cultural Facility	Parks / Public Recreation		Funeral Home	Retail Sales & Service – Community	Dental Facility		Major Utility
		Preserved Open Space				Medical Facility		Minor Transportation Installation
	Govt. Office	Public Facilities				Professional Office		Water Storage Tank
	Lodge or Private clubs	Public Safety Facility		Recreation, Indoor				
			Eating Establish.	Recreation, Outdoor				
Permitted by Special Use Permit – _#_								
RESIDENTIAL	CIVIC		COMMERCIAL			OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE
		Social Services	Lodging					Major Transportation Installation
								Telecom. Tower
PROHIBITED – _#_								
RESIDENTIAL	CIVIC		COMMERCIAL			OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE
Dwelling, Single Family, Detached	Cemetery	Schools K-12	Adult Business	Commercial Parking	Golf Course	Animal Care	Flex	
Dwelling, Single Family, Attached	College/University		Bank	Carwash	Retail Sales & Service – Shopping Center	Hospital	Fulfillment Center	
Dwelling, Double Family	Correctional Facility		Bars and Nightclubs	Electronic Gaming Operations	Tattoo Establishment	Urgent Care	Industrial, Light	
Dwelling, Multiple Family	Day Care		Breweries and Distilleries	Gas Station	Vape & Tobacco Store		Industrial, Heavy	

Latney Rogers House



Background

- Built in 1839, making it one of the oldest (if not the oldest) existing homes in Rolesville
- Significant remodeling and enlargement done in the 1960s, impacting the historical integrity
- If 1960s work can be reversed, it would be worthy of preservation and potentially a historic landmark

Steps Toward Preservation

- Brooke has met with multiple construction companies with experience bring historical buildings up to Commercial Code
- Met with Capital Area Preservation, Inc. and the North Carolina State Preservation Office
- Brooke has submitted a Study List application to the State Historic Preservation Office
 - Preliminary step in nominations to the National Register
 - If approved, lowers the standards and costs necessary for rehab and preservation
- The Joel Fund intends to incorporate the Latney Rogers House into the overall development

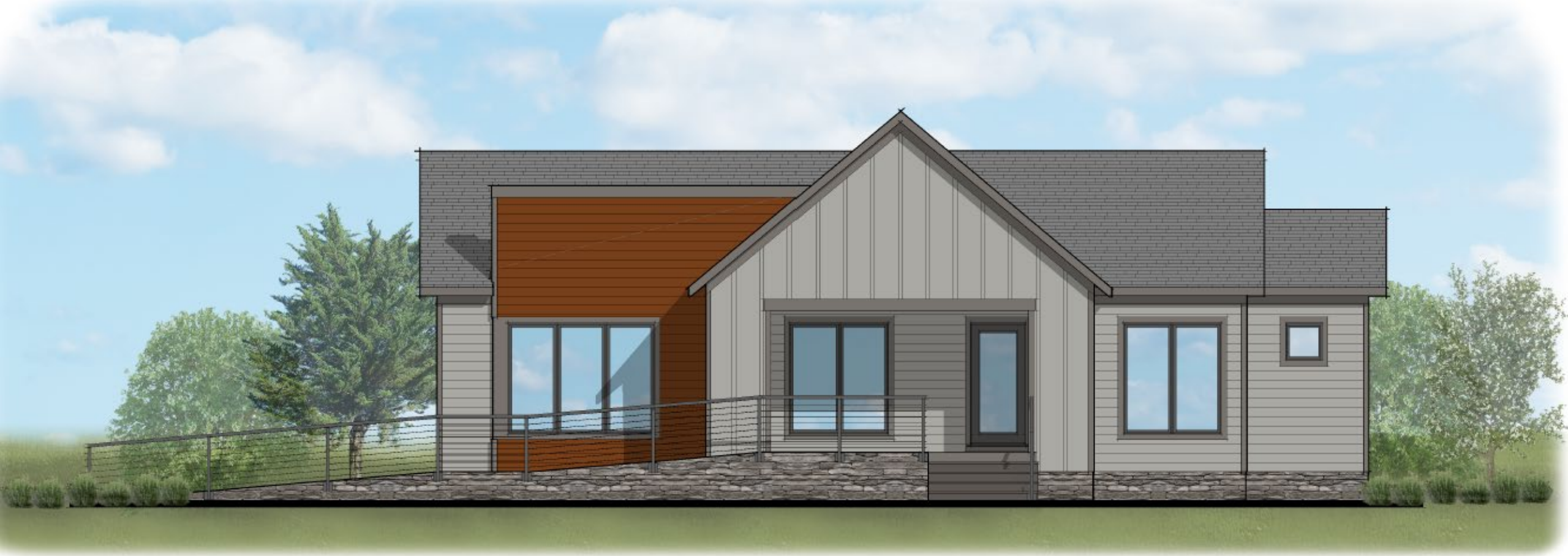
Lane House in Cary



Zoning Conditions to Increase Chances of Preservation

1. No demolition permit for the existing home at 113 W. Young Street (PIN 1769-01-4840) (Deed Book 16593, Page 1043, Wake County Registry) shall be filed within 365 days following approval of REZ-23-07.
2. Requirement to document the structure through photographs and detailed elevation drawings if the House cannot be saved
3. 180 days prior to demolition, The Joel Fund must advertise the opportunity for a third party to relocate the House. Third party is responsible for cost of relocation
4. If no one has relocated the House within 30 days of scheduled demolition, The Joel Fund will allow the Town of Rolesville or other local organization at least 15 days to remove any items or building materials of historical significance for reuse

Potential Renovations to 115 W. Young Street Home



Summary of REZ-23-07

- Proposed GC-CZ zoning district and development intensity conditions are consistent with the Medium Density Residential FLUM designation
- Approval will facilitate a veteran community and development center within the heart of Rolesville
- The Joel Fund is actively taking steps with building firms, and local and State preservation organizations to preserve the Latney Rogers House
- The Joel Fund has offered conditions to delay and mitigate the possibility of the House's removal
- The request is both reasonable and in the public interest

ORDINANCE 2024-O-08

ORDINANCE OF THE BOARD OF COMMISSIONERS OF THE TOWN OF ROLESVILLE AMENDING THE OFFICIAL ZONING DISTRICT MAP OF THE TOWN OF ROLESVILLE TO CHANGE THE ZONING OF APPROXIMATELY 1.57 ACRES LOCATED AT 111, 113, and 115 W. YOUNG STREET , BEING WAKE COUNTY TAX PINS 1769014751, 1769014840, AND 1769014849 FROM THE RESIDENTIAL LOW DENSITY DISTRICT (RL) TO A GENERAL COMMERCIAL CONDITIONAL ZONING DISTRICT (GC-CZ)

REZ-23-07, 111-113-115 W. YOUNG STREET

WHEREAS, the application submitted by The Joel Fund on behalf of property owners Wesley and Roxey Wilkins for the rezoning of land hereinafter described was duly filed with the Planning Department; and

WHEREAS, the Planning Board was presented the application for Recommendation on March 25, 2024 and the Board of Commissioners held a Legislative hearing on May 7, 2024; and

WHEREAS, mailed notices and property sign postings were carried out in advance of the Legislative hearing pursuant to G.S. § 160D-602 and the Land Development Ordinance; and

WHEREAS, the Planning Board submitted its recommendation to the Board of Commissioners recommending Approval of said application that was generally consistent with the Comprehensive Plan for the lands hereinafter described, all in accordance with the requirements of the Town of Rolesville Land Development Ordinance and the provisions of Chapter 160D, Article 6, of the North Carolina General Statutes;

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners of the Town of Rolesville, North Carolina:

Section 1: The lands that are the subject of the Ordinance are those certain lands described in **Exhibit 1 – Legal Description**, which is incorporated herein by reference, and said lands are hereafter referred to as the “Rezoned Lands.”

Section 2: The parcels identified by the Wake County Tax Parcel Identification Numbers 1769014751, 1769014840, AND 1769014849, and described in **Exhibit 1**, are located within the Town’s Corporate Limits.

Section 3: The Town of Rolesville Land Development Ordinance, including the Town of Rolesville North Carolina Official Zoning District Map which is a part of said Ordinance, is hereby amended by changing the zoning classification of the “Rezoned Lands” from RESIDENTIAL LOW DENSITY DISTRICT (RL) to GENERAL COMMERCIAL CONDITIONAL ZONING DISTRICT (GC-CZ), subject to the conditions stated herein.

Section 4: The “Rezoned Lands” are subject to all of the standards and conditions in **Exhibit 2 – Conditions of Approval dated April 29, 2024**, which are voluntarily imposed as part of this rezoning.

Section 5: The Administrator is hereby authorized and directed to cause the said Official Zoning District Map for the Town of Rolesville, North Carolina, to be physically revised and amended to reflect the zoning changes ordained by this Ordinance.

Section 6: After reviewing all the information presented at the Legislative hearing and the Town of Rolesville plans, policies and ordinances, the Rolesville Board of Commissioners find the Rezoning map amendment request reasonable and consistent with the 2017 Comprehensive Plan and is in the interest of the public and adopted a Plan Consistency and Reasonableness Statement.

Section 7: The “Rezoned Lands” shall be perpetually bound to the Conditions imposed including the uses authorized, unless subsequently changed or amended as provided for in the Land Development Ordinance.

Adopted and effective this the 7th day of May 2024.

Ronnie Currin
Mayor

ATTEST:

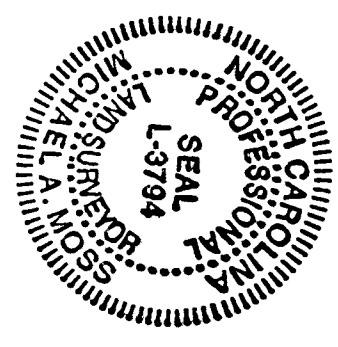
APPROVED AS TO FORM:

Robin Peyton
Town Clerk

David J. Neill
Town Attorney

I, MICHAEL A. MOSS, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THE SOURCE OF INFORMATION FOR THE SURVEY IS SHOWN HEREON; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED; THAT THE RATIO OF PRECISION IS GREATER THAN 1:10,000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600); WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL.

THIS 3RD DAY OF AUGUST 2009.



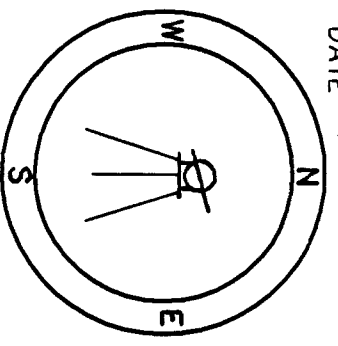
PROFESSIONAL LAND SURVEYOR (L-3794)

TOWN OF ROLESVILLE
D.B. 12794, PG. 1827
B.M. 2007, PG. 2414
PIN # 1769.17-01-0454

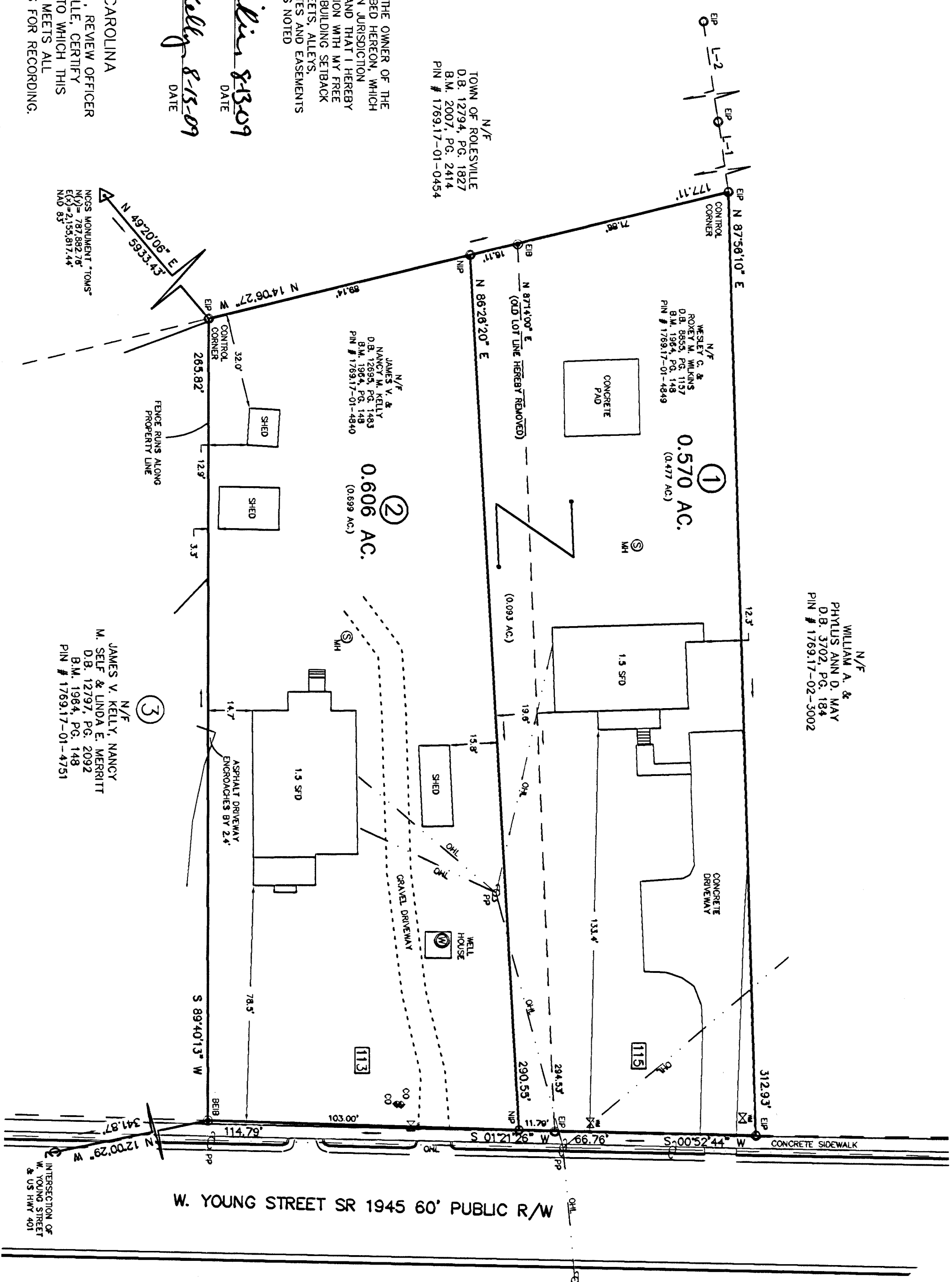
I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, WHICH IS LOCATED IN THE SUBDIVISION JURISDICTION OF THE TOWN OF ROLESVILLE AND THAT I HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY FREE CONSENT, ESTABLISH MINIMUM BUILDING SETBACK LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER SITES AND EASEMENTS TO PUBLIC OR PRIVATE USE AS NOTED

Rayleigh M. Wilkins
DATE 8/3/09
OWNERS
James V. & Nancy M. Kelly
DATE 8/3/09

ROLESVILLE, NORTH CAROLINA
I, *Michael A. Moss*, REVIEW OFFICER OF THE TOWN OF ROLESVILLE, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.



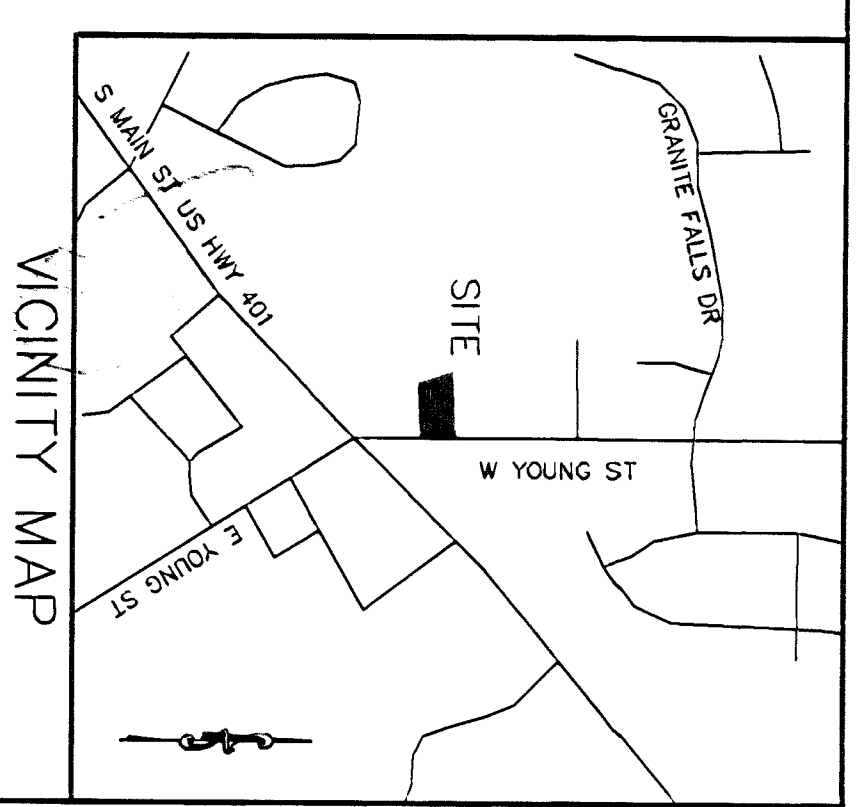
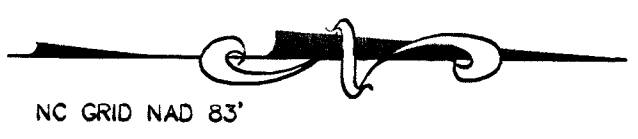
CAWTHORNE, MOSS & PANCIERA, P.C. PROFESSIONAL LAND SURVEYORS, C-1525, 333 S. WHITE STREET, P.O. BOX 1253, WAKE FOREST N.C., 27588, (919) 556-3148



N/F
WILLIAM A. &
PHYLLIS ANN D. MAY
D.B. 3702, PG. 184
PIN # 1769.17-02-3002

N/F
JAMES V. &
NANCY M. KELLY
D.B. 12695, PG. 1483
B.M. 1964, PG. 148
PIN # 1769.17-01-4840

N/F
JAMES V. KELLY, NANCY
M. SELF & LINDA E. MERRITT
D.B. 12797, PG. 2092
B.M. 1964, PG. 148
PIN # 1769.17-01-4751



- LEGEND:**
- EP - EXISTING IRON PIPE
 - EPK - EXISTING PK NAIL
 - NIP - NEW IRON PIPE SET
 - R/W - RIGHT OF WAY
 - CATV - CABLE TV BOX
 - EB - ELECTRIC BOX
 - TEL - TELEPHONE PEDestal
 - PP - POWER POLE
 - OHL - OVERHEAD LINE
 - LP - LIGHT POLE
 - WM - WATER METER
 - WV - WATER VALVE
 - CO - SEWER CLEAN-OUT
 - [BBB] - ADDRESS

NOTE:
- AREA COMPUTED BY COORDINATE METHOD.

LINE	LENGTH	BEARING
L-1	184.93'	S 81°41'12" W
L-2	59.08'	S 81°14'33" W

- LINE TYPE LEGEND**
- PROPERTY LINE - LINE SURVEYED
 - RIGHT-OF-WAY LINE - LINE NOT SURVEYED
 - ADJOINING LINE - LINE NOT SURVEYED
 - OVERHEAD LINE
 - ASBESTOS
 - BARREN
 - FLOOD HAZARD SOILS

RECOMBINATION SURVEY FOR WESLEY C. WILKINS

LOTS 1 & 2, R.L. ROGERS ESTATE
OWNERS LOT 1: WESLEY C. & ROXEY M. WILKINS
OWNERS LOT 2: JAMES V. & NANCY M. KELLY
REF: D.B. 8855, PG. 1157 (LOT 1)
REF: D.B. 12695, PG. 1483 (LOT 2)
REF: B.M. 1964, PG. 148



TOWN OF ROLESVILLE
WAKE COUNTY, NORTH CAROLINA
JULY 22, 2009
ZONED R-1
PIN # 1769.17-01-4849 (LOT 1)
PIN # 1769.17-01-4840 (LOT 2)

FILED FOR REGISTRATION
HAKE COUNTY, NC 347
LAURA M RIDDICK
REGISTERED & RECORDED ON
08/20/2009 AT 16:03:44
BOOK: B12809 PAGE: 08928

DATE
BY: ASST./DEPUTY

REVIEW OFFICER
DATE

I, MICHAEL A. MOSS, PROFESSIONAL LAND SURVEYOR NO. L-3794, CERTIFY THAT THIS PLAT IS OF A SURVEY OF ANOTHER CATEGORY, SUCH AS THE RECOMBINATION OF EXISTING PARCELS, A COURT ORDERED SURVEY, OR OTHER EXCEPTION TO THE DEFINITION OF SUBDIVISION.

MICHAEL A. MOSS, PROFESSIONAL LAND SURVEYOR NO. L-3794

ORDINANCE 2024-O-08 for REZ-23-07 - Conditions of Approval

REZ-23-07, W. Young Street

Conditions of Approval

April 29, 2024

1. The proposed General Commercial Conditional Zoning (GC-CZ) District shall allow Principal Uses per Exhibit A (Uses Permitted, Uses by Special Use Permit, Uses Prohibited).
2. No more than seven (7) upper-story dwelling units shall be permitted on the Property.
3. Nonresidential uses shall not be less than 5,000 square feet of gross floor area, and shall not exceed 30,000 square feet of gross floor area.
4. A traffic impact analysis shall be required for a Site Development Plan that includes at least 20,000 square feet of gross floor area of Office and Medical Uses as defined in LDO Section 5.1.1.
5. No demolition permit for the existing home at 113 W. Young Street (PIN 1769-01-4840) (Deed Book 16593, Page 1043, Wake County Registry) shall be filed within 365 days following approval of REZ-23-07.
6. Prior to the submittal of a demolition permit for the removal of the single-family home at 113 W. Young Street (PIN 1769-01-4840), the Development shall document the existing structure through photographs and detailed exterior elevation drawings. The Development shall send the documentation to the Town of Rolesville Planning Department and Board of Commissioners. Prior to the demolition, the Development will allow any non-profit entity, individual, or for-profit entity to relocate any of the existing single-family home at no cost to the Development and without payment to the Development, so long as the party relocating the single-family home is solely responsible for the relocation, including, without limitation, securing all permits and approvals required by law. The Development will provide general public notice in the News & Observer of the offer for relocation. Public notice shall occur at least 180 days prior to the scheduled demolition of the single-family home. Prior to demolition of the single-family home that has not been relocated within 30 days prior to demolition, and after the Development has removed any items or building materials for its reuse, the Development will allow the Town of Rolesville or any local organization at least 15 days to remove items of historic significance and building materials for reuse.


Wesley C. Wilkins


Roxey M. Wilkins

EXHIBIT A

REZ-23-07 / 111, 113, 115 W. Young Street --- LDO Table 5.1 Permitted Principal Use Table.

- The General Commercial (GC) District Permits 48 total Zoning Uses – 40 are Permitted By-right, while 8 Require a Special Use Permit approval by Town BOC.
- The Property shall be governed by the below modified list of Permitted Uses - **Prohibiting 20** and thereby Permitting **24 By-right**, and 4 by Special Use Permit.

PERMITTED – 24

RESIDENTIAL	CIVIC	COMMERCIAL	OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE			
Dwelling, Upper-Story Unit	Assembly / Church	Public Safety Facility	Eating Establish.	Event Center	Retail Sales & Service, Neighborhood	Dental Facility	Artisanal Manufacturing	Minor Utility
	Cultural Facility	Parks / Public Recreation		Funeral Home	Retail Sales & Service – Community	Medical Facility		Major Utility
	Govt. Office	Preserved Open Space		Recreation, Indoor		Professional Office		Minor Transportation Installation
	Lodge or Private clubs	Public Facilities		Recreation, Outdoor				Water Storage Tank

Permitted by Special Use Permit – 4

RESIDENTIAL	CIVIC	COMMERCIAL	OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE
	Social Services	Lodging			Major Transportation Installation
					Telecom. Tower

PROHIBITED – 20

RESIDENTIAL	CIVIC	COMMERCIAL	OFFICE/MEDICAL	INDUSTRIAL	INFRASTRUCTURE			
	College/University	Schools K-12	Bank	Commercial Parking	Golf Course	Animal Care	Flex	
	Day Care		Bars and Nightclubs	Carwash	Retail Sales & Service – Shopping Center	Hospital	Fulfillment Center	
			Breweries and Distilleries	Gas Station	Tattoo Establishment	Urgent Care		
			Vehicle Rental and Sales	Vehicle, Minor Service	Vape & Tobacco Store			



Memorandum

To: Mayor and Town Board
From: Eric Marsh, Interim Town Manager & Amy Stevens, Finance Director
Date: May 2, 2024
Re: Yard Waste Transition and Budget Amendment

Background

The Departments of Administration, Finance, and Public Works conducted an operational and financial feasibility analysis of the Yard Waste program as part of the FY2024-25 budget process. The analysis concluded that it is operationally achievable and fiscally responsible to transition the Yard Waste (YW) services and program internally in FY2024-25. The Public Works department will be the owner of the service.

A requirement of transitioning the program is the acquisition of a Leaf Truck and a Knuckleboom Truck. The Public Works department found vendors that can deliver the needed trucks this year. To reserve the trucks, the Town must provide letters of intent to the vendor(s) prior to the adoption of the FY2024-25 budget. While the vendors will accept letters of intent, to clearly satisfy statutory requirements staff recommend that the purchases have an approved budget.

How will it be paid for?

As the fiscal year comes to a close, staff are better able to make final projections for revenues. Due to interest rates remaining higher than expected, investment income for FY23-24 is projected to exceed the budgeted amount. In addition, the final property tax valuation for real estate, personal property, and utility values exceeded the Wake Tax Office's estimates so the Town has already collected funds in excess of the projected amount.

Given the long-term savings from transitioning this service, staff recommends using these excess revenues to make the capital equipment purchases needed for the yard waste program. While this action will reduce the amount of funds that would have otherwise been added to the Town's fund balance at the end of FY23-24, the Town is expected to maintain adequate reserves.

	CURRENT BUDGET	CURRENT REVENUES	PROJECTED REVENUES	EXCESS REVENUE
Investment Earnings	\$200,000	\$457,108	\$609,477	\$409,477
Property Tax	\$6,220,000	\$6,664,362	\$6,664,362	\$444,362

Recommended Action

Make a motion to authorize the Town Manager to execute letters of intent to purchase Yard Waste trucks and adopt the budget ordinance amendment.

Attachments:

- Budget ordinance amendment

**AN ORDINANCE TO AMEND THE
2023-2024 FISCAL YEAR BUDGET ORDINANCE**

BE IT ORDAINED, by the Board of Commissioners of the Town of Rolesville, North Carolina that the following amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2024:

- To appropriate funds for the purchase of yard waste equipment.*

		<u>Change</u>
<u>Revenue</u>		
100-000-4010-0000	Ad Valorem Taxes	\$280,000
100-000-4610-0000	Investment Earnings	\$280,000
 <u>Expenditure</u>		
100-510-5420-0000	Vehicles	\$560,000

This will result in a net increase of \$560,000 in both revenues and expenditures of the General Fund.

Adopted this 7th day of May 2024

Ronnie I. Currin
Town of Rolesville Mayor

Attest: _____
Robin E. Peyton
Town Clerk



FUTURE TOWN BOARD MEETINGS
(Please note this schedule is subject to change)

- May 21, 2024 Town Board Work Session – 6:00 p.m.
- Present FY24/25 Budget.
 - Planning Space Lease and Budget Amendment.
- June 4, 2024, Town Board Regular Meeting – 7:00 p.m. (Staff Reporting: PD)
- Proclamation: Juneteenth
 - Consent: Minutes of May 7th and May 21st.
 - Consent: Powell Bill Resolution Adoption.
 - Consent: Chamber MOU.
 - Budget Public Hearing
 - Budget Amendment
 - Continued Land Use
- June 18, 2024 Town Board Work Session – 6:00 p.m.
- Affordable Housing Update.
 - Comprehensive Plan Update.
 - Main Street Project Update.
- July 9, 2024 Town Board Regular Meeting – 7:00 p.m. (Staff Reporting: FI/HR)
- Proclamation: Parks & Recreation Month
 - Consent: Minutes of June 4th and June 18th.
 -
- July 16, 2024 Town Board Work Session – 6:00 p.m.
- Planning Items to be Scheduled by Planning Director:
- REZ23-01 - Averette and Jones Dairy Mixed Use – Legislative Hearing.
 - REZ-23-05/ANX23-04 – Scarboro Apartments/201 S. Main Street – Legislative Hearing
 - REZ-24-01 / ANX-24-02 – Merritt Property Rezoning & Annexation
 - TA-24-01 – Residential Urban District Text Amendment
 - LDO Text Amendments – Next Round TBD