

Rezoning #22CZ08

New Hope Farm Rd

Twin Ponds Ln

New Hill Olive Chapel Rd

Olive Ridge

Delphi Grove Aly

Gordal Trl

Mission Olive Pl

Jordan Manors

Hahn Ridge Dr

May 2022
February 2022 Aerial Photography
Prepared by: Town of Apex Planning Department



Adams Property PUD - Owner List

PIN	ADDRESS	OWNER
0710889798	8820 New Hope Farm Rd	ALBRECHT, DONNA J TRUSTEE DONNA J ALBRECHT RVCBLE LVNG TRUST
0710990078	0 New Hope Farm Rd	M/I HOMES OF RALEIGH LLC
0710990171	0 New Hope Farm Rd	M/I HOMES OF RALEIGH LLC
0710889126	8841 Twin Ponds Lane	ADAMS-KNOUFF, CAREY
0710879844	8833 Twin Ponds Lane	ADAMS, CAREY

PLANNED UNIT DEVELOPMENT APPLICATION

Application #: #22CZ08

Submittal Date: 4-1-22

PLANNED UNIT DEVELOPMENT DISTRICT STANDARDS:

In return for greater flexibility in site design requirements, Planned Development (PD) Districts are expected to deliver exceptional quality community designs that preserve critical environmental resources; provide high quality community amenities; incorporate creative design in the layout of buildings, Resource Conservation Area and circulation; ensure compatibility with surrounding land uses and neighborhood character; provide high quality architecture; and provide greater efficiency in the layout and provision of roads, utilities, and other infrastructure. The Planned Development (PD) Districts shall not be used as a means of circumventing the Town's adopted land development regulations for routine developments. The PD text and plan should demonstrate how the standards of Sec. 2.3.4.F are met by the proposed rezoning.

LEGISLATIVE CONSIDERATIONS - CONDITIONAL ZONING

The applicant shall propose site-specific standards and conditions that take into account the following considerations, which are considerations that are relevant to the legislative determination of whether or not the proposed conditional zoning district rezoning request is in the public interest. These considerations do not exclude the legislative consideration of any other factor that is relevant to the public interest. Use additional pages as needed.

1) *Consistency with 2045 Land Use Map.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the 2045 Land Use Map.

The 2045 Land Use Map designates this area for low density residential, which is contemplated not to exceed a density of 3 du/ac. The proposed project is for a single-family detached residential community around 2.8 du/ac. Therefore, the proposed rezoning is consistent with the 2045 Land Use Map.

2) *Compatibility.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and compatibility with the character of surrounding land uses.

The surrounding area has been approved for, and is being built as, residential communities. The Olive Ridge community directly south and the Heelan community directly east are both planned at similar densities as what is being proposed. The proposed rezoning is compatible with the existing land use pattern for the area.

3) *Zoning district supplemental standards.* The proposed Conditional Zoning (CZ) District use's compliance with Sec 4.4 *Supplemental Standards*, if applicable.

The proposed rezoning establishes development standards for the new community as part of the zoning through the requested PUD district. The standards set forth in the proposed PUD are similar to those established for the adjacent Heelan community.

PETITION PROCESS INFORMATION

4) *Design minimizes adverse impact.* The design of the proposed Conditional Zoning (CZ) District use's minimization of adverse effects, including visual impact of the proposed use on adjacent lands; and avoidance of significant adverse impacts on surrounding lands regarding trash, traffic, service delivery, parking and loading, odors, noise, glare, and vibration and not create a nuisance.

The proposed rezoning is meant to facilitate the development of a community which will operate as another phase of the adjacent Heelan community. Nevertheless, the project has been designed with large boundary buffers where possible, both to create separation from adjacent development and to protect environmental features.

5) *Design minimizes environmental impact.* The proposed Conditional Zoning District use's minimization of environmental impacts and protection from significant deterioration of water and air resources, wildlife habitat, scenic resources, and other natural resources.

As noted above, the proposed project has been designed to provide large buffers around the environmental features on or near the property. Moreover, the project will provide 35% of the project area as RCA. The project minimizes impacts to the environment through thoughtful design.

6) *Impact on public facilities.* The proposed Conditional Zoning (CZ) District use's avoidance of having adverse impacts on public facilities and services, including roads, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities.

The proposed project consists of no more than 65 single-family homes. This level of development is not expected to have a significant impact on the Town's ability to continue providing excellent services. The proposed project does not represent a strain on the provision of public services like roads, water, wastewater, schools & emergency services.

7) *Health, safety, and welfare.* The proposed Conditional Zoning (CZ) District use's effect on the health, safety, or welfare of the residents of the Town or its ETJ.

The proposed development will add more housing to Apex in an area already planned for growth. By following existing development patterns, this infill project avoids leapfrog development, which can lead to sprawl, and ultimately to more vehicle miles being driven, and more time away from family while commuting. Infill development, like what is proposed, promotes welfare.

8) *Detrimental to adjacent properties.* Whether the proposed Conditional Zoning (CZ) District use is substantially detrimental to adjacent properties.

Adjacent properties are, for the most part, slated for residential development of a similar kind proposed here. In fact, the adjacent Heelan community is being built by the applicant for this proposed rezoning. This actually creates some better efficiencies and will not be a detriment.

PETITION PROCESS INFORMATION

9) *Not constitute nuisance or hazard.* Whether the proposed Conditional Zoning (CZ) District use constitutes a nuisance or hazard due to traffic impact or noise, or because of the number of persons who will be using the Conditional Zoning (CZ) District use.

The project is surrounded by other developments which are much larger than what is proposed. Moreover, the surrounding developments also will be residential in nature and of a similar density/intensity. As a result, the proposed project is consistent with uses on adjacent properties and is neither a nuisance or a hazard.

10) *Other relevant standards of this Ordinance.* Whether the proposed Conditional Zoning (CZ) District use complies with all standards imposed on it by all other applicable provisions of this Ordinance for use, layout, and general development characteristics.

The proposed rezoning establishes development standards for the new community as part of the zoning through the requested PUD district. The standards set forth in the proposed PUD are similar to those established for the adjacent Heelan community. Where the PUD is silent, the UDO provisions apply.

TWIN POND OUTER BOUNDARY LEGAL DESCRIPTION

BEING THE OUTER BOUNDARY OF THREE PARCELS OF LAND LOCATED IN BUCKTHORN TOWNSHIP, WAKE COUNTY NORTH CAROLINA AND IDENTIFIED BY NC PINS: 0710889798, 0710889126, 0710879844, 0710990171 & 0710990078 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 1/2" IRON PIPE FOUND ON THE EASTERN RIGHT OF WAY OF NEW HILL OLIVE CHAPEL ROAD, SAID IRON HAVING NORTH CAROLINA STATE PLAIN COORDINATES OF N= 708,770.50' AND E= 2,017,831.18'; THENCE, FROM THE POINT OF COMMENCEMENT AND WITH SAID RIGHT OF WAY, N24°48'02"E A DISTANCE OF 95.92 FEET TO A 3/4" IRON PIPE SET ON THE EASTERN RIGHT OF WAY OF NEW HILL OLIVE CHAPEL ROAD AND THE NORTH WESTERN CORNER OF THE PROPERTY DESCRIBED IN DEED BOOK 17553 AT PAGE 1902 OF THE WAKE COUNTY REGISTER OF DEEDS (NC PIN 0710889126), SAID POINT BEING THE TRUE POINT OF BEGINNING AND HAVING NORTH CAROLINA STATE PLAIN COORDINATES OF N= 708,857.57' AND E= 2,017,871.42'; THENCE, FROM THE POINT OF BEGINNING AND WITH SAID RIGHT OF WAY, N24°57'29"E A DISTANCE OF 17.79 FEET TO A MAG NAIL SET IN THE MIDDLE OF TWIN PONDS LANE (A PRIVATE DRIVE); THENCE, CONTINUING WITH SAID RIGHT OF WAY, N17°37'41"E A DISTANCE OF 13.06 FEET TO A 3/4" IRON PIPE SET; THENCE, LEAVING SAID RIGHT OF WAY, S64°37'40"E A DISTANCE OF 340.35 FEET TO A 1" IRON REBAR FOUND; THENCE S17°08'16"E A DISTANCE OF 361.67 FEET TO A 1/2" IRON REBAR FOUND; THENCE S69°29'27"E A DISTANCE OF 48.31 FEET TO A 1/2" IRON REBAR FOUND; THENCE S71°31'34"E A DISTANCE OF 62.60 FEET TO A 1/2" IRON PIPE FOUND; THENCE S80°38'27"E A DISTANCE OF 155.34 FEET TO A 1" IRON REBAR FOUND; THENCE N88°08'07"E A DISTANCE OF 151.09 FEET TO A 1/2" IRON PIPE FOUND; THENCE N88°08'07"E A DISTANCE OF 100.54 FEET TO A 1/2" IRON PIPE FOUND; THENCE N00°50'13"W A DISTANCE OF 394.79 FEET TO A 3/4" IRON PIPE SET; THENCE N15°21'40"W A DISTANCE OF 177.77 FEET TO A 1" IRON PIPE FOUND; THENCE N00°47'16"W A DISTANCE OF 189.28 FEET TO A MAG NAIL SET IN NEW HOPE FARM ROAD (A PRIVATE DRIVE); THENCE N89°10'19"E A DISTANCE OF 66.34 FEET TO A MAG NAIL SET; THENCE N00°48'29"W A DISTANCE OF 30.00 FEET TO A 5/8" IRON PIPE FOUND; THENCE N89°11'31"E A DISTANCE OF 502.59 FEET TO A 1/2" IRON PIPE FOUND; THENCE S00°06'38"W A DISTANCE OF 29.93 FEET TO A 1/2" IRON PIPE FOUND; THENCE S00°06'38"W A DISTANCE OF 29.94 FEET TO A 3/4" IRON PIPE SET; THENCE S00°17'02"W A DISTANCE OF 372.44 FEET TO A 1" IRON PIPE FOUND; THENCE S00°17'02"W A DISTANCE OF 344.60 FEET TO A 1/2" IRON PIPE FOUND; THENCE S00°15'44"W A DISTANCE OF 193.39 FEET TO A 1/2" IRON PIPE FOUND; THENCE S00°15'44"W A DISTANCE OF 197.76 FEET TO A 1" SQUARE IRON POST FOUND; THENCE S00°16'18"W A DISTANCE OF 301.61 FEET TO A 1/2" IRON PIPE FOUND; THENCE S86°56'34"W A DISTANCE OF 217.26 FEET TO A 1/2" IRON PIPE FOUND; THENCE N77°34'43"W A DISTANCE OF 317.38 FEET TO A 1/4" IRON PIPE FOUND; THENCE N75°41'15"W A DISTANCE OF 10.60 FEET TO A 3/4" IRON PIPE SET; THENCE N67°28'47"W A DISTANCE OF 446.41 FEET TO A 1" SQUARE IRON POST FOUND; THENCE N11°24'08"W A DISTANCE OF 256.23 FEET TO A 1" SQUARE IRON POST FOUND; THENCE N10°36'58"W A DISTANCE OF 100.83 FEET TO A 1/2" IRON PIPE FOUND; THENCE N10°36'58"W A DISTANCE OF 160.47 FEET TO A 1/2" IRON PIPE FOUND; THENCE N17°11'05"W A DISTANCE OF 330.05 FEET TO A 3/4" IRON PIPE SET; THENCE N64°44'24"W A DISTANCE OF 326.42 FEET TO THE POINT OF BEGINNING.

SAID BOUNDARY CONTAINING 1,014,778 SQUARE FEET OR 23.92 ACRES, MORE OR LESS

SITE ADDRESS	PIN NUM	OWNER	MAILING ADDRESS	
8833 TWIN PONDS LN	0710879844	ADAMS, CAREY	8833 TWIN PONDS LN	NEW HILL NC 27562-9235
8841 TWIN PONDS LN	0710889126	ADAMS-KNOUFF, CAREY	8833 TWIN PONDS LN	NEW HILL NC 27562-9235
8820 NEW HOPE FARM RD	0710889798	ALBRECHT, DONNA J TRUSTEE DONNA J ALBRECHT RVCBLE LVNG TRUST	8820 NEW HOPE FARM RD	NEW HILL NC 27562-9178
2108 NEW HILL OLIVE CHAPEL RD	0710782623	BARTH, PAUL A BARTH, SUSAN M	2108 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9736
8801 NEW HOPE FARM RD	0710892208	DIPROFIO, DAVID P DIPROFIO, VICKI M	8801 NEW HOPE FARM RD	NEW HILL NC 27562-9178
8848 TWIN PONDS LN	0710970228	DRP NC 1 LLC	590 MADISON AVE FL 13	NEW YORK NY 10022-2524
8825 NEW HOPE FARM RD	0710990226	GOODMAN, WILLIAM DAVID JR GOODMAN, JILL M	PO BOX 307	NEW HILL NC 27562-0307
8800 NEW HOPE FARM RD	0710884797	HOFFMAN, JOSEPH E JR HOFFMAN, SHIRLEY J	8800 NEW HOPE FARM RD	NEW HILL NC 27562-9178
3120 OLIVE FARM RD	0720075965	MI HOMES OF RALEIGH LLC	1511 SUNDAY DR STE 100	RALEIGH NC 27607-5195
8812 NEW HOPE FARM RD	0710887654	MCKEITHAN, KAREN D ST CLAIR, LANCE	8812 NEW HOPE FARM RD	NEW HILL NC 27562-9178
2020 NEW HILL OLIVE CHAPEL RD	0710784941	MEILLEUR, GUY	2020 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9734
8815 NEW HOPE FARM RD	0710896246	PAIRIS-GARCIA, MONIQUE GARCIA, JUAN	8815 NEW HOPE FARM RD	NEW HILL NC 27562-9178
2008 NEW HILL OLIVE CHAPEL RD	0710794176	SCHNORR, CHRISTOPHER T SCHNORR, EVELYN A	2008 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9734
		APEX TOWN OF	PO BOX 250	APEX NC 27502-0250
		Current Tenant	2041 New Hill Olive Chapel RD	NEW HILL NC 27562
		Current Tenant	2105 New Hill Olive Chapel RD	NEW HILL NC 27562
		Current Tenant	2125 New Hill Olive Chapel RD	NEW HILL NC 27562
		Current Tenant	2205 New Hill Olive Chapel RD	NEW HILL NC 27562
		Current Tenant	8824 New Hope Farm RD	NEW HILL NC 27562
		Current Tenant	8825 New Hope Farm RD	NEW HILL NC 27562
		Current Tenant	8829 New Hope Farm RD	NEW HILL NC 27562
		Current Tenant	3120 Olive Farm RD	NEW HILL NC 27562
		Current Tenant	8836 Twin Ponds LN	NEW HILL NC 27562
		Current Tenant	8841 Twin Ponds LN	NEW HILL NC 27562
		Current Tenant	8848 Twin Ponds LN	NEW HILL NC 27562

Developer Company Information	
Company Name	M/I Homes of Raleigh LLC
Company Phone Number	919-233-5725
Developer Representative Name	Erica Leatham
Developer Representative Phone Number	919-233-5725
Developer Representative Email	eleatham@mihomes.com

New Residential Subdivision Information	
Date of Application for Subdivision	April 1, 2022
City, Town or Wake County Jurisdiction	Apex
Name of Subdivision	TBD
Address of Subdivision (if unknown enter nearest cross streets)	0 & 8820 New Hope Farm Rd and 8833 & 8841 Twin Ponds Lane
REID(s)	0096776, 0107563, 0096777, 0105635, 0117372
PIN(s)	0710-87-9844, 0710-88-9798, 0710-88-9126, 0710-99-0078, 0710-99-0171

Please complete each section of this form and submit with your application.

Town of Apex staff will enter this information into the online WCPSS form.

Please send any questions about this form to:
studentassignment-gis-group@wcpss.net

Projected Dates Information	
Subdivision Completion Date	2026
Subdivision Projected First Occupancy Date	2025

Lot by Lot Development Information																	
Unit Type	Total # of Units	Senior Living	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	Square Foot Range		Price Range		Anticipated Completion Units & Dates					
								Min	Max	Low	High	Year	# Units	Year	# Units	Year	# Units
Single Family	65					35	30	2200	3300	\$400,000	\$600,000	2025	30	2026	35		
Townhomes																	
Condos																	
Apartments																	
Other																	

AGENT AUTHORIZATION FORM

Application #: #22CZ08

Submittal Date: 4-1-22

M/I Homes of Raleigh LLC is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 0 New Hope Farm Road & 0 New Hope Farm Road

The agent for this project is: M/I Homes of Raleigh LLC

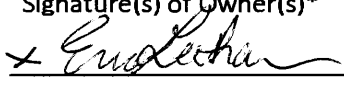
I am the owner of the property and will be acting as my own agent

Agent Name: Erica Leatham

Address: 1511 Sunday Drive | Ste 100 | Raleigh, NC 27607

Telephone Number: (919) 233-5725

E-Mail Address: e.leatham@mihomes.com

Signature(s) of Owner(s)*


Erica Leatham
 Type or print name

march 30, 2022
 Date

 Type or print name Date

Attach additional sheets if there are additional owners.

*Owner of record as shown on the latest equalized assessment rolls of Wake County. An option to purchase does not constitute ownership. If ownership has been recently transferred, a copy of the deed must accompany this authorization.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

AFFIDAVIT OF OWNERSHIP

Application #: #22CZ08

Submittal Date: 4-1-22

The undersigned, M/I Homes of Raleigh LLC (the "Affiant") first being duly sworn, hereby swears or affirms as follows:

- Affiant is over eighteen (18) years of age and authorized to make this Affidavit. The Affiant is the sole owner, or is the authorized agent of all owners, of the property located at 0 New Hope Farm Road & 0 New Hope Farm Road and legally described in **Exhibit "A"** attached hereto and incorporated herein (the "Property").
- This Affidavit of Ownership is made for the purpose of filing an application for development approval with the Town of Apex.
- If Affiant is the owner of the Property, Affiant acquired ownership by deed, dated December 13, 2021, and recorded in the Wake County Register of Deeds Office on December 13, 2021, in Book 18839 Page 2513.
- If Affiant is the authorized agent of the owner(s) of the Property, Affiant possesses documentation indicating the agency relationship granting the Affiant the authority to apply for development approval on behalf of the owner(s).
- If Affiant is the owner of the Property, from the time Affiant was deeded the Property on December 13, 2021, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on December 13, 2021, no one has questioned Affiant's ownership or right to possession nor demanded any rents or profits. To Affiant's knowledge, no claim or action has been brought against Affiant (if Affiant is the owner), or against owner(s) (if Affiant is acting as an authorized agent for owner(s)), which questions title or right to possession of the property, nor is any claim or action pending against Affiant or owner(s) in court regarding possession of the Property.

This the 30th day of march, 2022.

x Erica Leatham (seal)
Erica Leatham

Type or print name

STATE OF NORTH CAROLINA
COUNTY OF Wake

I, the undersigned, a Notary Public in and for the County of Wake, hereby certify that Erica Leatham, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's _____, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.



Sara S. Clifton
Notary Public Sara S. Clifton
State of North Carolina
My Commission Expires: January 10, 2025

AGENT AUTHORIZATION FORM

Application #: #22CZ08

Submittal Date: 4-1-22

Donna J Albrecht, Trustee is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 8820 New Hope Farm Road

The agent for this project is: M/I Homes of Raleigh LLC

I am the owner of the property and will be acting as my own agent

Agent Name: Erica Leatham

Address: 1511 Sunday Drive | Ste 100 | Raleigh, NC 27607

Telephone Number: (919) 233-5725

E-Mail Address: eleatham@mihomes.com

Signature(s) of Owner(s)*
x Donna J. Albrecht
Donna J. Albrecht, Trustee 3/30/2022
Type or print name Date

Type or print name Date

Attach additional sheets if there are additional owners.

*Owner of record as shown on the latest equalized assessment rolls of Wake County. An option to purchase does not constitute ownership. If ownership has been recently transferred, a copy of the deed must accompany this authorization.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

AFFIDAVIT OF OWNERSHIP

Application #: #22CZ08

Submittal Date: 4-1-22

The undersigned, Donna J Albrecht, Trustee of the Donna J. Albrecht Revocable Living Trust (the "Affiant") first being duly sworn, hereby swears or affirms as follows:

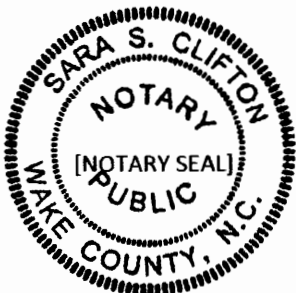
- 1. Affiant is over eighteen (18) years of age and authorized to make this Affidavit. The Affiant is the sole owner, or is the authorized agent of all owners, of the property located at 8820 New Hope Farm Road and legally described in **Exhibit "A"** attached hereto and incorporated herein (the "Property").
- 2. This Affidavit of Ownership is made for the purpose of filing an application for development approval with the Town of Apex.
- 3. If Affiant is the owner of the Property, Affiant acquired ownership by deed, dated June 6, 2018, and recorded in the Wake County Register of Deeds Office on June 13, 2018, in Book 17154 Page 1465.
- 4. If Affiant is the authorized agent of the owner(s) of the Property, Affiant possesses documentation indicating the agency relationship granting the Affiant the authority to apply for development approval on behalf of the owner(s).
- 5. If Affiant is the owner of the Property, from the time Affiant was deeded the Property on June 13, 2018, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on June 13, 2018, no one has questioned Affiant's ownership or right to possession nor demanded any rents or profits. To Affiant's knowledge, no claim or action has been brought against Affiant (if Affiant is the owner), or against owner(s) (if Affiant is acting as an authorized agent for owner(s)), which questions title or right to possession of the property, nor is any claim or action pending against Affiant or owner(s) in court regarding possession of the Property.

This the 30th day of march, 2022.

x Donna J. Albrecht (seal)
Donna J. Albrecht, Trustee
Type or print name

STATE OF NORTH CAROLINA
COUNTY OF Wake

I, the undersigned, a Notary Public in and for the County of Wake, hereby certify that Donna J. Albrecht, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's NC DL # 1770121, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.



Sara S. Clifton
Notary Public
State of North Carolina
My Commission Expires: January 10, 2025

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: #22CZ08

Submittal Date: 4-1-22

Insert legal description below.

Being all of Lot 3, Section I, New Hope Farm Subdivision, according to a plat of a survey entitled "New Hope Farm Subdivision, Lot 3, 4, 8, Section I, Buckhorn Township, Wake County, North Carolina, Proeprty of New Hope Land Partnership, Larry Kingsley, et. al.", by Glen D. Ward & Associates, Engineers, dated June 7, 1978 and recorded in Book of Maps 1978, Page 383, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: #22CZ08
Carey
Gary Adams-Knouff

Submittal Date: 4-1-22

Gary Adams-Knouff is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 8833 & 8841 Twin Ponds Lane

The agent for this project is: M/I Homes of Raleigh LLC

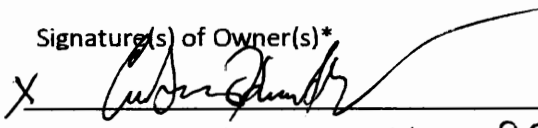
I am the owner of the property and will be acting as my own agent

Agent Name: Erica Leatham

Address: 1511 Sunday Drive | Ste 100 | Raleigh, NC 27607

Telephone Number: (919) 233-5725

E-Mail Address: e.leatham@mihomes.com

Signature(s) of Owner(s)*
X 
Carey Adams-Knouff
Type or print name

3/30/2022
Date

Type or print name Date

Attach additional sheets if there are additional owners.

*Owner of record as shown on the latest equalized assessment rolls of Wake County. An option to purchase does not constitute ownership. If ownership has been recently transferred, a copy of the deed must accompany this authorization.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

AFFIDAVIT OF OWNERSHIP

Application #: #22CZ08

Submittal Date: 4-1-22

The undersigned, ~~Carey~~ Carey Adams-Knouff (the "Affiant") first being duly sworn, hereby swears or affirms as follows:

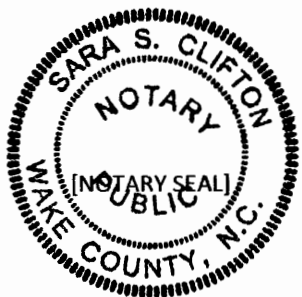
1. Affiant is over eighteen (18) years of age and authorized to make this Affidavit. The Affiant is the sole owner, or is the authorized agent of all owners, of the property located at 8833 & 8841 Twin Ponds Lane and legally described in **Exhibit "A"** attached hereto and incorporated herein (the "Property").
2. This Affidavit of Ownership is made for the purpose of filing an application for development approval with the Town of Apex.
3. If Affiant is the owner of the Property, Affiant acquired ownership by deed, dated August 11, 2021, and recorded in the Wake County Register of Deeds Office on August 11, 2021, in Book 18641 Page 1836.
4. If Affiant is the authorized agent of the owner(s) of the Property, Affiant possesses documentation indicating the agency relationship granting the Affiant the authority to apply for development approval on behalf of the owner(s).
5. If Affiant is the owner of the Property, from the time Affiant was deeded the Property on August 11, 2021, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on August 11, 2021, no one has questioned Affiant's ownership or right to possession nor demanded any rents or profits. To Affiant's knowledge, no claim or action has been brought against Affiant (if Affiant is the owner), or against owner(s) (if Affiant is acting as an authorized agent for owner(s)), which questions title or right to possession of the property, nor is any claim or action pending against Affiant or owner(s) in court regarding possession of the Property.

This the 30th day of march, 2022.

X Carey Adams-Knouff (seal)
Carey Adams-Knouff
Type or print name

STATE OF NORTH CAROLINA
COUNTY OF Wake

I, the undersigned, a Notary Public in and for the County of Wake, hereby certify that Carey Adams-Knouff, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's _____, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.



Sara S. Clifton
Notary Public Sara S. Clifton
State of North Carolina
My Commission Expires: January 10, 2025

NOTICE OF NEIGHBORHOOD MEETING

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

3/15/2022

Date

Dear Neighbor:

You are invited to a neighborhood meeting to review and discuss the development proposal at

8820 & 0 New Hope Farm Rd

0710889798, 0710990078, & 0710990171

8833 & 8841 Twin Ponds Ln

0710889126 & 0710879844

Address(es)

PIN(s)

in accordance with the Town of Apex Neighborhood Meeting procedures. This meeting is intended to be a way for the applicant to discuss the project and review the proposed plans with adjacent neighbors and neighborhood organizations before the submittal of an application to the Town. This provides neighbors an opportunity to raise questions and discuss any concerns about the impacts of the project before it is officially submitted. If you are unable to attend, please refer to the Project Contact Information page for ways to contact the applicant. Notified neighbors may request that the applicant provide updates and send plans via email or mail. Once an application has been submitted to the Town, it may be tracked using the [Interactive Development Map](#) or the [Apex Development Report](#) located on the Town of Apex website at <http://www.apexnc.org/180/Planning-Community-Development>.

A Neighborhood Meeting is required because this project includes (check all that apply):

Application Type	Approving Authority
<input checked="" type="checkbox"/> Rezoning (including Planned Unit Development)	Town Council
<input type="checkbox"/> Major Site Plan	Technical Review Committee (staff)
<input type="checkbox"/> Special Use Permit	Board of Adjustment (QJPH*)
<input checked="" type="checkbox"/> Residential Master Subdivision Plan (excludes exempt subdivisions)	Technical Review Committee (staff)

*Quasi-Judicial Public Hearing: The Board of Adjustment cannot discuss the project prior to the public hearing.

The following is a description of the proposal (also see attached map(s) and/or plan sheet(s)):

This rezoning is sought to facilitate the development of approximately 65 single family homes adjacent to the Heelan PUD. The applicant for this project is M/I Homes, the builder of Heelan.

This community is proposed as an addition to and in conjunction with the existing Heelan community.

Estimated submittal date: April 1

MEETING INFORMATION:

Property Owner(s) name(s):

Albrecht Revocable Living Trust, Cary Adams, & M/I Homes of Raleigh

Applicant(s):

M/I Homes of Raleigh

Contact information (email/phone):

nghosh@morningstarlawgroup.com/919-590-0362

Meeting Address:

https://morningstarlaw.group/03292022mtg2

Date/Time of meeting**:

March 29, 2022 5:00 PM

Welcome: 5:00 PM Project Presentation: 5:03 PM Question & Answer: 5:06 PM

**Meetings shall occur between 5:00 p.m.-9:00 p.m. on a Monday through Thursday (excluding Town recognized holidays). If you have questions about the general process for this application, please contact the Planning and Community Development Department at 919-249-3426. You may also find information about the Apex Planning Department and on-going planning efforts at <http://www.apexnc.org/180/Planning-Community-Development>.

PROJECT CONTACT INFORMATION

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Development Contacts:

Project Name: Adams Property PUD Zoning: PUD-CZ

Location: New Hope Farm Road

Property PIN(s): 0710886796; 0710590078; 0710886126; & 0710879644 Acreage/Square Feet: 23.64 acres

Property Owner: Albrecht Revocable Living Trust, Cary Adams, & M/I Homes of Raleigh

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

Developer: M/I Homes of Raleigh

Address: 1511 Sunday Drive

City: Raleigh State: NC Zip: 27607

Phone: _____ Fax: _____ Email: _____

Engineer: Jones & Cnossen, PE

Address: P.O. Box 1062

City: Apex State: NC Zip: 27502

Phone: 919-387-1174 Fax: _____ Email: peter@jonescnossen.com

Builder (if known): Same as developer

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

Please note that Town staff will not have complete information about a proposed development until the application is submitted for review. If you have a question about Town development standards and how they relate to the proposed development, please contact the appropriate staff person listed below.

Town of Apex Department Contacts

Planning and Community Development Department Main Number (Provide development name or location to be routed to correct planner)	(919) 249-3426
Parks, Recreation & Cultural Resources Department Angela Reincke, Parks and Greenways Planner	(919) 249-7468
Public Works - Transportation Russell Dalton, Traffic Engineering Manager	(919) 249-3358
Water Resources Department Jessica Bolin, Environmental Engineering Manager (Stormwater, Sedimentation & Erosion Control)	(919) 249-3537
James Gregg, Utility Engineering Manager (Water & Sewer)	(919) 249-3324
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Providing Input to Town Council:

Each Town Council meeting agenda includes a Public Forum time when anyone is permitted to speak for three (3) minutes on any topic with the exception of items listed as Public Hearings for that meeting. The Town Council meets on the 2nd and 4th Tuesdays of each month at 6:00 p.m. (except for holidays, see schedule of meetings at <http://www.apexnc.org/838/Agendas-Minutes>). You may also contact Town Council by e-mail at AllCouncil@apexnc.org.

Private Agreements and Easement Negotiation:

The Town of Apex cannot enforce private agreements between developers and neighbors and is not a party to the easement and right-of-way negotiation that occurs between developers and neighboring property owners for easements or rights-of-way that are necessary to build the project.

It is recommended that all private agreements be made in writing and that if a property owner feels it necessary, they should obtain private legal counsel in order to protect their interests in both private agreements and during easement negotiations. The only conditions that the Town of Apex can enforce are those conditions that are made a part of the conditional zoning of the property by agreement of the developer and the Town.

As an example, if a developer offers to build a fence for a neighbor to mitigate some impact, the Town can only enforce the construction of the fence if the fence becomes a condition of the rezoning. This would occur by the developer offering the condition as part of their conditional zoning application package or at the Town Council public hearing on the conditional zoning and the Town accepting it as a condition. Private agreements regarding a fence being constructed will not be enforced by the Town.

To request that any agreement with a developer is made a part of the conditional zoning at the time of approval, you may ask at the Town Council public hearing if the agreement is included in the conditions. If it is not, you may request that the Town Council not approve the rezoning without the agreement being included in the conditions (note that it is up to Town Council whether to approve or deny the rezoning but they cannot impose conditions that the applicant does not agree to add). The developer's proposed conditions can be viewed any time after a rezoning is submitted on the Interactive Development Map at: <http://apexnc.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=fa9ba2017b784030b15ef4da27d9e795>

Documentation:

Neighbors to a requested new development and/or rezoning are strongly encouraged to fully document (such as through dated photographs) the condition of their property before any work is initiated for the new development. Stormwater controls installed on developed property are not designed to and will likely not remove 100% of the soil particles transported by stormwater runoff. As a result, creeks and ponds could become cloudy for a period of time after rain events.

NEIGHBORHOOD MEETING SIGN-IN SHEET

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Meeting Address: https://morningstarlaw.group/03292022mtg2

Date of meeting: 3/29/2022 Time of meeting: 5:00 PM

Property Owner(s) name(s): Albrecht Revocable Living Trust, Cary Adams, & M/I Homes of Raleigh

Applicant(s): M/I Homes of Raleigh

Please print your name below, state your address and/or affiliation with a neighborhood group, and provide your phone number and email address. Providing your name below does not represent support or opposition to the project; it is for documentation purposes only. For virtual meetings, applicants must include all known participants and request the information below.

	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	Tom Albrecht - seller				
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

Use additional sheets, if necessary.

SUMMARY OF DISCUSSION FROM THE NEIGHBORHOOD MEETING

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Property Owner(s) name(s): Albrecht Revocable Living Trust, Cary Adams, & M/I Homes of Raleigh

Applicant(s): M/I Homes of Raleigh

Contact information (email/phone): nghosh@morningstarlawgroup.com/919-590-0362

Meeting Address: https://morningstarlaw.group/03292022mtg2

Date of meeting: 3/29/2022 Time of meeting: 5:00 PM

Please summarize the questions/comments and your responses from the Neighborhood Meeting or emails/phone calls received in the spaces below (attach additional sheets, if necessary). Please state if/how the project has been modified in response to any concerns. The response should not be "Noted" or "No Response". There has to be documentation of what consideration the neighbor's concern was given and justification for why no change was deemed warranted.

Question/Concern #1:

What is the timeline for this project?

Applicant's Response:

The project will unfold over three processes. Right now, we are in the rezoning phase.

From submittal, rezoning takes about 4 months. After that, we will submit for master subdivision plan approval.

That takes about 5 months. Following that, we can submit for CDs which may take another 3 months or so before construction can begin.

Question/Concern #2:

Applicant's Response:

Question/Concern #3:

Applicant's Response:

Question/Concern #4:

Applicant's Response:

AFFIDAVIT OF CONDUCTING A NEIGHBORHOOD MEETING, SIGN-IN SHEET AND ISSUES/RESPONSES SUBMITTAL

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

I, Nil Ghosh, do hereby declare as follows:
Print Name

1. I have conducted a Neighborhood Meeting for the proposed Rezoning, Major Site Plan, Residential Master Subdivision Plan, or Special Use Permit in accordance with UDO Sec. 2.2.7 *Neighborhood Meeting*.
2. The meeting invitations were mailed to the Apex Department of Planning and Community Development, all property owners and tenants abutting and within 300 feet of the subject property and any neighborhood association that represents citizens in the notification area via first class mail a minimum of 14 days in advance of the Neighborhood Meeting.
3. The meeting was conducted at Zoom (location/address) on 3/29/2022 (date) from 5:00 PM (start time) to 7:00 PM (end time).
4. I have included the mailing list, meeting invitation, sign-in sheet, issue/response summary, and zoning map/reduced plans with the application.
5. I have prepared these materials in good faith and to the best of my ability.

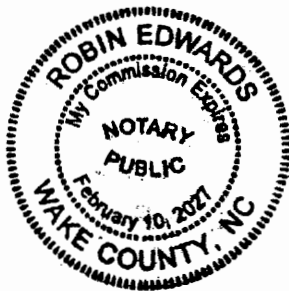
3/30/22
Date

By: [Signature]

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Nil Ghosh, a Notary Public for the above State and County, on this the 30th day of March, 2022.

SEAL



Robin Edwards
Notary Public
Robin Edwards
Print Name

My Commission Expires: 2/10/2027

Adams Property PUD

PD PLAN

APEX, NORTH CAROLINA

Submitted:

April 1, 2022

PREPARED BY:



Section 1: Table of Contents – PUD Text

Section 1: Table of Contents

Section 2: Vicinity Map

Section 3: Project Data

Section 4: Purpose Statement

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Section 6: Design Controls

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Section 8: Parking and Loading

Section 9: Signage

Section 10: Natural Resource and Environmental Data

Section 11: Stormwater Management

Section 12: Parks and Recreation

Section 13: Public Facilities

Section 14: Phasing Plan

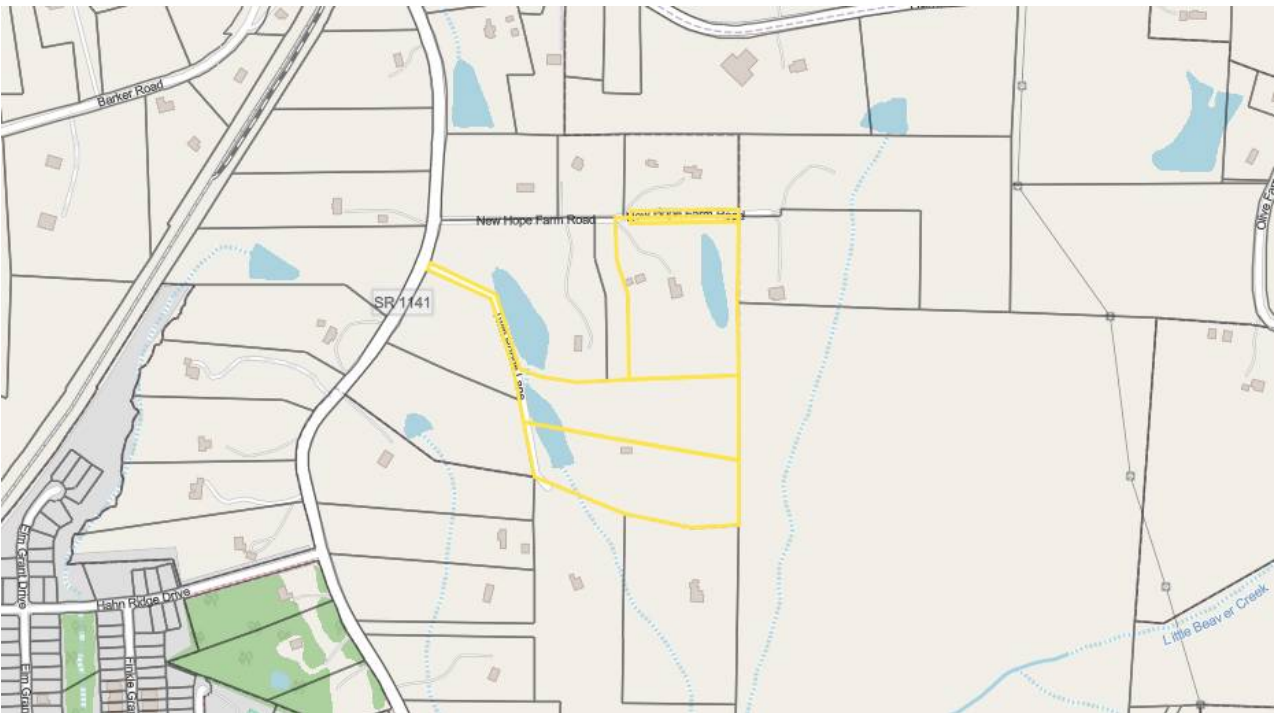
Section 15: Consistency with 2045 Land Use Plan

Section 16: Compliance with UDO

Section 17: Compliance with Apex Bicycle Plan

Section 18: Affordable Housing

Section 2: Vicinity Map



The Adams Property PUD is located just outside the southwest region of Apex’s planning jurisdiction, east of New Hill Olive Chapel Road, south of Humie Olive Road, west of Olive Farm Road, and north of Old US-1. The Heelan Property PUD is being developed just east of the property. The Olive Ridge Community is being developed south of the property.

Section 3: Project Data

A. Name of Project:

Adams Property PUD

B. Property Owners:

M/I Homes of Raleigh
Carey Adams
Albrecht Revocable Living Trust

C. Prepared By:

Nil Ghosh, Associate
Morningstar Law Group
700 W Main St | Second Floor
Durham, NC 27701

D. Current Zoning Designation:

R-40W (Wake County)

E. Proposed Zoning Designation:

Planned Unit Development – Conditional Zoning (PUD-CZ)

F. Current 2045 Land Use Map Designation:

Low Density Residential (≤ 3 units/acre)

G. Proposed 2045 Land Use Map Designation:

Low Density Residential

H. Proposed Use

Up to 66 dwelling units, associated open space, recreational amenities, and infrastructure.

I. Size of Project

Wake County Tax Identification Number	Acreage
0710-88-9798	23.92 acres
0710-99-0078	
0710-99-0171	
0710-88-9126	
0710-87-9844	

Section 4: Purpose Statement

The Adams Property PUD development will be a single-family residential community with detached homes. This community is meant to operate as a phase of the Heelan Property PUD, so main amenities will be shared with that community. Nevertheless, this community will include the requisite amount of open space and amenities for a project of this size.

This concept is consistent with the Town’s stated PUD goal to provide site specific, high quality neighborhoods that preserve natural features and exhibit compatibility with, and connectivity to, surrounding land uses. More specifically, this plan will:

- Allow uses that are compatible with Section 4.2.2, *Use Table* of the UDO
- Provide for the preservation of existing open space areas.
- Provide appropriate buffering and screening from the proposed use to the existing residential areas.
- Demonstrate dimensional standards that are consistent with the UDO, and where variations occur, said variations will be included herein and subject to Council approval.
- Provide a high-quality community that is linked by a network of connected streets and pedestrian sidewalks that promotes connectivity, walkability and healthy lifestyles.
- Exhibit character and quality that is compatible with surrounding communities, which is expected to enhance the value of surrounding land uses.
- Provide open space to promote pedestrian activity, while appropriately buffering adjacent residential areas.
- Provide energy efficient amenities, including prewiring of all single-family detached dwellings for solar installation

All site-specific standards and conditions of this PUD Plan shall be consistent with all Conditional Zoning (CZ) District standards set forth in the UDO Section 2.3.3, *Conditional Zoning Districts* and UDO Section 2.3.4.F.1, *Planned Unit Development (PUD-CZ) District*. The proposed PUD will provide a development density that is consistent with principles found throughout the recently updated Advance Apex 2045.

Section 5: Permitted Uses

The development will only include residential and supporting uses. Specifically, the permitted uses include:

Accessory apartment	Single-family
Greenway	Recreation Facility, private
Park, active	Park, passive
Utility, minor	

Additionally, the following conditions shall also apply:

- A. A maximum of 66 residential units shall be permitted upon the property.
- B. No covenant prohibiting the accessory apartment use shall encumber the property.
- C. All single-family detached dwellings shall be pre-configured with conduit for future

- installation of roof-mounted solar PV panels.
- D. Homes shall be designed to meet or exceed Energy Star requirements.
- E. Signage shall be provided by any homeowner’s association regarding the need to eliminate and reduce fertilizer and pet waste near SCMs.
- F. Signage or other marking shall be provided by any homeowner’s association at the boundary of lots adjacent to a wooded or natural condition resource conservation area (RCA) indicating that the area beyond the sign is RCA and is not to be disturbed.
- G. Developer shall install at least three (3) pet waste stations within the community.
- H. Sod used within perimeter buffers, SCMs, and along streets (unless within a residential lot) shall not be fescue grasses.
- I. Any required outdoor lighting (e.g. amenities, signage, decorative walls/fences, etc.) shall utilize full cutoff fixtures that have a maximum color temperature of 3000K. This condition shall not apply to the lighting on single-family homes or their accessory structures.
- J. Construction traffic shall be prohibited from utilizing existing Twin Ponds Lane. Developer may erect a barrier or barriers on the Property to prevent access to Twin Ponds Lane.

Section 6: Proposed Design Controls

A. Maximum Non-Residential Design Controls

This PUD does not provide for any non-residential land uses (see Section 5, *Permitted Uses*).

B. Residential Densities and Design Controls

Density The overall gross density shall not exceed 2.8 units per acre.

Design Controls At a minimum all residential uses shall comply with the following dimensional standards:

Maximum Density:	2.8 Units/Acre
Maximum Number of Units:	66
Maximum Built-Upon Area:	60%
Minimum Lot Size:	4,000 sf
Minimum Lot Width:	40'
Maximum Building Height:	45' and 3 stories
<i>Note: Porches, patios, decks and other accessory structures may encroach into building setbacks as allowed by the Town of Apex UDO.</i>	

Minimum Setbacks	
Front	10'
Rear	20'
Side	5'
Corner	5'
Building to Building	NA

From Buffer/RCA	10' for Buildings 5' for Parking Areas
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C. Perimeter Buffers

North boundary	
Former New Hope Farm Road:	0-foot
Other:	20-foot Type B
South boundary:	10-foot Type B
West boundary:	
Adjacent to REID #0101565	20-foot Type B
Other:	100-foot Type E
East boundary:	10-foot minimum, 30-foot average Type B
<i>Note: Where perimeter buffers coincide with stream buffers or 100-year floodplain, existing vegetation will be used to meet the buffer width and opacity.</i>	

Section 7: Proposed Architectural Controls

The proposed development offers the following architectural controls to ensure a consistency of character throughout the development, while allowing for enough variety to create interest and avoid monotony. Changes to the exterior materials, roof, windows, doors, process, trim, etc. are allowable with administrative approval at the staff level. Further details shall be provided at the time of Site Plan submittal. The following conditions shall apply:

- A.** Vinyl siding is not permitted; however, vinyl windows, decorative elements, and trim are permitted.
- B.** Residential areas will utilize brick, stone, and fiber cement plank siding.
- C.** Windows that are not recessed shall be trimmed. Windows shall vary in size and/or type.
- D.** At least four of the following decorative features shall be used on each building: decorative shake, board and batten siding, decorative porch rails and posts, shutters, decorative functional foundation and roof vents, recessed windows, decorative windows, decorative brick or stone, decorative gables, decorative cornices, or metal roofing.
- E.** A varied color palette shall be utilized throughout the development to include a minimum of three-color families for siding and shall include varied trim, shutter, and accent colors complementing the siding color.
- F.** Garage doors shall have windows, decorative details or carriage-style adornments on them.
- G.** The front facade of any front-loaded garage shall not protrude farther than five (5) feet forward of either (i) the front facade of the dwelling unit or (ii) the front porch of the dwelling unit, whichever is closer to the right-of-way from which the dwelling unit is addressed.
- H.** J-drives or courtyard driveways shall be exempt from condition G above but shall make up no more than 30% of all single-family homes. There shall be no more than

two (2) residences with a J-drive constructed in a row. Any lots eligible for a J-driveway home shall be identified on the Final Plat.

- I. Eaves shall project at least 12 inches from the wall of the structure.
- J. House entrances for units with front-facing single-car garages shall have a prominent covered porch/stoop area leading to the front door.
- K. The rear and side elevations of the units that can be seen from the right-of-way shall have trim around the windows.
- L. The visible side of a home on a corner lot facing the public street shall contain at least 3 decorative elements such as, but not limited to, the following elements:
 - 1. Windows
 - 2. Bay window
 - 3. Recessed window
 - 4. Decorative window
 - 5. Trim around the windows
 - 6. Wrap around porch or side porch
 - 7. Two or more building materials
 - 8. Decorative brick/stone
 - 9. Decorative trim
 - 10. Decorative shake
 - 11. Decorative air vents on gable
 - 12. Decorative gable
 - 13. Decorative cornice
 - 14. Column
 - 15. Portico
 - 16. Balcony
 - 17. Dormer
- M. Front porches shall be a minimum of 5 feet deep.

Section 8: Parking and Loading

Parking for the development shall be per Town of Apex UDO.

Section 9: Signage

All signage for this PUD shall comply with Section 8.7, *Signs*, of the Town of Apex UDO.

Section 10: Natural Resource and Environmental Data

A. River Basins and Watershed Protection Overlay Districts

The project is located within the primary watershed within the Beaver Creek Basin. According to the FEMA Floodplain Map # 3720071000K the majority of the subject property is located in the Zone X (non-shaded) area that is determined to be outside the 0.2% annual chance and future conditions 1% annual chance floodplain.

B. Resource Conservation Areas (RCA) and Landscaping

This PUD will be subject to, and meet the requirements of Section 8.1.2 of the UDO, *Resource Conservation Area* and Section 2.3.4, *Planned Development Districts*.

The Site is located on the west of the 540 corridor and therefore is required to preserve a minimum of 30% Resource Conservation Area (RCA). Because the project is planned to be mass graded, an additional 5% RCA is required per Section 7.2.5(B) of the Town's UDO. Designated RCA areas will be consistent with the items listed in Section 8.1.2(B) of the Town's UDO. Preserved streams, wetlands, and associated riparian buffers provide the primary RCA's throughout the site. Additional RCA area provided may include stormwater management areas, perimeter buffers, and greenway trails within the walkable community.

No clearing or land disturbance shall be permitted within the riparian buffer, except the minimum necessary to install required sewer infrastructure and SCM outlets. The SCM water storage and treatment area shall not be permitted within the riparian buffer. The sewer shall be designed to minimize impacts to the riparian buffer.

The developer shall install pollinator-friendly flora within SCM planting areas, as permitted by the NC Department of Environmental Quality's SCM Manual.

Plantings within perimeter buffers and along streetscapes shall be approved native species as listed in the Apex Design & Development Manual or approved by Planning Department Staff. Where possible, the developer shall also provide diverse and abundant pollinator and bird food sources (e.g. nectar, pollen, and berries from blooming plants) that bloom in succession from spring to fall in required planting or landscape areas.

C. Any Historic Structures Present

As confirmed by the North Carolina State Historic Preservation Office and Capital Area Preservation, Inc. there are no historic structures present within the project boundary.

Section 11: Stormwater Management

A. This PUD shall meet all stormwater management requirements for quality and quantity treatment in accordance with Sections 2.3.4.F.1.h & 6.1.7 of the UDO, such that:

- Post development peak runoff shall not exceed pre-development peak runoff conditions for the 1 year, 10 year, and 25 year 24-hour storm events.

SCMs shall not be located within NC DEQ required stream buffers without the approval of a Town of Apex No Practical Alternatives (NPA) finding.

Section 12: Parks and Recreation

The Parks, Recreation and Cultural Resources Advisory Commission reviewed the project on May 25, 2022, and unanimously recommended fee-in-lieu of dedication with a credit for construction of greenway trail if an opportunity is identified at the time of Master Subdivision plan review and approval. The recommendation is based on the 2022-2023 rates:

Single Family Detached Units: \$3,753.89/lot

(final PRCR amount will be coordinated with staff during Master Subdivision Plan and Construction Document reviews)

Per Article 14 of the UDO, credit for greenway against fees requires the approval of construction plans, contingent upon approval of an engineer's estimate of probable cost for greenway construction.

Section 13: Public Facilities

The proposed PUD shall meet all Public Facilities requirements as set forth in UDO Section 2.3.4(F)(1)(f) and be designed according to sound engineering standards and shall comply with Town of Apex Sewer and Water Master Plan and the Town of Apex Standards and Specifications. Specifically, road and utility infrastructure shall be as follows:

A. General Roadway Infrastructure

The road network will promote connectivity where possible to adjacent neighborhoods and undeveloped property. Connectivity to adjacent communities will be coordinated with existing or planned rights-of-way and opportunities for future connections will be provided. Further, cul-de-sacs will be avoided except where environmental features make through streets infeasible.

Please refer to the concept plan of the PUD plan for proposed access points, stub streets and planned vehicular connectivity. All access and circulation are conceptual and will be finalized at the time of Development Plan review and approval.

B. Transportation Improvements

Roadway improvements are subject to modification and final approval by the Town of Apex and NCDOT as part of the Master Subdivision Plan and Construction Document approval process. A Traffic Impact Analysis (TIA) has been performed as part of this PUD rezoning consistent with the Town's standards for the same. Based upon the TIA and staff review, the following traffic improvements are proposed for this development:

Humie Olive and New Hill Olive Chapel Road

- Developer shall pay a fee in lieu in the amount of \$25,000 toward the cost of the design, right-of-way acquisition, and installation of a future traffic signal at the intersection of Humie Olive Road and New Hill Olive Chapel Road prior to platting 80% of the lots

C. Pedestrian Facilities:

Sidewalks will be provided on both sides of streets internal to the site and along street frontage.

The Bicycle and Pedestrian System Plan Map shows a 10-foot side path along the eastern side of New Hill Olive Chapel Road which the project area has approximately 30 linear feet of frontage upon. This project will not construct the side path along that frontage and instead will make a payment-in-lieu equal to \$4,224.00 for the future installation of the side path.

D. Water and Sanitary Sewer

All lots within the project will be served by the Town of Apex for water and sanitary sewer. The utility design will be finalized at the time of Development Plan review and approval based upon available facilities adjacent to the site at that time. A conceptual utility plan is included in the PUD plan for reference. The ultimate design for the utilities must meet the current Town of Apex master water and sewer plans for approval.

E. Other Utilities

Electricity will be provided by Apex Electric. Phone, cable and gas will be provided by the developer and shall meet the Town of Apex standards as outlined in the UDO.

Section 14: Phasing Plan

This development may be constructed in multiple phases. The phasing will be finalized during subdivision plan review.

Section 15: Consistency with the 2045 Land Use Map

The proposed land use is consistent with the 2045 Land Use Map.

Section 16: Compliance with the UDO

The development standards adopted for this PUD follow those set forth in the current version of the Town's Unified Development Ordinance (UDO). Any deviations from UDO requirements have been specifically defined elsewhere within this document and/or below:

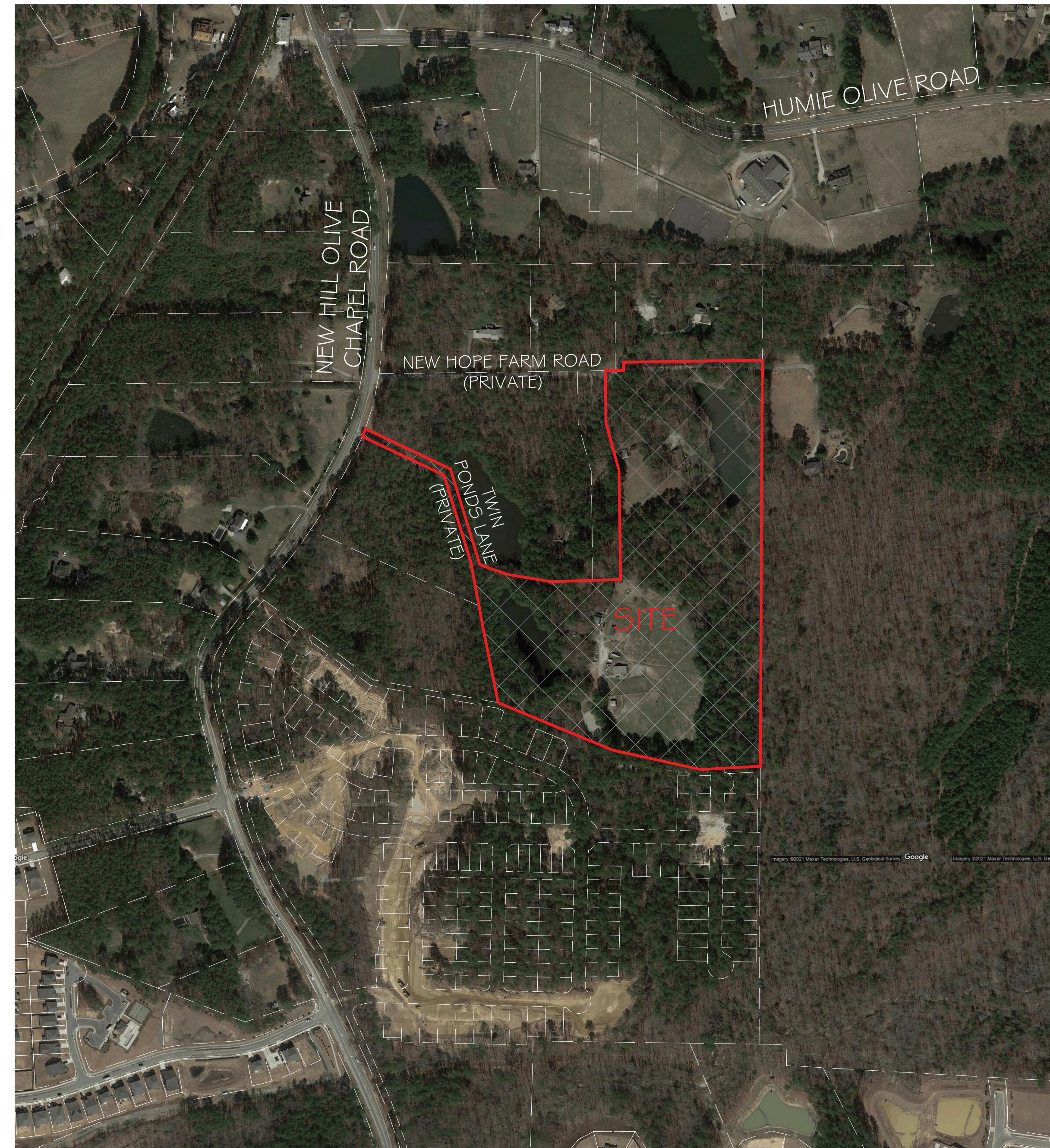
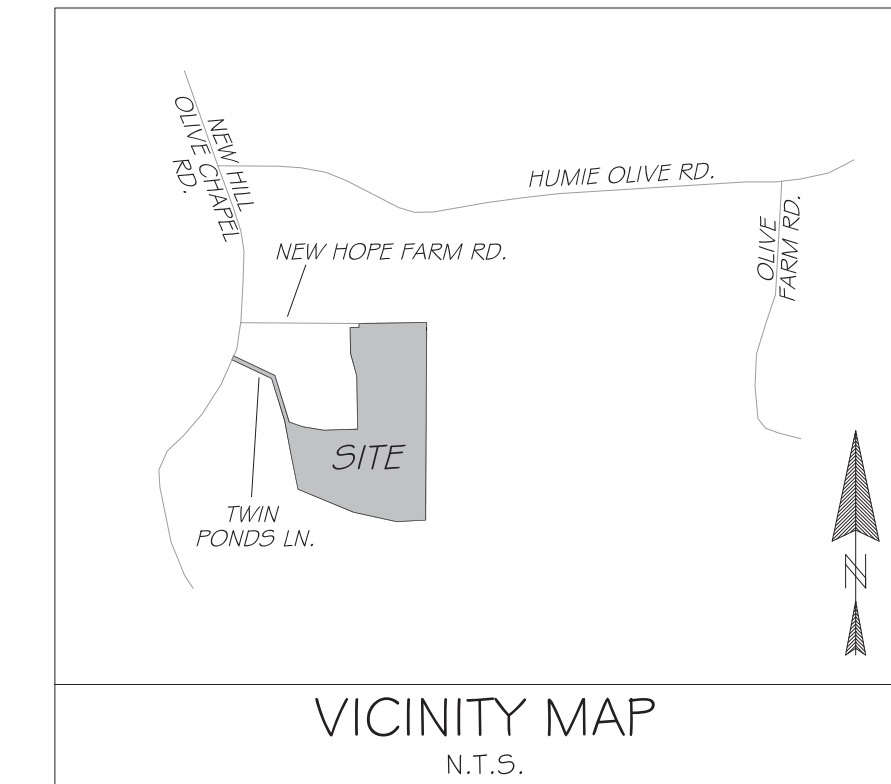
Section 17: Compliance with Comprehensive Transportation Plan and Bicycle Plan

Development plans for new development made pursuant to this amendment to the Official Zoning District Map shall comply with the adopted Comprehensive Transportation Plan in effect at the time the development plan is submitted as provided for in the Unified Development Ordinance. Further, development of the Property shall be consistent with the Town's adopted Bicycle Plan.

Section 18: Affordable Housing

This project does not include additional affordable housing units over those committed in the original Heelan Property PUD. The Heelan Property PUD requires 15 affordable housing finished townhouse ownership lots to be sold to Habitat for Humanity of Wake County (Habitat Wake) as part of the development of that property. Additionally, the developer of the Heelan Property PUD and the Adams Property PUD also is the developer of the Friendship Station PUD. The Friendship Station PUD requires 8 affordable townhouse ownership lots to be sold to Habitat Wake as part of the development of that property. Through these two developments a total of 23 affordable housing townhouse ownership units will be produced in Apex. This developer has shown its commitment to providing affordable housing within the Town of Apex with its new construction projects when possible. However, due to the overall financial aspects of the Adams Property PUD, it is not economically feasible to include additional affordable housing units in light of the numerous affordable housing units which this developer has provided in previous PUDs before the Town codified any incentives for the provision of affordable housing.

ADAMS PROPERTY PLANNED UNIT DEVELOPMENT



SITE DATA	
PROJECT NAME	ADAMS PROPERTY PUD
PREPARER'S CONTACT INFORMATION	JONES & CROSSEN ENGINEERING, PLLC P.O. BOX 1062 APEX, NORTH CAROLINA 27502 PHONE - (919) 387-1174 FAX - (919) 387-3375 CONTACT PERSON - PATRICK L. KIERNAN
OWNER / DEVELOPER CONTACT INFORMATION	MI HOMES-RALEIGH 1511 SUNDAY DRIVE SUITE #110 RALEIGH, NC 27607 PHONE - (919) 205-9980 CONTACT PERSON - ERICA LEATHAM
CURRENT ZONING	R-40W
CURRENT 2045 LAND USE MAP DESIGNATION	LOW DENSITY RESIDENTIAL (LD)
PROPOSED ZONING DESIGNATION	PUD-CZ
PROPOSED 2045 LAND USE MAP DESIGNATION	LOW DENSITY RESIDENTIAL (LD)
WAKE COUNTY PINS	0710-87-9844, 0710-88-9798, 0710-88-9126, 0710-99-0078, 0710-99-0171
TOTAL PROJECT AREA	23.92 ACRES
AREA IN LAND DEDICATION	N/A
NET SITE AREA	23.92 ACRES
MAXIMUM DENSITY	2.8 UNITS/ACRE
MAXIMUM NUMBER OF LOTS	66 UNITS
MINIMUM LOT SIZE	4,000 SF
REQUIRED RCA / BUFFER AREA	7.18 ACRES (30%, IF STAGED GRADING) 8.37 ACRES (35%, IF MASS GRADING)
PROVIDED RCA / BUFFER AREA	8.37 ACRES (35.0%)
MAXIMUM BUILT UPON AREA FOR PUD	14.35 ACRES (60%)
MAXIMUM BUILDING HEIGHT	45'
OFF STREET PARKING	PARKING WILL COMPLY WITH TOWN OF APEX UDO SECTION 8.3 FOR SINGLE-FAMILY RESIDENTIAL LOTS
PUBLIC RECREATION REQUIREMENT (FEE-IN-LIEU)	SINGLE-FAMILY DETACHED (\$3,753.89/LOT)
PRCR ADVISORY COMMISSION MEETING DATE	5/25/22
WATERSHED INFORMATION	PRIMARY; BEAVER CREEK BASIN
APEX BUFFER DETERMINATION	APEX 21-004
HISTORIC STRUCTURE?	NO
PHASED DEVELOPMENT	NO
FEMA FLOODPLAIN INFORMATION	MAP #372007100K - PROJECT IS NOT WITHIN 100 YEAR FLOODPLAIN

- PERMITTED USE:**
- SINGLE-FAMILY
 - ACCESSORY APARTMENT
 - GREENWAY
 - RECREATION FACILITY, PRIVATE
 - PARK, ACTIVE
 - PARK, PASSIVE
 - UTILITY, MINOR

MINIMUM BUILDING SETBACKS-SINGLE FAM.	
FROM BUFFER/RCA	10' FOR BUILDINGS, 5' FOR PARKING
FRONT	10'
REAR	20'
SIDE	5'
CORNER SIDE	5'

PD PLAN - DRAWING SHEET INDEX

1	COVER SHEET
2	PRELIMINARY LAYOUT PLAN
3	EXISTING CONDITIONS PLAN
4	PRELIMINARY UTILITY PLAN

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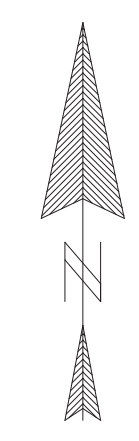
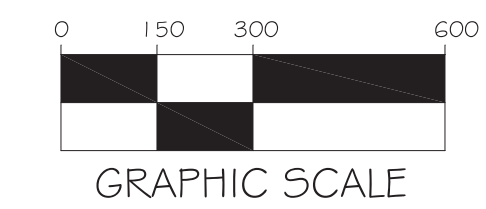
ADAMS PROPERTY PUD
PD PLANS
COVER SHEET

WAKE COUNTY, NORTH CAROLINA
TOWN OF APEX

SCALE	1" = 300'	DRAWN	PLK
DATE	APRIL 1, 2022		
REVISION	5/12/22	PER	TRC
	6/6/22	PER	TRC
	7/7/22	PER	TRC
		PER	TRC
		PER	TRC
SHEET	1		
PROJECT	2152		

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TOWN REQUIRED PUD NOTES:

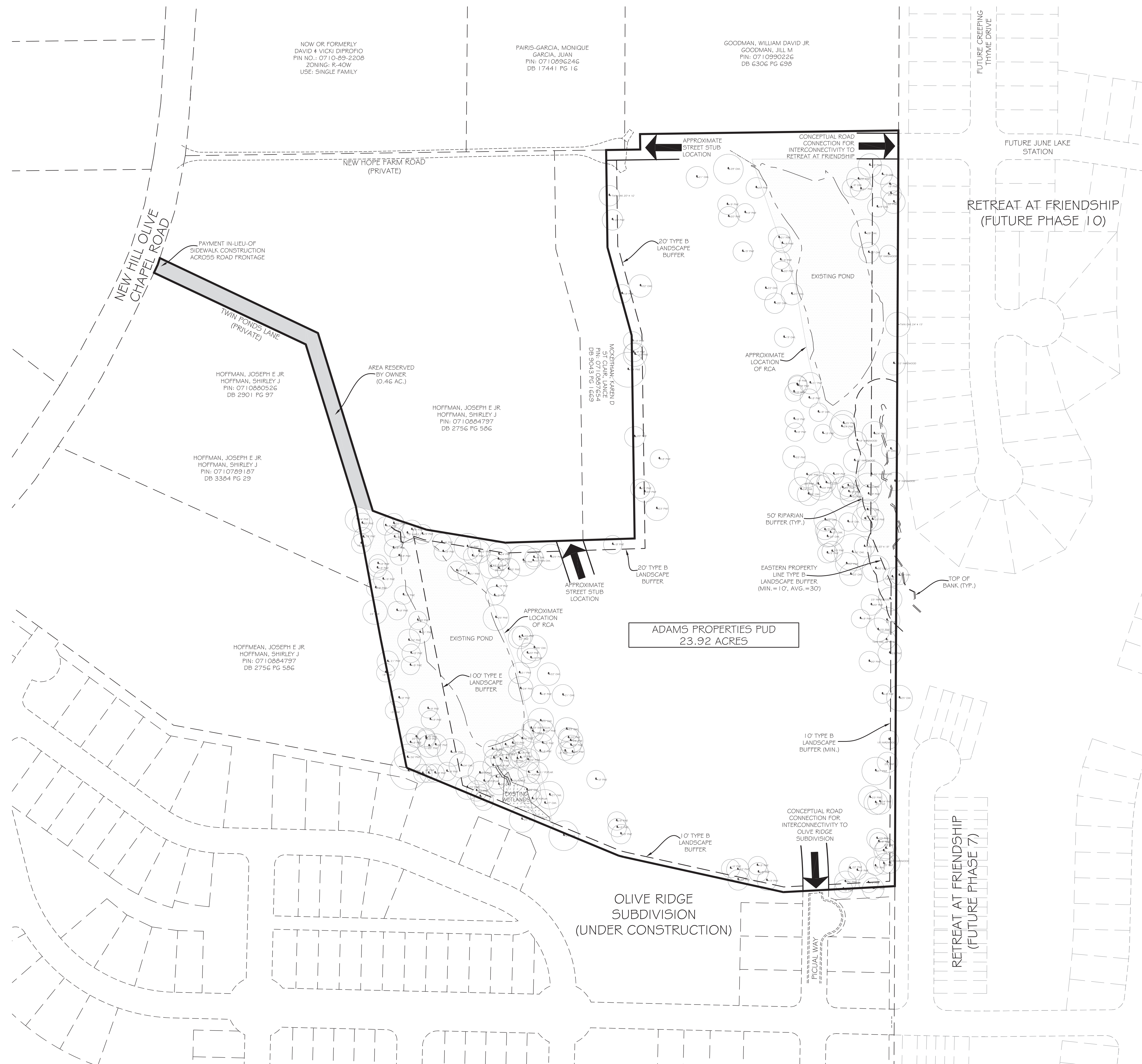
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3. ALL REQUIRED SITE ELEMENTS SHOWN WITHIN A PARTICULAR PHASE MUST BE INSTALLED BEFORE A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR ANY BUILDING WITHIN THAT PHASE.
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NOTES:

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4. THE TOWN OF APEX PROJECT ID FOR THIS BUFFER CALL IS 21-004.
5. CONSTRUCTION VEHICLE PARKING SHALL BE LIMITED TO ONE SIDE OF THE ROAD (OPPOSITE OF FIRE HYDRANTS). SIGNS INDICATING "NO CONSTRUCTION VEHICLES THIS SIDE OF STREET" IN ENGLISH AND SPANISH.
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8. PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE USE ONLY.

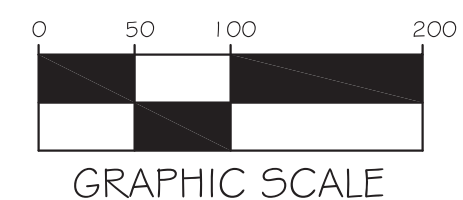
PLANNING NOTES:

1. A TRANSPORTATION IMPACT ANALYSIS HAS BEEN PROVIDED WITH THIS PUD SUBMITTAL.
2. FUTURE PUBLIC ROADWAY CONNECTIONS ARE SHOWN TO DEMONSTRATE CONNECTIVITY FOR THE OVERALL PROJECT BUT SPECIFIC LOCATIONS WILL BE SHOWN AT THE TIME OF MASTER PLAN APPROVAL.
3. THE MAINTENANCE OF RCA, LANDSCAPE BUFFERS, COMMON AREAS AND THE STORMWATER DEVICES SHALL BE THE RESPONSIBILITY OF THE HOMEOWNERS ASSOC.
4. ALL INTERNAL PUBLIC STREETS SHALL HAVE 50 FEET OF RIGHT-OF-WAY, 27 FEET OF CURB AND ASPHALT, WITH SIDEWALK ON BOTH SIDES OF THE STREET UNLESS SPECIFIED OTHERWISE.
5. ALL SIGNAGE SHALL COMPLY WITH TOA UDO SECTION 6.7, SIGNS
6. THE PUD SHALL MEET AND EXCEED THE TOWN OF APEX STORMWATER REQUIREMENTS OUTLINED IN TOA UDO SECTION 6.1.7 SUCH THAT POST-DEVELOPMENT RUNOFF SHALL NOT EXCEED THE PRE-DEVELOPMENT RUNOFF FOR THE 1-YEAR, 10-YEAR, AND 25-YEAR 24 HOUR STORM EVENTS.
7. THIS DEVELOPMENT IS EXPECTED TO BE MASS GRADED AND IS NOT EXPECTED TO BE PHASED.



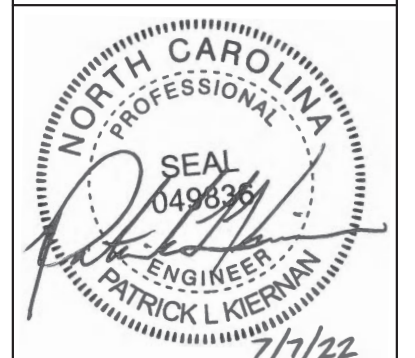
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ADAMS PROPERTY PUD PD PLANS		PRELIMINARY LAYOUT PLAN	
TOWN OF APEX		WAKE COUNTY, NORTH CAROLINA	
SCALE	1" = 100'	DRAWN	PLK
DATE	APRIL 1, 2022		
REVISION	5/1/22	PER	TRC
	6/6/22	PER	TRC
	7/7/22	PER	SET
SHEET	2		
PROJECT	2152		

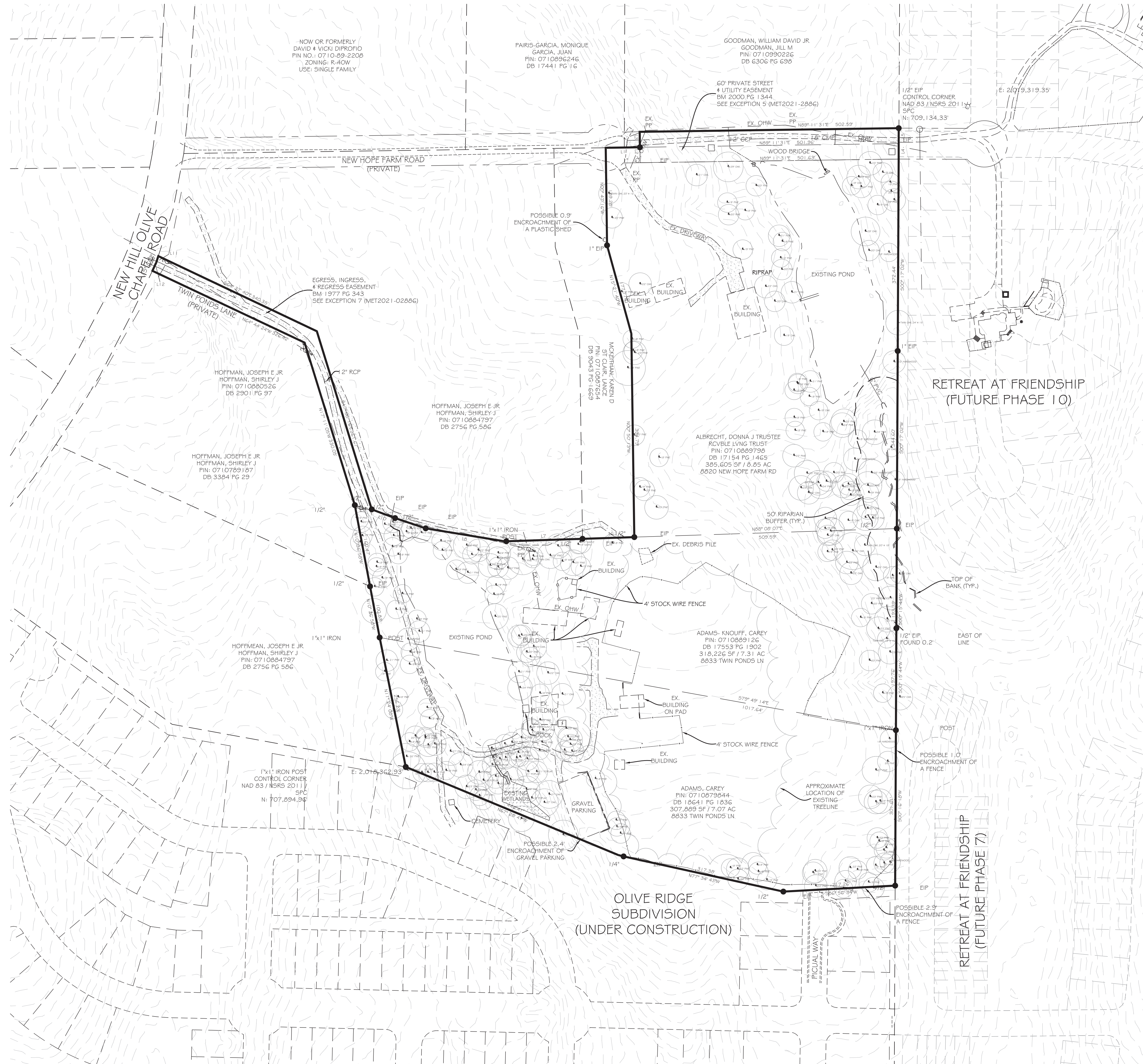
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LINE#	DIRECTION	LENGTH
L1	S00° 06' 38"W	29.93'
L2	S00° 06' 38"W	29.94'
L3	N24° 57' 29"E	17.79'
L4	N17° 37' 41"E	13.06'
L5	S69° 29' 27"E	48.31'
L6	S71° 31' 34"E	62.60'
L7	S80° 38' 27"E	155.34'
L8	N88° 08' 07"E	151.09'
L9	N88° 08' 07"E	100.54'
L10	N89° 10' 19"E	66.34'
L11	S00° 48' 29"E	29.86'
L12	N00° 48' 29"W	30.00'

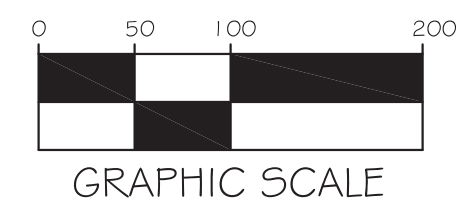
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ADAMS PROPERTY PUD PD PLANS
EXISTING CONDITIONS PLAN
TOWN OF APEX
WAKE COUNTY, NORTH CAROLINA

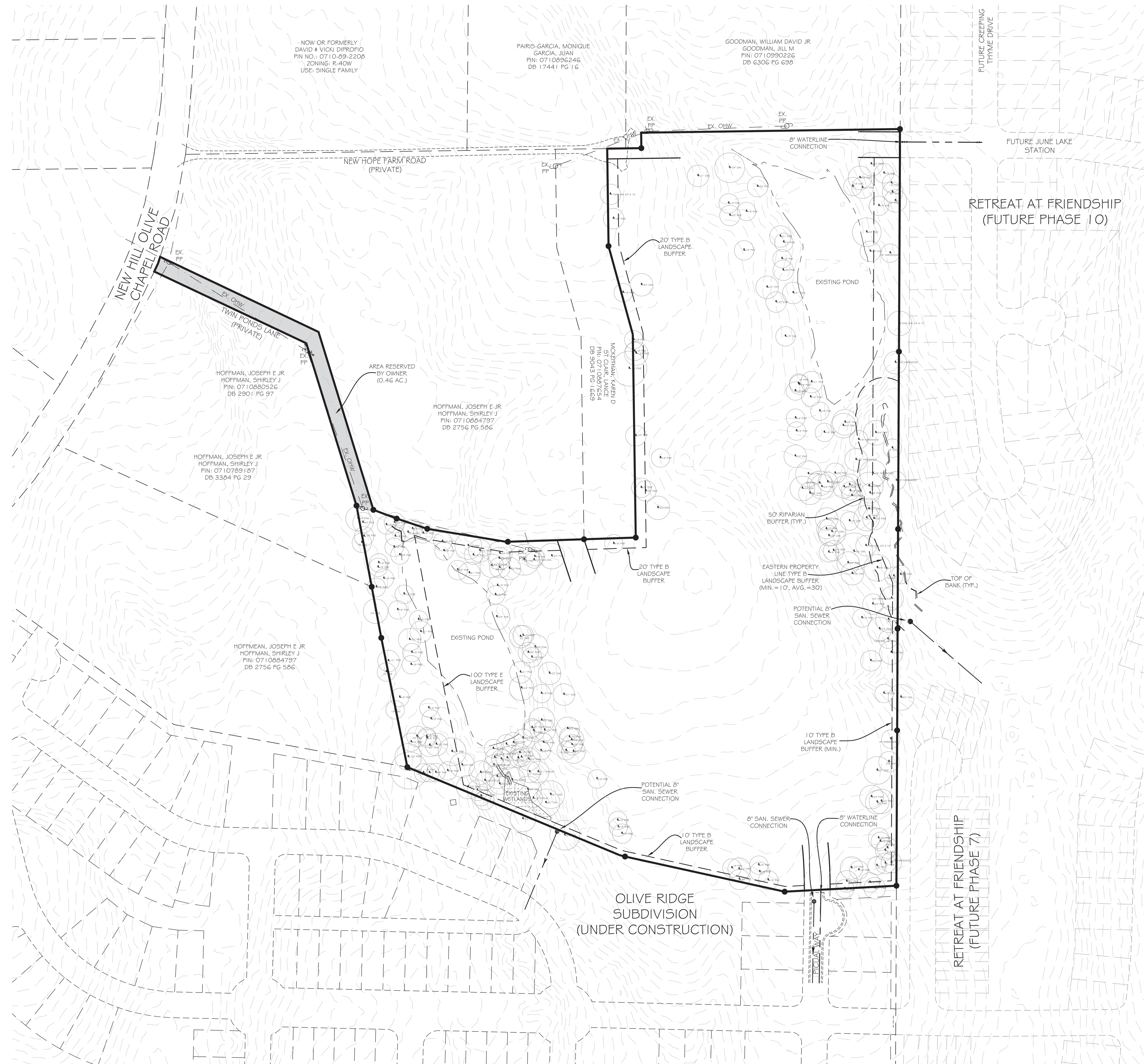
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PROJECT	2152		

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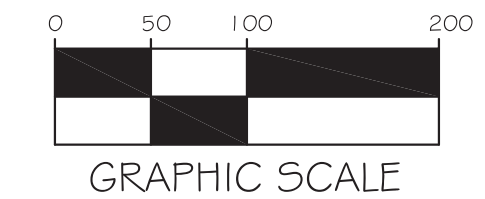
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8. THE FUTURE LOCATIONS FOR WATER AND SEWER MAINS ARE APPROXIMATE AND SHALL BE DESCRIBED IN MORE DETAIL AT THE TIME OF MASTER PLANS. THESE UTILITY LOCATIONS ARE ILLUSTRATIVE TO SHOW CONNECTIONS AND SIZING.
9. ANY REQUIRED UTILITY CONNECTIONS TO SURROUNDING PROPERTIES AND PUBLIC RW SHALL BE ALLOWED THROUGH ALL PERIMETER BUFFERS.
10. CONTACT FOR TOWN OF APEX ELECTRIC UTILITIES IS RODNEY SMITH AT 919-249-3342.
11. THIS DEVELOPMENT SHALL USE FULL TOWN OF APEX SERVICES INCLUDING WATER, SEWER AND ELECTRICITY.
12. ALL UTILITY INFRASTRUCTURE SHALL MEET CURRENT TOWN OF APEX WATER AND SEWER MASTER PLANS.
13. ACCESS TO PUBLIC SANITARY SEWER SHALL BE PROVIDED TO UPSTREAM PROPERTIES ALONG NATURAL DRAWS WITHIN THE PROJECT BOUNDARY.
14. PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE USE ONLY.



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Belmont Plan

in Grove at White Oak | Garner, North Carolina

Starting at \$249,900



Bed **3 - 5** Bath **3 - 4** Garage **2 - 3** Sq Ft **2,302 - 2,400**

[View Details](#)

Book a tour



Crabtree Plan

in Grove at White Oak | Garner, North Carolina

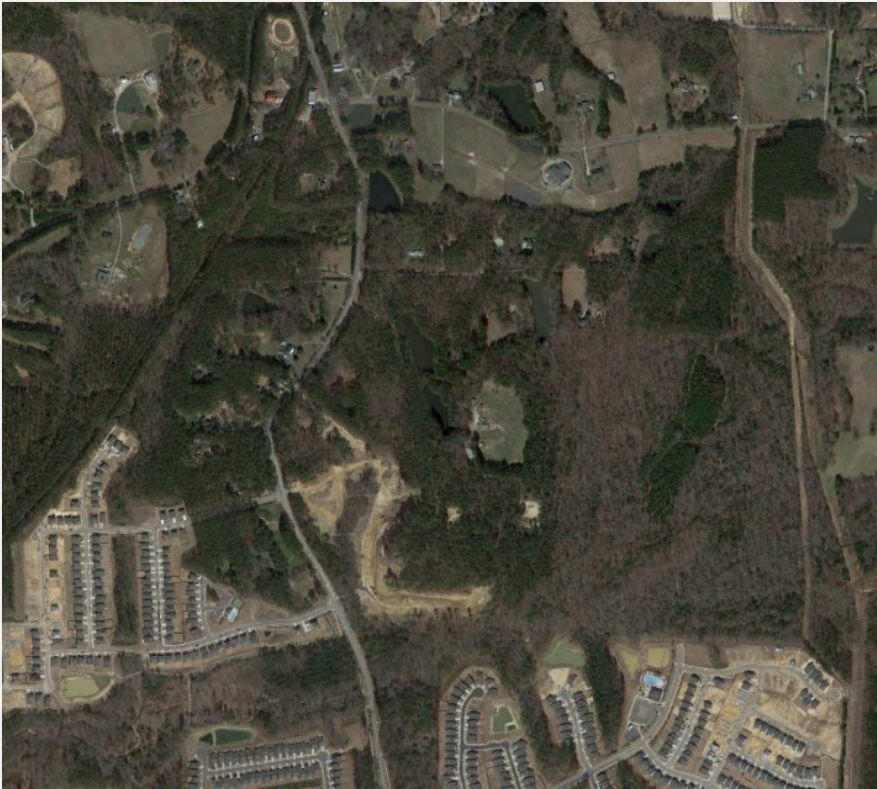
Starting at \$249,900



Bed **3 - 4** Bath **2 - 4** Garage **2 - 3** Sq Ft **2,561**

[View Details](#)





Twin Ponds Lane Development
Traffic Impact Analysis
Apex, North Carolina

TRAFFIC IMPACT ANALYSIS

FOR

TWIN PONDS LANE DEVELOPMENT

LOCATED

IN

APEX, NC

Prepared For:
M/I HOMES OF RALEIGH, LLC
1511 Sunday Drive, 100
Raleigh, NC

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



2/28/2022

FEBRUARY 2022

RKA Project No. 21765

Prepared By: MLS

Reviewed By: JTR

**TRAFFIC IMPACT ANALYSIS
TWIN PONDS LANE DEVELOPMENT
APEX, NORTH CAROLINA**

EXECUTIVE SUMMARY

1. Development Overview

A Traffic Impact Analysis (TIA) was conducted for the proposed Twin Ponds Lane Development in accordance with the Apex (Town) Unified Development Ordinance (UDO) and North Carolina Department of Transportation (NCDOT) capacity analysis guidelines. The proposed development is to be located in the southeast quadrant at the intersection of Humie Olive Road and New Hill Olive Chapel Road in Apex, North Carolina. The proposed development is expected to be a maximum of 87 single-family home development and estimated to be built out in 2025. Site access will be provided via interconnectivity with Heelan Property (one full movement driveway along Humie Olive Road, five full movement driveways along Horton Ridge Boulevard, one full movement driveway along Olive Farm Road to align with Friendship Station Northern Site Driveway, one full movement driveway along Future Cave Junction Street and interconnectivity with Olive Ridge Subdivision). The primary access points to be analyzed in this study are via Humie Olive Road and Heelan Driveway and via New Hill Olive Chapel Road and Olive Ridge Driveway (to be aligned with Hahn Ridge Drive, providing access to Jordan Manors.)

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

- 2021 Existing Traffic Conditions
- 2025 No-Build Traffic Conditions
- 2025 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:

- New Hill Olive Chapel Road and Humie Olive Road

- New Hill Olive Chapel Road and Hahn Ridge Drive.

Peak hour turning movement counts were conducted by Ramey Kemp & Associates, Inc. at the intersection of New Hill Olive Chapel Road and Humie Olive Road in December of 2021 during weekday AM (7:00 to 9:00) and weekday PM (4:00 to 6:00) peak hours, while schools were in session.

Turning movement counts at the intersections of New Hill Olive Chapel Road and Olive Ridge Driveway/ Hahn Ridge Drive and Humie Olive Road and Heelan Site Drive were determined based on the TIAs for Jordan Manors, Olive Ridge, and Heelan Property. Based on coordination with the Town only 75% of Jordan Manors was assumed to be built-out at the time of data collection; therefore, only 75% of the turning movement volumes (based on the Jordan Manors TIA) were included along Hahn Ridge Drive under 2021 existing conditions. Through volumes were determined by balancing the traffic counts at the adjacent intersection of Humie Olive Road and New Hill Olive Chapel Road.

Traffic volumes were balanced between study intersections, where appropriate.

3. Site Trip Generation

The proposed development is assumed to consist of a maximum of 87 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, 10th 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 TRIPS (VPD)	WEEKDAY AM PEAK HOUR (VPH)		WEEKDAY PM PEAK HOUR (VPH)	
			Enter	Exit	Enter	Exit
Single Family Detached Housing (210)	87 dwellings	920	17	50	56	33

4. Future Traffic Conditions

Through coordination with the Town and NCDOT, it was determined that an annual growth rate of 3% would be used to generate 2025 projected weekday AM and PM peak hour traffic volumes.

The following adjacent developments were identified to be considered under future conditions:

- Jordan Manors
- Woodbury / Bristol Assemblage
- Gracewood PUD
- Friendship Station PUD
- New Hill Assembly / Belterra / Jordan Vistas
- Olive Ridge
- Heelan Property

5. Capacity Analysis Summary

The analysis considered weekday AM and PM peak hour traffic for 2021 existing, 2025 no-build, and 2025 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.

Committed Improvements by Friendship Station PUD

New Hill Olive Chapel Road and Humie Olive Road

- Extend the westbound left-turn lane to 250 feet of storage.
- Provide an exclusive southbound left-turn lane with 150 feet of storage.

Committed Improvements by Heelan Property

New Hill Olive Chapel Road and Humie Olive Road

- Extend the westbound left-turn lane to 200 feet of storage.
- Provide an exclusive southbound left-turn lane with 150 feet of storage.

Humie Olive Road and Heelan Driveway

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

Committed Improvements by Olive RidgeNew Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway

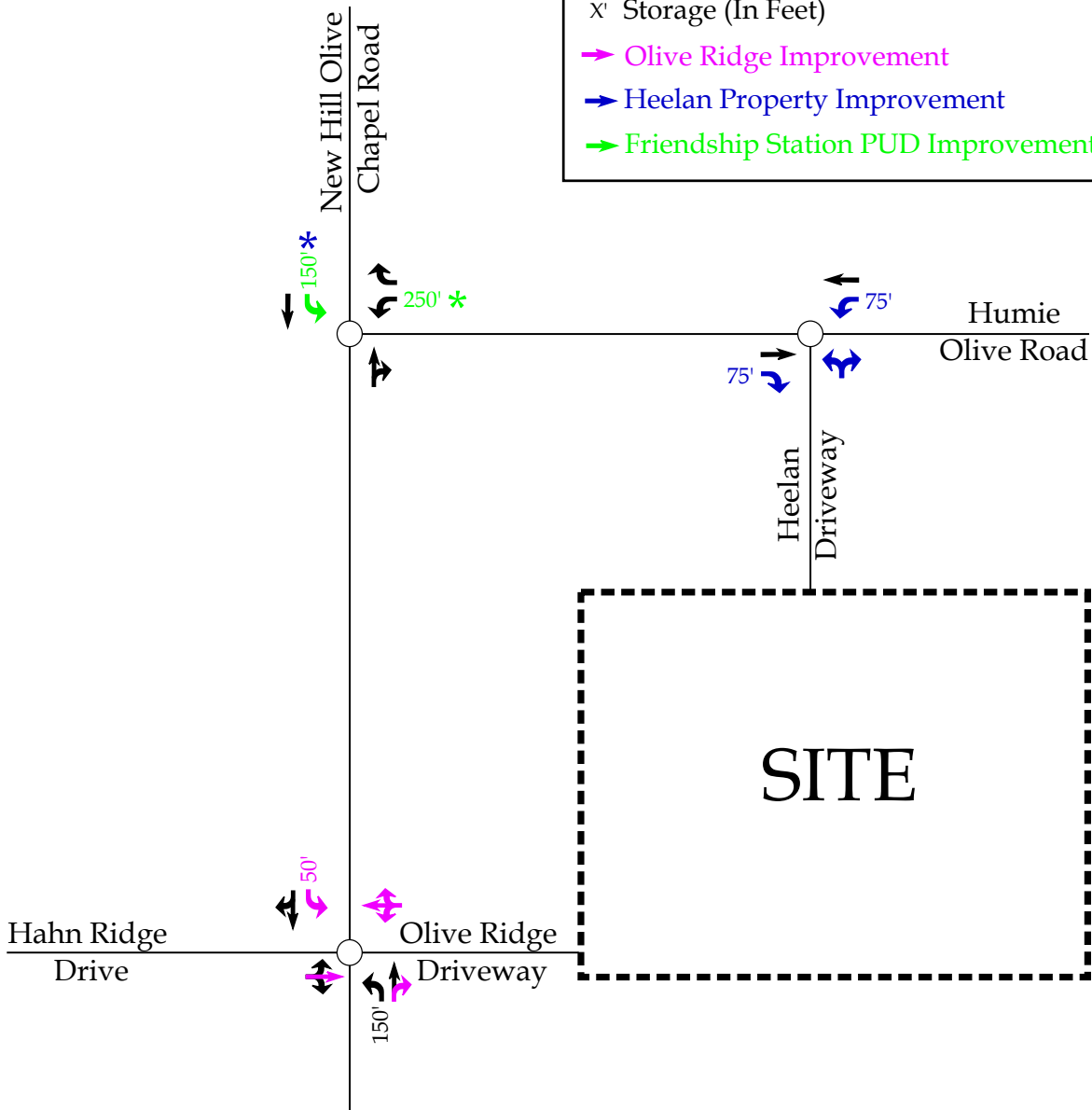
- Construct a westbound approach with one ingress and one egress lane as a shared left/through/right turn lane.
- Provide stop control for the westbound approach.
- Provide an exclusive southbound left-turn lane with 50 feet of storage.

Recommended Improvements by the Twin Ponds Lane Development

Due to committed improvements by other developments and low impacts to the study intersections, no additional improvements are recommended by the developer.

LEGEND

- Unsignalized Intersection
- ➔ Existing Lane
- x' Storage (In Feet)
- ➔ Olive Ridge Improvement
- ➔ Heelan Property Improvement
- ➔ Friendship Station PUD Improvement



* Improvement also committed by Heelan Property
 * Storage extended by Friendship Station PUD


	Twin Ponds Lane Development Apex, NC	Recommended Lane Configurations	
		Scale: Not to Scale	Figure E-1

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- Appendix C: Adjacent Development Information
- Appendix D: Capacity Calculations - New Hill Olive Chapel Road and Humie Olive Road
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TRAFFIC IMPACT ANALYSIS
TWIN PONDS LANE DEVELOPMENT
APEX, NORTH CAROLINA

1. INTRODUCTION

The contents of this report present the findings of the Traffic Impact Analysis (TIA) conducted for the proposed Twin Ponds Lane development to be located in the southeast quadrant at the intersection of Humie Olive Road and New Hill Olive Chapel Road in Apex, 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 2025, is assumed to consist of a maximum of 87 single-family homes. The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2021 Existing Traffic Conditions
- 2025 No-Build Traffic Conditions
- 2025 Build Traffic Conditions

1.1. Site Location and Study Area

The development is proposed to be located in the southeast quadrant at the intersection of Humie Olive Road and New Hill Olive Chapel Road in Apex, 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 Apex (Town) and consists of the following existing intersections:

- New Hill Olive Chapel Road and Humie Olive Road
- New Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway
- Humie Olive Road and Heelan Driveway*

*No-build and build conditions only

Refer to Appendix A for the approved scoping documentation.

1.2. Proposed Land Use and Site Access

The site is located in the southeast quadrant at the intersection of Humie Olive Road and New Hill Olive Chapel Road. The proposed development, anticipated to be completed in 2025, is assumed to consist of a maximum of 87 single-family homes.

Site access will be provided via interconnectivity with Heelan Property (one full movement driveway along Humie Olive Road, five full movement driveways along Horton Ridge Boulevard, one full movement driveway along Olive Farm Road to align with Friendship Station Northern Site Driveway, one full movement driveway along Future Cave Junction Street, and interconnectivity with Olive Ridge Subdivision). The primary access points to be analyzed in this study are via the intersection of Humie Olive Road and Heelan Driveway and via the intersection of New Hill Olive Chapel Road and Olive Ridge Driveway (to be aligned with Hahn Ridge Drive, providing access to Jordan Manors.) 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 residential development. Additionally, Apex Friendship Middle School and Apex Friendship High School are located east of the proposed development.

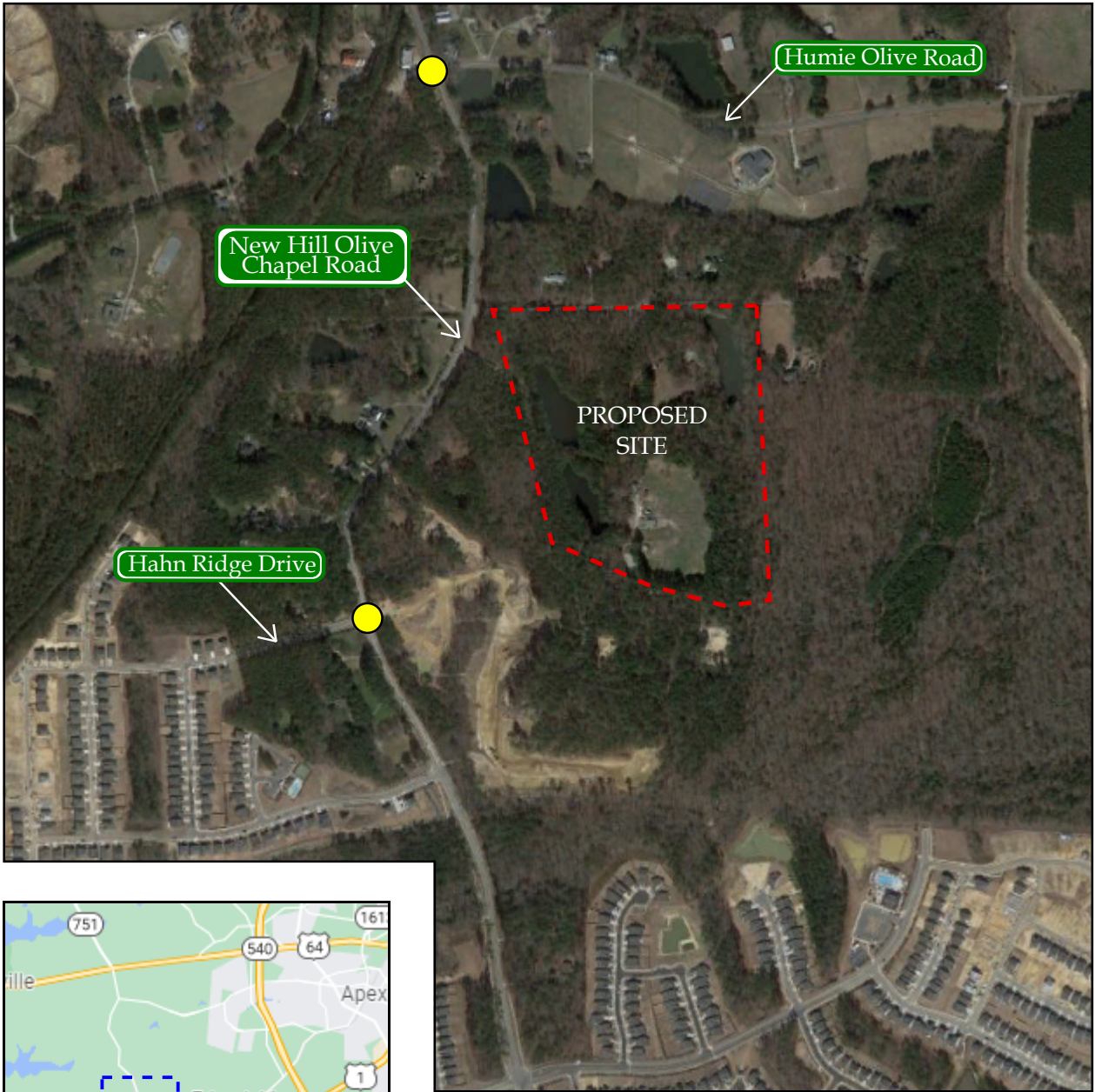
1.4. Existing Roadways

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, on the following page, provides a summary of this information, as well.

Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross Section	Speed Limit	Maintained By	2020 AADT (vpd)
New Hill Olive Chapel Road	SR 1141	2-lane undivided	45 mph	NCDOT	4,900
Humie Olive Road	SR 1142	2-lane undivided	45 mph	NCDOT	1,450*
Hahn Ridge Drive	N/A	2-lane undivided	25 mph	Private	540*

*ADT based on the traffic counts from 2021 and assuming the weekday PM peak hour volume is 10% of the average daily traffic.



LEGEND

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



Twin Ponds Lane
Development
Apex, NC

Site Location Map	
Scale: Not to Scale	Figure 1

NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF APEX STANDARDS AND SPECIFICATIONS.
2. BOUNDARY & EXISTING CONDITIONS INFORMATION TAKEN FROM A SURVEY COMPLETED BY ROBINSON & PLANTE SURVEYORS.
3. TOPOGRAPHIC INFORMATION TAKEN FROM TOWN OF APEX LIDAR INFORMATION.
4. PER FEMA MAP #37200720001 & #3720071000 DATED 02 MAY 2006, A 100-YEAR FLOODPLAIN IS PRESENT.
5. THE SITE WAS REVIEWED FOR ENVIRONMENTAL FEATURES BY SPANGLER ENVIRONMENTAL, INC. THE TOWN OF APEX PROJECT NUMBERS ARE 19-003.
6. FUTURE COMPLETION OF THE STREET STUDS AND UTILITIES FOR ALL STREETS GREATER THAN 10 FEET AWAY FROM THE PUD BOUNDARY LINE SHALL BE PAID FOR BY FEE-IN-LIEU.
7. THE DEVELOPER IS REQUESTING TOWN WATER SERVICE AND SEWER SERVICE.
8. ALL SANITARY SEWER CLEAN-OUTS IN VEHICLE TRAFFIC AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TOWN OF APEX STANDARD DETAIL 7.15.
9. ALL VALVE BOXES AND COVERS, STORM DRAINAGE GRATES AND MANHOLE COVERS SHALL MEET ASTM A44, GRADE 35B IRON REQUIREMENTS.
10. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC SERVICES.
11. ALL WATER SERVICES TO RESIDENTIAL LOTS SHALL BE 3/4" SERVICES.
12. CONTACT FOR TOWN OF APEX ELECTRIC UTILITIES IS RODNEY SMITH @ 919-249-3342.
13. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
14. A PLUMBING PERMIT ISSUED BY THE BUILDING INSPECTIONS DIVISION IS REQUIRED FOR ALL PLUMBING SYSTEMS, INCLUDING STORM DRAINAGE SYSTEMS, INSTALLED OUTSIDE THE PUBLIC RIGHT-OF-WAY OR A PUBLIC UTILITY EASEMENT. THESE SYSTEMS SHALL BE INSPECTED AND APPROVED BY THE PLUMBING INSPECTOR PRIOR TO COVERING. CONTACT RUDY BAKER AT 249-3361 FOR INFORMATION INCLUDING THE UTILIZATION OF A THIRD-PARTY INSPECTION AGENCY FOR STORM DRAIN SYSTEMS.
15. ALL WATER AND SEWER SERVICES SHALL BE LOCATED WITHIN A 5' UTILITY EASEMENT LOCATED ALONG THE FRONT OF ALL LOTS.
16. ALL WATERLINE MAINS SHALL HAVE A TEE OR CROSS AT JUNCTIONS. ALL MAIN LINE GATE VALVES SHALL BE THE SAME SIZE AS THE WATER MAIN THEY ARE LOCATED ON.
17. CONSTRUCTION VEHICLE PARKING LIMITED TO ONE SIDE OF THE ROAD (OPPOSITE OF HYDRANTS). SIGNS INDICATING "NO CONSTRUCTION VEHICLES THIS SIDE OF STREET" IN ENGLISH & SPANISH SHALL BE INSTALLED.
18. ONCE THE FIRST LIFT OF ASPHALT IS PASSABLE BY VEHICLES, TEMPORARY STREET SIGNS ARE REQUIRED. THE DEVELOPER WILL BE REQUIRED TO INSTALL WEATHER RESISTANT TEMPORARY ROAD NAME SIGNS AT INTERSECTIONS PRIOR TO PLAY APPROVAL. THESE SIGNS SHALL BE MAINTAINED BY THE DEVELOPER UNTIL REPLACED BY THE PERMANENT SIGNS.
19. DURING INSTALLATION OF SILT FENCE, MAINTAIN 3' CLEARANCE AROUND FIRE HYDRANTS.

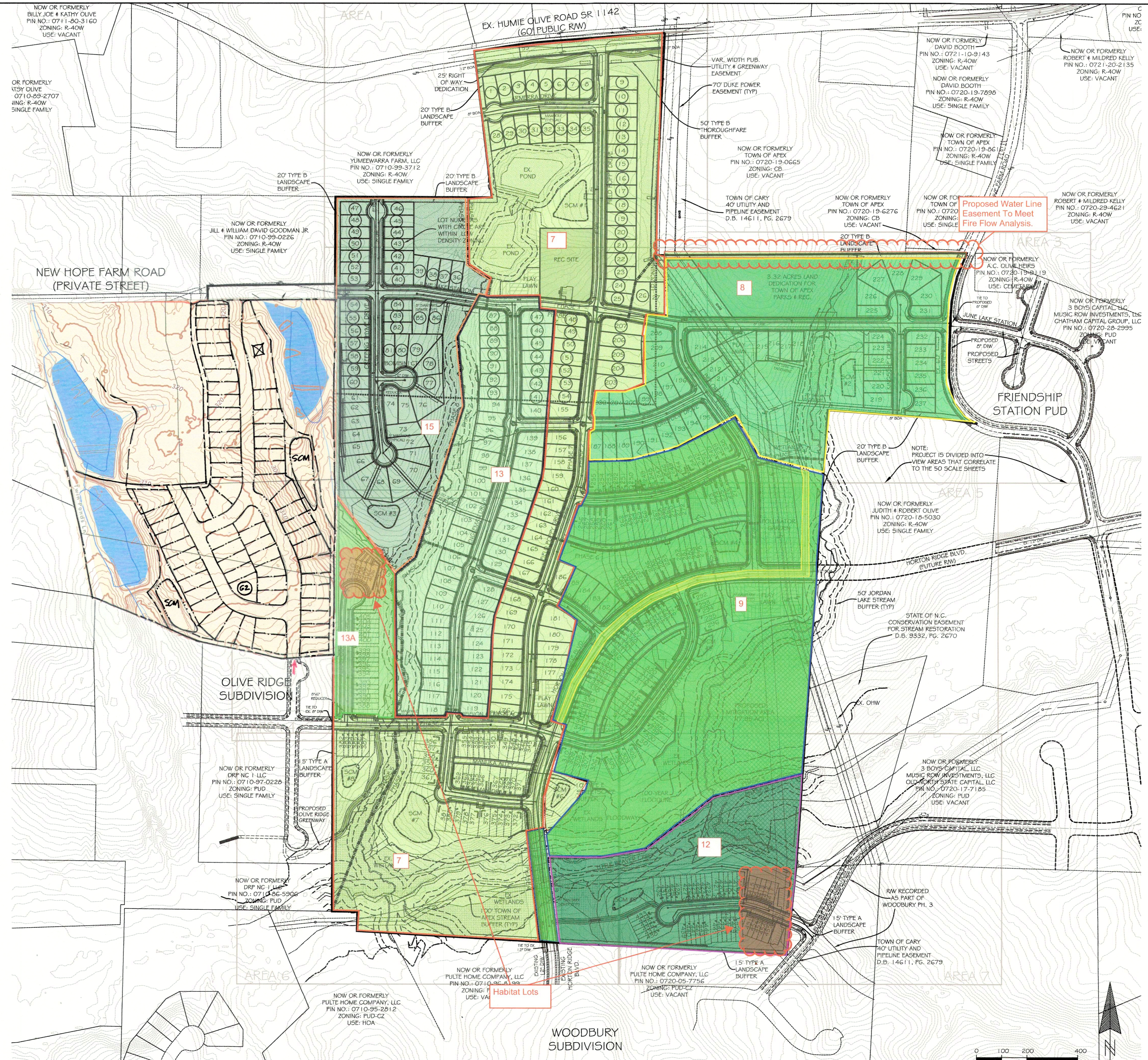
HATCH LEGEND:

RCA	
PROPOSED MITIGATION AREA	
PLAY LAWN	
WETLANDS	

TOWN OF APEX REQUIRED PLAN NOTES:

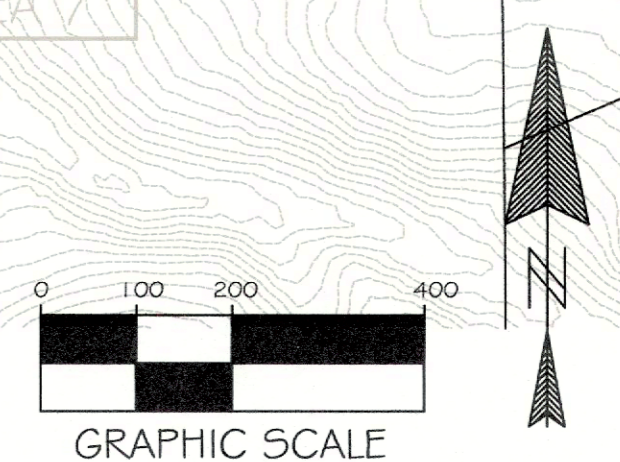
1. ALL WATER AND SEWER LINES SHALL BE INSTALLED WITH A MINIMUM OF THREE-FOOT OF COVER.
2. MAINTAIN 18 INCHES OF MINIMUM VERTICAL SEPARATION BETWEEN UTILITIES.
3. VERIFY ALL ILLUSTRATED UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF CONFLICTS ARE ENCOUNTERED.
4. CONTRACTOR SHALL COORDINATE UTILITY RELOCATION OR ABANDONMENT WITH LOCAL UTILITY COMPANIES AS REQUIRED.
5. ALL METTERED CONNECTIONS TO TOWN POTABLE WATER SHALL HAVE A TOWN-APPROVED BACKFLOW PREVENTION ASSEMBLY INSTALLED.
6. WATER AND SEWER SHALL BE SEPARATED AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, WHERE LOCAL CONDITIONS PREVENT A SEPARATION OF 10 FEET, THE WATER MAIN MAY BE LAID CLOSER, PROVIDED THAT THE ELEVATION OF THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER WITH A HORIZONTAL SEPARATION OF AT LEAST THREE-FOOT.
7. ALL NEW PUBLIC WATER AND SEWER LINES CONTAINED WITHIN A TOWN OF APEX PUBLIC UTILITY EASEMENT WILL REQUIRE A WATER DISTRIBUTION EXTENSION PERMIT AND/OR A GRAVITY SEWER EXTENSION PERMIT PRIOR TO THE RELEASE OF CONSTRUCTION DRAWINGS. ALL WATER DISTRIBUTION EXTENSION PERMIT APPLICATIONS SHALL BE ACCOMPANIED BY A SEALED ENGINEER'S REPORT FOR THE TOWN OF APEX STANDARD SPECIFICATIONS AND STANDARD DETAILS. CONTACT THE ENGINEERING DIVISION AT 919-249-3394 TO OBTAIN THESE PERMIT APPLICATIONS.
8. A PLUMBING PERMIT ISSUED BY THE BUILDING INSPECTIONS DIVISION IS REQUIRED FOR ALL PLUMBING SYSTEMS, INCLUDING STORM DRAINAGE SYSTEMS, INSTALLED OUTSIDE THE PUBLIC RIGHT-OF-WAY OR A PUBLIC UTILITY EASEMENT. THESE SYSTEMS SHALL BE INSPECTED AND APPROVED BY THE PLUMBING INSPECTOR PRIOR TO COVERING. CONTACT THE BUILDING INSPECTIONS DIRECTOR AT 919-249-3381 FOR INFORMATION INCLUDING THE UTILIZATION OF A THIRD-PARTY INSPECTION AGENCY. IT IS THE RESPONSIBILITY OF THE OWNER OR HIS REPRESENTATIVE(S) TO LOCATE AND IDENTIFY ALL EXISTING AND PROPOSED UTILITIES AND TO CLEARLY IDENTIFY THEM ON THE APPROVED PLANS.
9. NO PRIVATE UTILITY EASEMENTS SHALL BE ALLOWED TO BE COUNTED IN THE CALCULATIONS FOR BUFFERS, RCA, OR REQUIRED LANDSCAPE AREAS.

7	SFA (RL): 21 Lots SFA (FL): 22 Lots SFD: 29 Lots, 46 Lots DEV. 17-18 Months	13A	SFA: 18 Lots Habitat: 5 Lots Dev. 4-5 Months
8	SFD: 41 Lots, 1 Lot Dev. 7-8 Months	12	SFA: 35 Lots Habitat: 10 Lots Dev. 6-7 Months
9	SFA (RL): 70 Lots SFA (FL): 37 Lots SFD: 4 Lots Dev. 8-9 Months		
13	SFD: 47 Lots SFD: 14 Lots Dev. 8-9 Months		
15	SFD: 16 Lots SFD: 35 Lots Dev. 7-8 Months		



0710-88-9798
9126
87-9844
23.29 AC.
70 LOTS

**PRELIMINARY PLANS
NOT FOR CONSTRUCTION**



Jones & Crossen
ENGINEERING, PLLC

Civil Engineering | Construction Management | Land Planning

221 N. SALEM ST.
SUITE 001
PO BOX 1062
APEX, NC 27502
Office: 919-387-1174
Registration: P-0151
www.jonescrossen.com

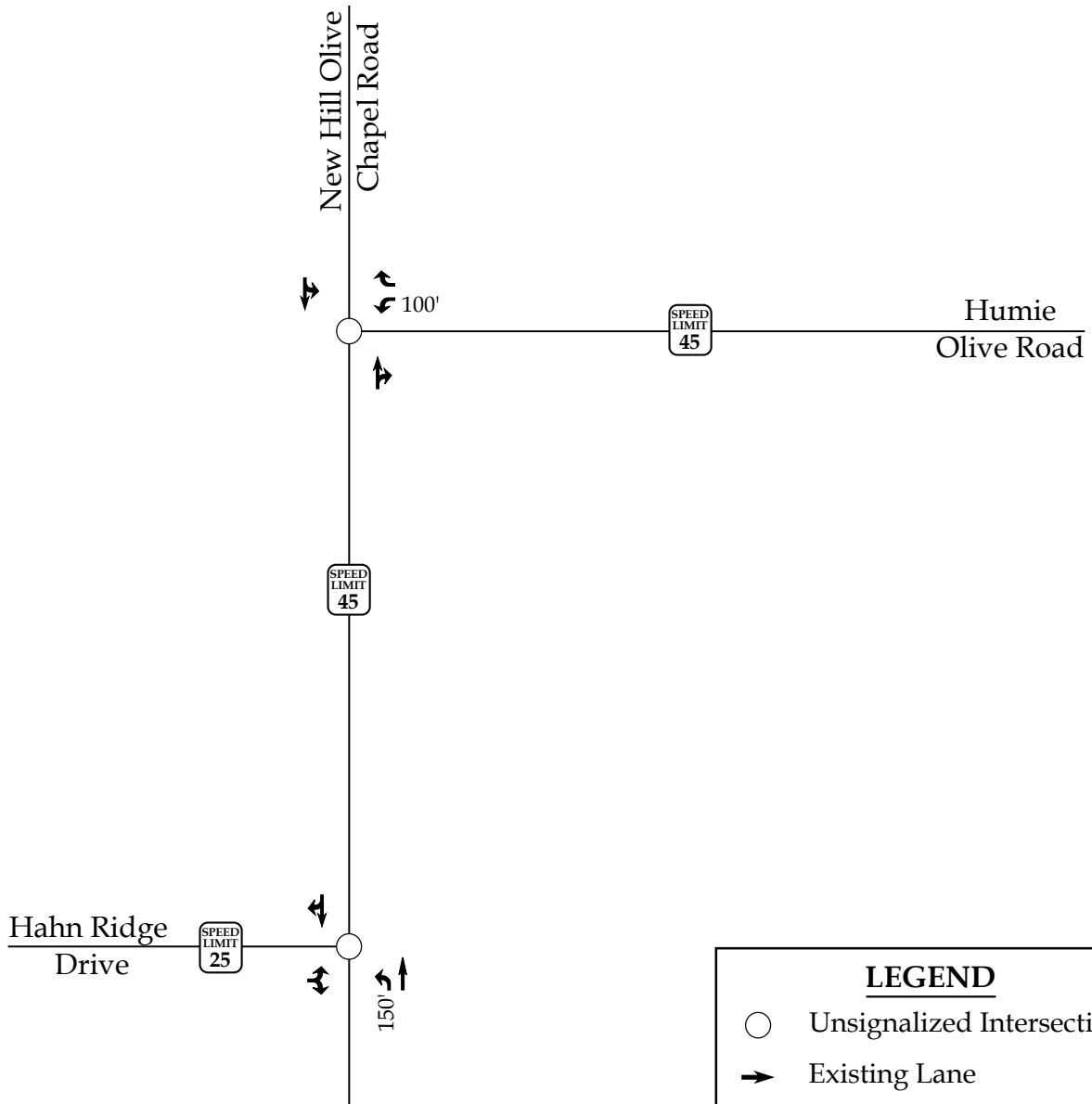
FOR REVIEW ONLY

**RETREAT AT FRIENDSHIP
MASTER SUBDIVISION PLAN**
WAKE COUNTY, NORTH CAROLINA

PRELIMINARY UTILITY PLAN OVERALL

TOWN OF APEX

SCALE	DRAWN
1"=200'	WCN
DATE	
DECEMBER 1, 2020	
REVISION	PER TRC
2/1/21	PER TRC
5/3/21	NEW LAYOUT / TRC
6/1/21	PER TRC
7/16/21	MSP APPROVAL SET
SHEET	27
PROJECT	1910



LEGEND

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



Twin Ponds Lane
Development
Apex, NC

2021 Existing
Lane Configurations

Scale: Not to Scale | Figure 3

2. 2021 EXISTING PEAK HOUR CONDITIONS

2.1. 2021 Existing Peak Hour Traffic Volumes

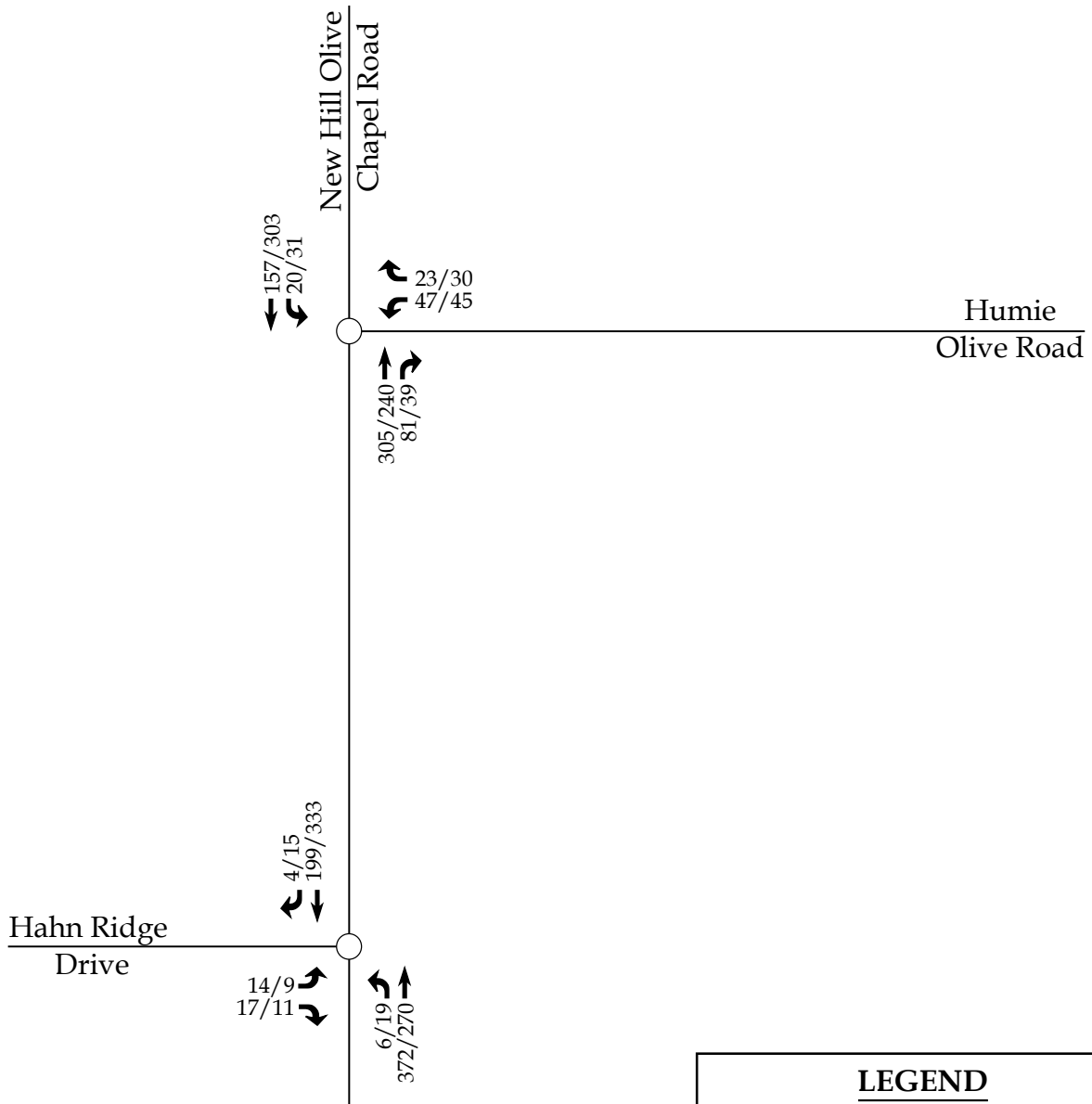
Peak hour turning movement counts were conducted by Ramey Kemp & Associates, Inc. at the intersection of New Hill Olive Chapel Road and Humie Olive Road in December of 2021 during weekday AM (7:00 to 9:00) and weekday PM (4:00 to 6:00) peak hours, while schools were in session. Previously collected traffic data (November of 2018) was grown to 2021 and compared with the new counts. It was determined that the new traffic counts at this intersection were reasonable when compared to the grown older counts; therefore, no adjustments were made to the new count data. This methodology was approved as part of the Memorandum of Understanding (MOU).

Turning movement counts at the intersections of New Hill Olive Chapel Road and Olive Ridge Driveway/ Hahn Ridge Drive and Humie Olive Road and Heelan Site Drive were determined based on the TIAs for Jordan Manors, Olive Ridge, and Heelan Property. Based on coordination with the Town only 75% of Jordan Manors was assumed to be built-out at the time of data collection; therefore, only 75% of the turning movement volumes (based on the Jordan Manors TIA) were included along Hahn Ridge Drive under 2021 existing conditions. Through volumes were determined by balancing the traffic counts at the adjacent intersection of Humie Olive Road and New Hill Olive Chapel Road.

Weekday AM and PM traffic volumes were balanced between study intersections. Refer to Figure 4 for 2021 existing weekday AM and PM peak hour traffic volumes. Refer to Appendix A for a copy of the approved MOU. A copy of the count data is located in Appendix B of this report.

2.2. Analysis of 2021 Existing Peak Hour Traffic Conditions

The 2021 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
- X / Y → Weekday AM / PM Peak Hour Traffic



Twin Ponds Lane
Development
Apex, NC

2021 Existing
Peak Hour Traffic

Scale: Not to Scale	Figure 4
---------------------	----------

3. 2025 NO-BUILD PEAK HOUR CONDITIONS

In order to account for 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 or not 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 the Town and NCDOT, it was determined that an annual growth rate of 3% would be used to generate 2025 projected weekday AM and PM peak hour traffic volumes. Refer to Figure 5 for 2025 projected peak hour traffic.

3.2. Adjacent Development Traffic

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

- Jordan Manors
- Woodbury / Bristol Assemblage
- Friendship Station PUD
- New Hill Assembly / Belterra / Jordan Vistas
- Olive Ridge
- Gracewood PUD
- Heelan Property

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

Table 2: Adjacent Development Information

Development Name	Percent Built-Out	Location	Build-Out Year	Land Use / Intensity	TIA Performed
Jordan Manors	75%*	West of New Hill Olive Chapel Road, adjacent to Olive Ridge	<i>Expected prior to the build-out of the proposed Twin Ponds Lane development</i>	240 single-family homes	May 2015 by KHA
Woodbury / Bristol Assemblage	75%*	Along Horton Ridge Boulevard, east of New Hill Holleman Road	<i>Expected prior to the build-out of the proposed Twin Ponds Lane development</i>	311 single-family homes and 89 townhomes	May 2016 by VHB
Friendship Station PUD	N/A	Along Humie Olive Road at Olive Farm Road	2025	316 single-family homes, 185 apartment, 337 townhomes, 144,000 sq. ft. of retail space, and 68,000 sq. ft. office	March 2017 by RKA
New Hill Assembly / Belterra / Jordan Vistas	N/A	West of New Hill Olive Chapel Road and north of Old US 1	2022	152 single-family detached homes	April 2018 by RKA
Olive Ridge	N/A	East of New Hill Olive Chapel Road, across from Jordan Manors Drive	2022	169 single-family homes	December 2018 by RKA
Gracewood PUD	75%*	Northwest of the intersection of Old US 1 at Horton Road	2024	409 single-family homes	May 2017 by Kimley Horn
Heelan Property	N/A	Southeast quadrant at the intersection of Humie Olive Road and New Hill Olive Chapel Road	2026*	250 single-family detached homes and 268 townhomes	September 2019 by RKA

*The remaining 25% of trips were included as adjacent development trips to be added to the projected conditions.

**Assumed to be 75% built / occupied prior to the built-out of the proposed Twin Ponds Lane development.

The Jordan Manors, Woodbury, and Gracewood PUD are expected to be 75% built/occupied prior to the build-out of the Twin Ponds Lane development; therefore, the remaining 25% of trips were included as adjacent development trips to be added to projected conditions. Roadway improvements committed by Friendship Station PUD at the intersection of New Hill Olive Chapel Road and Humie Olive Road include the extension of the westbound left turn lane to 250 feet of storage and to provide an exclusive southbound left-turn lane with 150 feet of storage. It should be noted that the Heelan Property also committed to provide an extended westbound left-turn lane (200 feet of storage) and an exclusive southbound left-turn lane at the intersection of New Hill Olive Chapel Road and Humie Olive Road. The Heelan Property development also committed to provide the intersection of Humie Olive Road and Heelan Driveway with an exclusive eastbound right-turn lane and an exclusive westbound left-turn lane both with 75 feet of storage. Additionally, the Olive Ridge Development committed to provide a 50-foot southbound left-turn lane at the intersection of New Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway. All of these roadway improvements committed by the adjacent developments listed above were included in 2025 no-build conditions.

The Jordan Manors, Woodbury, Friendship Station PUD, and Heelan Property developments are committed to the construction of Horton Ridge Boulevard. The roadway is expected to be a major collector street that is expected to add interconnectivity to neighborhoods within the vicinity of the site and ultimately connect to Richardson Road. Based on the anticipated connection, traffic relief is expected at the intersection of Humie Olive Road and New Hill Olive Chapel Road. Horton Ridge Boulevard was not included under future conditions since Heelan Property is not expected to be fully built and to provide conservative results within the external study area.

It should be noted that the adjacent developments were approved, during scoping, by the Town and NCDOT. Adjacent development trips are shown in Figure 6. Adjacent

development information can be found in Appendix C. Refer to Appendix A for a copy of the approved MOU.

3.3. Future Roadway Improvements

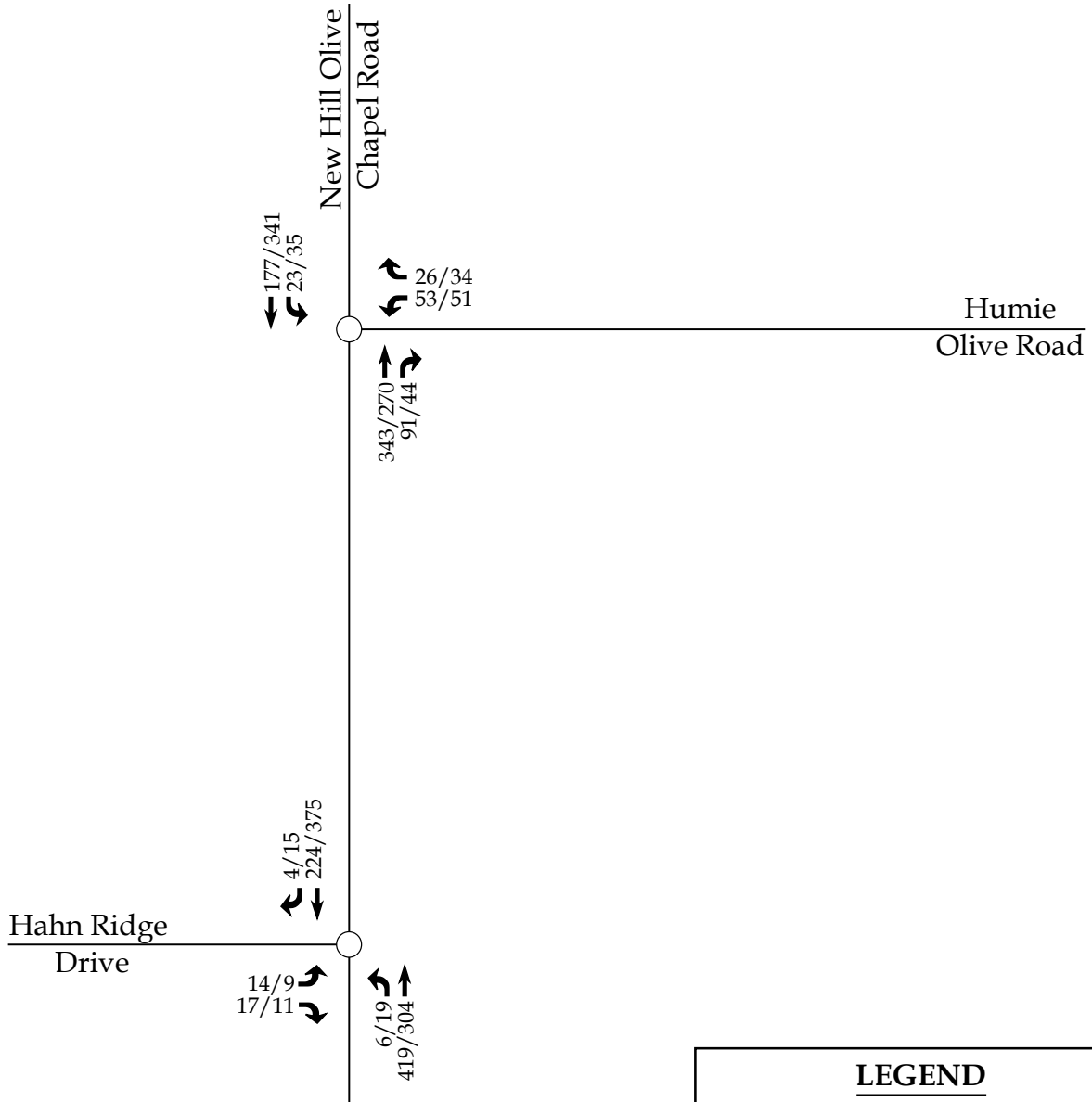
Based on coordination with the NCDOT and the Town, it was determined there were no future roadway improvements to consider with this study apart from the committed improvements by the adjacent developments mentioned above.

3.4. 2025 No-Build Peak Hour Traffic Volumes

The 2025 no-build traffic volumes were determined by projecting the 2021 existing peak hour traffic to the year 2025 and adding the adjacent development trips. Refer to Figure 7 for an illustration of the 2025 no-build peak hour traffic volumes at the study intersections.

3.5. Analysis of 2025 No-Build Peak Hour Traffic Conditions

The 2025 no-build AM and PM peak hour traffic volumes at the study intersections were analyzed with future geometric roadway conditions and traffic control. The analysis results are presented in Section 7 of this report.



LEGEND

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

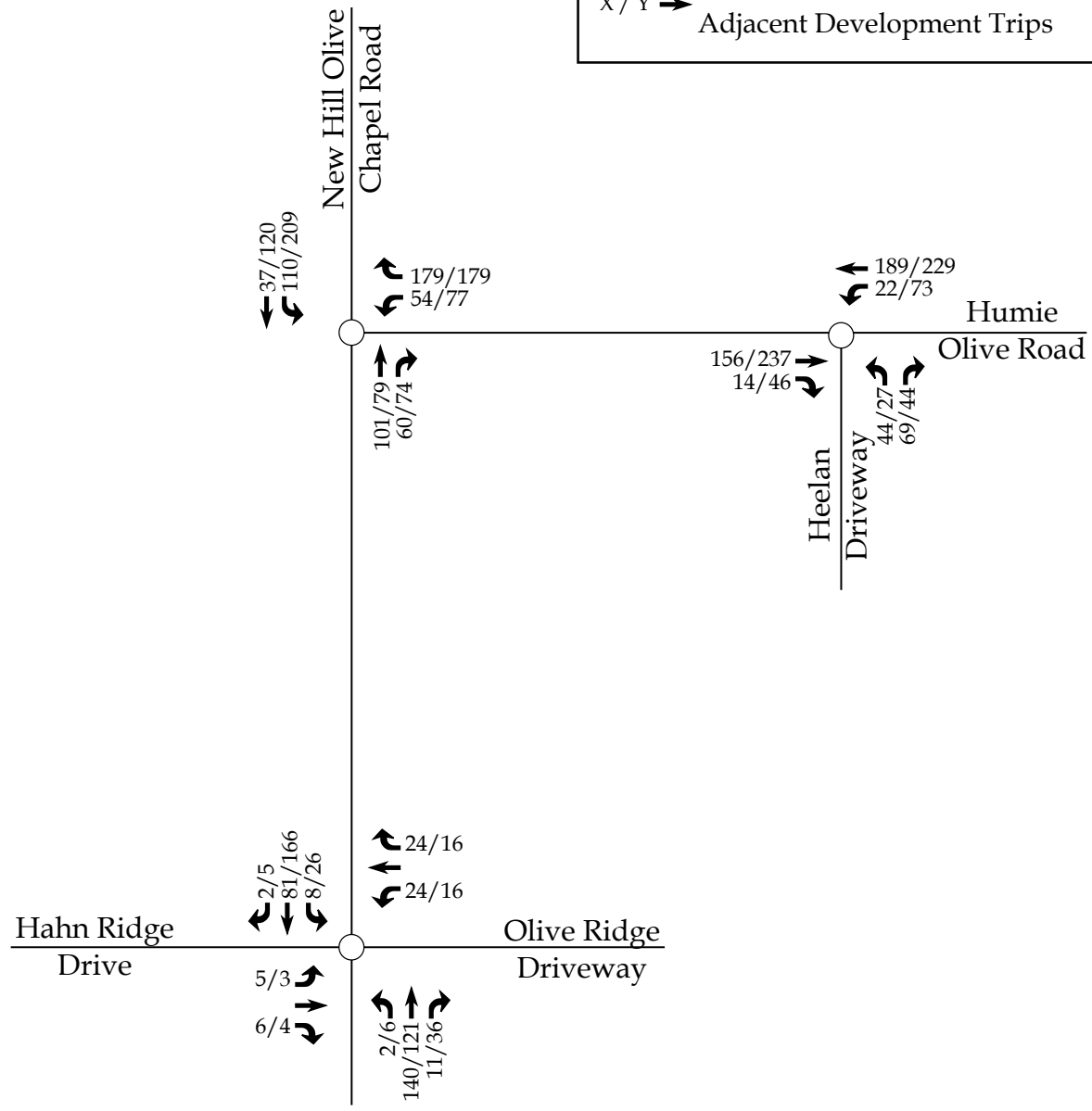



Twin Ponds Lane
Development
Apex, NC

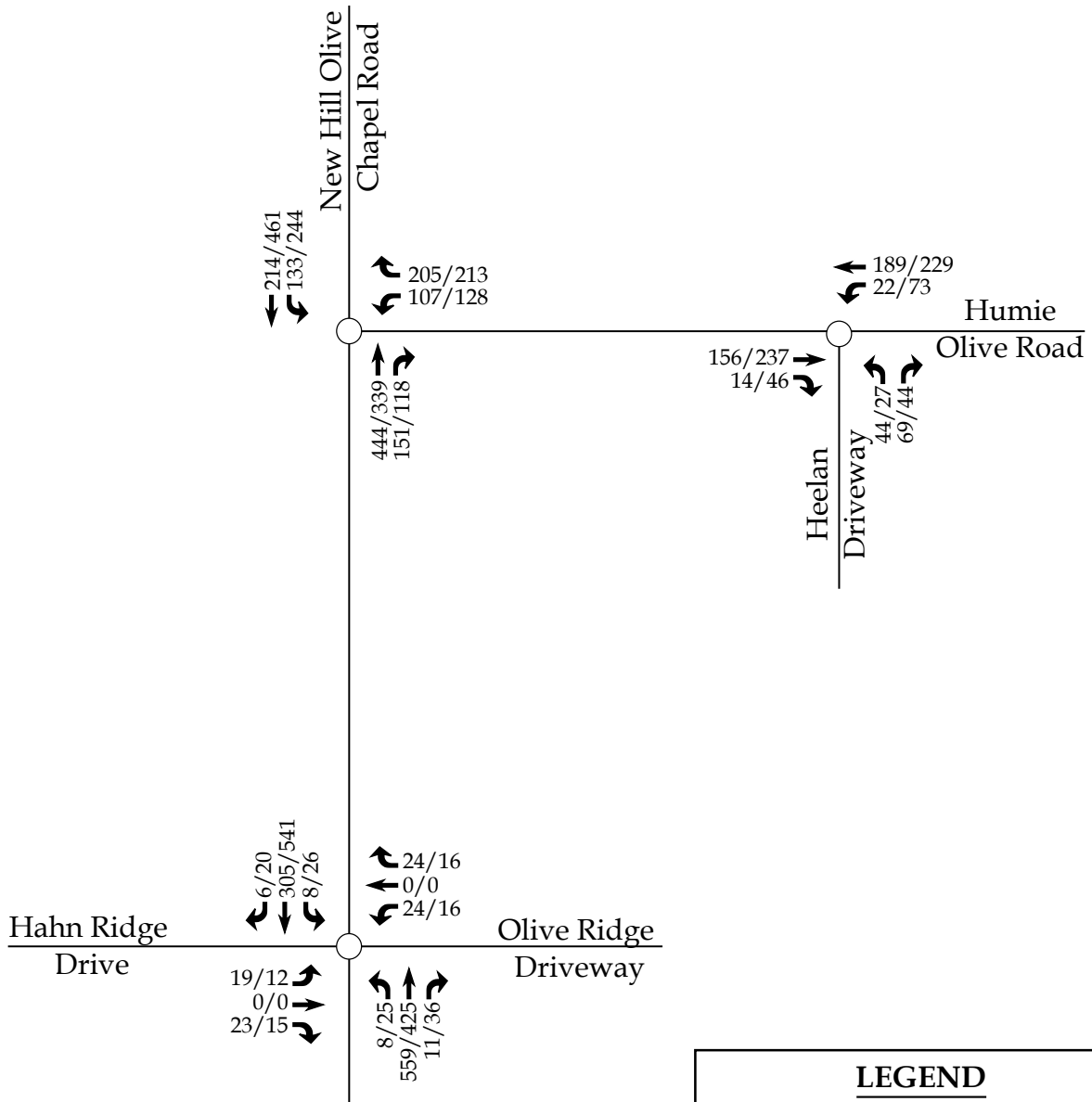
2025 Projected Peak Hour Traffic	
Scale: Not to Scale	Figure 5

LEGEND

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



	<p>Twin Ponds Lane Development Apex, NC</p>	<p>Peak Hour Adjacent Development Trips</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 6</p>



LEGEND

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



Twin Ponds Lane
Development
Apex, NC

2025 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 a maximum of 87 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*, 10th 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 Detached Housing (210)	87 units	920	17	50	56	33

It is estimated that the proposed development will generate approximately 920 total site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 67 trips (17 entering and 50 exiting) will occur during the weekday AM peak hour and 89 trips (56 entering and 33 exiting) will occur during the weekday PM peak hour. It should be noted that this development is expected to generate less trips than typical NCDOT guidelines to require a TIA (3,000 daily trips); however, a courtesy copy of the TIA will be provided to NCDOT for review.

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:

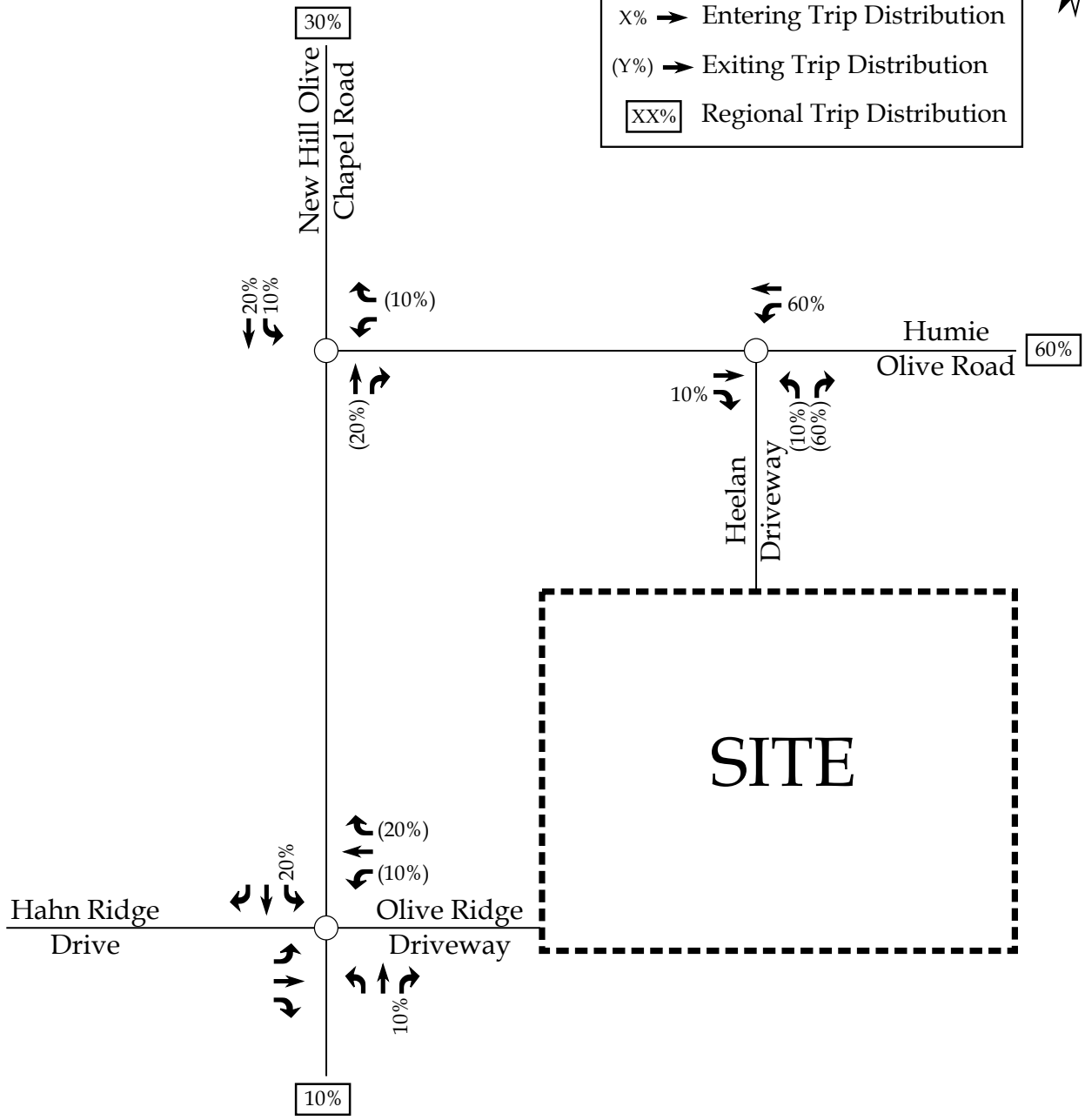
- 30% to/from the north via New Hill Olive Chapel Road
- 10% to/from the south via New Hill Olive Chapel Road
- 60% to/from the east via Humie Olive Road

These regional distributions are consistent with connecting adjacent developments and were approved as part of the MOU. The site trip distribution is shown in Figure 8 and the site trip assignment is shown in Figure 9.



LEGEND

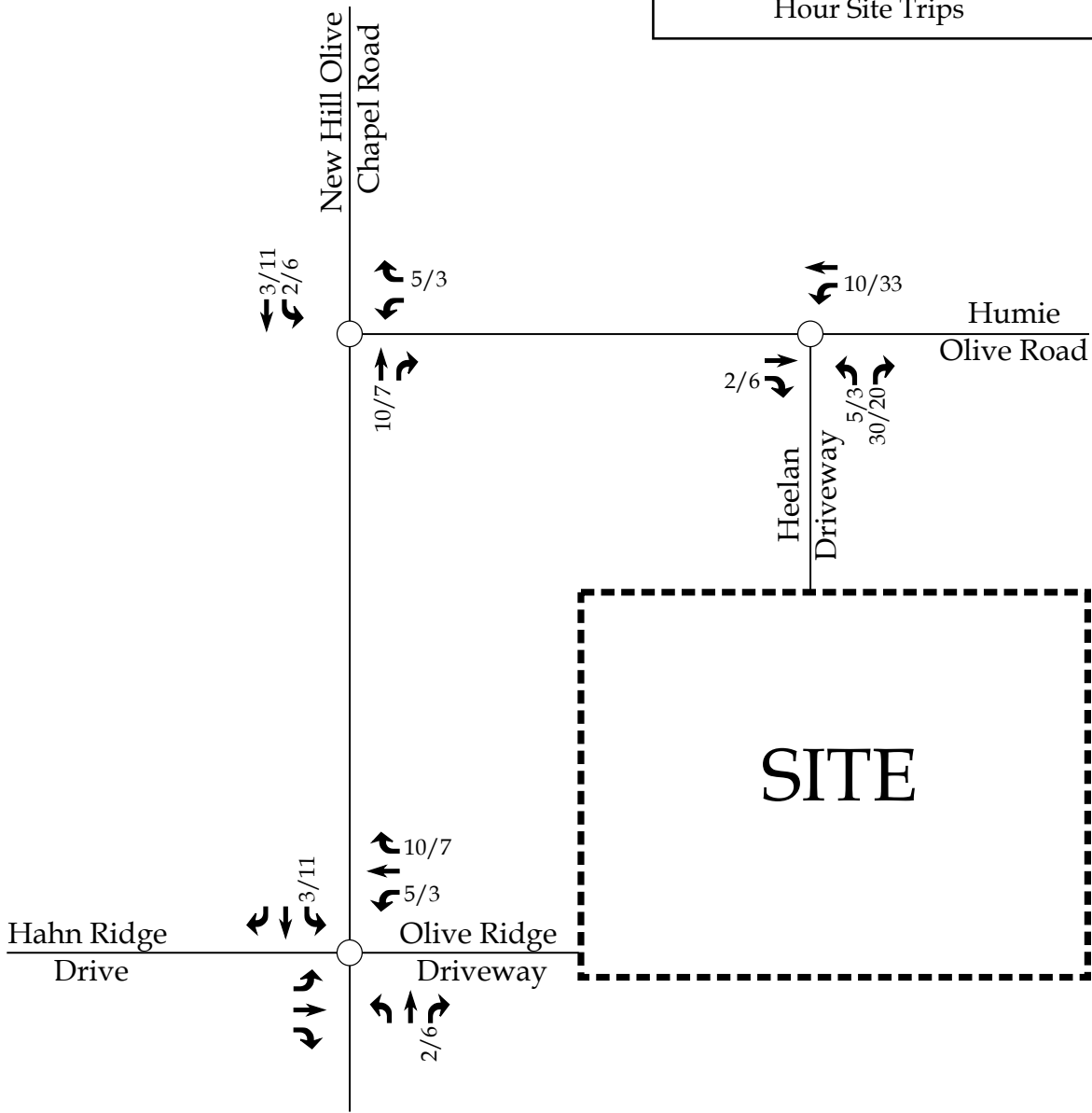
- Unsignalized Intersection
- X% → Entering Trip Distribution
- (Y%) → Exiting Trip Distribution
- XX% Regional Trip Distribution



	Twin Ponds Lane Development Apex, NC	Site Trip Distribution	
		Scale: Not to Scale	Figure 8

LEGEND

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



	<p>Twin Ponds Lane Development Apex, NC</p>	<p>Site Trip Assignment</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 9</p>

5. 2025 BUILD TRAFFIC CONDITIONS

5.1. 2025 Build Peak Hour Traffic Volumes

To estimate traffic conditions with the site fully built-out, the total site trips were added to the 2025 no-build traffic volumes to determine the 2025 build traffic volumes. Refer to Figure 10 for an illustration of the 2025 build peak hour traffic volumes with the proposed site fully developed.

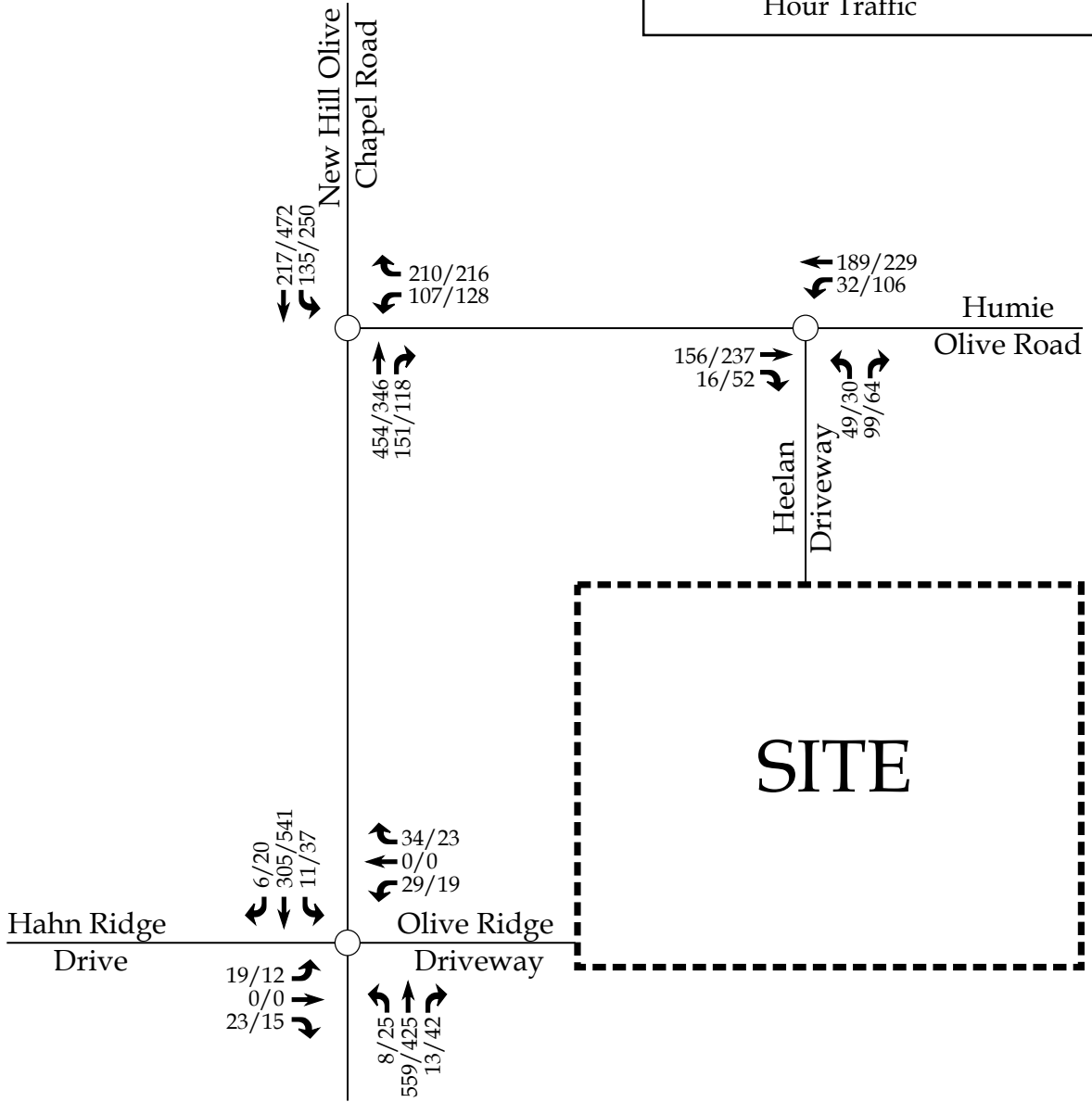
5.2. Analysis of 2025 Build Peak Hour Traffic Conditions

Study intersections were analyzed with the 2025 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

X / Y → Weekday AM / PM Peak Hour Traffic



	<p>Twin Ponds Lane Development Apex, NC</p>	<p>2025 Build Peak Hour Traffic</p>
	<p>Scale: Not to Scale Figure 10</p>	

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 10.3), 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 Town’s UDO and NCDOT Congestion Management Guidelines.

7. CAPACITY ANALYSIS

7.1. New Hill Olive Chapel Road and Humie Olive Road

The existing unsignalized intersection of New Hill Olive Chapel Road and Humie Olive Road was analyzed under 2021 existing, 2025 no-build, and 2025 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 and Appendix G for the SimTraffic queuing reports.

Table 5: Analysis Summary of New Hill Olive Chapel Road and Humie Olive 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)
2021 Existing	WB	1 LT, 1 RT	B ²	N/A	B ²	N/A
	NB	1 TH-RT	--		--	
	SB	1 LT-TH	A ¹		A ¹	
2025 No-Build	WB	1 LT*, 1 RT	D ²	N/A	F ²	N/A
	NB	1 TH-RT	--		--	
	SB	1 LT, 1 TH	A ¹		A ¹	
2025 Build	WB	1 LT*, 1 RT	D ²	N/A	F ²	N/A
	NB	1 TH-RT	--		--	
	SB	1 LT, 1 TH	A ¹		A ¹	

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

2. Level of service for minor-street approach.

Committed improvements to the lane configuration by the Friendship Station PUD and Heelan Property are shown in red.

*Additional storage committed by Friendship Station PUD and Heelan Property.

Capacity analysis of 2021 existing, 2025 no-build, and 2025 build traffic conditions indicates the major street left-turn movement at the intersection of New Hill Olive Chapel Road and Humie Olive Road is expected to operate at LOS A during both weekday AM and PM peak hours. The minor-street approach is expected to operate at LOS B under 2021 existing traffic conditions during both weekday AM and PM peak hours. Under 2025 no-build and 2025 build traffic conditions, the minor-street approach is expected to operate at LOS D during the weekday AM peak hour and LOS F during the PM peak hour. These levels of service are not uncommon for an unsignalized minor-street approaches at a mainline (New Hill Olive Chapel Road) with heavy through volumes.

Due to poor minor-street approach LOS during the weekday AM and PM peak hour, a traffic signal was considered at this intersection. 2025 no-build and 2025 build traffic volumes were analyzed utilizing the criteria contained in the *Manual on Uniform Traffic Control Devices* (MUTCD). A traffic signal is expected to be warranted during both weekday peak hours. Due to the high volume of residential development, (which typically generate trips during two distinct peak hours each weekday) it is anticipated that the 4- or 8-hour signal warrants would not be met, which NCDOT typically prefers for signalization.

The 150-foot southbound left-turn lane improvement committed by Friendship Station PUD and the Heelan Property along New Hill Olive Chapel Road is anticipated to provide sufficient storage for the southbound left-turning queues under 2025 build traffic conditions.

Based on the SimTraffic queuing report under 2025 build traffic conditions, the 95th queue is anticipated to be 131 feet during the weekday AM peak hour and 245 feet during the weekday PM peak hour. Friendship Station PUD committed to extend the westbound left-turning movement to 250 feet which is anticipated to provide sufficient storage under 2025 build conditions.

It should be noted the proposed development is only expected to account for 2% of the total traffic at this study intersection during the weekday AM and PM peak hours under 2025 build conditions. Additionally, interconnectivity along Horton Ridge Boulevard between the adjacent developments is expected to alleviate some of the traffic currently at the intersection of New Hill Olive Chapel Road and Humie Olive Road.

No improvements are recommended at this intersection since the 4- and 8- hour warrants for signalization are not anticipated to be met, there is low impact by the proposed development, and there will be future interconnectivity / connector road between adjacent developments.

7.2. New Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway

The existing unsignalized intersection of New Hill Olive Chapel Road and Hahn Ridge Drive was analyzed under 2021 existing traffic conditions with the lane configurations and traffic control shown in Table 6. Olive Ridge Driveway is anticipated to align with Hahn Ridge Drive along New Hill Olive Chapel Road under 2025 no-build traffic conditions. Olive Ridge Driveway is anticipated to be a main access point for the Twin Ponds Lane development. Refer to Table 6 for a summary of the analysis results. Refer to Appendix E for the Synchro capacity analysis reports and Appendix G for the SimTraffic queuing reports.

Table 6: Analysis Summary of New Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway

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)
2021 Existing	EB NB SB	1 LT-RT 1 LT, 1 TH 1 TH-RT	B ² A ¹ --	N/A	B ² A ¹ --	N/A
2025 No-Build	EB WB NB SB	1 LT- TH -RT 1 LT-TH-RT 1 LT, 1 TH- RT 1 LT , TH-RT	C ² C ² A ¹ A ¹	N/A	C ² D ² A ¹ A ¹	N/A
2025 Build	EB WB NB SB	1 LT- TH -RT 1 LT-TH-RT 1 LT, 1 TH- RT 1 LT , TH-RT	C ² C ² A ¹ A ¹	N/A	D ² D ² A ¹ A ¹	N/A

1. Level of service for major-street left-turn movement.
 2. Level of service for minor-street approach.
 Committed improvements to the lane configuration by the Olive Ridge development are shown in **red**.

Capacity analysis of 2021 existing traffic conditions indicates the minor-street approach at the intersection of Hahn Ridge Drive and New Hill Olive Chapel Road currently operates at LOS B during the weekday AM and PM peak hour. Under 2025 no-build traffic conditions, Olive Ridge Driveway will align with Hahn Ridge Drive at New Hill Olive Chapel Road. The minor-street approaches are expected to operate at LOS C during the weekday AM peak hour and

LOS D or better during the weekday PM peak hour under 2025 no-build and 2025 build traffic conditions. It should be noted the proposed development is only expected to account for 2% of the total traffic at this study intersection during the weekday AM and PM peak hours under 2025 build conditions.

Exclusive left- and right-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to the North Carolina Highways*. Based on the SimTraffic queuing reports under 2025 build traffic conditions, the southbound left-turning movement 95th queue is anticipated to be 18 feet during the weekday AM peak hour and 33 feet during the weekday PM peak hour. Olive Ridge Development is committed to constructing a southbound left-turn lane with 50 feet of storage. This improvement is anticipated to provide sufficient storage under 2025 build conditions.

An exclusive northbound right-turn lane was considered, but not recommended at this intersection due to the low contribution of traffic by the proposed Twin Ponds Lane Development.

No improvements by the developer are recommended at this intersection due to minimal queuing and low contribution of traffic to the intersection.

7.3. Humie Olive Road and Heelan Driveway

The unsignalized intersection of Humie Olive Road and Heelan Driveway was analyzed under 2025 no-build and 2025 build traffic conditions with the lane configurations and traffic control shown in Table 7. Heelan Driveway is anticipated to be a main access point for the Twin Ponds Lane development. Refer to Table 7 for a summary of the analysis results. Refer to Appendix F for the Synchro capacity analysis reports and Appendix G for the SimTraffic queuing reports.

Table 7: Analysis Summary of Humie Olive Road and Heelan Driveway

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)
2025 No-Build	EB WB NB	1 TH, 1 RT 1 LT , 1 TH 1 LT-RT	-- A ¹ B ²	N/A	-- A ¹ B ²	N/A
2025 Build	EB WB NB	1 TH, 1 RT 1 LT , 1 TH 1 LT-RT	-- A ¹ B ²	N/A	-- A ¹ B ²	N/A

Committed improvements to lane configurations by the Heelan Property development shown in red.

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

Capacity analysis of 2025 no-build and build traffic conditions indicates the minor-street movement and major-street left-turn movement currently operates at LOS B or better during the weekday AM and PM peak hours. Under 2025 no-build traffic conditions, the Heelan Property is expected to construct this intersection with a stop control for the southbound approach, an exclusive eastbound right-turn lane, and a westbound left-turn lane each with 75 feet of storage.

Based on the SimTraffic queuing report under 2025 build traffic conditions, the 95th queue for the westbound left-turning movement is anticipated to be 18 feet during the weekday AM peak hour and 47 feet during the weekday PM peak hour. It should be noted interconnectivity along Horton Ridge Boulevard between the adjacent developments is expected to alleviate

some of queuing at the intersection of Humie Olive Road and Heelan Driveway. Turn lane storages committed by the Heelan Property development are expected to sufficiently accommodate 2025 build traffic volumes. Due to minimal queuing, future interconnectivity, and sufficient turn lane storages, no improvements by the developer are recommended at this intersection.

8. CONCLUSIONS

This Traffic Impact Analysis was conducted to determine the potential traffic impacts of the proposed residential development, located in the southeast quadrant at the intersection of Humie Olive Road and New Hill Olive Chapel Road in Apex, North Carolina. The proposed development is expected to be built out in 2025. Site access will be provided via interconnectivity with Heelan Property (one full movement driveway along Humie Olive Road, five full movement driveways along Horton Ridge Boulevard, one full movement driveway along Olive Farm Road to align with Friendship Station Northern Site Driveway, one full movement driveway along Future Cave Junction Street and interconnectivity with Olive Ridge Subdivision). The primary access points to be analyzed in this study are via Humie Olive Road and Heelan Driveway and via New Hill Olive Chapel Road and Olive Ridge Driveway (to be aligned with Hahn Ridge Drive, providing access to Jordan Manors.)

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

- 2021 Existing Traffic Conditions
- 2025 No-Build Traffic Conditions
- 2025 Build Traffic Conditions

Trip Generation

It is anticipated that the proposed development will generate approximately 920 total site trips on the roadway network during a typical 24-hour weekday period. It is estimated that the proposed development will generate approximately 67 trips (17 entering and 50 exiting) during the weekday AM peak hour and 89 trips (56 entering and 33 exiting) during the weekday PM peak hour.

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

A summary of the study area intersections are as follows:

New Hill Olive Chapel Road and Humie Olive Road

Due to poor minor-street approach LOS during the weekday AM and PM peak hour, a traffic signal was considered at this intersection. 2025 no-build and 2025 build traffic volumes were analyzed utilizing the criteria contained in the *Manual on Uniform Traffic Control Devices* (MUTCD). A traffic signal is expected to be warranted during both weekday peak hours. Due to the high volume of residential development, (which typically generate trips during two distinct peak hours each weekday) it is anticipated that the 4- or 8-hour signal warrants would not be met, which NCDOT typically prefers for signalization.

The 150-foot southbound left-turn lane improvement committed by Friendship Station PUD and the Heelan Property along New Hill Olive Chapel Road is anticipated to provide sufficient storage for the southbound left-turning queues under 2025 build traffic conditions.

Based on the SimTraffic queuing report under 2025 build traffic conditions, the 95th queue is anticipated to be 141 feet during the weekday AM peak hour and 245 feet during the weekday PM peak hour. Friendship Station PUD committed to extend the westbound left-turning movement to 250 feet which is anticipated to provide sufficient storage under 2025 build conditions.

It should be noted the proposed development is only expected to account for 2% of the total traffic at this study intersection during the weekday AM and PM peak hours under 2025 build conditions. Additionally, interconnectivity along Horton Ridge Boulevard between the adjacent developments is expected to alleviate some of the traffic currently at the intersection of New Hill Olive Chapel Road and Humie Olive Road.

No improvements are recommended at this intersection since the 4- and 8- hour warrants for signalization are not anticipated to be met, there is low impact by the proposed development, and there will be future interconnectivity / connector road between adjacent developments.

New Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway

Exclusive left- and right-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to the North Carolina Highways*. Based on the SimTraffic queuing reports under 2025 build traffic conditions, the southbound left-turning movement 95th queue is anticipated to be 15 feet during the weekday AM peak hour and 33 feet during the weekday PM peak hour. Olive Ridge Development is committed to constructing a southbound left-turn lane with 50 feet of storage. This improvement is anticipated to provide sufficient storage under 2025 build conditions.

An exclusive northbound right-turn lane was considered, but not recommended at this intersection due to the low contribution of traffic by the proposed Twin Ponds Lane Development.

No improvements by the developer are recommended at this intersection due to minimal queuing and low contribution of traffic to the intersection.

Humie Olive Road and Heelan Driveway

Based on the SimTraffic queuing report under 2025 build traffic conditions, the 95th queue for the westbound left-turning movement is anticipated to be 18 feet during the weekday AM peak hour and 47 feet during the weekday PM peak hour. It should be noted interconnectivity along Horton Ridge Boulevard between the adjacent developments is expected to alleviate some of queuing at the intersection of Humie Olive Road and Heelan Driveway. Turn lane storages committed by the Heelan Property development are expected to sufficiently accommodate 2025 build traffic volumes. Due to minimal queuing, future interconnectivity, and sufficient turn lane storages, no improvements by the developer are recommended at this intersection.

9. RECOMMENDATIONS

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

Committed Improvements by Friendship Station PUD

New Hill Olive Chapel Road and Humie Olive Road

- Extend the westbound left-turn lane to 250 feet of storage.
- Provide an exclusive southbound left-turn lane with 150 feet of storage.

Committed Improvements by Heelan Property

New Hill Olive Chapel Road and Humie Olive Road

- Extend the westbound left-turn lane to 200 feet of storage.
- Provide an exclusive southbound left-turn lane with 150 feet of storage.

Humie Olive Road and Heelan Driveway

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

Committed Improvements by Olive Ridge

New Hill Olive Chapel Road and Hahn Ridge Drive / Olive Ridge Driveway

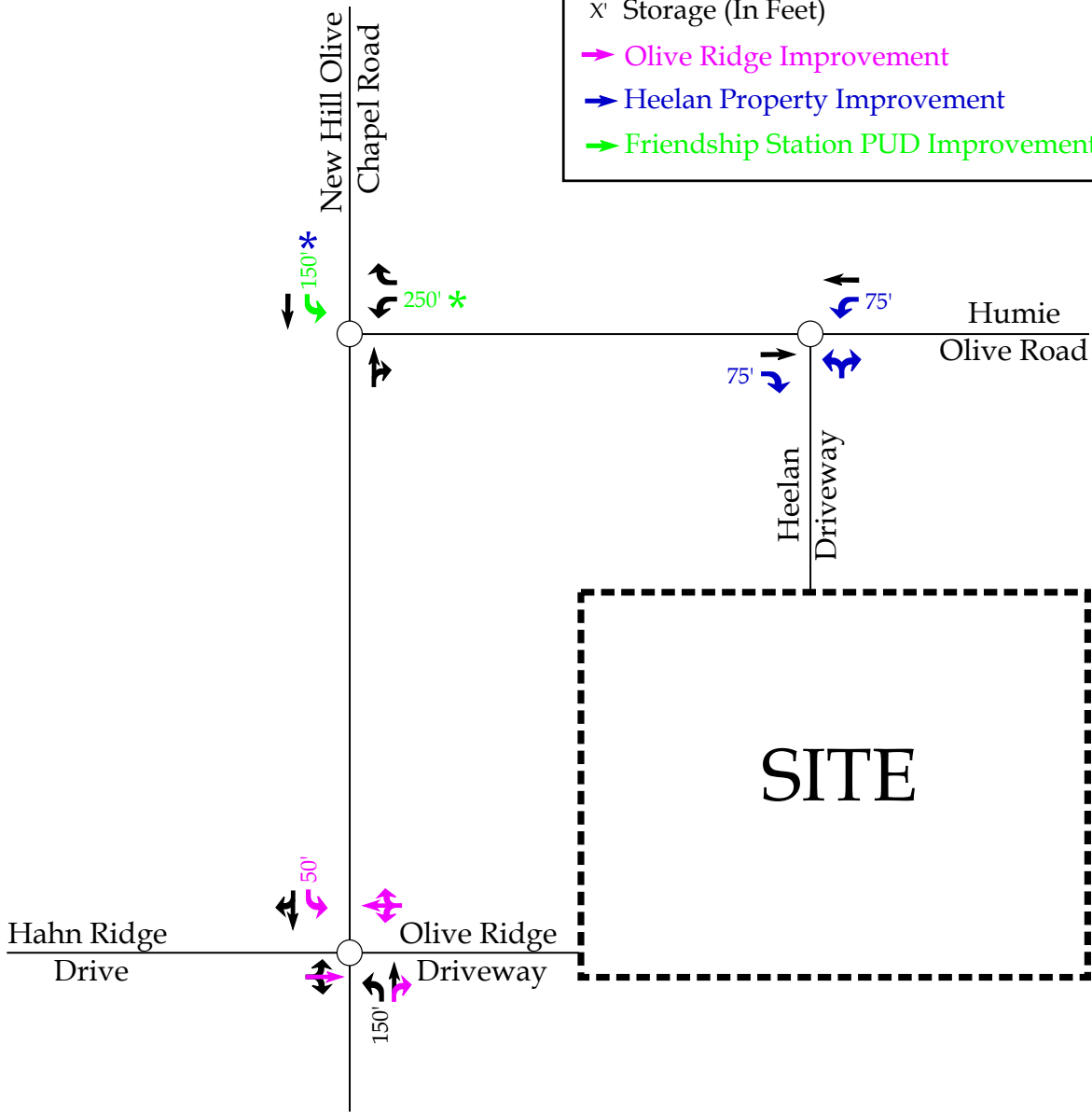
- Construct a westbound approach with one ingress and one egress lane as a shared left/through/right turn lane.
- Provide stop control for the westbound approach.
- Provide an exclusive southbound left-turn lane with 50 feet of storage.

Recommended Improvements by Twin Ponds Lane Development

Due to committed improvements by other developments and low impacts to the study intersections, no additional improvements are recommended by the developer.

LEGEND

- Unsignalized Intersection
- ➔ Existing Lane
- x' Storage (In Feet)
- ➔ Olive Ridge Improvement
- ➔ Heelan Property Improvement
- ➔ Friendship Station PUD Improvement



* Improvement also committed by Heelan Property
 * Storage extended by Friendship Station PUD

	<p>Twin Ponds Lane Development Apex, NC</p>	<p>Recommended Lane Configurations</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 11</p>