

Planning Board Meeting April 24, 2023 7:00 p.m.

AGENDA

- A. Call to Order
 - 1. Pledge of Allegiance
 - 2. Invocation
 - 3. Approval of March 27, 2023 Planning Board Meeting Minutes
- B. Regular Agenda
 - 1. MA 22-05 1216 Rolesville Road Rezoning Map Amendment
- C. Communications
 - 1. Planning Director's Report
 - a. Update on Previous Planning Board Recommendations
 - b. March Development Report
 - c. Other
 - 2. Town Attorney's Report
 - 3. Other Business
 - 4. Adjournment



Planning Board Special Meeting March 27, 2023 - 6:00 PM 502 Southtown Circle, Rolesville, NC 27571

MINUTES

PRESENT: Mike Moss, Chair

Davion Cross, Vice-Chair,

Derek Versteegen, Board Member Erin Catlett, Deputy Town Attorney Mike Elabarger, Senior Planner Donnie Lawrence, Board Member Steve Hill, Board Member

Jim Schwartz, Board Member Meredith Gruber, Planning Director Michele Raby, Planning Board

Clerk/Planner I

ABSENT: Tisha Lowe, Board Member, Michelle Medley, Commissioner/ Planning Board

Liaison

1. CALL TO ORDER

Chair Moss called the meeting to order at 6:00 p.m.

- 2. Staff and Board Member Introductions
- 3. Board Training/Legislative Process Overview

The board collectively asked questions about zoning reviews, time to review applications, who reviews applications, growth in the urban frindge area, Annexations, future land use, stubs in a subdivision, connector streets between existing and future developments and TIAs.

- 4. Training Calendar
- 5. Adjournment

Board Member Hill made a motion to adjourn and Seconded by Board Member Versteegen. The motion was carried by unanimous vote. The meeting adjourned at 6:50 p.m.

Mike Moss, Planning Board Chairman

Michele Raby, Planning Board Clerk/Planner



Planning Board Meeting March 27, 2023 - 7:00 PM 502 Southtown Circle, Rolesville, NC 27571

MINUTES

PRESENT: Mike Moss, Chair Donnie Lawrence, Board Member

Davion Cross, Vice-Chair, Board Member

Derek Versteegen, Board Member

Erin Catlett, Deputy Town Attorney

Steve Hill, Board Member

Jim Schwartz, Board Member

Meredith Gruber, Planning Director

Michelle Medley, Commissioner/ Planning Board Liaison

Mike Elabarger, Senior Planner Michele Raby, Planning Board Clerk/Planner I

ABSENT: Tisha Lowe, Board Member

A. CALL TO ORDER

Chair Moss called the meeting to order at 7:00 p.m.

A.1. PLEDGE OF ALLEGIANCE

The Board collectively recited the Pledge of Allegiance.

A.2. INVOCATION

Chair Moss delivered the invocation.

A.3. APPROVAL of the February 27, 2023, Planning Board meeting minutes

Moved by Vice-Chair Davion Cross and Seconded by Board Member Derek Versteegen. The motion to approve the minutes of February 27, 2023, carried by unanimous vote.

B. REGULAR AGENDA

B.1. MA 21-10- Pearce Farm formerly known as Tom's Creek Rezoning Map Amendment

Ms. Gruber updated the board on the proposed project and introduced the applicants; Mr. Ammons of Ammons Development, Mr. Anderson with AGNC, Ms. Hollerman of McAdams, Ms. Chase of Exult, and Mr. Meyers of JPM South to review the proposed changes. The various representatives for the Applicant spoke about the changes made to the Application including project name rebranding; open space, greenway, and home lot layout and design; a more function Collector roadway between Burling Mills and Forestville roads, and the details of the proposed Conditions of approval.

Board Members collectively asked about greenway placement, the number of dwelling units, fencing, blasting, signal lights, turn lanes installation, stormwater, traffic, speed limits in the subdivision, and requested an outdoor museum.

Public speakers not in opposition to the project included:

- 1. Austin Williams, Crossland Southeast
- 2. Charles McDonald, 1405 Kinnesaw Street, Wake Forest, NC 27587

1|Planning Board Meeting Minutes

March 27, 2023

- 3. Catherine Ann Keith, 4244 Burlington Mills Road, Wake Forest, NC 27587
- 4. Margaret Watkins, 407 Belmellen Court, Wake Forest, NC 27587
- 5. Kelly Jennings, 3901 Burling Mills Road, Wake Forest, NC 27587
- 6. Dan Jennings, 3901 Burling Mills Road, Wake Forest, NC 27587

Public speakers in opposition to the project included:

1. Amy Bonis, 11316 Centaur Road, Wake Forest, NC 27587- stating lot sizes and traffic concerns

Public comments received in opposition to the project included:

1. Najla Carlton, 4909 Tuckahoe Trace, Wake Forest, NC 27587- stating traffic, density, and lifestyle concerns

Moved by Board Member Donnie Lawrence and Seconded by Board Member Jim Schwartz. The motion to recommend approval of MA 21-10 carried with a 4-1 vote.

Ayes: Vice-Chair Cross, Board Members Lawrence, Schwartz, and Versteegen

Nayes: Board Member Steve Hill

- C. COMMUNICATIONS
- C.1. Planning Director's Report
 - a. Update on Previous Planning Board Recommendations

LDO round 4 Text Amendment will be presented to the Town Board on April 4, 2023

b. February Development Report

Total number of Permits issued increased by 14 in 2023

c. Training Needs

The board requested quarterly training on lighter agenda evenings, with the next training focus on the overall development review process.

- d. Other
- C.2. Town Attorney's Report

Deputy Town Attorney Catlett thanked the board for attending the training, noting it was very positive.

C.3. Other Business

Commissioner Medley apologized for not attending the training. Board Member Schwartz noted with the trees within the NCDOT right-of-way south of Rolesville High School vicinity having recently been cleared on Rolesville Road give better visibility for traffic.

C.4. Adjournment

Board Member Lawrence made a motion to adjourn and Seconded by Vice-Chair Cross. The motion was carried by unanimous vote. The meeting adjourned at 8:50 p.m.

Mike Moss, Planning Board Chairman	Michele Raby, Planning Board Clerk/Planner



Memo

To: Rolesville Planning Board

From: Michael Elabarger, Senior Planner

Date: April 24, 2023

Re: 1216 Rolesville Road - Map Amendment (Rezoning) Application MA 22-05

Background

The Town of Rolesville Planning Department received a Map Amendment (Rezoning) application (Attachment 1) in February 2022 for an 11.781 acre tract located at 1216 Rolesville Road, being Wake County PIN 1768337689. The applicant, Optimal Development LLC, is requesting to change the zoning from the Town's Land Development Ordinance (LDO) Residential Low Density (RL) District to the mixed-use District of Neighborhood Center as a Conditional Zoning (NC-CZ) District. A set of Conditions of Approval and a Concept Plan are included (see Attachments 2 and 3). In April 2023, an associated Voluntary Annexation Petition (ANX 23-02) was submitted and is being processed as the property is not currently in the Town corporate limts.



Concept Plan for 1216 Rolesville Road

Request

The Applicant is requesting to rezone the property to Neighborhood Center - Conditional Zoning (NC-CZ) District to create a Townhome (single-family attached) residential neighborhood with a commercial node at the southeast corner of the site fronting Rolesville Road. Per the Concept Plan (Attachment 3) the development proposes a playground/gazebo/picnic amenity, a dog-park /multi-use area, public Greenway from Rolesville Road to the western site boundary,and a 10' Sidepath paralleling Rolesville Road. The Neighborhood Commercial (NC) District permits both residential and non-residential uses, and has a clause to ensure that non-residential development is pursued before all the residential is developed. As a "Conditional District", it allows the Applicant to offer and commit to details that may be above and beyond minimum/maximum standards that would apply at later stages of development. The project triggers several Transportation improvements to Rolesville Road per the TIA (detailed further in this memo).

Highlights of the Proposed Conditions of Approval (Attachment 2):

- 1. General Compliance with the concept Plan, which includes a maximum dwelling unit count of 68 single-family Attached (townhome) units and shown amenities.
- 2. NC DOT Internal Protected Stem (IPS) further discussion for driveway access to Rolesville Road (as shown it cannot be built).
- 3. Townhome architectural detail commitments.
- 4. Transportation improvements per the TIA recommendations.

Applicant Justification

The Applicant provided the following written justification statement for the rezoning request – please see page 3 of Attachment 1, Application.

Rezoning Justification

The subject parcel is currently within the Town of Rolesville's jurisdiction and is zoned RL, Residential Low Density. The parcel is within the Town of Rolesville's Future Land Use Plan (2017) and designated as Mixed Use Neighborhood. The map amendment application for Neighborhood Center Mixed-Use (NC) is requested for the establishment of a zoning district that will allow for development that is suburban in nature with a limited commercial component that will be compatible with nearby residential and other uses. The Point development proposes to bring a mix of residential uses immediately adjacent to the subject property, and Rolesville High School is across Rolesville Road from the property to the northeast. Thus, the map amendment will be in harmony with surrounding developments and the Future Land Use Plan. Adequate public infrastructure exists in the area, and the site will be developed according to the Town of Rolesville's Land Development Ordinance, which will ensure that the proposed uses do not adversely affect adjoining uses.

Neighborhood Meeting

The Applicant held an on-line neighborhood meeting on July 25, 2022 at 5:30 PM; there were no attendees. A summary memo is included as Attachment 4.

Comprehensive Plan

Land Use

The Future Land Use Map identifies the subject parcel as <u>Mixed Use Neighborhood</u>, which is described as "neighborhoods with a mix of uses that offer residents the ability to live, shop, work, and play, in one community. The design and scale of the development encourages active living through a comprehensive and interconnected network of walkable streets that often support multiple modes of transportation."

Transportation and Traffic

The project proposes development on the west side of Rolesville Road (aka State Road 1003) with approximately 830 feet of frontage. The scope of the project – 68 dwelling units and 30,000 SF of non-residential uses – met the LDO thresholds for requiring a Traffic Impact Analysis (TIA), and this was performed by Ramey Kemp Associates during early 2023 (see Attachments 5 and 6). The study contemplated a project of 68 single-family attached lots and 30,000 square feet of general retail space. Driveway connections studied were one (1) full movement connection to Rolesville Road aligning with Sunset Manor Drive and one (1) right-in/right-out (RIRO) connection to Rolesville Road approximately 275 feet to the south of the full movement connection. A local public street (stub, see Road 2 in Concept Plan) connection to the north to The Point townhome development is also proposed.

Per the Town of Rolesville's Community Transportation Plan (CTP, 2021), the Thoroughfare recommendations for the existing major roadway near this site are:

• Rolesville Road -- a Two-lane (2) facility with center Two-way Left Turn lane, curb and gutter, Bike Lanes, and sidewalks.

Per the Town of Rolesville's Greenway Plan, 10' Sidepath is required along the Rolesville Road frontage; this takes the place of the Sidewalk along this frontage.

The developer is responsible for full **Frontage Improvements** along the entire property's frontage to one-half of the ultimate Section (described above).

The TIA resulted in these general trip generations from the project (excerpted from TIA):

	Table E-1: Site Trip Generation									
Land Use (ITE Code)	Intensity	Daily Traffic		Weekday eak Hour (vph)		Weekday PM Peak Hour Trips (vph)				
		(vpd)	Enter	Exit	Total	Enter	Exit	Total		
Single-Family Attached Housing (215)	68 DU	468	7	23	30	22	15	37		
Retail (<40 KSF) (822)	30 KSF	1,496	36	23	59	85	85	170		
Total Trips	Total Trips 1,964					107	100	207		
Internal Captu (15% PM)*		-	-	-	-15	-15	-30			
Total External T	rips		43	46	89	92	85	177		
Pass-By Trips: Shoppii (34% PM)	-	-	-	-26	-26	-52				
Total Primary T		43	46	89	66	59	125			
*Utilizing methodology contain	RP Report 684	4.				·				

Based on the proposed layout studied in the TIA, the North Site Drive 1 is to be full-access, allowing north-bound left-turns out of the project onto Rolesville Road, as well as allowing north-bound movements from Rolesville Road to left-turn into the property. The southern Site Drive 2 would be restricted to Right-in (from southbound Rolesville Road) and Right-out (onto southbound Rolesville Road).

The TIA Recommended 4 distinct improvements which are generally described as:

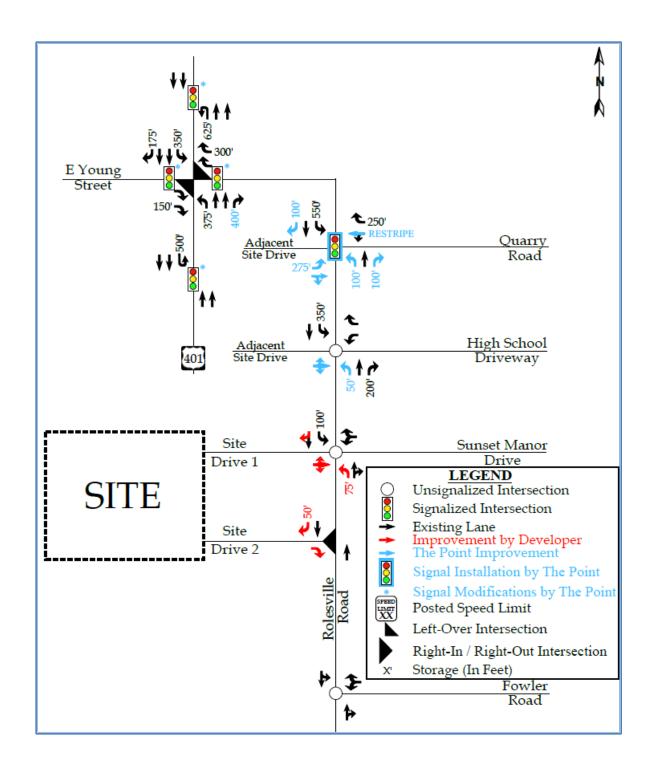
1. Rolesville Road and Sunset Manor Drive / Site Drive 1:

- Construct eastbound approach with one ingress lane and one egress lane striped as a shared left-through-right turn lane. Provide Stop control for the eastbound approach.
- b. Construct an exclusive northbound left-turn lane with a minimum of 75 feet of storage and appropriate taper.

2. Rolesville Road and Site Drive 2:

- a. Construct eastbound approach with one ingress lane and one egress lane striped as a right-turn lane. Provide Stop control for the eastbound approach.
- b. Construct an exclusive southbound right-turn lane with a minimum of 50 feet of storage and appropriate taper.

Below is an excerpt from the TIA identifying the various 'Site Access' points. North is up.



Staff Analysis

Below is an overview of the review of this application for compliance; at this first stage of development there are some requirements that cannot be demonstrated until later stages of the development process, all of which are Administrative and implemented by Staff. The proposed Concept Plan (Attachment 3) is part of the Conditions (Attachment 2) and represents a conceptual

layout and rendering of how the project may be built; it is <u>not</u> a preliminary subdivision plat or any form of "site plan" that has been vetted against the LDO for absolute buildable compliance.

Neighborhood Center District (LDO Section 3.4.3.)

The entire property (~11.8 acres) is proposed for this NC District.

LDO	Standard	Complies/Does not Comply	
3.4.E.2	Building Placement – Table 3.4.3.	No dimensions of building to ROW/property line shown.	Inconclusive – TBD at Preliminary Subdivision.
3.4.E.3	Streetwalls	Concept Plan notes a Street Wall	Complies.
Table 3.4.3.	Density – max. 8 d.u. / acre	11.8 ac / 68 d.u. = 5.8 du/ac	Complies.
Table 3.4.3.	Frontage – 25% of non-residential building	Concept Plan shows no compliance.	Does not comply.
3.4.3.C. – Minimum Size	75% of the NC district land area (Maximum) may be residential use.	11.8 ac x .75 = 8.85 acres. Concept Plan assigns 10.54 acres to Uses not being "Commercial"	Does not comply – exceeds the maximum, but may require recalculation.
3.4.3.D.1 – Mixture of Uses	15% of the NC district (minimum) for non-residential uses*.		Does not comply – exceeds the minimum, but may require recalculation.

There are many other NC District standards that cannot be determined for lack of specificity of Concept Plan, which is appropriate at this stage – these standards shall have compliance demonstrated at Subdivision, Site Development Plan, or Building Permit review.

*LDO 3.4.3.D.2 clarifies that open space, buffers, drainage, etc. shall not be 'non-residential' for purposes of 3.4.3.D. compliance.

Finally, the NC District has a 'timing of development' requirement for the Non-residential uses (Section 3.4.3.D.4.) This requires at least 25% of non-residential square footage to achieve Building Permit issuance by the time that 50% of residential units achieve Building Permit issuance. Section 3.4.3.D.5. requires 50% of non-residential square footage to attain Building permits before remaining residential units can attain Building Permits. In the proposed development, no more than 34 townhome units can achieve Building Permit issuance before $30,000 \times .25 = 7,500 \text{ SF}$ of non-residential space achieves Building Permit issuance. Implementation of this will occur at the time of Building Permit submittal/issuance, which is the last step of the development process.

TIA Results

Staff concurs with the recommendation improvements contained within the TIA and find that they demonstrate rational mitigation of impacts from the proposed scope and intensity of development on the area roadways. What the project, and therefore the TIA, do not account for is access to the larger land-tract (PIN 1768236815) that sits adjacent to the west. Based on the known aspect of The Point not providing direct/through access to this parcel, and the subject tract also not providing such access, this tract and those further to the west then rely solely on PIN 1768328863

to gain access to Rolesville Road. These future connection possibilities, limited as they are, are concern for the greater functionality of access in this vicinity of the Town.

Consistency

The applicant's request for a Neighbhorhood Center (NC) district, conditioned to a project for up to 68 residential dwelling units and 30,000 square feet of non-residential development is consistent with the Town of Rolesville's Comprehensive Plan Future Lane Use category of Mixed Use Neighborhood.

Development Review

The Technical Review Committee (TRC) reviewed three submittal of this rezoning request and associated Conditions of Approval and concept plan. There are no remaining outstanding comments to be addressed at this stage of development. If the rezoning and annexation are approved, the project will next process a Major Preliminary Subdivision Plat, then Construction Infrastructure Drawings, and finally Final Subdivision Plats to demonstrate compliance with the LDO and other development regulations of the TRC organizations. The non-residential components will process Site Development Plans for more specific LDO requirement compliance, and then Building Permits as required. The townhome buildings and certain other site items will process Building Permits prior to their construction.

Staff Recommendation

Based on consistency with the Comprehensive Plan and mitigation of expected impacts, Staff recommends approval of MA 22-05, 1216 Rolesville Road. Any lack of compliance observed on the concept plan is not approved via this Rezoning request; compliance will be required at the further stages of development application reviews.

Proposed Motion

Motion to recommend (approval or denial) of rezoning request of MA 22-05, 1216 Rolesville Road.

Attachments

	Description	Date
1	Application	Received February 2022
2	Conditions of Approval	Dated 04-17-2023
3	Concept Plan	Revised dated 02-27-2023
4	Neighborhood Meeting documents	July 2022
5	Traffic Impact Analysis (TIA) Final report	dated February 20, 2023
6	Traffic Impact Analysis (TIA) NCDOT Report	
7	Vicinity Map	2022
8	Future Land Use Map	2017 Comprehensive Plan
9	Existing Zoning Map	2021
10	Boundary-Legal Description	

Dal	esville	
Genuine Co	munutity - Capital Connection	

	MA 22-05
Case No.	
Date	

Map Amendment Application

Contact Information	
Property Owner OPTIMAL DEVELOPMENT LLC	
Address 924 EVENING SNOW ST	City/State/Zip WAKE FOREST NC 27587-3968
Phone 610-295-3699	Email Shaar@myoptimalequity.com
Developer Same	
Contact Name	
Address	City/State/Zip
Phone	Email
Property Information	
Address 1216 Rolesville Rd	
Wake County PIN(s)1768-33-7689	
Current Zoning District RL	Requested Zoning District NC
Total Acreage 11.78	
Owner Signature	
I hereby certify that the information contained herein is	
found to be otherwise after evidentiary hearing before the	ne Town Board of Commissioners, that the action of the
Board may be invalidated	
Signature	Date
STATE OF NORTH CAROLINA COUNTY OF WAVE	
I, a Notary Public, do hereby certify that	SHAR
	ged the due execution of the foregoing instrument. This
the	day of OCTOBER 20 Z/
My commission expires FEB 15, 2022	
Signature Town of Poles	Travis Barkley NOTARY PUBLIC Wake County, NC My Commission Expires February 15, 2022



Map Amendment Application

Rezoning Justification

The subject parcel is currently within the Town of Rolesville's jurisdiction and is zoned RL, Residential Low Density. The parcel is within the Town of Rolesville's Future Land Use Plan (2017) and designated as Mixed Use Neighborhood. The map amendment application for Neighborhood Center Mixed-Use (NC) is requested for the establishment of a zoning district that will allow for development that is suburban in nature with a limited commercial component that will be compatible with nearby residential and other uses. The Point development proposes to bring a mix of residential uses immediately adjacent to the subject property, and Rolesville High School is across Rolesville Road from the property to the northeast. Thus, the map amendment will be in harmony with surrounding developments and the Future Land Use Plan. Adequate public infrastructure exists in the area, and the site will be developed according to the Town of Rolesville's Land Development Ordinance, which will ensure that the proposed uses do not adversely affect adjoining uses.



Map Amendment Application

Property Owner Information

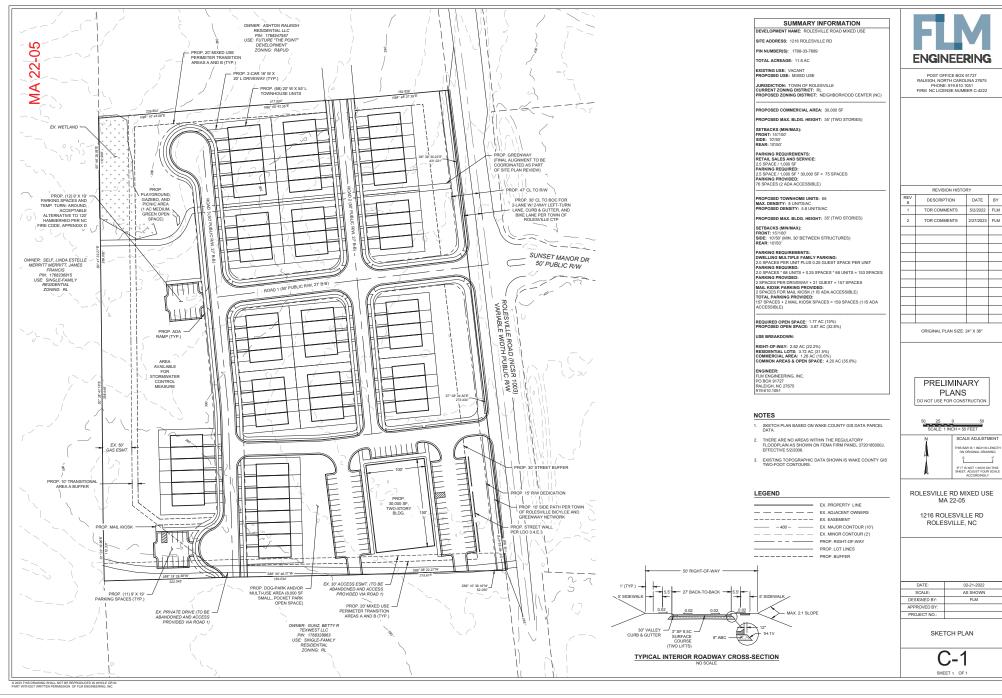
Wake County PIN	Property Owner	Mailing Address	Zip Code
1768068057	ASHTON RALEIGH RESIDENTIAL LLC	5711 SIX FORKS RD STE 300, RALEIGH, NC	27609
1768236815	SELF, LINDA ESTELLE MERRITT MERRITT, JAMES FRANCIS	6411 MATCHETT RD, BELLE ISLE FL	32809
1768328863	GUNZ, BETTY R TEXWEST LLC	1409 MARYLAND AVE, CHARLOTTE NC	28209

1216 Rolesville Rd MA 22-05

Conditions of Approval

Revised April 17, 2023

- 1. General compliance with the concept plan is a condition of the rezoning request. Significant deviations from the concept plan shall require a rezoning amendment unless the administrator finds the modification to be minor and in keeping with the spirit and intent of the concept plan.
- The developer shall work with the North Carolina Department of Transportation (NCDOT) during the Site Plan approval process to address the Internal Protected Stem (IPS) requirement.
- 3. The townhomes shall adhere to the following architectural conditions:
 - a. All elevations of the units visible to public rights-of-way shall have trim around the windows.
 - b. Front elevations of townhouse units visible from public rights-of-way, shall contain at least three of the following:
 - Bay Window
 - Recessed Window
 - Decorative Window
 - Decorative Shake
 - Porch or Stoop
 - c. Eaves, front, and rear shall project at least 12 inches from the wall of the structure. Side eaves shall be a minimum of 4-inches. Eaves will be allowed to encroach setbacks as allowed in the LDO.
 - d. A varied color palette shall be utilized on buildings throughout the development. Each building to include a minimum of three-color families for siding and shall include varied trim, shutter, and accent colors complimenting the siding color.
 - e. Poured concrete foundations, monolithic slabs, concrete block foundations, or smooth- faced concrete masonry unit foundations shall be covered by decks, stoops, or be clad in face brick, stone, or some other masonry material imitating these materials visible from the public right-of-way.
 - f. Roof lines to match architectural building style. Townhouse rooflines cannot be a single mass; it must be broken up horizontally and vertically. The maximum number of continuous units within a building without a break is two. The main roofline will provide a minimum 6:12 pitch and a maximum of 12:12.
 - g. Front stoops or porches, if provided, shall be a minimum of 4' in depth.
- 4. The developer shall construct offsite road improvements as recommended by NCDOT in their 1216 Rolesville Road Traffic Impact Analysis Review Report dated March 21, 2023.

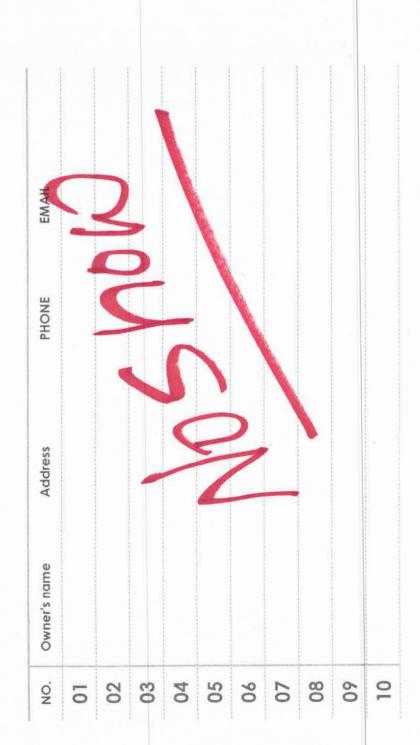


DATE:	02-21-2022
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	
PROJECT NO.:	

Neighborhood Meeting SIGN UP SHEET

1216 Forestville Road

July 25/2022 at 5:30 PM



Neighborn Hood MEETIN16 6/6/2022 - 1021 FORESTVILLE Road
RE: 1216 Rolesuille Rol





July 11, 2022

Re: Neighborhood Meeting Regarding plans for 1216 Rolesville Road Rolesville NC 27571

Dear Property Owners,

Optimal Equity Group will hold a Neighborhood meeting on Monday July 25 at 5:30PM on a site plans near property you own.

Details are as follow:

Property: 1216 Rolesville Road Rolesville NC 27571

Applicant: Optimal Development LLC

Location: 1021 Forestville Road Wake Forest NC 27587

Wake County Pin 1768-33-7689 Request Rezoning RL to GC

Meeting Date and Time: Monday July 25, 2022 at 5:30 PM

Meeting Location: 1021 Forestville Road, 2nd Floor Conference Room in the Optimal

Equity Executive Suites

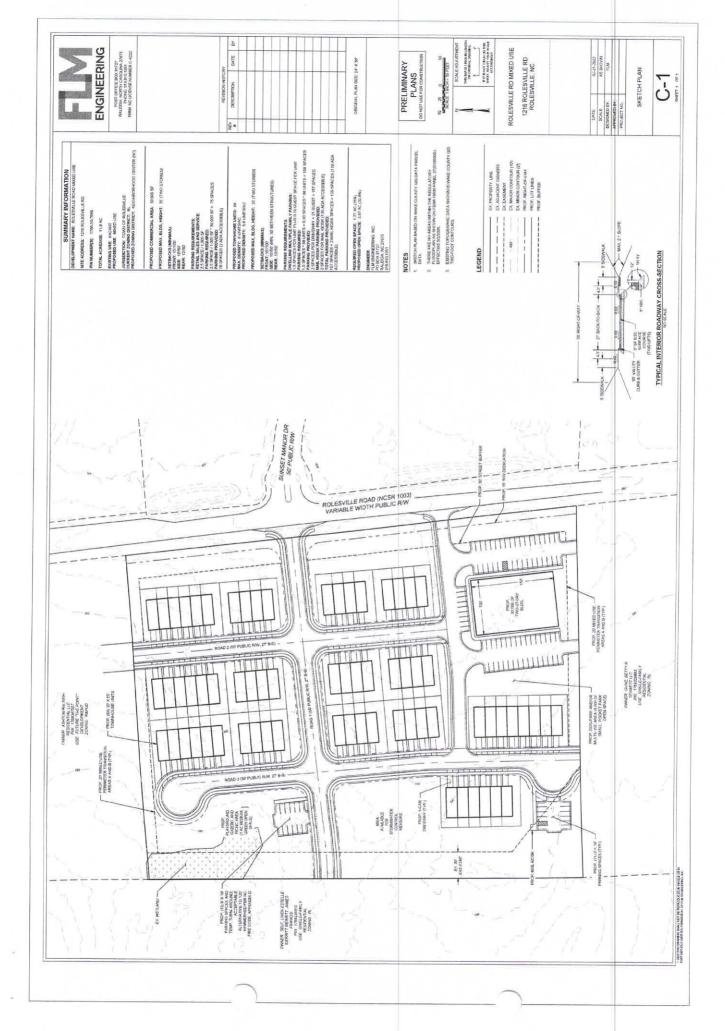
Best Regards,

Robert Shaar

Shaar@Myoptimalequity.com ☑

WWW.Myoptimalequity.com ⊕

919.939.3078 ♣



UNITED STATES POSTAL SERVICE®	

Certificate of Mailing -Firm Parcel Airlift JUN 0 1 2022 U.S. POSTAGE PAID WAKE FOREST, NC 27587 JUN 01, 22 AMOUNT Special Handling of Pieces Received at Post Office M Postmark with Date of Receipt. Fee Williams. Postage Address
(Name, Street, City, State, and ZIP Code¹⁴⁾) WF 27587. 224. E. Holdin ostmaster, per (name of receiving employee) 4025 LAKE BOONE TRL STE 200 Llos Alley **CHARLOTTE NC 28209-1527** 1551 ROCK QUARRY ROAD BELLE ISLE FL 32809-5151 RE SERVICES DIRECTOR Rolesville, NC 27571 11409 MARYLAND AVE 6412 SUNSET MANOR Raleigh NC 27607-3087 6405 SUNSET MANOR 6411 MATCHETT RD TOTAL NO. of Pieces Listed by Sender Rolesville NC 27571 RALEIGH NC 27610 PS Form **3665**, January 2017 (Page___ of ___) PSN 7530-17-000-5549 LINDA ESTELLE MERRITT MERRITT JAMES FRANCIS USPS® Tracking Number Firm-specific Identifier Optimal Development LLC 1021 Forestville Road Wake Forest NC 27587 GUNZ BETTY R TEXMEST LLC HASSOUNEH HAMI YAHYA HASSOUNEH RUTH HEIDI ASHTON RALEIGH RESIDENTIAL LLC Name and Address of Sender EPH JEFFERSON SONIA R Wake Count Board of Education 5. JEFFERSON JOSE

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3. LINDA ESTELLE MERRITT MERRITT JAMES FRANCIS	BELLE ISLE FL 3280	TT RD . 32809-5151	,			
4. ASHTON RALEIGH RESIDENTIAL LLC	4025 LAKE BOONE TRL STE 200 Raleigh NC 27607-3087	RL STE 200 87				
5. Jefferson Joseph Jefferson sonia R	Rolesville NC 27571 W RKE FORCS T	7571 ST NC 27587				
6. Wake Count Board of Education	RE SERVICES DIRECTOR 1551 ROCK QUARRY ROAD RALEIGH NC 27610	DIRECTOR JARRY ROAD 7610				
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Avery Kolatch

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Thursday, May 19, 2022 4:22 PM

To:

Angelique Harris

Subject:

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Wake Forest NC 27857

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TRAFFIC IMPACT ANALYSIS

FOR

1216 Rolesville Road

LOCATED

IN

ROLESVILLE, NC

Prepared For: The Town of Rolesville

Prepared By: Infrastructure Consulting Services, Inc. dba

Ramey Kemp Associates 5808 Faringdon Place Raleigh, NC 27609 License #F-1489 SEAL P. SEAL P

FEBRUARY 2023

RKA Project No. 20498-007

Prepared By: \underline{MM}

Reviewed By: <u>JM</u>

TRAFFIC IMPACT ANALYSIS 1216 ROLESVILLE ROAD ROLESVILLE, NORTH CAROLINA

EXECUTIVE SUMMARY

1. Development Overview

A Traffic Impact Analysis (TIA) was conducted for the proposed development in accordance with the Town of Rolesville (Town) Land Development Ordinance (LDO) and North Carolina Department of Transportation (NCDOT) capacity analysis guidelines. The development is proposed be located at 1216 Rolesville Road in Rolesville, North Carolina. The proposed development is anticipated to be completed in 2028 and is expected to consist of 68 single-family attached homes and 30,000 square feet (sq. ft.) of retail development. Access to the development is proposed to be provided via one full-movement driveway connection to Rolesville Road aligning with Sunset Manor Drive and one right-in/right-out driveway located approximately 275 feet (ft) to the south. A stub connection to the planned The Point development is also proposed.

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

- 2022 Existing Traffic Conditions
- 2028 No-Build Traffic Conditions
- 2028 Build Traffic Conditions

2. Existing Traffic Conditions

The study area for the TIA was determined through coordination with the Town and NCDOT and consists of the following existing intersections:

- US 401 and E Young Street (Signalized)
- US 401 and U-Turn North of E Young Street (Signalized)
- US 401 and U-Turn South of E Young Street (Signalized)
- E Young Street and Quarry Road (Unsignalized)
- E Young Street and Rolesville High School Driveway (Unsignalized)



- Rolesville Road and Sunset Manor Drive (Unsignalized)
- Rolesville Road and Fowler Road (Unsignalized)

Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersection listed above, in September 2022 and January 2023 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. Weekday AM and PM traffic volumes were balanced between study intersections, where appropriate.

3. Site Trip Generation

The proposed development is assumed to consist of 68 single-family attached homes and 30,000 sq. ft. of general retail space. 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 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		Weekday eak Hour (vph)		Weekday PM Peak Hour Trips (vph)			
		(vpd)	Enter	Exit	Total	Enter	Exit	Total	
Single-Family Attached Housing (215)	68 DU	468	7	23	30	22	15	37	
Retail (<40 KSF) (822)	1,496	36	23	59	85	85	170		
Total Trips	1,964	43	46	89	107	100	207		
Internal Captu (15% PM)*		1	-	-	-15	-15	-30		
Total External T		43	46	89	92	85	177		
Pass-By Trips: Shoppin (34% PM)	ng Center		-	-	-	-26	-26	-52	
Total Primary T	rips		43	46	89	66	59	125	

^{*}Utilizing methodology contained in the NCHRP Report 684.



4. Future Traffic Conditions

Through coordination with the Town and NCDOT, it was determined that an annual growth rate of 2% would be used to generate 2028 projected weekday AM and PM peak hour traffic volumes. The following adjacent developments were identified to be considered under future conditions:

- The Point (Young Street PUD)
- Kalas Falls
- Preserve at Moody Falls
- Rolesville Crossing (Wheeler Tract)
- Tucker Wilkins

5. Capacity Analysis Summary

The analysis considered weekday AM and PM peak hour traffic for 2022 existing, 2028 no-build, and 2028 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 and are recommended to accommodate future traffic conditions. The improvements are summarized below and are illustrated in Figure E-1.

Improvements per Rolesville Community Transportation Plan

Per the current Rolesville Community Transportation (CTP), E Young Street/Rolesville Road is planned to be a two-lane facility with a center turn lane, curb and gutter, bike lanes, and sidewalks.

Recommended Improvements by Developer

Rolesville Road and Sunset Manor Drive/Site Drive 1

- Construct eastbound approach with one ingress lane and one egress lane striped as a shared left-through-right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive northbound left turn lane with a minimum of 75 feet of storage and appropriate taper.



Rolesville Road and Site Drive 2

- Construct eastbound approach with one ingress lane and one egress lane striped as a right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive southbound right turn lane with a minimum of 50 feet of storage and appropriate taper.



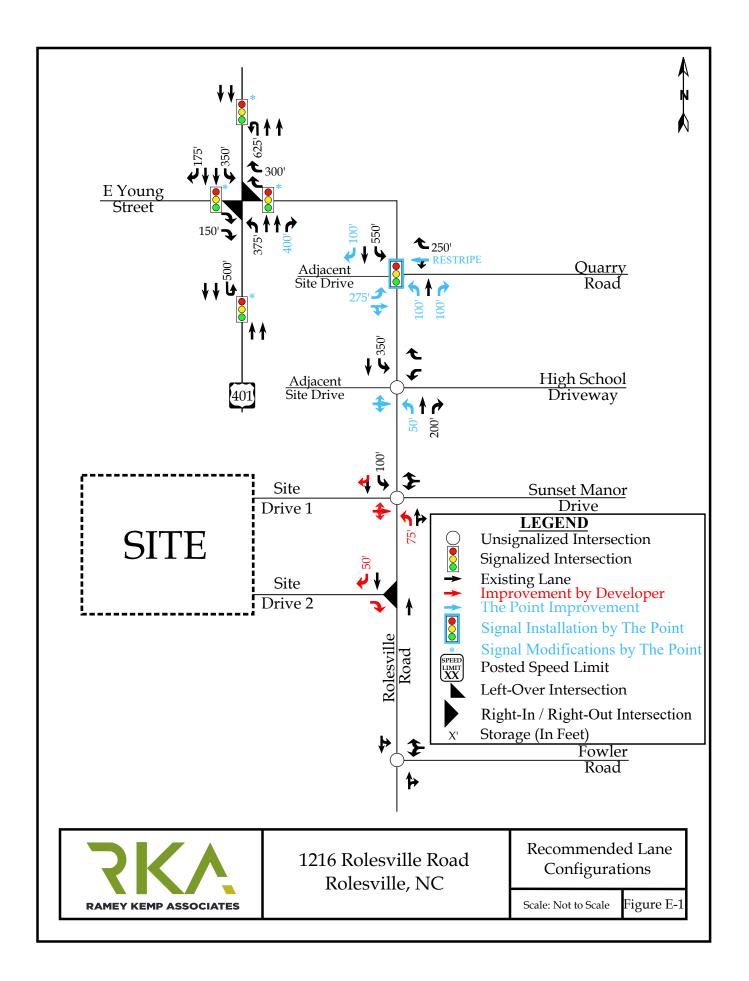


TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1.	. Site Location and Study Area	1
1.2.	Proposed Land Use and Site Access	2
1.3.	. Adjacent Land Uses	3
1.4.	. Existing Roadways	3
2.	2022 EXISTING PEAK HOUR CONDITIONS	7
2.1.	. 2022 Existing Peak Hour Traffic Volumes	7
2.2.	. Analysis of 2022 Existing Peak Hour Traffic Conditions	7
3.	2028 NO-BUILD PEAK HOUR CONDITIONS	9
3.1.	. Ambient Traffic Growth	9
3.2.	. Approved Development Traffic	9
3.3.	. Future Roadway Improvements	10
3.4.	. 2028 No-Build Peak Hour Traffic Volumes	11
3.5.	. Analysis of 2028 No-Build Peak Hour Traffic Conditions	11
4.	SITE TRIP GENERATION AND DISTRIBUTION	15
4.1.	. Trip Generation	15
4.2.	. Site Trip Distribution and Assignment	16
5.	2028 BUILD TRAFFIC CONDITIONS	25
5.1.	. 2028 Build Peak Hour Traffic Volumes	25
5.2.	. Analysis of 2028 Build Peak Hour Traffic Conditions	25
6.	TRAFFIC ANALYSIS PROCEDURE	27
6.1.	. Adjustments to Analysis Guidelines	27
7.	CAPACITY ANALYSIS	28
7.1.	. US 401 and E Young Street	28
7.2.	. US 401 SB and U-Turn North of E Young Street	30
7.3.	. US 401 NB and U-Turn South of E Young Street	31
7.4.	. E Young Street and Quarry Road	32
7.5.	. E Young Street and Rolesville High School Driveway	34
7.6.	. Rolesville Road and Sunset Manor Drive/Site Drive 1	36



RAMEY KEMP ASSOCIATES

7.7.	Rolesville Road and Fowler Road	38
7.8.	Rolesville Road and Site Drive 2	39
8. C	CONCLUSIONS	40
9. R	RECOMMENDATIONS	42
	LIST OF FIGURES	
	re 1 – Site Location Map	
Figur	re 2 – Preliminary Site Plan	5
Figur	re 3 – Existing Lane Configurations	6
Figur	re 4 – 2022 Existing Peak Hour Traffic	8
Figur	re 5 – 2028 Projected Peak Hour Traffic	12
Figur	re 6 – Approved Development Trips	13
Figur	re 7 – 2028 No-Build Peak Hour Traffic	14
Figur	re 8a – Residential Site Trip Distribution	18
Figur	re 8b – Primary Retail Site Trip Distribution	19
Figur	re 8c – Pass-By Retail Site Trip Distribution	20
Figur	re 9a – Residential Site Trip Assignment	21
Figur	re 9b – Primary Retail Site Trip Assignment	22
Figur	re 9c – Pass-By Retail Site Trip Assignment	23
Figur	re 10 – Total Site Trip Assignment	24
Figur	re 11 – 2028 Build Peak Hour Traffic	26
Figur	re 12 – Recommended Lane Configurations	43



LIST OF TABLES

Table 1: Existing Roadway Inventory	3
Table 2: Trip Generation Summary	
Table 3: Highway Capacity Manual – Levels-of-Service and Delay	. 27
Table 4: Analysis Summary of US 401 and E Young Street	. 28
Table 5: Analysis Summary of US 401 SB and U-Turn North of E Young Street	.30
Table 6: Analysis Summary of US 401 NB and U-Turn South of E Young Street	.31
Table 7: Analysis Summary of E Young Street and Quarry Road	. 32
Table 8: Analysis Summary of E Young Street and Rolesville H.S. Driveway	. 34
Table 9: Analysis Summary of Rolesville Road and	.36
Sunset Manor Drive/Site Drive 1	.36
Table 10: Analysis Summary of Rolesville Road and Fowler Road	.38
Table 11: Analysis Summary of Rolesville Road and Site Drive 2	.39



TECHNICAL APPENDIX

Appendix A: Scoping Documentation

Appendix B: Traffic Counts and Signal Plans

Appendix C: Internal Capture Calculations

Appendix D: Adjacent Development Information

Appendix E: Capacity Calculations – US 401 and E Young Street

Appendix F: Capacity Calculations – US 401 and U-Turn North of E Young Street

Appendix G: Capacity Calculations – US 401 and U-Turn South of E Young Street

Appendix H: Capacity Calculations - E Young Street and Quarry Road

Appendix I: Capacity Calculations - E Young Street and Rolesville High School Driveway

Appendix J: Capacity Calculations - Rolesville Road and Sunset Manor Drive/Site Drive 1

Appendix K: Capacity Calculations - Rolesville Road and Fowler Road

Appendix L: Capacity Calculations – Rolesville Road and Site Drive 2

Appendix M: SimTraffic Queuing Reports

Appendix N: Turn Lane Warrants



TRAFFIC IMPACT ANALYSIS 1216 ROLESVILLE ROAD ROLESVILLE, NORTH CAROLINA

1. INTRODUCTION

The contents of this report present the findings of the Traffic Impact Analysis (TIA) conducted for the proposed development to be located at 1216 Rolesville Road 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 is anticipated to be completed in 2028 and is assumed to consist of the following uses:

- 68 units Single-Family Attached Housing
- 30,000 square feet (sq. ft.) retail

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

- 2022 Existing Traffic Conditions
- 2028 (build-out year plus one) No-Build Traffic Conditions
- 2028 (build-out year plus one) Build Traffic Conditions

1.1. Site Location and Study Area

The development is proposed to be located at 1216 Rolesville Road 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 intersections:

- US 401 and E Young Street (Signalized)
- US 401 and U-Turn North of E Young Street (Signalized)
- US 401 and U-Turn South of E Young Street (Signalized)
- E Young Street and Quarry Road (Unsignalized)
- E Young Street and Rolesville High School Driveway (Unsignalized)
- Rolesville Road and Sunset Manor Drive/Site Drive 1 (Unsignalized)
- Rolesville Road and Fowler Road (Unsignalized)
- Rolesville Road and Site Drive 2 (Proposed unsignalized)

Refer to Appendix A for the approved scoping documentation.

1.2. Proposed Land Use and Site Access

The proposed development is to be located on the west side of Rolesville Road, across from Sunset Manor Drive, at 1216 Rolesville Road in Rolesville, North Carolina. The development is anticipated to be completed in 2028 and is anticipated to consist of the following uses:

- 68 units Single-Family Attached Housing (LUC 215)
- 30,000 sq. ft. retail (LUC 822)

Access to the development is proposed to be provided via one full-movement driveway connection to Rolesville Road aligning with Sunset Manor Drive and one right-in/right-out (RIRO) driveway located approximately 275 feet (ft) to the south. A stub connection to the planned The Point development is also proposed.

Refer to the attached site location map and preliminary site plan.



1.3. Adjacent Land Uses

The proposed development is located in an area consisting primarily of farms, undeveloped land, and residential development. The southern portion of The Point development is currently under construction. According to the 2019 TIA prepared for The Point, the development is expected to build out by 2025. A stub connection is proposed to connect The Point to the north side of the proposed development. To be conservative, the connection was not considered in this study.

1.4. Existing Roadways

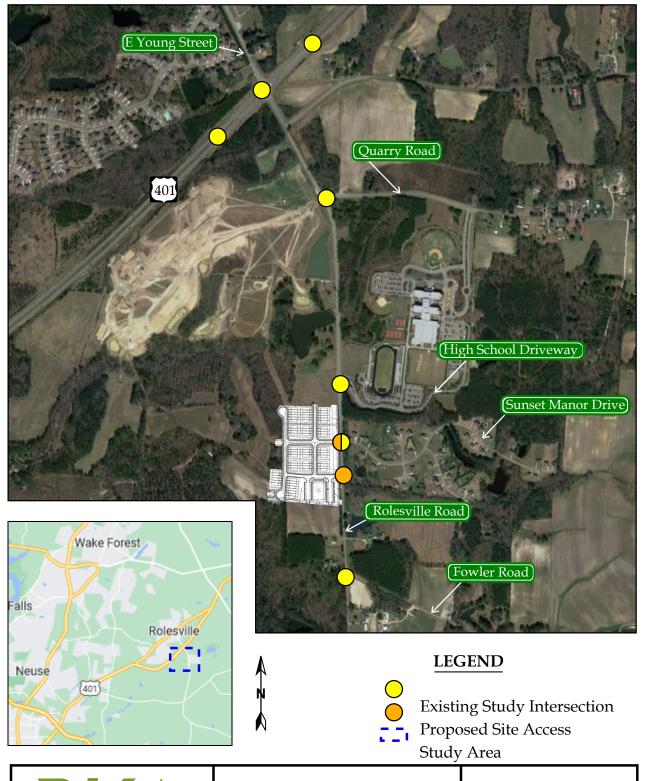
Existing lane configurations (number of traffic lanes on each intersection approach), storage capacities, and other intersection and roadway information within the study area are shown in Figure 3. Table 1 provides a summary of roadway information.

Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross Section	Speed Limit	2021 AADT (vpd)
Louisburg Rd	US 401	4-lane divided	55 mph	18,500
E Young Street/Rolesville Road	SR 1003	2-lane undivided	45 mph	5,400
Quarry Road	SR 2305	2-lane undivided	45 mph	1,100
Sunset Manor Drive	SR 5471	2-lane undivided	25 mph	310*
Fowler Road	SR 2308	2-lane undivided	45 mph	1,300

^{*2022} AADT estimated assuming PM peak hour traffic represents 10% of daily traffic volume.



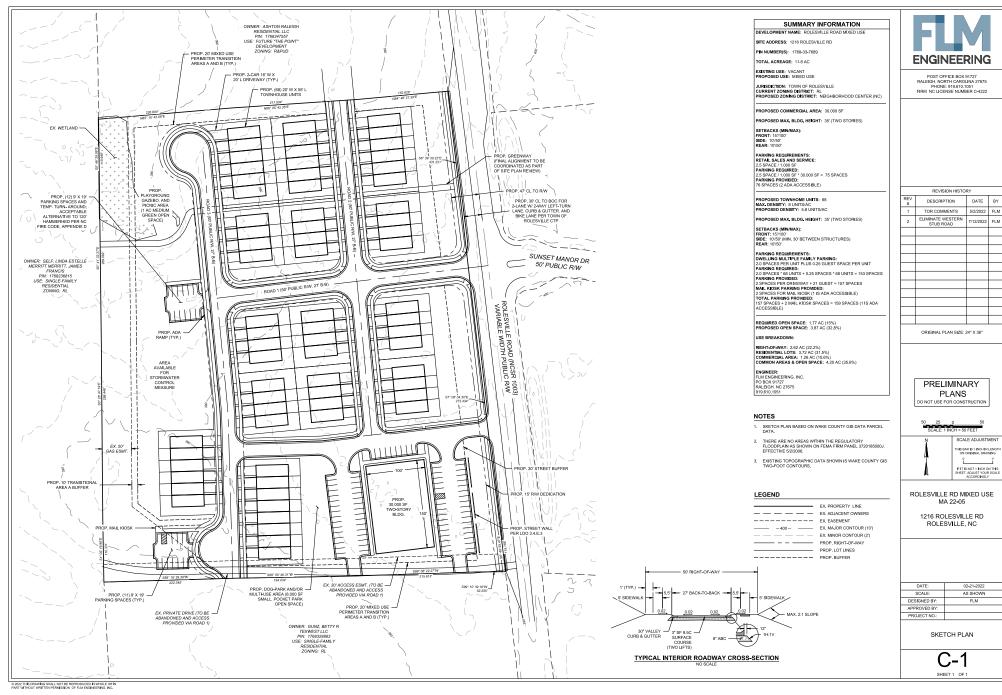


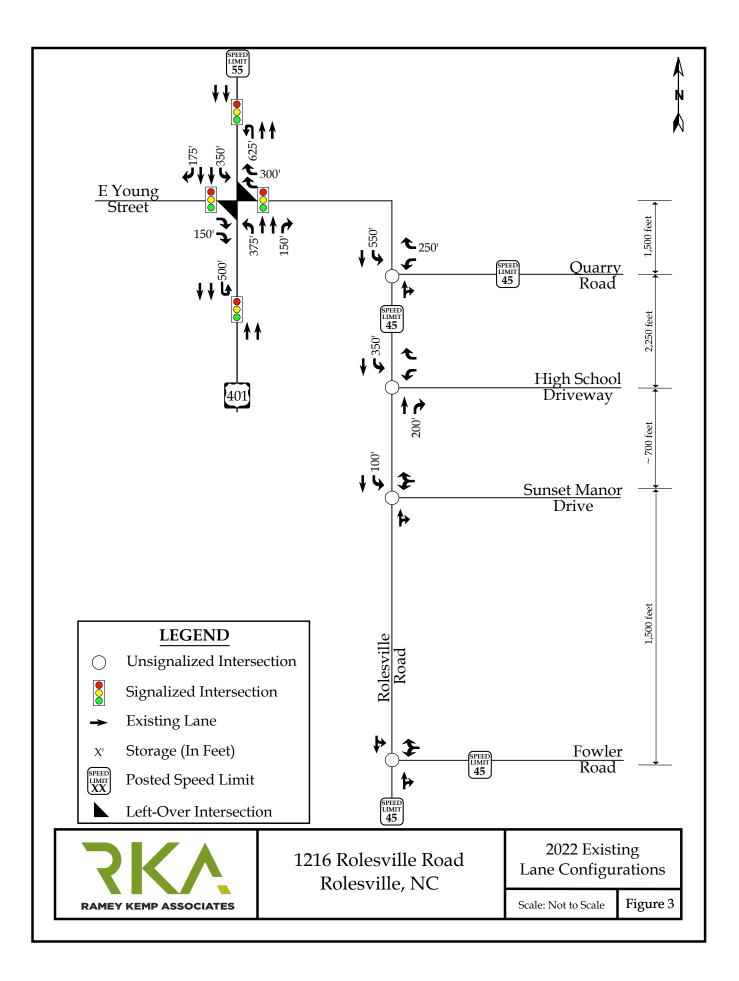


1216 Rolesville Road Rolesville, NC Site Location Map

Scale: Not to Scale

Figure 1





2. 2022 EXISTING PEAK HOUR CONDITIONS

2.1. 2022 Existing Peak Hour Traffic Volumes

Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersections listed below, in September of 2022 and January 2023 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, which schools were in session:

- US 401 and E Young Street
- US 401 and U-Turn North of E Young Street
- US 401 and U-Turn South of E Young Street
- E Young Street and Quarry Road
- E Young Street and Rolesville High School Driveway
- Rolesville Road and Sunset Manor Drive
- Rolesville Road and Fowler Road

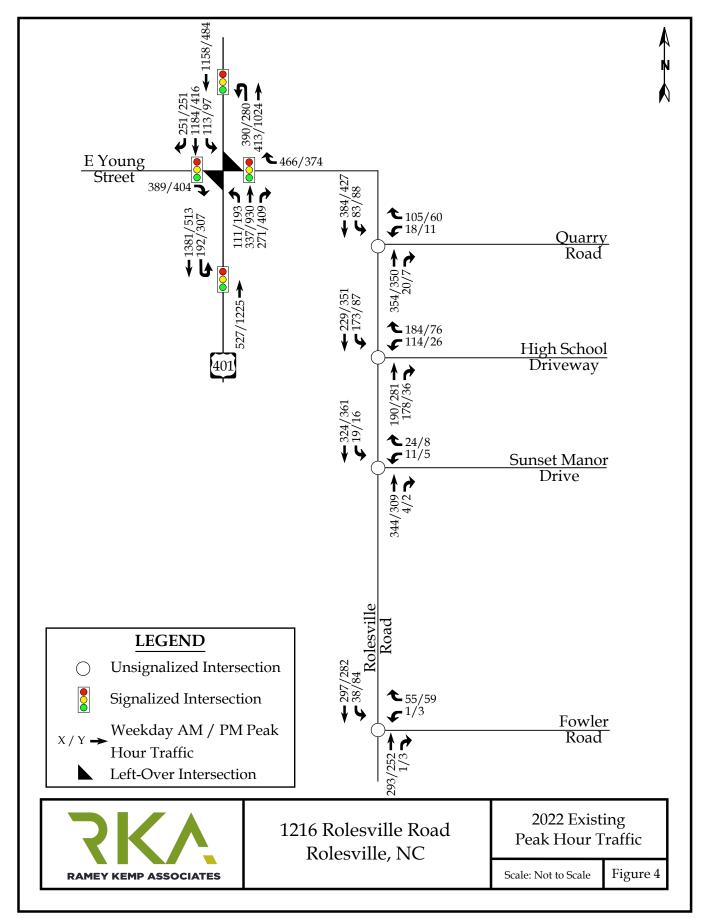
Existing traffic volumes were balanced between study intersections, where appropriate. Refer to Figure 4 for 2022 existing weekday AM and PM peak hour traffic volumes. A copy of the count data is located in Appendix B of this report.

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.

Signal information was obtained from NCDOT is included in Appendix C. The results of the analysis are presented in Section 7 of this report.





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.

3. 2028 NO-BUILD PEAK HOUR CONDITIONS

In order to account for growth of traffic and subsequent traffic conditions at a future year traffic projections are needed. Projected 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 nearby approved developments.

3.1. Ambient Traffic Growth

Through coordination with the Town and NCDOT, it was determined that an annual growth rate of 2% would be used to generate 2028 projected weekday AM and PM peak hour traffic volumes. Refer to Figure 5 for the 2028 projected weekday AM and PM peak hour traffic volumes.

3.2. Approved Development Traffic

Based on coordination with the NCDOT and the Town, it was determined the following approved developments are expected to build out prior to 2028 and should be included in the determination of future traffic volumes:

- The Point 96 single family detached homes north of US 401 and 525 single-family detached homes, 320 multi-family units, and 122,800 sq. ft. of retail development south of US 401. Trips for this development were taken from the 2019 TIA prepared for the development.
- <u>Kalas Falls</u> 215 single-family homes on the west side of Rolesville Road between Mitchell Mill Road and Fowler Road. Trips for this development were taken from the 2019 TIA prepared for Kalas Falls.
- Preserve at Moody Falls 82 single-family detached homes on the west side of Rolesville Road south of existing intersection of Rolesville Road and Amazon Trail. Since a TIA was not required for this development, trips for the 82 homes were generated and assigned to the roadway network according to the same distribution as Kalas Falls trips.



- Rolesville Crossing (Wheeler Tract) 233 single-family detached homes and 125 multi-family townhomes in the northeast quadrant of the intersection of Rolesville Road and Mitchell Mill Road. Trips for this development were taken from the 2019 TIA prepared for the development.
- <u>Tucker Wilkins</u> 27 single-family detached homes and 64 multi-family units on
 the west side of Rolesville Road north of Mitchell Mill Road. Since a TIA was not
 required for this development, trips for the 91 residential units were generated
 and assigned to the roadway network according to the same distribution as Kalas
 Falls trips.

Approved development information is provided in Appendix D. Refer to Figure 6 for the total weekday AM and PM peak hour approved development trips.

3.3. Future Roadway Improvements

The following improvements are anticipated to be made by The Point and are considered in the analysis of future conditions:

US 401

• Coordinate the traffic signals at the intersections of US 401 at E Young Street and the superstreet u-turn locations to the north and south.

US 401 and E Young Street

• Extend the storage of the existing northbound right turn lane on US 401 to provide 400 feet of storage.

E Young Street and Quarry Road/North Point Site Driveway

- Construct a northbound left turn lane on E Young Street with 100 feet of storage.
- Construct a southbound right turn lane on E Young Street with 100 feet of storage.
- Construct a northbound right turn lane on E Young Street with 100 feet of storage.
- 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 a shared through-right lane on the North Point Site Driveway.
- Install a traffic signal when warranted.

E Young Street and Rolesville High School Driveway/South North Point Site Driveway

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



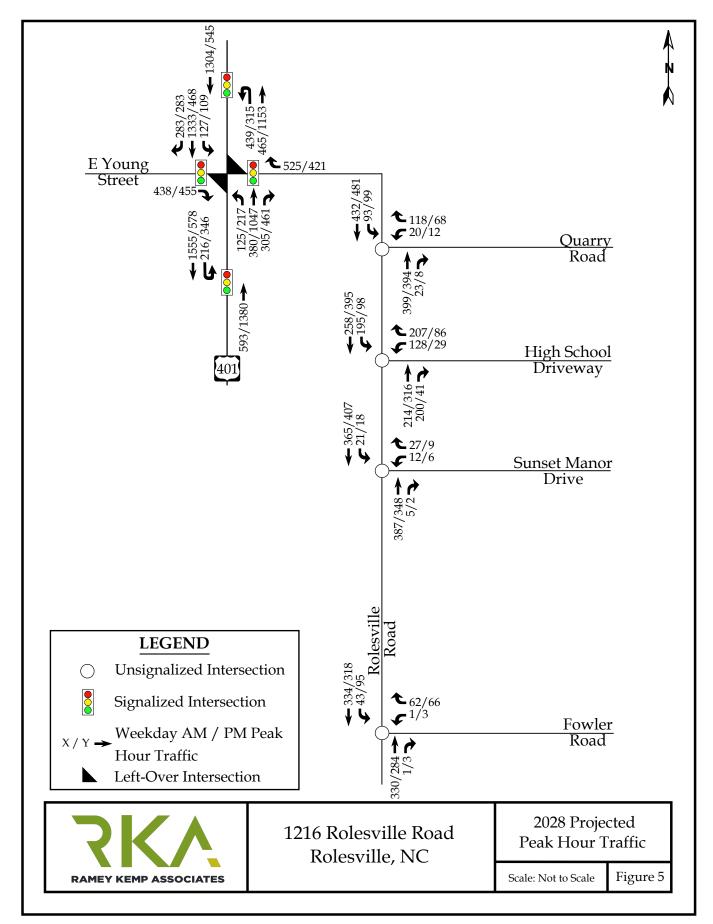
3.4. 2028 No-Build Peak Hour Traffic Volumes

The 2028 no-build traffic volumes were determined by adding the total adjacent development trips (Figure 6) to the 2028 projected traffic volumes (Figure 5). Refer to Figure 7 for an illustration of the 2028 no-build peak hour traffic volumes at the study intersections.

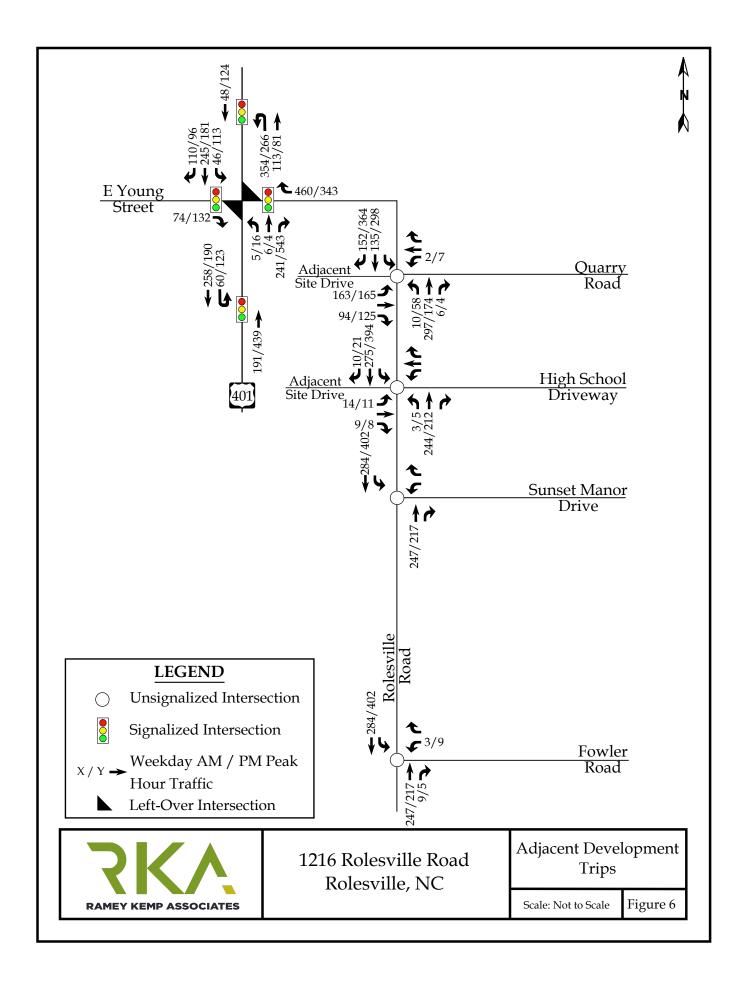
3.5. Analysis of 2028 No-Build Peak Hour Traffic Conditions

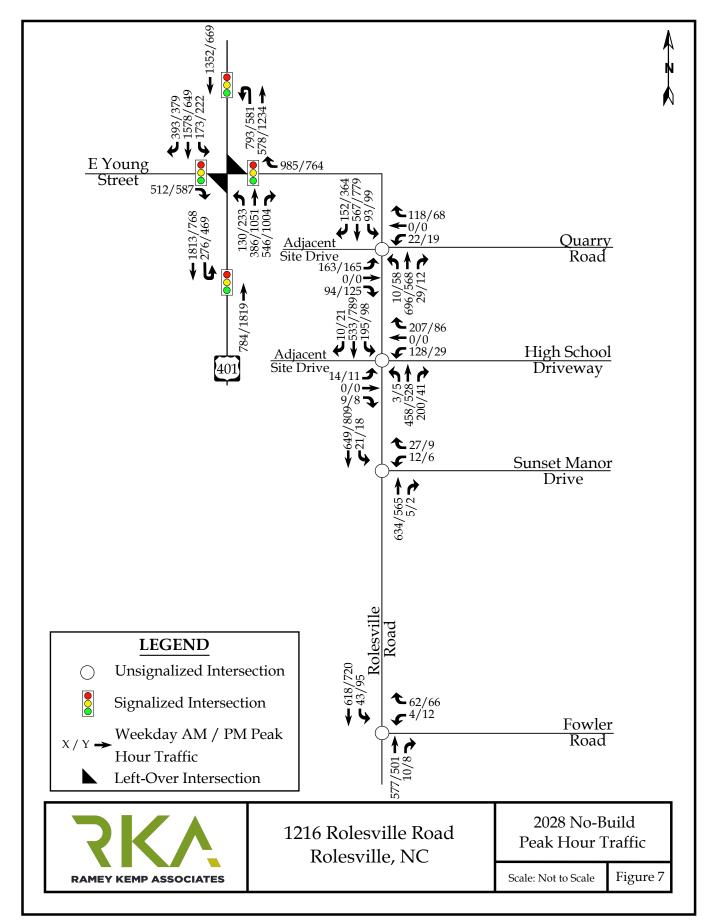
The 2028 no-build AM and PM peak hour traffic volumes were analyzed with the same roadway conditions and traffic control as under existing conditions. Approved development improvements noted in Section 3.3 of this report were included in the analysis. Capacity analysis results are presented in Section 7 of this report.





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.





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.

4. SITE TRIP GENERATION AND DISTRIBUTION

4.1. Trip Generation

The proposed development is expected to consist of 68 townhomes and 30,000 sf of retail space. 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 2 provides a summary of the trip generation potential for the site.

Weekday Weekday Daily **AM Peak Hour Trips** PM Peak Hour Trips Land Use **Traffic Intensity** (ITE Code) (vph) (vph) (vpd) Enter Exit Total Enter Exit Total Single-Family Attached Housing 68 DU 7 30 22 468 23 15 37 (215)Retail (<40 KSF) 30 KSF 1,496 36 23 59 85 85 170 (822)Total Trips 1,964 43 46 89 107 100 207 Internal Capture -15 -15 -30 (15% PM)* **Total External Trips** 43 46 89 92 85 177 Pass-By Trips: Shopping Center -26 -26 -52 (34% PM) **Total Primary Trips** 43 46 89 66 59 125

Table 2: Trip Generation Summary

It is estimated that the proposed development will generate 1,964 total site trips during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 89 trips (43 entering and 46 exiting) will occur during the weekday AM peak hour and 207 trips (107 entering and 100 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, a weekday PM peak hour internal capture rate of 15% was applied to the trips generated from the development. The internal capture reductions are expected to account for approximately



^{*}Utilizing methodology contained in the NCHRP Report 684.

30 trips (15 entering and 15 exiting) during the weekday PM peak hour. NCHRP internal capture reports are provided in Appendix C.

Pass-by trips were also taken into consideration. Pass-by trips are expected to account for approximately 52 trips (26 entering and 26 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 trips are expected to account for approximately 89 trips (43 entering and 46 exiting) during the weekday AM peak hour and 125 trips (66 entering and 59 exiting) during the weekday PM peak hour.

4.2. Site Trip Distribution and Assignment

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

Residential

- 35% to/from the south via Rolesville Road
- 30% to/from the west via US 401 Bypass
- 15% to/from the east via US 401 Bypass
- 10% to/from the east via Fowler Road
- 10% to/from the north via E Young Street

Retail

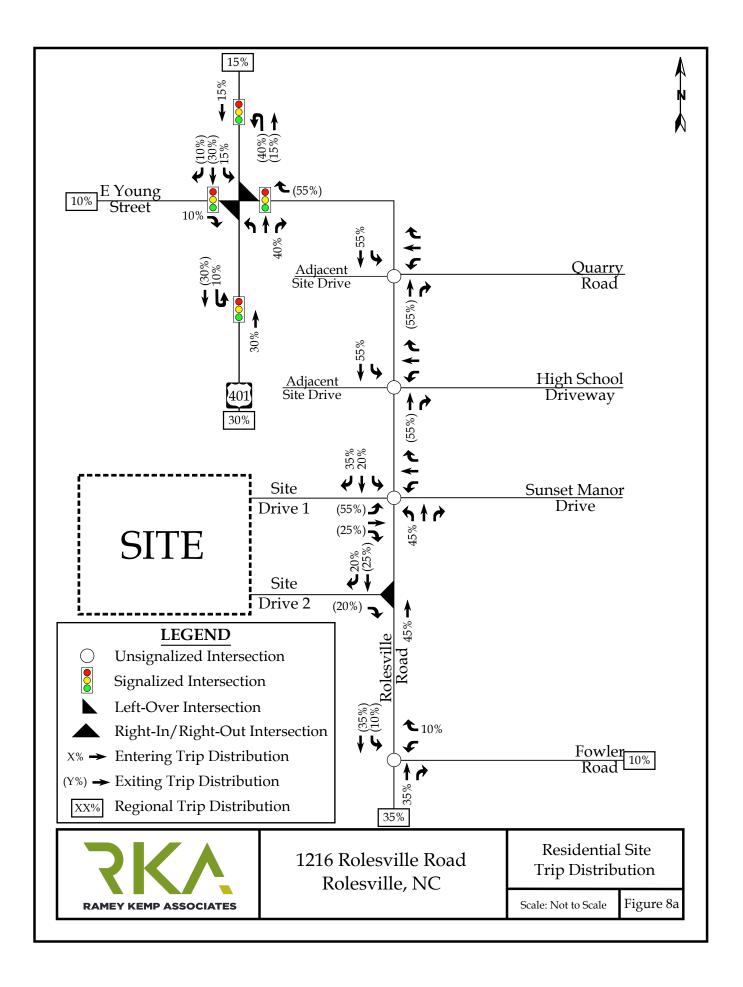
- 25% to/from the south via Rolesville Road
- 20% to/from the east via US 401 Bypass
- 20% to/from the north via E Young Street
- 15% to/from the west via US 401 Bypass
- 10% to/from the east via Fowler Road
- 10% to/from the east via Quarry Road

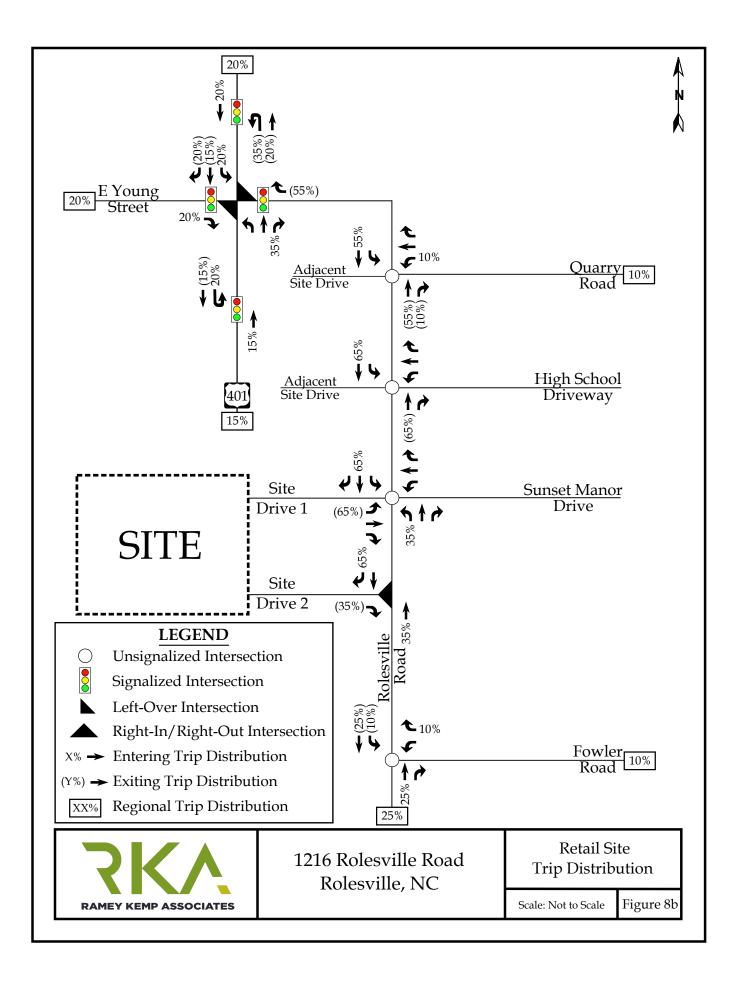
Refer to Figure 8a for the residential site trip distribution, Figure 8b for the primary retail trip distribution, and Figure 8c for the pass-by retail trip distribution. Residential site trip

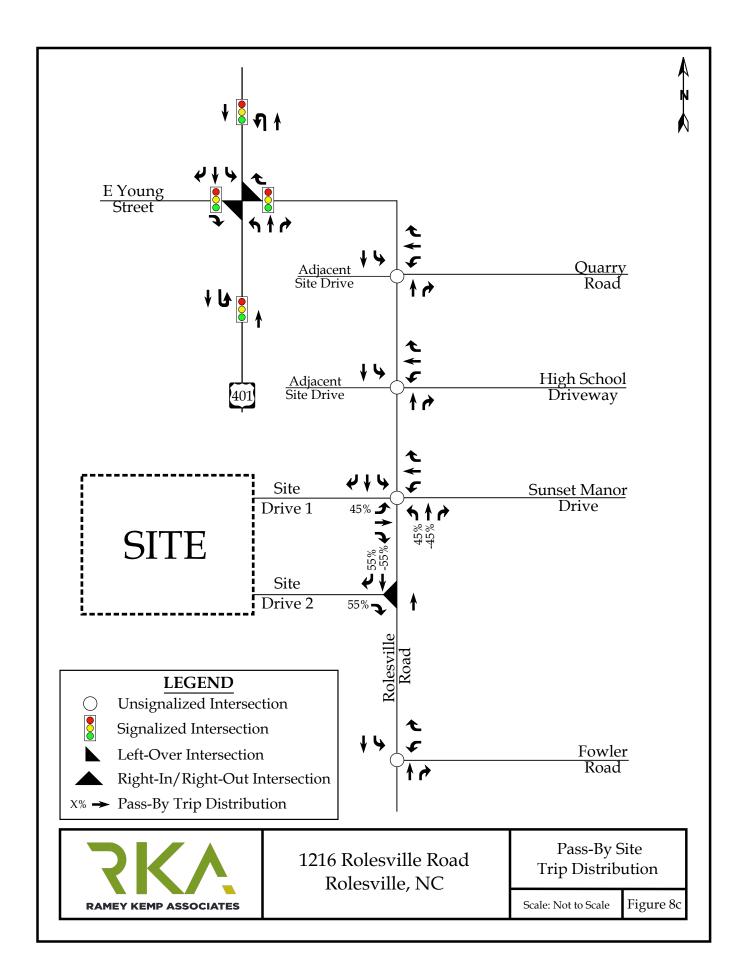


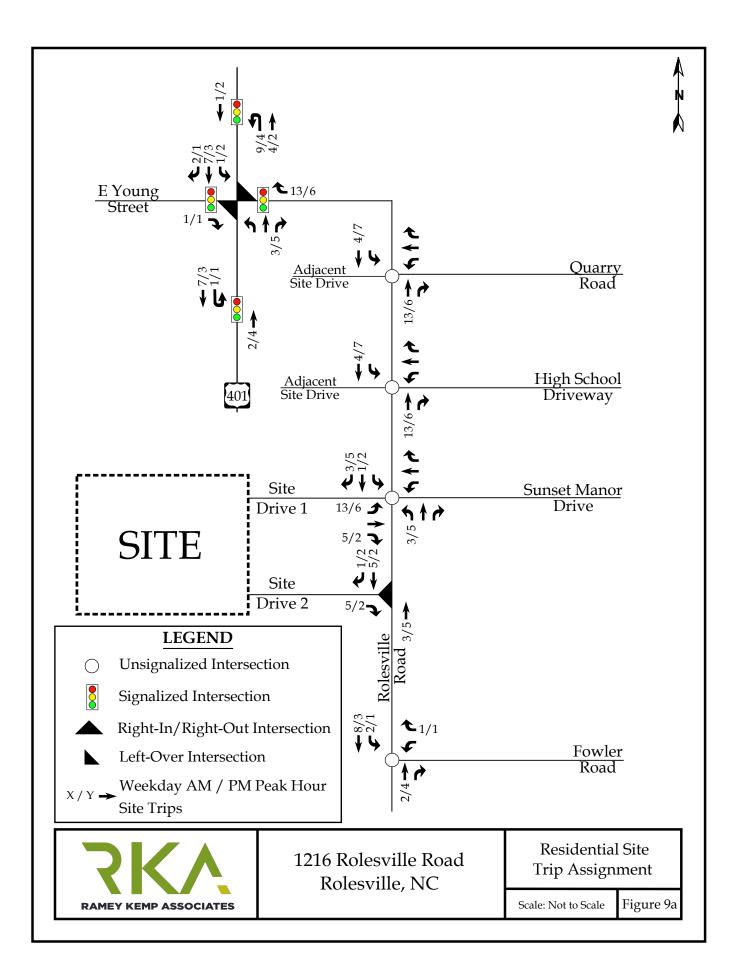
assignment is shown in Figure 9a, primary retail site trip assignment is shown in Figure 9b, and pass-by retail trip assignment is shown in Figure 9c. Total weekday AM and PM peak hour site trips are shown in Figure 10.

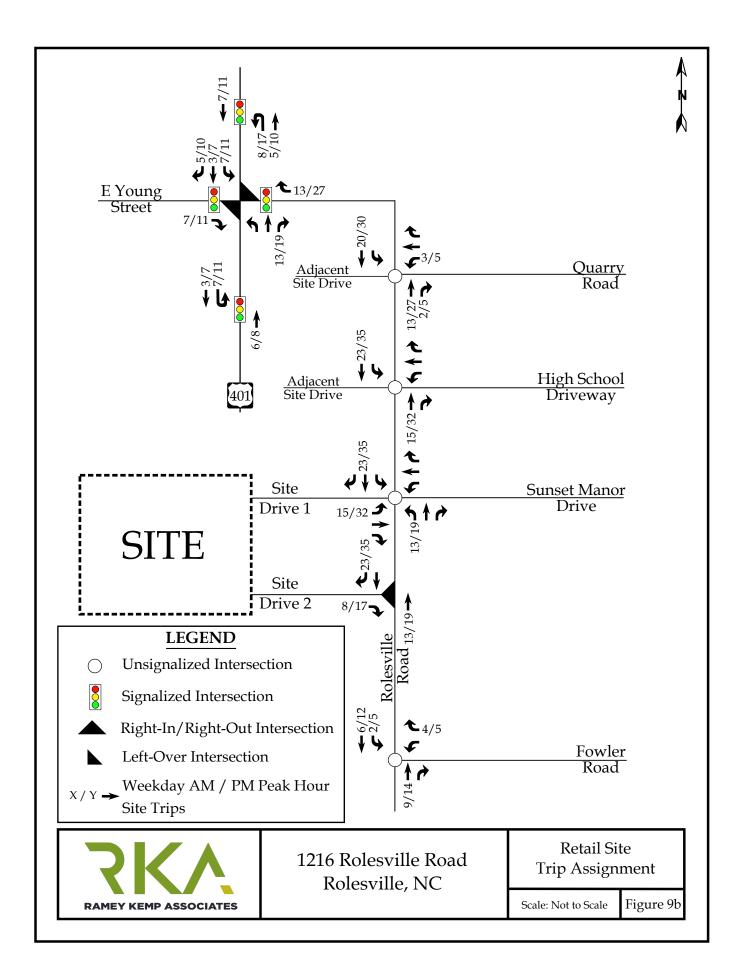


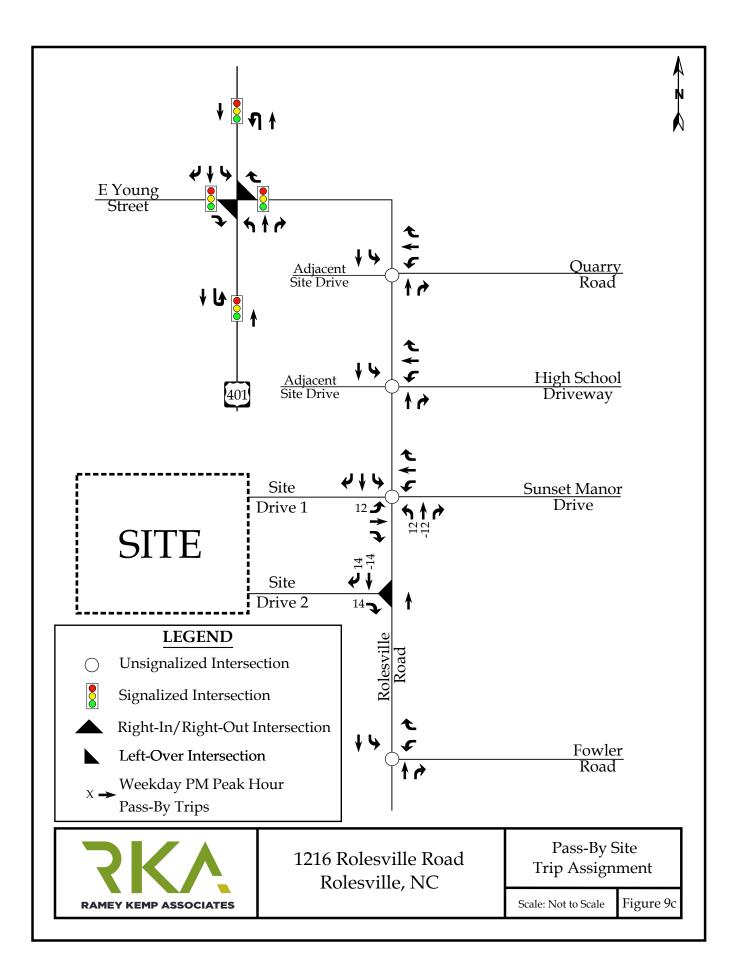


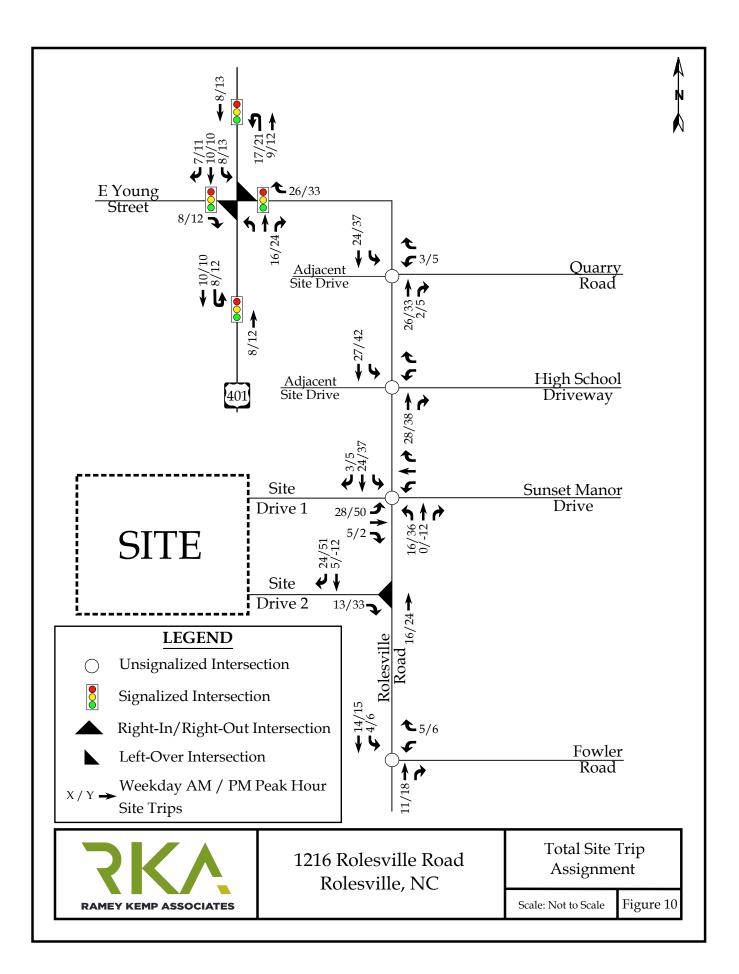












5. 2028 BUILD TRAFFIC CONDITIONS

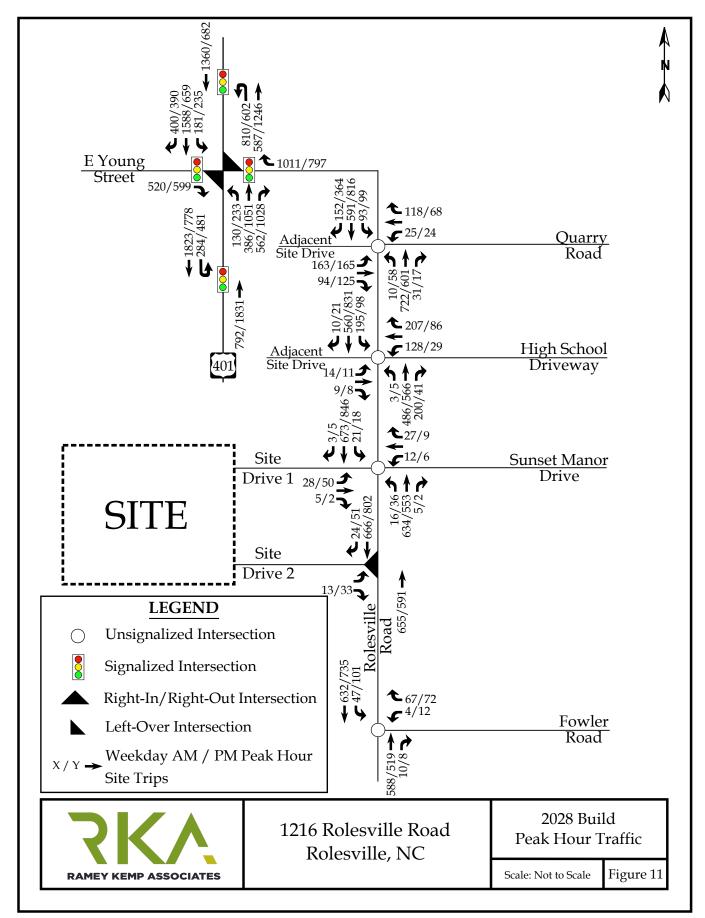
5.1. 2028 Build Peak Hour Traffic Volumes

To estimate traffic conditions with the site fully built out, the total site trips (Figure 10) were added to the 2028 no-build traffic volumes (Figure 7) to determine the 2028 build traffic volumes. Refer to Figure 11 for the 2028 build peak hour traffic volumes with the proposed site fully developed.

5.2. Analysis of 2028 Build Peak Hour Traffic Conditions

Study intersections were analyzed with the 2028 build traffic volumes using the same methodology previously discussed for existing and no-build traffic conditions. If necessary, intersections were analyzed with improvements to accommodate future site traffic volumes. The results of the capacity analysis for each intersection are presented in Section 7 of this report.





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.

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), 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 3 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 3: Highway Capacity Manual – Levels-of-Service and Delay

UNSIGNA	ALIZED INTERSECTION	SIGNAL	IZED 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
В	10-15	В	10-20
С	15-25	С	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, with the exception of analysis permitting right turns on red. This adjustment was made to be consistent with the TIA that was prepared for The Point.



7. CAPACITY ANALYSIS

7.1. US 401 and E Young Street

The existing signalized intersection of US 401 and E Young Street was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 4. Refer to Table 4 for a summary of the analysis results. Refer to Appendix E for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 4: Analysis Summary of US 401 and E Young Street

ANALYSIS	A P P R	LANE	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO	O A C H	CONFIGURATIONS	Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing (NB 401)	WB NB	2 RT 2 TH, 1 RT	A A	A (2)	A A	A (6)
2022 Existing (SB 401)	SB EB NB SB	1 LT 2 RT 1 LT 2 TH, 1 RT	A B A A	A (9)	A A A A	A (3)
2028 No-Build (NB 401)	WB NB SB	2 RT 2 TH, 1 RT 1 LT	A C A	B (11)	A C A	B (13)
2028 No-Build (SB 401)	EB NB SB	2 RT 1 LT 2 TH, 1 RT	D A A	B (14)	B A A	A (8)
2028 Build (NB 401)	WB NB SB	2 RT 2 TH, 1 RT 1 LT	A C A	B (12)	A C A	B (13)
2028 Build (SB 401)	EB NB SB	2 RT 1 LT 2 TH, 1 RT	D A A	B (14)	B A A	A (8)

Capacity analysis indicates the existing signalized intersections of US 401 NB at E Young Street and US 401 SB at E Young Street currently operate a LOS A during both the AM and PM peak hours.



Future year conditions were analyzed with the following approved development improvements:

- Coordinate the traffic signals at the intersection of US 401 at E Young Street and the superstreet u-turn locations. (The Point)
- Extend the storage of the existing northbound right turn lane on US 401 to provide 400 feet of storage. (The Point)

Capacity analysis indicates that the intersections are anticipated to operate at LOS B or better under no-build and build conditions.



7.2. US 401 SB and U-Turn North of E Young Street

The existing signalized intersection of US 401 and the u-turn location north of E Young Street was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 5. Refer to Table 5 for a summary of the analysis results. Refer to Appendix F for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 5: Analysis Summary of US 401 SB and U-Turn North of E Young Street

ANALYSIS	A P P R LANE		WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO	O A C H	CONFIGURATIONS	Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing	NB SB	1 UT* 2 TH	A A	A (5)	A A	A (4)
2028 No-Build	NB SB	1 UT* 2 TH	A B	B (11)	A A	A (3)
2028 Build	NB SB	1 UT* 2 TH	A B	B (12)	A A	A (3)

^{*}The northbound u-turn movement is analyzed as a westbound left turn movement in Synchro.

Capacity analysis indicates the existing signalized intersection of US 401 SB and the u-turn north of E Young Street currently operate a LOS A during both the AM and PM peak hours.

Future year conditions were analyzed with the following approved development improvements:

• Coordinate the traffic signals at the intersection of US 401 at E Young Street and the superstreet u-turn locations. (The Point)

Capacity analysis indicates that the intersections are anticipated to operate at LOS B or better under no-build and build conditions.



7.3. US 401 NB and U-Turn South of E Young Street

The existing signalized intersection of US 401 and the u-turn location south of E Young Street was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 6. Refer to Table 6 for a summary of the analysis results. Refer to Appendix G for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 6: Analysis Summary of US 401 NB and U-Turn South of E Young Street

ANALYSIS	A P P R O A C	LANE	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO		CONFIGURATIONS	Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing	NB	2 TH	A	A	A	A
	SB	1 UT*	A	(5)	A	(6)
2028	NB	2 TH	A	A (2)	A	A
No-Build	SB	1 UT*	A		A	(6)
2028 Build	NB	2 TH	A	A	A	A
	SB	1 UT*	A	(2)	A	(6)

^{*}The southbound u-turn movement is analyzed as an eastbound left turn movement in Synchro.

Capacity analysis indicates the existing signalized intersection of US 401 NB and the u-turn south of E Young Street currently operate a LOS A during both the AM and PM peak hours.

Future year conditions were analyzed with the following approved development improvements:

 Coordinate the traffic signals at the intersection of US 401 at E Young Street and the superstreet u-turn locations. (The Point)

Capacity analysis indicates that the intersections are anticipated to continue to operate at LOS A under no-build and build conditions.



7.4. E Young Street and Quarry Road

The intersection of E Young Street and Quarry Road was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 7. Refer to Table 7 for a summary of the analysis results. Refer to Appendix H for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 7: Analysis Summary of E Young Street and Quarry Road

ANALYSIS	A P P R LANE		WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO	O A C H	CONFIGURATIONS	Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing	WB NB SB	1 LT, 1 RT 1 TH-RT 1 LT, 1 TH	B ² A ¹	N/A	B ² A ¹	N/A
2028 No-Build	EB WB NB SB	1 LT, 1 TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH, 1 RT	C B C B	C (23)	C B C B	B (19)
2028 Build	EB WB NB SB	1 LT, 1 TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH, 1 RT	D B C B	C (23)	C B C B	C (22)

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

Analysis indicates the westbound approach of Quarry Road currently operates at LOS B during both peak hours, while the southbound left turn movement on E Young Street operates at LOS A.

Future year conditions were analyzed with the following improvements by The Point:

- Construct a northbound left turn lane on E Young Street with 100 feet of storage.
- Construct a southbound right turn lane on E Young Street with 100 feet of storage.
- Construct a northbound right turn lane on E Young Street with 100 feet of storage.



- 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 a shared through-right lane on the North Point Site Driveway.
- Install a traffic signal when warranted.

Capacity analysis indicates the intersection is expected to operate at an overall LOS C during the AM peak hour and LOS B during the PM peak hour under no-build conditions. The intersection is anticipated to operate at LOS C or better under build conditions.



7.5. E Young Street and Rolesville High School Driveway

The existing unsignalized intersection of E Young Street and Rolesville High School Driveway was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 8. Refer to Table 8 for a summary of the analysis results. Refer to Appendix I for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 8: Analysis Summary of E Young Street and Rolesville H.S. Driveway

ANALYSIS	A P P R LANE		WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO	O A C H	CONFIGURATIONS Approach	Overall (seconds)	Approach	Overall (seconds)	
2022 Existing	WB NB SB	1 LT, 1 RT 1 TH, 1 RT 1 LT, 1 TH	E ² A ¹	N/A	B ² A ¹	N/A
2028 No-Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH-RT	F ² F ² A ¹	N/A	F ² E ² A ¹	N/A
2028 Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH-RT	F^2 F^2 A^1 B^1	N/A	F^2 F^2 B^1 A^1	N/A

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

Analysis indicates the westbound approach of Rolesville High School Driveway currently operates with moderate delays during the AM peak hour and short delays during the PM peak hour.

Future year conditions were analyzed with the following improvements by The Point:

- Construct a northbound left turn lane on E Young Street with 50 feet of storage.
- Construct South Site Driveway as eastbound approach and provide one egress lane.



Capacity analysis indicates the minor street approaches are anticipated to operate at LOS E or F during the AM and PM peak hours. It is typical for minor approaches intersecting major streets to experience poor levels of service during peak hours due to the volume of traffic along the mainline.



7.6. Rolesville Road and Sunset Manor Drive/Site Drive 1

The unsignalized intersection of Rolesville Road and Sunset Manor Drive/Site Drive 1 was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 9. Refer to Table 9 for a summary of the analysis results. Refer to Appendix J for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 9: Analysis Summary of Rolesville Road and Sunset Manor Drive/Site Drive 1

ANALYSIS	A P P R	LANE	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO			Approach		Approach	Overall (seconds)
2022 Existing	WB NB SB	1 LT-RT 1 TH-RT 1 LT, 1 TH	B ² A ¹	N/A	B ² A ¹	N/A
2028 No-Build	WB NB SB	1 LT-RT 1 TH-RT 1 LT, 1 TH	C ² A ¹	N/A	C ² A ¹	N/A
2028 Build	EB WB NB SB	1 LT-TH-RT 1 LT- TH- RT 1 LT, 1 TH-RT 1 LT, 1 TH- RT	F^2 D^2 A^1 A^1	N/A	F^2 E^2 B^1 A^1	N/A

Recommended improvements by developer are shown in bold.

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

Analysis indicates the westbound approach of Sunset Manor Drive currently operates at LOS C or better during the AM and PM peak hours and is expected to continue to do so under 2028 no-build traffic conditions.

Under 2028 build conditions, a northbound left turn lane and a southbound right turn lane were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on anticipated 2028 build traffic volumes, a northbound left turn lane with 75 feet of storage is recommended. Refer to Appendix N for the turn lane warrant charts.



Analysis indicates the minor street approaches are expected to operate at LOS D or worse during the peak hours under 2028 build conditions. However, it is typical for minor approaches intersecting major streets to experience poor levels of service during peak hours due to the volume of traffic along the mainline. Queue lengths are expected to be short (approximately four vehicles or less). It is not expected that 4-hour or 8-hour MUTCD traffic signal warrants would be met.



7.7. Rolesville Road and Fowler Road

The unsignalized intersection of Rolesville Road and Fowler Road was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with existing lane configurations and traffic control, as shown in Table 10. Refer to Table 10 for a summary of the analysis results. Refer to Appendix K for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 10: Analysis Summary of Rolesville Road and Fowler Road

ANALYSIS	A P P R LANE		WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO	OACH	CONFIGURATIONS	Approach	Overall (seconds)	Approach	Overall (seconds)
2022 Existing	WB NB SB	1 LT-RT 1 LT-RT 1 LT-TH	B ² A ¹	N/A	B ² A ¹	N/A
2028 No-Build	WB NB SB	1 LT-RT 1 TH-RT 1 LT-TH	C ² A ¹	N/A	C ² A ¹	N/A
2028 Build	WB NB SB	1 LT-RT 1 TH-RT 1 LT-TH	C ² A ¹	N/A	C ² A ¹	N/A

^{1.} Level of service for major-street left-turn movement.

Analysis indicates the westbound approach of Fowler Road currently operates at LOS B during the AM and PM peak hour. Under 2028 no-build and 2028 build conditions, the westbound approach is anticipated to operate at LOS C during the peak hours.



^{2.} Level of service for minor-street approach.

7.8. Rolesville Road and Site Drive 2

The proposed right-in/right-out intersection of Rolesville Road and Site Drive 2 was analyzed under 2028 build traffic conditions with lane configurations and traffic control shown in Table 11. Refer to Table 11 for a summary of the analysis results. Refer to Appendix L for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 11: Analysis Summary of Rolesville Road and Site Drive 2

ANALYSIS	A P R LANE		WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
SCENARIO	O A C H	CONFIGURATIONS	Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB NB SB	1 RT 1 TH 1 TH, 1 RT	B¹ 	N/A	C1	N/A

Developer improvements shown in bold.

Under 2028 build conditions, a southbound right turn lane was considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on anticipated 2028 build traffic volumes, a southbound right turn lane with 50 feet of storage is recommended. Refer to Appendix N for the turn lane warrant charts.

Analysis indicates the eastbound approach of Site Drive 2 is anticipated to operate with short delays during both the AM and PM peak hour.



^{1.} Level of service for minor-street approach.

8. CONCLUSIONS

This Traffic Impact Analysis was conducted to determine the potential traffic impacts of the development proposed to be located at 1216 Rolesville Road in Rolesville, North Carolina. The proposed development is anticipated to be completed in 2028 and is expected to consist of the following uses:

- 68 units Single-Family Attached Housing (LUC 215)
- 30,000 sq. ft. retail (LUC 822)

Access to the development is proposed to be provided via one full-movement driveway connection to Rolesville Road aligning with Sunset Manor Drive and one right-in/right out driveway located approximately 275 feet to the south. A stub connection to the planned The Point development is also proposed.

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

- 2022 Existing Traffic Conditions
- 2028 (build-out year plus one) No-Build Traffic Conditions
- 2028 (build-out year plus one) Build Traffic Conditions

Trip Generation

It is estimated that the proposed development will generate 1,964 total site trips during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 89 trips (43 entering and 46 exiting) will occur during the weekday AM peak hour and 207 trips (107 entering and 100 exiting) will occur during the weekday PM peak hour.

The total primary trips are the calculated site trips after the reduction for internal capture and pass-by trips. Primary site trips are expected to account for approximately 89 trips (43 entering and 46 exiting) during the weekday AM peak hour and 125 trips (66 entering and 59 exiting) during the weekday PM peak hour.



Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to the NCDOT Congestion Management Guidelines, with the exception of analysis permitting right turns on red. This adjustment was made to be consistent with the TIA that was prepared for The Point.

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 the intersections listed below:

E Young Street and Rolesville High School Driveway

Analysis indicates the minor street approaches of The Point South Site Driveway (EB) and Rolesville High School Driveway (WB) are expected to operate with long delays during the weekday AM peak hour and with moderate to long delays during the weekday PM peak hour. It is not expected that 4-hour or 8-hour MUTCD traffic signal warrants would be met.

Rolesville Road and Sunset Manor Drive/Site Drive 1

Analysis indicates the minor street approaches of Site Drive 1 (EB) and Sunset Manor Drive (WB) are expected to operate with moderate to long delays during the weekday AM and PM peak hours. However, queue lengths are expected to be short (approximately four vehicles or less). It is not expected that 4-hour or 8-hour MUTCD traffic signal warrants would be met.



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 12 for an illustration of the recommended lane configuration for the proposed development.

Improvements per Rolesville Community Transportation Plan

Per the current Rolesville Community Transportation (CTP), E Young Street/Rolesville Road is planned to be a two-lane facility with a center turn lane, curb and gutter, bike lanes, and sidewalks. The developer is required to make accommodations for this future cross section along the property frontage.

Recommended Improvements by Developer

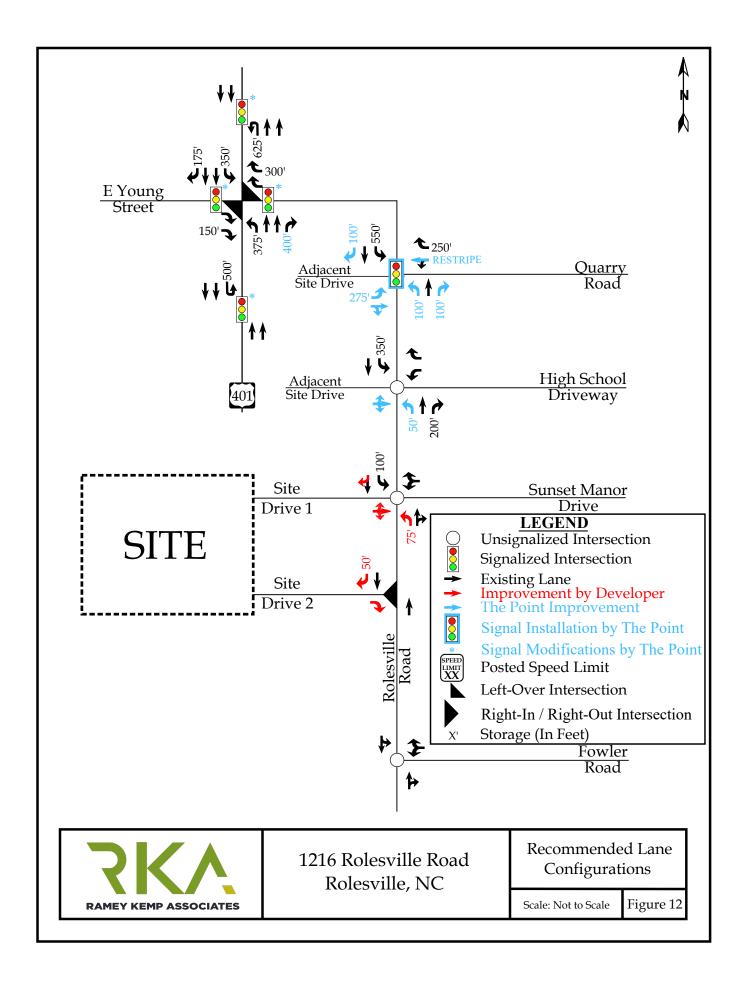
Rolesville Road and Sunset Manor Drive/Site Drive 1

- Construct eastbound approach with one ingress lane and a minimum of one egress lane, striped as a shared left-through-right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive northbound left turn lane with a minimum of 75 feet of storage and appropriate taper.

Rolesville Road and Site Drive 2

- Construct eastbound approach with one ingress lane and one egress lane striped as a right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive southbound right turn lane with a minimum of 50 feet of storage and appropriate taper.





ATTACHMENT 6 - TIA NCDOT REPORT



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER GOVERNOR J. ERIC BOYETTE SECRETARY

March 21, 2023

1216 Rolesville Road

Traffic Impact Analysis Review Report Congestion Management Section

TIA Project: SC-2023-052

Division: 5

County: Wake



Nicholas C. Lineberger, P.E. Project Engineer Madonna Saleh, Project Design Engineer

Mailing Address: NC DEPARTMENT OF TRANSPORTATION TRANSPORTATION MOBILITY & SAFETY DIVISION 1561 MAIL SERVICE CENTER RALEIGH, NC 27699-1561 Telephone: (919) 814-5000 Fax: (919) 771-2745 Customer Service: 1-877-368-4968

Location: 750 N. GREENFIELD PARKWAY GARNER, NC 27529

Website: www.ncdot.gov

1216 Rolesville Road

SC-2023-052 Rolesville Wake County

Per your request, the Congestion Management Section (CMS) of the Transportation Mobility and Safety Division has completed a review of the subject site. The comments and recommendations contained in this review are based on data for background conditions presented in the Traffic Impact Analysis (TIA) and are subject to the approval of the local District Engineer's Office and appropriate local authorities.

Date Initially Received by CMS	02/21/23	Date of Site Plan	02/21/22
Date of Complete Information	02/21/23	Date of Sealed TIA	02/20/23

Proposed Development

The TIA assumes the development is to be completed by 2028 and consist of the following:

Land Use	Land Use Code	Size
Single-Family Attached Housing	215	68 DU
Retail	822	30 KSF

Trip Generation - Unadjusted Volumes During a Typical Weekday					
IN OUT TOTAL					
AM Peak Hour	43	46	89		
PM Peak Hour	107	100	207		
Daily Trips			1,964		

General Reference

For reference to various documents applicable to this review please reference the following link: https://connect.ncdot.gov/resources/safety/Pages/Congestion-Management.aspx

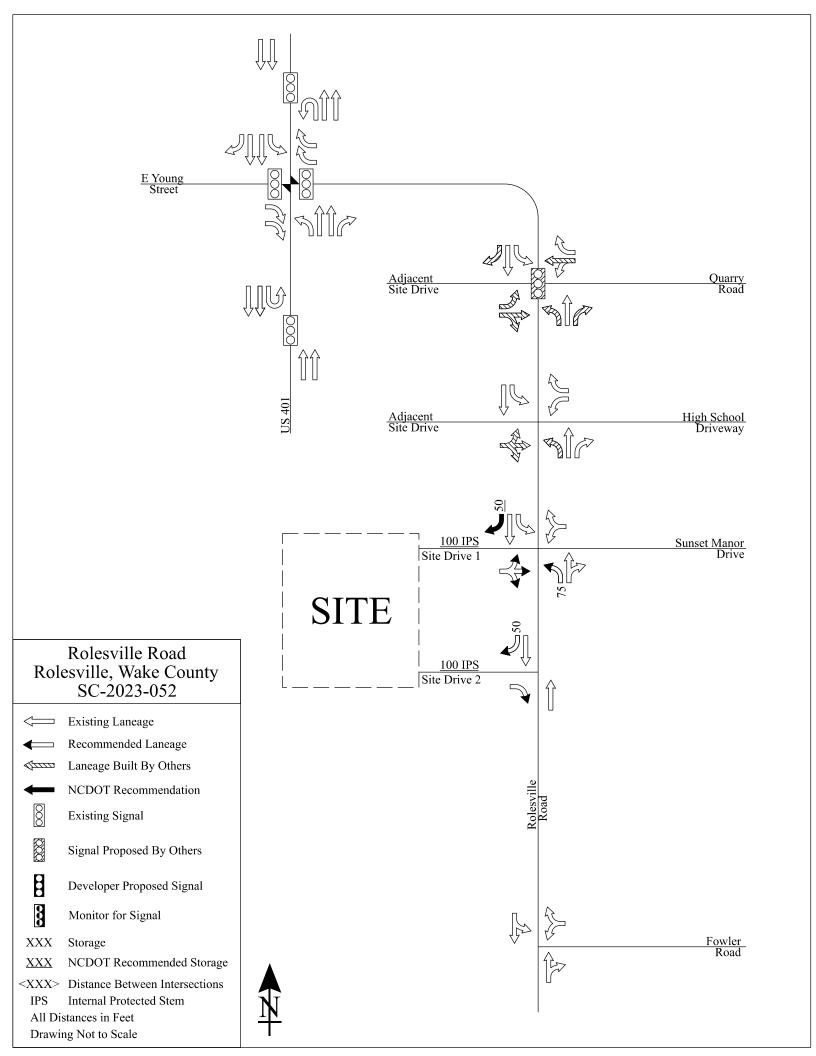
Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to this office. If we can provide further assistance, please contact the Congestion Management Section.

Improvements By Others

The analysis includes background improvements by others. If these improvements are not in place at the time of construction, the site should provide these improvements or analysis demonstrating mitigation is not necessary.

Signalization

We defer to the District Engineer, the Division Traffic Engineer, and the Regional Traffic Engineer for final decisions regarding signalization.





Case: MA 22-05 1216 Rolesville Road

Address: 1216 Rolesville Road

PIN 1768337689 Date: 04.19.2022

Vicinity Map



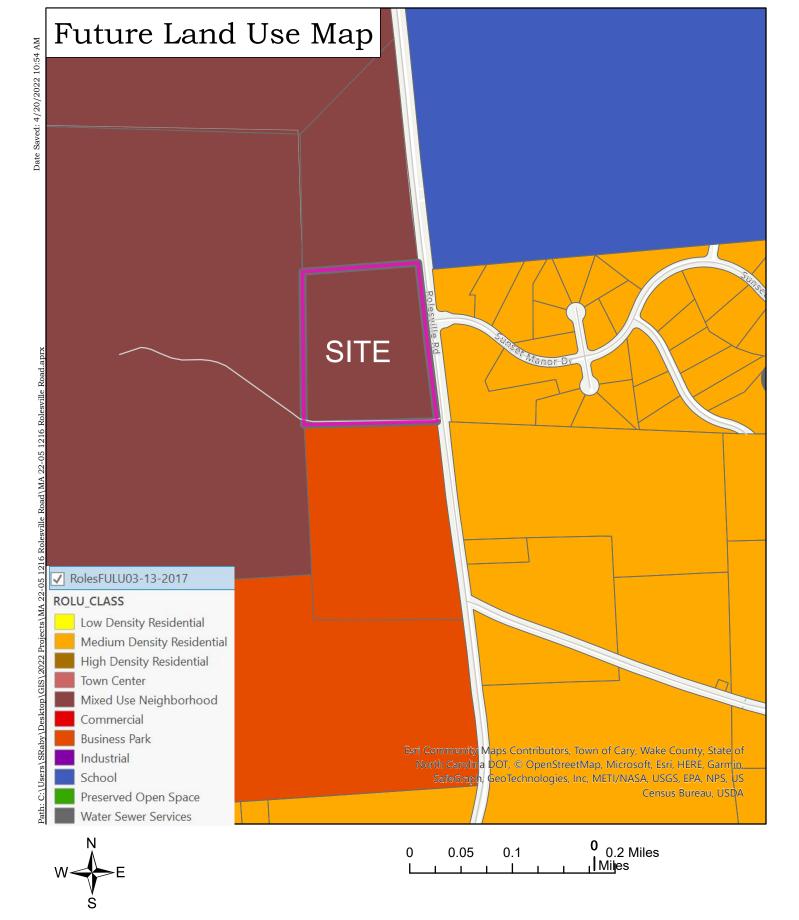
0 0.03 0.07 **0** 0.13 Miles



Case: MA 22-05 1216 Rolesville Road

Address: 1216 Rolesville Road

PIN 1768337689 Date: 04.19.2022

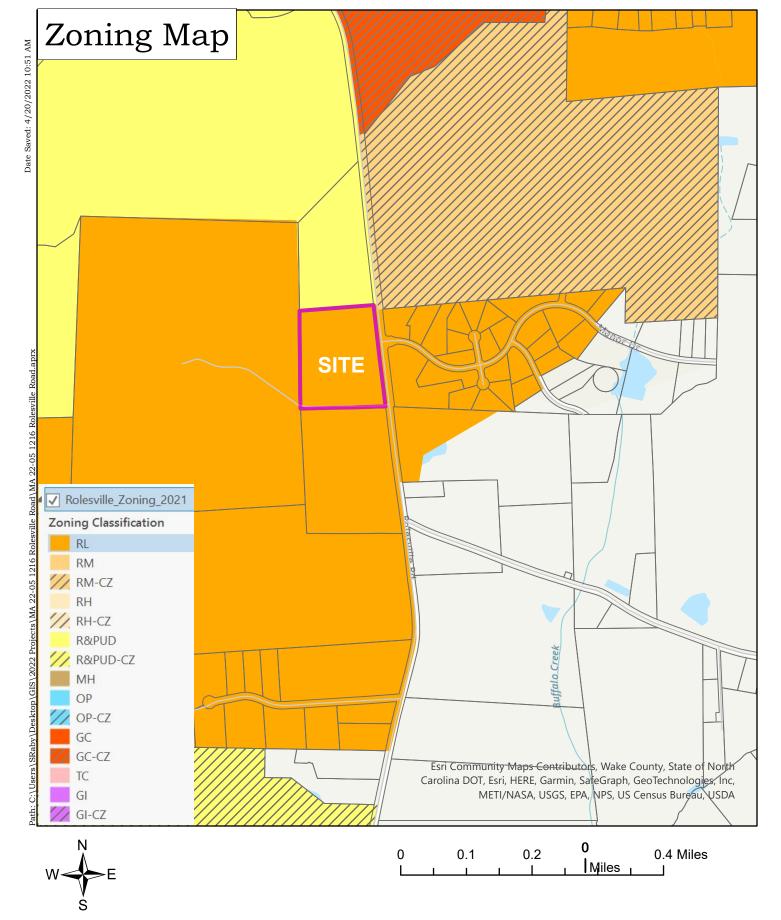




Case: MA 22-05 1216 Rolesville Road

Address: 1216 Rolesville Road

PIN 1768337689 Date: 04.19.2022



ATTACHMENT 10 - PROPERTY BOUNDARY LEGAL DESCRIPTION

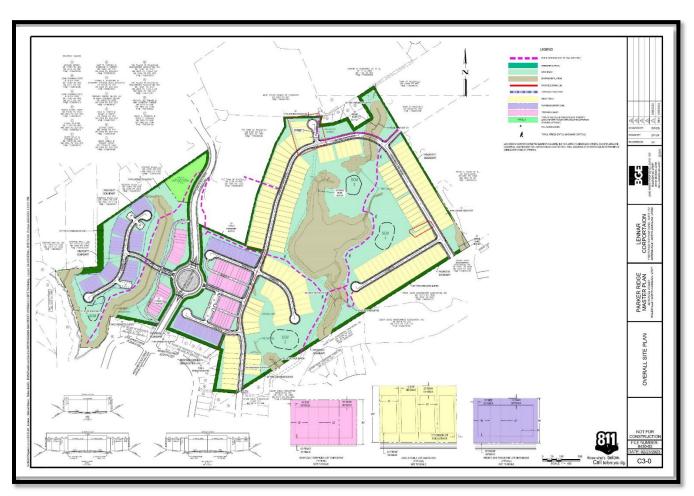
CAWTHORNE, MOSS & PANCIERA, PC MICHAEL A. MOSS, PLS 333 S. WHITE STREET WAKE FOREST, NC 27587 (919) 556-3148 MIKE@CMPPLS.COM

Legal Description

Beginning at an existing iron pipe, said existing iron pipe being located in the western right-of-way of Rolesville Road (N.C.S.R.#1003), said existing iron pipe being the common corner of parcel Pin#1768.03-32-8863 and subject lot, said existing iron pipe having NC Grid NAD 83/2011 coordinates N(y): 783,309.15' E(x): 2,164,160.04'; Thence leaving right-of-way S 89°45'02" W a distance of 683.90' to an existing iron bar; Thence N 00°42'32" W a distance of 778.89' to a new iron pipe; Thence N 85°27'46" E a distance of 596.00' to an existing iron pipe, said existing iron pipe being located in the western right-of-way of Rolesville Road (N.C.S.R.#1003), said existing iron pipe being the common corner of parcel Pin#1768.09-06-8057 and subject lot; Thence along right-of-way S 06°53'13" E a distance of 828.98' to an existing iron pipe; Which is the point of beginning, Containing an area of 513,162 square feet, 11.781 acres.



MARCH 2023 DEVELOPMENT REPORT



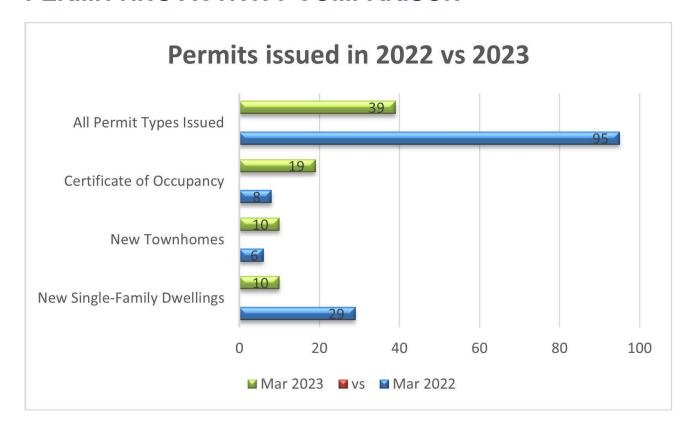
The Parker Ridge rezoning case was approved by the Town Board on March 7, 2023.

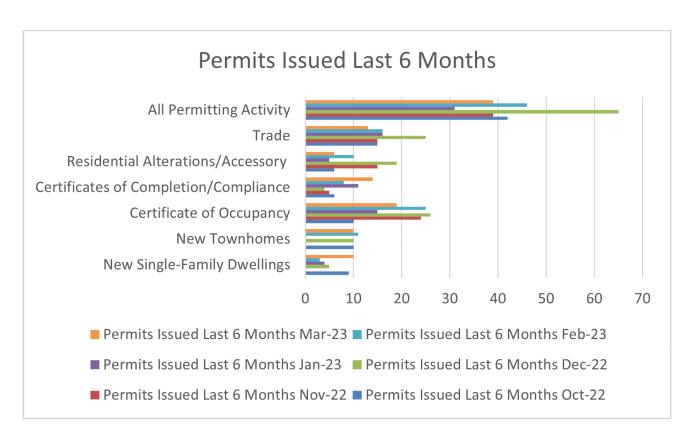
Please contact the Town of Rolesville Planning Department at 919-554-6517 or planning@rolesville.nc.gov for assistance or more information.

RESIDENTIAL BUILDING PERMITS UPDATE

Subdivision	Total Buildable Lots	Total Permits Issued Per Development	Un-permitted Lots Remaining	Permits Issued in March	Permits Issued YTD
Carlton Pointe	301	301	0	0	1
Chandler's Ridge	96	95	1	0	0
Elizabeth Springs	100	70	30	3	3
Granite Crest Phase 3C	19	3	16	0	1
Perry Farms	113	109	5	0	1
Preserve at Jones Dairy South	122	67	55	1	2
Regency at Heritage PH3	27	15	12	4	7
TOTAL	778	660	119	8	15
Elizabeth Springs Townhomes	54	54	0	0	0
A Master Teams Townhomes	47	10	37	0	0
Townes at Carlton Pointe	53	31	22	10	21
TOTAL	154	95	59	10	21
ETJ/ Non-Sub					
TOTAL					1
TOTAL Residential Permits Issued	932	755	178	18	37

PERMITTING ACTIVITY COMPARISON





DEVELOPMENT PROJECTS SUMMARY

The projects listed below are under construction. For more information, please visit the Development Projects webpage on the Town of Rolesville's website. Click on "Development Projects" at www.rolesvillenc.gov.

Commercial/ Mixed-Use

- Cobblestone
- Carolina Legacy Volleyball

Applications In Review

- 503 S Main Street
- 6000 Rogers Rd
- Wallbrook
- Jones Dairy Storage

Residential

- A-Master Teams Townhomes 47 New Townhomes
- Chandler's Ridge 90 New Single-Family Homes
- Cobblestone 176 New Apartments
- Elizabeth Springs 89 New Single-Family Homes & 98 New Townhomes
- Granite Crest Phase 3 19 New Single-Family Homes
- Kalas Falls 484 New Single-Family Homes & 108 New Townhomes
- Perry Farms Phase 2 33 New Single-Family Homes
- Preserve at Jones Dairy Road North 141 New Single-Family Homes & 65 New Townhomes
- Preserve at Jones Dairy Road South 221 New Single-Family Homes
- Regency at Heritage 27 New Single-Family Homes
- The Point- 483 New Single-Family Homes & 324 New Townhomes
- The Townes at Carlton Pointe- 53 New Townhomes
- Wallbrook 140 Townhomes