All property owners, tenants, and neighborhood associations within 300 feet of this rezoning have been notified per UDO Sec. 2.2.11 *Public Notification*.

BACKGROUND INFORMATION:	
Addresses:	0 & 2704 New Hill Olive Chapel Road; 2504, 2508, 2509, 2513 & 2537 Lashlee Way; 8621 Athlete Drive; and 3600 & 3700 Old US 1 Hwy
Applicant:	Barnett Properties, LLC
Owners:	KB Homes Raleigh-Durham; Ralph G. Miller Jr; Richard P. Vitek; Richard S. Burroughs Trust; Menage LLC; KD2H, LLC; Annie Ruth Broadwell; Shri Varni, LLC; New Hill Baptist Church & Cemetery Trustees

PROJECT DESCRIPTION:	
Acreage:	+/- 55.345 acres
PINs:	071073673, 0710830487, 0710734325, 0710724872, 0710728789, 0710835242, 0710825733, 0710837363, 0710827861, Portion of 07108243l9
Current Zoning:	Wake County Residential-40 Watershed (R-40W); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Planned Unit Development-Conditional Zoning District (PUD-CZ #22CZ09)
Proposed Zoning:	Planned Unit Development-Conditional Zoning (PUD-CZ)
Current 2045 Land Use Map:	Office Employment/Commercial Services; Low Density Residential; Low Density Residential/Office Employment
If rezoned as proposed, the 2045 Land Use Map Designation will change to:	Office Employment/Commercial Services; Low Density Residential
Town Limits:	Inside Corporate Limits and Wake County (annexation is required at the time of rezoning)

ADJACENT ZONING & LAND USES:		
	Zoning	**Land Use**
North:	Planned Unit Development-Conditional Zoning (PUD-CZ #18CZ17); Wake County Residential-40 Watershed (R-40W)	Large lot Single-family Residential; Single-family Residential (Belterra Subdivision)
South:	Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19); Wake County Residential-40 Watershed (R-40W); Wake County Highway Commercial (HC)	Old US 1 Hwy; Single-family Residential (Utley Farms Subdivision); Church & Cemetery; Single-family Residential; Vacant
East:	Wake County Residential-40 Watershed District (R-40W); Heavy Commercial District (HC); General Business District (GB)	New Hill Olive Chapel Rd; Single-family Residential; Vacant
West:	Planned Unit Development-Conditional Zoning (PUD-CZ #13CZ30 & #18CZ05)	Single-family Residential (Jordan Pointe & Jordan Oaks Subdivisions)

EXISTING CONDITIONS:

The site is located on the west of New Hill Olive Chapel Road and north of Old U.S. Highway 1. It comprises approximately 55.345 acres across 10 parcels. The western and southeastern parts of the site are heavily wooded. The central part of the site contains single-family homes and accessory buildings. One of the homes has also been used as a business. The northeastern part of the site contains a single-family home and a cleared area that was used as an athletic field for a short time. The overall site is bisected by three (3) streams, each with 100-foot riparian buffers.

NEIGHBORHOOD MEETINGS:

The applicant conducted two neighborhood meetings on October 20, 2024, and March 5, 2025. The neighborhood meeting reports are attached to the staff report.

WCPSS COORDINATION:

A Letter of Impact from Wake County Public School System (WCPSS) was received for this rezoning and is included in the staff report packet. WCPSS indicates that middle schools within the current assignment area for this rezoning/development are anticipated to have insufficient capacity for future students; transportation to schools outside of the current assignment area should be anticipated. School reassignments within the next five years may address concerns at the middle school level. Possible long-term solutions may include capping students out to schools with available seats (not very proximate), reassignments, or calendar changes.

2045 LAND USE MAP:

The current and proposed 2045 Land Use Map designations for the subject properties are shown in relation to the location within the proposed PUD Plan in the table and maps below (See Figure 1: Current 2045 Land Use Map and Figure 2: 2045 Land Use Map if Rezoning is Approved).

	Current LUM	Proposed LUM
Northwest Section	Low Density Residential	Low Density Residential
Northeast Section	Office Employment/Commercial Services; Low Density Residential; Low Density Residential/Office Employment	Office Employment/Commercial Services; Low Density Residential
Southwest Section	Low Density Residential	Low Density Residential
Southeast Section	Office Employment/Commercial Services	Office Employment/Commercial Services

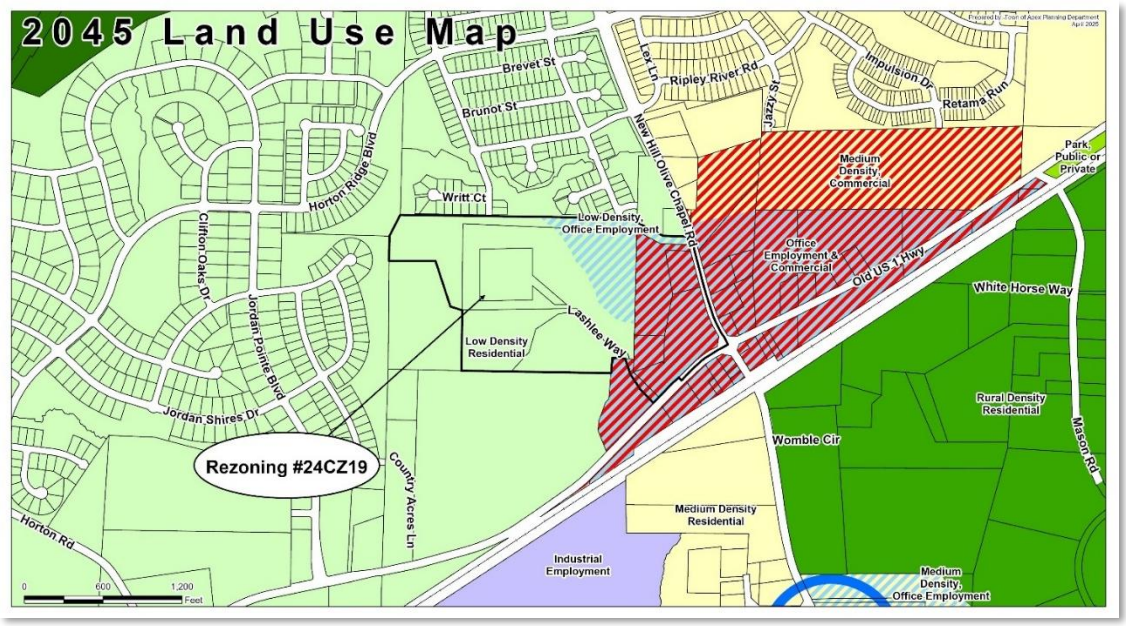


Figure 1: Current 2045 Land Use Map

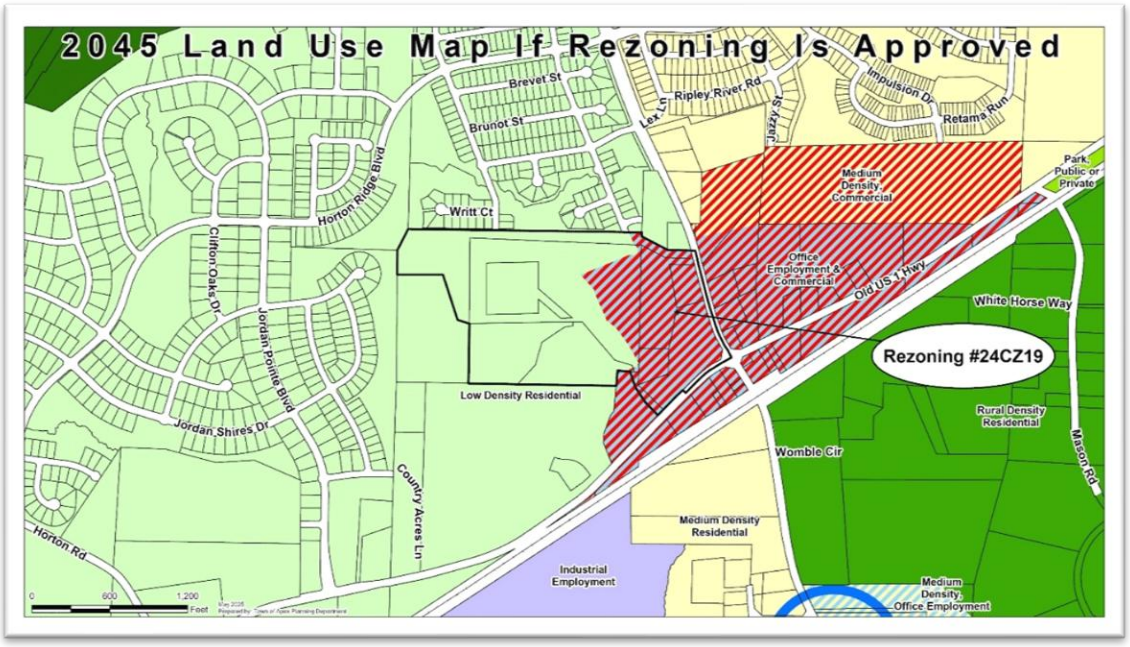


Figure 2: Proposed 2025 Land Use Map

Planning Staff Analysis:
The northwest, southwest and southeastern sections of the proposed PUD are consistent with the 2045 Land Use Map designations as defined in this report.

The northeast section of the proposed PUD, if approved, would result in a land use map amendment modifying the current designations of Office Employment/Commercial Services; Low Density Residential; and Low Density Residential/Office Employment. The Office Employment/Commercial Services designation would extend further west and northwest within the site. An existing stream will serve as a natural boundary and buffer between the

expanded Office Employment/Commercial Services area and much of the adjacent residential district, but a portion of the Low Density Residential area will remain east of the stream and will act as a transition from the residential neighborhood to the north. This residential area will be separated from the Office/Commercial Services area by an internal street, which can be inferred from the location of the Single-Family Residential and Non-residential Districts on the PUD Plan sheet. The proposed Single-Family Residential District is limited to a maximum density of 3 dwelling units per acre, consistent with the Low Density Residential land use category and is intended to maintain compatibility with surrounding neighborhoods.

If the properties are rezoned as proposed, the 2045 Land Use Map will automatically be amended per NCGS 160D-605(a).

PROPOSED PLANNED UNIT DEVELOPMENT PLAN:

The applicant is proposing a Planned Unit Development with uses and development standards as follows:

Permitted Uses:
The Rezoned Lands may be used for, and only for, the uses listed immediately below. The permitted uses are subject to the limitations and regulations stated in the UDO and any additional limitations or regulations stated below. For convenience, some relevant sections of the UDO may be referenced; such references do not imply that other sections of the UDO do not apply.

	Residential District	Non-Residential District
Residential		
Single-family	P	
Accessory apartment*	P	
Recreational Uses		
Park, active	P	P
Greenway	P	P
Park, passive	P	P
Recreation facility, private	P	
Entertainment, Indoor		P
Utility, minor	P	P
Non-Residential Uses		
Restaurant, general		P
Restaurant, drive-through**		P
Bar, nightclub, wine bar, or taproom		P
Medical or dental office or clinic		P
Medical or dental laboratory		P
Office, business or professional		P
Publishing office		P
Artisan Studio		P
Barber and beauty shop		P
Book store		P
Convenience store		P
Convenience store with gas sales***		P
Dry cleaners and laundry service		P
Financial institution		P

	Residential District	Non-Residential District
Restaurant, general		P
Restaurant, drive-through**		P
Bar, nightclub, wine bar, or taproom		P
Medical or dental office or clinic		P
Medical or dental laboratory		P
Office, business or professional		P
Publishing office		P
Artisan Studio		P
Barber and beauty shop		P
Book store		P
Convenience store		P
Convenience store with gas sales***		P
Dry cleaners and laundry service		P
Financial institution		P
Floral shop		P
Grocery, general		P
Grocery, specialty		P
Health/fitness center or spa		P
Newsstand or gift shop		P
Personal service		P
Pharmacy		P
Printing and copying service		P
Real estate sales		P
Retail sales, general		P
Studio for art		P
Tailor shop		P
Upholstery shop		P
Pet services		P
Day care facility		P
Drop-in or short-term day care		P
Veterinary clinic or hospital		P
Automotive parts		P
Microbrewery		P
Farmer's market		P
Greenhouse or nursery, retail		P

*Homeowners Association covenants shall not restrict the construction of accessory dwelling units.

**Drive through facilities for stand-alone Restaurant drive-through uses (drive throughs not part of a multi-tenant building) shall not be located between the building and a public street.

***The building shall be located between Old US 1 Highway and the gas pumps.

Design Controls:

Acreages for each district are approximate and may increase or decrease by up to 10% based on updated surveys at Master Subdivision Plan.

Development shall comply with the following minimum design controls:

ALL DISTRICTS	
Total Acreage	55.345 Acres
Maximum Built-Upon Area	70%
Maximum Residential Density	3 units/acre (includes RCA and rights of way)

RESIDENTIAL DISTRICT		
Approximate Acreage	36.886 acres	
	Single-Family	**Private Recreation Facility**
Minimum Lot Size	6,000 sf	None
Minimum Lot Width	50 ft.	None
Maximum Building Height	36 ft.; two (2) stories	48 ft.
Minimum Setbacks		
Front	10 ft.	10 ft.
Front (garage)	20 ft. (from sidewalk or back-of-curb where no sidewalk exists)	N/A
Side	5 ft.	10 ft.
Corner Side	10 ft.	10 ft.
Rear	10 ft.	10 ft.
Minimum from Buffer/RCA	10 ft. for buildings 5 ft. for parking	10 ft. for buildings 5 ft. for parking

NON-RESIDENTIAL DISTRICT	
Approximate Acreage	18.459 acres
Maximum Building Height	48 ft.
Minimum Setbacks	
Front	20 ft.
Side	15 ft.
Rear	20 ft.
Minimum Buffer/RCA Setbacks	10 ft. for buildings 5 ft. for parking

ARCHITECTURAL CONDITIONS:

The proposed New Hill Commons PUD 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. Elevations included are conceptual examples. Final elevations must comply with these architectural standards but may vary from the conceptual elevations. Further details may be provided at the time of Residential Master Subdivision Plan submittal.

RESIDENTIAL DESIGN GUIDELINES

Single-Family:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. Primary building materials shall be brick, stone, and fiber cement siding.
3. Windows that are not recessed shall be trimmed. Windows shall vary in size and/or type.
4. At least four (4) of the following decorative features shall be used on each building:
    1. Decorative shake
    2. Board and batten siding
    3. Decorative porch rails and posts
    4. Shutters
    5. Decorative functional foundation and roof vents
    6. Recessed windows
    7. Decorative windows
    8. Decorative brick or stone
    9. Decorative gables
    10. Decorative cornices
    11. Metal roofing
5. A varied color palette shall be utilized throughout the development to include a minimum of three color families for siding and shall included varied trim, shutter, and accent colors complementing the siding color.
6. The rear and side elevations of the units that can be seen from the right of way shall have trim around the windows.
7. Front facing garage doors shall have windows, decorative details, or carriage-style adornments.
8. Entrances for units with front facing garages shall have a prominent covered porch/stoop area leading to the front door.
9. Porches constructed with a dwelling unit shall be a minimum of six feet (6 feet) deep.
10. The front façade of any front loaded garage shall not protrude further than one (1) foot forward beyond (i) the front façade 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. Living space above a garage shall not be considered part of the front façade.

NON-RESIDENTIAL DESIGN GUIDELINES

1. Architectural treatments such as varying roof forms, façade articulation, breaks in roof, walls with texture materials and ornamental details shall be incorporated to add visual interest.
2. The building exterior shall have more than one color.
3. Roof features may include flat roofs with parapet, hip roofs or awnings with metal or canvas material.
4. Non-residential exteriors shall incorporate variation in materials. The front façade and other facades located along a public right-of-way may include:
    a. Brick and/or stone masonry
    b. Decorative concrete block (integral color or textured)
    c. Stone accents
    d. Aluminum storefronts with anodized or pre-finished colors
    e. EIFS cornices, and parapet trim
    f. EIFS or synthetic stucco shall not be used in the first four feet above grade and shall be limited to only 25% of each building façade
    g. Precast concrete
    h. Soffit and fascia materials to be considered include EIFS with crown trim elements
    i. Cementitious siding

5. Rear elevations of non-residential buildings facing opaque landscape buffers or not visible from vehicular use areas or public rights-of-way may incorporate decorative concrete masonry, metal coping, or EIFS trim.

In addition to the guidelines applicable to the Non-Residential District, the following design guidelines shall apply only to development on PIN 0710827861. If there is a conflict between the guidelines, the guidelines below shall apply:

1. Predominant exterior building materials shall be high quality materials, including brick, wood, stacked stone, other native stone, or tinted/textured concrete masonry units.
2. EIFS or synthetic stucco shall not be used in the first four feet above grade and shall be limited to only 25% of each building façade.
3. The exterior building materials for nonresidential buildings shall include a combination of building materials. The primary (front) façade of the main buildings to be considered include:
   a. Brick masonry
   b. Decorative concrete block (either integrally colored or textured)
   c. Stone accents
   d. Aluminum storefronts with anodized or pre-finished colors
   e. EIFS cornices, and parapet trim. EIFS or synthetic stucco shall not be used in the first four feet above grade and shall be limited to only 25% of each building façade.

PARKING:

The maximum parking ratio for the Grocery, General use, and any other uses that share parking with the Grocery, General use in the Non-Residential District, shall be 1 space/200 square feet. Otherwise, parking shall comply with the parking standards set forth in UDO Section 8.3.

NATURAL RESOURCES AND ENVIRONMENTAL DATA

RCA and Buffers:

The project shall dedicate a total minimum amount of RCA equal to the sum of 25% of the gross site acreage of the Non-Residential District and the minimum amount of RCA for the Residential District required by UDO Section 8.1.2 (the "Total RCA"). The Total RCA shall not be confined to either district and may be provided anywhere on the Property.

Designated RCAs will be consistent with UDO Section 8.1.2(B). Preserved streams, wetlands, and associated riparian buffers provide the primary RCAs throughout the Property. Additional RCA may include portions of the stormwater control measures permitted by the UDO, multi-use paths, and perimeter buffers.

Buffers:	Required by UDO	Proposed
Along the property's New Hill Olive Chapel Road frontage	Undisturbed: 30-foot Type E; Disturbed: 50-foot Type E	30-foot Type E
Along the property's Old US-1 frontage	Undisturbed: 30-foot Type E; Disturbed: 50-foot Type E	30-foot Type E
Along the shared property line with PINs 0710836780 and 0710835932	20-foot Type B	30-foot Type B
All other perimeter buffers	20-foot Type B or 10-foot Type B	10-foot Type B
Along the outside of the west side of the Lashlee Way right of way	N/A (Like Uses)	0-foot*

*Although not part of this PUD, the New Hill Baptist church property (3700 Old US-1) will have a decorative fence and planting area along the property's Lashlee Way frontage per separate agreement between New Hill Baptist Church and the developer.

ENVIRONMENTAL ADVISORY BOARD:

The Apex Environmental Advisory Board (EAB) held a pre-application meeting for this rezoning on February 27, 2025. The zoning conditions suggested by the EAB are listed below along with the applicant's response to each condition. Out of 20 recommended conditions, 11 were provided.

	EAB Suggested Conditions	Applicant's Response
1	The project shall ensure that 70% of the landscaping shall be native species, which shall provide diverse and abundant pollinator and bird food sources. Special attention shall be paid to providing diverse and abundant pollinator and bird food sources, including plants that bloom in succession from spring to fall. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review.	Yes
2	In order to support wildlife and pollinators, HOA covenants shall not require that fallen leaves or dormant plants be removed during the winter on areas without turf grass, including individual homes and HOA owned common areas.	No
3	No single species of native or adaptive vegetation shall constitute more than 20% of the plant material of its type within a single development site.	Yes
4	To reduce irrigation requirements, the project shall select and plant only warm season grasses.	Yes
5	HOA covenants shall not prohibit clover, non-turf, or native grass lawns.	No
6	The project shall install signage adjacent to wooded or natural condition Resource Conservation Area. The signage shall indicate that the area is RCA and is to be preserved in perpetuity and not disturbed.	Yes
7	The project shall install signage adjacent to wooded or natural condition Resource Conservation Area. The signage shall indicate that the area is RCA and is to be preserved in perpetuity and not disturbed.	Yes
8	The project shall install at least one (1) pet waste station per 25 residential units throughout the community in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths. If there fewer than 25 homes, at least one (1) pet waste station shall be installed.	Yes
9	A solar PV system of at least 4 kW shall be installed on at least 12 homes within the development. All solar installation required by this condition shall be completed or under construction prior to 90% of the building permits being issued for the development. The lots on which these homes are located shall be identified on the Master Subdivision Plat, which may be amended from time to time.	No
10	A solar PV system of at least 4 kW shall be installed on the model homes. The lot(s) on which this home/these homes is/are located shall be identified on the Master Subdivision Plat, which may be amended from time to time.	No
11	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.	No
12	A solar PV system of at least 20kW shall be installed on all buildings within the development if the roof is capable of handling such installation.	No
13	No averaging shall be allowed for Zone 3 of the riparian buffer.	No
14	The project shall install at least 2 pet waste stations throughout the community, in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths.	Yes

	EAB Suggested Conditions	Applicant's Response
15	The project shall ensure that 70% of the landscaping shall be native species. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review.	Yes
16	The project shall install signage adjacent to wooded or natural condition Resource Conservation Area. The signage shall indicate that the area is RCA and is to be preserved in perpetuity and not disturbed.	Yes
17	No invasive species shall be permitted. No single species of tree or shrub shall constitute more than 20% of the plant material of its type within a single development site.	Yes
18	To reduce irrigation requirements, the project shall select and plant only warm season grasses.	Yes
19	The project shall install one (1) sign per SCM to reduce pet waste and prohibit fertilizer, in locations that are publicly accessible, such as adjacent to amenity centers, sidewalks, greenways, or side paths.	Yes
20	Post development peak runoff shall not exceed pre-development peak runoff for the 24-hour, 1-year, 10-year, and 25-year storm events in accordance with the Unified Development Ordinance.	No

The following environmental conditions shall apply to development in the Residential District:

1. A minimum of 70% of landscaping in HOA common areas and buffers shall be native or nativar species. This condition shall not apply to landscaping on individual residential lots.
2. No single species of native or adaptive vegetation shall constitute more than 20% of the plant material of its type within a single development site. This condition shall not apply to landscaping on individual residential lots.
3. To reduce irrigation requirements, the project shall plant warm season grasses.
4. The project shall install signage adjacent to wooded or natural condition Resource Conservation Area that indicates the area is preserved RCA.
5. The project shall install at least one (1) pet waste station per 25 residential units throughout the community in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths. If there are fewer than 25 homes, at least one (1) pet waste station shall be installed.
6. A 220-volt outlet shall be provided in the garage of each unit.
7. Primary residential buildings shall include conduit for solar energy systems.

The following conditions shall apply to development in the Non-Residential District (other than PIN 0710827861 which has specific conditions set forth below:

1. The project shall install at least two (2) pet waste stations in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths. If there are fewer than 25 homes, at least one (1) pet waste station shall be installed.
2. A minimum of 70% of landscaping shall be native or nativar species.
3. No invasive species shall be permitted. No single species of tree or shrub shall constitute more than 20% of the plant material of its type within a single development site.
4. The project shall plant warm season grasses.

5. The project shall install signage adjacent to wooded or natural condition Resource Conservation Area that indicates the area is preserved RCA.

The following environmental conditions shall apply to PIN 0710827861:

1. The project shall plant deciduous shade trees on the southern side of buildings.
2. Buildings shall include solar conduit.
3. Outdoor lighting shall be shielded in a way that focuses lighting to the ground.
4. The project shall preserve native trees within the buffer, including the large existing trees along the southern property line, according to UDO standards.

PUBLIC FACILITIES:

Water, Sewer, and Electrical Systems:

The proposed New Hill Commons PUD will be served by Town of Apex water, sanitary sewer, and electrical systems. The utility design will be finalized at Master Subdivision Plan review. A conceptual Utility Plan is included in the PUD Plan for reference. The ultimate design for the utilities shall meet the current Town of Apex Master Water and Sewer Plans for approval.

Proposed New Hill Commons PUD Plan Transportation Improvements:

The following conditions regarding transportation improvements apply and shall be phased consistent with the Traffic Impact Analysis that has been performed for this rezoning, which is on file with the Town of Apex. All proposed driveway access and improvements on state-maintained roadways are subject to both Apex and NCDOT review and approval. All proposed roadway infrastructure and right-of-way dedications will be consistent with the Town of Apex Thoroughfare and Collector Street Plan Map and the Bicycle and Pedestrian Plan Map.

Prior to the recordation of the final plat within the Residential District, the developer shall construct a street connection to Turner Pines Drive with a 10-foot side path on the east side and a 5-foot sidewalk on the west side and a street connection to Bordwell Grant Drive with 5-foot sidewalks on both sides. Prior to the site plan final plat within the Non-Residential District, the developer shall construct a street connection from the Non-Residential District to Bordwell Grant with 5-foot sidewalks on both sides, including a vehicular and pedestrian connection to the Residential District.

All required connections from the PUD boundary to Old US 1 and New Hill Olive Chapel Road and the associated thoroughfare frontage widening and offsite roadway improvements as described below shall be constructed with the Non-Residential District phase. Construction access for the Residential District shall be served directly from Old US 1 and/or New Hill Olive Chapel Road. Construction trucks and heavy equipment traffic shall use the construction entrance(s) and avoid existing residential streets.

Prior to the recordation of the Final Plat for the first site plan within the Non-Residential District, the developer shall construct the following improvements:

1. **Old US-1 Widening**. Dedicate variable right of way a minimum of 55 feet from roadway centerline and widen the northern half of Old US-1 for the length of the property's Old US-1 road frontage based on a minimum 36-foot edge to edge 2-lane thoroughfare section with 12 foot travel lanes, 6-foot bike lanes, and a 5-foot sidewalk at the back of ditch with additional right of way dedication as needed to accommodate recommended turning lanes. Asymmetrical widening of Old US-1 may be utilized as needed to avoid impacts to historic properties in close proximity to the Old US-1 and New Hill Olive Chapel Road intersection.

2. **New Hill Olive Chapel Road Widening.** Dedicate variable right of way a minimum of 55 feet from roadway centerline and widen the western half of New Hill Olive Chapel Road for the length of the property's New Hill Olive Chapel Road frontage based on a minimum 36-foot edge to edge 2-lane thoroughfare section with 12 foot travel lanes, 6-foot paved shoulder, and a 5-foot sidewalk at the back of ditch with additional right of way dedication as needed to accommodate recommended turning lanes.

3. **Old US-1/West Site Driveway Intersection**.
   a. A full movement site driveway where Lashlee Way is currently located with one ingress lane and two egress lanes approximately 700 feet west of New Hill Olive Chapel Road;
   b. An exclusive eastbound left turn lane with 100 feet of storage and appropriate taper; and
   c. An exclusive westbound right turn lane with 50 feet of storage and appropriate taper.
4. **Old US-1/East Site Driveway Intersection**.
   a. A right in/right out site driveway with one ingress lane and one egress lane approximately 350 feet west of New Hill Olive Chapel Road; and
   b. An exclusive westbound right turn lane with 100 feet of storage and appropriate taper.
5. **New Hill Olive Chapel Road/North Site Driveway Intersection.** Prior to recordation of the Final Plat for the final phase of development in the Non-Residential District, developer shall construct:
   a. A full movement stop controlled site driveway with one ingress lane and two egress lanes approximately 750 feet north of Old US 1. Egress lanes will include a left turn lane with 200 feet of storage and a continuous right turn lane;
   b. An exclusive northbound left turn lane with 125 feet of storage and appropriate taper;
   c. An exclusive southbound right turn lane with 50 feet of storage and appropriate taper; and
   d. Internal protected stem (IPS) of 250 feet.
6. **New Hill Olive Chapel Road/South Site Driveway Intersection**.
   a. A right-in/right out site driveway with one ingress lane and one egress lane approximately 450 feet north of Old US 1;
   b. An additional southbound through turn lane that extends back to the North Site Driveway;
   c. A southbound right turn taper; and
   d. Internal protected stem (IPS) of 200 feet
7. **Old US 1/New Hill Holleman Road/New Hill Olive Chapel Road intersection**.
   a. Construct a westbound right turn lane with a minimum 150 feet of full width storage plus appropriate taper on Old US 1;
   b. Extend the committed "by others" southbound right turn lane on New Hill Olive Chapel Road to extend to the South Site Driveway intersection;
   c. Modify the existing traffic signal to accommodate all required geometric improvements;
   d. Design and construct the following improvements, identified "by others" in the TIA assumptions, if not under construction by others at the time of first site plan submittal for development in the Non-Residential District:
      i. Eastbound right turn lane on Old US-1 with 75 feet of storage and appropriate taper;
      ii. Eastbound left turn lane on Old US-1 with 250 feet of storage and appropriate taper;
      iii. Westbound left turn lane on Old US-1 with 250 feet of storage and appropriate taper;

iv. Northbound left turn lane on New Hill Holleman Road with 150 feet of storage and appropriate taper;

v. Southbound left turn lane on New Hill Olive Chapel Road with 150 feet of storage and appropriate taper;

vi. Southbound right turn lane on New Hill Olive Chapel Road with 150 feet of storage and appropriate taper.

Proposed Site Driveways:

The proposed PUD Plan includes a combination of right-in/right-out and full-movement driveway access points. Site access will be provided via a total of eight (8) vehicular connections:

- Two (2) driveways from New Hill Olive Chapel Road;
- Two (2) driveways from Old US 1 Highway;
- Four (4) residential connections to adjacent neighborhoods, including:
  - One (1) connection at Bordwell Grant Drive and
  - One (1) connection at Turner Pines Drive within the Belterra subdivision.
  - Two (2) connections from the Utley Farms PUD-CZ located south of the project area.

These connections are intended to support internal circulation and enhance overall mobility throughout the site and surrounding area.

Pedestrian and Bicycle Facilities:

Per the Town of Apex Bicycle and Pedestrian System Plan Map and UDO requirements, the developer shall construct sidewalks, side paths, bike lanes, and marked bike buffers as follows:

- Sidewalks (5 feet wide) shall be provided along both sides of all streets. A 10-foot-wide side path shall be constructed, as shown on the Transportation Plan, as amended, along the future minor collector running north and south on the western side of the site, and along the property boundary to New Olive Chapel Road and Old US 1 Hwy.

AFFORDABLE HOUSING

Proposed PUD Plan Affordable Housing:

The following affordable housing commitment shall apply to the residential district:

A minimum of two (2) residential units on the property shall be for-sale affordable housing units. Final affordable housing unit floor plan selection which includes unit size and bedroom size will be at the discretion of the developer.

The affordable units shall be subject to the following terms and conditions:

1. The units shall be constructed on-site and sold (includes unit price and lot price) at a mutually agreeable maximum affordable median income ownership initial sales price (the “Initial Sales Price”).

2. The units shall be occupied by households earning no more than one hundred thirty-five percent (135%) of the Raleigh NC Metropolitan Statistical Area (MSA), Area Median Income (AMI) as most recently published by HUD (the “Income Limit"). For purposes of calculating the Initial Sales Price for the affordable units, affordable shall mean a reasonable down payment and monthly housing costs expected during the first calendar year of occupancy, including utilities or utility allowances, mortgage loan principal and interest, mortgage insurance, property taxes, homeowner’s insurance, homeowner’s association dues, if

any, and all other property assessments, dues and fees assessed as a condition of property ownership (the "Housing Costs"). For purposes of the calculation, monthly Housing Costs shall not exceed thirty percent (30%) of the Income Limit divided by twelve (12).

3. A restrictive covenant (i.e. resale deed restriction) with a minimum affordability period of twenty (20) years (the "Affordability Period") shall be recorded in the Wake County Registry against the affordable units concurrently at the close of escrow upon the sale of each affordable unit.

4. Developer will work with the Town to identify qualifying buyers for the first sale of the affordable units (the "First Sale"). Following the First Sale of the affordable units, Developer shall not be responsible for managing the affordable units or performing marketing, applicant screening, and selection related to future sales of the affordable units. Town staff will assist with the administrative duties of the units during the Affordability Period.

HOUSING STAFF ANALYSIS:

Based off the Town of Apex's adopted Affordable Housing Incentive Zoning Policy, the Town's policy recommends that a minimum of 5% of residential units in new developments be designated as affordable. For a project with 166 potential residential units, this would equate to at least 8 to 9 affordable units (5% of 166 = 8.3). However, the applicant is only proposing to provide a minimum of 2 affordable units, which represents approximately 1.2% of the total unit count at max build out. This would be considered to be non-compliant with the all adopted Town policy and recommendations.

PARKS, RECREATION, AND CULTURAL RESOURCES ADVISORY COMMISSION:

On February 26, 2025, the Parks, Recreation, and Cultural Resources Advisory Commission recommended the following:

A fee-in-lieu of dedication for a maximum of 166 Single-Family Detached units. The fee-in-lieu rate will be set at the time of Town Council action on the Rezoning and run for the life of the project. The final unit count and total fee-in-lieu will be calculated at Master Subdivision Plan and Construction Document review. The final unit count and total fee-in-lieu will be calculated at Master Subdivision Plan and Construction Document review.

PLANNING STAFF RECOMMENDATION:

Planning staff recommends approval of Rezoning #24CZ19 New Hill Commons PUD as proposed by the applicant.

PLANNING BOARD RECOMMENDATION:

The Planning Board held a public hearing on May 12, 2025 and unanimously recommended approval with the conditions as proposed by the applicant.

ANALYSIS STATEMENT OF THE REASONABLENESS OF THE PROPOSED REZONING:

This Statement will address consistency with the Town's comprehensive and other applicable plans, reasonableness, and effect on public interest:

The 2045 Land Use Map designates the project site as Low Density Residential; Low Density Residential/Office Employment; and Office Employment/Commercial Services. A majority of the proposed PUD is consistent with those land use classifications. The PUD proposes, a land use map amendment modifying the current designations of Office Employment/Commercial Services; Low Density Residential; and Low Density Residential/Office Employment. These changes are aligned with the 2045 Land Use Map's intent, by supporting low-density single-family residential development where appropriate, while expanding Office

Employment/Commercial Services in the area.

The proposed rezoning is reasonable and in the public interest because it will provide housing of a similar type and density as development to the north and south, while providing for office and commercial uses to serve the proposed and existing residential development in the area. The proposed rezoning will also construct a local connector street with 10-foot sidepath that will provide vehicular and pedestrian connectivity from Belterra and through the subject property and the Utley Farm subdivision to Old US 1 Hwy.

PLANNED UNIT DEVELOPMENT DISTRICT AND CONDITIONAL ZONING STANDARDS:

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.

Planned Unit Development (PUD-CZ) District

1. In approving a Planned Development (PD) Zoning District designation for a PUD-CZ, the Town Council shall find the PUD-CZ district designation and PD Plan for PUD-CZ demonstrates compliance with the following standards:
   a) *Development parameters*
      (i) The uses proposed to be developed in the PD Plan for PUD-CZ are those uses permitted in Sec. 4.2.2 *Use Table.*
      (ii) The uses proposed in the PD Plan for PUD-CZ can be entirely residential, entirely non-residential, or a mix of residential and non-residential uses, provided a minimum percentage of non-residential land area is included in certain mixed use areas as specified on the 2045 Land Use Map. The location of uses proposed by the PUD-CZ must be shown in the PD Plan with a maximum density for each type of residential use and a maximum square footage for each type of non-residential use.
      (iii) The dimensional standards in Sec. 5.1.3 *Table of Intensity and Dimensional Standards, Planned Development Districts* may be varied in the PD Plan for PUD-CZ. The PUD-CZ shall demonstrate compliance with all other dimensional standards of the UDO, North Carolina Building Code, and North Carolina Fire Code.
      (iv) The development proposed in the PD Plan for PUD-CZ encourages cluster and compact development to the greatest extent possible that is interrelated and linked by pedestrian ways, bikeways and other transportation systems. At a minimum, the PD Plan must show sidewalk improvements as required by the Apex Transportation Plan and the *Town of Apex Standard Specifications and Standard Details*, and greenway improvements as required by the Town of Apex Parks, Recreation, Greenways, and Open Space Plan and the Apex Transportation Plan. In addition, sidewalks shall be provided on both sides of all streets for single-family detached homes.
      (v) The design of development in the PD Plan for PUD-CZ results in land use patterns that promote and expand opportunities for walkability, connectivity, public transportation, and an efficient compact network of streets. Cul-de-sacs shall be avoided unless the design of the subdivision and the existing or proposed street system in the surrounding area indicate that a through street is not essential in the location of the proposed cul-de-sac, or where sensitive environmental areas such as streams, floodplains, and wetlands would be substantially

disturbed by making road connections.

(vi) The development proposed in the PD Plan for PUD-CZ is compatible with the character of surrounding land uses and maintains and enhances the value of surrounding properties.

(vii) The development proposed in the PD Plan for PUD-CZ has architectural and design standards that are exceptional and provide higher quality than routine developments. All residential uses proposed in a PD Plan for PUD-CZ shall provide architectural elevations representative of the residential structures to be built to ensure the Standards of this Section are met.

b) *Off-street parking and loading*. The PD Plan for PUD-CZ shall demonstrate compliance with the standards of Sec. 8.3 *Off-Street Parking and Loading*, except that variations from these standards may be permitted if a comprehensive parking and loading plan for the PUD-CZ is submitted as part of the PD Plan that is determined to be suitable for the PUD-CZ, and generally consistent with the intent and purpose of the off-street parking and loading standards.

c) *RCA*. The PD Plan for PUD-CZ shall demonstrate compliance with Sec. 8.1.2 Resource Conservation Area, except that the percentage of RCA required under Sec. 8.1.2 may be reduced by the Town Council by no more than 10% provided that the PD Plan for PUD-CZ includes one or more of the following:

(i) A non-residential component; (ii) An overall density of 7 residential units per acre or more; or (iii) Environmental measures including but not limited to the following:

a. The installation of a solar photovoltaic (PV) system on a certain number or percentage of single-family or townhouse lots or on a certain number or percentage of multifamily, mixed-use, or nonresidential buildings. All required solar installation shall be completed or under construction prior to 90% of the building permits being issued for the approved number of lots or buildings. For single-family or townhouse installations, the lots on which these homes are located shall be identified on the Master Subdivision Plat, which may be amended;

b. The installation of a geothermal system for a certain number or percentage of units within the development; or

c. Energy efficiency standards that exceed minimum Building Code requirements (i.e. SEER rating for HVAC).

d) *Landscaping*. The PD Plan for PUD-CZ shall demonstrate compliance with the standards of Sec. 8.2 *Landscaping, Buffering and Screening*, except that variations from these standards may be permitted where it is demonstrated that the proposed landscaping sufficiently buffers uses from each other, ensures compatibility with land uses on surrounding properties, creates attractive streetscapes and parking areas and is consistent with the character of the area. In no case shall a buffer be less than one half of the width required by Sec. 8.2 or 10 feet in width, whichever is greater.

e) *Signs.* Signage in the PD Plan for PUD-CZ shall demonstrate compliance with Sec. 8.7 *Signs*, except that the standards can be varied if a master signage plan is submitted for review and approval concurrent with the PD plan and is determined by the Town Council to be suitable for the PUD-CZ and generally consistent with the intent and purpose of the sign standards of the UDO. The master signage plan shall have design standards that are exceptional and provide for higher quality signs than those in routine developments and shall comply with Sec. 8.7.2 *Prohibited Signs*.

f) *Public facilities.* The improvements standards and guarantees applicable to the public facilities that will serve the site shall comply with Article 7: *Subdivision and* Article 14: *Parks, Recreation, Greenways, and Open Space*.

(i) The PD Plan for PUD-CZ demonstrates a safe and adequate on-site transportation circulation system. The on-site transportation circulation system shall be integrated with the off-site transportation circulation system of the Town. The PD Plan for PUD-CZ shall be consistent

with the Apex Transportation Plan and the *Town of Apex Standard Specifications and Standard Details* and show required right-of-way widths and road sections. A Traffic Impact Analysis (TIA) shall be required per Sec. 13.19.

(ii) The PD Plan for PUD-CZ demonstrates a safe and adequate on-site system of potable water and wastewater lines that can accommodate the proposed development, and are efficiently integrated into off-site potable water and wastewater public improvement plans. The PD Plan shall include a proposed water and wastewater plan.

(iii) Adequate off-site facilities for potable water supply, sewage disposal, solid waste disposal, electrical supply, fire protection and roads shall be planned and programmed for the development proposed in the PD Plan for PUD-CZ, and the development is conveniently located in relation to schools and police protection services.

(iv) The PD Plan shall demonstrate compliance with the parks and recreation requirements of Sec. Article 14: *Parks, Recreation, Greenways, and Open Space* and Sec. 7.3.1 *Privately-owned Play Lawns* if there is a residential component in the PUD-CZ.

g) *Natural resource and environmental protection.* The PD Plan for PUD-CZ demonstrates compliance with the current regulatory standards of this Ordinance related to natural resource and environmental protection in Sec. 6.1 *Watershed Protection Overlay District*, Sec. 6.2 *Flood Damage Prevention Overlay District*, and Sec. 8.1 *Resource Conservation*.

h) *Storm water management.* The PD Plan shall demonstrate that the post-development rate of on-site storm water discharge from the entire site shall not exceed pre-development levels in accordance with Sec. 6.1.7 of the UDO.

i) *Phasing.* The PD Plan for PUD-CZ shall include a phasing plan for the development. If development of the PUD-CZ is proposed to occur in more than one phase, then guarantees shall be provided that project improvements and amenities that are necessary and desirable for residents of the project, or that are of benefit to the Town, are constructed with the first phase of the project, or, if this is not possible, then as early in the project as is technically feasible.

j) *Consistency with 2045 Land Use Map.* The PD Plan for PUD-CZ demonstrates consistency with the goals and policies established in the Town's 2045 Land Use.

k) *Complies with the UDO.* The PD Plan for PUD-CZ demonstrates compliance with all other relevant portions of the UDO.

Legislative Considerations

The Town Council shall find the Planned Unit Development-Conditional Zoning (PUD-CZ) designation demonstrates compliance with the following standards. 2.3.3.F:

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.

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.

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

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

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.

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.

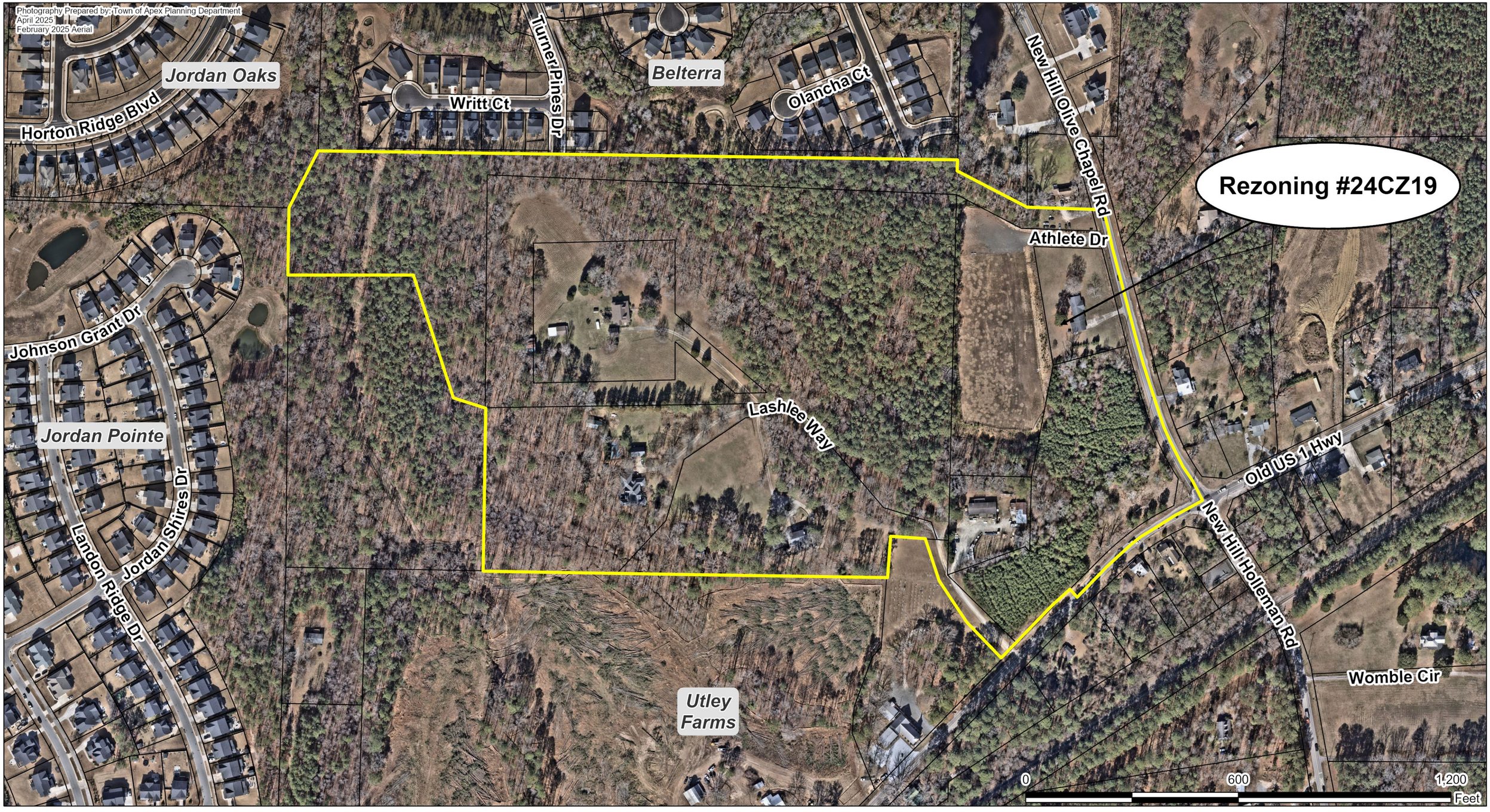
6) *Impact on public facilities.* The proposed Conditional Zoning (CZ) District use's avoidance of having adverse impacts on public facilities and services, including roads, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities.

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.

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

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.

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.


Photography Prepared by: Town of Apex Planning Department
April 2025
February 2025 Aerial
Jordan Oaks
Horton Ridge Blvd
Writt Ct
Turner Pines Dr
Belterra
Olancha Ct
New Hill Olive Chapel Rd
Rezoning #24CZ19
Athlete Dr
Johnson Grant Dr
Jordan Pointe
Jordan Shires Dr
Landon Ridge Dr
Lashlee Way
Old US 1 Hwy
New Hill Holleman Rd
Womble Cir
Utley Farms
0
600
1,200
Feet

PLANNED UNIT DEVELOPMENT APPLICATION

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.

Application #: 24CZ19 Submittal Date: November 1, 2024

Fee Paid $ Check #

PETITION TO AMEND THE OFFICIAL ZONING DISTRICT MAP

Project Name: New Hill Commons PUD

Address(es): See attached

PIN(s) See attached

Acreage: 55.345

Current Zoning: See attached Proposed Zoning: Planned Unit Development Conditional (PUD-CZ)

Current 2045 LUM Designation: Office Employment/Commercial Services; Low Density Residential; Low Density Residential/Office Employment

Is the proposed rezoning consistent with the 2045 LUM Classification(s)? Yes ☐ No ☐

If any portion of the project is shown as mixed use (3 or more stripes on the 2045 Land Use Map) provide the following:

Area classified as mixed use: Acreage: N/A

Area proposed as non-residential development: Acreage: N/A

Percent of mixed use area proposed as non-residential: Percent: N/A

Applicant Information

Name: Barnett Properties, LLC, a North Carolina limited liability company

Address: c/o Matthew J. Carpenter, 301 Fayetteville Street, Suite 1400

City: Raleigh State: NC Zip: 27601

Phone: (919) 835-4032 E-mail: matthewcarpenter@parkerpoe.com

Owner Information

Name: See attached

Address:

City: State: Zip:

Phone: E-mail:

Agent Information

Name: Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400

City: Raleigh State: NC Zip: 27601

Phone: (919) 835-4032 E-mail: matthewcarpenter@parkerpoe.com

Other contacts: Alan Maness, Barnett Properties, LLC; amm@barnettprop.com; (919) 880-1537

Jeff Roach, Peak Engineering; jroach@peakengineering.com; (919) 439-0100

PLANNED UNIT DEVELOPMENT APPLICATION

Application #: 24CZ19 Submittal Date: November 1, 2024

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 be 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 property has multiple LUM designations; Office Employment/Commercial Services at the intersection of New Hill Olive Chapel Road and Low Density Residential on the western portion of the property. The Office Employment/Commercial Services designation calls for office, restaurant, and retail uses closest to the intersection. The Low Density Residential designation calls for single-family homes with a max density of 3 units/acre. The PUD proposes grocery anchored retail closest to the intersection and single-family homes to the west with a maximum density of 3 units/acre.

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

Adjacent to the south is Utley Farms, a low density single-family detached subdivision with an overall density of 2 units/acre. Adjacent to the west is Jordan Pointe, a low density single-family detached subdivision with an overall density below 2 units/acre. Adjacent to the north is Belterra, a single-famly detached subdivision with a maximum density of 2.87 units/acre. The proposed Residential District permits single-family homes with a maximum overall density of 3 units/acre, consistent with the character of the surrounding neighborhoods. Additionally, the PUD Text includes proposed architectural conditions to ensure the project is consistent with the quality and character of existing homes.

The Nonresidential District has been located at the intersection of New Hill Olive Chapel Road and Old US 1 to concentrate the most intense commercial uses away from existing residential neighborhoods.

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

The proposed PUD will comply with all applicable Supplemental Standards in UDO Section 4.4.

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.

As discussed above, the proposed Residential District is consistent in size, scale, and character with adjacent neighborhoods. The Commercial District has been located closest to the intersection of New Hill Olive Chapel Road and Old US 1 to distance higher intensity uses from existing residential neighborhoods. The Commercial District will meet all UDO requirements for trash, traffic, service deliver, parking and loading, odors, noise, glare, and vibration.

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.

The proposed PUD will preserve required RCAs and follow all local, state, and federal environmental regulations. There are several existing streams on the property and the PUD is organized to minimize stream buffer disturbances.

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 PUD will not have an adverse impact on public facilities and services. The proposed commercial uses will offer additional tax revenue to the Town and contribute to a more balanced and sustainable tax base. The PUD proposes grocery anchored retail in New Hill which will allow residents to shop and dine in New Hill, decreasing vehicle miles traveled and reducing strain on Town infrastructure. Town water and sewer services are available to serve the project. We are not aware of any adverse impacts to police, fire, or EMS facilities. The project is districted to Pleasant Plains Year-Round Elementary, Apex Friendship Middle, and Apex Friendship High. Apex Friendship Middle and Apex Friendship High are currently capped, but two new schools are in development which will help with capacity concerns; Pleasant Plains Elementary with an anticipated occupancy date of 2025 and Felton Grove High School with an anticipated occupancy date of 2025.

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 PUD will not have adverse effects on health, safety, or welfare of residents of the Town or its ETJ. Rather, it will improve health, safety, and welfare by providing convenient access to goods and services, in a location that currently lacks grocery and retail offerings.

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

The PUD will not be substantially detrimental to adjacent properties. Adjacent to the south is Utley Farms, a low density single-family detached subdivision with an overall density of 2 units/acre. Adjacent to the west is Jordan Pointe, a low density single-family detached subdivision with an overall density below 2 units/acre. Adjacent to the north is Belterra, a single-famly detached subdivision with a maximum density of 2.87 units/acre. The proposed Residential District permits single-family homes with a maximum overall density of 3 units/acre, consistent with the character of the surrounding neighborhoods. Additionally, the PUD Text includes proposed architectural conditions to ensure the project is consistent with the quality and character of existing homes.

The Commercial District has been located at the intersection of New Hill Olive Chapel Road and Old US 1 to concentrate the most intense commercial uses away from existing residential neighborhoods.

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 PUD will not constitute a nuisance or hazard. As discussed above, the proposed Residential District is consistent in scale and character with existing neighborhoods, and the Commercial District is appropriately located at a major intersection. The PUD will include road improvements as recommended by the Traffic Impact Analysis.

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 PUD will comply with all other applicable standards of the Ordinance.

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: 24CZ19 Submittal Date:

Fee for Initial Submittal: No Charge Fee for Name Change after Approval: $500*

Purpose

To provide a consistent and clearly stated procedure for the naming of subdivisions and/or developments and entrance roadways (in conjunction with *Town of Apex Address Policy*) so as to allow developers to define and associate the theme or aesthetics of their project(s) while maintaining the Town's commitment to preserving the quality of life and safety for all residents of Apex proper and extraterritorial jurisdiction.

Guidelines

- ✓ The subdivision/development name shall not duplicate, resemble, or present confusion with an existing subdivision/development within Apex corporate limits or extraterritorial jurisdiction except for the extension of an existing subdivision/development of similar or same name that shares a continuous roadway.
- ✓ The subdivision/development name shall not resemble an existing street name within Apex corporate limits or extraterritorial jurisdiction unless the roadway is a part of the subdivision/development or provides access to the main entrance.
- ✓ The entrance roadway of a proposed subdivision/development shall contain the name of the subdivision/development where this name does not conflict with the Town of Apex *Road Name Approval Application* and *Town of Apex Address Policy* guidelines.
- ✓ The name "Apex" shall be excluded from any new subdivision/development name.
- ✓ Descriptive words that are commonly used by existing developments will be scrutinized more seriously in order to limit confusion and encourage distinctiveness. A list of commonly used descriptive words in Apex's jurisdiction is found below.
- ✓ The proposed subdivision/development name must be requested, reviewed and approved during preliminary review by the Town.
- ✓ A $500.00 fee will be assessed to the developer if a subdivision/development name change is requested after official submittal of the project to the Town.*

*The imposed fee offsets the cost of administrative changes required to alleviate any confusion for the applicant, Planning staff, other Town departments, decision-making bodies, concerned utility companies and other interested parties. There is no charge for the initial name submittal.

Existing Development Titles, Recurring

	Residential	Non-Residential
10 or more	Creek, Farm(s), Village(s),	Center/Centre
6 to 9	Crossing(s), Park, Ridge, Wood(s)	Commons, Park
3 to 5	Acres, Estates, Glen(s), Green•, Hills	Crossing(s), Plaza, Station, Village(s)

•excludes names with Green Level

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: 24CZ19 Submittal Date: _____

Proposed Subdivision/Development Information

Description of location: New Hill Olive Chapel Road and Old US 1 Hwy

Nearest intersecting roads: New Hill Olive Chapel Road and Old US 1 Hwy

Wake County PIN(s): a portion of 0710736732; 0710837363; 0710724872; 0710728789; 0710734325; 0710830487; 0710825733; 0710835242; 0710827861; & *a portion of* 0710824319

Township: Buckhorn

Contact Information (as appropriate)

Contact person: Matthew J. Carpenter

Phone number: (919) 835-4032 Fax number: N/A

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC, 27601

E-mail address: matthewcarpenter@parkerpoe.com

Owner: See attached

Phone number: _____ Fax number: _____

Address: _____

E-mail address: _____

Proposed Subdivision/Development Name

1st Choice: New Hill Commons

2nd Choice *(Optional)*: _____

Town of Apex Staff Approval:

_____ _____

Town of Apex Planning Department Staff Date

TOWN OF APEX UTILITIES OFFER AND AGREEMENT

Application #: 24CZ19 Submittal Date: _____

Town of Apex
73 Hunter Street
P.O. Box 250 Apex, NC 27502
919-249-3400

WAKE COUNTY, NORTH CAROLINA CUSTOMER SELECTION AGREEMENT

See attached

(the "Premises")

The Town of Apex offers to provide you with electric utilities on the terms described in this Offer & Agreement. If you accept the Town's offer, please fill in the blanks on this form and sign and we will have an Agreement once signed by the Town.

Barnett Properties, LLC, the undersigned customer ("Customer") hereby irrevocably chooses and selects the Town of Apex (the "Town") as the permanent electric supplier for the Premises. Permanent service to the Premises will be preceded by temporary service if needed.

The sale, delivery, and use of electric power by Customer at the Premises shall be subject to, and in accordance with, all the terms and conditions of the Town's service regulations, policies, procedures and the Code of Ordinances of the Town.

Customer understands that the Town, based upon this Agreement, will take action and expend funds to provide the requested service. By signing this Agreement the undersigned signifies that he or she has the authority to select the electric service provider, for both permanent and temporary power, for the Premises identified above.

Any additional terms and conditions to this Agreement are attached as Appendix 1. If no appendix is attached this Agreement constitutes the entire agreement of the parties.

Acceptance of this Agreement by the Town constitutes a binding contract to purchase and sell electric power.

Please note that under North Carolina General Statute §160A-332, you may be entitled to choose another electric supplier for the Premises.

Upon acceptance of this Agreement, the Town of Apex Electric Utilities Division will be pleased to provide electric service to the Premises and looks forward to working with you and the owner(s).

ACCEPTED:

CUSTOMER: Barnett Properties, LLC	TOWN OF APEX
BY: _____ Authorized Agent	BY: _____ Authorized Agent
DATE: _____	DATE: _____

Ownership Addendum
New Hill Commons PUD

a portion of PIN 0710736732
REID: 0080810
Address: 0 New Hill Olive Chapel Road, New Hill, NC 27562
Acreage: 8.59 acres (Total Parcel: 17.96 acres; 9.37 acres to be retained by Utley Farms)
Owner: KB HOME RALEIGH-DURHAM INC., a Delaware Corporation
Deed Book/Page: 19593/332
Owner Address: 1800 Perimeter Park Drive, Suite 140, Morrisville, NC 27560
Jurisdiction: Apex Town limits
Current Zoning: Planned Unit Development Conditional Zoning (PUD-CZ)(22CZ09 approved 11/8/2022)

PIN 0710830487
REID: 0288713
Address: 2513 Lashlee Way, New Hill, NC 27562
Acreage: 17.11 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (Wake County R-40W)

PIN 0710734325
REID: 0126579
Address: 2509 Lashlee Way, New Hill, NC 27562
Acreage: 4.01 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710724872
REID: 0126580
Address: 2504 Lashlee Way, New Hill, NC 27562
Acreage: 5.99 acres
Owner: Richard P. Vitek
Deed Book/Page: Estate File
Owner Address: 2504 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710728789
REID: 0224639
Address: 2508 Lashlee Way, New Hill, NC 27562
Acreage: 5.77 acres
Owner: Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust
Deed Book/Page: 13648/1873
Owner Address: 2508 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710835242
REID: 0472187
Address: 8621 Athlete Drive, New Hill, NC 27562
Acreage: 4.49 acres
Owner: MENAGE LLC, a North Carolina limited liability company
Deed Book/Page: 19627/681
Owner Address: 255 Oak Haven Lane, Apex, NC 27523
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710825733
REID: 0040628
Address: 2537 Lashlee Way, New Hill, NC 27562
Acreage: 1.22 acres
Owner: KD2H, LLC, a North Carolina limited liability company
Deed Book/Page: 19522/2138
Owner Address: 1976 Old Byre Way, Apex, NC 27502
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710837363
REID: 0087669
Address: 2704 New Hill Olive Chapel Road, New Hill, NC 27562
Acreage: 1.61 acres
Owner: Annie Ruth Broadwell, Trustee of the Broadwell Family Trust
Deed Book/Page: 19723/347
Owner Address: 2704 New Hill Olive Chapel Road, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710827861
REID: 0087668
Address: 3600 Old US 1 Hwy, New Hill, NC 27562
Acreage: 5.985 acres
Owner: SHRI VARNI, LLC, a North Carolina limited liability company
Deed Book/Page: 17968/918
Owner Address: 1812 Venezia Way, Apex, NC 27502
Jurisdiction: Apex Town limits
Current Zoning: Neighborhood Business Conditional Zoning (B1-CZ)(21CZ11 approved 9/28/2021)

a portion of PIN 0710824319
REID: 0090469
Address: 3700 Old US 1 Hwy, New Hill, NC 27562
Acreage: 0.57 (Lashlee Way; Total Parcel: 3.85 acres; 3.28 acres to be retained by New Hill Baptist Church)
Owner: New Hill Baptist Church & Cemetery Trustees
Deed Book/Page: 7883/739
Owner Address: 3700 Old US 1 Hwy, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Mixed Office-Residential-Retail Conditional Zoning (MORR-CZ)(19CZ19 approved 11/19/2019

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date:

Annie Ruth L Broadwell, Trustee of the Broadwell Family Trust is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: PIN 0710837363; 2704 New Hill Olive Chapel Road

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

PEE

Signature(s) of Owner(s)*

Annie Ruth L. Broadwell

Annie Ruth L Broadwell, Trustee of the Broadwell Family Trust — 10-23-24

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 #: 24CZ19 **Submittal Date:** _____

The undersigned, Annie Ruth L Broadwell, Trustee of the Broadwell Family 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 PIN 0710837363; 2704 New Hill Olive Chapel 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 September 30, 2024, and recorded in the Wake County Register of Deeds Office on September 30, 2024, in Book 19723 Page 347.

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 September 30, 2024, 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 September 30, 2024, 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 23 day of October, 2024

Annie Ruth L Broadwell TEE

_____ (seal)

Annie Ruth L Broadwell, Trustee of the Broadwell Family Trust

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 Annie Ruth L. Broadwell, Tee, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's personal knowledge, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.

[NOTARY SEAL] PAUL STAM NOTARY PUBLIC WAKE COUNTY, NC My Commission Expires 05-08-29

_____
Notary Public
State of North Carolina
My Commission Expires: May 8, 2029

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 Submittal Date:

Insert legal description below.

1.615 acres, more or less, and being shown on a survey rendered in Book of Maps 2019, Page 2097, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: PIN 0710728789; 2508 Lashlee Way

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust — 10-17-24

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 #: 24CZ19 Submittal Date: _____

The undersigned, Richard S. Burroughs, Trustee of the Richard S. Burroughs 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 PIN 0710728789 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 July 6, 2009, and recorded in the Wake County Register of Deeds Office on July 31, 2009, in Book 13648 Page 1873.

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 July 31, 2009, 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 July 31, 2009, 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 11 day of October, 2024.

Richard S. Burroughs (seal)

Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust

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 Richard S. Burroughs Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's Drivers License, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.

Thomas F. Colhoun

Thomas F. Colhoun

Notary Public
State of North Carolina
My Commission Expires: 10/25/2025

THOMAS F. COLHOUN
NOTARY PUBLIC
WAKE COUNTY, NC

[NOTARY SEAL]

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 Submittal Date: _____

Insert legal description below.

BEING all of Tract BI, containing 6.09 acres according to a plat entitled "Recombination Survey for Larry D. Kingsley and Margaret T. Kingsley" as recorded in Book of Maps 1996, Page 301 Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

KB HOME RALEIGH-DURHAM INC. is the owner* of the property for which the attached application is being submitted:

- ☑ 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: PIN 0710736732; 0 New Hill Olive Chapel Road

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

KB HOME RALEIGH-DURHAM INC.
a Delaware Corporation

By: _____
Name: James A. Gaskins
Title: VP of Land Acquisition
Date: 10-25-24

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 #: 24CZ19 Submittal Date: _____

The undersigned, James A. Gaskins (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 PIN 0710736732 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 April 17, 2024, and recorded in the Wake County Register of Deeds Office on April 23, 2024, in Book 19593 Page 332.

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 April 23, 2024, 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 April 23, 2024, 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 25TH day of October, 2024.

KB HOME RALEIGH-DURHAM INC.
a Delaware Corporation

By: _____
Name: James A. Gaskins
Title: VP OF LAND ACQUISITION

STATE OF NORTH CAROLINA
COUNTY OF Wake

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

RACHEL CAVALEAR
Notary Public, North Carolina
Wake County
My Commission Expires
April 19, 2027
[NOTARY SEAL]

Rachel Cavalear
Notary Public
State of North Carolina
My Commission Expires: April 19, 2027

Affidavit of Ownership

Exhibit "A"

BEING THAT TRACT OF LAND LOCATED IN BUCKHORN TOWNSHIP, WAKE COUNTY, NORTH CAROLINA, AS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A PINCHED 3/4" EXISTING IRON PIPE AT THE NORTHWEST PROPERTY CORNER OF PIN 0710736732, AS RECORDED IN DEED BOOK 2367 PAGE 693 IN THE WAKE COUNTY REGISTRY, AND RUNNING THE FOLLOWING CALLS:

S89°14'14"E, 677.99' TO A 3/4" IRON PIPE SET;
THENCE S89°12'15"E, 1,126.48' TO A 3/4" EXISTING IRON PIPE;
THENCE S01°21'26"W, 33.00' TO A BENT 3/4" EXISTING IRON PIPE;
THENCE S62°23'27"E, 222.99' TO A BENT 1" EXISTING IRON PIPE;
THENCE S89°31'44"E, 181.71' TO A 3/4" EXISTING IRON PIPE ON THE WESTERN RIGHT OF WAY OF NEW HILL OLIVE CHAPEL ROAD, SAID IRON PIPE BEING A CONTROL CORNER WITH NORTH CAROLINA STATE PLANE COORDINATES N: 703,604.52' & E: 2,018,799.66' (NSRS 2011 / NAD 83 / SPC),
THENCE, ALONG SAID RIGHT OF WAY, S14°25'18"E, 66.83' TO A 5/8" EXISTING IRON PIPE;
THENCE, LEAVING SAID RIGHT OF WAY, N88°11'18"W, 188.21' TO A 5/8" EXISTING IRON PIPE;
THENCE, N88°11'18"W, 25.93' TO A 3/4" IRON PIPE SET;
THENCE N62°24'56"W, 207.03' TO A 3/4" EXISTING IRON PIPE;
THENCE N87°31'49"W, 1,326.61' TO A 3/4" EXISTING IRON PIPE;
THENCE S00°29'51"W, 657.49' TO A CAPPED 3/4" EXISTING IRON PIPE;
THENCE S00°28'07"W, 459.96' TO A CAPPED 1" EXISTING IRON PIPE;
THENCE N88°57'38"W, 331.99' TO A CAPPED 3/4" EXISTING IRON PIPE;
THENCE N88°57'38"W, 226.32' TO A CAPPED 1/5" EXISTING IRON PIPE;
THENCE N00°29'37"E, 1,013.85' TO A CAPPED 1" EXISTING IRON PIPE;
THENCE N27°07'07"E, 180.77' TO A PINCHED 3/4" EXISTING IRON PIPE, SAID IRON PIPE BEING THE POINT AND PLACE OF BEGINNING.

CONTAINING 782,525 SQUARE FEET, MORE OR LESS, AS SHOWN ON THE ALTA/NSPS LAND TITLE SURVEY PREPARED BY STEVEN P. CARSON, P.L.S., DATED 01/14/2021 AND BEARING THE JOB NUMBER 210950.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

KD2H, LLC is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: PIN 0710825733: 2537 Lashlee Way

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

KD2H, LLC, a North Carolina limited liability company

By: _____

Name: DAVID M HEPBURN

Title: MEMBER/MANAGER

Date: 10/17/24

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 #: 24CZ19 Submittal Date: _____

The undersigned, David Hepburn (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 PIN 0710825733 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 January 15, 2024, and recorded in the Wake County Register of Deeds Office on January 23, 2024, in Book 19522 Page 2138.

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 January 23, 2024, 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 January 23, 2024, 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 17th day of OCTOBER, 2024.

KD2H, LLC, a North Carolina limited liability company

By: _____

Name: MEMBER/MANAGER

Title: DAVID M. HEPBURN

STATE OF NORTH CAROLINA
COUNTY OF Wake

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

THOMAS F. COLHOUN
NOTARY PUBLIC
WAKE COUNTY, NC

[NOTARY SEAL]

Thomas F. Colhoun / Thomas F. Colhoun

Notary Public
State of North Carolina
My Commission Expires: 10/25/2025

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 Submittal Date: _____

Insert legal description below.

BEING all of that 1.22 acres, more or less, as shown on map and survey entitled "Boundary Survey for: Annie Ruth Lashlee Broadwell and Rhonda Ann Broadwell," by Benton Dewar & Associates, R.L.S., dated November 10, 1993 and recorded in Book of Maps 1993, Page 1464, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

MENAGE LLC is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: PIN 0710835242; 8621 Athlete Drive

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

MENAGE LLC, a North Carolina limited liability company

By: Rajashri Kale

Name: RAJASHRI KALE

Title: owner / member / President

Date: 10/24/2024

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 #: 24CZ19 Submittal Date: _____

The undersigned, RAJASHRI KALE (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 PIN 0710835242 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 May 31, 2024, and recorded in the Wake County Register of Deeds Office on June 3, 2024, in Book 19627 Page 681.

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 3, 2024, 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 3, 2024, 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 24th day of October, 2024.

MENAGE LLC, a North Carolina limited liability company

By: Rashi Kale

Name: RAJASHRI KALE

Title: owner / member / president

STATE OF NORTH CAROLINA
COUNTY OF Wake

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

Khanh Dac
NOTARY PUBLIC
Wake County, NC
My Commission Expires April 01, 2027

[NOTARY SEAL]

Notary Public
State of North Carolina
My Commission Expires: April 1, 2027

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 **Submittal Date:** _____

Insert legal description below.

BEING all of Tract 2, containing 4.493 gross acres, as shown on map entitled "Minor Limited Plat Subdivision, Annie Ruth Lashlee Broadwell, Cathy Pauline Broadwell, Rhonda Ann Broadwell Lee" bt Benton W. Dewar and Associates and same being recorded in Book of Maps 2019, Page 297, Wake County Registry.

Included in Tract 2 is an area labeled "new 50' private access easement containing 0.251 gross acres." By this deed that area is conveyed fee simple.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

Ralph G. Miller Jr. is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: PIN 0710830487, 2513 Lashlee Way; PIN 0710734325, 2509 Lashlee Way

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

Ralph G. Miller Jr. 10-22-2024

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 #: 24CZ19 Submittal Date: _____

The undersigned, Ralph G. Miller Jr. (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 PINs 0710830487 & 0710734325 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 July 19, 1983, and recorded in the Wake County Register of Deeds Office on July 27, 1983, in Book 3149 Page 708.

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 July 27, 1983, 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 July 27, 1983, 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 22 day of Oct, 2024

Ralph G. Miller Jr. (seal)

Ralph G. Miller Jr.

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 Ralph G. Miller Jr, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's Drivers License, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.

THOMAS F. COLHOUN
NOTARY PUBLIC
WAKE COUNTY, NC

[NOTARY SEAL]

Thomas F. Colhoun
Notary Public
State of North Carolina
My Commission Expires: 10/25/2025

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 Submittal Date: _____

Insert legal description below.

BEING all of Lot or Tracts A and A1, consisting of 17.094 acres and 4.014 acres respectively, as shown on plat entitled "Survey for Ralph G. Miller, Jr. and wife, Denise A. Miller and Larry D. Kingsley and wife, Margaret T. Kingsley", dated May 30, 1983, by Van R. Finch, and recorded in Book of Maps 1983, Page 823, Wake County Registry.

Together with all right, title and interest of the grantors in and to those certain easements described in deeds recorded in Book 3087, Page 732, Book 3087, Page 734, Book 3087, Page 736, and Book 3087, Page 728, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

SHRI VARNI LLC is the owner* of the property for which the attached application is being submitted:

- ☑ 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: PIN 0710827861; 3600 Old US 1 HWY

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

SHRI VARNI LLC, a North Carolina limited liability company

By: _____

Name: KALPESH PATEL

Title: OWNER

Date: 10/24/2024

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 #: 24CZ19 Submittal Date: _____

The undersigned, Kalpesh Patel (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 PIN 0710827861 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 July 13, 2020, and recorded in the Wake County Register of Deeds Office on July 16, 2020, in Book 17968 Page 918.

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 July 16, 2020, 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 July 16, 2020, 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 24th day of October, 2024.

SHRI VARNI LLC, a North Carolina limited liability company

By: _____
Name:
Title: OWNER

STATE OF NORTH CAROLINA
COUNTY OF Wake

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

MARCOS A LAZARO
Notary Public
Wake Co., North Carolina
My Commission Expires Oct. 11, 2027
[NOTARY SEAL]

_____
Notary Public
State of North Carolina
My Commission Expires: 10/11/2027

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 Submittal Date:

Insert legal description below.

BEING all of Tract 1, containing 5.985 gross acres, as shown on map entitled "Minor Limited Plat Subdivision, Annie Ruth Lashlee Braodwell, Cathy Pauline Broadwell, Rhonda Ann Broadwell Lee" by Benton W. Dewar and Associates and same being recorded in Book of Maps 2019, Page 2097, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

Richard P. Vitek is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: PIN 0710724872; 2504 Lashlee Way

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

Richard P. Vitek — Type or print name

10/25/24 — 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 #: 24CZ19 Submittal Date: _____

The undersigned, Richard P. Vitek (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 PIN 0710724872 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 July 8, 2005, and recorded in the Wake County Register of Deeds Office on July 8, 2005, in Book 11460 Page 212.

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 July 8, 2005, 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 July 8, 2005, 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 25th day of October, 2024.

_____ (seal)
Richard P. Vitek
Type or print name

STATE OF ~~NORTH CAROLINA~~ Michigan
COUNTY OF Lenawee

I, the undersigned, a Notary Public in and for the County of Lenawee, hereby certify that Richard P. Vitek, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's Drivers License, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.

Chelsey M Boss Chelsey M Boss 10/25/24
Notary Public
State of ~~North Carolina~~ Michigan
My Commission Expires: 10/23/2025

CHELSEY M BOSS NOTARY PUBLIC 10/23/2025 LENAWEE STATE OF MICHIGAN [NOTARY SEAL]

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ19 Submittal Date: _____

Insert legal description below.

BEING all of Tract 1 and Tract 2A as shown on plat titled "Recombination Survey for Richard P. Vitek, et ux and Richard S. Burroughs, et ux" dated June 24, 2005, prepared by Smith and Smith Surveyors, and recorded in Book of Maps 2005, Page 2301, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

NEW HILL BAPTIST CHURCH is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: a portion of PIN 0710824319; 3700 Old US 1 HWY

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

NEW HILL BAPTIST CHURCH

By: Sharon A Watson

Name: Sharon A. Watson

Title: Church Clerk | Trustee

Date: 11-6-2024

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.

AGENT AUTHORIZATION FORM

Application #: 24CZ19 Submittal Date: _____

NEW HILL BAPTIST CHURCH is the owner* of the property for which the attached application is being submitted:

- ☑ 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: Annexation Petition

The property address is: a portion of PIN 0710824319; 3700 Old US 1 HWY

The agent for this project is: Alan Maness & Matthew J. Carpenter

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

Agent Name: Alan Maness & Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400, Raleigh, NC 27601

Telephone Number: 919-835-4032

E-Mail Address: MatthewCarpenter@parkerpoe.com

Signature(s) of Owner(s)*

NEW HILL BAPTIST CHURCH

* By: _____ - Trustee
Name: Cheryl Leigh Steinmeyer
Title:
Date: 11/6/24

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 #: 24CZ19 Submittal Date: _____

The undersigned, Sharon A. Watson-Trustee (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 a portion of PIN 0710824319 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 January 27, 1998, and recorded in the Wake County Register of Deeds Office on February 4, 1998, in Book 7883 Page 739.

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 February 4, 1998, 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 February 4, 1998, 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 6 day of NOVEMBER, 2024.

NEW HILL BAPTIST CHURCH

By: Sharon A. Watson
Name: Sharon A Watson
Title: Trustee

STATE OF NORTH CAROLINA
COUNTY OF WAKE

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

DANIEL H. WOODS NOTARY PUBLIC [NOTARY SEAL] WAKE COUNTY NORTH CAROLINA

Daniel H. Woods
Notary Public DANIEL H. WOODS
State of North Carolina
My Commission Expires: 11/18/2028

AFFIDAVIT OF OWNERSHIP

Application #: 24CZ19 Submittal Date: _____

The undersigned, Cheryl Leigh Steinmeyer Trustee (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 a portion of PIN 0710824319 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 January 27, 1998, and recorded in the Wake County Register of Deeds Office on February 4, 1998, in Book 7883 Page 739.

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 February 4, 1998, 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 February 4, 1998, 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 6 day of NOVEMBER, 2024.

NEW HILL BAPTIST CHURCH

By: _____
Name:
Title: Trustee

STATE OF NORTH CAROLINA
COUNTY OF WAKE

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

DANIEL H. WOODS NOTARY PUBLIC WAKE COUNTY NORTH CAROLINA [NOTARY SEAL]

_____
Notary Public DANIEL H. WOODS
State of North Carolina
My Commission Expires: 11/18/2028

EXHIBIT A

to

Affidavit of Ownership

BEGINNING at an iron pipe set located in the eastern line of Olive Max Horton, said iron pipe set being North 08 degrees 34 minutes 00 East 117.47 feet from an existing iron in the northern right of way of SR #1011 (Old U.S. #1), the southeast corner for Olive Max Horton; runs thence North 17 degrees 48 minutes 41 seconds West 90.03 feet to an iron pipe set; thence North 08 degrees 34 minutes 00 seconds East 74.44 feet to an iron pipe set; thence North 24 degrees 09 minutes 18 seconds East 148.85 feet to an existing iron pipe; thence South 08 degrees 34 minutes 00 seconds East 298.47 feet to the point and place of BEGINNING, containing 0.17 acre as shown on map entitled "Recombination Survey for New Hill Baptist Church", by William O. Yates, NCRLS, dated December 22, 1997, and recorded in Book of Maps 1998, page 93, Wake County Registry.

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Wake County Residential Development Notification

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

Developer Company *Information*	
Company *Name*	Barnett Properties, LLC
Company Phone *Number*	c/o Matthew Carpenter 919-835-4032
Developer Representative *Name*	Matthew Carpenter
Developer Representative *Phone Number*	Same as above
Developer Representative *Email*	matthewcarpenter@parkerpoe.com

New Residential Subdivision *Information*	
Date of Application for Subdivision	TBD; PUD Application 11/1/2024
City, Town or Wake County Jurisdiction	Town of Apex
Name of Subdivision	New Hill Commons
Address of Subdivision (if unknown enter nearest cross streets)	New Hill Olive Chapel Road/Old US-1
REID(s)	See attached
PIN(s)	See attached

Projected Dates *Information*	
Subdivision *Completion Date*	2028
Subdivision *Projected First Occupancy Date*	2027

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	110					50	60	1500	3500	TBD	TBD	2027					
Townhomes																	
Condos																	
Apartments																	
Other																	

Revised 08/10/2018

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.

October 16, 2024
Date

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

See attached Exhibit A | See attached Exhibit A
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. Applications for Rezoning must hold a second Neighborhood Meeting in the month prior to the anticipated public hearing date.

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

	Application Type	Approving Authority
☑	Rezoning (including Planned Unit Development)	Town Council
☑	Major Site Plan	Technical Review Committee (staff)
☐	Minor Site Plan for the uses "Day care facility", "Government service", "School, public or private", "Restaurant, drive-through", or "Convenience store with gas sales"	Technical Review Committee (staff)
☐	Special Use Permit	Board of Adjustment (QJPH*)
☑	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)):
The applicant is proposing to rezone the property to Planned Unit Development-Conditional Zoning (PUD-CZ) to facilitate a mixed-use development.

Estimated submittal date: November 1, 2024

MEETING INFORMATION:

Property Owner(s) name(s):	See attached Exhibit A
Applicant(s):	Barnett Properties, LLC c/o Matthew Carpenter
Contact information (email/phone):	matthewcarpenter@parkerpoe.com; (919) 835-4032
Meeting Address:	Virtual (ZOOM) - See attached notice letter
Date/Time of meeting**:	October 30, 2024

Welcome: 5:30 PM Project Presentation: 5:30 PM Question & Answer: 6:00 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 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.

Parker Poe
Attorneys & Counselors at Law

To: Neighboring Property Owners and Tenants
From: Matthew J. Carpenter
Date: October 16, 2024

Re: Notice of Virtual Neighborhood Meeting

You are invited to attend a virtual neighborhood meeting on October 30, 2024 at 5:30 PM to discuss an upcoming application to rezone ten properties located at 0 New Hill Olive Chapel Road (PIN 0710736732), 2704 New Hill Olive Chapel Road (PIN 0710837363), 2504 Lashlee Way (PIN: 0710724872), 2508 Lashlee Way (PIN 0710728789), 2509 Lashlee Way (PIN: 0710734325), 2513 Lashlee Way (PIN: 0710830487), 2537 Lashlee Way (PIN 0710825733), 8621 Athlete Drive (PIN: 0710835242), 3600 Old US 1 Hwy (PIN 0710827861), and a portion of 3700 Old US 1 Hwy (Lashlee Way) (PIN 0710824319) from Planned Unit Development Conditional Zoning (PUD-CZ), Neighborhood Business District Conditional Zoning (B1-CZ), Residential-40 Watershed (R-40W) (Wake County), and Mixed Office-Residential-Retail Conditional Zoning (MORR-CZ) to Planned Unit Development Conditional Zoning (PUD-CZ) generally as shown on the attached Concept Plan.

The purpose of the rezoning is to facilitate a mixed-use development with commercial and residential uses. During the meeting, the applicant will describe the nature of the rezoning request and field any questions from the public. Enclosed are: (1) a vicinity map; (2) a current zoning map; (3) a preliminary concept plan; (4) a project contact information sheet; and (5) a common construction issues & who to call information sheet.

The meeting will be held virtually. You can participate online via Zoom or by telephone. To participate in the Zoom online meeting:

Visit:	https://zoom.us./join
Enter the following meeting ID:	837 7593 4578
Enter the following password:	316491

To participate by telephone:

Dial:	1 929 205 6099
Enter the following meeting ID:	837 7593 4578 #
Enter the Participant ID:	#
Enter the Meeting password:	316491 #

If you have any questions about this rezoning, please contact me at (919) 835-4032 or via email at matthewcarpenter@parkerpoe.com.

Sincerely,



Matthew Carpenter

New Hill Commons PUD

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, Matthew J. Carpenter, do hereby declare as follows:
Print Name

1. I have conducted a Neighborhood Meeting for the proposed Rezoning, Major Site Plan, Minor Site Plan, Residential Master Subdivision Plan, or Special Use Permit in accordance with UDO Sec. 2.2.7.B *Neighborhood Meeting*.

2. The meeting invitations were mailed to the Apex Planning Department, 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 virtually via Zoom (location/address) on October 30, 2024 (date) from 5:30 PM (start time) to 6:30 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.

10/30/2024
Date

By: _____

STATE OF NORTH CAROLINA
COUNTY OF WAKE

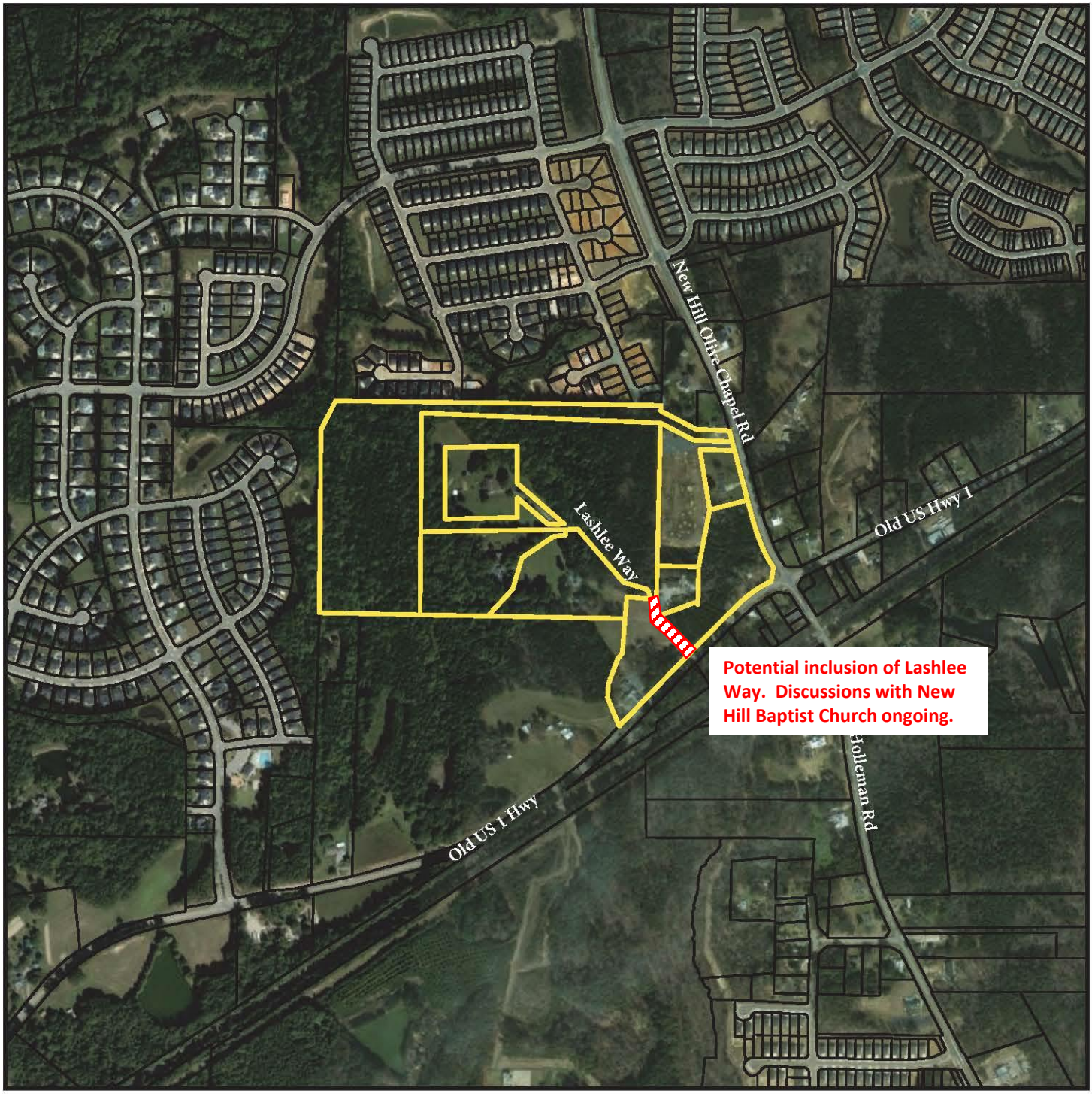
Sworn and subscribed before me, Matthew J. Carpenter, a Notary Public for the above State and County, on this the 30th day of October, 2024.

SEAL
LYNN SULLIVAN
NOTARY PUBLIC
WAKE COUNTY, NC

_____
Notary Public

Lynn Sullivan
Print Name

My Commission Expires: 11/16/2027.



0 New Hill Olive Chapel Road;
2704/2504/2508/2509/2513/2537 Lashlee Way;
8621 Athlete Drive; 3600 Old US 1 Hwy; &
***a portion of* 3700 Old US 1 Hwy (*Lashlee Way*)**

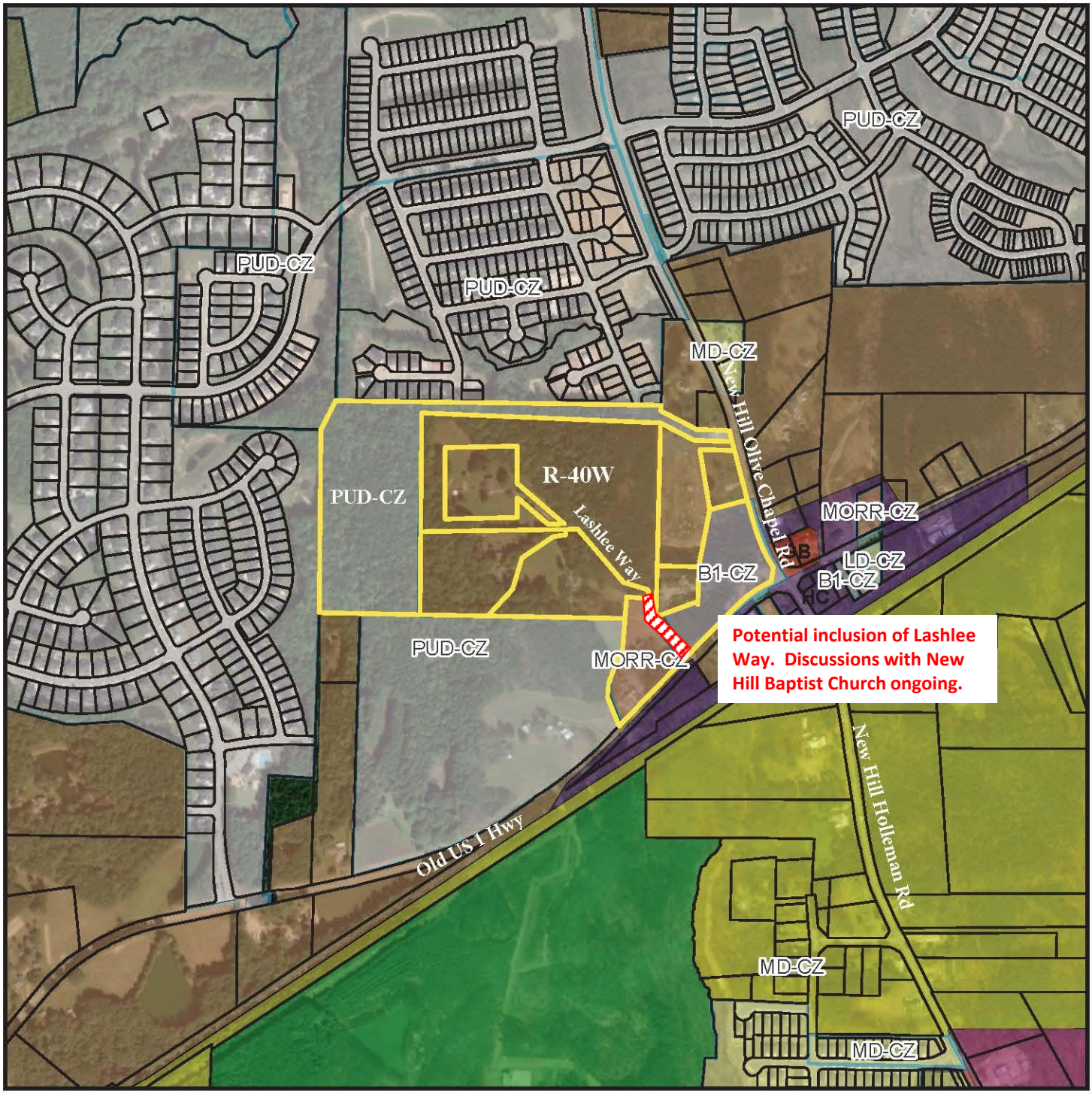
Vicinity Map

N

0 50 800 1,600

1 inch equals 800 feet

Disclaimer
*iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied ,are provided for the data therein, its use,or its interpretation.*



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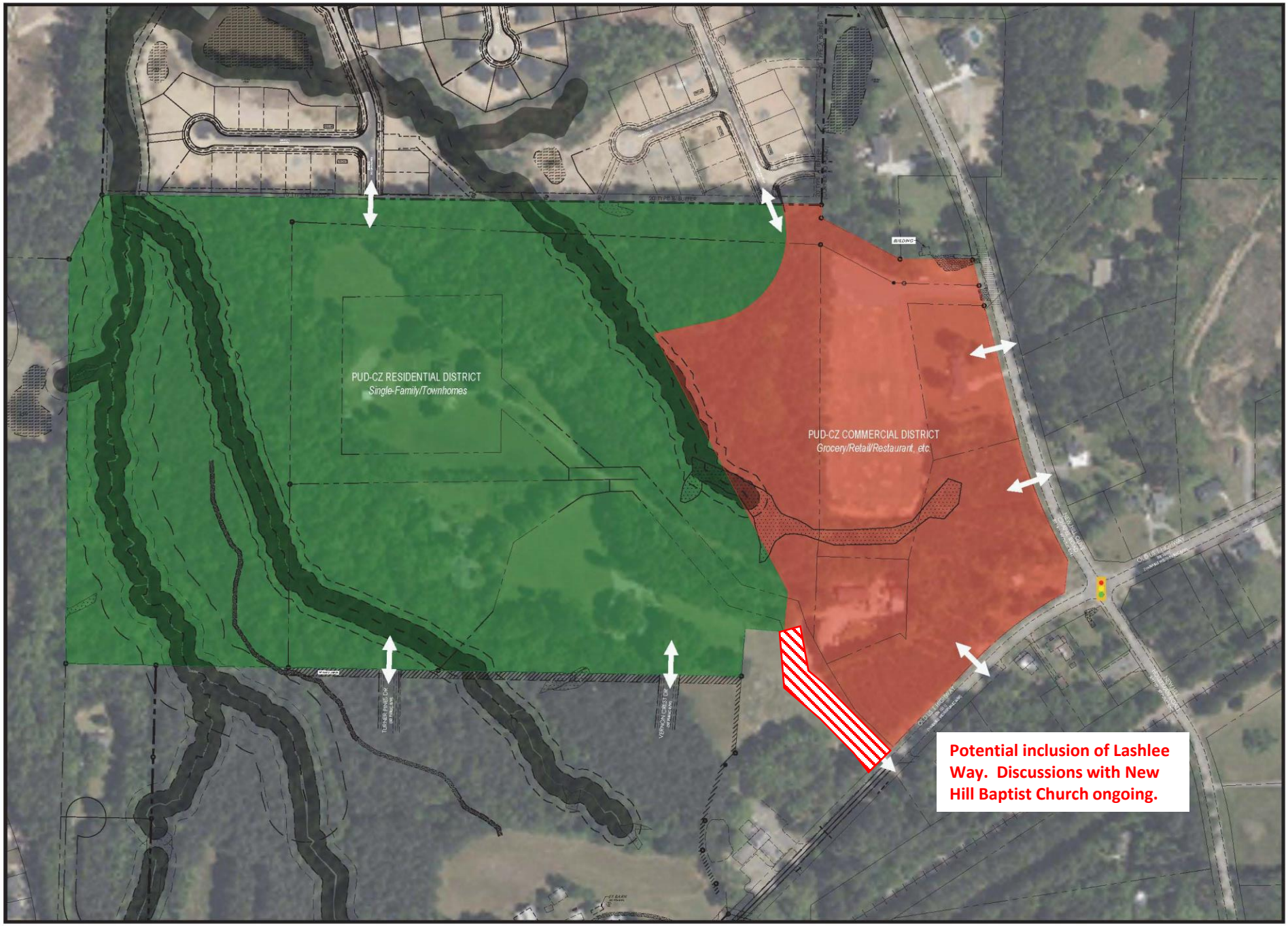
N

0 50 800 1,600

1 inch equals 800 feet

Zoning Map

Current Zoning: PUD-CZ; B1-CZ; MORR-CZ; & R-40W (Wake County)



BARNETT PROPERTIES
Developers of Commercial Real Estate Since 1972

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

NEW HILL COMMONS

OLD US HIGHWAY 1 & NEW HILL-HOLLEMAN RD.
APEX, NC

ISSUE SEQUENCE		
NO.	DATE	DESCRIPTION

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: New Hill Commons PUD Zoning: PUD-CZ, B1-CZ, MORR-CZ, and R-40W (Wake County)

Location: See attached Exhibit A

Property PIN(s): See attached Exhibit A Acreage/Square Feet: 63.75 ac

Property Owner: See attached Exhibit A

Address:

City: State: Zip:

Phone: N/A Email: N/A

Developer: Barnett Properties, LLC c/o Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400

City: Raleigh State: NC Zip: 27601

Phone: (919) 835-4032 Fax: N/A Email: matthewcarpenter@parkerpoe.com

Engineer: Peak Engineering & Design, PLLC attn: Jeff Roach

Address: 1125 Apex Peakway

City: Apex State: NC Zip: 27502

Phone: (919) 439-0100 Fax: N/A Email: jroch@peakengineering.com

Builder (if known): Barnett Properties, LLC c/o Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400

City: Raleigh State: NC Zip: 27601

Phone: (919) 835-4032 Fax: N/A Email: matthewcarpenter@parkerpoe.com

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 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 Planning Project Manager	(919) 372-7468
Public Works - Transportation Russell Dalton, Traffic Engineering Manager	(919) 249-3358
Water Resources Department Jessica Bolin, Environmental Engineering Manager (Stormwater, Sedimentation & Erosion Control) Matt Echols, Utility Engineering Manager (Water & Sewer)	(919) 249-3537 (919) 372-7505
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Exhibit A
New Hill Commons PUD
Ownership Addendum

PIN 0710736732
Address: 0 New Hill Olive Chapel Road
Acreage: 18.38 acres
Owner: KB HOME RALEIGH-DURHAM INC., a Delaware Corporation
Deed Book/Page: 19593/332
Owner Address: 1800 Perimeter Park Drive, Suite 140, Morrisville, NC 27560
Jurisdiction: Apex Town limits

PIN 0710830487
Address: 2513 Lashlee Way
Acreage: 17.09 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710734325
Address: 2509 Lashlee Way
Acreage: 4.01 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710724872
Address: 2504 Lashlee Way
Acreage: 5.98 acres
Owner: Richard P. Vitek
Deed Book/Page: Estate File
Owner Address: 2504 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710728789
Address: 2508 Lashlee Way
Acreage: 5.77 acres
Owner: Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust
Deed Book/Page: 13648/1873
Owner Address: 2504 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710835242
Address: 8621 Athlete Drive
Acreage: 4.46 acres
Owner: MENAGE LLC, a North Carolina limited liability company
Deed Book/Page: 19627/681
Owner Address: 255 Oak Haven Lane, Apex, NC 27523
Jurisdiction: Wake County

PIN 0710825733
Address: 2537 Lashlee Way
Acreage: 1.25 acres
Owner: KD2H, LLC, a North Carolina limited liability company
Deed Book/Page: 19522/2138
Owner Address: 1976 Old Byre Way, Apex, NC 27502
Jurisdiction: Wake County

PIN 0710837363
Address: 2704 New Hill Olive Chapel Road
Acreage: 1.43 acres
Owner: Annie Ruth Broadwell
Deed Book/Page: Estate File
Owner Address: 2704 New Hill Olive Chapel Road, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710827861
Address: 3600 Old US 1 Hwy
Acreage: 5.38 acres
Owner: SHRI VARNI, LLC, a North Carolina limited liability company
Deed Book/Page: 17968/918
Owner Address: 1812 Venezia Way, Apex, NC 27502
Jurisdiction: Apex Town limits

***a portion of* PIN 0710824319**
Address: 3700 Old US 1 Hwy
Acreage: 3.85 acres
Owner: New Hill Baptist Church & Cemetery Trustees
Deed Book/Page: 7883/739
Owner Address: 3700 Old US 1 Hwy, Apex, NC 27562-9762
Jurisdiction: Apex Town limits

COMMON CONSTRUCTION ISSUES & WHO TO CALL

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.

Noise & Hours of Construction: **Non-Emergency Police** **919-362-8661**

Noise from tree removal, grading, excavating, paving, and building structures is a routine part of the construction process. The Town generally limits construction hours from 7:00 a.m. to 8:30 p.m. so that there are quiet times even during the construction process. Note that construction outside of these hours is allowed with special permission from the Town when it makes more sense to have the construction occur at night, often to avoid traffic issues. In addition, the Town limits hours of blasting rock to Monday through Friday from 8:00 a.m. to 5:00 p.m. Report violations of construction hours and other noise complaints to the Non-Emergency Police phone number at 919-362-8661.

Construction Traffic: **James Misciagno** **919-372-7470**

Construction truck traffic will be heavy throughout the development process, including but not limited to removal of trees from site, loads of dirt coming in and/or out of the site, construction materials such as brick and wood brought to the site, asphalt and concrete trucks come in to pave, etc. The Town requires a construction entrance that is graveled to try to prevent as much dirt from leaving the site as possible. If dirt does get into the road, the Town can require they clean the street (see "Dirt in the Road" below).

Road Damage & Traffic Control: **Water Resources – Infrastructure Inspections** **919-362-8166**

There can be issues with roadway damage, roadway improvements, and traffic control. Potholes, rutting, inadequate lanes/signing/striping, poor traffic control, blocked sidewalks/paths are all common issues that should be reported to Water Resources – Infrastructure Inspections at 919-249-3427. The Town will get NCDOT involved if needed.

Parking Violations: **Non-Emergency Police** **919-362-8661**

Unless a neighbor gives permission, there should be no construction parking in neighbors' driveways or on their property. Note that parking in the right-of-way is allowed, but Town regulations prohibit parking within 15 feet of driveways so as not to block sight triangles. Trespassing and parking complaints should be reported to the Non-Emergency Police phone number at 919-362-8661.

Dirt in the Road: **James Misciagno** **919-372-7470**

Sediment (dirt) and mud gets into the existing roads due to rain events and/or vehicle traffic. These incidents should be reported to James Misciagno. He will coordinate the cleaning of the roadways with the developer.

Dirt on Properties or in Streams: **James Misciagno** **919-372-7470**
Danny Smith **Danny.Smith@ncdenr.gov**

Sediment (dirt) can leave the site and get onto adjacent properties or into streams and stream buffers; it is typically transported off-site by rain events. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the appropriate repairs with the developer. Impacts to the streams and stream buffers should also be reported to Danny Smith (danny.smith@ncdenr.gov) with the State.

Dust: **James Misciagno** **919-372-7470**

During dry weather dust often becomes a problem blowing into existing neighborhoods or roadways. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the use of water trucks onsite with the grading contractor to help control the dust.

Trash: **James Misciagno** **919-372-7470**

Excessive garbage and construction debris can blow around on a site or even off of the site. These incidents should be reported to James Misciagno at 919-372-7470. He will coordinate the cleanup and trash collection with the developer/home builder.

Temporary Sediment Basins: **James Misciagno** **919-372-7470**

Temporary sediment basins during construction (prior to the conversion to the final stormwater pond) are often quite unattractive. Concerns should be reported to James Misciagno at 919-372-7470 so that he can coordinate the cleaning and/or mowing of the slopes and bottom of the pond with the developer.

Stormwater Control Measures: **Jessica Bolin** **919-249-3537**

Post-construction concerns related to Stormwater Control Measures (typically a stormwater pond) such as conversion and long-term maintenance should be reported to Jessica Bolin at 919-249-3537.

Electric Utility Installation: **Rodney Smith** **919-249-3342**

Concerns with electric utility installation can be addressed by the Apex Electric Utilities Department. Contact Rodney Smith at 919-249-3342.

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: Virtual via Zoom

Date of meeting: March 19, 2025 Time of meeting: 5:30 PM

Property Owner(s) name(s): See attached.

Applicant(s): Barnett Properties, LLC

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.	Daniel Strandh	3501 Johnson Drive	919-7038056	[redacted]	yes
2.	Earl Miller	3609 Old US 1 Hwy	not provided	[redacted]	yes
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): See attached

Applicant(s): Barnett Properties, LLC

Contact information (email/phone): Mark Frederick; 919-835-4023; markfrederick@parkerpoe.com

Meeting Address: Virtual via Zoom

Date of meeting: March 19, 2025 Time of meeting: 5:30 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:

See attached.

Applicant's Response:

Question/Concern #2:

Applicant's Response:

Question/Concern #3:

Applicant's Response:

Question/Concern #4:

Applicant's Response:

Summary of First Neighborhood Meeting
New Hill Commons PUD

I. WELCOME
   a. Introduction of development team
      i. Matthew Carpenter w/ Parker Poe
      ii. Alan Maness w/ Barnett
      iii. Jeff Roach w/ Peak Engineering, civil engineer
      iv. Lyle Overcash w/ Kimley-Horn, transportation engineer
   b. Explanation of process. This is the pre-filing neighborhood meeting for a potential rezoning request, the very first step in a long development process. So, the purpose of tonight's meeting is to explain our plans and take your feedback into consideration as we put together our rezoning application.

II. PRESENTATION
   a. Site Overview - location, existing uses adjacent, and surrounding development in progress.
   b. Current Zoning - Mix of zoning designations. Some parcels in Apex Town limits. Other parcels in Wake County's planning jurisdiction. Goal of this rezoning is to rezone all parcels to Planned Unit Development Conditional (PUD-CZ) which allows the entire assemblage to be planned comprehensively
   c. 2045 Land Use Map (LUM) Designation
      i. The LUM is the primary policy document the Town uses to evaluate rezoning requests.
      ii. This property has multiple designations - office/commercial services at the intersection of New Hill Olive Chapel Road and Old US-1 and low density residential on the western portion of the property.
      iii. When we start the rezoning process, we consider the LUM designations and what type of development is appropriate here.
   d. Western Big Branch Area Plan
      i. Town is in the process of adopting the Western Big Branch Area plan which lays out how this area should be developed in the future. Although this site is not in the study area, it is directly adjacent.
      ii. As part of the Town's public engagement process, there were several responses that mentioned the desire for a grocery store and additional retail opportunities in New Hill.
   e. Draft PUD Plan
      i. As part of our PUD rezoning submittal, we'll include a concept plan that will show approximate location of proposed uses, buffers, conceptual access locations, etc.
      ii. Commercial District shown in red will permit development of grocery anchored retail at the corner of Old US-1 and New Hill Olive Chapel Road.
      iii. Area shown in yellow will be a low density single-family subdivision that's meant to be a natural extension of existing single-family residential neighborhoods in the area (Utley Farms, Jordan Pointe, Belterra). The PUD will include zoning conditions for setbacks, minimum lot sizes, and architectural conditions that ensure compatibility with existing neighborhoods.

iv. Conceptual access locations are also shown on the plan, but will be finalized at Master Subdivision Plan. UDO requires us to connect to existing stub streets to the north.

f. Rezoning Process and Timeline
   i. As I mentioned, this is the very first step in the rezoning process.
   ii. After this meeting, the next step is application submittal which will likely be November 1.
   iii. After submittal, the application will be reviewed by Town staff from each department. Staff will provide comments and we will revise our application and resubmit until all staff comments have been addressed.
   iv. After staff comments have been addressed, the case will go to Planning Board. Planning Board will hold a public hearing, review the case, and make a recommendation to Town Council.
   v. Two weeks following the Planning Board meeting, Town Council will hold a public hearing and make the final decision on the rezoning. The full process will likely take six months or longer.

III. QUESTION AND ANSWER

a. ***What do the red stars mean on the plan?***
   i. Those are conceptual utility connections, i.e. where the project will likely connect to water and sewer stubs.

b. ***Will the new residents have to go through Belterra or will there be a connection to Old US-1 and/or New Hill Olive Chapel Road?***
   i. Although the cross-access connections are required, they will not be the primary access locations for the new subdivision. The plan is for multiple routes from the residential subdivision to Old US-1 and New Hill Olive Chapel, including Lashlee Way.

c. ***Will there be a continuous pedestrian connection from Jordan Pointe to the shopping center?***
   i. No, although Utley Farms will be installing sidewalks, there are several parcels between Utley Farms and Jordan Pointe including New Hill Baptist Church. However, this project will build a 10-foot side path internally and we are working on sidewalk and side path connections to existing neighborhoods.

d. ***I'm excited that there could be a grocery store coming here that I can ride my bike to.***

e. ***There are existing trees along the northern property line? Can those be kept as part of the proposed buffers?***
   i. Yes. Our goal with perimeter buffers is to leave existing tree coverage where we can and supplement with additional plantings where needed.

f. ***How will you keep commercial traffic from cutting through Belterra?***
   i. With multiple driveways with direct access onto Old US-1 and New Hill Olive Chapel Road, it's unlikely commercial traffic will cut through the neighborhood because it's much quicker to exit directly onto a thoroughfare.

OWNER	MAILING ADDRESS		
APEX FIRST IN-VESTMENTS LLC	5448 APEX PEAKWAY # 222	APEX NC 27502-3924	
AYENGAR, SRIKANT NAIR, SHYAMA ARAVINDAKSHAN	3435 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
BAKLANOV, ALEXANDER BAKLANOVA, ELENA MIKHAYLOVNA	2708 LADOGA PL	NEW HILL NC 27562-9358	
BAVIREDDY, PREMKUMAR CHENNUPALLI, JYOTHSNA	2790 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
BEJUGAM, PRADEEP MITTAPALLI, MADHULIKA	3413 WRITT CT	NEW HILL NC 27562-7704	
BOMMAREDDY, VIJAY S BOMMAREDDY, MADHAVI LATHA	2712 LADOGA PL	NEW HILL NC 27562-9358	
BONDALAPATI, CHAITANYA KRISHNA PARVATANENI, SWATHI	2779 TURNER PINES DR	NEW HILL NC 27562-9362	
BOWERS, SARA BOWERS, MATTHEW	3429 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
BROADWELL, ANNIE RUTH L	2704 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9176	
BURROUGHS, RICHARD S TRUSTEE	2508 LASHLEE WAY	NEW HILL NC 27562-9607	
CALDWELL, DAWN CALDWELL, PATRICK KELLY	3430 WRITT CT	NEW HILL NC 27562-7704	
CAPANO, NICHOLAS G JR CAPANO, THERESA F	3507 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
CHERIAN, RAJESH COUTINHO, SABINA	3300 OLANCHA CT	NEW HILL NC 27562-7703	
CHIKKALA, RAJESH D CHIKKALA, PRIYANKA RAJESH	2717 LADOGA PL	NEW HILL NC 27562-9358	
CHONG, YOKE YOONG WANG, YAO CHAING	3236 MARSTON PL	LEXINGTON KY 40503-1380	
CLARK, MARSLYN KAY CLARK, JEFFERY ALAN	3413 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
COSTAKES, GREGORY EUBANKS, AMBER	3409 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
COTTER, STEPHANIE COTTER, /MATTHEW	3429 WRITT CT	NEW HILL NC 27562-7704	
DENNY, B JANICE F SIFF, AILEEN F	1631 COURTLAND RD	ALEXANDRIA VA 22306-2704	
DENNY, B JANICE SIFF, AILEEN F	1631 COURTLAND RD	ALEXANDRIA VA 22306-2704	
DHILLON, HARDIP SINGH DHILLON, GURMINDER KAUR	3613 OLD US 1 HWY	NEW HILL NC 27562-9761	
DHILLON, HARDIP SINGH DHILLON, GURMINDER KAUR	5785 OLD US 1 HWY	NEW HILL NC 27562-8965	
EHRHARDT, VINCENT ROBERT SANTAMARIA, AMANDA DELIA	3401 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
GUPTA, RAKESH K RAJPUT, KAVITA K	3309 OLANCHA CT	NEW HILL NC 27562-7703	
HAROLD, ADAM J HAROLD, LAUREN E	3405 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
HEIDINGER, DAVID L	PO BOX 287	MONCURE NC 27559-0287	
HENAO, MANUEL IGNACIO MALDONADO, MONICA	3433 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
HICKS, MICHAEL N HICKS, ASHLEY FAY	2600 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9174	
HOUGHTON, MICHAEL J DOBBINS, ASHLEY M	2619 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9175	
HUDSON, CLAUDE LEE JR HUDSON, JUDY A	PO BOX 7	NEW HILL NC 27562-0007	
HUDSON, JUDY A HUDSON, CLAUDE LEE	PO BOX 7	NEW HILL NC 27562-0007	
JENNINGS, GREGORY JENNINGS, JANET	3424 WRITT CT	NEW HILL NC 27562-7704	
JORDAN POINTE HOMEOWNERS ASSOCIATION INC	PPM	11010 RAVEN RIDGE RD	RALEIGH NC 27614-8837
KADZIELAWSKI, PHILIP KADZIELAWSKI, MELISSA	3308 OLANCHA CT	NEW HILL NC 27562-7703	
KATWAL, DIKSHA	3412 WRITT CT	NEW HILL NC 27562-7704	
KB HOME RALEIGH-DURHAM INC	1800 PERIMETER PARK DR STE 140	MORRISVILLE NC 27560-8464	
KD2H LLC	1976 OLD BYRE WAY	APEX NC 27502-9113	
LOHA, SOUMIK CHOUDHURY, DEBASHREE	3317 OLANCHA CT	NEW HILL NC 27562-7703	
MAKKENA, SRINIVAS PULAMALA, SWARNALATHA	3439 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
MALLOY, RANDY JERMAIN	3504 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
MENAGE LLC	255 OAK HAVEN LN	APEX NC 27523-5803	
MILLER, EARL WILSON III MILLER, JANET SPIVEY	112 PINE SPRINGS DR	COUNCIL NC 28434-8415	
MILLER, RALPH G JR	2509 LASHLEE WAY	NEW HILL NC 27562-9608	
MOHANTY, SWAPNASISH DAS, MANISHA	3409 WRITT CT	NEW HILL NC 27562-7704	
NAFKE, ALEXA J	3421 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
NAGLE, MICHAEL A NAGLE, DORIS J	3701 OLD US 1 HWY # 1	NEW HILL NC 27562-9763	
NAIR, VIPIN RAMAKRISHNAN VIPIN, RENJINI	3312 OLANCHA CT	NEW HILL NC 27562-7703	
NALLAVOLU, RAMESH NALLAVOLU, VASUNDHARA	3401 WRITT CT	NEW HILL NC 27562-7704	
NATARAJAN, VIGNESH VIGNESH, ANUSHA DEVI	3304 OLANCHA CT	NEW HILL NC 27562-7703	
NEW HILL BAPTIST CHURCH & CEMETERY TRUSTEES	3700 OLD US 1 HWY	NEW HILL NC 27562-9762	
PACKARD, BENJAMIN PACKARD, TIFFANY	3420 WRITT CT	NEW HILL NC 27562-7704	
PATEL, KANDARP PATEL, DEEPA	2797 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
PATEL, RADHABEN HASMUKHBHAI TRIVEDI, JAY MUKESHBHAI	3437 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
PERURU, DEEPAK MUSALIAHGARI, MOUNIKA	3425 WRITT CT	NEW HILL NC 27562-7704	
POOLLA, SRI BALA KIRAN RAGULA, VANAJA	3431 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
PRAKASH, SATYA	3406 WRITT CT	NEW HILL NC 27562-7704	
PUBLIC SERVICE COMPANY OF NORTH CAROLINA INCORPORA	800A GASTON RD	GASTONIA NC 28056-6519	
RAI, RAJESH KUMAR PANDEY, REENA	2793 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
RANJAN, ANU SAUMYA, FNU	2785 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
RAVI, RAVITEJA ALINEEDI, SREEJA	3421 WRITT CT	NEW HILL NC 27562-7704	
RAVINDRAN, PALANI VEL RAJAN PRAKASAM, ELAKIYA	2798 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
ROYEK, LINDSAY MONTELEONE, MARC	2713 LADOGA PL	NEW HILL NC 27562-9358	
RUPAKULLA, SRIKANTH LOYA, PAVANI	3313 OLANCHA CT	NEW HILL NC 27562-7703	
SANGHRAJKA, KAMALKUMAR S DOSHI, PRIYAL HASMUKHBHAI	2794 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
SCHLUETER, UWE SCHLUETER, TAMARA	3441 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
SEABOARD AIR LINE RR CO	3610 BUSH ST	RALEIGH NC 27609-7511	
SHAIKH, SWETHA NENI SHAIKH, AADIL	3447 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
SHARMA, GAURAV SHARMA, SNEHA	2789 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
SHEN, YILAN LEE, HOU-DU	3500 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
SHOOK, JAMES BRIAN SHOOK, JESSICA HIPPO	3453 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
SHRI VARNI LLC	1812 VENEZIA WAY	APEX NC 27502-4740	
STRANDH, MARLA ELONY STRANDH, DANIEL PATRICK	3501 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
SUTHAR, NILESH C PANCHOLI, AMISHA M	3321 OLANCHA CT	NEW HILL NC 27562-7703	
SWEENEY, THOMAS	2783 TURNER PINES DR	NEW HILL NC 27562-9362	
TAYLOR MORRISON OF CAROLINAS INC	15501 WESTON PKWY STE 100	CARY NC 27513-8636	
TURNER, BENJAMIN S	3417 JORDAN SHIRES DR	NEW HILL NC 27562-9310	

UNKNOWN	PO BOX 2331	RALEIGH NC 27602-2331
VADLAMUDI, AYYAPPA CHOWDARY VADLAMUDI, AKHILA	3417 WRITT CT	NEW HILL NC 27562-7704
VAPIWALA, NEIL VAPIWALA, MONICA SHAH	3443 HORTON RIDGE BLVD	NEW HILL NC 27562-9366
VERMA, ROBIN VERMA, SUGANDHA	3405 WRITT CT	NEW HILL NC 27562-7704
VETTER, CATHERINE L VETTER, RICHARD B	3449 JORDAN SHIRES DR	NEW HILL NC 27562-9310
VITEK, RICHARD P	2504 LASHLEE WAY	NEW HILL NC 27562-9607
WTR HISTORIC PROPERTIES LLC	2717 NEW HILL-OLIVE CHAPEL ROAD	NEW HILL NC 27562-9177
WTR HISTORIC PROPERTIES LLC	2717 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9177
XAVIER, JENKINS RUBAN ALPHONSE RAAJBARATHY, SUBASHINI	3451 HORTON RIDGE BLVD	NEW HILL NC 27562-9366
YOUNG, LORETTA ROUNDY	2717 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9177
YU, BOYANG ZHU, XUEWEI	3416 WRITT CT	NEW HILL NC 27562-7704
YUAN, WEICHANG WANG, YIXUAN	3425 JORDAN SHIRES DR	NEW HILL NC 27562-9310
ZOLVINSKI, ZACHARY ZOLVINSKI, ANDREA S	3445 JORDAN SHIRES DR	NEW HILL NC 27562-9310
APEX TOWN OF	PO BOX 250	APEX NC 27502
Current Tenant	2785 Borwell Grant DR	NEW HILL NC 27562
Current Tenant	2794 Brodwell Grant DR	NEW HILL NC 27562
Current Tenant	2798 Borwell Grant DR	NEW HILL NC 27562
Current Tenant	3700 Country Acres LN	NEW HILL NC 27562
Current Tenant	2537 Lashlee WAY	NEW HILL NC 27562
Current Tenant	2804 New Hill Holleman RD	NEW HILL NC 27562
Current Tenant	2620 New Hill Olive Chapel RD	NEW HILL NC 27562
Current Tenant	2701 New Hill Olive Chapel RD	NEW HILL NC 27562
Current Tenant	3520 Old Us 1 HWY	NEW HILL NC 27562
Current Tenant	3528 Old Us 1 HWY	NEW HILL NC 27562
Current Tenant	3605 Old Us 1 HWY	NEW HILL NC 27562
Current Tenant	3609 Old Us 1 HWY	NEW HILL NC 27562
Current Tenant	3701 Old Us 1 HWY	NEW HILL NC 27562
Current Tenant	3720 Old Us 1 HWY	NEW HILL NC 27562

APEX ENVIRONMENTAL ADVISORY BOARD
Suggested Zoning Conditions

Project Name: New Hill Commons PUD Date:

The Town of Apex Environmental Advisory Board offers this general list of suggested rezoning conditions for rezoning applicants to consider before filling a rezoning petition. The purpose of this list is to encourage and recommend implementation of exceptional environmental practices for future development that exceeds Town requirements. The Board will review each rezoning pre-application request and expand on suggested conditions by offering specific recommendations on a case-by-case basis.

The decision to include any of the recommendations below is voluntary by the applicant and the Board does not expect applicants to add all of the suggested conditions. Planning staff will include all zoning conditions suggested by this Board and will note which conditions have been added by the applicant in the staff reports to the Planning Board and Town Council. Applicants should review this list before meeting with the Board. NOTE: Text in green indicates suggested zoning condition language from Planning Staff. Underlined text indicates text or numbers that may be changed based on the specific project. Additional conditions may be suggested by the EAB at the meeting.

This document is divided into two parts:

- Part I – Residential applies to single-family dwellings and townhome subdivisions, but does not include the parking lots, exterior building lights or exterior architecture.
- Part II – Non-Residential includes condominiums, apartments, and multi-family, common areas in residential developments (e.g. amenity areas, parking lots, exterior building lights, and exterior architecture), commercial, office, and industrial areas. Your development may include elements of each part.

Please be sure to read and complete the entire document. Please provide a response to each goal and/or sub-goal. Any proposed modifications to the green zoning language should be listed in the section at the end of the document.

Part I – Residential

Single-family dwelling and townhome subdivisions (excluding parking lots, exterior building lights and exterior architecture).

STORMWATER AND WATER CONSERVATION – WATER QUALITY (1-5)	YES	NO	N/A
Goal 1. Increase riparian buffer widths from surface waters in environmentally sensitive areas. The project shall increase the riparian buffer width by at least ____ feet above the minimum required by the Unified Development Ordinance. The additional buffer width shall be measured from the top of bank on each side of the stream.	☐	☑	☐
Goal 2. Install signage near environmental sensitive areas in order to reduce pet waste and excess nutrient inputs near Stormwater Control Measure (SCM) drainage areas.			

STORMWATER AND WATER CONSERVATION – WATER QUALITY (1-5)	YES	NO	N/A
The project shall install one (1) sign per SCM to reduce pet waste and prohibit fertilizer, in locations that are publicly accessible, such as adjacent to amenity centers, sidewalks, greenways, or side paths.	☑	☐	☐
Goal 3. Implement Low Impact Development (LID) techniques as defined by the NC Department of Environmental Quality. The project shall install a minimum of _____ Low Impact Development Technique as defined and approved by the NC Department of Environmental Quality. The specific type of LID technique shall be reviewed and approved by the Water Resources Department at site or subdivision plan review.	☐	☑	☐
Goal 4. Increase pervious surface to reduce stormwater runoff and pollutant concentrations. *Option 5.1:* Install pervious pavements where practicable (e.g. when parking maximums are exceeded). The Department of Public Works & Transportation does not currently support these options within the right-of-way (ROW). These may be done on private sites, but not within the public ROW. a. The project shall utilize pervious pavement when constructing the parking spaces for parking lot-style townhomes. The specific type of pervious pavement system shall be reviewed and approved by the Water Resources Department at site or subdivision plan review. The selected system shall be maintained by the developer and/or owner's association. **AND/OR** b. The project shall utilize pervious pavement when constructing the driveways for residential units. The specific type of pervious pavement system shall be reviewed and approved by the Water Resources Department at site or subdivision plan review. The selected system shall be maintained by the developer and/or owner's association.	☐ ☐	☑ ☑	☐ ☐
Goal 5. Use the stormwater captured in the on-site SCM to irrigate landscaping within the development. At least _____ SCM shall be designed and constructed to provide irrigation to the surrounding landscaping on site. The design shall be reviewed and approved by the Water Resources Department at site plan.	☐	☑	☐

PLANTING AND LANDSCAPING (6-13)	YES	NO	N/A
Goal 6. Preserve tree canopy and prioritize medium to large, healthy, desirable species. *Option 6.1:* Preserve existing trees (percentage-based). Numbers shown may be changed based on project**.** The project shall preserve a minimum of _____% of the existing tree canopy. Where the project abuts adjacent developments, special effort shall be taken to locate the preserved trees adjacent to areas of preserved open space, including but not limited to, RCA, perimeter landscape buffers, riparian buffers, and/or HOA maintained open spaces. *Option 6.2:* Replace canopy (percentage- or DBH size-based) where there is sufficient space. The project shall replace any large type trees, that measure 18-inches in caliper size or larger, and small type trees, that measure 8-inches in caliper size or larger, that are removed as a part of the development. The ratio of replacement shall be 1 large tree to 1 replacement tree of similar species or mature size. The UDO's required landscaping may be used to satisfy this requirement. To determine the number of trees that must be replaced, a tree survey for the full property shall be provided to the Planning Department. The survey shall be independently verified by a third-party licensed arborist.	☐ ☐	☑ ☑	☐ ☐

PLANTING AND LANDSCAPING (6-13)	YES	NO	N/A
Goal 7. Plant trees to improve energy efficiency.			
Option 7.1: Plant deciduous shade trees on southern side of buildings**.** To improve energy efficiency, a combination of large and small deciduous shade trees shall be planted on the southern side of any buildings.	☐	☑	☐
Option 7.2: Plant evergreen trees as a windbreak on northern side of buildings. To improve energy efficiency, the project shall plant evergreen trees on the northern side of all buildings to act as a windbreak.	☐	☑	☐
Goal 8. Increase biodiversity. Note: Invasive species are prohibited. Please see the Town's Design and Development Manual for a link to the list of prohibited species.			
Option 8.1: Plant pollinator-friendly flora. Provide diverse and abundant pollinator and bird food sources (e.g. Snectar, pollen, and berries from blooming plants) that bloom in succession from spring to fall. (Refer to the Apex Design & Development Manual for suggested native species). a. The project shall ensure that 70% of the landscaping shall be native species, which shall provide diverse and abundant pollinator and bird food sources. Special attention shall be paid to providing diverse and abundant pollinator and bird food sources, including plants that bloom in succession from spring to fall. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review.	☑	☐	☐
Option 8.2: Provide and allow for undisturbed spaces (e.g. leaf piles, unmown fields, fallen trees) for nesting and overwintering for native pollinators and wildlife. In order to support wildlife and pollinators, HOA covenants shall not require that fallen leaves or dormant plants be removed during the winter on areas without turf grass, including individual homes and HOA owned common areas.	☐	☑	☐
Option 8.3: Retain and protect old ponds if the dam is structurally sound. To preserve and protect existing species, existing ponds shall be preserved if structurally sound.	☐	☑	☐
Option 8.4: Increase the number of native trees and shrubs. a. The project shall increase biodiversity within perimeter buffers, common owned open space, and other landscape areas by providing a variety of native and adaptive species for the canopy, understory and shrub levels. A minimum of _____% of the species selected shall be native or a native of North Carolina.	☐	☐	☐
AND/OR			
b. No single species of native or adaptive vegetation shall constitute more than 20% of the plant material of its type within a single development site.	☐	☑	☐
Goal 9. Implement xeriscaping in design, which will use landscaping that requires less irrigation and chemical use. Contact Planning for assistance, if needed. a. The project commits to planting only drought tolerant plants, of which _____% of the plants selected shall be native. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review.	☐	☑	☐
OR			
b. To reduce irrigation requirements, the project shall select and plant only warm season grasses.	☑	☐	☐
Goal 10. Promote the benefits of native pollinators. The project shall plant at least _____ native pollinator demonstration garden within the development. The developer shall coordinate with a local or state agency that specializes in the design or certification of such gardens. Informational signage regarding the purpose of the garden and selected vegetation shall be provided. The pollinator garden shall be maintained by the developer or HOA.	☐	☑	☐
Goal 11. Improve soil quality to be amenable for a variety of native and non-invasive plantings.			

PLANTING AND LANDSCAPING (6-13)	YES	NO	N/A
To encourage the establishment of healthy plants, reduce fertilizers, and reduce stormwater runoff, topsoil shall be retained on site and a minimum of 4 inches of topsoil shall be placed on each lot and within disturbed common areas.	☐	☑	☐
Goal 12. Increase perimeter buffer requirements, especially in transitional areas (nonresidential to residential areas). The UDO requires a _____-foot buffer along the _____perimeter of the property. The applicant shall add _____-foot buffer in that location, which would be an increase of _____-feet above the requirement.	☐	☑	☐
Goal 13. Reduce impacts to resource conservation Areas (RCAs). a. The project shall install signage adjacent to wooded or natural condition Resource Conservation Area. The signage shall indicate that the area is RCA and is to be preserved in perpetuity and not disturbed.	☑	☐	☐
OR			
b. A farm-style split rail fence shall be installed where wooded or natural condition Resource Conservation Area (RCA) abuts individual residential lots.	☐	☑	☐

SUSTAINABLE BUILDINGS (14)	YES	NO	N/A
Goal 14. Apply for green building certifications, such as LEED, Energy Star, BREEAM, Green Globes, NGBS Green, or GreenGuard. The project shall be designed to meet the requirements for one of the green building certifications listed above. A third-party consultant shall be hired to evaluate the project and certify to the Town of Apex that the project meets the standards for the certification. The applicant shall forward a copy of the certification application to the Town of Apex Planning Department to verify that the application has been submitted.	☐	☑	☐

WASTE MANAGEMENT (15)	YES	NO	N/A
Goal 15. Encourage the proper disposal of pet waste to reduce environmental impacts. ***Numbers shown may be changed based on project.*** The project shall install at least one (1) pet waste station per 25 residential units throughout the community in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths. If there fewer than 25 homes, at least one (1) pet waste station shall be installed.	☑	☐	☐

CLEAN ENERGY (16-18)	YES	NO	N/A
Goal 16. Install rooftop solar on buildings. a. A solar PV system of at least _____kW shall be installed on at least _____homes within the development. All solar installation required by this condition shall be completed or under construction prior to 90% of the building permits being issued for the development. The lot(s) on which this home/these homes is/are located shall be identified on the Master Subdivision Plat, which may be amended from time to time.	☐	☑	☐
AND/OR			
b. A solar PV system shall be installed on a minimum of _____model home. All solar installation required by this condition shall be completed or under construction prior to _____% of the building permits being issued for the development. The lot(s) on which this home/these homes is/are located shall be identified on the Master Subdivision Plat, which may be amended from time to time.	☐	☑	☐
AND/OR			

CLEAN ENERGY (16-18)	YES	NO	N/A
c. The amenity center for the project shall include a rooftop solar PV system with a capacity of at least _____ kWHs.	☐	☑	☐
Goal 17. Include solar conduit in building design. All homes shall be pre-configured with conduit for a solar energy system.	☐	☑	☐
Goal 18. Encourage clean transportation. The developer shall install at least _____electric vehicle charging station in amenity centers or common area parking lots.	☐	☑	☐

Part II - Non-Residential

Includes condominiums, apartments, and multi-family, common areas in residential developments (e.g. amenity areas, parking lots, exterior building lights, and exterior architecture), commercial, office, and industrial areas.

STORMWATER AND WATER CONSERVATION – WATER QUANTITY (1)	YES	NO	N/A
Goal 1. Increase design storm for retention basin in flood-prone areas. The UDO requires that treatment for the first 1-inch of runoff will be provided such that the removal of 85% Total Suspended Solids is achieved. Each option is intended to be used as an improvement to the minimum UDO requirements. If an area is already required to mitigate the 25-year storm, option b should not be selected.			
a. Post-development peak runoff shall not exceed pre-development peak runoff for the 24-hour, 1-year, 10-year, 25-year and 100-year storm events in accordance with the Unified Development Ordinance.	☐	☑	☐
OR			
b. Post development peak runoff shall not exceed pre-development peak runoff for the 24-hour, 1-year, 10-year, and 25-year storm events in accordance with the Unified Development Ordinance.	☐	☑	☐

STORMWATER AND WATER CONSERVATION – WATER QUALITY (2-7)	YES	NO	N/A
Goal 2. Increase riparian buffer widths from surface waters in environmentally sensitive areas. The project shall increase the riparian buffer width by at least _____feet above the minimum required by the Unified Development Ordinance. The additional buffer width shall be measured from the top of bank on each side of the stream.	☐	☑	☐
Goal 3. Limit tree clearing, stormwater control measures (SCM), or infrastructure in either zone of the riparian buffer. 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.	☐	☑	☐
Goal 4. Install signage near environmental sensitive areas in order to reduce pet waste and excess nutrient inputs near Stormwater Control Measure (SCM) drainage areas. The project shall install one (1) sign per SCM to reduce pet waste and prohibit fertilizer, in locations that are publicly accessible, such as adjacent to amenity centers, sidewalks, greenways, or side paths.	☑	☐	☐
Goal 5. Implement low impact development (LID) techniques as defined by the NC Department of Environmental Quality. The project shall install a minimum of _____Low Impact Development Technique as defined and approved by the NC Department of Environmental Quality. The specific	☐	☑	☐

STORMWATER AND WATER CONSERVATION – WATER QUALITY (2-7)	YES	NO	N/A
type of LID technique shall be reviewed and approved by the Water Resources Department at site or subdivision plan review.			
Goal 6. Increase pervious surface to reduce stormwater runoff and pollutant concentrations. The Department of Public Works & Transportation does not currently support these options within the ROW. These may be done on private sites, but not within the public ROW. *Option 6.1:* Install pervious pavements where practicable (e.g. when parking maximums are exceeded). a. The project shall utilize pervious pavement when constructing parking spaces that are in excess of the minimum parking requirement. The specific type of pervious pavement system shall be reviewed and approved by the Water Resources Department at site or subdivision plan review.	☐	☑	☐
AND/OR			
b. The project shall utilize pervious pavement for all of the parking spaces provided. The specific type of pervious pavement system shall be reviewed and approved by the Water Resources Department at site or subdivision plan review.	☐	☑	☐
Option 6.2: Modify curb and gutters to provide stormwater infiltration and evaporation, such as swale-only, reverse curbs, Silva cells, or curb cuts with rain gardens. To increase stormwater infiltration and evaporation, the project shall use modified curb and gutter designs to direct driveway runoff to one or more stormwater device, such as, but not limited to, bioswales, Silva cells, or rain gardens. The specific type and design shall be selected at site or subdivision plan review. The proposal shall be reviewed and approved by the Water Resources Department and Department of Public Works and Transportation.	☐	☑	☐
Option 6.3: Utilize green street design. May be done within the public ROW if it's in the form of a bioretention cell within a landscaped median or large roundabout. Will require approval by the Department of Public Works and Transportation. The project shall design and install one or more bioretention cells within the landscape median or roundabout along the primary road. The specific type and design shall be determined at site or subdivision plan review. The proposal shall be reviewed and approved by the Water Resources Department and Department of Public Works and Transportation.	☐	☑	☐
Goal 7. Stormwater re-use application: Integrate irrigation from the SCM (wet pond) on site.			
At least one _____SCM shall be designed and constructed to provide irrigation to the surrounding landscaping on site. The design shall be reviewed and approved by the Water Resources Department at site plan.	☐	☑	☐

PLANTING AND LANDSCAPING (8-15)	YES	NO	N/A
Goal 8. Preserve tree canopy and prioritize medium to large, healthy, desirable species. *Option 8.1:* Preserve existing trees (percentage-based). Numbers shown may be changed based on project**.** The EAB's preference is for a minimum of 50%. a. The project shall preserve a minimum of _____% of the existing tree canopy. Preserved areas may include, but are not limited to, RCA, perimeter buffers, riparian buffers and/or HOA maintained open space throughout the neighborhood.	☐	☑	☐
OR			
b. The project shall preserve a minimum of _____% of the existing tree canopy. Where the project abuts adjacent developments, special effort shall be taken to	☐	☑	☐

PLANTING AND LANDSCAPING (8-15)	YES	NO	N/A
locate the preserved trees adjacent to areas of existing preserved open space, including but not limited to, RCA, perimeter landscape buffers, riparian buffers, and/or HOA maintained open spaces.			
Option 8.2: Replace canopy (percentage- or DBH size-based) where there is sufficient space. The project shall replace any large type trees, that measure 18-inches in caliper size or larger, and small type trees, that measure 8-inches in caliper size or larger, that are removed as a part of the development. The ratio of replacement shall be 1 large tree to 1 replacement tree. The UDO's required landscaping may be used to satisfy this requirement. To determine the number of trees that must be replaced, a tree survey for the full property shall be provided to the Planning Department. The survey shall be independently verified by a third-party licensed arborist.	☐	☑	☐
Goal 9. Plant trees for improved energy efficiency.			
Option 9.1: Plant deciduous shade trees on southern side of buildings**.** To improve energy efficiency, a combination of large and small deciduous shade trees shall be planted on the southern side of any buildings.	☐	☑	☐
Option 9.2: Plant evergreen trees as a windbreak on northern side of buildings. To improve energy efficiency, the project shall plant evergreen trees on the northern side of all buildings to act as a windbreak.	☐	☑	☐
Goal 10. Increase biodiversity.			
Option 10.1: Plant pollinator-friendly flora. 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. (Refer to the Apex Design & Development Manual for suggested native species).			
a. The project shall select and install tree, shrub and perennial species with special attention to providing diverse and abundant pollinator and bird food sources, including plants that bloom in succession from spring to fall.	☐	☑	☐
OR			
b. The project shall ensure that 70 % of the landscaping shall be native species. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review.	☑	☐	☐
Option 10.2: Retain and protect old ponds if the dam is structurally sound. To preserve and protect existing species, existing ponds shall be preserved if structurally sound.	☐	☑	☐
Option 10.3: Increase the number of native tree and shrub species selected.			
a. The project shall increase biodiversity within perimeter buffers, common owned open space, and other landscape areas by providing a variety of native and adaptive species for the canopy, understory and shrub levels. A minimum of _____% of the species selected shall be native or a native of North Carolina.	☐	☑	☐
OR			
b. No invasive species shall be permitted. No single species of tree or shrub shall constitute more than 20% of the plant material of its type within a single development site.	☐	☑	☐
Goal 11. Implement green infrastructure.			
Option 11.1: Plant rain gardens. The project shall install one or more rain gardens throughout the site.	☐	☑	☐
Option 11.2: Install vegetated rooftops.			
a. The project shall install a vegetated rooftop, aka green roof, on each building.	☐	☑	☐
OR			
b. The project shall install a vegetated rooftop, aka green roof, on at least _____ft^2 of each building.	☐	☑	☐

PLANTING AND LANDSCAPING (8-15)	YES	NO	N/A
Option 11.3: Implement xeriscaping in design. a. The project commits to planting _____% drought tolerant native plants. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review. **OR** b. The project commits to planting only drought tolerant plants. At least _____% of the plants selected shall be native. Landscaping shall be coordinated with and approved by the Planning Department at site or subdivision review. **OR** c. To reduce irrigation requirements, the project shall select and plant only warm season grasses.	☐ ☐ ☑	☑ ☑ ☐	☐ ☐ ☐
Goal 12. Install community gardens and native pollinator demonstration gardens. The project shall plant at least _____ native pollinator demonstration garden within the development. The developer shall coordinate with a local or state agency that specializes in the design or certification of such gardens. Informational signage regarding the purpose of the garden and selected vegetation shall be provided.	☐	☑	☐
Goal 13. Improve soil quality to be amenable for a variety of native and non-invasive plantings. To encourage the establishment of healthy plants, reduce fertilizers, and reduce stormwater runoff, topsoil shall be retained on site and a minimum of 4 inches of topsoil shall be placed within disturbed areas.	☐	☑	☐
Goal 14. Increase perimeter buffer requirements, especially in transitional areas (nonresidential to residential areas). The UDO requires a _____-foot buffer along the _____perimeter of the property. The applicant is proposing a _____-foot buffer in that location, which would be an increase of _____-feet above the requirement.	☐	☑	☐
Goal 15. Add information signage or other marking at the boundary of lots when they are 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. a. The project shall install signage adjacent to wooded or natural condition Resource Conservation Area. The signage shall indicate that the area is RCA and is to be preserved in perpetuity and not disturbed. **OR** b. A farm-style split rail fence shall be installed where wooded or natural condition Resource Conservation Area (RCA) abuts individual residential lots.	☑ ☐	☐ ☑	☐ ☐

SUSTAINABLE BUILDINGS (16)	YES	NO	N/A
Goal 16. Apply for green building certifications, such as LEED, Energy Star, BREEAM, Green Globes, NGBS Green, or GreenGuard. The project shall be designed to meet the requirements for _____green building certification. A third-party consultant shall be hired to evaluate the project and certify to the Town of Apex that the project meets the standards for the certification. The applicant shall forward a copy of the certification application to the Town of Apex Planning Department to verify that the application has been submitted.	☐	☑	☐

WASTE REDUCTION (17)	YES	NO	N/A
Goal 17. Install pet waste stations in public areas for multi-family, apartments, or condominiums or dog friendly businesses.			

WASTE REDUCTION (17)	YES	NO	N/A
The project shall install at least 2 pet waste stations throughout the community, in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths.	☑	☐	☐

CLEAN ENERGY (18-20)	YES	NO	N/A
Goal 18. Install rooftop solar on buildings.			
a. A solar PV system shall be incorporated into buildings to be constructed on the property. Such PV systems shall have a capacity of not less than 2 kW/1,000 heated square feet of building floor area.	☐	☑	☐
OR			
b. A solar PV system of at least 3.5kW shall be installed on at least _____% of or _____ buildings within the development. All solar installation required by this condition shall be completed or under construction prior to _____% of the building permits being issued for the development. The buildings on which these PV systems are located shall be identified on the Site Plan, which may be amended from time to time.	☐	☑	☐
OR			
c. The amenity center for the project shall include a rooftop solar PV system with a capacity of at least _____ kWHs.	☐	☑	☐
Goal 19. Include solar conduit in building design.			
The project shall install conduit for solar energy systems for all non-residential buildings. The roof shall also be engineered to support the weight of a future rooftop solar PV system.	☐	☑	☐
Goal 20. Encourage clean transportation.			
a. The installation of EV charging spaces shall not reduce the width of adjacent sidewalk to less than 5 feet.	☐	☑	☐
AND/OR			
b. EV charging spaces shall be located such that the cords shall not cause a trip hazard.	☐	☑	☐
AND/OR			
c. The developer shall provide 5% of all parking spaces as EV charging spaces.	☐	☑	☐

LIGHTING EFFICIENCY (21-24)	YES	NO	N/A
Goal 21. Include energy efficient lighting in building design.			
Option 21.1: *Increase the use of LEDs.* The exterior lighting for all multi-family and commercial buildings and parking lots will consist entirely of LED fixtures.	☐	☑	☐
Option 21.2: Lower maximum foot-candles outside of buildings. On the lighting plan, the average footcandle measurement for parking, building lighting and driveways shall be at least 0.5 footcandles lower than the UDO requires.	☐	☑	☐
Goal 22. Install timers or light sensors or smart lighting technology.			
a. The project shall install light timers, motion sensors, or other smart lighting technology for all exterior lighting.	☐	☑	☐
Goal 23. Include International Dark Sky Association compliance standards.			
The project shall use full cutoff LED fixtures that have a maximum color temperature of 3000K for all exterior lighting, including, but not limited to, parking lot and building mounted fixtures.	☐	☑	☐

Applicant Clarification/Additional Language:
Additional Board Recommendations:

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.

March 5, 2025
Date

Dear Neighbor:

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

See attached Exhibit A — See attached Exhibit A

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. Applications for Rezoning must hold a second Neighborhood Meeting in the month prior to the anticipated public hearing date.

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

	Application Type	Approving Authority
☑	Rezoning (including Planned Unit Development)	Town Council
☑	Major Site Plan	Technical Review Committee (staff)
☐	Minor Site Plan for the uses "Day care facility", "Government service", "School, public or private", "Restaurant, drive-through", or "Convenience store with gas sales"	Technical Review Committee (staff)
☐	Special Use Permit	Board of Adjustment (QJPH*)
☑	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)):

The applicant is proposing to rezone the property to Planned Unit Development-Conditional Zoning (PUD-CZ) to facilitate a mixed-use development.

Estimated submittal date: Submitted on November 1, 2024

MEETING INFORMATION:

Property Owner(s) name(s): See attached Exhibit A

Applicant(s): Barnett Properties, LLC c/o Matthew Carpenter

Contact information (email/phone): matthewcarpenter@parkerpoe.com; (919) 835-4032

Meeting Address: Virtual (ZOOM) - See attached notice letter

Date/Time of meeting**: March 19, 2025

Welcome: 5:30 PM Project Presentation: 5:30 PM Question & Answer: 6:00 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 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.

Parker Poe
Attorneys & Counselors at Law

To: Neighboring Property Owners and Tenants
From: Matthew J. Carpenter
Date: March 5, 2025

Re: Notice of Second Required Virtual Neighborhood Meeting

You are invited to attend a virtual neighborhood meeting on March 19, 2025 at 5:30 PM to discuss 24CZ19, the requested rezoning of ten properties located at 0 New Hill Olive Chapel Road (PIN 0710736732), 2704 New Hill Olive Chapel Road (PIN 0710837363), 2504 Lashlee Way (PIN: 0710724872), 2508 Lashlee Way (PIN 0710728789), 2509 Lashlee Way (PIN: 0710734325), 2513 Lashlee Way (PIN: 0710830487), 2537 Lashlee Way (PIN 0710825733), 8621 Athlete Drive (PIN: 0710835242), 3600 Old US 1 Hwy (PIN 0710827861), and a portion of 3700 Old US 1 Hwy (Lashlee Way) (PIN 0710824319) from Planned Unit Development Conditional Zoning (PUD-CZ), Neighborhood Business District Conditional Zoning (B1-CZ), Residential-40 Watershed (R-40W) (Wake County), and Mixed Office-Residential-Retail Conditional Zoning (MORR-CZ) to Planned Unit Development Conditional Zoning (PUD-CZ) to facilitate a mixed-use development with commercial and residential uses.

During the meeting, the applicant will describe the nature of the rezoning request, provide updates since the previous neighborhood meeting, and field any questions from the public. Enclosed are: (1) a vicinity map outlining the location of the subject parcels; (2) a current zoning map of the subject area; (3) a Land Use Map exhibit; (4) a concept plan; (5) a project contact information sheet; and (6) a common construction issues & who to call information sheet.

The meeting will be held virtually. You can participate online via Zoom or by telephone. To participate in the Zoom online meeting:

Visit:	https://zoom.us./join
Enter the following meeting ID:	895 5412 1294
Enter the following password:	553328

To participate by telephone:

Dial:	1 929 205 6099
Enter the following meeting ID:	895 5412 1294 #
Enter the Participant ID:	#
Enter the Meeting password:	553328 #

If you have any questions about this rezoning, please contact me at (919) 835-4032 or via email at matthewcarpenter@parkerpoe.com.

Sincerely,

Matthew Carpenter

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, Mark Frederick, do hereby declare as follows:
Print Name

1. I have conducted a Neighborhood Meeting for the proposed Rezoning, Major Site Plan, Minor Site Plan, Residential Master Subdivision Plan, or Special Use Permit in accordance with UDO Sec. 2.2.7.B *Neighborhood Meeting*.

2. The meeting invitations were mailed to the Apex Planning Department, 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 virtually via Zoom (location/address) on 3/19/2025 (date) from 5:30 (start time) to 6:30 (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.

3/20/25
Date

By: [signature]

STATE OF NORTH CAROLINA
COUNTY OF WAKE

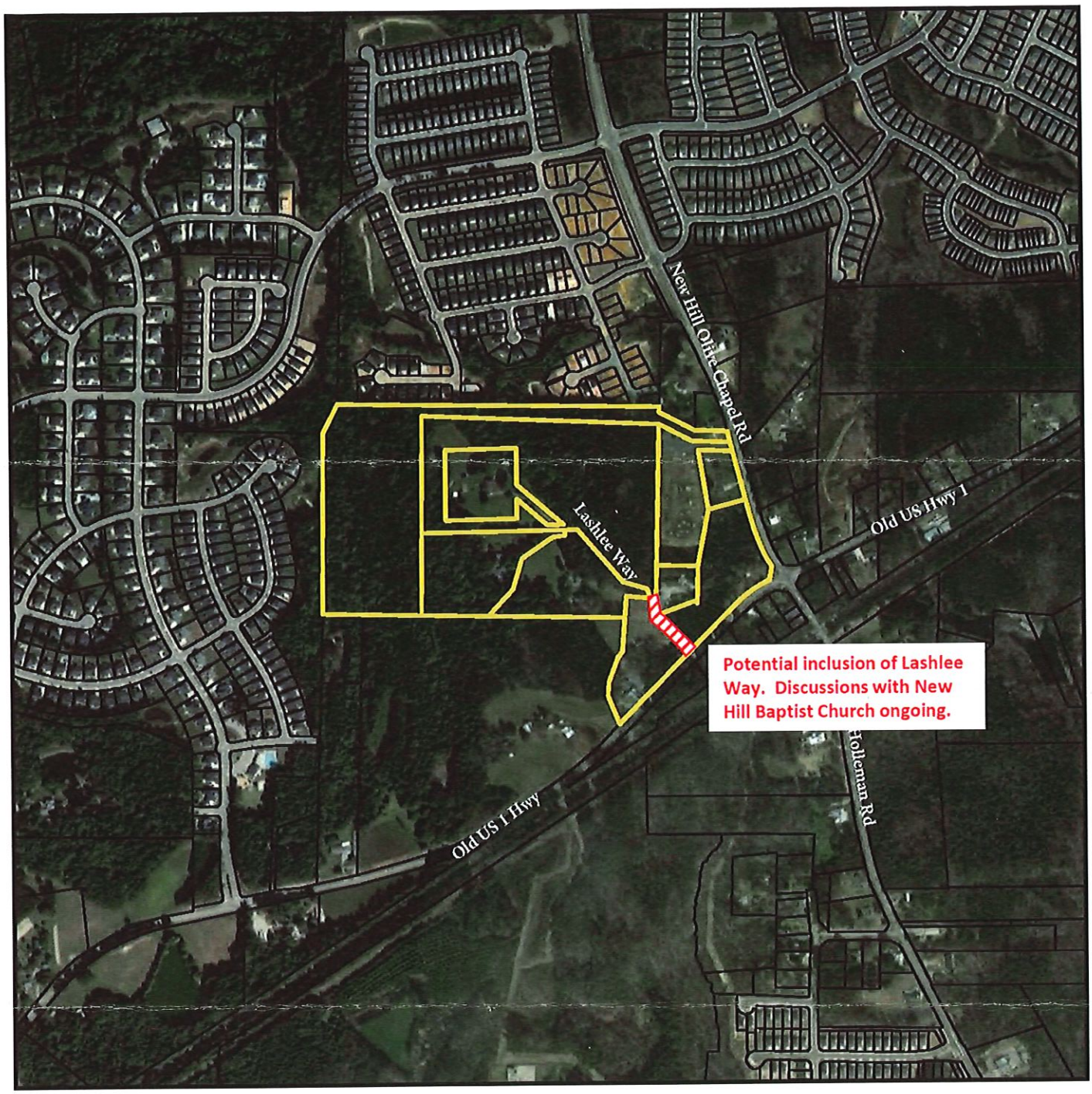
Sworn and subscribed before me, Amanda C. Turner, a Notary Public for the above State and County, on this the 20th day of March, 2025.

SEAL
AMANDA C. TURNER NOTARY PUBLIC WAKE COUNTY, NC

Amanda C. Turner
Notary Public

Amanda C. Turner
Print Name

My Commission Expires: 6/26/2025



0 New Hill Olive Chapel Road;
2704/2504/2508/2509/2513/2537 Lashlee Way;
8621 Athlete Drive; 3600 Old US 1 Hwy; &
***a portion of* 3700 Old US 1 Hwy (*Lashlee Way*)**

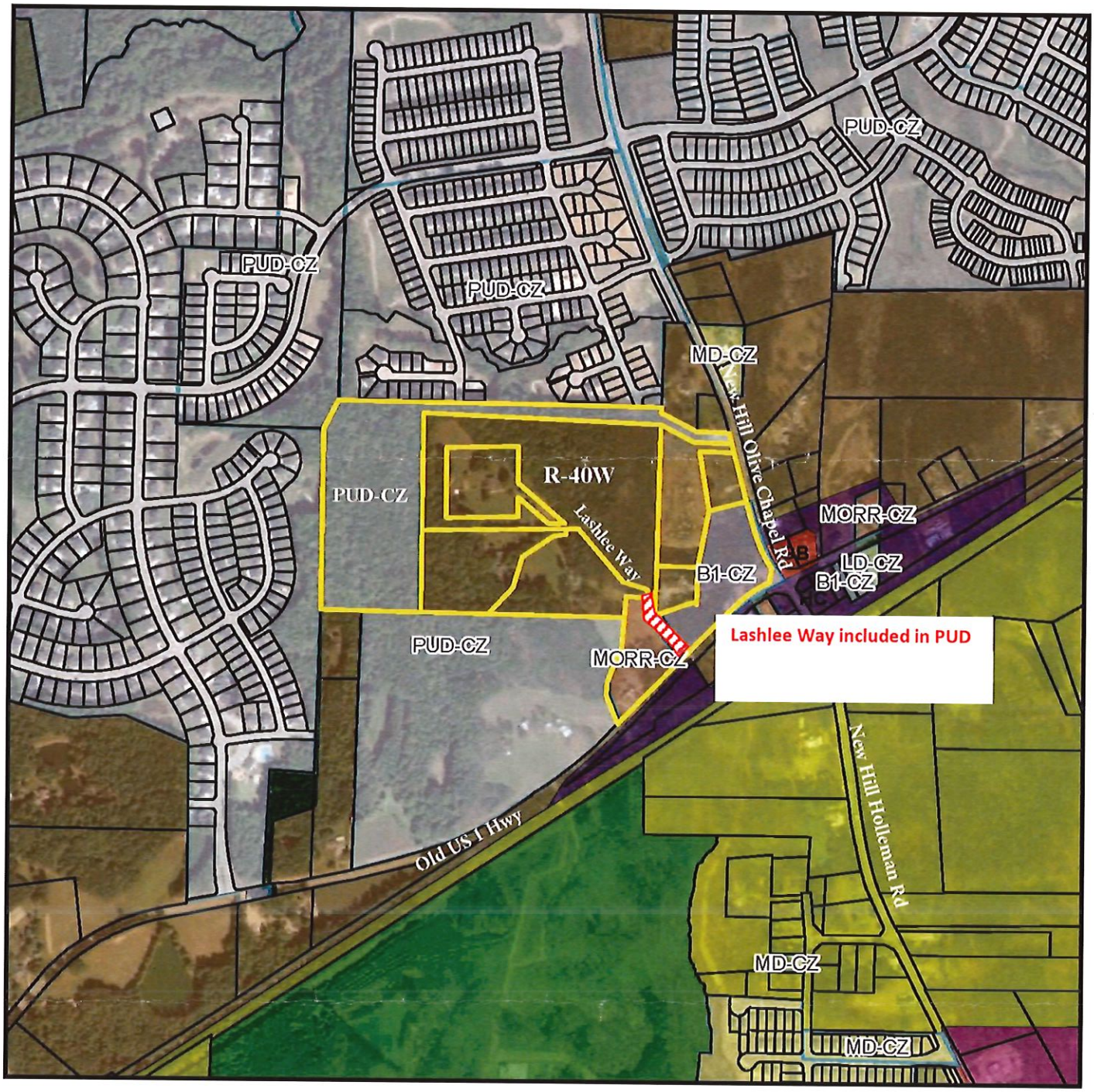
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0 50 800 1,600

1 inch equals 800 feet

Vicinity Map

Disclaimer
*iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied ,are provided for the data therein, its use,or its interpretation.*



0 New Hill Olive Chapel Road;
2704/2504/2508/2509/2513/2537 Lashlee Way;
8621 Athlete Drive; 3600 Old US 1 Hwy; &
***a portion of* 3700 Old US 1 Hwy (*Lashlee Way*)**

N

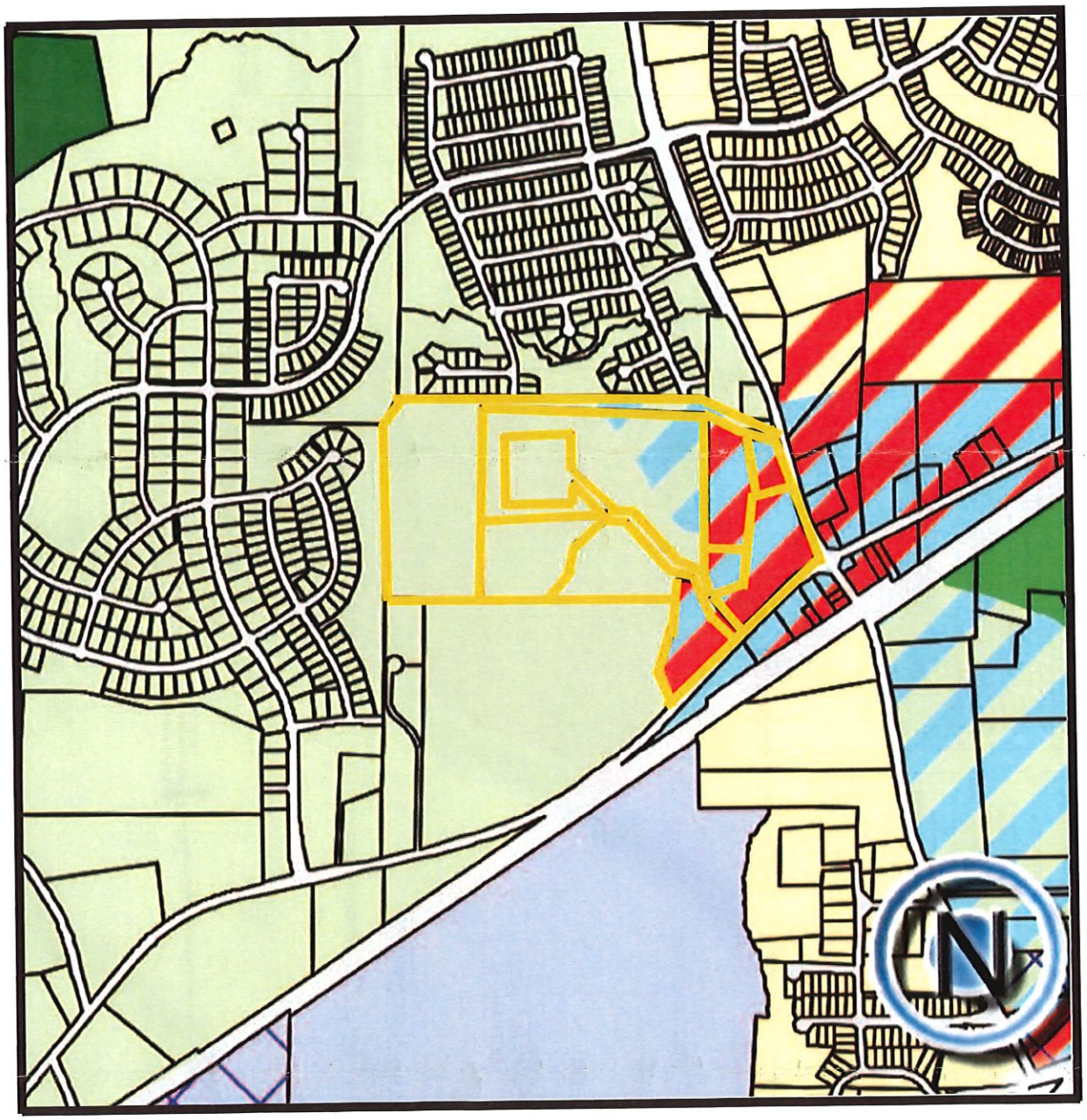
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1 inch equals 800 feet

Zoning Map

Current Zoning: PUD-CZ; B1-CZ; MORR-CZ; & R-40W (Wake County)

2045 LAND USE MAP EXHIBIT



0 New Hill Olive Chapel Road;
2704/2504/2508/2509/2513/2537 Lashlee Way;
8621 Athlete Drive; 3600 Old US 1 Hwy; &
a portion of 3700 Old US 1 Hwy (Lashlee Way)

N

<u>Current LUM Designation</u>: Low Density Residential;
Low Density Residential/Office Employment; &
Office Employment/Commercial Services

<u>Proposed LUM Designation:</u> Low Density Residential
& Office Employment/Commercial Services

SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION, MAJOR, OR MINOR SITE PLAN DESIGN AND APPROVAL.
2. FINAL RESOURCE CONSERVATION AREA (RCA), OPEN SPACE, AND PLAY LAWN LOCATIONS SHALL BE COORDINATED WITH STAFF AND BUILDER DURING MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN AND APPROVAL.
3. ALL ZONING PLAN SHEETS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN COMPONENTS ARE DETERMINED AT MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN.
4. REFER TO PD TEXT DOCUMENTS FOR A LIST OF ALLOWABLE USES, ZONING CONDITIONS, AND OTHER DESIGN STANDARDS FOR THE DEVELOPMENT.
5. ENVIRONMENTAL FEATURES ARE SUBJECT TO FINAL REVIEW CONCURRENCE WITH VARIOUS REGULATORY AGENCIES.
6. PUBLIC PEDESTRIAN AND VEHICULAR ACCESS IS SHOWN FOR CONCEPTUAL PURPOSES AND ARE SUBJECT TO REVISIONS DURING THE MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN AND APPROVAL.
7. ALL SITE ELEMENTS ARE REQUIRED TO MEET OR EXCEED TOWN OF APEX, NCDOT, OR OTHER REVIEW AUTHORITY STANDARD DESIGN SPECIFICATIONS.
8. PROJECT WILL COMPLY WITH A ADOPTED TOWN MASTER PLANS INCLUDING COMPREHENSIVE TRANSPORTATION, UTILITY, AND GREENWAYS PLANS.
9. THE PROJECT IS REQUESTING FULL TOWN SERVICES, INCLUDING BUT NOT LIMITED TO WATER, SEWER AND ELECTRICITY.
10. THE PROJECT WILL NOT UTILIZE PRIVATE SEWAGE DISPOSAL.
11. NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF SEDIMENTATION MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS-SCHEDULES.
12. TREE PROTECTION FENCING MUST BE PLACED:
    a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
    b. ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
    c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.
13. ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER. SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

RIPARIAN BUFFERS AND WETLANDS:

RIPARIAN BUFFERS AND WETLANDS LOCATED ON SITE BY SOILS & ENVIRONMENTAL CONSULTANTS, INC TO BE CONFIRMED BY THE US ARMY CORPS OF ENGINEERS AND TOWN OF APEX.
TOWN OF APEX PROJECT TBD.

EXISTING CONDITIONS NOTES:

1. BOUNDARY AND EXISTING CONDITIONS SURVEYS PROVIDED BY WITHERSRAVENEL.
2. TOPOGRAPHIC INFORMATION FROM WAKE COUNTY GIS AND SURVEYOR DATA.
3. NO SLOPES EQUAL TO OR GREATER THAN 2:1 FOUND ON THE SITE.
4. NC SHPO DOES NOT SHOW ANY EXISTING HISTORICAL STRUCTURES ALTHOUGH A NUMBER OF THE PROPERTIES ARE LOCATED WITHIN THE NEW HILL HISTORIC DISTRICT.
5. PROPOSED GREENWAY, SIDEPATHS, AND/OR MEETHASE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN.
6. 100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.
7. PROPERTIES ARE LOCATED WITHIN THE PIPPAIRY WATERSHED OVERLAY DISTRICT, LITTLE BEAVER CREEK, JORDAN LAKE, CAPE FEAR RIVER BASIN.
8. EXISTING HOMES UTILIZE PRIVATE WASTE WATER AND WELLS. ALL FEATURES SHALL BE ABANDONED OR REMOVED AS REQUIRED BY THE APPROPRIATE REVIEW AGENCY.

REQUIRED PLAN NOTES:

11 NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF E&S MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS-SCHEDULES.

12 TREE PROTECTION FENCING MUST BE PLACED:
- a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
- b. ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
- c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.

13 ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER. SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

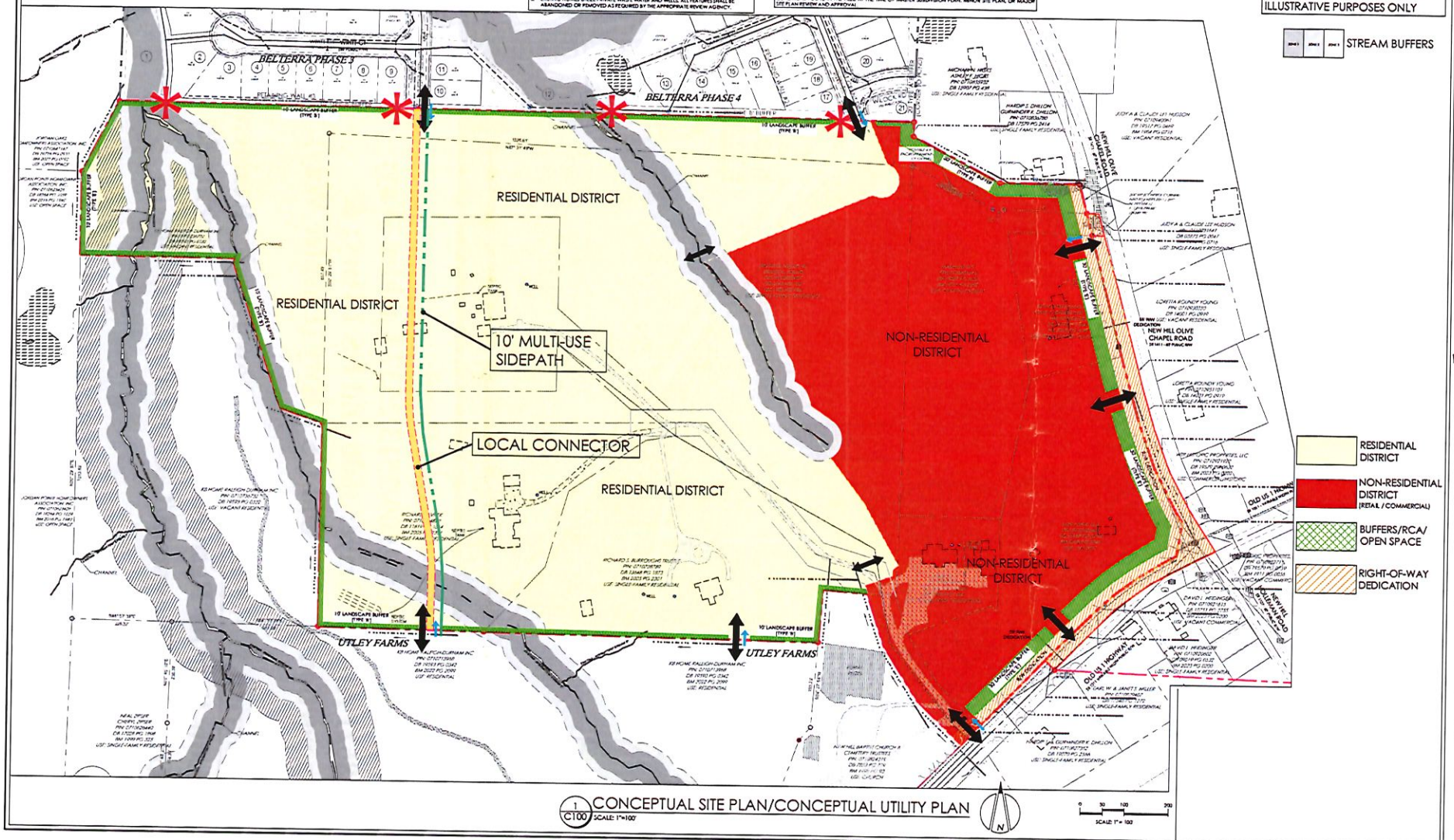
POTENTIAL ACCESS POINTS:

POTENTIAL ACCESS POINTS SHOWN ON THE CONCEPTUAL SITE PLAN / CONCEPTUAL UTILITY PLAN (C100) ARE NOT SHOWN IN EXACT LOCATIONS BUT SHOW PROPOSED CONNECTIONS. CONNECTIONS CAN ONLY BE REMOVED FROM THE DEVELOPMENT CONNECTIVITY REQUIREMENTS OF THE PUD IF THE DEVELOPER SHOWS TO THE SATISFACTION OF THE PLANNING DIRECTOR, IN CONSULTATION WITH THE TECHNICAL REVIEW COMMITTEE (TRC), THAT THE CONSTRUCTION OF THE CONNECTION WOULD BE IMPRACTICAL BASED ON ENVIRONMENTAL CONDITIONS FOUND IN THE FIELD AT THE TIME OF MASTER SUBDIVISION PLAN, MINOR SITE PLAN, OR MAJOR SITE PLAN REVIEW AND APPROVAL.

PROJECT PERIMETER BOUNDARY
POTENTIAL WATER CONNECTIONS
POTENTIAL SEWER CONNECTIONS
POTENTIAL ACCESS POINTS
LOCAL CONNECTOR
SIDEPATH

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

STREAM BUFFERS



1 C100 CONCEPTUAL SITE PLAN/CONCEPTUAL UTILITY PLAN
SCALE: 1"=100'

SCALE: 1" = 100

PEAK Engineering & Design
1135 Apex Parkway | Apex, NC 27502
www.peakengineering.com
NC License #P-0673

project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
NORTH CAROLINA PRELIMINARY NOT FOR CONSTRUCTION

no.	description	date
1		
2		
3		

title:
CONCEPTUAL SITE PLAN/ CONCEPTUAL UTILITY PLAN

proj #: 240501
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: C100
(PUD PLAN)

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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: New Hill Commons PUD Zoning: PUD-CZ, B1-CZ, MORR-CZ, and R-40W (Wake County)

Location: See attached Exhibit A

Property PIN(s): See attached Exhibit A Acreage/Square Feet: 63.75 ac

Property Owner: See attached Exhibit A

Address:

City: State: Zip:

Phone: N/A Email: N/A

Developer: Barnett Properties, LLC c/o Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400

City: Raleigh State: NC Zip: 27601

Phone: (919) 835-4032 Fax: N/A Email: matthewcarpenter@parkerpoe.com

Engineer: Peak Engineering & Design, PLLC attn: Jeff Roach

Address: 1125 Apex Peakway

City: Apex State: NC Zip: 27502

Phone: (919) 439-0100 Fax: N/A Email: jroach@peakengineering.com

Builder (if known): Barnett Properties, LLC c/o Matthew J. Carpenter

Address: 301 Fayetteville Street, Suite 1400

City: Raleigh State: NC Zip: 27601

Phone: (919) 835-4032 Fax: N/A Email: matthewcarpenter@parkerpoe.com

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 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 Planning Project Manager	(919) 372-7468
Public Works - Transportation Russell Dalton, Traffic Engineering Manager	(919) 249-3358
Water Resources Department Jessica Bolin, Environmental Engineering Manager (Stormwater, Sedimentation & Erosion Control) Matt Echols, Utility Engineering Manager (Water & Sewer)	(919) 249-3537 (919) 372-7505
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Exhibit A
New Hill Commons PUD
Ownership Addendum

PIN 0710736732
Address: 0 New Hill Olive Chapel Road
Acreage: 18.38 acres
Owner: KB HOME RALEIGH-DURHAM INC., a Delaware Corporation
Deed Book/Page: 19593/332
Owner Address: 1800 Perimeter Park Drive, Suite 140, Morrisville, NC 27560
Jurisdiction: Apex Town limits

PIN 0710830487
Address: 2513 Lashlee Way
Acreage: 17.09 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710734325
Address: 2509 Lashlee Way
Acreage: 4.01 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710724872
Address: 2504 Lashlee Way
Acreage: 5.98 acres
Owner: Richard P. Vitek
Deed Book/Page: Estate File
Owner Address: 2504 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710728789
Address: 2508 Lashlee Way
Acreage: 5.77 acres
Owner: Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust
Deed Book/Page: 13648/1873
Owner Address: 2504 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710835242
Address: 8621 Athlete Drive
Acreage: 4.46 acres
Owner: MENAGE LLC, a North Carolina limited liability company
Deed Book/Page: 19627/681
Owner Address: 255 Oak Haven Lane, Apex, NC 27523
Jurisdiction: Wake County

PIN 0710825733
Address: 2537 Lashlee Way
Acreage: 1.25 acres
Owner: KD2H, LLC, a North Carolina limited liability company
Deed Book/Page: 19522/2138
Owner Address: 1976 Old Byre Way, Apex, NC 27502
Jurisdiction: Wake County

PIN 0710837363
Address: 2704 New Hill Olive Chapel Road
Acreage: 1.43 acres
Owner: Annie Ruth Broadwell
Deed Book/Page: Estate File
Owner Address: 2704 New Hill Olive Chapel Road, New Hill, NC 27562
Jurisdiction: Wake County

PIN 0710827861
Address: 3600 Old US 1 Hwy
Acreage: 5.38 acres
Owner: SHRI VARNI, LLC, a North Carolina limited liability company
Deed Book/Page: 17968/918
Owner Address: 1812 Venezia Way, Apex, NC 27502
Jurisdiction: Apex Town limits

***a portion of* PIN 0710824319**
Address: 3700 Old US 1 Hwy
Acreage: 3.85 acres
Owner: New Hill Baptist Church & Cemetery Trustees
Deed Book/Page: 7883/739
Owner Address: 3700 Old US 1 Hwy, Apex, NC 27562-9762
Jurisdiction: Apex Town limits

COMMON CONSTRUCTION ISSUES & WHO TO CALL

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.

Noise & Hours of Construction: Non-Emergency Police 919-362-8661

Noise from tree removal, grading, excavating, paving, and building structures is a routine part of the construction process. The Town generally limits construction hours from 7:00 a.m. to 8:30 p.m. so that there are quiet times even during the construction process. Note that construction outside of these hours is allowed with special permission from the Town when it makes more sense to have the construction occur at night, often to avoid traffic issues. In addition, the Town limits hours of blasting rock to Monday through Friday from 8:00 a.m. to 5:00 p.m. Report violations of construction hours and other noise complaints to the Non-Emergency Police phone number at 919-362-8661.

Construction Traffic: James Misciagno 919-372-7470

Construction truck traffic will be heavy throughout the development process, including but not limited to removal of trees from site, loads of dirt coming in and/or out of the site, construction materials such as brick and wood brought to the site, asphalt and concrete trucks come in to pave, etc. The Town requires a construction entrance that is graveled to try to prevent as much dirt from leaving the site as possible. If dirt does get into the road, the Town can require they clean the street (see "Dirt in the Road" below).

Road Damage & Traffic Control: Water Resources – Infrastructure Inspections 919-362-8166

There can be issues with roadway damage, roadway improvements, and traffic control. Potholes, rutting, inadequate lanes/signing/striping, poor traffic control, blocked sidewalks/paths are all common issues that should be reported to Water Resources – Infrastructure Inspections at 919-249-3427. The Town will get NCDOT involved if needed.

Parking Violations: Non-Emergency Police 919-362-8661

Unless a neighbor gives permission, there should be no construction parking in neighbors' driveways or on their property. Note that parking in the right-of-way is allowed, but Town regulations prohibit parking within 15 feet of driveways so as not to block sight triangles. Trespassing and parking complaints should be reported to the Non-Emergency Police phone number at 919-362-8661.

Dirt in the Road: James Misciagno 919-372-7470

Sediment (dirt) and mud gets into the existing roads due to rain events and/or vehicle traffic. These incidents should be reported to James Misciagno. He will coordinate the cleaning of the roadways with the developer.

Dirt on Properties or in Streams: James Misciagno 919-372-7470; Danny Smith Danny.Smith@ncdenr.gov

Sediment (dirt) can leave the site and get onto adjacent properties or into streams and stream buffers; it is typically transported off-site by rain events. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the appropriate repairs with the developer. Impacts to the streams and stream buffers should also be reported to Danny Smith (danny.smith@ncdenr.gov) with the State.

Dust: James Misciagno 919-372-7470

During dry weather dust often becomes a problem blowing into existing neighborhoods or roadways. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the use of water trucks onsite with the grading contractor to help control the dust.

Trash: James Misciagno 919-372-7470

Excessive garbage and construction debris can blow around on a site or even off of the site. These incidents should be reported to James Misciagno at 919-372-7470. He will coordinate the cleanup and trash collection with the developer/home builder.

Temporary Sediment Basins: James Misciagno 919-372-7470

Temporary sediment basins during construction (prior to the conversion to the final stormwater pond) are often quite unattractive. Concerns should be reported to James Misciagno at 919-372-7470 so that he can coordinate the cleaning and/or mowing of the slopes and bottom of the pond with the developer.

Stormwater Control Measures: Jessica Bolin 919-249-3537

Post-construction concerns related to Stormwater Control Measures (typically a stormwater pond) such as conversion and long-term maintenance should be reported to Jessica Bolin at 919-249-3537.

Electric Utility Installation: Rodney Smith 919-249-3342

Concerns with electric utility installation can be addressed by the Apex Electric Utilities Department. Contact Rodney Smith at 919-249-3342.

OWNER	MAILING ADDRESS		
APEX FIRST IN-VESTMENTS LLC	5448 APEX PEAKWAY # 222	APEX NC 27502-3924	
APEX TOWN OF	PO BOX 250	APEX NC 27502-0250	
AYENGAR, SRIKANT NAIR, SHYAMA ARAVINDAKSHAN	3435 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
BAKLANOV, ALEXANDER BAKLANOVA, ELENA MIKHAYLOVNA	2708 LADOGA PL	NEW HILL NC 27562-9358	
BAVIREDDY, PREMKUMAR CHENNUPALLI, JYOTHSNA	2790 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
BEJUGAM, PRADEEP MITTAPALLI, MADHULIKA	3413 WRITT CT	NEW HILL NC 27562-7704	
BOMMAREDDY, VIJAY S BOMMAREDDY, MADHAVI LATHA	2712 LADOGA PL	NEW HILL NC 27562-9358	
BONDALAPATI, CHAITANYA KRISHNA PARVATANENI, SWATHI	2779 TURNER PINES DR	NEW HILL NC 27562-9362	
BOWERS, SARA BOWERS, MATTHEW	3429 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
BROADWELL, ANNIE RUTH L TRUSTEE BROADWELL FAMILY TRUST	2704 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9176	
BURROUGHS, RICHARD S TRUSTEE	2508 LASHLEE WAY	NEW HILL NC 27562-9607	
CAPANO, NICHOLAS G JR CAPANO, THERESA F	3507 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
CHERIAN, RAJESH COUTINHO, SABINA	3300 OLANCHA CT	NEW HILL NC 27562-7703	
CHIKKALA, RAJESH D CHIKKALA, PRIYANKA RAJESH	2717 LADOGA PL	NEW HILL NC 27562-9358	
CHONG, YOKE YOONG WANG, YAO CHAING	3236 MARSTON PL	LEXINGTON KY 40503-1380	
CLARK, MARSLYN KAY CLARK, JEFFERY ALAN	3413 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
COSTAKES, GREGORY EUBANKS, AMBER	3409 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
COTTER, STEPHANIE COTTER, /MATTHEW	3429 WRITT CT	NEW HILL NC 27562-7704	
DAVIDSON HOMES LLC	336 JAMES RECORD RD SW	HUNTSVILLE AL 35824-1514	
DENNY, B JANICE F SIFF, AILEEN F	1631 COURTLAND RD	ALEXANDRIA VA 22306-2704	
DENNY, B JANICE SIFF, AILEEN F	1631 COURTLAND RD	ALEXANDRIA VA 22306-2704	
DHILLON, HARDIP SINGH DHILLON, GURMINDER KAUR	3613 OLD US 1 HWY	NEW HILL NC 27562-9761	
DHILLON, HARDIP SINGH DHILLON, GURMINDER KAUR	5785 OLD US 1 HWY	NEW HILL NC 27562-8965	
EHRHARDT, VINCENT ROBERT SANTAMARIA, AMANDA DELIA	3401 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
GARDNER, THELMA D	2912 NEW HILL HOLLEMAN RD	NEW HILL NC 27562-9242	
GUPTA, RAKESH K RAJPUT, KAVITA K	3309 OLANCHA CT	NEW HILL NC 27562-7703	
HAROLD, ADAM J HAROLD, LAUREN E	3405 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
HEIDINGER, DAVID L	PO BOX 287	MONCURE NC 27559-0287	
HENAO, MANUEL IGNACIO MALDONADO, MONICA	3433 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
HICKS, MICHAEL N HICKS, ASHLEY FAY	2600 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9174	
HOUGHTON, MICHAEL J DOBBINS, ASHLEY M	2619 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9175	
HUDSON, CLAUDE LEE JR HUDSON, JUDY A	PO BOX 7	NEW HILL NC 27562-0007	
JENNINGS, GREGORY JENNINGS, JANET	3424 WRITT CT	NEW HILL NC 27562-7704	
JORDAN OAKS HOMEOWNERS ASSOCIATION INC	15501 WETSON PKWY	SUITE 100	CARY NC 27513
JORDAN POINTE HOMEOWNERS ASSOCIATION INC	RS FINCHER & CO LLC	PO BOX 1117	APEX NC 27502-3117
KADZIELAWSKI, PHILIP KADZIELAWSKI, MELISSA	3308 OLANCHA CT	NEW HILL NC 27562-7703	
KATWAL, DIKSHA	3412 WRITT CT	NEW HILL NC 27562-7704	
KB HOME RALEIGH-DURHAM INC	1800 PERIMETER PARK DR STE 140	MORRISVILLE NC 27560-8464	
KD2H LLC	1976 OLD BYRE WAY	APEX NC 27502-9113	
KOO, VALERIE CHEUNG KOO, THOMAS	100 COVE CREEK DR	CARY NC 27519-6101	
LOHA, SOUMIK CHOUDHURY, DEBASHREE	3317 OLANCHA CT	NEW HILL NC 27562-7703	
MAKKENA, SRINIVAS PULAMALA, SWARNALATHA	3439 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
MALLOY, RANDY JERMAIN	3504 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
MENAGE LLC	255 OAK HAVEN LN	APEX NC 27523-5803	
MILLER, EARL WILSON III MILLER, JANET SPIVEY	112 PINE SPRINGS DR	COUNCIL NC 28434-8415	
MILLER, RALPH G JR	2509 LASHLEE WAY	NEW HILL NC 27562-9608	
MOHANTY, SWAPNASISH DAS, MANISHA	3409 WRITT CT	NEW HILL NC 27562-7704	
NAFKE, ALEXA J	3421 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
NAGLE, MICHAEL A NAGLE, DORIS J	3701 OLD US 1 HWY # 1	NEW HILL NC 27562-9763	
NAIR, VIPIN RAMAKRISHNAN VIPIN, RENJINI	3312 OLANCHA CT	NEW HILL NC 27562-7703	
NALLAVOLU, RAMESH NALLAVOLU, VASUNDHARA	3401 WRITT CT	NEW HILL NC 27562-7704	
NATARAJAN, VIGNESH VIGNESH, ANUSHA DEVI	3304 OLANCHA CT	NEW HILL NC 27562-7703	
NEW HILL BAPTIST CHURCH & CEMETERY TRUSTEES	3700 OLD US 1 HWY	NEW HILL NC 27562-9762	
PACKARD, BENJAMIN PACKARD, TIFFANY	3420 WRITT CT	NEW HILL NC 27562-7704	
PATEL, KANDARP PATEL, DEEPA	2797 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
PATEL, RADHABEN HASMUKHBHAI TRIVEDI, JAY MUKESHBHAI	3437 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
PERURU, DEEPAK MUSALIAHGARI, MOUNIKA	3425 WRITT CT	NEW HILL NC 27562-7704	
POOLLA, SRI BALA KIRAN RAGULA, VANAJA	3431 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
PRAKASH, SATYA	3406 WRITT CT	NEW HILL NC 27562-7704	
PUBLIC SERVICE COMPANY OF NORTH CAROLINA INCORPORA	800A GASTON RD	GASTONIA NC 28056-6519	
RAI, RAJESH KUMAR PANDEY, REENA	2793 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
RANJAN, ANU SAUMYA, FNU	2785 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
RAVI, RAVITEJA ALINEEDI, SREEJA	3421 WRITT CT	NEW HILL NC 27562-7704	
RAVINDRAN, PALANI VEL RAJAN PRAKASAM, ELAKIYA	2798 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
ROYEK, LINDSAY MONTELEONE, MARC	2713 LADOGA PL	NEW HILL NC 27562-9358	
RUPAKULLA, SRIKANTH LOYA, PAVANI	3313 OLANCHA CT	NEW HILL NC 27562-7703	
SANGHRAJKA, KAMALKUMAR S DOSHI, PRIYAL HASMUKHBHAI	2794 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
SCHLUETER, UWE SCHLUETER, TAMARA	3441 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
SEABOARD AIR LINE RR CO	3610 BUSH ST	RALEIGH NC 27609-7511	
SHAIKH, SWETHA NENI SHAIKH, AADIL	3447 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
SHARMA, GAURAV SHARMA, SNEHA	2789 BORDWELL GRANT DR	NEW HILL NC 27562-9363	
SHEN, YILAN LEE, HOU-DU	3500 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
SHOOK, JAMES BRIAN SHOOK, JESSICA HIPPO	3453 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
SHRI VARNI LLC	1812 VENEZIA WAY	APEX NC 27502-4740	
STRANDH, MARLA ELONY STRANDH, DANIEL PATRICK	3501 JOHNSON GRANT DR	NEW HILL NC 27562-9313	
SUTHAR, NILESH C PANCHOLI, AMISHA M	3321 OLANCHA CT	NEW HILL NC 27562-7703	
SWEENEY, THOMAS	2783 TURNER PINES DR	NEW HILL NC 27562-9362	
TURNER, BENJAMIN S	3417 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
UNKNOWN	PO BOX 2331	RALEIGH NC 27602-2331	
VADLAMUDI, AYYAPPA CHOWDARY VADLAMUDI, AKHILA	3417 WRITT CT	NEW HILL NC 27562-7704	
VAPIWALA, NEIL VAPIWALA, MONICA SHAH	3443 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
VERMA, ROBIN VERMA, SUGANDHA	3405 WRITT CT	NEW HILL NC 27562-7704	
VETTER, CATHERINE L VETTER, RICHARD B	3449 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
VITEK, RICHARD P	2504 LASHLEE WAY	NEW HILL NC 27562-9607	
WTR HISTORIC PROPERTIES LLC	2717 NEW HILL-OLIVE CHAPEL ROAD	NEW HILL NC 27562-9177	
WTR HISTORIC PROPERTIES LLC	2717 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9177	
XAVIER, JENKINS RUBAN ALPHONSE RAAJBARATHY, SUBASHINI	3451 HORTON RIDGE BLVD	NEW HILL NC 27562-9366	
YOUNG, LORETTA ROUNDY	2717 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9177	
YU, BOYANG ZHU, XUEWEI	3416 WRITT CT	NEW HILL NC 27562-7704	
YUAN, WEICHANG WANG, YIXUAN	3425 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
ZOLVINSKI, ZACHARY ZOLVINSKI, ANDREA S	3445 JORDAN SHIRES DR	NEW HILL NC 27562-9310	
Current Tenant	3700 Country Acres LN	NEW HILL NC 27562	
Current Tenant	2537 Lashlee WAY	NEW HILL NC 27562	
Current Tenant	2804 New Hill Holleman RD	NEW HILL NC 27562	
Current Tenant	2620 New Hill Olive Chapel RD	NEW HILL NC 27562	
Current Tenant	2701 New Hill Olive Chapel RD	NEW HILL NC 27562	
Current Tenant	3520 Old US 1 HWY	NEW HILL NC 27562	
Current Tenant	3528 Old US 1 HWY	NEW HILL NC 27562	
Current Tenant	3605 Old US 1 HWY	NEW HILL NC 27562	
Current Tenant	3609 Old US 1 HWY	NEW HILL NC 27562	
Current Tenant	3701 Old US 1 HWY	NEW HILL NC 27562	
Current Tenant	3720 Old US 1 HWY	NEW HILL NC 27562	
Current Tenant	3430 Writt CT	NEW HILL NC 27562	

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: Virtual via Zoom

Date of meeting: March 19, 2025 Time of meeting: 5:30 PM

Property Owner(s) name(s): See attached.

Applicant(s): Barnett Properties, LLC

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.	Daniel Strandh	3501 Johnson Drive	919-7038056	[redacted]	yes
2.	Earl Miller	3609 Old US 1 Hwy	not provided	[redacted]	yes
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): See attached

Applicant(s): Barnett Properties, LLC

Contact information (email/phone): Mark Frederick; 919-835-4023; markfrederick@parkerpoe.com

Meeting Address: Virtual via Zoom

Date of meeting: March 19, 2025 Time of meeting: 5:30 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:

See attached.

Applicant's Response:

Question/Concern #2:

Applicant's Response:

Question/Concern #3:

Applicant's Response:

Question/Concern #4:

Applicant's Response:

Summary of Neighborhood Meeting
March 19, 2025
New Hill Commons PUD

I. WELCOME
   a. Introduction of development team
      i. Mark Frederick w/ Parker Poe
      ii. Alan Maness w/ Barnett
      iii. Jeff Roach w/ Peak Engineering, civil engineer
      iv. Lyle Overcash w/ Kimley-Horn, transportation engineer
   b. Explanation of process. This is a neighborhood meeting for a rezoning request called New Hill Commons PUD. We filed this rezoning request in November last year. Some of you may remember that we held a pre-filing neighborhood meeting in October last year. Since that initial neighborhood meeting, we filed our application and have been in staff review. We held another neighborhood meeting last month, and tonight's meeting will be very similar to that meeting in that we will provide some updates to the case and explain the upcoming public meetings.
   c. We have a brief presentation for you tonight and then we will open up the floor for questions. I believe you can enter your questions in the chat function, which you can at any time and we will get them after the presentation. We can also unmute folks to ask their questions.

II. PRESENTATION
   a. Site Overview - location, existing uses adjacent, and surrounding development in progress.
   b. Current Zoning - Mix of zoning designations. Some parcels in Apex Town limits. Other parcels in Wake County's planning jurisdiction. Goal of this rezoning is to rezone all parcels to Planned Unit Development Conditional (PUD-CZ) which allows the entire assemblage to be planned comprehensively
   c. 2045 Land Use Map (LUM) Designation
      i. The LUM is the primary policy document the Town uses to evaluate rezoning request.
      ii. This property has multiple designations. From right to left - office employment/commercial services at the intersection of New Hill Olive Chapel Road and Old US 1, then office employment/low density residential, and then low density residential on the western portion of the site.
      iii. As you'll see in a moment, we are proposing grocery anchored retail uses at the intersection and low density residential on the western portion of the property which is generally in line with the LUM designation with one technical change -
         1. The area we're proposing for grocery will be slightly larger than the office employment/commercial services are shown on the LUM, which means our rezoning will slightly expand that area into the portion that's shown as office employment/low density residential on the LUM. This change was also included in the mailed notice for this meeting.
   d. Western Big Branch Area Plan

i. Town has adopted the Western Big Branch Area plan which lays out how this area should be developed in the future. Although this site is not in the area, it is directly adjacent.
ii. As part of the Town's public engagement process, there were several responses that mentioned the desire for a grocery store and additional retail opportunities in the New Hill Area.

e. PUD Plan
   i. As part of our PUD rezoning, we have a concept plan that shows approximate locations of proposed uses, buffers, conceptual access locations, etc.
   ii. Non-Residential District shown in red will permit development of grocery anchored retail at the corner of Old US-1 and New Hill Olive Chapel Road.
   iii. Area shown in yellow will be a low density single-family subdivision that's meant to be a natural extension of existing single-family residential neighborhoods in the area (Utley Farms, Jordan Pointe, Belterra). The PUD includes zoning conditions for setbacks, minimum lot sizes, and architectural conditions that ensure compatibility with existing neighborhoods.
   iv. Conceptual access locations are also shown on the plan, but will be finalized at Master Subdivision Plan. UDO requires us to connect to existing stub streets to the north.

f. Rezoning Process and Timeline
   i. As I mentioned, the rezoning is the very first step in the development process.
   ii. We submitted our application November 1 and have been going through staff review and resubmitting documents to address staff comments.
   iii. After staff comments have been fully addressed, the case will go to Planning Board. Planning Board will hold a public hearing, review the case, and make a recommendation to Town Council. If we remain on the current schedule, the Planning Board meeting will occur on April 14.
   iv. Next, Town Council will hold a public hearing and make the final decision on the rezoning. We are expecting this case to be heard at the April 22nd meeting.

III. QUESTION AND ANSWER

a. ***What is the timeline for the project to be constructed?***
   i. Yes, after rezoning, we have to go through the Site Plan review process which typically takes at least six months. Following Site Plan, we'll move to construction drawings and building permits which takes additional time so construction likely won't begin for 12-15 months. It's also possible the residential and non-residential portions could be phased and come forward at different times.

b. I live at the end of the cul-de-sac on Writt Court and would like to see a grocery store built with this project. Will a grocery store be constructed with this project?
   i. Yes, the project currently contemplates a grocery store at the main intersection, so if this project moves forward it is likely a grocery store will be constructed.

2) N18°28'18" W a distance of 343.55’ to a calculated point,
3) N14°30'57" E a distance of 11.85’ to a calculated point,
4) N89°30'23" W a distance of 352.09' to a calculated point along the common property line with N/F Jordan Pointe Homeowners Association, Inc (PIN 0710623426 identified in D.B. 18264 Pg 1059) and KB Home (D.B. 19593 Pg 332);

thence N00°29’37”E a distance of 189.57’ to a common corner with N/F Jordan Pointe Homeowners Association, Inc (D.B. 18264 Pg 1059), Jordan Oaks Homeowners Association, Inc. (D.B 19726 Pg931) and KB Home (D.B. 19593 Pg 332); thence N27°07’07”E a distance of 180.77 feet to a 3/4” pinched iron pipe found; thence, S89°14’16”E a distance of 677.95 feet to a 3/4” iron pipe set; thence, S89°12’14”E a distance of 1,126.53 feet to a 3/4” iron pipe found; thence, S01°16’59”W a distance of 33.00 feet to a 3/4” bent iron pipe found; thence, S62°23’09”E a distance of 222.96 feet to a 1” bent iron pipe found; thence, S89°31’44”E a distance of 181.71 feet to a 3/4” iron pipe found on the northeastern corner of the N/F KB Home property (D.B. 195493 Pg 332) and the western right-of-way of New Hill Olive Chapel Road, said iron having NC State Plain coordinates of N= 703,604.52’ and E= 2,018,799.66’;

thence S14°16’14”E a distance of 66.98’ to an existing 5/8” property iron being the common point of northern Manage LLC (D.B 19627 Pg. 681) and western New Hill Olive Chapel Road right-of-way line; thence S88°13’22”E a distance of 27.50’ to calculated point in the centerline of New Hill Olive Chapel Road being the northeast corner of Manage LLC;

thence along the centerline of New Hill Olive Chapel Road the following seven (7) courses and distances:
1) S15°05’28”E a distance of 52.21’ to the northeast corner of N/F Annie Ruth Broadwall (D.B. 2160 Pg 202),
2) S15°04'23"E a distance of 273.80' to an existing mag nail being the northeast corner of Shri Varni, LLC;
3) S14°31'45"E a distance of 79.66’ to a calculated point;
4) S16°34'27" E a distance of 100.00’ to a calculated point;
5) S20°39'27" E a distance of 100.00' to a calculated point;
6) S28°06’27”E a distance of 100.00’ to a calculated point;
7) S33°04’27”E a distance of 109.13’ to a calculated point in the intersection of New Hill Olive Chapel Road and Old US 1 Highway (B.M. 2021 Pg. 1818);

thence along the centerline of Old US 1 Highway the following three (3) courses and distances:
1) S62°46’03”W a distance of 164.16 to a calculated point,
2) S53°39'33"W a distance of 100.00' to a calculated point,
3) S44°21'25"W a distance of 192.74’ to an existing mag nail in the centerline of Old US 1 Highway,

SAID point being the **POINT OF BEGINNING** for properties identified in deeds, plats, annexations, and legal descriptions containing 55.345 acres more or less.

NEW HILL COMMONS PUD

Planned Unit Development

Apex, North Carolina

Submittal Dates
First Submittal: November 1, 2024
Second Submittal: January 2, 2025
Third Submittal: February 7, 2025
Fourth Submittal: March 7, 2025
Fifth Submittal: April 4, 2025
Sixth Submittal: April 23, 2025
Seventh Submittal: May 15, 2025

Developer
Barnett Properties, LLC
7610 Falls of Neuse Road, Suite 150
Raleigh, NC 27615

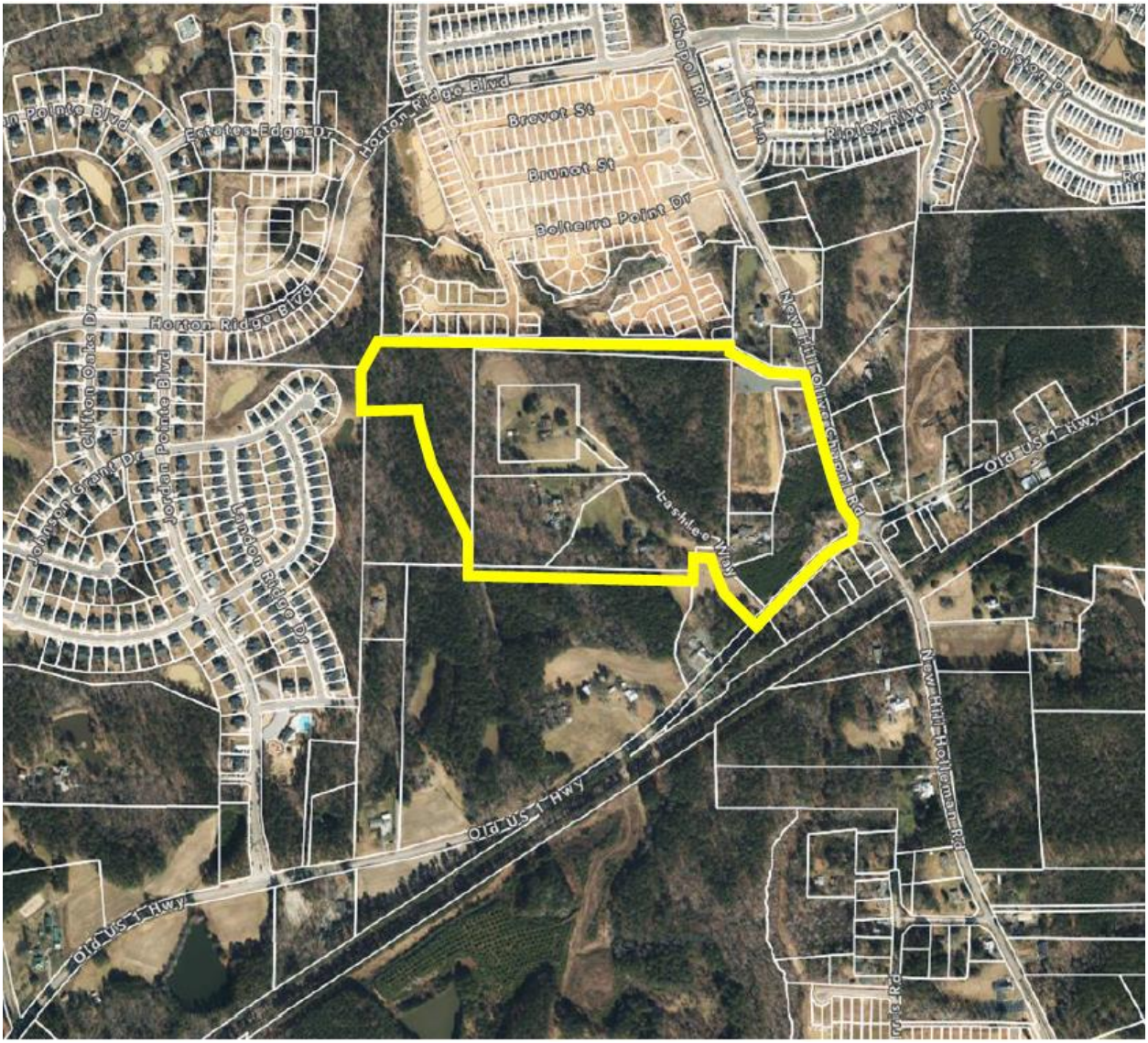
Civil Engineer
Jeff Roach
Peak Engineering & Design, PLLC
1125 Apex Peakway
Apex, NC 27502

Land Use Attorney
Matthew J. Carpenter
Parker Poe Adams & Bernstein LLP
301 Fayetteville Street, Suite 1400
Raleigh, NC 27601

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VICINITY MAP



PROJECT DATA

Name of Project:	New Hill Commons PUD
Property Owner:	See attached
Developer:	Barnett Properties, LLC 7610 Falls of Neuse Road Suite 150 Raleigh, NC 27615
Prepared by:	Parker Poe Adams & Bernstein LLP 301 Fayetteville Street, Suite 1400 Raleigh, NC 27601 Peak Engineering & Design, PLLC 1125 Apex Peakway Apex, NC 27502
Current Zoning:	Planned Unit Development-Conditional Zoning (PUD-CZ 22CZ09); Wake County Residential-40 (R-40W); Planned Unit Development-Conditional Zoning (PUD-CZ 21CZ11); Mixed Office-Residential-Retail District (MORR-CZ 19CZ19); Neighborhood Business-Conditional Zoning (B1-CZ 21CZ11)
Proposed Zoning:	Planned Unit Development Conditional Zoning (PUD-CZ)
Current 2045 LUM Designations:	Office Employment/Commercial Services; Low Density Residential, Low Density Residential/Office Employment
Proposed 2045 LUM Designations:	Office Employment/Commercial Services; Low Density Residential
Site Address:	See attached
Property Identification Number:	See attached
Total Acreage:	55.345 acres
Area Designated as Mixed Use on LUM:	None

PURPOSE STATEMENT

This document and the accompanying exhibits submitted herewith (collectively, the "PUD") are provided pursuant to the Town of Apex Unified Development Ordinance ("UDO") Planned Unit Development provisions. This PUD addresses the development of an approximately 55.345-acre site at the intersection of Old US 1 Highway and New Hill Olive Chapel Road (SR 1141). The Property includes several tax parcels in the Town of Apex limits and others in Wake County's planning jurisdiction. The majority of the acreage is wooded and undeveloped with four single-family homes on Lashlee Way and one on New Hill Olive Chapel Road. An annexation petition has been filed concurrently with this PUD to annex the tax parcels not currently in the Town limits. New Hill Commons PUD will be a mixed-use community with two districts, the Residential District and the Non-Residential District as shown on the attached Concept Plan (the "Concept Plan").

From east to west, The Town of Apex 2045 Land Use Map (the "LUM") designates the Property as Office Employment/Commercial Services, Office Employment/Low Density Residential, and Low Density Residential. Generally, the LUM recommends higher intensity commercial uses - such as grocery stores and retail - closer to the intersection of New Hill Olive Chapel Road and Old US-1 and low density residential uses where the Property transitions towards existing residential neighborhoods to the north and west. In the small section designated Office Employment/Low Density Residential, this PUD proposes commercial uses to provide adequate land area for a grocery store and related operational needs.

Consistent with the LUM designations, New Hill Commons will feature a mix of low density single-family homes and neighborhood-serving commercial uses. The Non-Residential District will offer grocery anchored retail at the intersection of New Hill Olive Chapel Road and Old HS-1 Hwy which will increase the availability of goods and services in growing southwest Apex. The Residential District will facilitate the development of a low density single-family subdivision, a natural extension of the Jordan Point, Utley Farms, and Belterra neighborhoods.

CONSISTENCY WITH PLANNED UNIT DEVELOPMENT STANDARDS

(i) The uses proposed to be developed in the PD plan for PUD-CZ are those uses permitted in Sec. 4.2.2 Use Table

RESPONSE: The uses permitted in this PUD are permitted in the UDO Section 4.2.2 Use Table.

(ii) The uses proposed in the PD Plan for PUD-CZ can be entirely residential, entirely non-residential, or a mix of residential and non-residential uses, provided a minimum percentage of non-residential land area is included in certain mixed-use areas as specified on the 2045 Land Use Map. The location of the uses proposed by the PUD-CZ must be shown in the PD Plan with a maximum density for each type of residential use and a maximum square footage for each type of non-residential use.

RESPONSE: The New Hill Commons PUD is a mixed-use community with residential and non-residential uses outlined in this PUD. None of the parcels in the PUD have three stripes on the LUM, and this PUD, therefore, is not required to designate 30% of the property as non-residential. However, the Non-Residential District will facilitate the development of grocery anchored retail and other neighborhood serving commercial uses.

(iii) The dimensional standards in Sec. 5.1.3 Table of Intensity and Dimensional Standards, Planned Development Districts may be varied in the PD Plan for PUD-CZ. The PUD-CZ shall demonstrate compliance with all other dimensional standards of the UDO, North Carolina Building Code, and North Carolina Fire Code.

RESPONSE: This PUD specifies intensity and dimensional standards for the project. The proposed PUD is consistent with the UDO Planned Unit Development standards – to provide site specific, high-quality neighborhoods that preserve natural features and exhibit compatibility with, and connectivity to, surrounding land uses. Except as specifically stated in this PUD, the Development will comply with all requirements of the UDO and will comply with all applicable requirements of the North Carolina Building Code and the North Carolina Fire Code.

(iv) The development proposed in the PD Plan for PUD-CZ encourages cluster and compact development to the greatest extent possible that is interrelated and linked by pedestrian ways, bikeways and other transportation systems. At a minimum, the PD Plan must show sidewalk improvements as required by the Advance Apex: The 2045 Transportation Plan and the Town of Apex Standard Specifications and Standard Details, and greenway improvements as required by the Town of Apex Parks, Recreation, Greenways, and Open Space Plan and the Advance Apex: The 2045 Transportation Plan. In addition, sidewalks shall be provided on both sides of all streets for single-family detached homes.

RESPONSE: The project will include sidewalks throughout to integrate the proposed residential and commercial uses with internal and external residents and patrons. It will connect to two existing stub streets and sidewalks to the north - Turner Pines Drive and Bordwell Grant Drive - to provide pedestrian and vehicular connectivity between the project and the Belterra neighborhood. To the south, the project will connect with the Utley Farms neighborhood via Turner Pines Drive and Vernon Crest Drive. As described in the Transportation Improvements section of this PUD, the project is constructing bike lanes and sidewalks on Old US-1 and bike lanes and sidewalks on New Hill Olive Chapel Road consistent with the Thoroughfare and Collector Street Plan Map and Bicycle and Pedestrian Plan Map.

(v) The design of development in the PD Plan for PUD-CZ results in land use patterns that promote and expand opportunities for walkability, connectivity, public transportation, and an efficient compact network of streets. Cul-de-sacs shall be avoided unless the design of the subdivision and the existing or proposed street system in the surrounding area indicate that a through street is not essential in the location of the proposed cul-

de-sac, or where sensitive environmental areas such as streams, floodplains, and wetlands would be substantially disturbed by making road connections.

RESPONSE: The proposed street layout has been designed to enhance pedestrian and vehicular connectivity while protecting sensitive environmental features and being mindful of existing residential development.

(vi) The development proposed in the PD Plan for PUD-CZ is compatible with the character of surrounding land uses and maintains and enhances the value of surrounding properties.

RESPONSE: The proposed development is compatible with the character of the existing and planned uses in the surrounding area. The Non-Residential District is purposefully located at a main intersection as recommended by the LUM. The Residential District will be a low density subdivision (3 units/acre or less), consistent with the size, scale, and density of existing adjacent neighborhoods.

(vii) The development proposed in the PD Plan for PUD-CZ has architectural and design standards that are exceptional and provide higher quality than routine developments. All residential uses proposed in a PD Plan for PUD-CZ shall provide architectural elevations representative of the residential structures to be built to ensure the Standards of this Section are met.

RESPONSE: The Development will feature high quality and thoughtful design. Architectural standards, design controls, and conceptual elevations are included in this PUD.

CONSISTENCY WITH CONDITIONAL ZONING STANDARDS

New Hill Commons Planned Unit Development is consistent with the conditional zoning standards set forth in UDO Section 2.3.3.F.1-10. Review the accompanying PUD-CZ Application for statements of consistency addressing each standard.

PERMITTED USES

The Property may be used for the uses listed below. The permitted uses are subject to the limitations and regulations stated in the UDO and any additional limitations or regulations stated below. For convenience, some relevant sections of the UDO may be referenced; such references do not imply that other sections of the UDO do not apply.

The following uses shall be permitted:

	Residential District	***Non-Residential District***
Residential		
Single-family	P	
Accessory dwelling unit*	P	
Recreational Uses		
Park, active	P	P
Greenway	P	P
Park, passive	P	P
Recreation facility, private	P	
Entertainment, Indoor		P
Utility, minor	P	P
Non-Residential Uses		
Restaurant, general		P
Restaurant, drive-through**		P
Bar, nightclub, wine bar, or taproom		P
Medical or dental office or clinic		P
Medical or dental laboratory		P
Office, business or professional		P
Publishing office		P
Artisan Studio		P
Barber and beauty shop		P
Book store		P
Convenience store		P
Convenience store with gas sales***		P
Dry cleaners and laundry service		P
Financial institution		P

	Residential District	***Non-Residential District***
Floral shop		P
Grocery, general		P
Grocery, specialty		P
Health/fitness center or spa		P
Newsstand or gift shop		P
Personal service		P
Pharmacy		P
Printing and copying service		P
Real estate sales		P
Retail sales, general		P
Studio for art		P
Tailor shop		P
Upholstery shop		P
Pet services		P
Day care facility		P
Drop-in or short-term day care		P
Veterinary clinic or hospital		P
Automotive parts		P
Microbrewery		P
Farmer's market		P
Greenhouse or nursery, retail		P

* Homeowners Association covenants shall not restrict the construction of accessory dwelling units.

**Drive through facilities for stand-alone Restaurant drive-through uses (drive throughs not part of a multi-tenant building) shall not be located between the building and a public street.

*** The building shall be located between Old US 1 Highway and the gas pumps.

AFFORDABLE HOUSING

A minimum of two (2) residential units on the property shall be for-sale affordable housing units. Final affordable housing unit floor plan selection which includes unit size and bedroom size will be at the discretion of the developer.

The affordable units shall be subject to the following terms and conditions:

- The units shall be constructed on-site and sold (includes unit price and lot price) at a mutually agreeable maximum affordable median income ownership initial sales price (the "Initial Sales Price").

- The units shall be occupied by households earning no more than one hundred thirty-five percent (135%) of the Raleigh NC Metropolitan Statistical Area (MSA), Area Median Income (AMI) as most recently published by HUD (the "Income Limit"). For purposes of calculating the Initial Sales Price for the affordable units, affordable shall mean a reasonable down payment and monthly housing costs expected during the first calendar year of occupancy, including utilities or utility allowances, mortgage loan principal and interest, mortgage insurance, property taxes, homeowner's insurance, homeowner's association dues, if any, and all other property assessments, dues and fees assessed as a condition of property ownership (the "Housing Costs"). For purposes of the calculation, monthly Housing Costs shall not exceed thirty percent (30%) of the Income Limit divided by twelve (12).

- A restrictive covenant (i.e. resale deed restriction) with a minimum affordability period of twenty (20) years (the "Affordability Period") shall be recorded in the Wake County Registry against the affordable units concurrently at the close of escrow upon the sale of each affordable unit.

- Developer will work with the Town to identify qualifying buyers for the first sale of the affordable units (the "First Sale"). Following the First Sale of the affordable units, Developer shall not be responsible for managing the affordable units or performing marketing, applicant screening, and selection related to future sales of the affordable units. Town staff will assist with the administrative duties of the units during the Affordability Period.

DESIGN CONTROLS

Acreages for each district are approximate and may increase or decrease by up to 10% based on updated surveys at Master Subdivision Plan.

Development shall comply with the following minimum design controls:

ALL DISTRICTS	
Total Acreage	55.345 acres
Maximum Residential Density	3 units/acre (includes RCA and rights of way)
Maximum Built-Upon Area	70%

RESIDENTIAL DISTRICT		
Approximate Acreage	36.886 acres	
	Single-Family	**Private Recreation Facility**
Minimum Lot Size	6,000 sf	None
Minimum Lot Width	50 ft.	None
Maximum Building Height	36 ft. two (2) stories	48 ft.
Minimum Setbacks		
Front	10 ft.	10 ft.
Front (garage)	20 ft. (from sidewalk or back-of-curb where no sidewalk exists)	N/A
Side	5 ft.	10 ft.
Corner Side	10 ft.	10 ft.
Rear	10 ft.	10 ft.
Minimum from Buffer/RCA	10 ft. for buildings 5 ft. for parking	10 ft. for buildings 5 ft. for parking

NON-RESIDENTIAL DISTRICT	
Approximate Acreage	18.459 acres
Maximum Building Height	48 ft.
Minimum Setbacks	
Front	20 ft.
Side	15 ft.
Rear	20 ft.
Minimum Buffer/RCA Setbacks	10 ft. for buildings 5 ft. for parking

LANDSCAPING, BUFFERING, AND SCREENING

Perimeter buffers shall be preserved, built, or planted to the following width and planting standards:

Location:	**Buffer Size & Type:**
Along the property's New Hill Olive Chapel Road frontage	30-foot Type E
Along the property's Old US-1 frontage	30-foot Type E
Along the shared property line with PINs 0710836780 and 0710835932	30-foot Type B
All other perimeter buffers	10-foot Type B
Along the outside of the west side of the Lashlee Way right of way	0-foot*

*Although not part of this PUD, the New Hill Baptist church property (3700 Old US-1) will have a decorative fence and planting area along the property's Lashlee Way frontage per separate agreement between New Hill Baptist Church and the developer.

ARCHITECTURAL STANDARDS

New Hill Commons PUD 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. Elevations included are conceptual examples. Final elevations must comply with these architectural standards but may vary from the conceptual elevations. Further details may be provided at the time of Residential Master Subdivision Plan submittal.

RESIDENTIAL DESIGN GUIDELINES

Single-Family:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. Primary building materials shall be brick, stone, and fiber cement siding.
3. Windows that are not recessed shall be trimmed. Windows shall vary in size and/or type.
4. At least four (4) of the following decorative features shall be used on each building:
    1. Decorative shake
    2. Board and batten siding
    3. Decorative porch rails and posts
    4. Shutters
    5. Decorative functional foundation and roof vents
    6. Recessed windows
    7. Decorative windows
    8. Decorative brick or stone
    9. Decorative gables
    10. Decorative cornices
    11. Metal roofing
5. A varied color palette shall be utilized throughout the development to include a minimum of three color families for siding and shall included varied trim, shutter, and accent colors complementing the siding color.
6. The rear and side elevations of the units that can be seen from the right of way shall have trim around the windows.
7. Front facing garage doors shall have windows, decorative details, or carriage-style adornments.
8. Entrances for units with front facing garages shall have a prominent covered porch/stoop area leading to the front door.
9. Porches constructed with a dwelling unit shall be a minimum of six feet (6 feet) deep.
10. The front façade of any front loaded garage shall not protrude further than one (1) foot forward beyond (i) the front façade 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. Living space above a garage shall not be considered part of the front façade.

NON-RESIDENTIAL DESIGN GUIDELINES

The following design guidelines shall apply to development of the Non-Residential District:

1. Architectural treatments such as varying roof forms, façade articulation, breaks in roof, walls with texture materials and ornamental details shall be incorporated to add visual interest.
2. The building exterior shall have more than one color.
3. Roof features may include flat roofs with parapet, hip roofs or awnings with metal or canvas material.
4. Non-residential exteriors shall incorporate variation in materials. The front façade and other facades located along a public right-of-way may include:
    a. Brick and/or stone masonry
    b. Decorative concrete block (integral color or textured)
    c. Stone accents
    d. Aluminum storefronts with anodized or pre-finished colors
    e. EIFS cornices, and parapet trim
    f. EIFS or synthetic stucco shall not be used in the first four feet above grade and shall be limited to only 25% of each building façade
    g. Precast concrete
    h. Soffit and fascia materials to be considered include EIFS with crown trim elements
    i. Cementitious siding
5. Rear elevations of non-residential buildings facing opaque landscape buffers or not visible from vehicular use areas or public rights-of-way may incorporate decorative concrete masonry, metal coping, or EIFS trim.

In addition to the guidelines applicable to the Non-Residential District, the following design guidelines shall apply only to development on PIN 0710827861. If there is a conflict between the guidelines, the guidelines below shall apply.:

1. Predominant exterior building materials shall be high quality materials, including brick, wood, stacked stone, other native stone, or tinted/textured concrete masonry units.
2. EIFS or synthetic stucco shall not be used in the first four feet above grade and shall be limited to only 25% of each building façade.
3. The exterior building materials for nonresidential buildings shall include a combination of building materials. The primary (front) façade of the main buildings to be considered include:
    a. Brick masonry
    b. Decorative concrete block (either integrally colored or textured)
    c. Stone accents
    d. Aluminum storefronts with anodized or pre-finished colors
    e. EIFS cornices, and parapet trim. EIFS or synthetic stucco shall not be used in the first four feet above grade and shall be limited to only 25% of each building façade.

PARKING AND LOADING

The maximum parking ratio for the Grocery, General use, and any other uses that share parking with the Grocery, General use in the Non-Residential District, shall be 1 space/200 square feet. Otherwise, parking shall comply with the parking standards set forth in UDO Section 8.3.

SIGNAGE

Signage shall comply with UDO Section 8.7.

NATURAL RESOURCES AND ENVIRONMENTAL DATA

Resource Conservation Areas (RCA)

The project shall dedicate a total minimum amount of RCA equal to the sum of 25% of the gross site acreage of the Non-Residential District and the minimum amount of RCA for the Residential District required by UDO Section 8.1.2 (the "Total RCA"). The Total RCA shall not be confined to either district and may be provided anywhere on the Property.

Designated RCAs will be consistent with UDO Section 8.1.2(B). Preserved streams, wetlands, and associated riparian buffers provide the primary RCAs throughout the Property. Additional RCA may include portions of the stormwater control measures permitted by the UDO, multi-use paths, and perimeter buffers.

Floodplain

The project site does not sit within a designated current or future 100-year floodplain as shown on the Town of Apex Watershed & FEMA Map dated April 2015. FIRM Panel 3720071000L dated July 16, 2022 does not include a floodplain within the property boundary.

Historic Structures

According to the North Carolina State Historic Preservation office ("SHPO"), three parcels (PINs 0710827861, 0710835242, and 0710824319 (Lashlee Way)) are in the New Hill Historic District. However, there are no known historic structures on the property.

Environmental Commitments Summary

The following environmental conditions shall apply to development in the Residential District:

1. A minimum of 70% of landscaping in HOA common areas and buffers shall be native or nativar species. This condition shall not apply to landscaping on individual residential lots.

2. No single species of native or adaptive vegetation shall constitute more than 20% of the plant material of its type within a single development site. This condition shall not apply to landscaping on individual residential lots.

3. To reduce irrigation requirements, the project shall plant warm season grasses.

4. The project shall install signage adjacent to wooded or natural condition Resource Conservation Area that indicates the area is preserved RCA.

5. The project shall install at least one (1) pet waste station per 25 residential units throughout the community in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths. If there are fewer than 25 homes, at least one (1) pet waste station shall be installed.

6. A 220-volt outlet shall be provided in the garage of each unit.

7. Primary residential buildings shall include conduit for solar energy systems.

The following conditions shall apply to development in the Non-Residential District (other than PIN 0710827861 which has specific conditions set forth below:

1. The project shall install at least two (2) pet waste stations in locations that are publicly accessible, such as adjacent to amenity centers, SCMs, sidewalks, greenways or side paths. If there are fewer than 25 homes, at least one (1) pet waste station shall be installed.

2. A minimum of 70% of landscaping shall be native or nativar species.

3. No invasive species shall be permitted. No single species of tree or shrub shall constitute more than 20% of the plant material of its type within a single development site.

4. The project shall plant warm season grasses.

5. The project shall install signage adjacent to wooded or natural condition Resource Conservation Area that indicates the area is preserved RCA.

The following environmental conditions shall apply to PIN 0710827861:

1. The project shall plant deciduous shade trees on the southern side of buildings.

2. Buildings shall include solar conduit.

3. Outdoor lighting shall be shielded in a way that focuses lighting to the ground.

4. The project shall preserve native trees within the buffer, including the large existing trees along the southern property line, according to UDO standards.

STORMWATER MANAGEMENT

Stormwater control devices shall be designed and constructed so that post development peak runoff does not exceed pre-development peak runoff conditions for the 24-hour, 1-year and 10-year storm events. The Development shall meet all stormwater management requirements for quality and quantity treatment in accordance with Section 6.1 of the UDO.

Acceptable stormwater structures shall include detention ponds, constructed wetlands, bio-retention areas, or other approved devices consistent with the NC DEQ Stormwater Design Manual and the Town of Apex UDO**.**

PARKS AND RECREATION

New Hill Commons PUD #24CZ19 was reviewed at the 02/26/2025 PRCR Advisory Commission meeting. The Commission unanimously recommended a fee-in-lieu of dedication for a maximum of 166 Single-Family Detached units. The fee-in-lieu rate will be set at the time of Town Council action on the Rezoning and run for the life of the project. The final unit count and total fee-in-lieu will be calculated at Master Subdivision Plan and Construction Document review.

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 to comply with the Town's Sewer and Water Master Plan and Standards and Specifications. Road and utility infrastructure shall be as follows:

TRANSPORTATION IMPROVEMENTS

The following conditions regarding transportation improvements apply and shall be phased consistent with the Traffic Impact Analysis that has been performed for this rezoning, which is on file with the Town of Apex. All proposed driveway access and improvements on state-maintained roadways are subject to both Apex and NCDOT review and approval. All proposed roadway infrastructure and right-of-way dedications will be consistent with the Town of Apex Thoroughfare and Collector Street Plan Map and the Bicycle and Pedestrian Plan Map.

Prior to the recordation of the final plat within the Residential District, the developer shall construct a street connection to Turner Pines Drive with a 10-foot side path on the east side and a 5-foot sidewalk on the west side and a street connection to Bordwell Grant Drive with 5-foot sidewalks on both sides. Prior to the site plan final plat within the Non-Residential District, the developer shall construct a street connection from the Non-Residential District to Bordwell Grant with 5-foot sidewalks on both sides, including a vehicular and pedestrian connection to the Residential District.

All required connections from the PUD boundary to Old US 1 and New Hill Olive Chapel Road and the associated thoroughfare frontage widening and offsite roadway improvements as described

below shall be constructed with the Non-Residential District phase. Construction access for the Residential District shall be served directly from Old US 1 and/or New Hill Olive Chapel Road. Construction trucks and heavy equipment traffic shall use the construction entrance(s) and avoid existing residential streets.

Prior to the recordation of the Final Plat for the first site plan within the Non-Residential District, the developer shall construct the following improvements:

1. **Old US-1 Widening**. Dedicate variable right of way a minimum of 55 feet from roadway centerline and widen the northern half of Old US-1 for the length of the property's Old US-1 road frontage based on a minimum 36-foot edge to edge 2-lane thoroughfare section with 12 foot travel lanes, 6-foot bike lanes, and a 5-foot sidewalk at the back of ditch with additional right of way dedication as needed to accommodate recommended turning lanes. Asymmetrical widening of Old US-1 may be utilized as needed to avoid impacts to historic properties in close proximity to the Old US-1 and New Hill Olive Chapel Road intersection.

2. **New Hill Olive Chapel Road Widening.** Dedicate variable right of way a minimum of 55 feet from roadway centerline and widen the western half of New Hill Olive Chapel Road for the length of the property's New Hill Olive Chapel Road frontage based on a minimum 36-foot edge to edge 2-lane thoroughfare section with 12 foot travel lanes, 6-foot paved shoulder, and a 5-foot sidewalk at the back of ditch with additional right of way dedication as needed to accommodate recommended turning lanes.

3. **Old US-1/West Site Driveway Intersection**.

    a. A full movement site driveway where Lashlee Way is currently located with one ingress lane and two egress lanes approximately 700 feet west of New Hill Olive Chapel Road;

    b. An exclusive eastbound left turn lane with 100 feet of storage and appropriate taper; and

    c. An exclusive westbound right turn lane with 50 feet of storage and appropriate taper.

4. **Old US-1/East Site Driveway Intersection**.

    a. A right in/right out site driveway with one ingress lane and one egress lane approximately 350 feet west of New Hill Olive Chapel Road; and

    b. An exclusive westbound right turn lane with 100 feet of storage and appropriate taper.

5. **New Hill Olive Chapel Road/North Site Driveway Intersection.** Prior to recordation of the Final Plat for the final phase of development in the Non-Residential District, developer shall construct:

a. A full movement stop controlled site driveway with one ingress lane and two egress lanes approximately 750 feet north of Old US 1. Egress lanes will include a left turn lane with 200 feet of storage and a continuous right turn lane;

b. An exclusive northbound left turn lane with 125 feet of storage and appropriate taper;

c. An exclusive southbound right turn lane with 50 feet of storage and appropriate taper; and

d. Internal protected stem (IPS) of 250 feet.

6. **New Hill Olive Chapel Road/South Site Driveway Intersection**.

a. A right-in/right out site driveway with one ingress lane and one egress lane approximately 450 feet north of Old US 1;

b. An additional southbound through turn lane that extends back to the North Site Driveway;

c. A southbound right turn taper; and

d. Internal protected stem (IPS) of 200 feet.

7. **Old US 1/New Hill Holleman Road/New Hill Olive Chapel Road intersection**.

a. Construct a westbound right turn lane with a minimum 150 feet of full width storage plus appropriate taper on Old US 1;

b. Extend the committed "by others" southbound right turn lane on New Hill Olive Chapel Road to extend to the South Site Driveway intersection;

c. Modify the existing traffic signal to accommodate all required geometric improvements;

d. Design and construct the following improvements, identified "by others" in the TIA assumptions, if not under construction by others at the time of first site plan submittal for development in the Non-Residential District:

i. Eastbound right turn lane on Old US-1 with 75 feet of storage and appropriate taper;

ii. Eastbound left turn lane on Old US-1 with 250 feet of storage and appropriate taper;

iii. Westbound left turn lane on Old US-1 with 250 feet of storage and appropriate taper;

iv. Northbound left turn lane on New Hill Holleman Road with 150 feet of storage and appropriate taper;

v. Southbound left turn lane on New Hill Olive Chapel Road with 150 feet of storage and appropriate taper;

vi. Southbound right turn lane on New Hill Olive Chapel Road with 150 feet of storage and appropriate taper.

PEDESTRIAN AND BICYCLE IMPROVEMENTS

Per UDO requirements, developer shall construct sidewalks throughout the development consistent with the Town of Apex Transportation Plan and Bicycle and Pedestrian Plan.

PUBLIC AMENITIES

The project shall provide at least four (4) community amenities, including but not limited to a patio seating area, water feature, clock tower, pedestrian plaza with benches, planters, public art, decorative bicycle parking, or focal feature consistent with the standards in UDO Section 8.4.3. One of the required community amenities for the Non-Residential District shall be public art. The location of the public art shall be determined by developer during Site Plan review for the Non-Residential District and shall be reviewed and approved by the Planning Director as set forth in UDO Section 8.4.5 and according to the Town of Apex's Public Art requirements, policies, and the adopted Public Art Map.

WATER AND SANITARY SEWER

All lots within the Development will be served by Town of Apex water and sanitary sewer. The utility design will be finalized at the time of Master Subdivision Plan or Site Plan approval and be based on available facilities adjacent to the site at that time. The design will meet the current Town of Apex Sewer and Water Master Plan and Standards and Specifications. A conceptual utility plan is included in the PUD Concept Plan for reference.

OTHER UTILITIES

Electricity will be provided by Apex Electric or Duke Energy as readily available. Phone, cable, and gas will be provided by the Developer and shall meet Town of Apex standards as outlined in the UDO.

PHASING

The Development will be completed in phases. Final locations of phases will be determined at the time of Master Subdivision or Site Plan Review and Approval.

CONSISTENCY WITH LAND USE PLAN

The proposed Development is consistent with Advance Apex the 2045 Plan and the 2045 Land Use Map ("LUM"). The LUM recommends a mix of commercial and office uses at the intersection of New Hill Olive Chapel Road and Old US-1, and low density residential uses on the western portion of the property. The New Hill Commons PUD permits a mix of office/commercial uses at the intersection and a low density residential neighborhood to the west.

COMPLIANCE WITH UDO

The development standards proposed for this PUD comply with those set forth in the Town's Unified Development Ordinance (UDO). This PUD shall be the primary governing document for the development of New Hill Commons PUD. All standards and regulations in this PUD shall control over general standards of the UDO. Provided, however, that if a specific regulation is not addressed in this PUD, UDO regulations shall control.

EXHIBIT A
Legal Description
The Property

Lying in Buckhorn Township, Wake County, North Carolina, being all of Parcel Identification Numbers 0710736732, 0710830487, 0710734325, 0710724872, 0710728789, 0710835242, 0710825733, and 0710837363 along with the inclusion of a portion of PIN 0710827861 (N/F New Hill Baptist Church) and being more particularly described as follows:

Commencing from NGS Monument "Ralph", said monument having NC Grid Coordinates (NAD 83, 2011) Northing: 702481.66 Easting: 2019361.74, thence N87°43'50"W a distance of 604.50' to an existing mag nail in the centerline of Old US 1 Highway and the southwestern corner of the N/F Shri Varni identified in Wake County Registry B.M. 2019 Pg 2097 having a Northing 702505.59 Easting: 2018757.71, representing the **POINT OF BEGINNING**:

Thence N45°28'14"W a distance of 30.05' to the northern right-of-way line of Old US 1 HWY (NCSR 1011); thence S44°15'35"W a distance of 210.07' along the northern right-of-way of Old US 1 HWY to the SW corner of N/F Shri Varni (PIN 0710827861); thence S44°11'34"W a distance of 60.00' along the northern right-of-way of Old US 1 HWY to the SW corner of the Lashlee Way Private Access easement and southeastern corner of New Hill Baptist Church;

Thence along the Lashlee Way private access easement the following three (3) courses:
1) N45°39'37"W a distance of 141.15' to a calculated point;
2) N32°25'29"W a distance of 144.72' a calculated point;
3) N18°04'17"W a distance of 124.25' common point with N/F Richard S. Burroughs Trustee property (PIN 0710728789);

Thence N85°25'05"W a distance of 101.80' to a rebar with cap corner with N/F Richard S. Burroughs Trustee as recorded in D.B. 13648 Pg. 1873 and New Hill Baptist Church & Cemetery Trustees as recorded in D.B. 7883 Pg. 739 to an existing RBC;

thence continuing with Burroughs and Vitek (D.B. 11819 Pg 1614) the following four (4) courses and distances:
1) S04°28'41" W a distance of 119.97' to a 3/4" EIP, a common corner with HB Home Raleigh-Durham, Inc. as recorded in D.B. 19593 Pg. 342,
2) N88°55'05" W a distance of 760.04' to an RBC,
3) N88°55'15" W a distance of 376.10' to an RBC,
4) N00°28'13" E a distance of 460.06' to an RBC, a common corner with KB Home, Miller and Vitek;

thence along a proposed property line bifurcating the KB Home property (PIN 0710736732 recorded in D.B. 19593 Pg 0332) the following four (4) courses and distances:
1) N70°37'53" W a distance of 102.74' to a calculated point,

2) N18°28'18" W a distance of 343.55’ to a calculated point,
3) N14°30'57" E a distance of 11.85’ to a calculated point,
4) N89°30'23" W a distance of 352.09' to a calculated point along the common property line with N/F Jordan Pointe Homeowners Association, Inc (PIN 0710623426 identified in D.B. 18264 Pg 1059) and KB Home (D.B. 19593 Pg 332);

thence N00°29’37”E a distance of 189.57’ to a common corner with N/F Jordan Pointe Homeowners Association, Inc (D.B. 18264 Pg 1059), Jordan Oaks Homeowners Association, Inc. (D.B 19726 Pg931) and KB Home (D.B. 19593 Pg 332); thence N27°07’07”E a distance of 180.77 feet to a 3/4” pinched iron pipe found; thence, S89°14’16”E a distance of 677.95 feet to a 3/4” iron pipe set; thence, S89°12’14”E a distance of 1,126.53 feet to a 3/4” iron pipe found; thence, S01°16’59”W a distance of 33.00 feet to a 3/4” bent iron pipe found; thence, S62°23’09”E a distance of 222.96 feet to a 1” bent iron pipe found; thence, S89°31’44”E a distance of 181.71 feet to a 3/4” iron pipe found on the northeastern corner of the N/F KB Home property (D.B. 195493 Pg 332) and the western right-of-way of New Hill Olive Chapel Road, said iron having NC State Plain coordinates of N= 703,604.52’ and E= 2,018,799.66’;

thence S14°16’14”E a distance of 66.98’ to an existing 5/8” property iron being the common point of northern Manage LLC (D.B 19627 Pg. 681) and western New Hill Olive Chapel Road right-of-way line; thence S88°13’22”E a distance of 27.50’ to calculated point in the centerline of New Hill Olive Chapel Road being the northeast corner of Manage LLC;

thence along the centerline of New Hill Olive Chapel Road the following seven (7) courses and distances:
1) S15°05’28”E a distance of 52.21’ to the northeast corner of N/F Annie Ruth Broadwall (D.B. 2160 Pg 202),
2) S15°04'23"E a distance of 273.80' to an existing mag nail being the northeast corner of Shri Varni, LLC;
3) S14°31'45"E a distance of 79.66’ to a calculated point;
4) S16°34'27" E a distance of 100.00’ to a calculated point;
5) S20°39'27" E a distance of 100.00' to a calculated point;
6) S28°06’27”E a distance of 100.00’ to a calculated point;
7) S33°04’27”E a distance of 109.13’ to a calculated point in the intersection of New Hill Olive Chapel Road and Old US 1 Highway (B.M. 2021 Pg. 1818);

thence along the centerline of Old US 1 Highway the following three (3) courses and distances:
1) S62°46’03”W a distance of 164.16 to a calculated point,
2) S53°39'33"W a distance of 100.00' to a calculated point,
3) S44°21'25"W a distance of 192.74’ to an existing mag nail in the centerline of Old US 1 Highway,

SAID point being the **POINT OF BEGINNING** for properties identified in deeds, plats, annexations, and legal descriptions containing 55.345 acres more or less.

EXHIBIT B
Property Information

a portion of PIN 0710736732
REID: 0080810
Address: 0 New Hill Olive Chapel Road, New Hill, NC 27562
Acreage: 8.59 acres (Total Parcel: 17.96 acres; 9.37 acres to be retained by Utley Farms)
Owner: KB HOME RALEIGH-DURHAM INC., a Delaware Corporation
Deed Book/Page: 19593/332
Owner Address: 1800 Perimeter Park Drive, Suite 140, Morrisville, NC 27560
Jurisdiction: Apex Town limits
Current Zoning: Planned Unit Development Conditional Zoning (PUD-CZ)(22CZ09 approved 11/8/2022)

PIN 0710830487
REID: 0288713
Address: 2513 Lashlee Way, New Hill, NC 27562
Acreage: 17.11 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (Wake County R-40W)

PIN 0710734325
REID: 0126579
Address: 2509 Lashlee Way, New Hill, NC 27562
Acreage: 4.01 acres
Owner: Ralph G. Miller Jr.
Deed Book/Page: Estate File
Owner Address: 2509 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710724872
REID: 0126580
Address: 2504 Lashlee Way, New Hill, NC 27562
Acreage: 5.99 acres
Owner: Richard P. Vitek
Deed Book/Page: Estate File
Owner Address: 2504 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710728789
REID: 0224639
Address: 2508 Lashlee Way, New Hill, NC 27562
Acreage: 5.77 acres
Owner: Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust

Deed Book/Page: 13648/1873
Owner Address: 2508 Lashlee Way, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710835242
REID: 0472187
Address: 8621 Athlete Drive, New Hill, NC 27562
Acreage: 4.49 acres
Owner: MENAGE LLC, a North Carolina limited liability company
Deed Book/Page: 19627/681
Owner Address: 255 Oak Haven Lane, Apex, NC 27523
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710825733
REID: 0040628
Address: 2537 Lashlee Way, New Hill, NC 27562
Acreage: 1.22 acres
Owner: KD2H, LLC, a North Carolina limited liability company
Deed Book/Page: 19522/2138
Owner Address: 1976 Old Byre Way, Apex, NC 27502
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710837363
REID: 0087669
Address: 2704 New Hill Olive Chapel Road, New Hill, NC 27562
Acreage: 1.61 acres
Owner: Annie Ruth Broadwell, Trustee of the Broadwell Family Trust
Deed Book/Page: 19723/347
Owner Address: 2704 New Hill Olive Chapel Road, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Residential 40 Watershed (R-40W)

PIN 0710827861
REID: 0087668
Address: 3600 Old US 1 Hwy, New Hill, NC 27562
Acreage: 5.985 acres
Owner: SHRI VARNI, LLC, a North Carolina limited liability company
Deed Book/Page: 17968/918
Owner Address: 1812 Venezia Way, Apex, NC 27502
Jurisdiction: Apex Town limits
Current Zoning: Neighborhood Business Conditional Zoning (B1-CZ)(21CZ11 approved 9/28/2021)

a portion of PIN 0710824319
REID: 0090469
Address: 3700 Old US 1 Hwy, New Hill, NC 27562

Acreage: 0.57 (Lashlee Way; Total Parcel: 3.85 acres; 3.28 acres to be retained by New Hill Baptist Church)
Owner: New Hill Baptist Church & Cemetery Trustees
Deed Book/Page: 7883/739
Owner Address: 3700 Old US 1 Hwy, New Hill, NC 27562
Jurisdiction: Wake County
Current Zoning: Mixed Office-Residential-Retail Conditional Zoning (MORR-CZ)(19CZ19 approved 11/19/2019

REZONING CASE #24CZ19
SUBMITTED NOVEMBER 1, 2024

<PUD REZONING>

NEW HILL COMMONS

NEW HILL OLIVE CHAPEL ROAD
APEX, NORTH CAROLINA 27562
PROJECT NUMBER: 240501

RIPARIAN BUFFERS AND WETLANDS:

RIPARIAN BUFFERS AND WETLANDS LOCATED ON SITE BY SOILS & ENVIRONMENTAL CONSULTANTS, INC ON OCTOBER 23, 2024 TO BE CONFIRMED BY THE US ARMY CORPS OF ENGINEERS AND TOWN OF APEX.
TOWN OF APEX PROJECT #24-007

811 Know what's below. Call before you dig.

APPLICANT
BARNETT PROPERTIES, LLC
ALAN MANESS, P.E.
7610 FALL OF NEUSE ROAD SUITE 150
RALEIGH, NC 27615
(919) 846-8708
www.BarnettProp.com

LAND USE ATTORNEY
PARKER, POE, ADAMS, & BERNSTEIN LLP
MATTHEW CARPENTER/MARK FREDERICK
301 FAYETTEVILLE STREET SUITE 1400
RALEIGH, NC 27601
(919) 835-4032
www.ParkerPoe.com

ENGINEER/LAND PLANNER
PEAK ENGINEERING & DESIGN, PLLC
JEFF ROACH, P.E.
1125 APEX PEAKWAY
APEX, NC 27502
(919) 439-0100
www.PeakEngineering.com

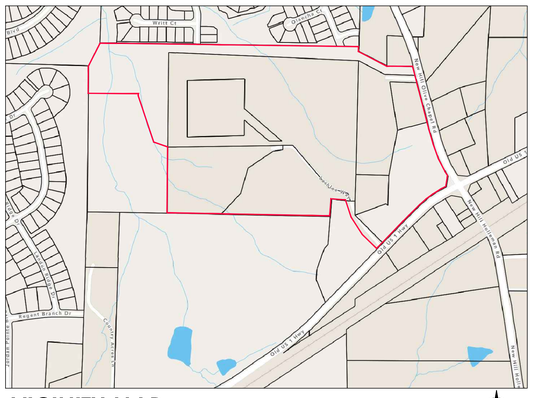
SURVEYOR
WITHERSRAVENEL, INC.
RICHARD TARBY, PLS
115 MacKENAN DRIVE
CARY, NC 27511
(919) 469-3340
www.WithersRavenel.com

ENVIRONMENTAL CONSULTANT
SOIL & ENVIRONMENTAL CONSULTANTS, INC
STEVEN BALL, RF, PWS
8412 FALLS OF NEUSE ROAD SUITE 104
RALEIGH, NC 27615
(919) 846-5900
www.SandEC.com

TRAFFIC ENGINEER
KIMLEY-HORN AND ASSOCIATES
LYLE OVERCASH, P.E.
421 FAYETTEVILLE STREET SUITE 600
RALEIGH, NC 27601
(919) 677-2000
www.Kimley-Horn.com



PROJECT AERIAL SCALE: 1" = 500'



VICINITY MAP SCALE: 1" = 500'

PROPERTY DATA

PIN 071-07-3673	0 New Hill Olive Chapel Road, New Hill, NC 27562	
KB HOME RALEIGH-DURHAM INC., a Delaware Corporation		**17.96 acres (total)
1800 Perimeter Park Drive, Suite 140, Morrisville, NC 27560		PUD-CZ (zoning)
Deed Book/Page: 19593/332		
Jurisdiction: Apex Town limits		
**9.37 acres to be retained by Utley Farms; 8.59 acres transferred to New Hill Commons		
PIN 0710-83-0487	2513 Lashlee Way, New Hill, NC 27562	
Ralph G. Miller Jr.		17.11 acres
2509 Lashlee Way, New Hill, NC 27562		R-40W (zoning)
Deed Book/Page: Estate File		
Jurisdiction: Wake County		
PIN 0710-73-4325	2509 Lashlee Way, New Hill, NC 27562	
Owner: Ralph G. Miller Jr.		4.01 acres
Owner Address: 2509 Lashlee Way, New Hill, NC 27562		R-40W (zoning)
Deed Book/Page: Estate File		
Jurisdiction: Wake County		
PIN 0710-72-4872	2504 Lashlee Way, New Hill, NC 27562	
Richard P. Vitek		5.99 acres
2504 Lashlee Way, New Hill, NC 27562		R-40W (zoning)
Deed Book/Page: Estate File		
Jurisdiction: Wake County		
PIN 0710-72-8789	2508 Lashlee Way, New Hill, NC 27562	
Richard S. Burroughs, Trustee of the Richard S. Burroughs Trust		5.77 acres
2508 Lashlee Way, New Hill, NC 27562		R-40W (zoning)
Deed Book/Page: 13648/1873		
Jurisdiction: Wake County		
PIN 0710-83-5242	8621 Athlete Drive, New Hill, NC 27562	
MENAGE LLC, a North Carolina limited liability company		4.49 acres
255 Oak Haven Lane, Apex, NC 27523		R-40W (zoning)
Deed Book/Page: 19627/681		
Jurisdiction: Wake County		
PIN 0710-82-5733	2537 Lashlee Way, New Hill, NC 27562	
KD2H, LLC, a North Carolina limited liability company		1.22 acres
1976 Old Byre Way, Apex, NC 27502		R-40W (zoning)
Deed Book/Page: 19522/2138		
Jurisdiction: Wake County		
PIN 0710-83-7363	2704 New Hill Olive Chapel Road, New Hill, NC 27562	
Annie Ruth Broadwell		1.61 acres
2704 New Hill Olive Chapel Road, New Hill, NC 27562		R-40W (zoning)
Deed Book/Page: Estate File		
Jurisdiction: Wake County		
PIN 0710-82-7861	3600 Old US 1 Hwy, New Hill, NC 27562	
SHRI VARNI, LLC, a North Carolina limited liability company		5.985 acres
Owner Address: 1812 Venezia Way, Apex, NC 27502		B1-CZ (zoning)
Deed Book/Page: 17968/918		
Jurisdiction: Apex Town limits		
PIN 0710-82-4319 (portion of)	3700 Old US 1 Hwy, New Hill, NC 27562	
New Hill Baptist Church & Cemetery Trustees		**3.85 acres
Owner Address: 3700 Old US 1 Hwy, Apex, NC 27562-9762		MORR-CZ (zoning)
Deed Book/Page: 7883/739		
Jurisdiction: Apex Town limits		
**3.28 acres retained by New Hill Baptist; 0.57 acres transferred to New Hill Commons		

Project Acreage: 55.345 acres
(Deeded acreage and final Survey data may vary slightly)

INDEX OF DRAWINGS:

C000 COVER SHEET

C001 EXISTING CONDITIONS
C002 EXISTING CONDITIONS TREE SURVEY
C003 EXISTING CONDITIONS TREE SURVEY TABLE

C100 CONCEPTUAL SITE PLAN/
CONCEPTUAL UTILITY PLAN

C120 BUILDING ELEVATIONS - SINGLE-FAMILY
C121 BUILDING ELEVATIONS - NON-RESIDENTIAL

SITE DATA TABLE

Township:	Buckhorn Township
Flood Zone Information:	Firm Panel 3720071000L effective July 16, 2022 does not show the presence of flood zones on the properties (flood zones are not located within 100' of the property)
Watershed Information:	Primary Watershed Protection Overlay District, Little Beaver Creek, Jordan Lake, Cape Fear River Basin
Historical:	NC SHPO does not show any existing historical structures although a number of the properties are located within the New Hill Historic District
Annexation:	Annexation required prior to Zoning approval for parcels located outside of the Apex ETJ and Town Limits
Existing Zonings:	Wake County R-40W (Residential - 40 Watershed District) Apex PUD-CZ (Utley Farms - zoning case #22CZ09) Apex B1-CZ (Shri Varni LLC - zoning case #21CZ11) Apex MORR-CZ (New Hill Baptist Church - zoning case #19CZ19)
Proposed Zoning:	Town of Apex PUD - CZ (Planned Unit Development - Conditional Zoning)
Existing 2045 Land Use Map:	Office Employment/Commercial Services; Low Density Residential; Office Employment/Low Density Residential
Proposed 2045 Land Use Map:	Office Employment/Commercial Services; Low Density Residential
Existing Use:	Single-Family residential, vacant residential, vacant commercial, and church uses
Proposed Uses:	The Property may be used for the uses listed below. The permitted uses are subject to the limitations and regulations stated in the UDO and any additional limitations or regulations stated below. For convenience, some relevant sections of the UDO may be referenced; such references do not imply that other sections of the UDO do not apply.

Residential District **~ 36.886 acres (1,606,742 SF)**

Single-family	Accessory dwelling unit *	Park, active	Park, passive	Greenway
Recreation facility, private	Utility, minor			

* Homeowners Association covenants shall not restrict the construction of Accessory apartments or Accessory dwelling units.

Non-Residential District **~ 18.459 acres (804,080 SF)**

Park, active	Park, passive	Greenway		Utility, minor
Restaurant, general	Restaurant, drive-through	Bar, nightclub, wine bar, taproom	Medical or dental office or clinic	Medical or dental lab
Office, business or professional	Publishing office	Artisan Studio	Barber and beauty shop	Book store
Convenience store	Convenience store with gas sales		Dry cleaners and laundry service	Financial institution
Floral shop	Grocery, general	Grocery, specialty	Health/fitness center or spa	Newsstand or gift shop
Personal service	Pharmacy	Printing and copying service	Real estate sales	Retail sales, general
Studio for art	Tailor shop	Upholstery shop	Pet services	Day care facility
Drop-in or short term day care	Veterinary clinic or hospital	Vehicle Inspection Center	Automotive parts	Microbrewery
Entertainment, indoor		Farmer's market	Greenhouse or nursery, retail	

Refer to PD Text for a list of uses and other zoning standards

District Standards	Single-Family Residential	Non-Residential	Recreation Facility, Private
Maximum Built-Upon Area	70%	70%	70%
Max Density	3.00 DU/acre	N/A	N/A
Minimum Lot Size	6,000 SF	N/A	N/A
Minimum Lot Width	50 feet	N/A	N/A
Front Setback	10 feet	20 feet	10 feet
Front Setback (garage)	20 feet (from sidewalk or back of curb where no sidewalk exists)		
Side Setback	5 feet	15 feet	10 feet
Side (corner) Setback	10 feet	N/A	N/A
Rear Setback	10 feet	20 feet	10 feet
Buffer/RCA setback - building	10 feet	10 feet	10 feet
Buffer/RCA setback - parking	5 feet	5 feet	5 feet
Max Building Height	36 feet (2 stories)	48 feet	48 feet

Parking Standard:	Parking shall be provided per the approved PD Text (zoning documents) in conjunction with UDO UDO 8.3
Single-family	2 parking spaces/dwelling unit
Non-Residential Uses	See PD Text document
ADA Accessible Parking	Parking shall be provided per UDO standards
EV Parking:	Parking shall be provided per UDO 8.3.11
Bicycle Parking:	Parking shall be provided per UDO 8.3.2
RCA Required:	Project shall designate a minimum of 25% RCA for the commercial component and follow 8.1.1 for the Residential area as outlined per UDO Section 8.1.2.C (including the 5% mass grading penalty)
Grading:	Residential section to be "Mass Graded"
% of lots graded prior to first plat:	Maximum of 20 acres of single-family residential area may be grading at one-time per UDO Section 7.2.5.B
% of pre-development drainage areas preserved within their natural basins:	80% per UDO Section 7.2.5.B
Sanitary Sewer Capacity:	Project capacity to be calculated at Master Subdivision Plan or Site Plan per NC 2T and Town of Apex standards Single-family residential - 300 GPD; Commercial - 0.12 GPD; Office and Institutional - 0.09 GPD

PARKS AND RECREATION DATA TABLE

DATE REVIEWED BY PRCR ADVISORY COMMISSION: FEBRUARY 26, 2025
FEE-IN-LIEU: 2024-2025 RATES

SINGLE-FAMILY DETACHED UNITS	$4,244.42 / DWELLING UNIT x ???? UNITS = $_____
SINGLE-FAMILY ATTACHED UNITS	$2,858.65 / DWELLING UNIT x ???? UNITS = $_____
MULTI-FAMILY UNITS	$2,516.93 / DWELLING UNIT x ???? UNITS = $_____

ACRES OF LAND DEDICATION: _____ACRES
PUBLIC GREENWAY TRAIL CONSTRUCTION YES ___ NO__XX__.

The Parks, Recreation, and Cultural Resources Advisory Commission on February 26, 2025 recommended a fee-in-lieu of dedication with credit for construction of greenways for single-family detached residential units. The current 2025 rates for single-family detached, single-family attached, and multi-family units shall be deposited with the Town at the time of the final plat. If the project is not approved by Town Council this year, the rates would be adjusted in January to the 2026 rate.

PEAK Engineering & Design
1125 Apex Peakway | Apex, NC 27502
ph: 919.439.0100
www.PeakEngineering.com

NC License #P-0673

project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER FREYA A ROACH
PRELIMINARY PLAT SET NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX – ZONING REVIEW	JR
2	JANUARY 31, 2025	TOWN OF APEX – ZONING REVIEW	JR
3	MARCH 7, 2025	TOWN OF APEX – ZONING REVIEW	JR
4	APRIL 4, 2025	TOWN OF APEX – ZONING REVIEW	JR

title:
PUD COVER SHEET

proj #:
240501
date:
November 1, 2024
dwg by: FS chkd by: JR
scale:
As Noted
sheet:
C000
(PUD PLAN)

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ADJACENT PROPERTY OWNERS

#	OWNER	PIN	USE	ZONING
1	KB HOME RALEIGH-DURHAM INC	0710-83-0916	BELTERRA OPEN SPACE	PUD-CZ
2	COTTER, STEPHANIE & MATTHEW	0710-63-7875	SINGLE FAMILY	PUD-CZ
3	PERURU, DEEPAK & MUSALIAHGARI, MOUNIKA	0710-63-8841	SINGLE FAMILY	PUD-CZ
4	RAVI, RAVITEJA & ALINEEDI, SREEJA	0710-63-9822	SINGLE FAMILY	PUD-CZ
5	VADLAMUDI, AYYAPPA & AKHILA	0710-63-9882	SINGLE FAMILY	PUD-CZ
6	BEJUGAM, PRADEEP & MITTAPALLI, MADHULIKA	0710-73-0842	SINGLE FAMILY	PUD-CZ
7	MOHANTY, SWAPNASISH & DAS, MANISHA	0710-73-1802	SINGLE FAMILY	PUD-CZ
8	VERMA, ROBIN & SUGANDHA	0710-73-1872	SINGLE FAMILY	PUD-CZ
9	NALLAVOLU, RAMESH & VAUNDHARA	0710-73-2832	SINGLE FAMILY	PUD-CZ
10	SWEENEY, THOMAS	0710-73-3779	SINGLE FAMILY	PUD-CZ
11	BONDALAPATI, CHAITANYA & PARVATENENI, SWATHI	0710-73-3875	SINGLE FAMILY	PUD-CZ
12	KB HOME RALEIGH-DURHAM INC	0710-73-6961	BELTERRA OPEN SPACE	PUD-CZ
13	SUTHAR, NILESH & PANCHOLI, AMISHA	0710-73-8854	SINGLE FAMILY	PUD-CZ
14	LOHA, SOUMIK & CHOUDHURY, DEBASHREE	0710-73-9830	SINGLE FAMILY	PUD-CZ
15	RUPAKULLA, SRIKANTH & LOYA, PAVANI	0710-83-0812	SINGLE FAMILY	PUD-CZ
16	GUPTA, RAKESH & RAJPUT, KAVITA	0710-83-0864	SINGLE FAMILY	PUD-CZ
17	KB HOME RALEIGH-DURHAM INC	0710-73-6961	BELTERRA OPEN SPACE	PUD-CZ
18	RAVINDRAN, PALANI & PRAKASAM, ELAKIYA	0710-83-1872	SINGLE FAMILY	PUD-CZ
19	SANGHRAJKA, KAMALKUMAR & DOSHI, PRIYAL	0710-83-1847	SINGLE FAMILY	PUD-CZ
20	PATEL, KANDARP & DEEPA	0710-83-3838	SINGLE FAMILY	PUD-CZ
21	KB HOME RALEIGH-DURHAM INC	0710-83-3778	BELTERRA OPEN SPACE	PUD-CZ

RIPARIAN BUFFERS AND WETLANDS:

RIPARIAN BUFFERS AND WETLANDS LOCATED ON SITE BY SOILS & ENVIRONMENTAL CONSULTANTS, INC ON OCTOBER 23, 2024 TO BE CONFIRMED BY THE US ARMY CORPS OF ENGINEERS AND TOWN OF APEX.
TOWN OF APEX PROJECT #24-007

EXISTING CONDITIONS NOTES:

1. *BOUNDARY AND EXISTING CONDITIONS SURVEYS PROVIDED BY WITHERSRAVENEL.*
2. *TOPOGRAPHIC INFORMATION FROM WAKE COUNTY GIS AND SURVEYOR DATA.*
3. *NO SLOPES EQUAL TO OR GREATER THAN 3:1 FOUND ON THE SITE.*
4. NC SHPO DOES NOT SHOW ANY EXISTING HISTORICAL STRUCTURES ALTHOUGH A NUMBER OF THE PROPERTIES ARE LOCATED WITHIN THE NEW HILL HISTORIC DISTRICT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE PRIMARY WATERSHED OVERLAY DISTRICT, LITTLE BEAVER CREEK, JORDAN LAKE, CAPE FEAR RIVER BASIN.
8. EXISTING HOMES UTILIZE PRIVATE WASTE WATER AND WELLS. ALL FEATURES SHALL BE ABANDONED OR REMOVED AS REQUIRED BY THE APPROPRIATE REVIEW AGENCY.

PROJECT PERIMETER BOUNDARY

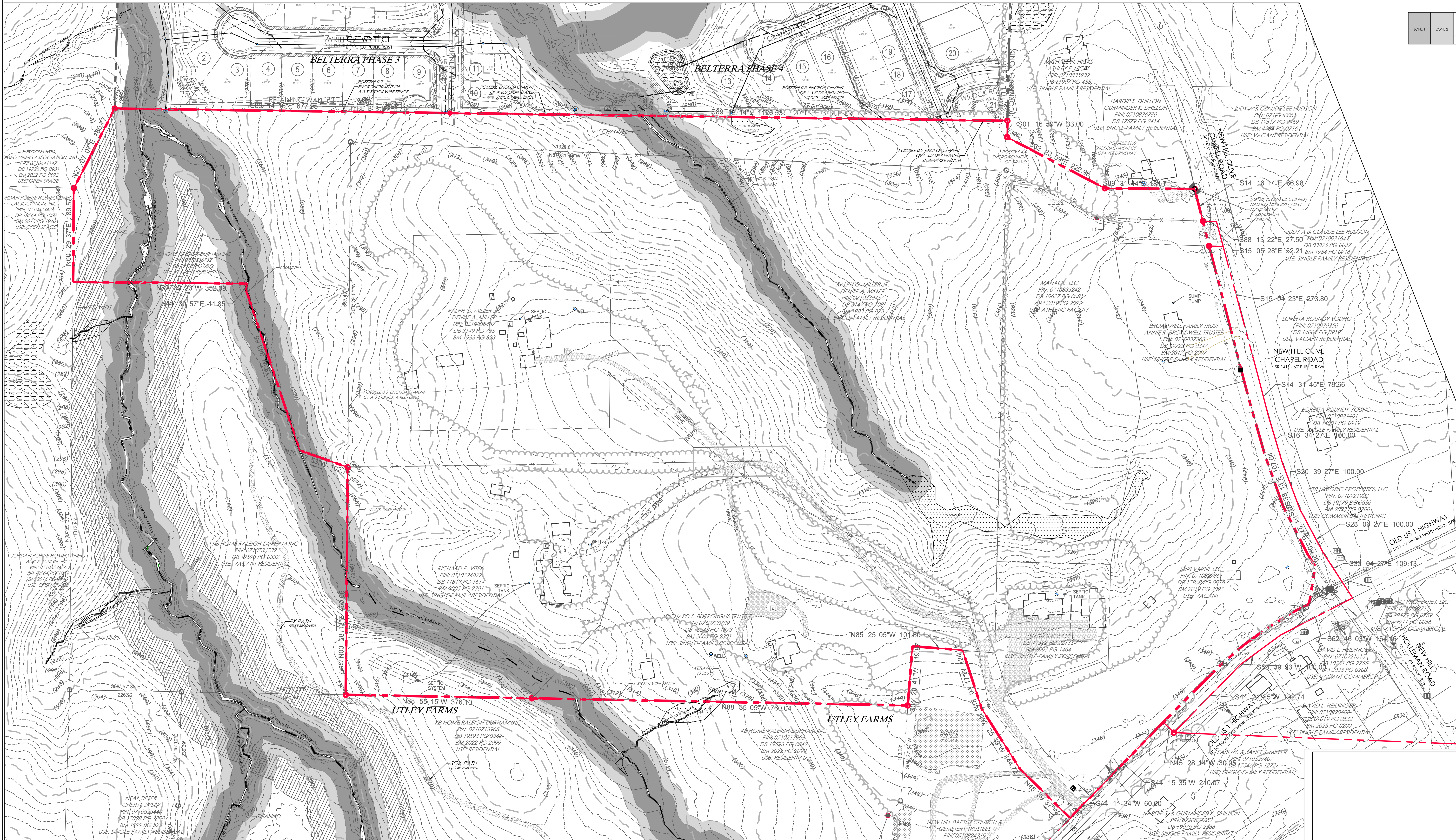
PROPOSED WATER CONNECTIONS

PROPOSED SEWER CONNECTIONS

POTENTIAL ACCESS POINTS

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

ZONE 1 ZONE 2 ZONE 3 STREAM BUFFERS



1 C001 EXISTING CONDITIONS PLAN
SCALE: 1"=100'

0 50 100 200
SCALE: 1" = 100'

PEAK Engineering & Design
1125 Apex Peakway | Apex, NC 27502
ph: 919.439.0100
www.PeakEngineering.com
NC License #P-0673

project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX - ZONING REVIEW	JF
2	FEBRUARY 7, 2025	TOWN OF APEX - ZONING REVIEW	JF
3	MARCH 7, 2025	TOWN OF APEX - ZONING REVIEW	JF
4	APRIL 4, 2025	TOWN OF APEX - ZONING REVIEW	JF

title:
EXISTING CONDITIONS PLAN

proj #: 240501
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: C001
(PUD PLAN)

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DISTANCE "X" FROM TRUNK

NOTE: DISTANCE "X" FROM TREE SHALL BE A MINIMUM OF 6' OR 1' RADIUS PER 1" OF TREE DIAMETER, WHICH EVER IS GREATER.

FOR ALL HARDWOODS 18" AND GREATER, THE CRITICAL ROOT ZONE TPF SHALL BE SHOWN

2 / C002 ROOT ZONE PROTECTION
SCALE: N.T.S.

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

LARGE TREES ON-SITE HAVE BEEN INCLUDED FOR REFERENCE ONLY. FUTURE PRESERVATION AND AVOIDANCE OF EXISTING VEGETATION TO BE COORDINATED WITH STAFF.

PROJECT PERIMETER BOUNDARY

ZONE 1 | ZONE 2 | ZONE 3 STREAM BUFFERS

RIPARIAN BUFFERS AND WETLANDS:

RIPARIAN BUFFERS AND WETLANDS LOCATED ON SITE BY SOILS & ENVIRONMENTAL CONSULTANTS, INC TO BE CONFIRMED BY THE US ARMY CORPS OF ENGINEERS AND TOWN OF APEX.
TOWN OF APEX PROJECT #24-007

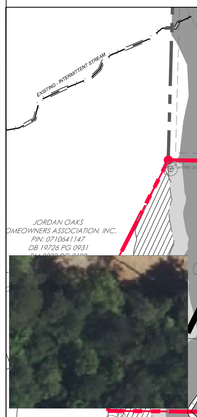
EXISTING CONDITIONS NOTES:

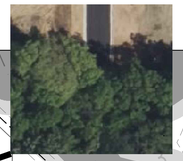
1. *BOUNDARY AND EXISTING CONDITIONS SURVEYS PROVIDED BY WITHERSRAVENEL.*
2. *TOPOGRAPHIC INFORMATION FROM WAKE COUNTY GIS AND SURVEYOR DATA.*
3. *NO SLOPES EQUAL TO OR GREATER THAN 3:1 FOUND ON THE SITE.*
4. NC SHPO DOES NOT SHOW ANY EXISTING HISTORICAL STRUCTURES ALTHOUGH A NUMBER OF THE PROPERTIES ARE LOCATED WITHIN THE NEW HILL HISTORIC DISTRICT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE PRIMARY WATERSHED OVERLAY DISTRICT, LITTLE BEAVER CREEK, JORDAN LAKE, CAPE FEAR RIVER BASIN.
8. EXISTING HOMES UTILIZE PRIVATE WASTE WATER AND WELLS. ALL FEATURES SHALL BE ABANDONED OR REMOVED AS REQUIRED BY THE APPROPRIATE REVIEW AGENCY.

REQUIRED PLAN NOTES:

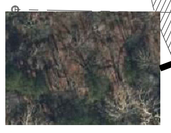
1) NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF S&E MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS-SCHEDULES.
2) TREE PROTECTION FENCING MUST BE PLACED:
   a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
   b. ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
   c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.
3) ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER; SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

ZONE 1 | ZONE 2 | ZONE 3 STREAM BUFFERS









BELTERRA PHASE 3
BELTERRA PHASE 4
RETAINING WALL #3
RETAINING WALL #4
20' TYPE B BUFFER
WHITE ST - WHITE CT (50' PUBLIC R/W)
CHANNEL
Field
Mixed Pines and Hardwoods trees >18" DBH
Manicured Yard
Athletic Field
Mixed Pines and Hardwoods trees <18" DBH
Small pine trees <18" DBH
SEPTIC TANK
WELL
SEPTIC SYSTEM
STOCK WIRE FENCE
WETLANDS (3,356 sf)
BURIAL PLOTS
POSSIBLE 4-6' ENCROACHMENT OF GRAVEL
POSSIBLE 3.5' BRICK WALL ENCROACHMENT
NEW HILL OLIVE CHAPEL ROAD
SR 1411 - 60' PUBLIC R/W
OLD US 1 HIGHWAY
VARIABLE WIDTH PUBLIC R/W
HOLEMAN ROAD
SR 1011 - 60' PUBLIC R/W
S64°27'54"W
UTLEY FARMS
KB HOME RALEIGH-DURHAM INC
PIN: 0710713968
DB 19593 PG 0342
BM 2022 PG 2099
USE: RESIDENTIAL
JORDAN OAKS HOMEOWNERS ASSOCIATION, INC.
PIN: 0710643429
DB 18264 PG 1059
BM 2016 PG 1940
USE: OPEN SPACE
JORDAN POINTE HOMEOWNERS ASSOCIATION, INC.
PIN: 0710823426
DB 18264 PG 1059
BM 2016 PG 1940
USE: OPEN SPACE
KB HOME RALEIGH-DURHAM INC
PIN: 0710736732
DB 19593 PG 0332
USE: VACANT RESIDENTIAL
RICHARD P. WITEK
PIN: 0710724872
DB 11819 PG 1614
BM 2005 PG 2301
USE: SINGLE-FAMILY RESIDENTIAL
RICHARD S. BURROUGHS TRUSTEE
PIN: 0710728789
DB 18548 PG 1873
BM 2023 PG 2301
USE: SINGLE-FAMILY RESIDENTIAL
NEAL ZIPSER
CHERYL ZIPSER
PIN: 0710525440
DB 17028 PG 1898
BM 1999 PG 325
USE: SINGLE-FAMILY RESIDENTIAL
RALPH G. MILLER JR.
DENISE A. MILLER
PIN: 0710830487
DB 3149 PG 708
BM 1983 PG 823
USE: SINGLE-FAMILY RESIDENTIAL
MANAGE, LLC
PIN: 0710835242
DB 19627 PG 0681
BM 2019 PG 2097
USE: ATHLETIC FACILITY
MICHAEL N. HICKS
ASHLEY F. HICKS
PIN: 0710835932
DB 15907 PG 438
USE: SINGLE-FAMILY RESIDENTIAL
HARDIP S. DHILLON
GURMINDER K. DHILLON
PIN: 0710836780
DB 17579 PG 2414
USE: SINGLE-FAMILY RESIDENTIAL
JUDY A & CLAUDE LEE HUDSON
PIN: 0710940061
DB 19517 PG 0459
BM 1984 PG 0716
USE: VACANT RESIDENTIAL
JUDY A & CLAUDE LEE HUDSON
PIN: 0710931641
DB 03875 PG 0047
BM 1984 PG 0716
USE: SINGLE-FAMILY RESIDENTIAL
BROADWELL FAMILY TRUST
ANNIE F. BROADWELL TRUSTEE
PIN: 0710837363
DB 9723 PG 0347
BM 2019 PG 2097
USE: SINGLE-FAMILY RESIDENTIAL
LORETTA ROUNDY YOUNG
PIN: 0710930350
DB 14001 PG 0919
USE: VACANT RESIDENTIAL
LORETTA ROUNDY YOUNG
PIN: 0710931101
DB 14001 PG 0919
USE: SINGLE-FAMILY RESIDENTIAL
WTP HISTORIC PROPERTIES, LLC
PIN: 0710921928
DB 19579 PG 0630
BM 2023 PG 0200
USE: COMMERCIAL/HISTORIC
SHRI VARNI, LLC
PIN: 0710823788
DB 17968 PG 0612
BM 2019 PG 2097
USE: VACANT
KDPL, LLC
PIN: 0710825730
DB 19522 PG 0291
BM 1993 PG 1464
USE: SINGLE-FAMILY RESIDENTIAL
DAVID L. HEDINGER
PIN: 0710921615
DB 10751 PG 2755
BM 2023 PG 0200
USE: VACANT COMMERCIAL
DAVID L. HEDINGER
PIN: 0710928602
DB 00919 PG 0532
BM 2023 PG 0200
USE: SINGLE-FAMILY RESIDENTIAL
CARL W. & JANET S. MILLER
PIN: 0710829407
DB 17546 PG 1272
USE: RESIDENTIAL
NEW HILL BAPTIST CHURCH & CEMETERY TRUSTEES
PIN: 0710834318
DB 7883 PG 709
BM 1996 PG 93
USE: CHURCH
Manicured Yard
SUMP PUMP
BUILDING
3/4" EIP (CONTROL CORNER)
NAD 83/2011 (2011.00)
N: 703504.57'
E: 2618,799.66'
(34°40.78')

54 TREES WITHIN PROJECT BOUNDARY (not all protected)

54 TREES FROM ADJACENT PROJECTS (shown for reference only)

1 / C001 EXISTING CONDITIONS TREE SURVEY
SCALE: 1"=100'

N

0 50 100 200
SCALE: 1" = 100'

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project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT TERRY A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX – ZONING REVIEW	TR
2	FEBRUARY 3, 2025	TOWN OF APEX – ZONING REVIEW	TR
3	MARCH 7, 2025	TOWN OF APEX – ZONING REVIEW	TR
4	APRIL 4, 2025	TOWN OF APEX – ZONING REVIEW	TR

title:
EXISTING CONDITIONS TREE SURVEY

proj #: 240501
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: *C002*
(PUD PLAN)

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Point Table		
Point #	Description	CONDITION
14	18"gum	TO EVALUATE
13	18"gum	TO EVALUATE
12	18"gum	TO EVALUATE
11	18"gum	TO EVALUATE
10	18"gum	TO EVALUATE
9	18"gum	TO EVALUATE
8	18"gum	TO EVALUATE
7	18"gum	TO EVALUATE
6	18"gum	TO EVALUATE
5	18"gum	TO EVALUATE
4	18"gum	TO EVALUATE
3	18"gum	TO EVALUATE
2	18"gum	TO EVALUATE
1	18"gum	TO EVALUATE
17	18"maple	TO EVALUATE
16	18"maple	TO EVALUATE
15	18"maple	TO EVALUATE
29	18"poplar	TO EVALUATE
28	18"poplar	TO EVALUATE
27	18"poplar	TO EVALUATE
26	18"poplar	TO EVALUATE
25	18"poplar	TO EVALUATE
24	18"poplar	TO EVALUATE
23	18"poplar	TO EVALUATE
22	18"poplar	TO EVALUATE
21	18"poplar	TO EVALUATE
20	18"poplar	TO EVALUATE
19	18"poplar	TO EVALUATE
18	18"poplar	TO EVALUATE
34	18"redoak	TO EVALUATE
33	18"redoak	TO EVALUATE
32	18"redoak	TO EVALUATE
31	18"redoak	TO EVALUATE
30	18"redoak	TO EVALUATE
38	18"wateroak	TO EVALUATE
37	18"wateroak	TO EVALUATE
36	18"wateroak	TO EVALUATE
35	18"wateroak	TO EVALUATE
48	18"whiteoak	TO EVALUATE
47	18"whiteoak	TO EVALUATE
46	18"whiteoak	TO EVALUATE
45	18"whiteoak	TO EVALUATE
44	18"whiteoak	TO EVALUATE

Point Table		
Point #	Description	CONDITION
43	18"whiteoak	TO EVALUATE
42	18"whiteoak	TO EVALUATE
41	18"whiteoak	TO EVALUATE
40	18"whiteoak	TO EVALUATE
39	18"whiteoak	TO EVALUATE
60	19"gum	TO EVALUATE
59	19"gum	TO EVALUATE
58	19"gum	TO EVALUATE
57	19"gum	TO EVALUATE
56	19"gum	TO EVALUATE
55	19"gum	TO EVALUATE
54	19"gum	TO EVALUATE
53	19"gum	TO EVALUATE
52	19"gum	TO EVALUATE
51	19"gum	TO EVALUATE
50	19"gum	TO EVALUATE
49	19"gum	TO EVALUATE
75	19"poplar	TO EVALUATE
74	19"poplar	TO EVALUATE
73	19"poplar	TO EVALUATE
72	19"poplar	TO EVALUATE
71	19"poplar	TO EVALUATE
70	19"poplar	TO EVALUATE
69	19"poplar	TO EVALUATE
68	19"poplar	TO EVALUATE
67	19"poplar	TO EVALUATE
66	19"poplar	TO EVALUATE
65	19"poplar	TO EVALUATE
64	19"poplar	TO EVALUATE
63	19"poplar	TO EVALUATE
62	19"poplar	TO EVALUATE
61	19"poplar	TO EVALUATE
79	19"redoak	TO EVALUATE
78	19"redoak	TO EVALUATE
77	19"redoak	TO EVALUATE
76	19"redoak	TO EVALUATE
82	19"wateroak	TO EVALUATE
81	19"wateroak	TO EVALUATE
80	19"wateroak	TO EVALUATE
90	19whiteoak	TO EVALUATE
89	19whiteoak	TO EVALUATE
88	19whiteoak	TO EVALUATE
87	19whiteoak	TO EVALUATE

Point Table		
Point #	Description	CONDITION
86	19whiteoak	TO EVALUATE
85	19whiteoak	TO EVALUATE
84	19whiteoak	TO EVALUATE
83	19whiteoak	TO EVALUATE
97	20"gum	TO EVALUATE
96	20"gum	TO EVALUATE
95	20"gum	TO EVALUATE
94	20"gum	TO EVALUATE
93	20"gum	TO EVALUATE
92	20"gum	TO EVALUATE
91	20"gum	TO EVALUATE
98	20"laureloak	TO EVALUATE
101	20"maple	TO EVALUATE
100	20"maple	TO EVALUATE
99	20"maple	TO EVALUATE
108	20"poplar	TO EVALUATE
107	20"poplar	TO EVALUATE
106	20"poplar	TO EVALUATE
105	20"poplar	TO EVALUATE
104	20"poplar	TO EVALUATE
103	20"poplar	TO EVALUATE
102	20"poplar	TO EVALUATE
116	20"redoak	TO EVALUATE
115	20"redoak	TO EVALUATE
114	20"redoak	TO EVALUATE
113	20"redoak	TO EVALUATE
112	20"redoak	TO EVALUATE
111	20"redoak	TO EVALUATE
110	20"redoak	TO EVALUATE
109	20"redoak	TO EVALUATE
118	20"wateroak	TO EVALUATE
117	20"wateroak	TO EVALUATE
130	20"whiteoak	TO EVALUATE
129	20"whiteoak	TO EVALUATE
128	20"whiteoak	TO EVALUATE
127	20"whiteoak	TO EVALUATE
126	20"whiteoak	TO EVALUATE
125	20"whiteoak	TO EVALUATE
124	20"whiteoak	TO EVALUATE
123	20"whiteoak	TO EVALUATE
122	20"whiteoak	TO EVALUATE
121	20"whiteoak	TO EVALUATE
120	20"whiteoak	TO EVALUATE

Point Table		
Point #	Description	CONDITION
119	20"whiteoak	TO EVALUATE
131	21"bald-cypress	TO EVALUATE
136	21"gum	TO EVALUATE
135	21"gum	TO EVALUATE
134	21"gum	TO EVALUATE
133	21"gum	TO EVALUATE
132	21"gum	TO EVALUATE
137	21"hickory	TO EVALUATE
150	21"poplar	TO EVALUATE
149	21"poplar	TO EVALUATE
148	21"poplar	TO EVALUATE
147	21"poplar	TO EVALUATE
146	21"poplar	TO EVALUATE
145	21"poplar	TO EVALUATE
144	21"poplar	TO EVALUATE
143	21"poplar	TO EVALUATE
142	21"poplar	TO EVALUATE
141	21"poplar	TO EVALUATE
140	21"poplar	TO EVALUATE
139	21"poplar	TO EVALUATE
138	21"poplar	TO EVALUATE
153	21"redoak	TO EVALUATE
152	21"redoak	TO EVALUATE
151	21"redoak	TO EVALUATE
154	21"wateroak	TO EVALUATE
164	21"whiteoak	TO EVALUATE
163	21"whiteoak	TO EVALUATE
162	21"whiteoak	TO EVALUATE
161	21"whiteoak	TO EVALUATE
160	21"whiteoak	TO EVALUATE
159	21"whiteoak	TO EVALUATE
158	21"whiteoak	TO EVALUATE
157	21"whiteoak	TO EVALUATE
156	21"whiteoak	TO EVALUATE
155	21"whiteoak	TO EVALUATE
165	21"willowoak	TO EVALUATE
170	22"gum	TO EVALUATE
169	22"gum	TO EVALUATE
168	22"gum	TO EVALUATE
167	22"gum	TO EVALUATE
166	22"gum	TO EVALUATE
171	22"maple	TO EVALUATE
176	22"poplar	TO EVALUATE

Point Table		
Point #	Description	CONDITION
175	22"poplar	TO EVALUATE
174	22"poplar	TO EVALUATE
173	22"poplar	TO EVALUATE
172	22"poplar	TO EVALUATE
182	22"redoak	TO EVALUATE
181	22"redoak	TO EVALUATE
180	22"redoak	TO EVALUATE
179	22"redoak	TO EVALUATE
178	22"redoak	TO EVALUATE
177	22"redoak	TO EVALUATE
183	22"wateroak	TO EVALUATE
196	22"whiteoak	TO EVALUATE
195	22"whiteoak	TO EVALUATE
194	22"whiteoak	TO EVALUATE
193	22"whiteoak	TO EVALUATE
192	22"whiteoak	TO EVALUATE
191	22"whiteoak	TO EVALUATE
190	22"whiteoak	TO EVALUATE
189	22"whiteoak	TO EVALUATE
188	22"whiteoak	TO EVALUATE
187	22"whiteoak	TO EVALUATE
186	22"whiteoak	TO EVALUATE
185	22"whiteoak	TO EVALUATE
184	22"whiteoak	TO EVALUATE
204	23"gum	TO EVALUATE
203	23"gum	TO EVALUATE
202	23"gum	TO EVALUATE
201	23"gum	TO EVALUATE
200	23"gum	TO EVALUATE
199	23"gum	TO EVALUATE
198	23"gum	TO EVALUATE
197	23"gum	TO EVALUATE
207	23"maple	TO EVALUATE
206	23"maple	TO EVALUATE
205	23"maple	TO EVALUATE
209	23"poplar	TO EVALUATE
208	23"poplar	TO EVALUATE
212	23"redoak	TO EVALUATE
211	23"redoak	TO EVALUATE
210	23"redoak	TO EVALUATE
213	23"wateroak	TO EVALUATE
226	23"whiteoak	TO EVALUATE
225	23"whiteoak	TO EVALUATE

Point Table		
Point #	Description	CONDITION
224	23"whiteoak	TO EVALUATE
223	23"whiteoak	TO EVALUATE
222	23"whiteoak	TO EVALUATE
221	23"whiteoak	TO EVALUATE
220	23"whiteoak	TO EVALUATE
219	23"whiteoak	TO EVALUATE
218	23"whiteoak	TO EVALUATE
217	23"whiteoak	TO EVALUATE
216	23"whiteoak	TO EVALUATE
215	23"whiteoak	TO EVALUATE
214	23"whiteoak	TO EVALUATE
230	24"gum	TO EVALUATE
229	24"gum	TO EVALUATE
228	24"gum	TO EVALUATE
227	24"gum	TO EVALUATE
236	24"redoak	TO EVALUATE
235	24"redoak	TO EVALUATE
234	24"redoak	TO EVALUATE
233	24"redoak	TO EVALUATE
232	24"redoak	TO EVALUATE
231	24"redoak	TO EVALUATE
237	24"wateroak	TO EVALUATE
247	24"whiteoak	TO EVALUATE
246	24"whiteoak	TO EVALUATE
245	24"whiteoak	TO EVALUATE
244	24"whiteoak	TO EVALUATE
243	24"whiteoak	TO EVALUATE
242	24"whiteoak	TO EVALUATE
241	24"whiteoak	TO EVALUATE
240	24"whiteoak	TO EVALUATE
239	24"whiteoak	TO EVALUATE
238	24"whiteoak	TO EVALUATE
248	25"bald	TO EVALUATE
253	25"gum	TO EVALUATE
252	25"gum	TO EVALUATE
251	25"gum	TO EVALUATE
250	25"gum	TO EVALUATE
249	25"gum	TO EVALUATE
255	25"maple	TO EVALUATE
254	25"maple	TO EVALUATE
261	25"poplar	TO EVALUATE
260	25"poplar	TO EVALUATE
259	25"poplar	TO EVALUATE

Point Table		
Point #	Description	CONDITION
258	25"poplar	TO EVALUATE
257	25"poplar	TO EVALUATE
256	25"poplar	TO EVALUATE
265	25"redoak	TO EVALUATE
264	25"redoak	TO EVALUATE
263	25"redoak	TO EVALUATE
262	25"redoak	TO EVALUATE
267	25"wateroak	TO EVALUATE
266	25"wateroak	TO EVALUATE
278	25"whiteoak	TO EVALUATE
277	25"whiteoak	TO EVALUATE
276	25"whiteoak	TO EVALUATE
275	25"whiteoak	TO EVALUATE
274	25"whiteoak	TO EVALUATE
273	25"whiteoak	TO EVALUATE
272	25"whiteoak	TO EVALUATE
271	25"whiteoak	TO EVALUATE
270	25"whiteoak	TO EVALUATE
269	25"whiteoak	TO EVALUATE
268	25"whiteoak	TO EVALUATE
279	26"gum	TO EVALUATE
281	26"poplar	TO EVALUATE
280	26"poplar	TO EVALUATE
282	26"redoak	TO EVALUATE
283	26"wateroak	TO EVALUATE
291	26"whiteoak	TO EVALUATE
290	26"whiteoak	TO EVALUATE
289	26"whiteoak	TO EVALUATE
288	26"whiteoak	TO EVALUATE
287	26"whiteoak	TO EVALUATE
286	26"whiteoak	TO EVALUATE
285	26"whiteoak	TO EVALUATE
284	26"whiteoak	TO EVALUATE
292	27"gum	TO EVALUATE
295	27"poplar	TO EVALUATE
294	27"poplar	TO EVALUATE
293	27"poplar	TO EVALUATE
296	27"redoak	TO EVALUATE
302	27"whiteoak	TO EVALUATE
301	27"whiteoak	TO EVALUATE
300	27"whiteoak	TO EVALUATE
299	27"whiteoak	TO EVALUATE
298	27"whiteoak	TO EVALUATE

Point Table		
Point #	Description	CONDITION
297	27"whiteoak	TO EVALUATE
304	27"willowoak	TO EVALUATE
303	27"willowoak	TO EVALUATE
305	28"gum	TO EVALUATE
307	28"poplar	TO EVALUATE
306	28"poplar	TO EVALUATE
311	28"whiteoak	TO EVALUATE
310	28"whiteoak	TO EVALUATE
309	28"whiteoak	TO EVALUATE
308	28"whiteoak	TO EVALUATE
312	29"poplar	TO EVALUATE
315	29"whiteoak	TO EVALUATE
314	29"whiteoak	TO EVALUATE
313	29"whiteoak	TO EVALUATE
316	30"gum	TO EVALUATE
319	30"whiteoak	TO EVALUATE
318	30"whiteoak	TO EVALUATE
317	30"whiteoak	TO EVALUATE
320	31"redoak	TO EVALUATE
322	32"poplar	TO EVALUATE
321	32"poplar	TO EVALUATE
325	32"whiteoak	TO EVALUATE
324	32"whiteoak	TO EVALUATE
323	32"whiteoak	TO EVALUATE
326	33"gum	TO EVALUATE
327	33"maple	TO EVALUATE
330	33"whiteoak	TO EVALUATE
329	33"whiteoak	TO EVALUATE
328	33"whiteoak	TO EVALUATE
331	35"redoak	TO EVALUATE
333	35"whiteoak	TO EVALUATE
332	35"whiteoak	TO EVALUATE
334	38"maple	TO EVALUATE
335	38"redoak	TO EVALUATE
336	40"whiteoak	TO EVALUATE
337	41"gum	TO EVALUATE
338	41"whiteoak	TO EVALUATE
339	50"redoak	TO EVALUATE

1 C003 EXISTING CONDITIONS TREE SURVEY TABLE
SCALE: 1"= N/A

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project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042127 JOSEPH A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX - ZONING REVIEW	JR
2	FEBRUARY 7, 2025	TOWN OF APEX - ZONING REVIEW	JR
3	MARCH 7, 2025	TOWN OF APEX - ZONING REVIEW	JR
4	APRIL 4, 2025	TOWN OF APEX - ZONING REVIEW	JR

title:
EXISTING CONDITIONS TREE SURVEY TABLE

proj #: 240501
date: November 1, 2024
dwg by: FS
chkd by: JR
scale: As Noted
sheet: C003
(PUD PLAN)

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SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION, MAJOR, OR MINOR SITE PLAN DESIGN AND APPROVAL.
2. FINAL RESOURCE CONSERVATION AREA (RCA), OPEN SPACE, AND PLAY LAWN LOCATIONS SHALL BE COORDINATED WITH STAFF AND BUILDER DURING MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN AND APPROVAL.
3. ALL ZONING PLAN SHEETS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN COMPONENTS ARE DETERMINED AT MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN.
4. REFER TO PD TEXT DOCUMENTS FOR A LIST OF ALLOWABLE USES, ZONING CONDITIONS, AND OTHER DESIGN STANDARDS FOR THE DEVELOPMENT.
5. ENVIRONMENTAL FEATURES ARE SUBJECT TO FINAL REVIEW CONCURRENCE WITH VARIOUS REGULATORY AGENCIES.
6. PUBLIC PEDESTRIAN AND VEHICULAR ACCESS IS SHOWN FOR CONCEPTUAL PURPOSES AND ARE SUBJECT TO REVISIONS DURING THE MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN AND APPROVAL.
7. ALL SITE ELEMENTS ARE REQUIRED TO MEET OR EXCEED TOWN OF APEX, NCDOT, OR OTHER REVIEW AUTHORITY STANDARD DESIGN SPECIFICATIONS.
8. PROJECT WILL COMPLY WITH ADOPTED TOWN MASTER PLANS INCLUDING COMPREHENSIVE TRANSPORTATION, UTILITY, AND GREENWAYS PLANS.
9. THE PROJECT IS REQUESTING FULL TOWN SERVICES, INCLUDING BUT NOT LIMITED TO WATER, SEWER AND ELECTRICITY.
10. THE PROJECT WILL NOT UTILIZE PRIVATE SEWAGE DISPOSAL.
11. NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF S&E MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS-SCHEDULES.
12. TREE PROTECTION FENCING MUST BE PLACED:
    a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
    b. ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
    c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.
13. ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER. SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

RIPARIAN BUFFERS AND WETLANDS:

RIPARIAN BUFFERS AND WETLANDS LOCATED ON SITE BY SOILS & ENVIRONMENTAL CONSULTANTS, INC TO BE CONFIRMED BY THE US ARMY CORPS OF ENGINEERS AND TOWN OF APEX.
TOWN OF APEX PROJECT #24-007

EXISTING CONDITIONS NOTES:

1. *BOUNDARY AND EXISTING CONDITIONS SURVEYS PROVIDED BY WITHERSRAVENEL.*
2. *TOPOGRAPHIC INFORMATION FROM WAKE COUNTY GIS AND SURVEYOR DATA.*
3. *NO SLOPES EQUAL TO OR GREATER THAN 3:1 FOUND ON THE SITE.*
4. NC SHPO DOES NOT SHOW ANY EXISTING HISTORICAL STRUCTURES ALTHOUGH A NUMBER OF THE PROPERTIES ARE LOCATED WITHIN THE NEW HILL HISTORIC DISTRICT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE PRIMARY WATERSHED OVERLAY DISTRICT, LITTLE BEAVER CREEK, JORDAN LAKE, CAPE FEAR RIVER BASIN.
8. EXISTING HOMES UTILIZE PRIVATE WASTE WATER AND WELLS. ALL FEATURES SHALL BE ABANDONED OR REMOVED AS REQUIRED BY THE APPROPRIATE REVIEW AGENCY.

REQUIRED PLAN NOTES:

1) NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF S&E MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS-SCHEDULES.
2) TREE PROTECTION FENCING MUST BE PLACED:
   a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
   b. ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
   c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.
3) ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER; SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

POTENTIAL ACCESS POINTS:

POTENTIAL ACCESS POINTS SHOWN ON THE CONCEPTUAL SITE PLAN / CONCEPTUAL UTILITY PLAN (C100) ARE NOT SHOWN IN EXACT LOCATIONS BUT SHOW PROPOSED CONNECTIONS. CONNECTIONS CAN ONLY BE REMOVED FROM THE DEVELOPMENT CONNECTIVITY REQUIREMENTS OF THE PUD IF THE DEVELOPER SHOWS TO THE SATISFACTION OF THE PLANNING DIRECTOR, IN CONSULTATION WITH THE TECHNICAL REVIEW COMMITTEE (TRC), THAT THE CONSTRUCTION OF THE CONNECTION WOULD BE IMPRACTICAL BASED ON ENVIRONMENTAL CONDITIONS FOUND IN THE FIELD AT THE TIME OF MASTER SUBDIVISION PLAN, MINOR SITE PLAN, OR MAJOR SITE PLAN REVIEW AND APPROVAL.

PROJECT PERIMETER BOUNDARY

POTENTIAL WATER CONNECTIONS

POTENTIAL SEWER CONNECTIONS

POTENTIAL ACCESS POINTS

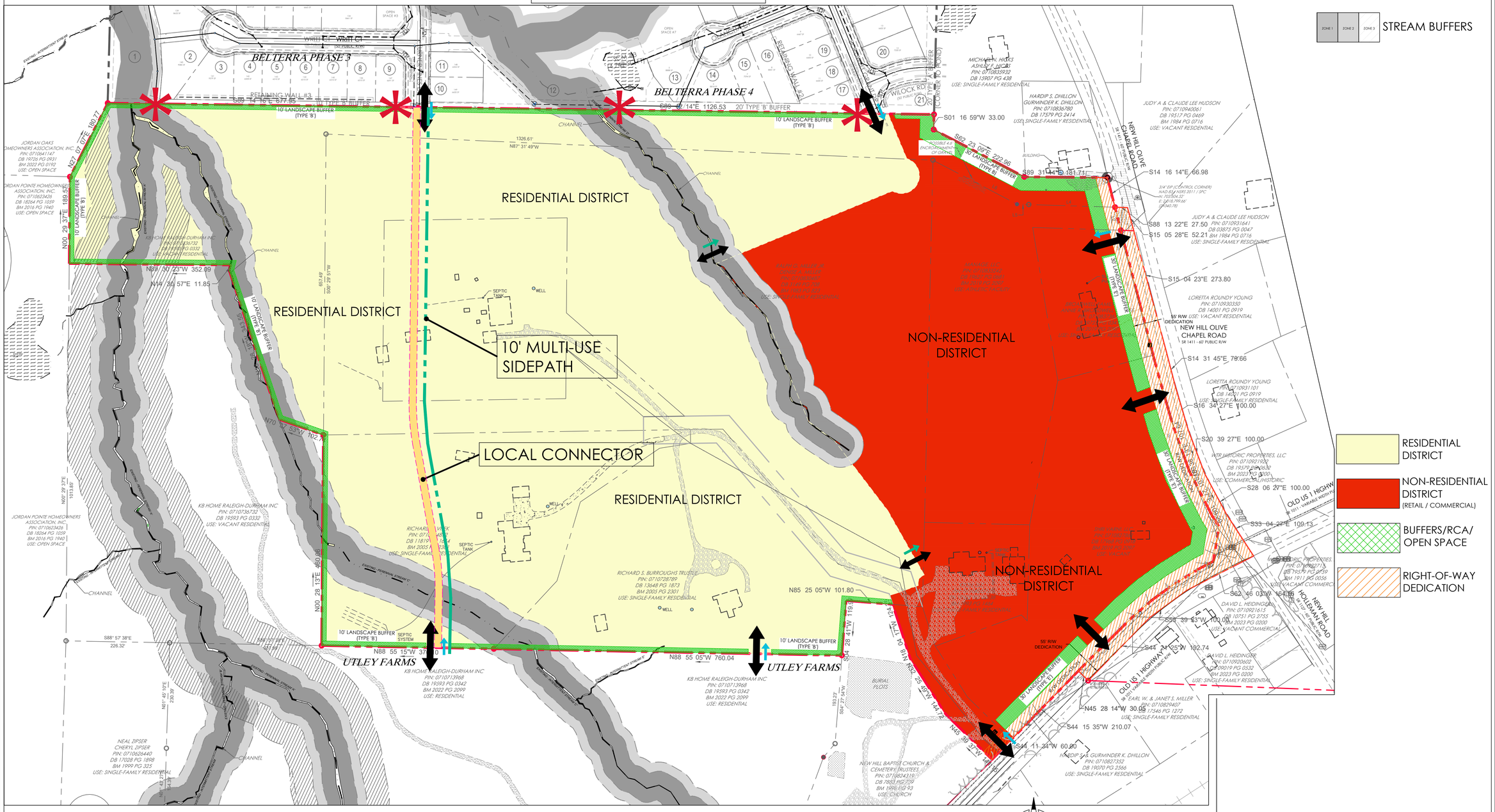
POTENTIAL PEDESTRIAN ACCESS POINT

LOCAL CONNECTOR

SIDEPATH

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

ZONE 1 | ZONE 2 | ZONE 3 — STREAM BUFFERS



1 C100 CONCEPTUAL SITE PLAN/CONCEPTUAL UTILITY PLAN
SCALE: 1"=100'

N

0 50 100 200
SCALE: 1" = 100'

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project:
NEW HILL COMMONS
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047187 TREVA A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX – ZONING REVIEW	TR
2	FEBRUARY 3, 2025	TOWN OF APEX – ZONING REVIEW	TR
3	MARCH 7, 2025	TOWN OF APEX – ZONING REVIEW	TR
4	APRIL 4, 2025	TOWN OF APEX – ZONING REVIEW	TR

title:
CONCEPTUAL SITE PLAN/ CONCEPTUAL UTILITY PLAN

proj #: 240501
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: *C100*
(PUD PLAN)

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SINGLE-FAMILY RESIDENTIAL 'A'



SINGLE-FAMILY RESIDENTIAL 'B'



SINGLE-FAMILY RESIDENTIAL 'C'



SINGLE-FAMILY RESIDENTIAL 'D'



SINGLE-FAMILY RESIDENTIAL 'E'



SINGLE-FAMILY RESIDENTIAL 'F'



SINGLE-FAMILY RESIDENTIAL 'G' (MODEL 1455)



SINGLE-FAMILY RESIDENTIAL 'H' (MODEL 1582)



SINGLE-FAMILY RESIDENTIAL 'I' (MODEL 2177)



SINGLE-FAMILY RESIDENTIAL 'J' (MODEL 2388)



SINGLE-FAMILY RESIDENTIAL 'K' (MODEL 2539)



SINGLE-FAMILY RESIDENTIAL 'L' (MODEL 2723)



SINGLE-FAMILY RESIDENTIAL 'M'
(MODEL 3174)

TYPICAL BUILDING ELEVATIONS. WINDOW CONFIGURATIONS, DOOR STYLES, COLORS, AND OTHER ARCHITECTURAL STANDARDS MAY VARY FROM HOME-TO-HOME AND BUILDING-TO-BUILDING.

ELEVATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. CONDITIONS ARE INCLUDED WITHIN THE ZONING PD TEXT DOCUMENT.

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NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041427 REGISTERED
PRELIMINARY NOT FOR CONSTRUCTION
BRETT A. ROACH

No.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX - ZONING REVIEW	JR
2	FEBRUARY 3, 2025	TOWN OF APEX - ZONING REVIEW	JR
3	MARCH 7, 2025	TOWN OF APEX - ZONING REVIEW	JR
4	APRIL 4, 2025	TOWN OF APEX - ZONING REVIEW	JR

title:
CONCEPTUAL BUILDING ELEVATIONS SINGLE-FAMILY RESIDENTIAL

proj #: 240501
date: November 1, 2024
dwg by: FS
chkd by: JR
scale: As Noted
sheet: *C120*
(PUD PLAN)

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NON-RESIDENTIAL 'A'



NON-RESIDENTIAL 'B'


NON-RESIDENTIAL 'C'



NON-RESIDENTIAL 'D'


NON-RESIDENTIAL 'E'


NON-RESIDENTIAL 'F'


NON-RESIDENTIAL 'G'


GROCERY 'A'


NON-RESIDENTIAL 'H'

TYPICAL BUILDING ELEVATIONS. WINDOW CONFIGURATIONS, DOOR STYLES, COLORS, AND OTHER ARCHITECTURAL STANDARDS MAY VARY FROM HOME-TO-HOME AND BUILDING-TO-BUILDING.

ELEVATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. CONDITIONS ARE INCLUDED WITHIN THE ZONING PD TEXT DOCUMENT.



GROCERY 'C'



GROCERY 'B'

GROCERY 'B'

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seal:
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 5427 REAGAN STREET
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX – ZONING REVIEW	JR
2	JANUARY 31, 2025	TOWN OF APEX – ZONING REVIEW	JR
3	MARCH 7, 2025	TOWN OF APEX – ZONING REVIEW	JR
4	APRIL 4, 2025	TOWN OF APEX – ZONING REVIEW	JR

title:
CONCEPTUAL BUILDING ELEVATIONS NON-RESIDENTIAL & GROCERY

proj #:
240501

date:
November 1, 2024

dwg by: FS
chkd by: JR

scale:
As Noted

sheet:
C121
(PUD PLAN)

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DocuSigned by:
Lyle Overcash
A587B891F66140F...
2/7/2025

NORTH CAROLINA PROFESSIONAL SEAL 026218 ENGINEER LYLE W. OVERCASH

MEMORANDUM

To:	Jessica McClure, P.E. – Town of Apex Daniel Boulware, P.E. – NCDOT
From:	Lyle Overcash, P.E. – Kimley-Horn and Associates, Inc.
Date:	February 7, 2025
Subject:	New Hill Commons PUD – Traffic Phasing Analysis – Apex, NC

Kimley-Horn and Associates, Inc. has completed a traffic phasing analysis for the proposed New Hill Commons Planned Unit Development (PUD) located in the northwest quadrant of the New Hill Olive Chapel Road – Old US 1 Highway intersection. As currently envisioned, the first phase of the development is anticipated to include 110 single-family detached homes. At full project build-out, the development will additionally consist of a 100,000 square foot (SF) shopping plaza. These phases will be referred to as Phase 1 and Full Build for the purposes of this analysis.

Site access for the development is proposed via one full-movement driveway and one right-in/right-out driveway along New Hill Olive Chapel Road, as well as one full-movement driveway and one right-in/right-out driveway along Old US 1 Highway. At the request of the Town and NCDOT, these driveways have both been shifted north approximately 100 feet when compared to the *New Hill Commons PUD TIA* (Kimley-Horn, October 2024).

In addition, this development is expected to connect to several adjacent roadways including Turner Pines Drive and Bordwell Grant Drive. Cross-access will also be provided via the proposed Utley Farms development. It was assumed in the Phase 1 scenario that none of the site accesses would be constructed, and that associated traffic would use the adjacent roadway connections and cross-accesses to access the site. Phase 1 build-out was assumed to be in 2027 and Full Build build-out was assumed to be in 2028 for the purposes of this analysis.

The Full Build analysis assumes the same volumes as the *New Hill Commons PUD TIA* (Kimley-Horn, October 2024). Changes were made to the location of the driveways along New Hill Olive Chapel Road.

Study Area

The study area for this development includes the following intersections:

- New Hill Olive Chapel Road – Horton Ridge Boulevard
- New Hill Olive Chapel Road – Belterra Point Drive/Lex Lane
- New Hill Holleman Road/New Hill Olive Chapel Road – Old US 1 Highway
- New Hill Holleman Road – US 1 Southbound Ramps
- New Hill Holleman Road – US 1 Northbound Ramps
- Horton Ridge Boulevard – Turner Pines Drive
- Horton Ridge Boulevard – Bordwell Grant Drive
- Old US 1 Highway – Jordan Pointe Boulevard
- Old US 1 Highway – Utley Farms West Driveway
- Old US 1 Highway – Utley Farms East Driveway
- Old US 1 Highway – West Site Driveway *(Full Build Only)*
- Old US 1 Highway – East Site Driveway *(Full Build Only)*
- New Hill Olive Chapel Road – North Site Driveway *(Full Build Only)*
- New Hill Olive Chapel Road – South Site Driveway *(Full Build Only)*

Existing Traffic

Existing traffic counts were assumed to be consistent with the *New Hill Commons PUD TIA* (Kimley-Horn, October 2024).

Ambient Growth Traffic

Consistent with the *New Hill Commons PUD TIA* (Kimley-Horn, October 2024), a 3% annual growth rate was applied to all intersections up to the future 2027 and 2028 study years.

Approved Development Traffic

All approved development traffic included in the *New Hill Commons PUD TIA* (Kimley-Horn, October 2024) was included in the Full Build scenario. In the Phase 1 scenario, all traffic from the Utley Farms development and 180 of 447 units of the Gracewood development was included. All approved development data can be found in the Appendix.

Background Traffic

Background traffic volumes include existing, historic growth, and approved development traffic. All background traffic volumes can be seen in the Appendix.

Site Traffic Generation

As currently envisioned, the first phase of the development is anticipated to include 110 single-family detached homes. At full project build-out, the development will additionally consist of a 100,000 square foot (SF) shopping plaza. The development's traffic generation potential for each phase of development was determined using the data published in *Trip Generation* (Institute of Transportation Engineers, 11th Edition, 2021). As shown in Table 1, Phase 1 of the proposed development has the potential to generate 81 new trips in the AM peak hour and 109 new trips in the PM peak hour on a typical weekday.

Table 1 ITE Traffic Generation (Vehicles) – Phase 1							
Land Use Code	Land Use	Intensity	Daily	AM Peak Hour		PM Peak Hour	
				In	Out	In	Out
210	Single-Family Detached Housing	110 d.u.	1,102	21	60	69	40
Total Net New External Trips			**1,102**	**21**	**60**	**69**	**40**

As shown in Table 2, full build-out of the proposed development has the potential to generate 410 new trips in the AM peak hour and 539 new trips in the PM peak hour on a typical weekday. To account for anticipated pedestrian and bicycle trips, a 5% multimodal capture reduction was applied to the trip generation rates in the Full Build scenario.

Table 2 ITE Traffic Generation (Vehicles) – Full Build							
Land Use Code	Land Use	Intensity	Daily	AM Peak Hour		PM Peak Hour	
				In	Out	In	Out
210	Single-Family Detached Housing	110 d.u.	1,102	21	60	69	40
821	Shopping Plaza (40k-150k) w/ supermarket	100,000 s.f.	9,110	219	134	425	461
Subtotal			**10,212**	**240**	**194**	**494**	**501**
Internal Capture			*500*	*1*	*1*	*46*	*46*
Multimodal Capture			*486*	*12*	*10*	*23*	*22*
Pass-By Capture			*1,772*	*0*	*0*	*156*	*163*
Total Net New External Trips			**7,454**	**227**	**183**	**269**	**270**

Site Traffic Distribution and Percent Assignment

Separate entering and exiting directional distributions were used for the residential and commercial land uses of the site based on a review of the surrounding study area and the existing roadway network.

The following overall distribution was used for entering and exiting residential traffic:

- 25% to/from the east on US 1 North
- 25% to/from the east on Old US Hwy 1
- 20% to/from the north on New Hill Olive Chapel Road
- 10% to/from the west on US 1 South
- 10% to/from the south on New Hill Holleman Road
- 10% to/from the west on Old US Hwy 1

The following overall distribution was used for entering and exiting commercial traffic:

- 15% to/from the east on Old US Hwy 1
- 10% to/from the east on Horton Ridge Boulevard
- 10% to/from the east on US 1 South
- 10% to/from the west on US 1 North
- 10% to/from the west on Horton Ridge Boulevard
- 10% to/from the west on Old US Hwy 1
- 10% to/from the north on New Hill Olive Chapel Road
- 10% to/from internal stubs via the Belterra and Utley Farms developments
- 5% to/from the east on Lex Lane
- 5% to/from the south on New Hill Holleman Road
- 5% to/from the north on Jordan Pointe Boulevard

Figures 1 – **4** show the primary and pass-by site traffic distribution and percent assignment for the residential and commercial traffic associated with the proposed development.

Existing Turner Pines Drive Diversion

Cross-access will be required at project construction connecting Turner Pines Drive to Old US 1 Highway via the Utley Farms development. A traffic diversion is anticipated when this connection is in place. These diversions were assumed to occur in the future build-out condition and are included on **Figures 5** – **10** and intersection spreadsheets in the Appendix. Since this diversion applies to existing traffic, no changes to this diversion were made between the Phase 1 and Full Build conditions.

Site Traffic

The proposed site traffic was generated and assigned to the roadway network according to the distribution on the previous page of this memo. **Figures 5** – **10** show the projected site traffic volumes at the study intersections for the AM and PM peak hours in the Phase 1 and Full Build conditions.

Build-out Traffic Volumes

To obtain the projected (2028) build-out traffic volumes, the projected site traffic was added to the projected (2028) background traffic volumes with the site diversions in place. **Figures 5** – **10** show the projected (2028) build-out traffic volumes at the study intersections for the AM and PM peak hours in the Phase 1 and Full Build conditions.

Capacity Analysis

Capacity analyses were performed using Synchro Version 12 software. Synchro level-of-service (LOS) reports are attached. Actual peak hour factors were used at intersections where baseline conditions exceed the default 0.90 value. A minimum volume of 4 vehicles was input for each movement. Existing heavy vehicle percentages were used where current conditions exceed the default value of 2%. The levels-of-service at the study intersections are summarized in Table 3 below.

Table 3 Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
New Hill Olive Chapel Road – Horton Ridge Boulevard (Unsignalized)		
Background (2027) Traffic – *Phase 1*	EB – D (28.3) WB – C (18.6)	EB – E (44.7) WB – D (25.5)
Build-out (2027) Traffic – *Phase 1*	EB – D (30.1) WB – C (18.4)	EB – E (48.4) WB – D (25.2)
Background (2028) Traffic – *Full Build*	EB – F (94.5) WB – E (48.0)	EB – F (249.1) WB – F (157.0)
Build-out (2028) Traffic – *Full Build*	EB – F (130.0) WB – F (74.9)	EB – F (>300.0) WB – F (>300.0)
New Hill Olive Chapel Road – Belterra Point Drive/Lex Lane (Unsignalized)		
Background (2027) Traffic – *Phase 1*	EB – C (13.8) WB – C (23.6)	EB – C (20.0) WB – C (24.5)
Build-out (2027) Traffic – *Phase 1*	EB – C (15.0) WB – C (23.2)	EB – C (21.2) WB – C (24.2)
Background (2028) Traffic – *Full Build*	EB – C (18.0) WB – E (44.1)	EB – D (30.1) WB – F (52.0)
Build-out (2028) Traffic – *Full Build*	EB – C (22.1) WB – F (59.7)	EB – E (39.8) WB – F (85.7)
New Hill Olive Chapel Road/New Hill Holleman Road – Old US 1 Highway (Signalized)		
Background (2027) Traffic – *Phase 1*	Overall – B (17.5) EB – B (19.7) WB – C (20.6) NB – B (19.6) SB – B (10.2)	Overall – C (21.1) EB – B (11.6) WB – C (30.2) NB – C (23.6) SB – B (15.9)
Build-out (2027) Traffic – *Phase 1*	Overall – B (18.4) EB – C (20.3) WB – C (22.1) NB – C (21.1) SB – A (9.9)	Overall – C (24.8) EB – B (12.2) WB – D (38.7) NB – C (30.2) SB – B (14.0)
Background (2028) Traffic – *Full Build*	Overall – C (20.7) EB – C (23.3) WB – C (31.8) NB – B (19.5) SB – B (15.2)	Overall – C (24.3) EB – B (15.1) WB – D (35.2) NB – C (20.2) SB – C (24.8)
Build-out (2028) Traffic – *Full Build*	Overall – C (22.2) EB – C (24.2) WB – C (34.6) NB – C (20.8) SB – B (16.8)	Overall – C (30.8) EB – B (18.2) WB – D (44.3) NB – C (28.2) SB – C (29.7)
Build-out (2028) Traffic – *Full Build (Improved)*	Overall – C (21.2) EB – C (23.6) WB – C (27.7) NB – C (20.8) SB – B (16.8)	Overall – C (24.0) EB – B (17.2) WB – C (31.7) NB – C (20.9) SB – C (24.7)

Table 3 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
New Hill Holleman Road – US 1 Southbound Ramps (Signalized)		
Background (2027) Traffic – *Phase 1*	Overall – B (11.4) WB – C (33.2) NB – A (8.1) SB – A (3.6)	Overall – C (33.4) WB – D (51.8) NB – C (32.6) SB – B (10.4)
Build-out (2027) Traffic – *Phase 1*	Overall – B (11.5) WB – C (32.8) NB – A (8.6) SB – A (3.6)	Overall – D (38.2) WB – D (51.2) NB – D (51.1) SB – B (10.5)
Background (2028) Traffic – *Full Build*	Overall – B (11.2) WB – C (30.5) NB – A (2.7) SB – B (10.7)	Overall – C (29.1) WB – D (54.5) NB – A (10.0) SB – B (16.6)
Build-out (2028) Traffic – *Full Build*	Overall – B (12.3) WB – C (30.5) NB – A (4.0) SB – B (11.8)	Overall – C (27.8) WB – D (38.4) NB – B (17.0) SB – C (25.5)
New Hill Holleman Road – US 1 Northbound Ramps (Signalized)		
Background (2027) Traffic – *Phase 1*	Overall – A (8.3) EB – C (23.6) NB – A (2.9) SB – B (11.4)	Overall – B (13.2) EB – C (21.8) NB – A (2.6) SB – B (17.8)
Build-out (2027) Traffic – *Phase 1*	Overall – A (8.7) EB – C (23.7) NB – A (2.9) SB – B (12.7)	Overall – B (11.4) EB – C (22.3) NB – A (2.7) SB – B (13.9)
Background (2028) Traffic – *Full Build*	Overall – A (9.4) EB – C (24.0) NB – A (7.1) SB – A (6.3)	Overall – A (7.8) WB – C (26.3) NB – A (7.0) SB – A (2.8)
Build-out (2028) Traffic – *Full Build*	Overall – B (12.7) EB – B (17.6) NB – B (12.8) SB – B (10.1)	Overall – A (8.3) WB – B (18.5) NB – B (11.0) SB – A (3.1)
Horton Ridge Boulevard – Turner Pines Drive (Unsignalized)		
Background (2027) Traffic – *Phase 1*	NB – A (9.9) SB – B (10.2)	NB – A (9.8) SB – B (10.4)
Build-out (2027) Traffic – *Phase 1*	NB – A (9.9) SB – B (10.1)	NB – A (9.8) SB – B (10.4)
Background (2028) Traffic – *Full Build*	NB – B (10.0) SB – B (10.7)	NB – A (9.9) SB – B (10.8)
Build-out (2028) Traffic – *Full Build*	NB – B (10.2) SB – B (10.7)	NB – B (10.6) SB – B (11.0)

Table 3 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
Horton Ridge Boulevard – Bordwell Grant Drive (Unsignalized)		
Background (2027) Traffic – *Phase 1*	NB – A (9.6) SB – B (10.5)	NB – B (10.0) SB – B (11.3)
Build-out (2027) Traffic – *Phase 1*	NB – A (9.6) SB – B (10.5)	NB – A (9.9) SB – B (11.3)
Background (2028) Traffic – *Full Build*	NB – A (9.8) SB – B (11.1)	NB – B (10.1) SB – B (12.0)
Build-out (2028) Traffic – *Full Build*	NB – A (9.9) SB – B (11.1)	NB – B (10.6) SB – B (11.9)
Old US 1 Highway – Jordan Pointe Boulevard (Unsignalized)		
Background (2027) Traffic – *Phase 1*	SB – B (12.4)	SB – B (14.5)
Build-out (2027) Traffic – *Phase 1*	SB – B (12.5)	SB – B (14.7)
Background (2028) Traffic – *Full Build*	SB – C (16.1)	SB – C (21.6)
Build-out (2028) Traffic – *Full Build*	SB – C (17.6)	SB – C (24.9)
Old US 1 Highway – Utley Farms West Driveway (Unsignalized)		
Background (2027) Traffic – *Phase 1*	SB – B (12.8)	SB – B (14.5)
Build-out (2027) Traffic – *Phase 1*	SB – B (13.0)	SB – C (15.2)
Background (2028) Traffic – *Full Build*	SB – C (16.5)	SB – C (20.2)
Build-out (2028) Traffic – *Full Build*	SB – C (17.9)	SB – C (23.8)
Old US 1 Highway – Utley Farms East Driveway (Unsignalized)		
Background (2027) Traffic – *Phase 1*	SB – C (13.5)	SB – C (15.6)
Build-out (2027) Traffic – *Phase 1*	SB – C (15.1)	SB – C (17.8)
Background (2028) Traffic – *Full Build*	SB – C (17.7)	SB – C (22.2)
Build-out (2028) Traffic – *Full Build*	SB – C (19.1)	SB – D (25.0)
Old US 1 Highway – West Site Driveway (Unsignalized)		
Build-out (2028) Traffic – *Full Build*	SB – C (23.9)	SB – D (29.9)
Build-out (2028) Traffic – *Full Build (Improved)*	SB – C (22.5)	SB – D (25.9)
Old US 1 Highway – East Site Driveway (Unsignalized)		
Build-out (2028) Traffic – *Full Build*	SB – B (10.7)	SB – C (17.0)
Build-out (2028) Traffic – *Full Build (Improved)*	SB – B (10.2)	SB – C (15.6)

Table 3 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
New Hill Olive Chapel Road – North Site Driveway (Unsignalized)		
Build-out (2028) Traffic – *Full Build*	SB – F (55.0)	SB – F (>300.0)
Build-out (2028) Traffic – *Full Build (Improved)*	SB – E (47.1)	SB – F (217.2)
New Hill Olive Chapel Road – South Site Driveway (Unsignalized)		
Build-out (2028) Traffic – *Full Build*	SB – B (14.6)	SB – C (23.3)
Build-out (2028) Traffic – *Full Build (Improved)*	SB – B (13.9)	SB – C (20.3)

New Hill Olive Chapel Road – Horton Ridge Boulevard

The unsignalized New Hill Olive Chapel Road – Horton Ridge Boulevard intersection is projected to operate with moderate delays on the eastbound minor street approach (Horton Ridge Boulevard) in both peak hours in Phase 1. The westbound approach operates with short delays in the AM peak hour and moderate delays in the PM peak hour in Phase 1. At full project build-out, the intersection is expected to operate with long delays on both minor street approaches in both peak hours, with no changes in capacity or queueing from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

New Hill Olive Chapel Road – Belterra Point Drive/Lex Lane

The unsignalized New Hill Olive Chapel Road – Belterra Point Drive/Lex Lane intersection operates with short delays on the minor street approaches (Belterra Point Drive/Lex Lane) in both peak hours in Phase 1. At full project build-out, the intersection is expected to operate with short delays in the AM peak hour and moderate delays in the PM peak hour on the eastbound approach. On the westbound approach, the intersection is expected to operate with long delays in both peak hours. No changes in capacity or queueing are anticipated at full build from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

New Hill Olive Chapel Road/New Hill Holleman Road – Old US 1 Highway

The following improvements are committed at this intersection by the Utley Farms approved development and were assumed to be in place at build-out of Phase 1 of this development:

- Construct an exclusive eastbound right-turn lane with 175 feet of storage and appropriate taper
- Modify the existing traffic signal

With this improvement in place, the signalized New Hill Olive Chapel Road/New Hill Holleman Road – Old US 1 Highway intersection operates at LOS B in the AM peak hour and LOS C in the PM peak hour in Phase 1. No queueing issues are anticipated. Furthermore, Phase 1 site traffic is only projected to increase by approximately 3% and 4% in the AM and PM peak hours, respectively. Therefore, no improvements are recommended to accommodate Phase 1 site traffic.

The following improvements are committed at this intersection by the Gracewood approved development and were assumed to be in place at full build-out of this development:

- Construct an eastbound left-turn lane with approximately 250 feet of storage and appropriate taper
- Construct a westbound left-turn lane with approximately 250 feet of storage and appropriate taper
- Construct a northbound left-turn lane with approximately 150 feet of storage and appropriate taper
- Construct a southbound left-turn lane with approximately 150 feet of storage and appropriate taper
- Construct a southbound right-turn lane with approximately 150 feet of storage and appropriate taper
- Modify the existing traffic signal

With these improvements in place, the intersection is anticipated to operate at LOS C in both peak hours at project build-out. The following additional improvements were required by the Town and NCDOT during their review of the *New Hill Commons PUD TIA* (Kimley-Horn, October 2024) to accommodate site traffic:

- Construct a westbound right-turn lane with 150 feet of storage and appropriate taper
- Modify the existing traffic signal

With these improvements in place, the intersection is anticipated to continue operating at LOS C in both peak hours. Southbound Synchro 95th and SimTraffic Max queues are not anticipated to conflict with the site access to the north. It should be noted that NCDOT requested an extension of the northbound left-turn lane to 300 feet. However, this improvement is not constructible without impacting the railroad right-of-way. Therefore, no further improvements are recommended to accommodate site traffic.

<u>New Hill Holleman Road – US 1 Southbound Ramps</u>

The following improvements are committed at this intersection by the Gracewood approved development and were assumed to be in place at build-out of Phase 1 of this development:

- Extend the existing southbound right-turn lane to provide 150 feet of storage and appropriate taper
- Modify the existing traffic signal

With these improvements in place, the signalized New Hill Holleman Road – Old US 1 Highway intersection operates at LOS B in the AM peak hour and LOS D in the PM peak hour in Phase 1. Long queues are anticipated on the southbound approach of this intersection in the PM peak hour. However, the queue does not conflict with any adjacent intersections. Furthermore, site traffic is not anticipated to exceed 4% of existing traffic in the PM peak hour. Therefore, no improvements are recommended to accommodate Phase 1 site traffic.

The following additional laneage was assumed to be committed at this intersection by Holly Springs Economic Development H-193554 associated with the Friendship Master Plan development and was assumed to be in place at full project build-out:

- Provide an additional westbound left-turn lane with approximately 550 feet of storage and appropriate taper

- Provide a northbound left-turn lane with approximately 225 feet of storage and appropriate taper
- Modify the existing traffic signal

With these improvements in place, the intersection is anticipated to operate at LOS B in the AM peak hour and LOS C in the PM peak hour at full project build-out. No changes in capacity or queueing are anticipated at full build from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

New Hill Holleman Road – US 1 Northbound Ramps

The following improvements are committed at this intersection by the Gracewood approved development and were assumed to be in place at build-out of Phase 1 of this development:

- Construct a northbound right-turn lane with approximately 125 feet of storage and appropriate taper
- Modify the existing traffic signal

With these improvements in place, the signalized New Hill Holleman Road – Old US 1 Highway intersection operates at LOS A in the AM peak hour and LOS B in the PM peak hour in Phase 1. No queueing issues are anticipated.

The following additional laneage was assumed to be committed at this intersection by Holly Springs Economic Development H-193554 associated with the Friendship Master Plan development and was assumed to be in place at full project build-out:

- Extend the existing eastbound right-turn lane to provide 75 feet of storage and appropriate taper. Convert the movement to free flow by installing a channelized island and a southbound receiving lane.
- Extend the committed northbound right-turn lane to provide 250 feet of storage and appropriate taper.
- Provide a southbound left-turn lane with approximately 200 feet of storage and appropriate taper
- Provide an additional southbound through lane
- Modify the existing traffic signal

With these improvements in place, the intersection is anticipated to operate at LOS B in the AM peak hour and LOS A in the PM peak hour at full project build-out. No changes in capacity or queueing are anticipated at full build from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

Horton Ridge Boulevard – Turner Pines Drive

The unsignalized Horton Ridge Boulevard – Turner Pines Drive intersection operates with short delays on the minor street approaches (Turner Pines Drive) in both peak hours in Phase 1 and at full project build-out with no changes in capacity or queueing from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

Horton Ridge Boulevard – Bordwell Grant Drive

The unsignalized Horton Ridge Boulevard – Bordwell Grant Drive intersection operates with short delays on the minor street approaches (Bordwell Grant Drive) in both peak hours in Phase 1 and at full project build-out with no changes in capacity or queueing from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

Old US 1 Highway – Jordan Pointe Boulevard

The unsignalized Old US 1 Highway – Jordan Pointe Boulevard intersection operates with short delays on the minor street approach (Jordan Pointe Boulevard) in both peak hours in Phase 1. At full project build-out, the intersection operates with short delays on the minor street approach in the AM peak hour and moderate delays in the PM peak hour with no changes in capacity or queueing from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

Old US 1 Highway – Utley Farms West Driveway

The following improvements are committed at this intersection by the Utley Farms approved development and were assumed to be in place at build-out of Phase 1 of this development:

- Construct a full-movement site driveway with one ingress lane and one egress lane
- Construct an eastbound left-turn lane with 50 feet of storage and appropriate taper

With these improvements in place, the unsignalized Old US 1 Highway – Utley Farms West Driveway intersection operates with short delays on the minor street approach (Utley Farms West Driveway) in both peak hours in Phase 1 and at full project build-out with no changes in capacity or queueing from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

Old US 1 Highway – Utley Farms East Driveway

The following improvements are committed at this intersection by the Utley Farms approved development and were assumed to be in place at build-out of Phase 1 of this development:

- Construct a full-movement site driveway with one ingress lane and one egress lane
- Construct an eastbound left-turn lane with 50 feet of storage and appropriate taper

With these improvements in place, the unsignalized Old US 1 Highway – Utley Farms East Driveway intersection operates with short delays on the minor street approach (Utley Farms East Driveway) in both peak hours in Phase 1 and at full project build-out with no changes in capacity or queueing from the original TIA. Therefore, no improvements are recommended to accommodate site traffic.

It should be noted that due to Phase 1 not assuming construction of the site accesses, a large portion of residential site traffic was assumed to enter the site turning right at this driveway instead of the West Site Driveway. While this increase in traffic would typically trigger a turn lane per the NCDOT Driveway Manual, this improvement is not constructible due to right-of-way restrictions. Despite the increase in traffic, queues on the westbound approach are still acceptable without the improvement. Upon construction of the site accesses, it was assumed that all right-turning residential traffic would use the West Site Driveway to access the site consistent with the TIA.

Site Accesses

During the review of the original TIA, the Town and NCDOT requested that the New Hill Olive Chapel Road site driveways be moved to the north as much as possible. Therefore, both driveways were shifted approximately 100 feet north. The North Site Driveway along New Hill Olive Chapel Road has been moved to 750 feet north of Old US 1 Highway. The South Site Driveway along New Hill Olive Chapel Road has been moved to 400 feet north of Old US 1 Highway. The southbound queue on New Hill Olive Chapel Road at Old US 1 Highway does not interfere with either of these driveways. All site accesses operate with the same delays as assumed in the original TIA.

With the driveway shifts and the additional westbound right-turn improvement at the Old US 1 intersection, traffic operations improved on the South Site Driveway. The Town and NCDOT had suggested this driveway be right-in only, however traffic operations are improved, and it is recommended to maintain this driveway with right-in/right-out operations.

Conclusion

Based on the analysis presented herein, the study area intersections operate with acceptable delays and queues at build-out of Phase 1 of New Hill Commons PUD. At full project build-out, delays and queues are acceptable at the New Hill Holleman Road/New Hill Olive Chapel Road – Old US 1 Highway intersection upon installation of the westbound right-turn lane. The queues on the southbound approach of this intersection do not interfere with the driveways by moving the driveways along New Hill Olive Chapel Road as far north as possible. **Figures 11** and **12** show the committed and recommended roadway laneage for the Phase 1 and Full Build scenarios, respectively.

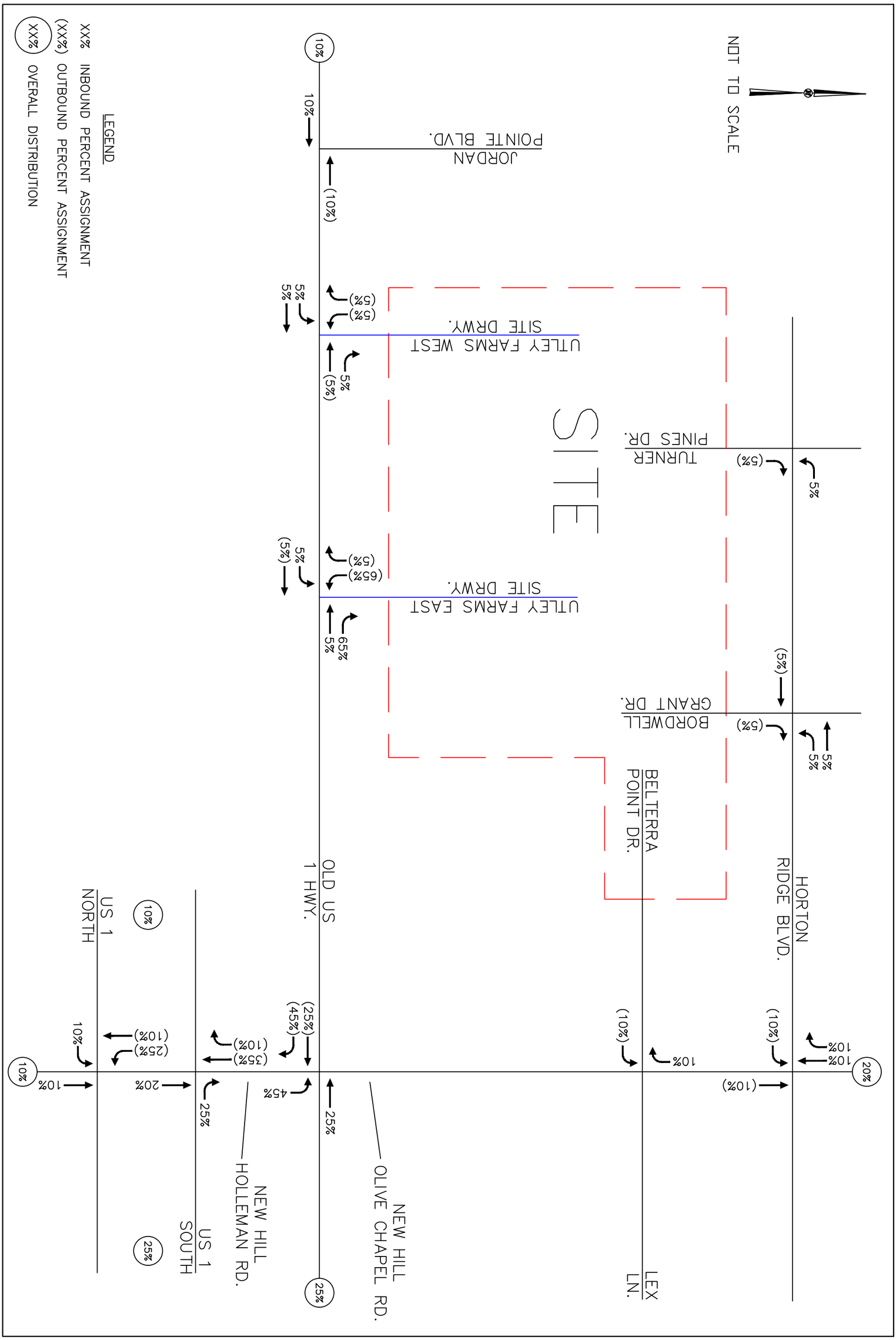
Should you have any questions, please do not hesitate to contact me at (919) 678-4131 or lyle.overcash@kimley-horn.com.

Attachments: Figures 1-12, Trip Generation Calculations, Site Plan, Intersection Spreadsheets, Synchro and SimTraffic Output, HE-0010 Interchange Plans

Attachments

Figures

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Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	SITE TRAFFIC DISTRIBUTION AND PERCENT ASSIGNMENT (PHASE 1 RESIDENTIAL)	FIGURE 1

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NOT TO SCALE

SITE

HORTON RIDGE BLVD.

BELTERRA POINT DR.

LEX LN.

NORTH SITE DRWY.

SOUTH SITE DRWY.

TURNER PINES DR.

BORDWELL GRANT DR.

EAST SITE DRWY.

WEST SITE DRWY.

UTLEY FARMS EAST SITE DRWY.

UTLEY FARMS WEST SITE DRWY.

JORDAN POINTE BLVD.

OLD US 1 HWY.

NEW HILL OLIVE CHAPEL RD.

NEW HILL HOLLEMAN RD.

US 1 SOUTH

US 1 NORTH

LEGEND

XX% INBOUND PERCENT ASSIGNMENT

(XX%) OUTBOUND PERCENT ASSIGNMENT

(XX%) OVERALL DISTRIBUTION

FIGURE 2

SITE TRAFFIC DISTRIBUTION AND PERCENT ASSIGNMENT (FULL BUILD RESIDENTIAL)

NEW HILL COMMONS PUD
APEX, NC
TRAFFIC PHASING ANALYSIS

Kimley»Horn

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NOT TO SCALE

10% TO/FROM INTERNAL STUBS VIA UTLEY FARMS AND BELTERRA DEVELOPMENTS

HORTON RIDGE BLVD.

BELTERRA POINT DR.

LEX LN.

NORTH SITE DRWY.

SOUTH SITE DRWY.

TURNER PINES DR.

BORDWELL GRANT DR.

WEST SITE DRWY.

EAST SITE DRWY.

UTLEY FARMS WEST SITE DRWY.

UTLEY FARMS EAST SITE DRWY.

JORDAN POINTE BLVD.

OLD US 1 HWY.

NEW HILL OLIVE CHAPEL RD.

NEW HILL HOLLEMAN RD.

US 1 SOUTH

US 1 NORTH

LEGEND

XX% INBOUND PERCENT ASSIGNMENT

(XX%) OUTBOUND PERCENT ASSIGNMENT

XX% OVERALL DISTRIBUTION

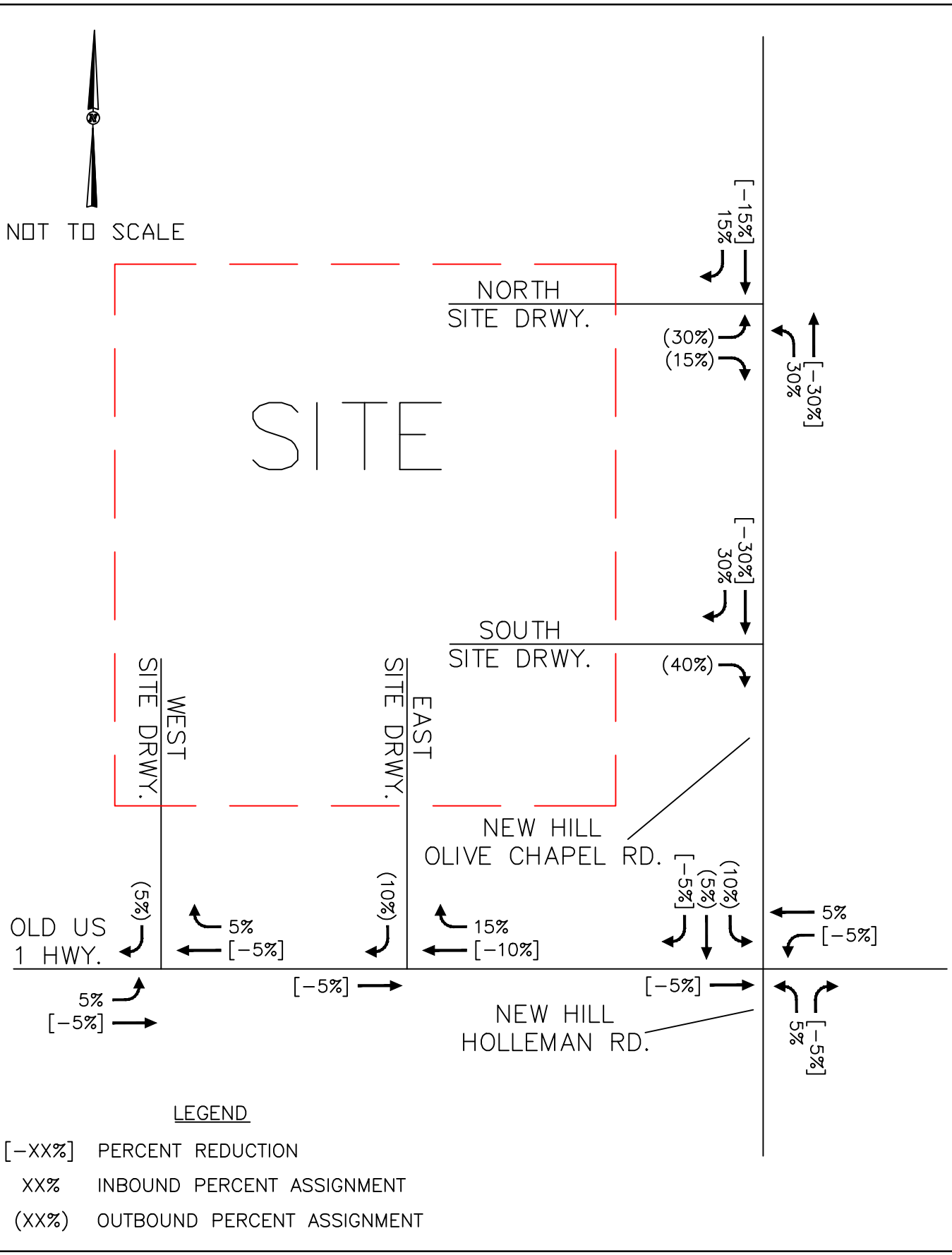
FIGURE 3

SITE TRAFFIC DISTRIBUTION AND PERCENT ASSIGNMENT (COMMERCIAL PRIMARY)

NEW HILL COMMONS PUD
APEX, NC
TRAFFIC PHASING ANALYSIS

Kimley»Horn

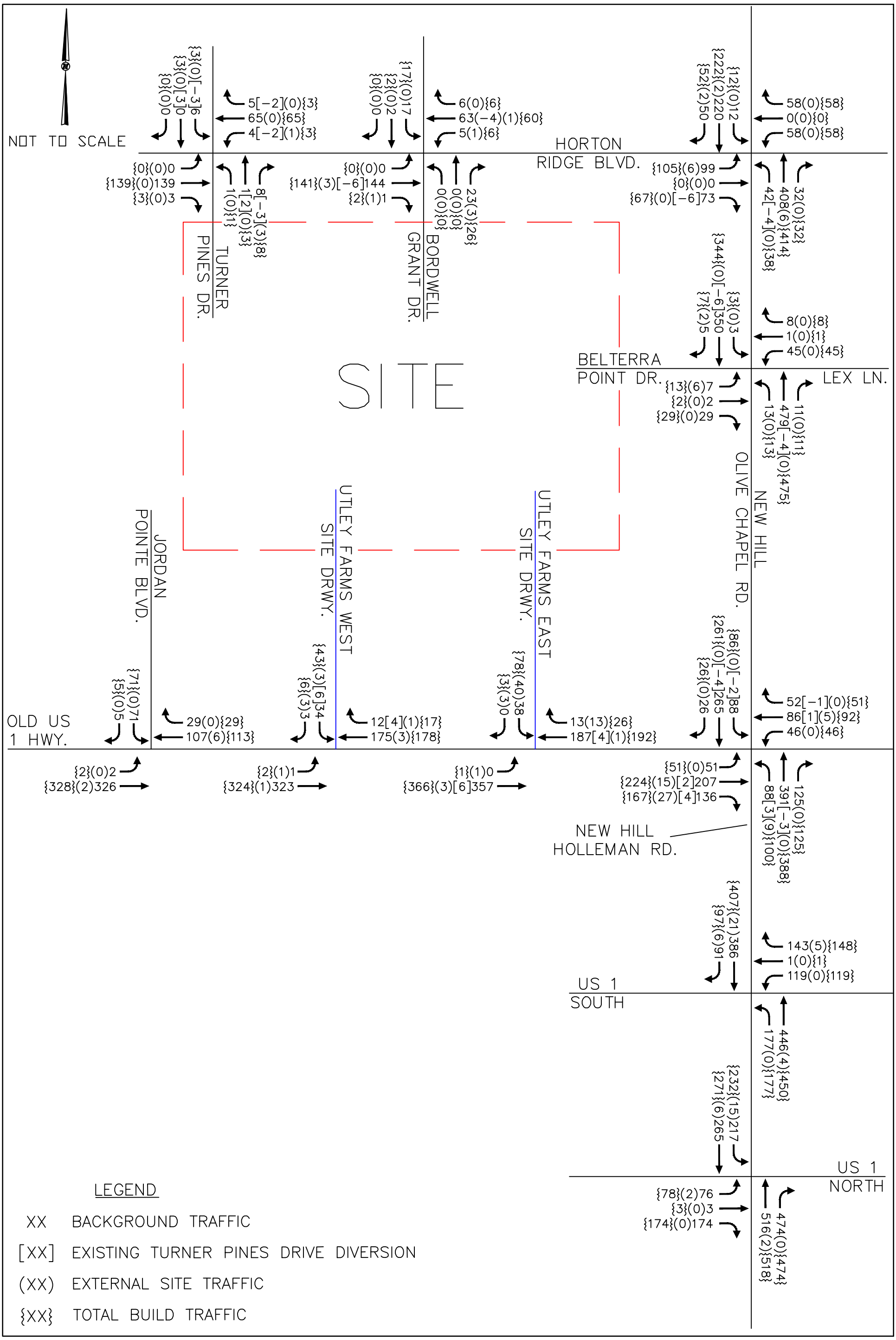
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Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PM PEAK HOUR PASS-BY ASSIGNMENT	FIGURE 4

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LEGEND

XX BACKGROUND TRAFFIC

[XX] EXISTING TURNER PINES DRIVE DIVERSION

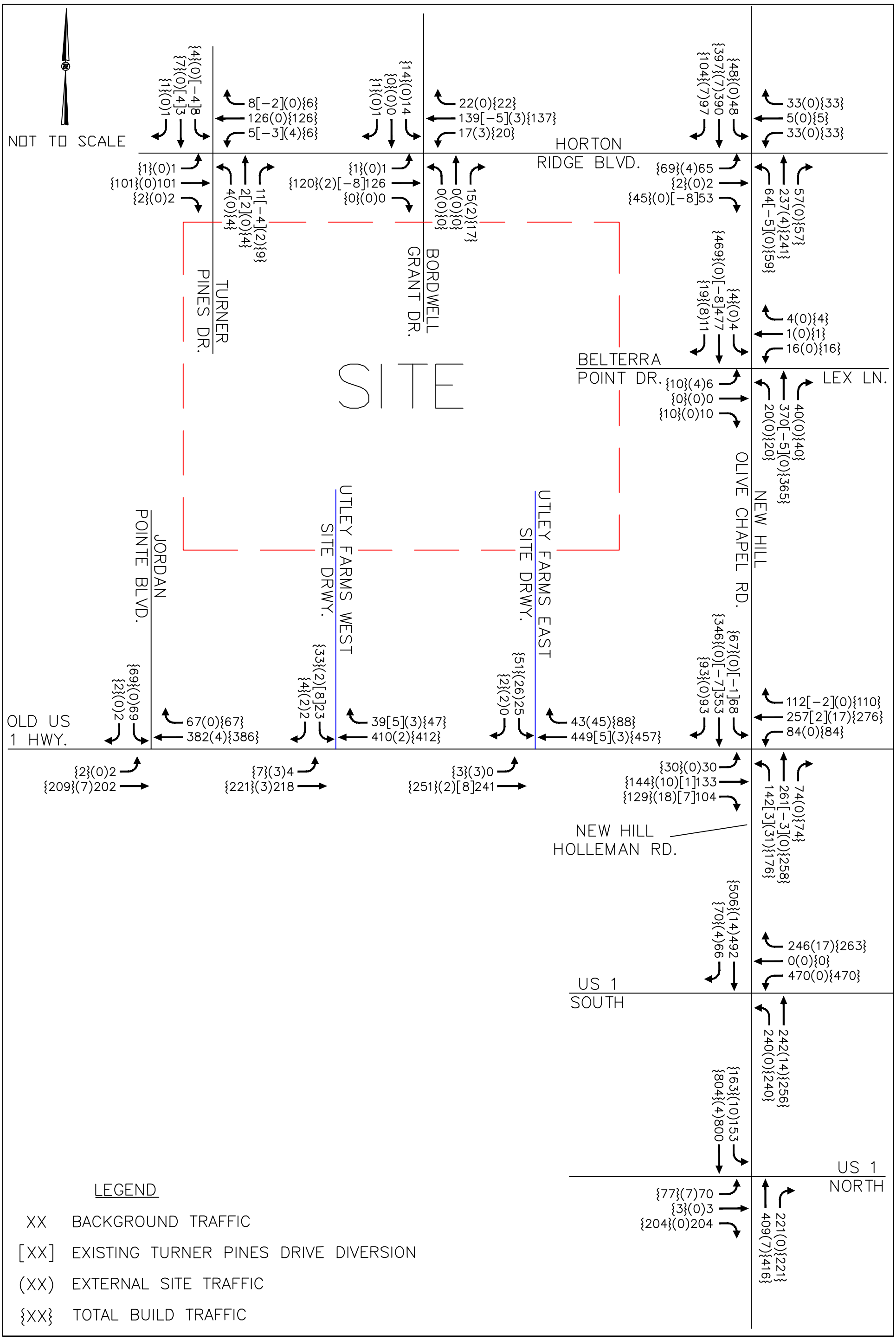
(XX) EXTERNAL SITE TRAFFIC

{XX} TOTAL BUILD TRAFFIC

Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PROJECTED (2027) PHASE 1 BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES	FIGURE 5

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LEGEND

XX BACKGROUND TRAFFIC

[XX] EXISTING TURNER PINES DRIVE DIVERSION

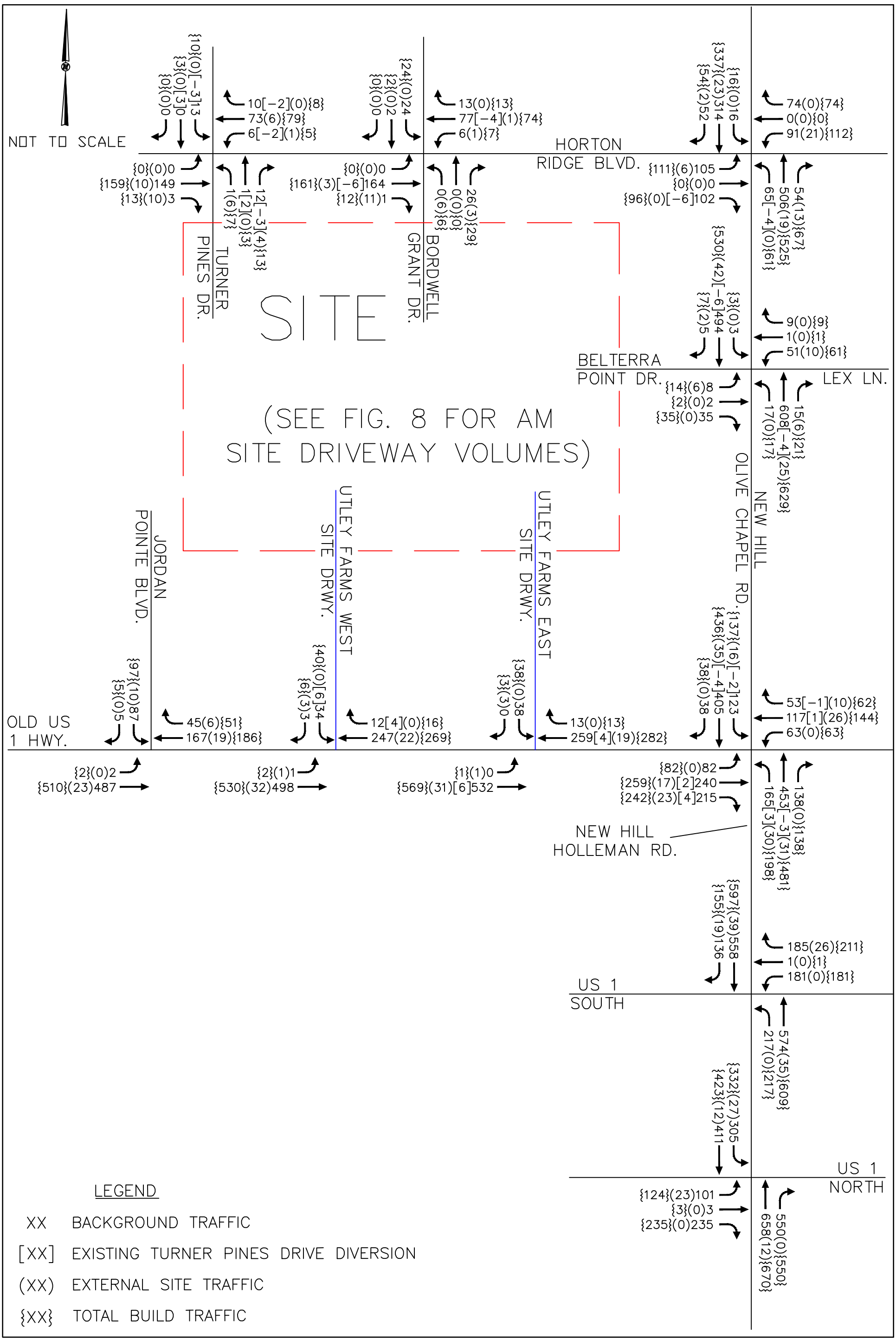
(XX) EXTERNAL SITE TRAFFIC

{XX} TOTAL BUILD TRAFFIC

Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PROJECTED (2027) PHASE 1 BUILD-OUT PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 6

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LEGEND

XX BACKGROUND TRAFFIC

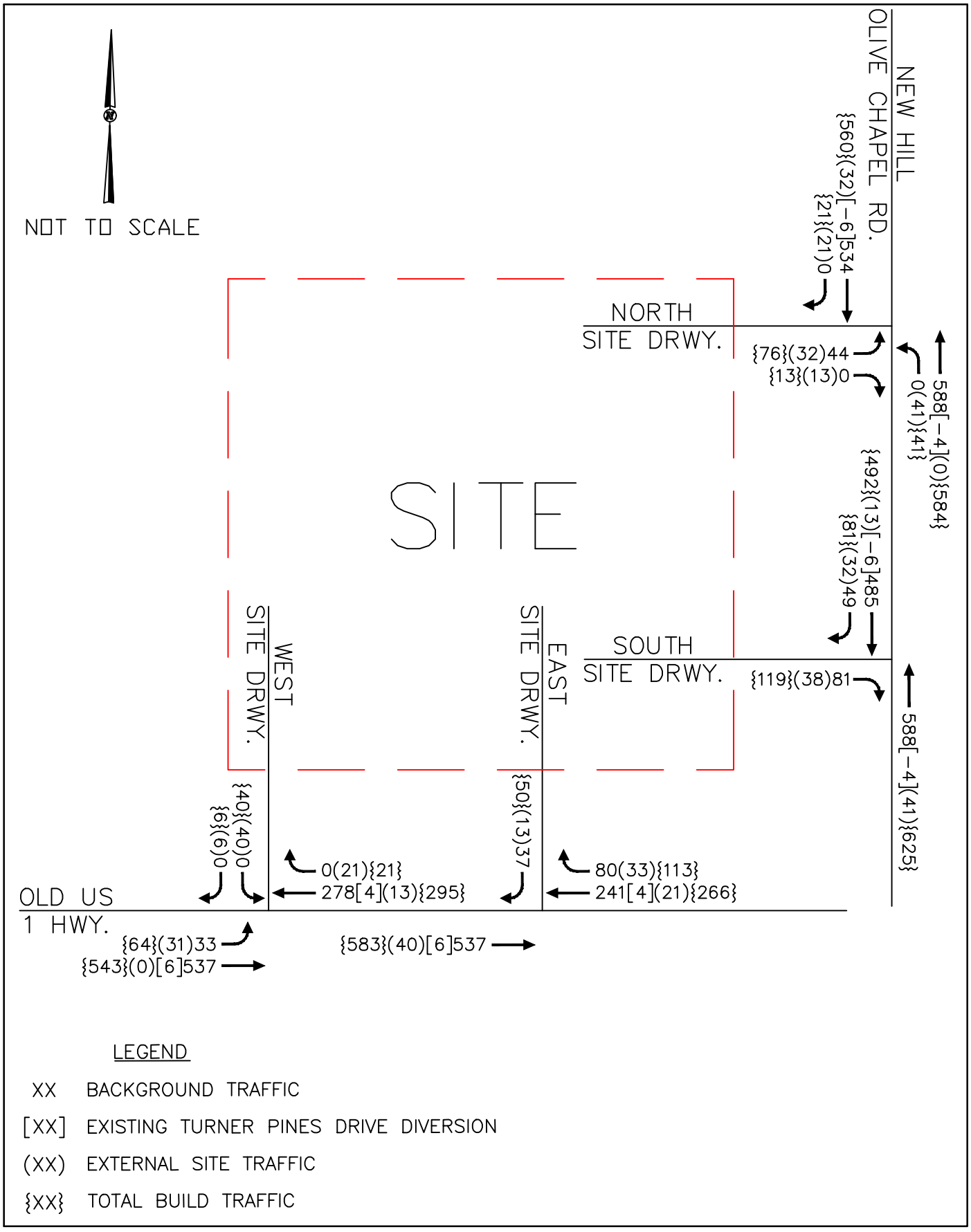
[XX] EXISTING TURNER PINES DRIVE DIVERSION

(XX) EXTERNAL SITE TRAFFIC

{XX} TOTAL BUILD TRAFFIC

Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PROJECTED (2028) FULL BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES – OFFSITE INTERSECTIONS	FIGURE 7

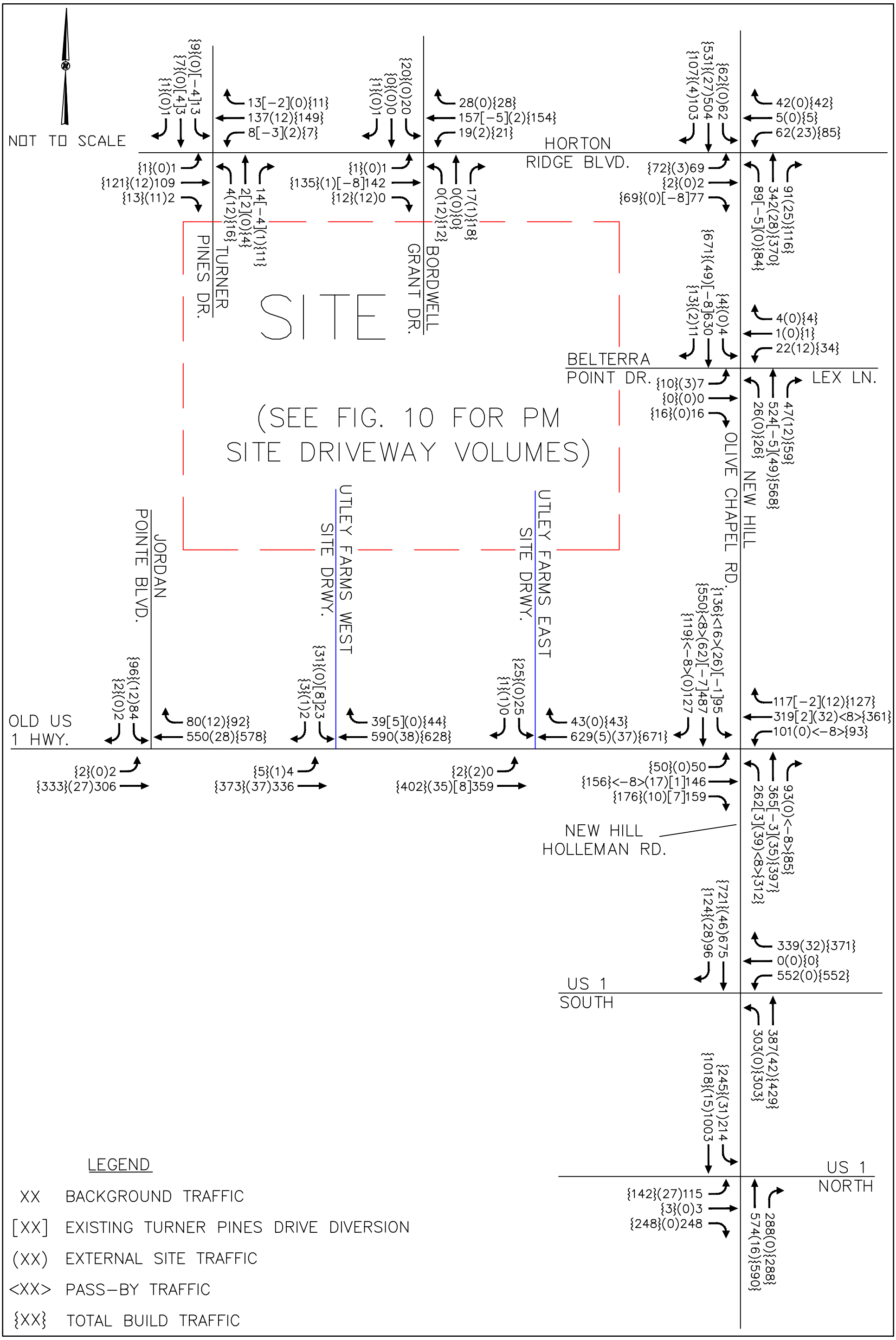
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Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PROJECTED (2028) FULL BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES – SITE DRIVEWAYS	FIGURE 8

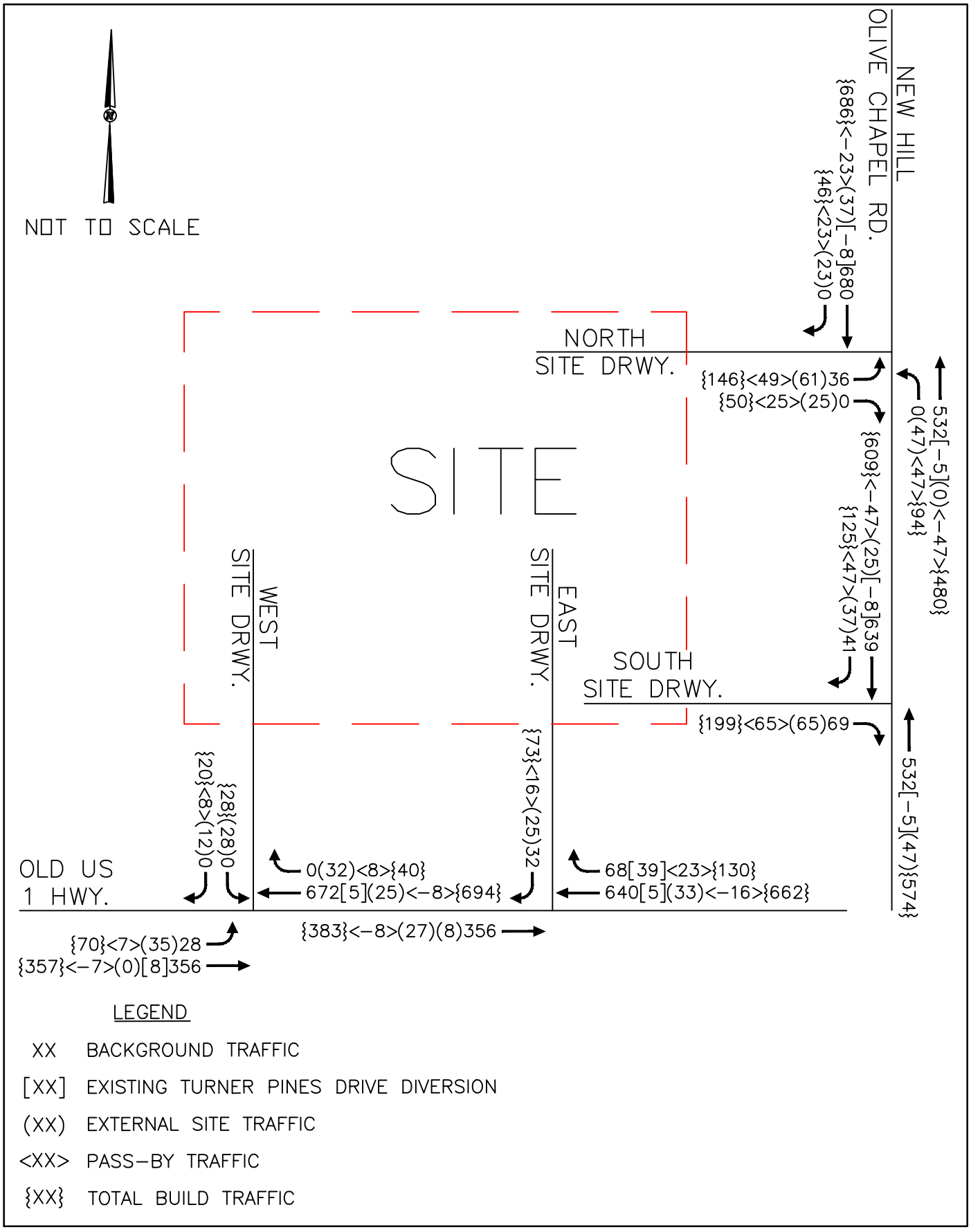
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Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PROJECTED (2028) FULL BUILD–OUT PM PEAK HOUR TRAFFIC VOLUMES – OFFSITE INTERSECTIONS	FIGURE 9

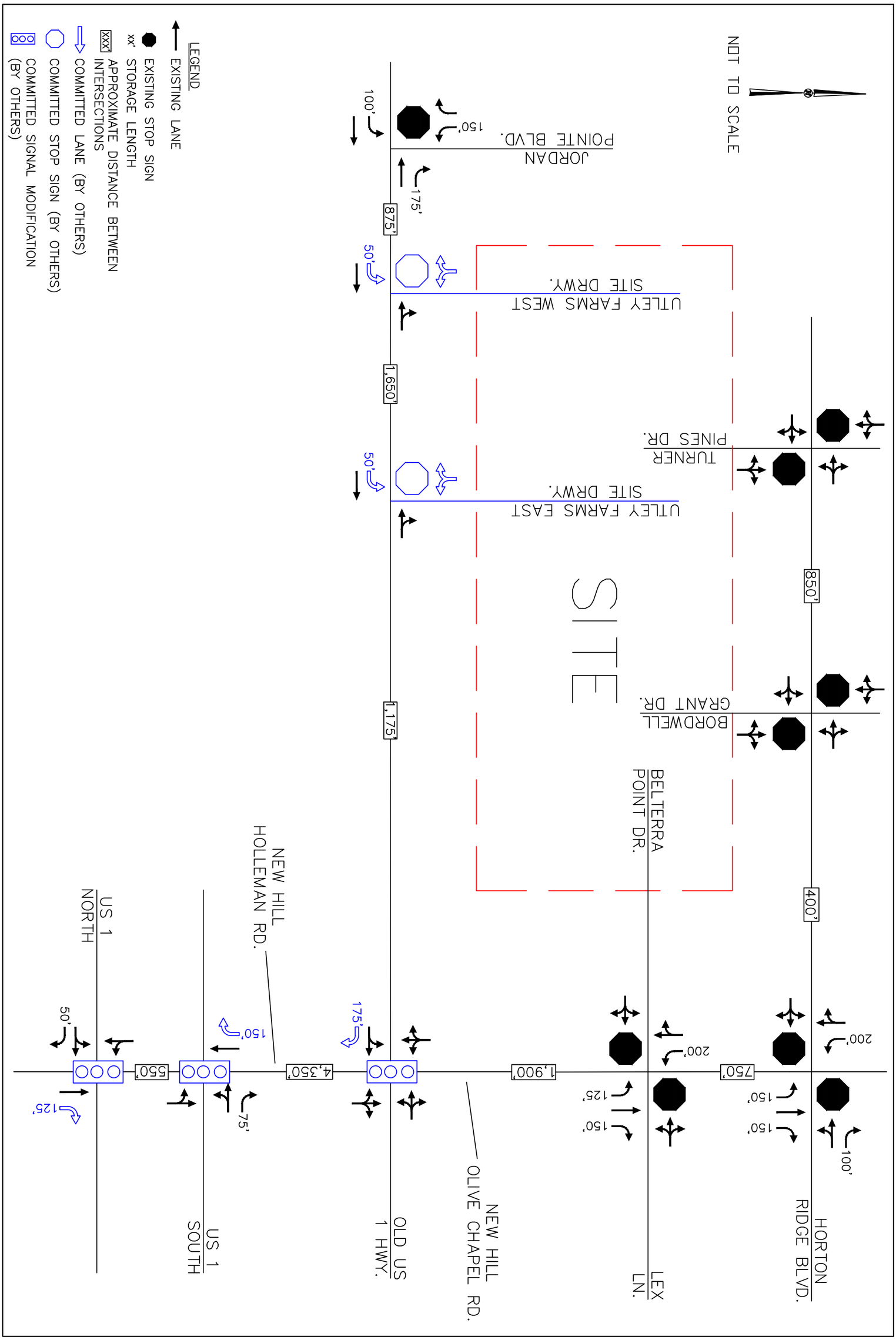
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Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	PROJECTED (2028) FULL BUILD-OUT PM PEAK HOUR TRAFFIC VOLUMES – SITE DRIVEWAYS	FIGURE 10

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Kimley»Horn	NEW HILL COMMONS PUD APEX, NC TRAFFIC PHASING ANALYSIS	COMMITTED ROADWAY LANEAGE – PHASE 1	FIGURE 11

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NOT TO SCALE

HORTON RIDGE BLVD.

BELTERRA POINT DR.

LEX LN.

NORTH SITE DRWY.

SOUTH SITE DRWY.

NEW HILL OLIVE CHAPEL RD.

OLD US 1 HWY.

NEW HILL HOLLEMAN RD.

US 1 SOUTH

US 1 NORTH

TURNER PINES DR.

BORDWELL GRANT DR.

SITE

EAST SITE DRWY.

WEST SITE DRWY.

UTLEY FARMS EAST SITE DRWY.

UTLEY FARMS WEST SITE DRWY.

JORDAN POINTE BLVD.

100' 150' 200' 750' 150' 200' 100' 1,175' 125' 150' 50' 250' 125' 100' 350' 400' 150' 150' 150' 250' 250' 175' 150' 4,350' 75' 550' 150' 225' 200' 550' 250' (EXTEND) 75' 400' 375' 325' 100' 475' 50' 100' 1,650' 50' 50' 875' 175' 150' 850'

LEGEND

- EXISTING LANE
- xx' STORAGE LENGTH
- [xxx'] APPROXIMATE DISTANCE BETWEEN INTERSECTIONS
- COMMITTED LANE (BY OTHERS)
- COMMITTED STOP SIGN (BY OTHERS)
- COMMITTED SIGNAL MODIFICATION (BY OTHERS)
- COMMITTED CHANNELIZATION (BY OTHERS)
- RECOMMENDED LANE
- RECOMMENDED STOP SIGN
- RECOMMENDED SIGNAL MODIFICATION

FIGURE 12

COMMITTED AND RECOMMENDED ROADWAY LANEAGE – FULL BUILD

NEW HILL COMMONS PUD
APEX, NC
TRAFFIC PHASING ANALYSIS

Kimley»Horn

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Trip Generation Calculations

New Hill Commons PUD

Table 1 - Trip Generation (11th Edition) - Phase 1

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
210 Single Family Detached Housing	110	d.u.	1,102	551	551	81	21	60	109	69	40
Total Net New External Trips			**1,102**	**551**	**551**	**81**	**21**	**60**	**109**	**69**	**40**

New Hill Commons PUD

Table 2 - Trip Generation (11th Edition) - Full Build

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
210 Single Family Detached Housing	110	d.u.	1,102	551	551	81	21	60	109	69	40
821 Shopping Plaza (40K-150K) w/ supermarket	100,000	s.f.	9,110	4,555	4,555	353	219	134	886	425	461
Subtotal			**10,212**	**5,106**	**5,106**	**434**	**240**	**194**	**995**	**494**	**501**
Internal Capture											
210 Single Family Detached Housing			250	132	118	1	0	1	46	32	14
821 Shopping Plaza (40K-150K) w/ supermarket			250	118	132	1	1	0	46	14	32
Internal Capture Total	0.46%	9.25%	*500*	*250*	*250*	*2*	*1*	*1*	*92*	*46*	*46*
Total External Trips			**9,712**	**4,856**	**4,856**	**432**	**239**	**193**	**903**	**448**	**455**
Multimodal Capture											
Residential Multimodal Trips	*5.00%*		*43*	*21*	*22*	*4*	*1*	*3*	*3*	*2*	*1*
Commercial Multimodal Trips	*5.00%*		*443*	*222*	*221*	*18*	*11*	*7*	*42*	*21*	*21*
Total External Passenger Car Trips			**9,226**	**4,613**	**4,613**	**410**	**227**	**183**	**858**	**425**	**433**
Pass-By Capture	AM	PM									
821 Shopping Plaza (40K-150K)	0%	40%	1,772	886	886	0	0	0	319	156	163
Pass-By Capture Total	*0.00%*	*32.06%*	*1,772*	*886*	*886*	*0*	*0*	*0*	*319*	*156*	*163*
Total Net New External Trips			**7,454**	**3,727**	**3,727**	**410**	**227**	**183**	**539**	**269**	**270**

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	New Hill Commons PUD	**Organization:**	Kimley-Horn
Project Location:	Apex, North Carolina	**Perormed By:**	AHG
Scenario Description:	0	**Date:**	1/16/2025
Analysis Year:	2028	**Checked By:**	
Analysis Period:	**AM Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		0	SF	0	0	0
Retail	821	100,000	SF	353	219	134
Restaurant		0	SF	0	0	0
Cinema/Entertainment		0	SF	0	0	0
Residential	210	110	units	81	21	60
Hotel		0	rooms	0	0	0
All Other Land Uses[2]		0	SF	0	0	0
				434	**240**	**194**

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.1	0%	0%	1.1	0%	0%
Retail	1.1	0%	0%	1.1	0%	0%
Restaurant	1.1	0%	0%	1.1	0%	0%
Cinema/Entertainment	1.1	0%	0%	1.1	0%	0%
Residential	1.1	0%	0%	1.1	0%	0%
Hotel	1.1	0%	0%	1.1	0%	0%
All Other Land Uses[2]	1.1	0%	0%	1.1	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	477	264	213
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	432	239	193
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	0%
Retail	0%	0%
Restaurant	0%	0%
Cinema/Entertainment	0%	0%
Residential	0%	2%
Hotel	0%	0%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE).
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
4Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mized-use project, manual adjustments must be made
5Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[6]Person-Trips
*Indicates computaton that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D) Entering Trips			Table 7-A (O) Exiting Trips		
	Veh. Occ.[4]	Vehicle Trips	Person-Trips*	Veh. Occ.[4]	Vehicle Trips	Person-Trips*
Office	1.1	0	0	1.1	0	0
Retail	1.1	219	241	1.1	134	147
Restaurant	1.1	0	0	1.1	0	0
Cinema/Entertainment	1.1	0	0	1.1	0	0
Residential	1.1	21	23	1.1	60	66
Hotel	1.1	0	0	1.1	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	43		19	0	21	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	1	13	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		77	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	19		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	41	0	0		0
Hotel	0	10	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	240	241	218	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	23	23	21	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	147	147	134	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	65	66	59	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

1Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[2]Person-Trips
[3]Total estimate for all other land uses at mixed use development site is not subject to internal capture computations in this estimator.
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	New Hill Commons PUD	**Organization:**	Kimley-Horn
Project Location:	Apex, North Carolina	**Perormed By:**	AHG
Scenario Description:	0	**Date:**	1/16/2025
Analysis Year:	2028	**Checked By:**	
Analysis Period:	**PM Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office		0	SF	0	0	0
Retail	821	100,000	SF	886	425	461
Restaurant		0	SF	0	0	0
Cinema/Entertainment		0	SF	0	0	0
Residential	210	110	units	109	69	40
Hotel		0	rooms	0	0	0
All Other Land Uses[2]		0	SF	0	0	0
				995	**494**	**501**

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.1	0%	0%	1.1	0%	0%
Retail	1.1	0%	0%	1.1	0%	0%
Restaurant	1.1	0%	0%	1.1	0%	0%
Cinema/Entertainment	1.1	0%	0%	1.1	0%	0%
Residential	1.1	0%	0%	1.1	0%	0%
Hotel	1.1	0%	0%	1.1	0%	0%
All Other Land Uses[2]	1.1	0%	0%	1.1	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					750	
Restaurant						
Cinema/Entertainment						
Residential		750				
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	35	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	15	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,094	543	551
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips[5]	904	449	455
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	0%
Retail	3%	7%
Restaurant	0%	0%
Cinema/Entertainment	0%	0%
Residential	46%	34%
Hotel	0%	0%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE).
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mized-use project, manual adjustments must be made
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[6]Person-Trips
*Indicates computaton that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D) Entering Trips			Table 7-P (O) Exiting Trips		
	Veh. Occ.[4]	Vehicle Trips	Person-Trips*	Veh. Occ.[4]	Vehicle Trips	Person-Trips*
Office	1.1	0	0	1.1	0	0
Retail	1.1	425	468	1.1	461	507
Restaurant	1.1	0	0	1.1	0	0
Cinema/Entertainment	1.1	0	0	1.1	0	0
Residential	1.1	69	76	1.1	40	44
Hotel	1.1	0	0	1.1	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	10		147	20	132	25
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	15	9	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		37	0	0	3	0
Retail	0		0	0	35	0
Restaurant	0	234		0	12	0
Cinema/Entertainment	0	19	0		3	0
Residential	0	39	0	0		0
Hotel	0	9	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

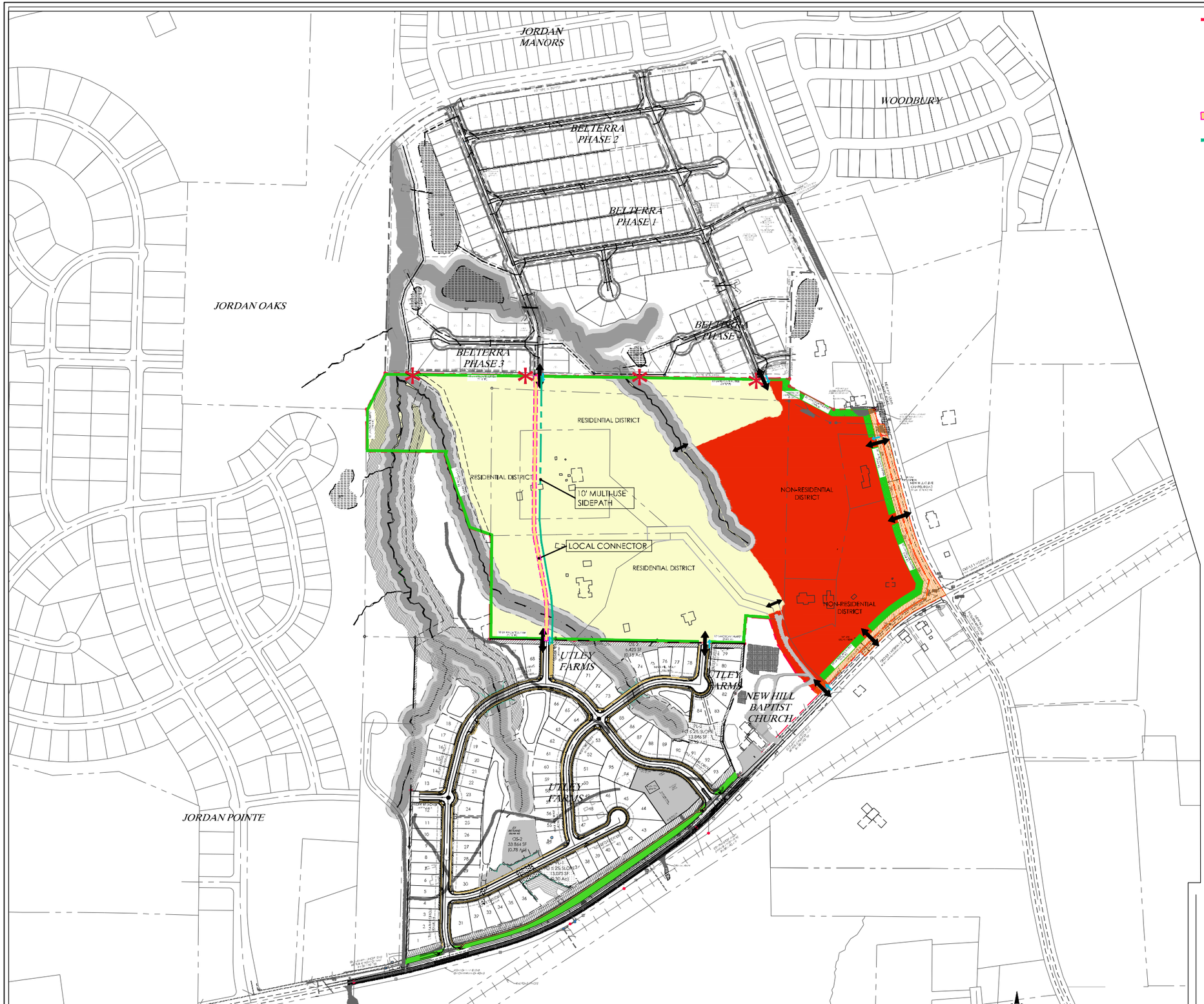
Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	15	453	468	412	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	35	41	76	37	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	% Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	35	472	507	429	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	29	44	26	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[2]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[2]Person-Trips
[3]Total estimate for all other land uses at mixed use development site is not subject to internal capture computations in this estimator.
*Indicates computation that has been rounded to the nearest whole number.

Site Plan



PROJECT PERIMETER BOUNDARY

POTENTIAL WATER CONNECTIONS

POTENTIAL SEWER CONNECTIONS

POTENTIAL ACCESS POINTS

LOCAL CONNECTOR

SIDEPATH

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

STREAM BUFFERS

RESIDENTIAL DISTRICT

NON-RESIDENTIAL DISTRICT (RETAIL / COMMERCIAL)

BUFFERS/RCA/ OPEN SPACE

RIGHT-OF-WAY DEDICATION

1 C100 CONCEPTUAL SITE PLAN/CONCEPTUAL UTILITY PLAN

SCALE: 1"=200'

N

0 100 200 400

SCALE: 1" = 200'

PEAK Engineering & Design
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ph 919.439.0100
www.PeakEngineering.com
NC License #P-0673

project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 049121 FREYA A. ROACH

PRELIMINARY NOT FOR CONSTRUCTION

NO.	DATE	REVISION
1	JANUARY 7, 2025	TOWN OF APEX - ZONING REVIEW

title:
NEW HILL COMMONS DEVELOPMENT EXHIBIT

proj #: 240501

date: November 1, 2024

dwg by: FS chkd by: JR

scale: As Noted

sheet: *C100*

(PUD PLAN)

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SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION, MAJOR, OR MINOR SITE PLAN DESIGN AND APPROVAL.
2. FINAL RESOURCE CONSERVATION AREA (RCA), OPEN SPACE, AND PLAY LAWN LOCATIONS SHALL BE COORDINATED WITH STAFF AND BUILDER DURING MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN AND APPROVAL.
3. ALL ZONING PLAN SHEETS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN COMPONENTS ARE DETERMINED AT MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN.
4. REFER TO PD TEXT DOCUMENTS FOR A LIST OF ALLOWABLE USES, ZONING CONDITIONS, AND OTHER DESIGN STANDARDS FOR THE DEVELOPMENT.
5. ENVIRONMENTAL FEATURES ARE SUBJECT TO FINAL REVIEW CONCURRENCE WITH VARIOUS REGULATORY AGENCIES.
6. PUBLIC PEDESTRIAN AND VEHICULAR ACCESS IS SHOWN FOR CONCEPTUAL PURPOSES AND ARE SUBJECT TO REVISIONS DURING THE MASTER SUBDIVISION, MINOR, OR MAJOR SITE PLAN DESIGN AND APPROVAL.
7. ALL SITE ELEMENTS ARE REQUIRED TO MEET OR EXCEED TOWN OF APEX, NCDOT, OR OTHER REVIEW AUTHORITY STANDARD DESIGN SPECIFICATIONS.
8. PROJECT WILL COMPLY WITH ADOPTED TOWN MASTER PLANS INCLUDING COMPREHENSIVE TRANSPORTATION, UTILITY, AND GREENWAYS PLANS.
9. THE PROJECT IS REQUESTING FULL TOWN SERVICES, INCLUDING BUT NOT LIMITED TO WATER, SEWER AND ELECTRICITY.
10. THE PROJECT WILL NOT UTILIZE PRIVATE SEWAGE DISPOSAL.
11. NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF S&E MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS SCHEDULES.
12. TREE PROTECTION FENCING MUST BE PLACED:
    a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
    b. ALONG THE OUTSIDE LINE OF THE 100 YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
    c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.
13. ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER. SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

RIPARIAN BUFFERS AND WETLANDS:

RIPARIAN BUFFERS AND WETLANDS LOCATED ON SITE BY SOILS & ENVIRONMENTAL CONSULTANTS, INC TO BE CONFIRMED BY THE US ARMY CORPS OF ENGINEERS AND TOWN OF APEX.
TOWN OF APEX PROJECT TBD.

EXISTING CONDITIONS NOTES:

1. *BOUNDARY AND EXISTING CONDITIONS SURVEYS PROVIDED BY WITHERSRAVENEL.*
2. *TOPOGRAPHIC INFORMATION FROM WAKE COUNTY GIS AND SURVEYOR DATA.*
3. *NO SLOPES EQUAL TO OR GREATER THAN 3:1 FOUND ON THE SITE.*
4. NC SHPO DOES NOT SHOW ANY EXISTING HISTORICAL STRUCTURES ALTHOUGH A NUMBER OF THE PROPERTIES ARE LOCATED WITHIN THE NEW HILL HISTORIC DISTRICT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE PRIMARY WATERSHED OVERLAY DISTRICT, LITTLE BEAVER CREEK, JORDAN LAKE, CAPE FEAR RIVER BASIN.
8. EXISTING HOMES UTILIZE PRIVATE WASTE WATER AND WELLS. ALL FEATURES SHALL BE ABANDONED OR REMOVED AS REQUIRED BY THE APPROPRIATE REVIEW AGENCY.

REQUIRED PLAN NOTES:

1) NO SITE DEVELOPMENT ACTIVITY INCLUDING, BUT NOT LIMITED TO, TESTING, CLEARING, INSTALLATION OF S&E MEASURES, OR GRADING SHALL OCCUR UNTIL REQUIRED TREE PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED. A TREE PROTECTION FENCING INSTALLATION PERMIT MAY BE OBTAINED AT THE PLANNING DEPARTMENT OR ONLINE AT HTTP://WWW.APEXNC.ORG/215/APPLICATIONS-SCHEDULES.
2) TREE PROTECTION FENCING MUST BE PLACED:
    a. ONE FOOT AWAY FROM ANY SAVED TREE FOR EACH INCH OF DIAMETER AT BREAST HEIGHT;
    b. ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER; AND
    c. AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RCA SUCH AS, BUT NOT LIMITED TO, HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS.
3) ADDITIONAL TREE PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER; SUCH AREAS MAY INCLUDE, BUT ARE NOT LIMITED TO, COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).

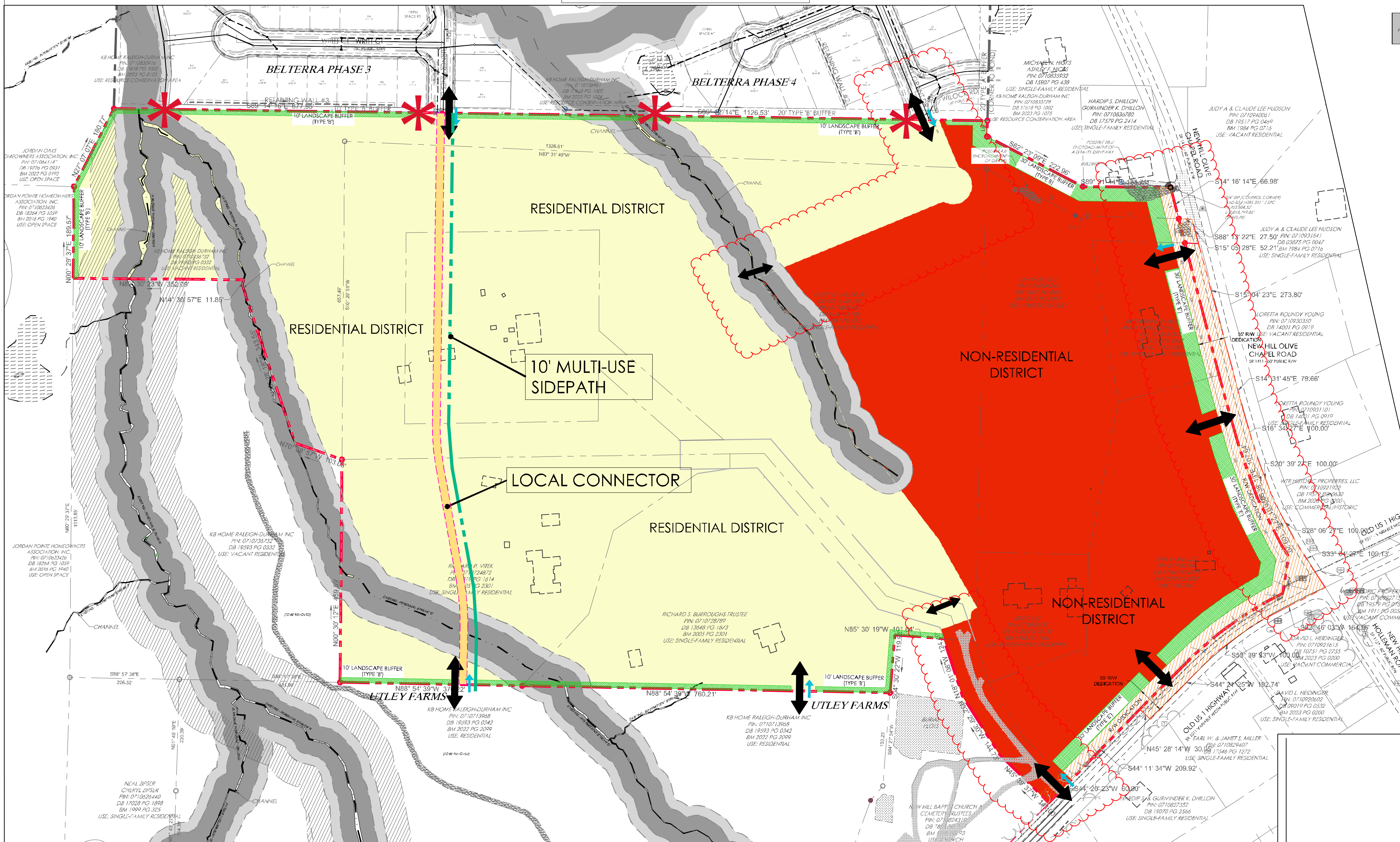
POTENTIAL ACCESS POINTS:

POTENTIAL ACCESS POINTS SHOWN ON THE CONCEPTUAL SITE PLAN / CONCEPTUAL UTILITY PLAN (C100) ARE NOT SHOWN IN EXACT LOCATIONS BUT SHOW PROPOSED CONNECTIONS. CONNECTIONS CAN ONLY BE REMOVED FROM THE DEVELOPMENT CONNECTIVITY REQUIREMENTS OF THE PUD IF THE DEVELOPER SHOWS TO THE SATISFACTION OF THE PLANNING DIRECTOR, IN CONSULTATION WITH THE TECHNICAL REVIEW COMMITTEE (TRC), THAT THE CONSTRUCTION OF THE CONNECTION WOULD BE IMPRACTICAL BASED ON ENVIRONMENTAL CONDITIONS FOUND IN THE FIELD AT THE TIME OF MASTER SUBDIVISION PLAN, MINOR SITE PLAN, OR MAJOR SITE PLAN REVIEW AND APPROVAL.

PROJECT PERIMETER BOUNDARY
POTENTIAL WATER CONNECTIONS
POTENTIAL SEWER CONNECTIONS
POTENTIAL ACCESS POINTS
LOCAL CONNECTOR
SIDEPATH

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

STREAM BUFFERS



RESIDENTIAL DISTRICT
NON-RESIDENTIAL DISTRICT (RETAIL / COMMERCIAL)
BUFFERS/RCA/ OPEN SPACE
RIGHT-OF-WAY DEDICATION

1 C100 CONCEPTUAL SITE PLAN/CONCEPTUAL UTILITY PLAN
SCALE: 1"=100'

0 50 100 200
SCALE: 1" = 100'

PEAK Engineering & Design
1125 Apex Peakway | Apex, NC 27502
ph: 919.439.0100
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project:
NEW HILL COMMONS
NEW HILL OLIVE CHAPEL ROAD
BUCKHORN TOWNSHIP
NEW HILL, NORTH CAROLINA 27562

seal:
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	JANUARY 2, 2025	TOWN OF APEX – ZONING REVIEW	JR

title:
CONCEPTUAL SITE PLAN/ CONCEPTUAL UTILITY PLAN

proj #: 240501
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: *C100*
(PUD PLAN)

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Intersection Spreadsheets

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	5/21/2024
Ct. Peaks	8:00 - 9:00 AM; 4:15 - 5:15 PM
E/W Street:	Horton Ridge Boulevard
N/S Street:	New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF = 0.95

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				New Hill Olive Chapel Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	93	0	69	0	55	0	55	0	40	359	30	0	11	199	47
Growth to Existing Year	0	3	0	2	0	2	0	2	0	1	11	1	0	0	6	1
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	93	0	69	0	55	0	55	0	40	359	30	0	11	199	47
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	6	0	4	0	3	0	3	0	2	22	2	0	1	12	3
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	19	0	0	0	6	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	8	0	0	0	3	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	27	0	0	0	9	0
2027 Background Traffic	0	99	0	73	0	58	0	58	0	42	408	32	0	12	220	50
Existing Turner Pines Drive Diversion	0	0	0	-6	0	0	0	0	0	-4	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	6	0	0	0	0	0	0	0	0	6	0	0	0	2	2
Total Project Traffic	0	6	0	0	0	0	0	0	0	0	6	0	0	0	2	2
2027 Buildout Total	0	105	0	67	0	58	0	58	0	38	414	32	0	12	222	52
Approach Percent Impact (vs. Existing)	3.70%				0.00%				1.24%				1.56%			
Overall Percent Impact (vs. Buildout)	1.5%															

PM PEAK HOUR
PHF = 0.85

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				New Hill Olive Chapel Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	61	2	50	0	31	5	31	0	60	207	54	0	45	340	91
Growth to Existing Year	0	2	0	2	0	1	0	1	0	2	6	2	0	1	10	3
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	61	2	50	0	31	5	31	0	60	207	54	0	45	340	91
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	4	0	3	0	2	0	2	0	4	13	3	0	3	21	6
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	12	0	0	0	20	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	17	0	0	0	29	0
2027 Background Traffic	0	65	2	53	0	33	5	33	0	64	237	57	0	48	390	97
Existing Turner Pines Drive Diversion	0	0	0	-8	0	0	0	0	0	-5	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	4	0	0	0	0	0	0	0	0	4	0	0	0	7	7
Total Project Traffic	0	4	0	0	0	0	0	0	0	0	4	0	0	0	7	7
2027 Buildout Total	0	69	2	45	0	33	5	33	0	59	241	57	0	48	397	104
Approach Percent Impact (vs. Existing)	3.54%				0.00%				1.25%				2.94%			
Overall Percent Impact (vs. Buildout)	2.0%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	5/21/2024
Ct. Peaks	8:00 - 9:00 AM; 4:00 - 5:00 PM
E/W Street:	Belterra Point Drive/Lex Lane
N/S Street:	New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF = 0.95

Description	Belterra Point Drive Eastbound				Lex Lane Westbound				New Hill Olive Chapel Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	7	2	26	0	41	1	8	0	12	414	10	0	3	312	5
Growth to Existing Year	0	0	0	1	0	1	0	0	0	0	12	0	0	0	9	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	7	2	27	0	42	1	8	0	12	426	10	0	3	321	5
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	0	2	0	3	0	0	0	1	26	1	0	0	20	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	19	0	0	0	6	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	8	0	0	0	3	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	27	0	0	0	9	0
2027 Background Traffic	0	7	2	29	0	45	1	8	0	13	479	11	0	3	350	5
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	-6	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Project Traffic	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2027 Buildout Total	0	13	2	29	0	45	1	8	0	13	475	11	0	3	344	7
Approach Percent Impact (vs. Existing)	16.67%				0.00%				0.00%				0.61%			
Overall Percent Impact (vs. Buildout)	0.8%															

PM PEAK HOUR
PHF = 0.85

Description	Belterra Point Drive Eastbound				Lex Lane Westbound				New Hill Olive Chapel Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	6	0	9	0	15	1	4	0	18	323	37	0	4	410	10
Growth to Existing Year	0	0	0	0	0	0	0	0	0	1	10	1	0	0	12	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	6	0	9	0	15	1	4	0	19	333	38	0	4	422	10
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	0	1	0	1	0	0	0	1	20	2	0	0	26	1
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	12	0	0	0	20	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	17	0	0	0	29	0
2027 Background Traffic	0	6	0	10	0	16	1	4	0	20	370	40	0	4	477	11
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	-8	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total Project Traffic	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	8
2027 Buildout Total	0	10	0	10	0	16	1	4	0	20	365	40	0	4	469	19
Approach Percent Impact (vs. Existing)	26.67%				0.00%				0.00%				1.83%			
Overall Percent Impact (vs. Buildout)	1.3%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	10/11/2023
Ct. Peaks	7:45 - 8:45 AM; 5:00 - 6:00 PM
E/W Street:	Old US 1 Highway
N/S Street:	New Hill Holleman Road/New Hill Olive Chapel Ro

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR

PHF = 0.94

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				New Hill Holleman Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	22	135	46	0	41	59	46	0	53	348	111	0	78	236	15
Growth to Existing Year	0	1	8	3	0	2	4	3	0	3	21	7	0	5	14	1
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	23	143	49	0	43	63	49	0	56	369	118	0	83	250	16
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	1	9	3	0	3	4	3	0	3	22	7	0	5	15	1
Committed Projects																
Gracewood Residential (40% of Units)	0	19	29	46	0	0	10	0	0	16	0	0	0	0	0	6
Utley Farms PUD	0	8	26	38	0	0	9	0	0	13	0	0	0	0	0	3
Total Committed Traffic	0	27	55	84	0	0	19	0	0	29	0	0	0	0	0	9
2027 Background Traffic	0	51	207	136	0	46	86	52	0	88	391	125	0	88	265	26
Existing Turner Pines Drive Diversion	0	0	2	4	0	0	1	-1	0	3	-3	0	0	-2	-4	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	25%	0%	0%	45%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(25%)	(45%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	15	27	0	0	5	0	0	9	0	0	0	0	0	0
Total Project Traffic	0	0	15	27	0	0	5	0	0	9	0	0	0	0	0	0
2027 Buildout Total	0	51	224	167	0	46	92	51	0	100	388	125	0	86	261	26
Approach Percent Impact (vs. Existing)	19.53%				3.23%				1.49%				0.00%			
Overall Percent Impact (vs. Buildout)	3.5%															

PM PEAK HOUR

PHF = 0.99

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				New Hill Holleman Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	11	86	44	0	74	174	100	0	44	232	66	0	60	314	57
Growth to Existing Year	0	1	5	3	0	5	11	6	0	3	14	4	0	4	19	3
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	12	91	47	0	79	185	106	0	47	246	70	0	64	333	60
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	1	6	3	0	5	11	6	0	3	15	4	0	4	20	4
Committed Projects																
Gracewood Residential (40% of Units)	0	12	18	29	0	0	31	0	0	49	0	0	0	0	0	20
Utley Farms PUD	0	5	18	25	0	0	30	0	0	43	0	0	0	0	0	9
Total Committed Traffic	0	17	36	54	0	0	61	0	0	92	0	0	0	0	0	29
2027 Background Traffic	0	30	133	104	0	84	257	112	0	142	261	74	0	68	353	93
Existing Turner Pines Drive Diversion	0	0	1	7	0	0	2	-2	0	3	-3	0	0	-1	-7	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	25%	0%	0%	45%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(25%)	(45%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	10	18	0	0	17	0	0	31	0	0	0	0	0	0
Total Project Traffic	0	0	10	18	0	0	17	0	0	31	0	0	0	0	0	0
2027 Buildout Total	0	30	144	129	0	84	276	110	0	176	258	74	0	67	346	93
Approach Percent Impact (vs. Existing)	18.67%				4.59%				8.54%				0.00%			
Overall Percent Impact (vs. Buildout)	4.3%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	10/11/2023
Ct. Peaks	7:30 - 8:30 AM; 4:45 - 5:45 PM
E/W Street:	US 1 Southbound On-Ramp/US 1 Southbound Off-R
N/S Street:	New Hill Holleman Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF = 0.93

Description	US 1 Southbound On-Ramp Eastbound				US 1 Southbound Off-Ramp Westbound				New Hill Holleman Road Northbound				New Hill Holleman Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	106	1	111	0	157	387	0	0	0	290	58
Growth to Existing Year	0	0	0	0	0	6	0	7	0	10	24	0	0	0	18	4
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	112	1	118	0	167	411	0	0	0	308	62
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	0	0	0	7	0	7	0	10	25	0	0	0	19	4
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	11	0	0	4	0	0	0	34	12
Utley Farms PUD	0	0	0	0	0	0	0	7	0	0	6	0	0	0	25	13
Total Committed Traffic	0	0	0	0	0	0	0	18	0	0	10	0	0	0	59	25
2027 Background Traffic	0	0	0	0	0	119	1	143	0	177	446	0	0	0	386	91
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	20%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(35%)	(10%)
Residential Project Traffic	0	0	0	0	0	0	0	5	0	0	4	0	0	0	21	6
Total Project Traffic	0	0	0	0	0	0	0	5	0	0	4	0	0	0	21	6
2027 Buildout Total	0	0	0	0	0	119	1	148	0	177	450	0	0	0	407	97
Approach Percent Impact (vs. Existing)	-				2.16%				0.64%				7.30%			
Overall Percent Impact (vs. Buildout)	2.6%															

PM PEAK HOUR
PHF = 0.97

Description	US 1 Southbound On-Ramp Eastbound				US 1 Southbound Off-Ramp Westbound				New Hill Holleman Road Northbound				New Hill Holleman Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	418	0	167	0	213	185	0	0	0	404	43
Growth to Existing Year	0	0	0	0	0	25	0	10	0	13	11	0	0	0	25	3
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	443	0	177	0	226	196	0	0	0	429	46
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	0	0	0	27	0	11	0	14	12	0	0	0	26	3
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	36	0	0	13	0	0	0	21	8
Utley Farms PUD	0	0	0	0	0	0	0	22	0	0	21	0	0	0	16	9
Total Committed Traffic	0	0	0	0	0	0	0	58	0	0	34	0	0	0	37	17
2027 Background Traffic	0	0	0	0	0	470	0	246	0	240	242	0	0	0	492	66
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	20%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(35%)	(10%)
Residential Project Traffic	0	0	0	0	0	0	0	17	0	0	14	0	0	0	14	4
Total Project Traffic	0	0	0	0	0	0	0	17	0	0	14	0	0	0	14	4
2027 Buildout Total	0	0	0	0	0	470	0	263	0	240	256	0	0	0	506	70
Approach Percent Impact (vs. Existing)	-				2.74%				3.32%				3.79%			
Overall Percent Impact (vs. Buildout)	2.7%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	10/11/2023
Ct. Peaks	7:15 - 8:15 AM; 4:45 - 5:45 PM
E/W Street:	US 1 Northbound Off-Ramp/US 1 Northbound On-R
N/S Street:	New Hill Holleman Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF = 0.94

Description	US 1 Northbound Off-Ramp Eastbound				US 1 Northbound On-Ramp Westbound				New Hill Holleman Road Northbound				New Hill Holleman Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	59	3	155	0	0	0	0	0	0	457	421	0	146	230	0
Growth to Existing Year	0	4	0	9	0	0	0	0	0	0	28	26	0	9	14	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	63	3	164	0	0	0	0	0	0	485	447	0	155	244	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	4	0	10	0	0	0	0	0	0	30	27	0	9	15	0
Committed Projects																
Gracewood Residential (40% of Units)	0	4	0	0	0	0	0	0	0	0	0	0	0	34	0	0
Utley Farms PUD	0	5	0	0	0	0	0	0	0	0	1	0	0	19	6	0
Total Committed Traffic	0	9	0	0	0	0	0	0	0	0	1	0	0	53	6	0
2027 Background Traffic	0	76	3	174	0	0	0	0	0	0	516	474	0	217	265	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(25%)	(10%)	(0%)
Residential Project Traffic	0	2	0	0	0	0	0	0	0	0	2	0	0	15	6	0
Total Project Traffic	0	2	0	0	0	0	0	0	0	0	2	0	0	15	6	0
2027 Buildout Total	0	78	3	174	0	0	0	0	0	0	518	474	0	232	271	0
Approach Percent Impact (vs. Existing)	0.87%				-				0.21%				5.26%			
Overall Percent Impact (vs. Buildout)	1.4%															

PM PEAK HOUR
PHF = 0.93

Description	US 1 Northbound Off-Ramp Eastbound				US 1 Northbound On-Ramp Westbound				New Hill Holleman Road Northbound				New Hill Holleman Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	38	3	181	0	0	0	0	0	0	358	196	0	106	708	0
Growth to Existing Year	0	2	0	11	0	0	0	0	0	0	22	12	0	6	43	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	40	3	192	0	0	0	0	0	0	380	208	0	112	751	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	2	0	12	0	0	0	0	0	0	23	13	0	7	46	0
Committed Projects																
Gracewood Residential (40% of Units)	0	13	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Utley Farms PUD	0	15	0	0	0	0	0	0	0	0	6	0	0	13	3	0
Total Committed Traffic	0	28	0	0	0	0	0	0	0	0	6	0	0	34	3	0
2027 Background Traffic	0	70	3	204	0	0	0	0	0	0	409	221	0	153	800	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(25%)	(10%)	(0%)
Residential Project Traffic	0	7	0	0	0	0	0	0	0	0	7	0	0	10	4	0
Total Project Traffic	0	7	0	0	0	0	0	0	0	0	7	0	0	10	4	0
2027 Buildout Total	0	77	3	204	0	0	0	0	0	0	416	221	0	163	804	0
Approach Percent Impact (vs. Existing)	2.98%				-				1.19%				1.62%			
Overall Percent Impact (vs. Buildout)	1.5%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	5/21/2024
Ct. Peaks	7:30 - 8:30 AM; 4:45 - 5:45 PM
E/W Street:	Horton Ridge Boulevard
N/S Street:	Turner Pines Drive

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF = 0.91

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Turner Pines Drive Northbound				Turner Pines Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	0	127	3	0	4	59	5	0	1	1	8	0	6	0	0
Growth to Existing Year	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	131	3	0	4	61	5	0	1	1	8	0	6	0	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027 Background Traffic	0	0	139	3	0	4	65	5	0	1	1	8	0	6	0	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	-2	0	-2	0	0	2	-3	0	-3	3	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0
Total Project Traffic	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0
2027 Buildout Total	0	0	139	3	0	3	65	3	0	1	3	8	0	3	3	0
Approach Percent Impact (vs. Existing)	0.00%				1.43%				30.00%				0.00%			
Overall Percent Impact (vs. Buildout)	1.7%															

PM PEAK HOUR
PHF = 0.94

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Turner Pines Drive Northbound				Turner Pines Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	1	92	2	0	5	116	8	0	4	2	10	0	8	3	1
Growth to Existing Year	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	1	95	2	0	5	119	8	0	4	2	10	0	8	3	1
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	6	0	0	0	7	0	0	0	0	1	0	0	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027 Background Traffic	0	1	101	2	0	5	126	8	0	4	2	11	0	8	3	1
Existing Turner Pines Drive Diversion	0	0	0	0	0	-3	0	-2	0	0	2	-4	0	-4	4	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	4	0	0	0	0	0	2	0	0	0	0
Total Project Traffic	0	0	0	0	0	4	0	0	0	0	0	2	0	0	0	0
2027 Buildout Total	0	1	101	2	0	6	126	6	0	4	4	9	0	4	7	1
Approach Percent Impact (vs. Existing)	0.00%				3.03%				12.50%				0.00%			
Overall Percent Impact (vs. Buildout)	2.2%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	10/2/2024
Ct. Peaks	7:45 - 8:45 AM; 5:00 - 6:00 PM
E/W Street:	Horton Ridge Boulevard
N/S Street:	Bordwell Grant Drive

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF = 0.94

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Bordwell Grant Drive Northbound				Bordwell Grant Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	0	132	1	0	5	57	6	0	0	0	21	0	16	2	0
Growth to Existing Year	0	0	4	0	0	0	2	0	0	0	0	1	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	136	1	0	5	59	6	0	0	0	22	0	16	2	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	8	0	0	0	4	0	0	0	0	1	0	1	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027 Background Traffic	0	0	144	1	0	5	63	6	0	0	0	23	0	17	2	0
Existing Turner Pines Drive Diversion	0	0	-6	0	0	0	-4	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	3	0	0	1	1	0	0	0	0	3	0	0	0	0
Total Project Traffic	0	0	3	1	0	1	1	0	0	0	0	3	0	0	0	0
2027 Buildout Total	0	0	141	2	0	6	60	6	0	0	0	26	0	17	2	0
Approach Percent Impact (vs. Existing)	2.92%				2.86%				13.64%				0.00%			
Overall Percent Impact (vs. Buildout)	3.5%															

PM PEAK HOUR
PHF = 0.91

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Bordwell Grant Drive Northbound				Bordwell Grant Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	1	116	0	0	16	127	20	0	0	0	14	0	13	0	1
Growth to Existing Year	0	0	3	0	0	0	4	1	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	1	119	0	0	16	131	21	0	0	0	14	0	13	0	1
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	7	0	0	1	8	1	0	0	0	1	0	1	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027 Background Traffic	0	1	126	0	0	17	139	22	0	0	0	15	0	14	0	1
Existing Turner Pines Drive Diversion	0	0	-8	0	0	0	-5	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	2	0	0	3	3	0	0	0	0	2	0	0	0	0
Total Project Traffic	0	0	2	0	0	3	3	0	0	0	0	2	0	0	0	0
2027 Buildout Total	0	1	120	0	0	20	137	22	0	0	0	17	0	14	0	1
Approach Percent Impact (vs. Existing)	1.67%				3.57%				14.29%				0.00%			
Overall Percent Impact (vs. Buildout)	3.0%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	5/21/2024
Ct. Peaks	7:15 - 8:15 AM; 4:30 - 5:30 PM
E/W Street:	Old US 1 Highway
N/S Street:	Jordan Pointe Boulevard

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR

PHF = 0.95

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				Jordan Pointe Boulevard Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	2	211	0	0	0	66	26	0	0	0	0	0	65	0	5
Growth to Existing Year	0	0	6	0	0	0	2	1	0	0	0	0	0	2	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	2	217	0	0	0	68	27	0	0	0	0	0	67	0	5
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	13	0	0	0	4	2	0	0	0	0	0	4	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	95	0	0	0	32	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	96	0	0	0	35	0	0	0	0	0	0	0	0	0
2027 Background Traffic	0	2	326	0	0	0	107	29	0	0	0	0	0	71	0	5
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0
2027 Buildout Total	0	2	328	0	0	0	113	29	0	0	0	0	0	71	0	5
Approach Percent Impact (vs. Existing)	0.91%				6.32%				-				0.00%			
Overall Percent Impact (vs. Buildout)	1.5%															

PM PEAK HOUR

PHF = 0.94

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				Jordan Pointe Boulevard Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	2	127	0	0	0	256	61	0	0	0	0	0	63	0	2
Growth to Existing Year	0	0	4	0	0	0	8	2	0	0	0	0	0	2	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	2	131	0	0	0	264	63	0	0	0	0	0	65	0	2
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	8	0	0	0	16	4	0	0	0	0	0	4	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	59	0	0	0	100	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	63	0	0	0	102	0	0	0	0	0	0	0	0	0
2027 Background Traffic	0	2	202	0	0	0	382	67	0	0	0	0	0	69	0	2
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0
2027 Buildout Total	0	2	209	0	0	0	386	67	0	0	0	0	0	69	0	2
Approach Percent Impact (vs. Existing)	5.26%				1.22%				-				0.00%			
Overall Percent Impact (vs. Buildout)	1.5%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	Old US 1 Highway
N/S Street:	Utley Farms West Driveway

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				Utley Farms West Driveway Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	203	0	0	0	127	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	215	0	0	0	135	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	13	0	0	0	8	0	0	0	0	0	0	0	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	95	0	0	0	32	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	1	0	0	0	0	0	12	0	0	0	0	0	34	0	3
Total Committed Traffic	0	1	95	0	0	0	32	12	0	0	0	0	0	34	0	3
2027 Background Traffic	0	1	323	0	0	0	175	12	0	0	0	0	0	34	0	3
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	4	0	0	0	0	0	6	0	0
Project Traffic																
Percent Assignment Inbound	0%	5%	5%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(5%)
Residential Project Traffic	0	1	1	0	0	0	3	1	0	0	0	0	0	3	0	3
Total Project Traffic	0	1	1	0	0	0	3	1	0	0	0	0	0	3	0	3
2027 Buildout Total	0	2	324	0	0	0	178	17	0	0	0	0	0	43	0	6
Approach Percent Impact (vs. Existing)			0.93%				2.96%				-				-	
Overall Percent Impact (vs. Buildout)	2.1%															

PM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				Utley Farms West Driveway Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	141	0	0	0	275	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	9	0	0	0	17	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	150	0	0	0	292	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	9	0	0	0	18	0	0	0	0	0	0	0	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	59	0	0	0	100	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	4	0	0	0	0	0	39	0	0	0	0	0	23	0	2
Total Committed Traffic	0	4	59	0	0	0	100	39	0	0	0	0	0	23	0	2
2027 Background Traffic	0	4	218	0	0	0	410	39	0	0	0	0	0	23	0	2
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	5	0	0	0	0	0	8	0	0
Project Traffic																
Percent Assignment Inbound	0%	5%	5%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(5%)
Residential Project Traffic	0	3	3	0	0	0	2	3	0	0	0	0	0	2	0	2
Total Project Traffic	0	3	3	0	0	0	2	3	0	0	0	0	0	2	0	2
2027 Buildout Total	0	7	221	0	0	0	412	47	0	0	0	0	0	33	0	4
Approach Percent Impact (vs. Existing)			4.00%				1.71%				-				-	
Overall Percent Impact (vs. Buildout)	2.1%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Phase 1
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	Old US 1 Highway
N/S Street:	Utley Farms East Driveway

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	20	61	69	40
Non-Residential New Passenger Car Trips:	0	0	0	0
Pass-By Trips:	0	0	0	0

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.061	**Buildout Year:**	2027

AM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				Utley Farms East Driveway Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	203	0	0	0	127	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	215	0	0	0	135	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	13	0	0	0	8	0	0	0	0	0	0	0	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	95	0	0	0	32	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	34	0	0	0	12	13	0	0	0	0	0	38	0	0
Total Committed Traffic	0	0	129	0	0	0	44	13	0	0	0	0	0	38	0	0
2027 Background Traffic	0	0	357	0	0	0	187	13	0	0	0	0	0	38	0	0
Existing Turner Pines Drive Diversion	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	5%	0%	0%	0%	0%	5%	65%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(65%)	(0%)	(5%)
Residential Project Traffic	0	1	3	0	0	0	1	13	0	0	0	0	0	40	0	3
Total Project Traffic	0	1	3	0	0	0	1	13	0	0	0	0	0	40	0	3
2027 Buildout Total	0	1	366	0	0	0	192	26	0	0	0	0	0	78	0	3
Approach Percent Impact (vs. Existing)			1.86%				10.37%				-				-	
Overall Percent Impact (vs. Buildout)	9.2%															

PM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				Utley Farms East Driveway Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	141	0	0	0	275	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	9	0	0	0	17	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	150	0	0	0	292	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061	0.061
2027 Background Growth	0	0	9	0	0	0	18	0	0	0	0	0	0	0	0	0
Committed Projects																
Gracewood Residential (40% of Units)	0	0	59	0	0	0	100	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	23	0	0	0	39	43	0	0	0	0	0	25	0	0
Total Committed Traffic	0	0	82	0	0	0	139	43	0	0	0	0	0	25	0	0
2027 Background Traffic	0	0	241	0	0	0	449	43	0	0	0	0	0	25	0	0
Existing Turner Pines Drive Diversion	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	0
Project Traffic																
Percent Assignment Inbound	0%	5%	0%	0%	0%	0%	5%	65%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(65%)	(0%)	(5%)
Residential Project Traffic	0	3	2	0	0	0	3	45	0	0	0	0	0	26	0	2
Total Project Traffic	0	3	2	0	0	0	3	45	0	0	0	0	0	26	0	2
2027 Buildout Total	0	3	251	0	0	0	457	88	0	0	0	0	0	51	0	2
Approach Percent Impact (vs. Existing)			3.33%				16.44%				-				-	
Overall Percent Impact (vs. Buildout)	9.5%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	5/21/2024
Ct. Peaks	8:00 - 9:00 AM; 4:15 - 5:15 PM
E/W Street:	Horton Ridge Boulevard
N/S Street:	New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR

PHF = 0.95

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				New Hill Olive Chapel Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	93	0	69	0	55	0	55	0	40	359	30	0	11	199	47
Growth to Existing Year	0	3	0	2	0	2	0	2	0	1	11	1	0	0	6	1
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	96	0	71	0	57	0	57	0	41	370	31	0	11	205	48
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	9	0	7	0	5	0	5	0	4	34	3	0	1	19	4
Committed Projects																
Apex C-Store	0	0	0	8	0	4	0	0	0	8	7	4	0	0	7	0
Friendship Masterplan (Phase 2)	0	0	0	6	0	7	0	0	0	7	18	9	0	0	14	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	48	0	0	0	16	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	8	0	0	0	25	0
Project Titan	0	0	0	3	0	3	0	0	0	1	5	2	0	0	7	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	8	0	0	0	3	0
Retreat at Friendship	0	0	0	0	0	11	0	12	0	0	4	3	0	4	12	0
Apex Recreational Community Center	0	0	0	7	0	4	0	0	0	4	4	2	0	0	6	0
Total Committed Traffic	0	0	0	24	0	29	0	12	0	20	102	20	0	4	90	0
2028 Background Traffic	0	105	0	102	0	91	0	74	0	65	506	54	0	16	314	52
Existing Turner Pines Drive Diversion	0	0	0	-6	0	0	0	0	0	-4	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	6	0	0	0	0	0	0	0	0	6	0	0	0	2	2
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(10%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	0	0	0	21	0	0	0	0	13	13	0	0	21	0
Total Project Traffic	0	6	0	0	0	21	0	0	0	0	19	13	0	0	23	2
2028 Buildout Total	0	111	0	96	0	112	0	74	0	61	525	67	0	16	337	54
Approach Percent Impact (vs. Existing)		3.59%				18.42%				7.24%				9.47%		
Overall Percent Impact (vs. Buildout)	5.8%															

PM PEAK HOUR

PHF = 0.85

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				New Hill Olive Chapel Road Northbound				New Hill Olive Chapel Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	61	2	50	0	31	5	31	0	60	207	54	0	45	340	91
Growth to Existing Year	0	2	0	2	0	1	0	1	0	2	6	2	0	1	10	3
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	63	2	52	0	32	5	32	0	62	213	56	0	46	350	94
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	6	0	5	0	3	0	3	0	6	20	5	0	4	32	9
Committed Projects																
Apex C-Store	0	0	0	4	0	2	0	0	0	4	4	2	0	0	4	0
Friendship Masterplan (Phase 2)	0	0	0	9	0	11	0	0	0	7	18	9	0	0	23	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	30	0	0	0	51	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	27	0	0	0	15	0
Project Titan	0	0	0	2	0	3	0	0	0	3	6	3	0	0	7	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
Retreat at Friendship	0	0	0	0	0	7	0	7	0	0	12	12	0	12	7	0
Apex Recreational Community Center	0	0	0	5	0	4	0	0	0	7	7	4	0	0	6	0
Total Committed Traffic	0	0	0	20	0	27	0	7	0	21	109	30	0	12	122	0
2028 Background Traffic	0	69	2	77	0	62	5	42	0	89	342	91	0	62	504	103
Existing Turner Pines Drive Diversion	0	0	0	-8	0	0	0	0	0	-5	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	3	0	0	0	0	0	0	0	0	3	0	0	0	4	4
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(10%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	0	0	0	23	0	0	0	0	25	25	0	0	23	0
Total External Site Traffic	0	3	0	0	0	23	0	0	0	0	28	25	0	0	27	4
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	3	0	0	0	23	0	0	0	0	28	25	0	0	27	4
2028 Buildout Total	0	72	2	69	0	85	5	42	0	84	370	116	0	62	531	107
Approach Percent Impact (vs. Existing)		2.56%				33.33%				16.01%				6.33%		
Overall Percent Impact (vs. Buildout)	7.1%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	5/21/2024
Ct. Peaks	8:00 - 9:00 AM; 4:00 - 5:00 PM
E/W Street:	Belterra Point Drive/Lex Lane
N/S Street:	New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF = 0.95

Description	Belterra Point Drive Eastbound U-Turn	Left	Through	Right	Lex Lane Westbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2024 Traffic Count	0	7	2	26	0	41	1	8	0	12	414	10	0	3	312	5
Growth to Existing Year	0	0	0	1	0	1	0	0	0	0	12	0	0	0	9	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	7	2	27	0	42	1	8	0	12	426	10	0	3	321	5
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	1	0	3	0	4	0	1	0	1	40	1	0	0	30	0
Committed Projects																
Apex C-Store	0	0	0	0	0	0	0	0	0	0	19	0	0	0	19	0
Friendship Masterplan (Phase 2)	0	0	0	2	0	2	0	0	0	2	34	2	0	0	27	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	48	0	0	0	16	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	8	0	0	0	25	0
Project Titan	0	0	0	1	0	1	0	0	0	1	8	1	0	0	13	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	8	0	0	0	3	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	7	0	0	0	23	0
Apex Recreational Community Center	0	0	0	2	0	2	0	0	0	1	10	1	0	0	17	0
Total Committed Traffic	0	0	0	5	0	5	0	0	0	4	142	4	0	0	143	0
2028 Background Traffic	0	8	2	35	0	51	1	9	0	17	608	15	0	3	494	5
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	-6	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	5%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(5%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	0	0	0	10	0	0	0	0	25	6	0	0	41	0
Total Project Traffic	0	6	0	0	0	10	0	0	0	0	25	6	0	0	42	2
2028 Buildout Total	0	14	2	35	0	61	1	9	0	17	629	21	0	3	530	7
Approach Percent Impact (vs. Existing)		16.67%				19.61%				6.92%				13.37%		
Overall Percent Impact (vs. Buildout)	6.8%															

PM PEAK HOUR
PHF = 0.85

Description	Belterra Point Drive Eastbound U-Turn	Left	Through	Right	Lex Lane Westbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2024 Traffic Count	0	6	0	9	0	15	1	4	0	18	323	37	0	4	410	10
Growth to Existing Year	0	0	0	0	0	0	0	0	0	1	10	1	0	0	12	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	6	0	9	0	15	1	4	0	19	333	38	0	4	422	10
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	1	0	1	0	1	0	0	0	2	31	4	0	0	39	1
Committed Projects																
Apex C-Store	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0
Friendship Masterplan (Phase 2)	0	0	0	3	0	3	0	0	0	2	34	2	0	0	43	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	30	0	0	0	51	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	27	0	0	0	15	0
Project Titan	0	0	0	1	0	1	0	0	0	1	12	1	0	0	12	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	24	0	0	0	14	0
Apex Recreational Community Center	0	0	0	2	0	2	0	0	0	2	18	2	0	0	15	0
Total Committed Traffic	0	0	0	6	0	6	0	0	0	5	160	5	0	0	169	0
2028 Background Traffic	0	7	0	16	0	22	1	4	0	26	524	47	0	4	630	11
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	-8	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	5%
Percent Assignment Outbound	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(5%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	0	0	0	12	0	0	0	0	49	12	0	0	47	0
Total External Site Traffic	0	3	0	0	0	12	0	0	0	0	49	12	0	0	49	2
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	3	0	0	0	12	0	0	0	0	49	12	0	0	49	2
2028 Buildout Total	0	10	0	16	0	34	1	4	0	26	568	59	0	4	671	13
Approach Percent Impact (vs. Existing)		20.00%				60.00%				15.64%				11.70%		
Overall Percent Impact (vs. Buildout)	9.0%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	7:45 - 8:45 AM; 5:00 - 6:00 PM
E/W Street:	Old US 1 Highway
N/S Street:	New Hill Holleman Road/New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF = 0.94

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	New Hill Holleman Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	22	135	46	0	41	59	46	0	53	348	111	0	78	236	15
Growth to Existing Year	0	1	8	3	0	2	4	3	0	3	21	7	0	5	14	1
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	23	143	49	0	43	63	49	0	56	369	118	0	83	250	16
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	2	13	5	0	4	6	5	0	5	34	11	0	8	23	1
Committed Projects																
Apex C-Store	0	0	-15	-5	0	0	15	-2	0	41	-23	0	0	28	23	0
Friendship Masterplan (Phase 2)	0	0	0	5	0	0	0	0	0	7	38	0	0	0	31	0
Gracewood Residential	0	48	73	116	0	0	24	0	0	39	0	0	0	0	0	16
Olive Ridge Residential (60% Built-Out)	0	1	0	0	0	0	0	1	0	0	6	0	0	4	19	2
Project Titan	0	0	0	3	0	0	0	0	0	2	10	0	0	0	15	0
Utley Farms PUD	0	8	26	38	0	0	9	0	0	13	0	0	0	0	0	3
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	7	0	0	0	23	0
Apex Recreational Community Center	0	0	0	4	0	16	0	0	0	2	12	9	0	0	21	0
Total Committed Traffic	0	57	84	161	0	16	48	-1	0	104	50	9	0	32	132	21
2028 Background Traffic	0	82	240	215	0	63	117	53	0	165	453	138	0	123	405	38
Existing Turner Pines Drive Diversion	0	0	2	4	0	0	1	-1	0	3	-3	0	0	-2	-4	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	25%	0%	0%	45%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(20%)	(40%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(5%)	(0%)
Residential Project Traffic	0	0	11	23	0	0	5	0	0	9	0	0	0	3	3	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	10%	5%	0%	10%	15%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(25%)	(0%)
Non-Residential Project Traffic	0	0	6	0	0	0	21	10	0	21	31	0	0	13	32	0
Total Project Traffic	0	0	17	23	0	0	26	10	0	30	31	0	0	16	35	0
2028 Buildout Total	0	82	259	242	0	63	144	62	0	198	481	138	0	137	436	38
Approach Percent Impact (vs. Existing)		18.60%				23.23%				11.23%				14.61%		
Overall Percent Impact (vs. Buildout)	8.2%															

PM PEAK HOUR
PHF = 0.99

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	New Hill Holleman Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	11	86	44	0	74	174	100	0	44	232	66	0	60	314	57
Growth to Existing Year	0	1	5	3	0	5	11	6	0	3	14	4	0	4	19	3
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	12	91	47	0	79	185	106	0	47	246	70	0	64	333	60
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	1	8	4	0	7	17	10	0	4	23	6	0	6	31	6
Committed Projects																
Apex C-Store	0	0	-16	-5	0	0	10	-3	0	33	-23	0	0	23	15	0
Friendship Masterplan (Phase 2)	0	0	0	9	0	0	0	0	0	7	38	0	0	0	49	0
Gracewood Residential	0	30	45	72	0	0	77	0	0	122	0	0	0	0	0	51
Olive Ridge Residential (60% Built-Out)	0	2	0	0	0	0	0	4	0	0	21	0	0	2	12	1
Project Titan	0	0	0	3	0	0	0	0	0	2	14	0	0	0	14	0
Utley Farms PUD	0	5	18	25	0	0	30	0	0	43	0	0	0	0	0	9
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	24	0	0	0	14	0
Apex Recreational Community Center	0	0	0	4	0	15	0	0	0	4	22	17	0	0	19	0
Total Committed Traffic	0	37	47	108	0	15	117	1	0	211	96	17	0	25	123	61
2028 Background Traffic	0	50	146	159	0	101	319	117	0	262	365	93	0	95	487	127
Existing Turner Pines Drive Diversion	0	0	1	7	0	0	2	-2	0	3	-3	0	0	-1	-7	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	25%	0%	0%	45%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(20%)	(40%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(5%)	(0%)
Residential Project Traffic	0	0	5	10	0	0	9	0	0	16	0	0	0	1	1	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	10%	5%	0%	10%	15%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(25%)	(0%)
Non-Residential Project Traffic	0	0	12	0	0	0	23	12	0	23	35	0	0	25	61	0
Total External Site Traffic	0	0	17	10	0	0	32	12	0	39	35	0	0	26	62	0
Pass-By Capture Reduction	0	0	-8	0	0	-8	0	0	0	0	0	-8	0	0	0	-8
Pass-By Capture Assignment	0	0	0	0	0	0	8	0	0	8	0	0	0	16	8	0
Total Pass-By Traffic	0	0	-8	0	0	-8	8	0	0	8	0	-8	0	16	8	-8
Total Project Traffic	0	0	9	10	0	-8	40	12	0	47	35	-8	0	42	70	-8
2028 Buildout Total	0	50	156	176	0	93	361	127	0	312	397	85	0	136	550	119
Approach Percent Impact (vs. Existing)		12.67%				11.89%				20.39%				22.76%		
Overall Percent Impact (vs. Buildout)	9.4%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	7:30 - 8:30 AM; 4:45 - 5:45 PM
E/W Street:	US 1 Southbound On-Ramp/US 1 Southbound Off-Ran
N/S Street:	New Hill Holleman Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR

PHF = 0.93

Description	US 1 Southbound On-Ramp Eastbound U-Turn	Left	Through	Right	US 1 Southbound Off-Ramp Westbound U-Turn	Left	Through	Right	New Hill Holleman Road Northbound U-Turn	Left	Through	Right	New Hill Holleman Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	106	1	111	0	157	387	0	0	0	290	58
Growth to Existing Year	0	0	0	0	0	6	0	7	0	10	24	0	0	0	18	4
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	112	1	118	0	167	411	0	0	0	308	62
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	0	0	0	10	0	11	0	15	38	0	0	0	29	6
Committed Projects																
Apex C-Store	0	0	0	0	0	0	0	7	0	0	11	0	0	0	11	7
Friendship Masterplan (Phase 2)	0	0	0	0	0	43	0	0	0	29	45	0	0	0	36	0
Gracewood Residential	0	0	0	0	0	0	0	28	0	0	11	0	0	0	85	31
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	3	0	0	3	0	0	0	12	7
Project Titan	0	0	0	0	0	16	0	0	0	6	12	0	0	0	18	0
Utley Farms PUD	0	0	0	0	0	0	0	7	0	0	6	0	0	0	25	13
Retreat at Friendship	0	0	0	0	0	0	0	3	0	0	4	0	0	0	15	8
Apex Recreational Community Center	0	0	0	0	0	0	0	8	0	0	33	0	0	0	19	2
Total Committed Traffic	0	0	0	0	0	59	0	56	0	35	125	0	0	0	221	68
2028 Background Traffic	0	0	0	0	0	181	1	185	0	217	574	0	0	0	558	136
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	20%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(35%)	(10%)
Residential Project Traffic	0	0	0	0	0	0	0	5	0	0	4	0	0	0	20	6
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	15%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(10%)
Non-Residential Project Traffic	0	0	0	0	0	0	0	21	0	0	31	0	0	0	19	13
Total Project Traffic	0	0	0	0	0	0	0	26	0	0	35	0	0	0	39	19
2028 Buildout Total	0	0	0	0	0	181	1	211	0	217	609	0	0	0	597	155
Approach Percent Impact (vs. Existing)		-				11.26%				6.06%				15.68%		
Overall Percent Impact (vs. Buildout)	6.0%															

PM PEAK HOUR

PHF = 0.97

Description	US 1 Southbound On-Ramp Eastbound U-Turn	Left	Through	Right	US 1 Southbound Off-Ramp Westbound U-Turn	Left	Through	Right	New Hill Holleman Road Northbound U-Turn	Left	Through	Right	New Hill Holleman Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	418	0	167	0	213	185	0	0	0	404	43
Growth to Existing Year	0	0	0	0	0	25	0	10	0	13	11	0	0	0	25	3
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	443	0	177	0	226	196	0	0	0	429	46
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	0	0	0	41	0	16	0	21	18	0	0	0	40	4
Committed Projects																
Apex C-Store	0	0	0	0	0	0	0	4	0	0	6	0	0	0	6	4
Friendship Masterplan (Phase 2)	0	0	0	0	0	53	0	0	0	45	45	0	0	0	58	0
Gracewood Residential	0	0	0	0	0	0	0	89	0	0	33	0	0	0	53	20
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	11	0	0	10	0	0	0	8	4
Project Titan	0	0	0	0	0	15	0	0	0	11	16	0	0	0	17	0
Utley Farms PUD	0	0	0	0	0	0	0	22	0	0	21	0	0	0	16	9
Retreat at Friendship	0	0	0	0	0	0	0	12	0	0	12	0	0	0	9	5
Apex Recreational Community Center	0	0	0	0	0	0	0	8	0	0	30	0	0	0	39	4
Total Committed Traffic	0	0	0	0	0	68	0	146	0	56	173	0	0	0	206	46
2028 Background Traffic	0	0	0	0	0	552	0	339	0	303	387	0	0	0	675	96
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	20%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(35%)	(10%)
Residential Project Traffic	0	0	0	0	0	0	0	9	0	0	7	0	0	0	9	3
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	15%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(10%)
Non-Residential Project Traffic	0	0	0	0	0	0	0	23	0	0	35	0	0	0	37	25
Total External Site Traffic	0	0	0	0	0	0	0	32	0	0	42	0	0	0	46	28
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	0	0	0	0	0	32	0	0	42	0	0	0	46	28
2028 Buildout Total	0	0	0	0	0	552	0	371	0	303	429	0	0	0	721	124
Approach Percent Impact (vs. Existing)		-				5.16%				9.95%				15.58%		
Overall Percent Impact (vs. Buildout)	5.9%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	7:15 - 8:15 AM; 4:45 - 5:45 PM
E/W Street:	US 1 Northbound Off-Ramp/US 1 Northbound On-Ra
N/S Street:	New Hill Holleman Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF = 0.94

Description	US 1 Northbound Off-Ramp Eastbound				US 1 Northbound On-Ramp Westbound				New Hill Holleman Road Northbound				New Hill Holleman Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	59	3	155	0	0	0	0	0	0	457	421	0	146	230	0
Growth to Existing Year	0	4	0	9	0	0	0	0	0	0	28	26	0	9	14	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	63	3	164	0	0	0	0	0	0	485	447	0	155	244	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	6	0	15	0	0	0	0	0	0	45	41	0	14	23	0
Committed Projects																
Apex C-Store	0	7	0	0	0	0	0	0	0	0	4	0	0	7	4	0
Friendship Masterplan (Phase 2)	0	0	0	44	0	0	0	0	0	0	74	50	0	0	79	0
Gracewood Residential	0	11	0	0	0	0	0	0	0	0	0	0	0	85	0	0
Olive Ridge Residential (60% Built-Out)	0	2	0	0	0	0	0	0	0	0	1	0	0	9	3	0
Project Titan	0	0	0	12	0	0	0	0	0	0	18	12	0	0	34	0
Utley Farms PUD	0	5	0	0	0	0	0	0	0	0	1	0	0	19	6	0
Retreat at Friendship	0	3	0	0	0	0	0	0	0	0	1	0	0	12	3	0
Apex Recreational Community Center	0	4	0	0	0	0	0	0	0	0	29	0	0	4	15	0
Total Committed Traffic	0	32	0	56	0	0	0	0	0	0	128	62	0	136	144	0
2028 Background Traffic	0	101	3	235	0	0	0	0	0	0	658	550	0	305	411	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(25%)	(10%)	(0%)
Residential Project Traffic	0	2	0	0	0	0	0	0	0	0	2	0	0	14	6	0
Non-Residential																
Percent Assignment Inbound	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(5%)	(0%)
Non-Residential Project Traffic	0	21	0	0	0	0	0	0	0	0	10	0	0	13	6	0
Total Project Traffic	0	23	0	0	0	0	0	0	0	0	12	0	0	27	12	0
2028 Buildout Total	0	124	3	235	0	0	0	0	0	0	670	550	0	332	423	0
Approach Percent Impact (vs. Existing)		10.00%				-				1.29%				9.77%		
Overall Percent Impact (vs. Buildout)	3.2%															

PM PEAK HOUR
PHF = 0.93

Description	US 1 Northbound Off-Ramp Eastbound				US 1 Northbound On-Ramp Westbound				New Hill Holleman Road Northbound				New Hill Holleman Road Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	38	3	181	0	0	0	0	0	0	358	196	0	106	708	0
Growth to Existing Year	0	2	0	11	0	0	0	0	0	0	22	12	0	6	43	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	40	3	192	0	0	0	0	0	0	380	208	0	112	751	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	4	0	18	0	0	0	0	0	0	35	19	0	10	70	0
Committed Projects																
Apex C-Store	0	4	0	0	0	0	0	0	0	0	2	0	0	4	2	0
Friendship Masterplan (Phase 2)	0	0	0	31	0	0	0	0	0	0	90	44	0	0	111	0
Gracewood Residential	0	33	0	0	0	0	0	0	0	0	0	0	0	53	0	0
Olive Ridge Residential (60% Built-Out)	0	7	0	0	0	0	0	0	0	0	3	0	0	6	2	0
Project Titan	0	0	0	7	0	0	0	0	0	0	27	17	0	0	32	0
Utley Farms PUD	0	15	0	0	0	0	0	0	0	0	6	0	0	13	3	0
Retreat at Friendship	0	8	0	0	0	0	0	0	0	0	4	0	0	7	2	0
Apex Recreational Community Center	0	4	0	0	0	0	0	0	0	0	27	0	0	9	30	0
Total Committed Traffic	0	71	0	38	0	0	0	0	0	0	159	61	0	92	182	0
2028 Background Traffic	0	115	3	248	0	0	0	0	0	0	574	288	0	214	1003	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(25%)	(10%)	(0%)
Residential Project Traffic	0	4	0	0	0	0	0	0	0	0	4	0	0	6	3	0
Non-Residential																
Percent Assignment Inbound	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(5%)	(0%)
Non-Residential Project Traffic	0	23	0	0	0	0	0	0	0	0	12	0	0	25	12	0
Total External Site Traffic	0	27	0	0	0	0	0	0	0	0	16	0	0	31	15	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	27	0	0	0	0	0	0	0	0	16	0	0	31	15	0
2028 Buildout Total	0	142	3	248	0	0	0	0	0	0	590	288	0	245	1018	0
Approach Percent Impact (vs. Existing)		11.49%				-				2.72%				5.33%		
Overall Percent Impact (vs. Buildout)	3.5%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	5/21/2024
Ct. Peaks	7:30 - 8:30 AM; 4:45 - 5:45 PM
E/W Street:	Horton Ridge Boulevard
N/S Street:	Turner Pines Drive

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF = 0.91

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Turner Pines Drive Northbound				Turner Pines Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	0	127	3	0	4	59	5	0	1	1	8	0	6	0	0
Growth to Existing Year	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	131	3	0	4	61	5	0	1	1	8	0	6	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	12	0	0	0	6	0	0	0	0	1	0	1	0	0
Committed Projects																
Apex C-Store	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0
Friendship Masterplan (Phase 2)	0	0	2	0	0	2	3	0	0	0	0	2	0	0	0	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Titan	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	3	0	0	0	2	1	0	0	0	0	0	2	0	0
Total Committed Traffic	0	0	6	0	0	2	6	5	0	0	0	3	0	6	0	0
2028 Background Traffic	0	0	149	3	0	6	73	10	0	1	1	12	0	13	0	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	-2	0	-2	0	0	2	-3	0	-3	3	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	10	10	0	0	6	0	0	6	0	0	0	0	0	0
Total Project Traffic	0	0	10	10	0	1	6	0	0	6	0	4	0	0	0	0
2028 Buildout Total	0	0	159	13	0	5	79	8	0	7	3	13	0	10	3	0
Approach Percent Impact (vs. Existing)	14.93%				10.00%				100.00%				0.00%			
Overall Percent Impact (vs. Buildout)	12.3%															

PM PEAK HOUR
PHF = 0.94

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Turner Pines Drive Northbound				Turner Pines Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	1	92	2	0	5	116	8	0	4	2	10	0	8	3	1
Growth to Existing Year	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	1	95	2	0	5	119	8	0	4	2	10	0	8	3	1
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	9	0	0	0	11	1	0	0	0	1	0	1	0	0
Committed Projects																
Apex C-Store	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0
Friendship Masterplan (Phase 2)	0	0	3	0	0	2	3	0	0	0	0	3	0	0	0	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Titan	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	1	0	0	0	3	2	0	0	0	0	0	2	0	0
Total Committed Traffic	0	0	5	0	0	3	7	4	0	0	0	3	0	4	0	0
2028 Background Traffic	0	1	109	2	0	8	137	13	0	4	2	14	0	13	3	1
Existing Turner Pines Drive Diversion	0	0	0	0	0	-3	0	-2	0	0	2	-4	0	-4	4	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	12	11	0	0	12	0	0	12	0	0	0	0	0	0
Total External Site Traffic	0	0	12	11	0	2	12	0	0	12	0	1	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	12	11	0	2	12	0	0	12	0	1	0	0	0	0
2028 Buildout Total	0	1	121	13	0	7	149	11	0	16	4	11	0	9	7	1
Approach Percent Impact (vs. Existing)	23.47%				10.61%				81.25%				0.00%			
Overall Percent Impact (vs. Buildout)	14.3%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/2/2024
Ct. Peaks	7:45 - 8:45 AM; 5:00 - 6:00 PM
E/W Street:	Horton Ridge Boulevard
N/S Street:	Bordwell Grant Drive

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR

PHF = 0.94

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Bordwell Grant Drive Northbound				Bordwell Grant Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	0	132	1	0	5	57	6	0	0	0	21	0	16	2	0
Growth to Existing Year	0	0	4	0	0	0	2	0	0	0	0	1	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	136	1	0	5	59	6	0	0	0	22	0	16	2	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	13	0	0	0	5	1	0	0	0	2	0	1	0	0
Committed Projects																
Apex C-Store	0	0	4	0	0	0	4	4	0	0	0	0	0	4	0	0
Friendship Masterplan (Phase 2)	0	0	4	0	0	0	5	2	0	0	0	0	0	2	0	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Titan	0	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	5	0	0	1	3	0	0	0	0	2	0	0	0	0
Total Committed Traffic	0	0	15	0	0	1	13	6	0	0	0	2	0	7	0	0
2028 Background Traffic	0	0	164	1	0	6	77	13	0	0	0	26	0	24	2	0
Existing Turner Pines Drive Diversion	0	0	-6	0	0	0	-4	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	3	0	0	1	1	0	0	0	0	3	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	0	11	0	0	0	0	0	6	0	0	0	0	0	0
Total Project Traffic	0	0	3	11	0	1	1	0	0	6	0	3	0	0	0	0
2028 Buildout Total	0	0	161	12	0	7	74	13	0	6	0	29	0	24	2	0
Approach Percent Impact (vs. Existing)	10.22%				2.86%				40.91%				0.00%			
Overall Percent Impact (vs. Buildout)	7.6%															

PM PEAK HOUR

PHF = 0.91

Description	Horton Ridge Boulevard Eastbound				Horton Ridge Boulevard Westbound				Bordwell Grant Drive Northbound				Bordwell Grant Drive Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2024 Traffic Count	0	1	116	0	0	16	127	20	0	0	0	14	0	13	0	1
Growth to Existing Year	0	0	3	0	0	0	4	1	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	1	119	0	0	16	131	21	0	0	0	14	0	13	0	1
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	11	0	0	1	12	2	0	0	0	1	0	1	0	0
Committed Projects																
Apex C-Store	0	0	2	0	0	0	2	2	0	0	0	0	0	2	0	0
Friendship Masterplan (Phase 2)	0	0	6	0	0	0	5	2	0	0	0	0	0	3	0	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Titan	0	0	1	0	0	0	2	1	0	0	0	0	0	1	0	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	3	0	0	2	5	0	0	0	0	2	0	0	0	0
Total Committed Traffic	0	0	12	0	0	2	14	5	0	0	0	2	0	6	0	0
2028 Background Traffic	0	1	142	0	0	19	157	28	0	0	0	17	0	20	0	1
Existing Turner Pines Drive Diversion	0	0	-8	0	0	0	-5	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	1	0	0	2	2	0	0	0	0	1	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	0	12	0	0	0	0	0	12	0	0	0	0	0	0
Total External Site Traffic	0	0	1	12	0	2	2	0	0	12	0	1	0	0	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	1	12	0	2	2	0	0	12	0	1	0	0	0	0
2028 Buildout Total	0	1	135	12	0	21	154	28	0	12	0	18	0	20	0	1
Approach Percent Impact (vs. Existing)	10.83%				2.38%				92.86%				0.00%			
Overall Percent Impact (vs. Buildout)	7.5%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	5/21/2024
Ct. Peaks	7:15 - 8:15 AM; 4:30 - 5:30 PM
E/W Street:	Old US 1 Highway
N/S Street:	Jordan Pointe Boulevard

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR

PHF = 0.95

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	Jordan Pointe Boulevard Southbound U-Turn	Left	Through	Right
2024 Traffic Count	0	2	211	0	0	0	66	26	0	0	0	0	0	65	0	5
Growth to Existing Year	0	0	6	0	0	0	2	1	0	0	0	0	0	2	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	2	217	0	0	0	68	27	0	0	0	0	0	67	0	5
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	20	0	0	0	6	3	0	0	0	0	0	6	0	0
Committed Projects																
Apex C-Store	0	0	4	0	0	0	4	9	0	0	0	0	0	9	0	0
Friendship Masterplan (Phase 2)	0	0	2	0	0	0	2	5	0	0	0	0	0	3	0	0
Gracewood Residential	0	0	237	0	0	0	79	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Project Titan	0	0	1	0	0	0	1	1	0	0	0	0	0	2	0	0
Utley Farms PUD	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	250	0	0	0	93	15	0	0	0	0	0	14	0	0
2028 Background Traffic	0	2	487	0	0	0	167	45	0	0	0	0	0	87	0	5
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	21	0	0	0	13	6	0	0	0	0	0	10	0	0
Total Project Traffic	0	0	23	0	0	0	19	6	0	0	0	0	0	10	0	0
2028 Buildout Total	0	2	510	0	0	0	186	51	0	0	0	0	0	97	0	5
Approach Percent Impact (vs. Existing)		10.50%				26.32%				-				13.89%		
Overall Percent Impact (vs. Buildout)	6.8%															

PM PEAK HOUR

PHF = 0.94

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	Jordan Pointe Boulevard Southbound U-Turn	Left	Through	Right
2024 Traffic Count	0	2	127	0	0	0	256	61	0	0	0	0	0	63	0	2
Growth to Existing Year	0	0	4	0	0	0	8	2	0	0	0	0	0	2	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	2	131	0	0	0	264	63	0	0	0	0	0	65	0	2
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	12	0	0	0	24	6	0	0	0	0	0	6	0	0
Committed Projects																
Apex C-Store	0	0	2	0	0	0	2	5	0	0	0	0	0	5	0	0
Friendship Masterplan (Phase 2)	0	0	3	0	0	0	2	5	0	0	0	0	0	6	0	0
Gracewood Residential	0	0	147	0	0	0	250	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Project Titan	0	0	1	0	0	0	1	1	0	0	0	0	0	2	0	0
Utley Farms PUD	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	163	0	0	0	262	11	0	0	0	0	0	13	0	0
2028 Background Traffic	0	2	306	0	0	0	550	80	0	0	0	0	0	84	0	2
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	23	0	0	0	25	12	0	0	0	0	0	12	0	0
Total External Site Traffic	0	0	27	0	0	0	28	12	0	0	0	0	0	12	0	0
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	0	27	0	0	0	28	12	0	0	0	0	0	12	0	0
2028 Buildout Total	0	2	333	0	0	0	578	92	0	0	0	0	0	96	0	2
Approach Percent Impact (vs. Existing)		20.30%				12.23%				-				17.91%		
Overall Percent Impact (vs. Buildout)	7.2%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	Old US 1 Highway
N/S Street:	Utley Farms West Driveway

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	Utley Farms West Driveway Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	203	0	0	0	127	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	215	0	0	0	135	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	20	0	0	0	13	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	0	13	0	0	0	7	0	0	0	0	0	0	0	0	0
Friendship Masterplan (Phase 2)	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	237	0	0	0	79	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	1	0	0	0	0	0	12	0	0	0	0	0	34	0	3
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	1	263	0	0	0	99	12	0	0	0	0	0	34	0	3
2028 Background Traffic	0	1	498	0	0	0	247	12	0	0	0	0	0	34	0	3
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	4	0	0	0	0	0	6	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)
Residential Project Traffic	0	1	1	0	0	0	3	0	0	0	0	0	0	0	0	3
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	31	0	0	0	19	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	1	32	0	0	0	22	0	0	0	0	0	0	0	0	3
2028 Buildout Total	0	2	530	0	0	0	269	16	0	0	0	0	0	40	0	6
Approach Percent Impact (vs. Existing)			15.35%				16.30%			-				-		
Overall Percent Impact (vs. Buildout)	6.7%															

PM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	Utley Farms West Driveway Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	141	0	0	0	275	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	9	0	0	0	17	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	150	0	0	0	292	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	14	0	0	0	27	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0
Friendship Masterplan (Phase 2)	0	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	147	0	0	0	250	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	4	0	0	0	0	0	39	0	0	0	0	0	23	0	2
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	4	172	0	0	0	271	39	0	0	0	0	0	23	0	2
2028 Background Traffic	0	4	336	0	0	0	590	39	0	0	0	0	0	23	0	2
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	5	0	0	0	0	0	8	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)
Residential Project Traffic	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	1
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	35	0	0	0	37	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	1	37	0	0	0	38	0	0	0	0	0	0	0	0	1
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	1	37	0	0	0	38	0	0	0	0	0	0	0	0	1
2028 Buildout Total	0	5	373	0	0	0	628	44	0	0	0	0	0	31	0	3
Approach Percent Impact (vs. Existing)			25.33%				13.01%			-				-		
Overall Percent Impact (vs. Buildout)	7.1%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	Old US 1 Highway
N/S Street:	Utley Farms East Driveway

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	Utley Farms East Driveway Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	203	0	0	0	127	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	215	0	0	0	135	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	20	0	0	0	13	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	0	13	0	0	0	7	0	0	0	0	0	0	0	0	0
Friendship Masterplan (Phase 2)	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	237	0	0	0	79	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	34	0	0	0	12	13	0	0	0	0	0	38	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	297	0	0	0	111	13	0	0	0	0	0	38	0	0
2028 Background Traffic	0	0	532	0	0	0	259	13	0	0	0	0	0	38	0	0
Existing Turner Pines Drive Diversion	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)
Residential Project Traffic	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	31	0	0	0	19	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	1	31	0	0	0	19	0	0	0	0	0	0	0	0	3
2028 Buildout Total	0	1	569	0	0	0	282	13	0	0	0	0	0	38	0	3
Approach Percent Impact (vs. Existing)			14.88%				14.07%				-				-	
Overall Percent Impact (vs. Buildout)	6.0%															

PM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	Utley Farms East Driveway Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	141	0	0	0	275	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	9	0	0	0	17	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	150	0	0	0	292	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	14	0	0	0	27	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0
Friendship Masterplan (Phase 2)	0	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	147	0	0	0	250	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	23	0	0	0	39	43	0	0	0	0	0	25	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	195	0	0	0	310	43	0	0	0	0	0	25	0	0
2028 Background Traffic	0	0	359	0	0	0	629	43	0	0	0	0	0	25	0	0
Existing Turner Pines Drive Diversion	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)
Residential Project Traffic	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Non-Residential																
Percent Assignment Inbound	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(15%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	0	35	0	0	0	37	0	0	0	0	0	0	0	0	0
Total External Site Traffic	0	2	35	0	0	0	37	0	0	0	0	0	0	0	0	1
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass-By Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Traffic	0	2	35	0	0	0	37	0	0	0	0	0	0	0	0	1
2028 Buildout Total	0	2	402	0	0	0	671	43	0	0	0	0	0	25	0	1
Approach Percent Impact (vs. Existing)			24.67%				12.67%				-				-	
Overall Percent Impact (vs. Buildout)	6.6%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	Old US 1 Highway
N/S Street:	West Site Driveway

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate: 3.0% **Existing Year:** 2025
Growth Factor: 0.093 **Buildout Year:** 2028

AM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				West Site Driveway Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	203	0	0	0	127	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	215	0	0	0	135	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	20	0	0	0	13	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	33	-20	0	0	0	13	0	0	0	0	0	0	0	0	0
Friendship Masterplan (Phase 2)	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	237	0	0	0	79	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	72	0	0	0	25	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	33	302	0	0	0	130	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	33	537	0	0	0	278	0	0	0	0	0	0	0	0	0
Existing Turner Pines Drive Diversion	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(60%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	0	0	11	0	0	0	0	0	34	0	0
Non-Residential																
Percent Assignment Inbound	0%	15%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(5%)
Non-Residential Project Traffic	0	31	0	0	0	0	13	10	0	0	0	0	0	6	0	6
Total Project Traffic	0	31	0	0	0	0	13	21	0	0	0	0	0	40	0	6
2028 Buildout Total	0	64	543	0	0	0	295	21	0	0	0	0	0	40	0	6
Approach Percent Impact (vs. Existing)			14.42%				25.19%			-				-		
Overall Percent Impact (vs. Buildout)	11.5%															

PM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound				Old US 1 Highway Westbound				Northbound				West Site Driveway Southbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
2023 Traffic Count	0	0	141	0	0	0	275	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	9	0	0	0	17	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	150	0	0	0	292	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	14	0	0	0	27	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	28	-21	0	0	0	7	0	0	0	0	0	0	0	0	0
Friendship Masterplan (Phase 2)	0	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	147	0	0	0	250	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	48	0	0	0	82	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	28	192	0	0	0	353	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	28	356	0	0	0	672	0	0	0	0	0	0	0	0	0
Existing Turner Pines Drive Diversion	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(60%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	0	0	20	0	0	0	0	0	16	0	0
Non-Residential																
Percent Assignment Inbound	0%	15%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(5%)	(0%)	(5%)
Non-Residential Project Traffic	0	35	0	0	0	0	25	12	0	0	0	0	0	12	0	12
Total External Site Traffic	0	35	0	0	0	0	25	32	0	0	0	0	0	28	0	12
Pass-By Capture Reduction	0	0	-7	0	0	0	-8	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	7	0	0	0	0	0	8	0	0	0	0	0	0	0	8
Total Pass-By Traffic	0	7	-7	0	0	0	-8	8	0	0	0	0	0	0	0	8
Total Project Traffic	0	42	-7	0	0	0	17	40	0	0	0	0	0	28	0	20
2028 Buildout Total	0	70	357	0	0	0	694	40	0	0	0	0	0	28	0	20
Approach Percent Impact (vs. Existing)			23.33%				19.52%			-				-		
Overall Percent Impact (vs. Buildout)	11.6%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	Old US 1 Highway
N/S Street:	East Site Driveway

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate: 3.0% **Existing Year:** 2025
Growth Factor: 0.093 **Buildout Year:** 2028

AM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	East Site Driveway Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	203	0	0	0	127	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	215	0	0	0	135	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	20	0	0	0	13	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	0	-20	0	0	0	-24	80	0	0	0	0	0	0	0	37
Friendship Masterplan (Phase 2)	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	237	0	0	0	79	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	72	0	0	0	25	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	302	0	0	0	93	80	0	0	0	0	0	0	0	37
2028 Background Traffic	0	0	537	0	0	0	241	80	0	0	0	0	0	0	0	37
Existing Turner Pines Drive Diversion	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	60%	10%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(60%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	34	0	0	0	11	2	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	5%	15%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)
Non-Residential Project Traffic	0	0	6	0	0	0	10	31	0	0	0	0	0	0	0	13
Total Project Traffic	0	0	40	0	0	0	21	33	0	0	0	0	0	0	0	13
2028 Buildout Total	0	0	583	0	0	0	266	113	0	0	0	0	0	0	0	50
Approach Percent Impact (vs. Existing)			18.60%				40.00%			-				-		
Overall Percent Impact (vs. Buildout)	10.6%															

PM PEAK HOUR
PHF =

Description	Old US 1 Highway Eastbound U-Turn	Left	Through	Right	Old US 1 Highway Westbound U-Turn	Left	Through	Right	Northbound U-Turn	Left	Through	Right	East Site Driveway Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	141	0	0	0	275	0	0	0	0	0	0	0	0	0
Growth to Existing Year	0	0	9	0	0	0	17	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	150	0	0	0	292	0	0	0	0	0	0	0	0	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	14	0	0	0	27	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex C-Store	0	0	-21	0	0	0	-25	68	0	0	0	0	0	0	0	32
Friendship Masterplan (Phase 2)	0	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0
Gracewood Residential	0	0	147	0	0	0	250	0	0	0	0	0	0	0	0	0
Olive Ridge Residential (60% Built-Out)	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Project Titan	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
Utley Farms PUD	0	0	48	0	0	0	82	0	0	0	0	0	0	0	0	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apex Recreational Community Center	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	192	0	0	0	321	68	0	0	0	0	0	0	0	32
2028 Background Traffic	0	0	356	0	0	0	640	68	0	0	0	0	0	0	0	32
Existing Turner Pines Drive Diversion	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	60%	10%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(60%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	15	0	0	0	21	4	0	0	0	0	0	0	0	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	5%	15%	0%	0%	0%	0%	0%	0%	0%	0%
Percent Assignment Outbound	(0%)	(0%)	(5%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)
Non-Residential Project Traffic	0	0	12	0	0	0	12	35	0	0	0	0	0	0	0	25
Total External Site Traffic	0	0	27	0	0	0	33	39	0	0	0	0	0	0	0	25
Pass-By Capture Reduction	0	0	-8	0	0	0	-16	0	0	0	0	0	0	0	0	0
Pass-By Capture Assignment	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	16
Total Pass-By Traffic	0	0	-8	0	0	0	-16	23	0	0	0	0	0	0	0	16
Total Project Traffic	0	0	19	0	0	0	17	62	0	0	0	0	0	0	0	41
2028 Buildout Total	0	0	383	0	0	0	662	130	0	0	0	0	0	0	0	73
Approach Percent Impact (vs. Existing)			12.67%				27.05%			-				-		
Overall Percent Impact (vs. Buildout)	11.1%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	North Site Driveway
N/S Street:	New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF =

Description	North Site Driveway Eastbound U-Turn	Left	Through	Right	Westbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	0	0	0	0	0	416	0	0	0	329	0
Growth to Existing Year	0	0	0	0	0	0	0	0	0	0	25	0	0	0	20	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	0	0	0	0	0	441	0	0	0	349	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	41	0	0	0	32	0
Committed Projects																
Apex C-Store	0	44	0	0	0	0	0	0	0	0	-25	0	0	0	19	0
Friendship Masterplan (Phase 2)	0	0	0	0	0	0	0	0	0	0	38	0	0	0	31	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	48	0	0	0	16	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	8	0	0	0	25	0
Project Titan	0	0	0	0	0	0	0	0	0	0	10	0	0	0	15	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	8	0	0	0	3	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	7	0	0	0	23	0
Apex Recreational Community Center	0	0	0	0	0	0	0	0	0	0	12	0	0	0	21	0
Total Committed Traffic	0	44	0	0	0	0	0	0	0	0	106	0	0	0	153	0
2028 Background Traffic	0	44	0	0	0	0	0	0	0	0	588	0	0	0	534	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	-6	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	15%	10%
Percent Assignment Outbound	(0%)	(25%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	32	0	13	0	0	0	0	0	41	0	0	0	0	31	21
Total Project Traffic	0	32	0	13	0	0	0	0	0	41	0	0	0	0	32	21
2028 Buildout Total	0	76	0	13	0	0	0	0	0	41	584	0	0	0	560	21
Approach Percent Impact (vs. Existing)		-				-				9.30%				15.19%		
Overall Percent Impact (vs. Buildout)	10.7%															

PM PEAK HOUR
PHF =

Description	North Site Driveway Eastbound U-Turn	Left	Through	Right	Westbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	0	0	0	0	0	343	0	0	0	431	0
Growth to Existing Year	0	0	0	0	0	0	0	0	0	0	21	0	0	0	26	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	0	0	0	0	0	364	0	0	0	457	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	34	0	0	0	42	0
Committed Projects																
Apex C-Store	0	36	0	0	0	0	0	0	0	0	-26	0	0	0	10	0
Friendship Masterplan (Phase 2)	0	0	0	0	0	0	0	0	0	0	38	0	0	0	49	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	30	0	0	0	51	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	27	0	0	0	15	0
Project Titan	0	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	24	0	0	0	14	0
Apex Recreational Community Center	0	0	0	0	0	0	0	0	0	0	22	0	0	0	19	0
Total Committed Traffic	0	36	0	0	0	0	0	0	0	0	134	0	0	0	181	0
2028 Background Traffic	0	36	0	0	0	0	0	0	0	0	532	0	0	0	680	0
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	-8	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	15%	10%
Percent Assignment Outbound	(0%)	(25%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Non-Residential Project Traffic	0	61	0	25	0	0	0	0	0	47	0	0	0	0	35	23
Total External Site Traffic	0	61	0	25	0	0	0	0	0	47	0	0	0	0	37	23
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	-47	0	0	0	-23	0
Pass-By Capture Assignment	0	49	0	25	0	0	0	0	0	47	0	0	0	0	0	23
Total Pass-By Traffic	0	49	0	25	0	0	0	0	0	47	-47	0	0	0	-23	23
Total Project Traffic	0	110	0	50	0	0	0	0	0	94	-47	0	0	0	14	46
2028 Buildout Total	0	146	0	50	0	0	0	0	0	94	480	0	0	0	686	46
Approach Percent Impact (vs. Existing)		-				-				12.91%				13.13%		
Overall Percent Impact (vs. Buildout)	17.8%															

INTERSECTION ANALYSIS SHEET

Project:	New Hill Commons PUD
Location:	Apex, North Carolina
Scenario:	Full Build
Ct. Date	10/11/2023
Ct. Peaks	Balanced with Old US 1 - New Hill Holleman
E/W Street:	South Site Driveway
N/S Street:	New Hill Olive Chapel Road

	AM In	AM Out	PM In	PM Out
Residential New Passenger Car Trips:	19	57	35	25
Non-Residential New Passenger Car Trips:	207	127	234	245
Pass-By Trips:	0	0	156	163

Annual Growth Rate:	3.0%	**Existing Year:**	2025
Growth Factor:	0.093	**Buildout Year:**	2028

AM PEAK HOUR
PHF =

Description	South Site Driveway Eastbound U-Turn	Left	Through	Right	Westbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	0	0	0	0	0	416	0	0	0	329	0
Growth to Existing Year	0	0	0	0	0	0	0	0	0	0	25	0	0	0	20	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	0	0	0	0	0	441	0	0	0	349	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	41	0	0	0	32	0
Committed Projects																
Apex C-Store	0	0	0	81	0	0	0	0	0	0	-25	0	0	0	-30	49
Friendship Masterplan (Phase 2)	0	0	0	0	0	0	0	0	0	0	38	0	0	0	31	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	48	0	0	0	16	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	8	0	0	0	25	0
Project Titan	0	0	0	0	0	0	0	0	0	0	10	0	0	0	15	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	8	0	0	0	3	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	7	0	0	0	23	0
Apex Recreational Community Center	0	0	0	0	0	0	0	0	0	0	12	0	0	0	21	0
Total Committed Traffic	0	0	0	81	0	0	0	0	0	0	106	0	0	0	104	49
2028 Background Traffic	0	0	0	81	0	0	0	0	0	0	588	0	0	0	485	49
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	-6	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	1
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	15%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(25%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)
Non-Residential Project Traffic	0	0	0	32	0	0	0	0	0	0	41	0	0	0	13	31
Total Project Traffic	0	0	0	38	0	0	0	0	0	0	41	0	0	0	13	32
2028 Buildout Total	0	0	0	119	0	0	0	0	0	0	625	0	0	0	492	81
Approach Percent Impact (vs. Existing)		-				-				9.30%				12.89%		
Overall Percent Impact (vs. Buildout)	9.4%															

PM PEAK HOUR
PHF =

Description	South Site Driveway Eastbound U-Turn	Left	Through	Right	Westbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Northbound U-Turn	Left	Through	Right	New Hill Olive Chapel Road Southbound U-Turn	Left	Through	Right
2023 Traffic Count	0	0	0	0	0	0	0	0	0	0	343	0	0	0	431	0
Growth to Existing Year	0	0	0	0	0	0	0	0	0	0	21	0	0	0	26	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025 Existing Traffic	0	0	0	0	0	0	0	0	0	0	364	0	0	0	457	0
Growth Factor (0.03 per year)	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093	0.093
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	34	0	0	0	42	0
Committed Projects																
Apex C-Store	0	0	0	69	0	0	0	0	0	0	-26	0	0	0	-31	41
Friendship Masterplan (Phase 2)	0	0	0	0	0	0	0	0	0	0	38	0	0	0	49	0
Gracewood Residential	0	0	0	0	0	0	0	0	0	0	30	0	0	0	51	0
Olive Ridge Residential (60% Built-Out)	0	0	0	0	0	0	0	0	0	0	27	0	0	0	15	0
Project Titan	0	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0
Utley Farms PUD	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
Retreat at Friendship	0	0	0	0	0	0	0	0	0	0	24	0	0	0	14	0
Apex Recreational Community Center	0	0	0	0	0	0	0	0	0	0	22	0	0	0	19	0
Total Committed Traffic	0	0	0	69	0	0	0	0	0	0	134	0	0	0	140	41
2028 Background Traffic	0	0	0	69	0	0	0	0	0	0	532	0	0	0	639	41
Existing Turner Pines Drive Diversion	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	-8	0
Project Traffic																
Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(10%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)
Residential Project Traffic	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2
Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	15%
Percent Assignment Outbound	(0%)	(0%)	(0%)	(25%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(10%)	(0%)
Non-Residential Project Traffic	0	0	0	61	0	0	0	0	0	0	47	0	0	0	25	35
Total External Site Traffic	0	0	0	65	0	0	0	0	0	0	47	0	0	0	25	37
Pass-By Capture Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-47	0
Pass-By Capture Assignment	0	0	0	65	0	0	0	0	0	0	0	0	0	0	0	47
Total Pass-By Traffic	0	0	0	65	0	0	0	0	0	0	0	0	0	0	-47	47
Total Project Traffic	0	0	0	130	0	0	0	0	0	0	47	0	0	0	-22	84
2028 Buildout Total	0	0	0	199	0	0	0	0	0	0	574	0	0	0	609	125
Approach Percent Impact (vs. Existing)		-				-				12.91%				13.57%		
Overall Percent Impact (vs. Buildout)	15.9%															

Synchro Output – Phase 1 Background

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	4	73	58	4	58	42	408	32	12	220	50
Future Volume (vph)	99	4	73	58	4	58	42	408	32	12	220	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1711	0	0	1701	1583	1671	1792	1509	1656	1728	0
Flt Permitted		0.973			0.955		0.950			0.950		
Satd. Flow (perm)	0	1711	0	0	1701	1583	1671	1792	1509	1656	1728	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Confl. Peds. (#/hr)	4					4	2					2
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	7%	2%	2%	8%	6%	7%	9%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	185	0	0	65	61	44	429	34	13	285	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	4	73	58	4	58	42	408	32	12	220	50
Future Vol, veh/h	99	4	73	58	4	58	42	408	32	12	220	50
Conflicting Peds, #/hr	4	0	0	0	0	4	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	7	2	2	8	6	7	9	8	2
Mvmt Flow	104	4	77	61	4	61	44	429	34	13	232	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	858	838	261	842	830	433	287	0	0	463	0	0
Stage 1	287	287	-	517	517	-	-	-	-	-	-	-
Stage 2	571	551	-	325	313	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.17	6.52	6.22	4.18	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.17	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.17	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.563	4.018	3.318	2.272	-	-	2.281	-	-
Pot Cap-1 Maneuver	277	302	778	278	306	623	1241	-	-	1062	-	-
Stage 1	720	674	-	532	534	-	-	-	-	-	-	-
Stage 2	506	515	-	677	657	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	237	287	777	239	291	621	1239	-	-	1062	-	-
Mov Cap-2 Maneuver	237	287	-	239	291	-	-	-	-	-	-	-
Stage 1	693	665	-	513	515	-	-	-	-	-	-	-
Stage 2	435	496	-	599	648	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	28.3	18.6	0.7	0.4
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1239	-	-	335	242	621	1062	-	-
HCM Lane V/C Ratio	0.036	-	-	0.553	0.27	0.098	0.012	-	-
HCM Control Delay (s/veh)	8	-	-	28.3	25.3	11.4	8.4	-	-
HCM Lane LOS	A	-	-	D	D	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	3.2	1.1	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	4	29	45	4	8	13	479	11	4	350	5
Future Volume (vph)	7	4	29	45	4	8	13	479	11	4	350	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1628	0	0	1733	0	1671	1776	1346	1770	1786	0
Flt Permitted		0.992			0.962		0.950			0.950		
Satd. Flow (perm)	0	1628	0	0	1733	0	1671	1776	1346	1770	1786	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1285			752	
Travel Time (s)		34.7			8.6			19.5			11.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	25%	2%	2%	25%	2%	8%	7%	20%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	59	0	14	504	12	4	373	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	4	29	45	4	8	13	479	11	4	350	5
Future Vol, veh/h	7	4	29	45	4	8	13	479	11	4	350	5
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	25	2	2	25	2	8	7	20	2	6	20
Mvmt Flow	7	4	31	47	4	8	14	504	12	4	368	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	924	923	371	928	913	505	373	0	0	516	0	0
Stage 1	379	379	-	532	532	-	-	-	-	-	-	-
Stage 2	545	544	-	396	381	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.75	6.22	7.12	6.75	6.22	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.225	3.318	3.518	4.225	3.318	2.272	-	-	2.218	-	-
Pot Cap-1 Maneuver	250	247	675	248	251	567	1153	-	-	1050	-	-
Stage 1	643	576	-	531	490	-	-	-	-	-	-	-
Stage 2	523	484	-	629	575	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	240	243	675	231	247	566	1153	-	-	1050	-	-
Mov Cap-2 Maneuver	240	243	-	231	247	-	-	-	-	-	-	-
Stage 1	635	574	-	525	484	-	-	-	-	-	-	-
Stage 2	504	478	-	594	573	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.8	23.6	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1153	-	-	452	253	1050	-	-
HCM Lane V/C Ratio	0.012	-	-	0.093	0.237	0.004	-	-
HCM Control Delay (s/veh)	8.2	-	-	13.8	23.6	8.4	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.3	0.9	0	-	-

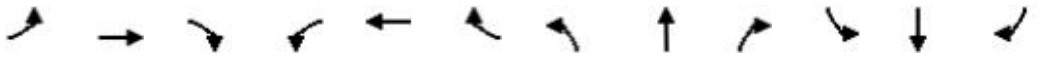
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	207	136	46	86	52	88	391	125	88	265	26
Future Volume (vph)	51	207	136	46	86	52	88	391	125	88	265	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	0	1848	1337	0	1650	0	0	1619	0	0	1765	0
Flt Permitted		0.909			0.846			0.886			0.792	
Satd. Flow (perm)	0	1697	1337	0	1413	0	0	1445	0	0	1413	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145		31			39			11	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		325			1091			1309			300	
Travel Time (s)		6.3			21.3			19.8			4.5	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	22%	10%	7%	11%	28%	9%	11%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	145	0	195	0	0	643	0	0	404	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	40	40	20	40		20	256		20	306	
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Size(ft)	20	40	40	20	40		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8		8	4			6			2		
Detector Phase	8	8	8	4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	13.0	13.0	13.0	12.0	12.0		18.0	18.0		18.0	18.0	
Total Split (s)	19.0	19.0	19.0	19.0	19.0		41.0	41.0		41.0	41.0	
Total Split (%)	31.7%	31.7%	31.7%	31.7%	31.7%		68.3%	68.3%		68.3%	68.3%	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.1	4.1	4.1	3.8	3.8		4.1	4.1		4.7	4.7	
All-Red Time (s)	1.3	1.3	1.3	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		-0.4	-0.4		0.2			-0.1			-0.7	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		11.6	11.6		11.6			24.3			24.3	
Actuated g/C Ratio		0.25	0.25		0.25			0.52			0.52	
v/c Ratio		0.65	0.33		0.52			0.83			0.54	
Control Delay (s/veh)		26.7	6.5		20.6			19.6			10.2	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		26.7	6.5		20.6			19.6			10.2	
LOS		C	A		C			B			B	
Approach Delay (s/veh)		19.7			20.6			19.6			10.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		65	0		37			124			63	
Queue Length 95th (ft)		#180	36		110			256			125	
Internal Link Dist (ft)		245			1011			1229			220	
Turn Bay Length (ft)			175									
Base Capacity (vph)		541	525		472			1138			1107	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.51	0.28		0.41			0.57			0.36	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 46.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 17.5		Intersection LOS: B	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway



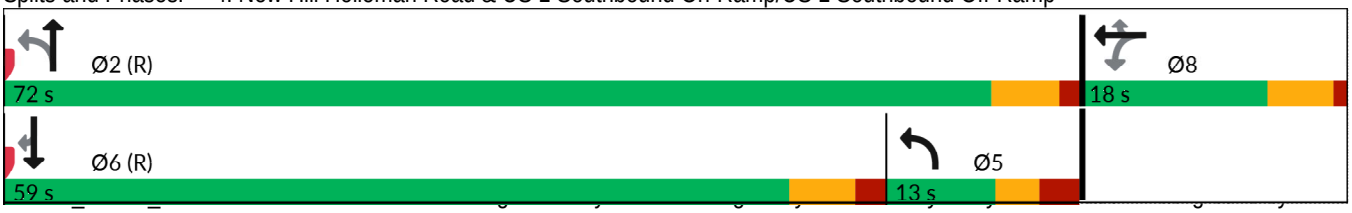


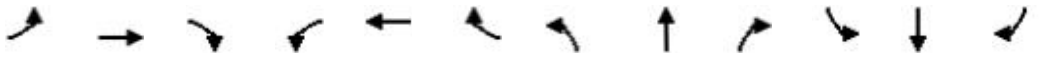
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	119	4	143	177	446	0	0	386	91
Future Volume (vph)	0	0	0	119	4	143	177	446	0	0	386	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	550		75	225		0	0		150
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	0	1494	1415	0	1751	0	0	1785	1424
Flt Permitted					0.954			0.767				
Satd. Flow (perm)	0	0	0	0	1494	1415	0	1362	0	0	1785	1424
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						154						99
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	20%	25%	13%	7%	7%	2%	2%	7%	14%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	132	154	0	670	0	0	415	98
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)				0	0	0	0	0			300	0
Detector 1 Size(ft)				20	40	40	20	40			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	15.0	0.0	15.0			0.0	0.0
Detector 2 Position(ft)								300				
Detector 2 Size(ft)								6				
Detector 2 Type								Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)								0.0				
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0	7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				13.0	13.0	13.0	13.0	18.0			19.0	19.0
Total Split (s)				18.0	18.0	18.0	13.0	72.0			59.0	59.0
Total Split (%)				20.0%	20.0%	20.0%	14.4%	80.0%			65.6%	65.6%
Yellow Time (s)				4.3	4.3	4.3	3.0	4.6			4.5	4.5
All-Red Time (s)				1.0	1.0	1.0	2.6	1.3			1.9	1.9
Lost Time Adjust (s)					-0.3	-0.3		-0.9			-1.4	-1.4
Total Lost Time (s)					5.0	5.0		5.0			5.0	5.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)					11.3	11.3		68.7			68.7	68.7
Actuated g/C Ratio					0.13	0.13		0.76			0.76	0.76
v/c Ratio					0.71	0.49		0.64			0.30	0.09
Control Delay (s/veh)					58.0	12.0		8.0			4.2	0.9
Queue Delay					0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)					58.0	12.0		8.1			4.2	0.9
LOS					E	B		A			A	A
Approach Delay (s/veh)					33.2			8.1			3.6	
Approach LOS					C			A			A	
Queue Length 50th (ft)					72	0		101			63	0
Queue Length 95th (ft)					#142	54		165			98	10
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)						75						150
Base Capacity (vph)					215	336		1039			1362	1110
Starvation Cap Reductn					0	0		14			0	0
Spillback Cap Reductn					0	0		0			0	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.61	0.46		0.65			0.30	0.09

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 11.4		Intersection LOS: B	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp



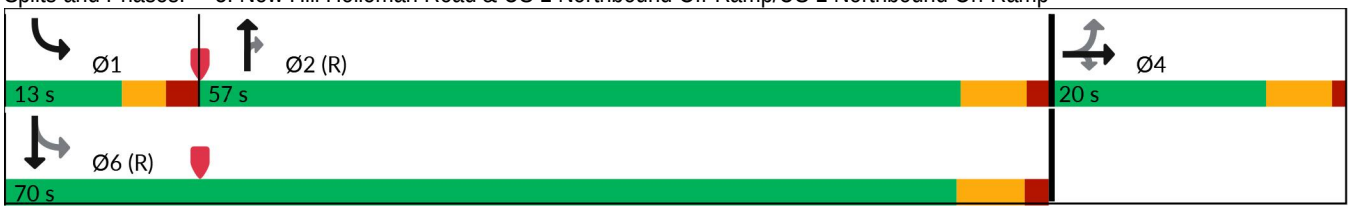


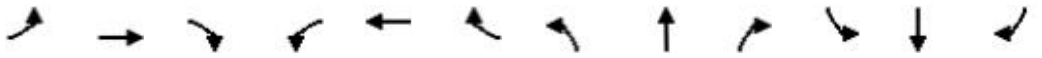
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	4	174	0	0	0	0	516	474	217	265	0
Future Volume (vph)	76	4	174	0	0	0	0	516	474	217	265	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		50	0		0	0		125	200		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1606	1480	0	0	0	0	1783	1545	0	1709	0
Flt Permitted		0.955									0.582	
Satd. Flow (perm)	0	1606	1480	0	0	0	0	1783	1545	0	1017	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185						504			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	50%	8%	2%	2%	2%	2%	6%	4%	6%	11%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	185	0	0	0	0	549	504	0	513	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0	7.0					12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0	13.0					18.0	18.0	13.0	19.0	
Total Split (s)	20.0	20.0	20.0					57.0	57.0	13.0	70.0	
Total Split (%)	22.2%	22.2%	22.2%					63.3%	63.3%	14.4%	77.8%	
Yellow Time (s)	4.3	4.3	4.3					4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0	1.0					1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3	-0.3					-0.8	-0.8		-1.1	
Total Lost Time (s)		5.0	5.0					5.0	5.0		5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)		9.8	9.8					70.2	70.2		70.2	
Actuated g/C Ratio		0.11	0.11					0.78	0.78		0.78	
v/c Ratio		0.49	0.57					0.39	0.38		0.65	
Control Delay (s/veh)		46.7	13.0					4.4	1.2		11.4	
Queue Delay		0.0	0.0					0.0	0.0		0.0	
Total Delay (s/veh)		46.7	13.0					4.4	1.2		11.4	
LOS		D	B					A	A		B	
Approach Delay (s/veh)		23.6						2.9			11.4	
Approach LOS		C						A			B	
Queue Length 50th (ft)		47	0					74	0		78	
Queue Length 95th (ft)		89	58					145	22		183	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			50						125			
Base Capacity (vph)		267	400					1390	1315		793	
Starvation Cap Reductn		0	0					0	0		0	
Spillback Cap Reductn		0	0					0	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.32	0.46					0.39	0.38		0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay (s/veh): 8.3		Intersection LOS: A	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	139	4	4	65	5	4	4	8	6	4	4
Future Volume (vph)	4	139	4	4	65	5	4	4	8	6	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1845	0	0	1670	0	0	1710	0	0	1754	0
Flt Permitted		0.999			0.998			0.988			0.977	
Satd. Flow (perm)	0	1845	0	0	1670	0	0	1710	0	0	1754	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	15		5	5		15			2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	25%	2%	14%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	80	0	0	17	0	0	15	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.2%		ICU Level of Service A	
Analysis Period (min) 15			

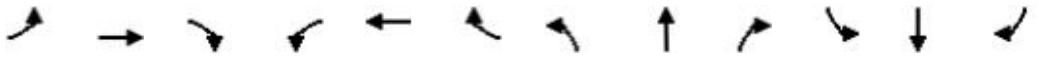
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	139	4	4	65	5	4	4	8	6	4	4
Future Vol, veh/h	4	139	4	4	65	5	4	4	8	6	4	4
Conflicting Peds, #/hr	15	0	5	5	0	15	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	25	2	14	2	2	2	2	2	2	2
Mvmt Flow	4	153	4	4	71	5	4	4	9	7	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	91	0	0	162	0	0	254	267	162	269	267	89
Stage 1	-	-	-	-	-	-	168	168	-	97	97	-
Stage 2	-	-	-	-	-	-	86	99	-	172	170	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1504	-	-	1417	-	-	699	639	883	684	639	969
Stage 1	-	-	-	-	-	-	834	759	-	910	815	-
Stage 2	-	-	-	-	-	-	922	813	-	830	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1410	-	-	686	623	877	659	623	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	686	623	-	659	623	-
Stage 1	-	-	-	-	-	-	827	753	-	895	801	-
Stage 2	-	-	-	-	-	-	910	799	-	813	752	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.4	9.9	10.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	749	1483	-	-	1410	-	-	710
HCM Lane V/C Ratio	0.023	0.003	-	-	0.003	-	-	0.022
HCM Control Delay (s/veh)	9.9	7.4	0	-	7.6	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	144	4	5	63	6	4	4	23	17	4	4
Future Volume (vph)	4	144	4	5	63	6	4	4	23	17	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1817	0	0	1774	0	0	1665	0	0	1661	0
Flt Permitted		0.999			0.997			0.994			0.967	
Satd. Flow (perm)	0	1817	0	0	1774	0	0	1665	0	0	1661	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	3		4	4		3			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	50%	2%	5%	17%	2%	2%	2%	6%	25%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	78	0	0	32	0	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	144	4	5	63	6	4	4	23	17	4	4
Future Vol, veh/h	4	144	4	5	63	6	4	4	23	17	4	4
Conflicting Peds, #/hr	3	0	4	4	0	3	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	3	50	2	5	17	2	2	2	6	25	2
Mvmt Flow	4	153	4	5	67	6	4	4	24	18	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	161	0	0	251	253	161	262	252	73
Stage 1	-	-	-	-	-	-	167	167	-	83	83	-
Stage 2	-	-	-	-	-	-	84	86	-	179	169	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.75	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.225	3.318
Pot Cap-1 Maneuver	1523	-	-	1418	-	-	702	650	884	683	614	989
Stage 1	-	-	-	-	-	-	835	760	-	915	783	-
Stage 2	-	-	-	-	-	-	924	824	-	814	717	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1413	-	-	689	641	879	654	605	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	689	641	-	654	605	-
Stage 1	-	-	-	-	-	-	829	755	-	910	778	-
Stage 2	-	-	-	-	-	-	911	818	-	783	712	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.5	9.6	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	811	1519	-	-	1413	-	-	682
HCM Lane V/C Ratio	0.041	0.003	-	-	0.004	-	-	0.039
HCM Control Delay (s/veh)	9.6	7.4	0	-	7.6	0	-	10.5
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	326	107	29	71	5
Future Volume (vph)	4	326	107	29	71	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1810	1810	1495	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1810	1810	1495	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Confl. Peds. (#/hr)	3			3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	5%	5%	8%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	343	113	31	75	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	326	107	29	71	5
Future Vol, veh/h	4	326	107	29	71	5
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	5	8	2	2
Mvmt Flow	4	343	113	31	75	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	147	0	-	0	467	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	351	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1435	-	-	-	554	936
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1431	-	-	-	549	933
Mov Cap-2 Maneuver	-	-	-	-	549	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	711	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1431	-	-	-	549	933
HCM Lane V/C Ratio	0.003	-	-	-	0.136	0.006
HCM Control Delay (s/veh)	7.5	-	-	-	12.6	8.9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q (veh)	0	-	-	-	0.5	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	323	175	12	34	4
Future Volume (vph)	4	323	175	12	34	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1624	0	1759	0
Flt Permitted	0.950				0.957	
Satd. Flow (perm)	1770	1776	1624	0	1759	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		582	
Travel Time (s)		17.0	32.1		15.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	17%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	359	207	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	323	175	12	34	4
Future Vol, veh/h	4	323	175	12	34	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	17	2	2	2
Mvmt Flow	4	359	194	13	38	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	207	0	-	0	568	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	367	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1364	-	-	-	484	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	701	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1364	-	-	-	483	840
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	701	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1364	-	-	-	506
HCM Lane V/C Ratio	0.003	-	-	-	0.083
HCM Control Delay (s/veh)	7.6	-	-	-	12.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	357	187	13	38	4
Future Volume (vph)	4	357	187	13	38	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1622	0	1759	0
Flt Permitted	0.950				0.956	
Satd. Flow (perm)	1770	1776	1622	0	1759	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	496		561	
Travel Time (s)		32.1	9.7		15.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	17%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	397	222	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	357	187	13	38	4
Future Vol, veh/h	4	357	187	13	38	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	17	2	2	2
Mvmt Flow	4	397	208	14	42	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	222	0	-	0	620	215
Stage 1	-	-	-	-	215	-
Stage 2	-	-	-	-	405	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1347	-	-	-	452	825
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	673	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1347	-	-	-	451	825
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	673	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1347	-	-	-	471
HCM Lane V/C Ratio	0.003	-	-	-	0.099
HCM Control Delay (s/veh)	7.7	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	4	53	33	5	33	64	237	57	48	390	97
Future Volume (vph)	65	4	53	33	5	33	64	237	57	48	390	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1651	0	0	1635	1509	1752	1810	1524	1770	1752	0
Flt Permitted		0.974			0.958		0.950			0.950		
Satd. Flow (perm)	0	1651	0	0	1635	1509	1752	1810	1524	1770	1752	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	2%	10%	10%	20%	7%	3%	5%	6%	2%	6%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	45	39	75	279	67	56	573	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.7%		ICU Level of Service A	
Analysis Period (min) 15			

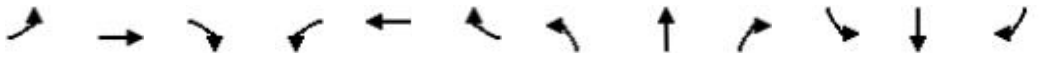
Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	4	53	33	5	33	64	237	57	48	390	97
Future Vol, veh/h	65	4	53	33	5	33	64	237	57	48	390	97
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	10	10	20	7	3	5	6	2	6	2
Mvmt Flow	76	5	62	39	6	39	75	279	67	56	459	114

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1113	1124	516	1091	1114	279	573	0	0	346	0	0
Stage 1	628	628	-	429	429	-	-	-	-	-	-	-
Stage 2	485	496	-	662	685	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.3	7.2	6.7	6.27	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.39	3.59	4.18	3.363	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	186	205	543	186	193	748	995	-	-	1213	-	-
Stage 1	471	476	-	589	554	-	-	-	-	-	-	-
Stage 2	563	545	-	438	422	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	156	181	543	147	170	748	995	-	-	1213	-	-
Mov Cap-2 Maneuver	156	181	-	147	170	-	-	-	-	-	-	-
Stage 1	436	454	-	545	512	-	-	-	-	-	-	-
Stage 2	488	504	-	366	403	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	44.7	25.5	1.6	0.7
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	995	-	-	227	150	748	1213	-	-
HCM Lane V/C Ratio	0.076	-	-	0.632	0.298	0.052	0.047	-	-
HCM Control Delay (s/veh)	8.9	-	-	44.7	38.9	10.1	8.1	-	-
HCM Lane LOS	A	-	-	E	E	B	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	3.8	1.2	0.2	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	4	10	16	4	4	20	370	40	4	477	11
Future Volume (vph)	6	4	10	16	4	4	20	370	40	4	477	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1433	0	0	1696	0	1770	1792	1583	1444	1740	0
Flt Permitted		0.986			0.968		0.950			0.950		
Satd. Flow (perm)	0	1433	0	0	1696	0	1770	1792	1583	1444	1740	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1284			752	
Travel Time (s)		34.7			8.6			19.5			11.4	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	17%	2%	33%	2%	25%	2%	2%	6%	2%	25%	9%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	29	0	24	435	47	5	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	4	10	16	4	4	20	370	40	4	477	11
Future Vol, veh/h	6	4	10	16	4	4	20	370	40	4	477	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	17	2	33	2	25	2	2	6	2	25	9	2
Mvmt Flow	7	5	12	19	5	5	24	435	47	5	561	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1090	1108	568	1069	1067	435	574	0	0	482	0	0
Stage 1	578	578	-	483	483	-	-	-	-	-	-	-
Stage 2	512	530	-	586	584	-	-	-	-	-	-	-
Critical Hdwy	7.27	6.52	6.53	7.12	6.75	6.22	4.12	-	-	4.35	-	-
Critical Hdwy Stg 1	6.27	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.27	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.653	4.018	3.597	3.518	4.225	3.318	2.218	-	-	2.425	-	-
Pot Cap-1 Maneuver	180	210	468	199	202	621	999	-	-	971	-	-
Stage 1	476	501	-	565	516	-	-	-	-	-	-	-
Stage 2	518	527	-	496	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	172	204	468	186	196	621	999	-	-	971	-	-
Mov Cap-2 Maneuver	172	204	-	186	196	-	-	-	-	-	-	-
Stage 1	465	498	-	551	504	-	-	-	-	-	-	-
Stage 2	497	514	-	476	461	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	20	24.5	0.4	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	999	-	-	264	213	971	-	-
HCM Lane V/C Ratio	0.024	-	-	0.089	0.133	0.005	-	-
HCM Control Delay (s/veh)	8.7	-	-	20	24.5	8.7	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.5	0	-	-

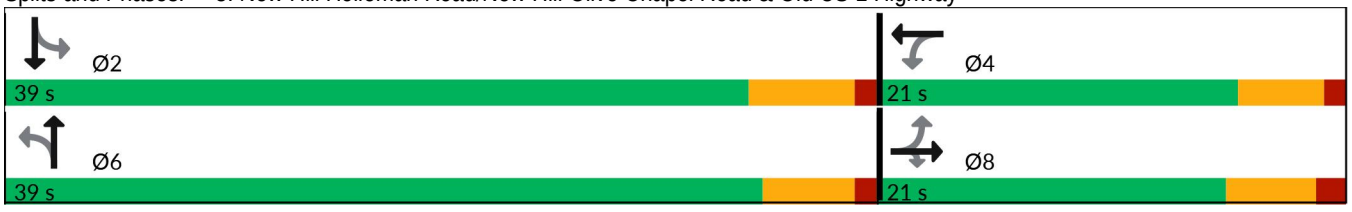
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	133	104	84	257	112	142	261	74	68	353	93
Future Volume (vph)	30	133	104	84	257	112	142	261	74	68	353	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	0	1864	1496	0	1776	0	0	1770	0	0	1772	0
Flt Permitted		0.895			0.905			0.719			0.898	
Satd. Flow (perm)	0	1684	1496	0	1622	0	0	1292	0	0	1603	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			105		27			26			31	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		324			1091			1309			300	
Travel Time (s)		6.3			21.3			19.8			4.5	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	9%	2%	2%	2%	2%	3%	5%	2%	5%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	105	0	458	0	0	482	0	0	520	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	40	40	20	40		20	256		20	306	
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Size(ft)	20	40	40	20	40		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8		8	4			6			2		
Detector Phase	8	8	8	4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	13.0	13.0	13.0	12.0	12.0		18.0	18.0		18.0	18.0	
Total Split (s)	21.0	21.0	21.0	21.0	21.0		39.0	39.0		39.0	39.0	
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%		65.0%	65.0%		65.0%	65.0%	
Yellow Time (s)	4.1	4.1	4.1	3.8	3.8		4.1	4.1		4.7	4.7	

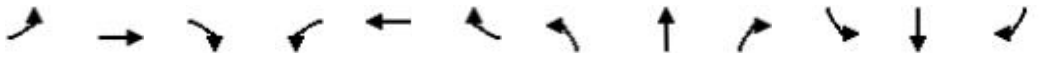
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	1.3	1.3	1.3	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		-0.4	-0.4		0.2			-0.1			-0.7	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		16.4	16.4		16.4			21.0			21.0	
Actuated g/C Ratio		0.34	0.34		0.34			0.44			0.44	
v/c Ratio		0.28	0.18		0.80			0.83			0.72	
Control Delay (s/veh)		15.7	5.1		30.2			23.6			15.9	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		15.7	5.1		30.2			23.6			15.9	
LOS		B	A		C			C			B	
Approach Delay (s/veh)		11.6			30.2			23.6			15.9	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)		31	0		102			99			99	
Queue Length 95th (ft)		91	29		#334			194			176	
Internal Link Dist (ft)		244			1011			1229			220	
Turn Bay Length (ft)			175									
Base Capacity (vph)		579	583		576			952			1181	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.28	0.18		0.80			0.51			0.44	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 47.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay (s/veh): 21.1 Intersection LOS: C
Intersection Capacity Utilization 96.0% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway



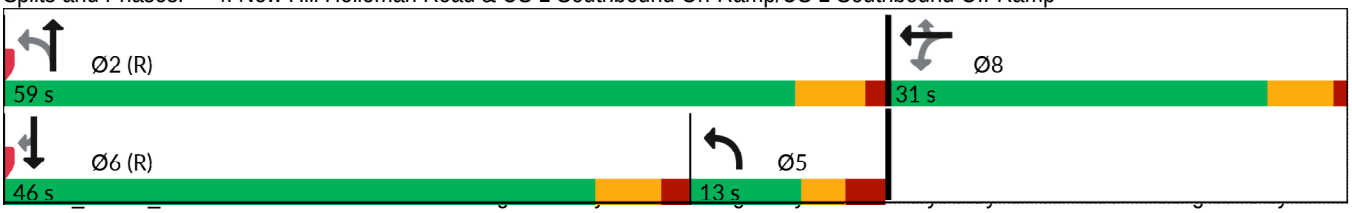


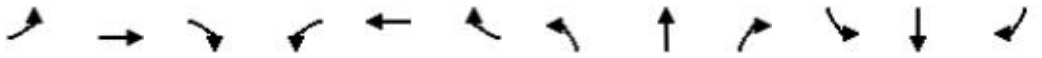
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	470	4	246	240	242	0	0	492	66
Future Volume (vph)	0	0	0	470	4	246	240	242	0	0	492	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	0		75	0		0	0		150
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	0	1724	1568	0	1792	0	0	1836	1591
Flt Permitted					0.953			0.502				
Satd. Flow (perm)	0	0	0	0	1724	1568	0	922	0	0	1836	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						117						99
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	4%	3%	2%	2%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	489	254	0	496	0	0	507	68
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)				0	0	0	0	0			300	0
Detector 1 Size(ft)				20	40	40	20	40			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	15.0	0.0	15.0			0.0	0.0
Detector 2 Position(ft)								300				
Detector 2 Size(ft)								6				
Detector 2 Type								Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)								0.0				
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0	7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				13.0	13.0	13.0	13.0	18.0			19.0	19.0
Total Split (s)				31.0	31.0	31.0	13.0	59.0			46.0	46.0
Total Split (%)				34.4%	34.4%	34.4%	14.4%	65.6%			51.1%	51.1%
Yellow Time (s)				4.3	4.3	4.3	3.0	4.6			4.5	4.5
All-Red Time (s)				1.0	1.0	1.0	2.6	1.3			1.9	1.9
Lost Time Adjust (s)					-0.3	-0.3		-0.9			-1.4	-1.4
Total Lost Time (s)					5.0	5.0		5.0			5.0	5.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)					26.0	26.0		54.0			54.0	54.0
Actuated g/C Ratio					0.29	0.29		0.60			0.60	0.60
v/c Ratio					0.98	0.47		0.90			0.46	0.07
Control Delay (s/veh)					69.8	17.2		32.6			11.7	0.9
Queue Delay					0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)					69.8	17.2		32.6			11.7	0.9
LOS					E	B		C			B	A
Approach Delay (s/veh)					51.8			32.6			10.4	
Approach LOS					D			C			B	
Queue Length 50th (ft)					275	61		212			146	0
Queue Length 95th (ft)					#476	132		#460			218	9
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)						75						150
Base Capacity (vph)					498	536		553			1101	994
Starvation Cap Reductn					0	0		0			0	0
Spillback Cap Reductn					0	0		0			0	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.98	0.47		0.90			0.46	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 20 (22%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 33.4		Intersection LOS: C	
Intersection Capacity Utilization 90.7%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp





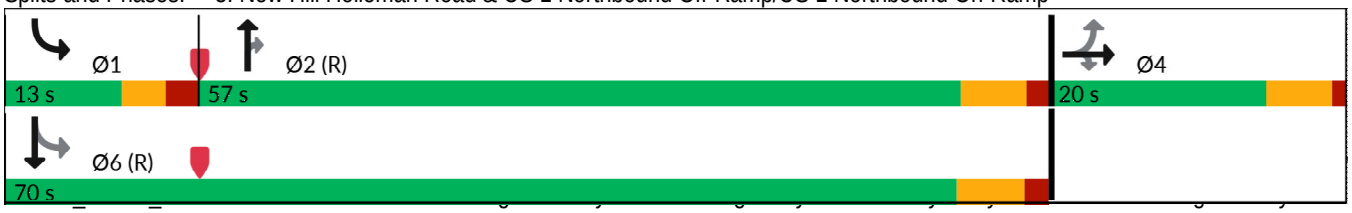
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	4	204	0	0	0	0	409	221	153	800	0
Future Volume (vph)	70	4	204	0	0	0	0	409	221	153	800	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		50	0		0	0		125	200		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1741	1552	0	0	0	0	1818	1530	0	1812	0
Flt Permitted		0.955									0.850	
Satd. Flow (perm)	0	1741	1552	0	0	0	0	1818	1530	0	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			219						238			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	25%	3%	2%	2%	2%	2%	4%	5%	4%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	219	0	0	0	0	440	238	0	1025	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	

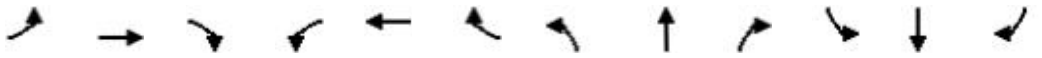
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0	13.0					18.0	18.0	13.0	19.0	
Total Split (s)	20.0	20.0	20.0					57.0	57.0	13.0	70.0	
Total Split (%)	22.2%	22.2%	22.2%					63.3%	63.3%	14.4%	77.8%	
Yellow Time (s)	4.3	4.3	4.3					4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0	1.0					1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3	-0.3					-0.8	-0.8		-1.1	
Total Lost Time (s)		5.0	5.0					5.0	5.0		5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)		9.3	9.3					70.7	70.7		70.7	
Actuated g/C Ratio		0.10	0.10					0.79	0.79		0.79	
v/c Ratio		0.44	0.62					0.31	0.19		0.84	
Control Delay (s/veh)		45.2	13.4					3.6	0.8		17.1	
Queue Delay		0.0	0.0					0.0	0.0		0.7	
Total Delay (s/veh)		45.2	13.4					3.6	0.8		17.8	
LOS		D	B					A	A		B	
Approach Delay (s/veh)		21.8						2.6			17.8	
Approach LOS		C						A			B	
Queue Length 50th (ft)		43	0					52	0		255	
Queue Length 95th (ft)		84	63					102	15		m324	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			50						125			
Base Capacity (vph)		290	441					1428	1253		1220	
Starvation Cap Reductn		0	0					0	0		42	
Spillback Cap Reductn		0	0					0	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.27	0.50					0.31	0.19		0.87	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 64 (71%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 13.2		Intersection LOS: B	
Intersection Capacity Utilization 90.4%		ICU Level of Service E	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	101	4	5	126	8	4	4	11	8	4	4
Future Volume (vph)	4	101	4	5	126	8	4	4	11	8	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1850	0	0	1844	0	0	1622	0	0	1668	0
Flt Permitted		0.998			0.998			0.990			0.974	
Satd. Flow (perm)	0	1850	0	0	1844	0	0	1622	0	0	1668	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	2					2	2		1	1		2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	25%	2%	2%	2%	25%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	115	0	0	148	0	0	20	0	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.0%		ICU Level of Service A	
Analysis Period (min) 15			

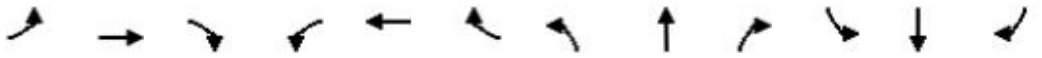
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	101	4	5	126	8	4	4	11	8	4	4
Future Vol, veh/h	4	101	4	5	126	8	4	4	11	8	4	4
Conflicting Peds, #/hr	2	0	0	0	0	2	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	25	2	2	2	25	2
Mvmt Flow	4	107	4	5	134	9	4	4	12	9	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	111	0	0	272	272	110	277	270	143
Stage 1	-	-	-	-	-	-	117	117	-	151	151	-
Stage 2	-	-	-	-	-	-	155	155	-	126	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.35	6.52	6.22	7.12	6.75	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.52	-	6.12	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.52	-	6.12	5.75	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.725	4.018	3.318	3.518	4.225	3.318
Pot Cap-1 Maneuver	1437	-	-	1479	-	-	636	635	943	675	599	905
Stage 1	-	-	-	-	-	-	835	799	-	851	731	-
Stage 2	-	-	-	-	-	-	796	769	-	878	755	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1434	-	-	1479	-	-	625	629	942	657	594	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	629	-	657	594	-
Stage 1	-	-	-	-	-	-	832	797	-	847	727	-
Stage 2	-	-	-	-	-	-	783	764	-	859	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.3	0.3	9.8	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	778	1434	-	-	1479	-	-	685
HCM Lane V/C Ratio	0.026	0.003	-	-	0.004	-	-	0.025
HCM Control Delay (s/veh)	9.8	7.5	0	-	7.4	0	-	10.4
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	126	4	17	139	22	4	4	15	14	4	4
Future Volume (vph)	4	126	4	17	139	22	4	4	15	14	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1853	0	0	1822	0	0	1682	0	0	1695	0
Flt Permitted		0.999			0.995			0.992			0.968	
Satd. Flow (perm)	0	1853	0	0	1822	0	0	1682	0	0	1695	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	4		1	1		4	1					1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	0	0	196	0	0	24	0	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	126	4	17	139	22	4	4	15	14	4	4
Future Vol, veh/h	4	126	4	17	139	22	4	4	15	14	4	4
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	25
Mvmt Flow	4	138	4	19	153	24	4	4	16	15	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	181	0	0	143	0	0	357	368	141	365	358	170
Stage 1	-	-	-	-	-	-	149	149	-	207	207	-
Stage 2	-	-	-	-	-	-	208	219	-	158	151	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.525
Pot Cap-1 Maneuver	1394	-	-	1440	-	-	598	561	907	591	568	818
Stage 1	-	-	-	-	-	-	854	774	-	795	731	-
Stage 2	-	-	-	-	-	-	794	722	-	844	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1389	-	-	1439	-	-	582	548	906	567	555	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	548	-	567	555	-
Stage 1	-	-	-	-	-	-	851	771	-	789	717	-
Stage 2	-	-	-	-	-	-	772	708	-	821	769	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.7	10	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	748	1389	-	-	1439	-	-	598
HCM Lane V/C Ratio	0.034	0.003	-	-	0.013	-	-	0.04
HCM Control Delay (s/veh)	10	7.6	0	-	7.5	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	202	382	67	69	4
Future Volume (vph)	4	202	382	67	69	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1827	1845	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1827	1845	1583	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	4%	3%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	215	406	71	73	4
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	202	382	67	69	4
Future Vol, veh/h	4	202	382	67	69	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	2	2	2
Mvmt Flow	4	215	406	71	73	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	477	0	-	0	629	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	223	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1085	-	-	-	446	645
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1085	-	-	-	444	645
Mov Cap-2 Maneuver	-	-	-	-	444	-
Stage 1	-	-	-	-	670	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.2	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1085	-	-	-	444	645
HCM Lane V/C Ratio	0.004	-	-	-	0.165	0.007
HCM Control Delay (s/veh)	8.3	-	-	-	14.7	10.6
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q (veh)	0	-	-	-	0.6	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	218	410	39	23	4
Future Volume (vph)	4	218	410	39	23	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1840	0	1752	0
Flt Permitted	0.950				0.958	
Satd. Flow (perm)	1770	1827	1840	0	1752	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		598	
Travel Time (s)		17.0	32.1		16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	242	499	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	218	410	39	23	4
Future Vol, veh/h	4	218	410	39	23	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	4	242	456	43	26	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	499	0	-	0	728	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	250	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1065	-	-	-	390	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1065	-	-	-	388	587
Mov Cap-2 Maneuver	-	-	-	-	388	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.2	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1065	-	-	-	409
HCM Lane V/C Ratio	0.004	-	-	-	0.073
HCM Control Delay (s/veh)	8.4	-	-	-	14.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	241	449	43	25	4
Future Volume (vph)	4	241	449	43	25	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1840	0	1754	0
Flt Permitted	0.950				0.958	
Satd. Flow (perm)	1770	1827	1840	0	1754	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	497		553	
Travel Time (s)		32.1	9.7		15.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	268	547	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	241	449	43	25	4
Future Vol, veh/h	4	241	449	43	25	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	4	268	499	48	28	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	547	0	-	0	799	523
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	276	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1022	-	-	-	355	554
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1022	-	-	-	354	554
Mov Cap-2 Maneuver	-	-	-	-	354	-
Stage 1	-	-	-	-	593	-
Stage 2	-	-	-	-	771	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1022	-	-	-	373
HCM Lane V/C Ratio	0.004	-	-	-	0.086
HCM Control Delay (s/veh)	8.5	-	-	-	15.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.3

Synchro Output – Phase 1 Build-Out

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	4	67	58	4	58	38	414	32	12	222	52
Future Volume (vph)	105	4	67	58	4	58	38	414	32	12	222	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1715	0	0	1701	1583	1656	1792	1509	1656	1726	0
Flt Permitted		0.971			0.955		0.950			0.950		
Satd. Flow (perm)	0	1715	0	0	1701	1583	1656	1792	1509	1656	1726	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Confl. Peds. (#/hr)	4					4	2					2
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	7%	2%	2%	9%	6%	7%	9%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	65	61	40	436	34	13	289	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	4	67	58	4	58	38	414	32	12	222	52
Future Vol, veh/h	105	4	67	58	4	58	38	414	32	12	222	52
Conflicting Peds, #/hr	4	0	0	0	0	4	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	7	2	2	9	6	7	9	8	2
Mvmt Flow	111	4	71	61	4	61	40	436	34	13	234	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	860	840	264	841	833	440	291	0	0	470	0	0
Stage 1	290	290	-	516	516	-	-	-	-	-	-	-
Stage 2	570	550	-	325	317	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.17	6.52	6.22	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.17	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.17	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.563	4.018	3.318	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	276	302	775	279	304	617	1232	-	-	1056	-	-
Stage 1	718	672	-	533	534	-	-	-	-	-	-	-
Stage 2	506	516	-	677	654	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	236	288	774	242	290	615	1230	-	-	1056	-	-
Mov Cap-2 Maneuver	236	288	-	242	290	-	-	-	-	-	-	-
Stage 1	694	663	-	515	516	-	-	-	-	-	-	-
Stage 2	436	499	-	604	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	30.1	18.4	0.6	0.4
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1230	-	-	323	245	615	1056	-	-
HCM Lane V/C Ratio	0.033	-	-	0.574	0.266	0.099	0.012	-	-
HCM Ctrl Dly (s/v)	8	-	-	30.1	24.9	11.5	8.5	-	-
HCM Lane LOS	A	-	-	D	C	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	3.4	1	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	4	29	45	4	8	13	475	11	4	344	7
Future Volume (vph)	13	4	29	45	4	8	13	475	11	4	344	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1650	0	0	1733	0	1671	1776	1346	1770	1768	0
Flt Permitted		0.986			0.962		0.950			0.950		
Satd. Flow (perm)	0	1650	0	0	1733	0	1671	1776	1346	1770	1768	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1285			752	
Travel Time (s)		34.7			8.6			19.5			11.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	25%	2%	2%	25%	2%	8%	7%	20%	2%	7%	14%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	59	0	14	500	12	4	369	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	4	29	45	4	8	13	475	11	4	344	7
Future Vol, veh/h	13	4	29	45	4	8	13	475	11	4	344	7
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	25	2	2	25	2	8	7	20	2	7	14
Mvmt Flow	14	4	31	47	4	8	14	500	12	4	362	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	915	914	366	919	905	501	369	0	0	512	0	0
Stage 1	374	374	-	528	528	-	-	-	-	-	-	-
Stage 2	541	540	-	391	377	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.75	6.22	7.12	6.75	6.22	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.225	3.318	3.518	4.225	3.318	2.272	-	-	2.218	-	-
Pot Cap-1 Maneuver	253	250	679	252	253	570	1157	-	-	1053	-	-
Stage 1	647	579	-	534	492	-	-	-	-	-	-	-
Stage 2	525	486	-	633	577	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	246	679	235	249	569	1157	-	-	1053	-	-
Mov Cap-2 Maneuver	243	246	-	235	249	-	-	-	-	-	-	-
Stage 1	639	577	-	528	486	-	-	-	-	-	-	-
Stage 2	506	480	-	598	575	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15	23.2	0.2	0.1
HCM LOS	C	C		

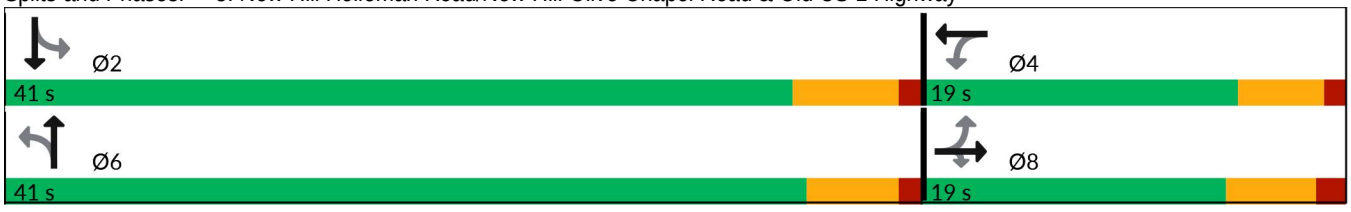
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1157	-	-	409	257	1053	-	-
HCM Lane V/C Ratio	0.012	-	-	0.118	0.233	0.004	-	-
HCM Ctrl Dly (s/v)	8.1	-	-	15	23.2	8.4	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.4	0.9	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	224	167	46	92	51	100	388	125	86	261	26
Future Volume (vph)	51	224	167	46	92	51	100	388	125	86	261	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	0	1850	1382	0	1655	0	0	1621	0	0	1763	0
Flt Permitted		0.913			0.818			0.873			0.793	
Satd. Flow (perm)	0	1704	1382	0	1370	0	0	1426	0	0	1413	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			178		29			38			11	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		325			1091			1309			300	
Travel Time (s)		6.3			21.3			19.8			4.5	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	18%	10%	7%	11%	25%	9%	11%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	292	178	0	201	0	0	652	0	0	397	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	40	40	20	40		20	256		20	306	
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Size(ft)	20	40	40	20	40		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8		8	4			6			2		
Detector Phase	8	8	8	4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	13.0	13.0	13.0	12.0	12.0		18.0	18.0		18.0	18.0	
Total Split (s)	19.0	19.0	19.0	19.0	19.0		41.0	41.0		41.0	41.0	
Total Split (%)	31.7%	31.7%	31.7%	31.7%	31.7%		68.3%	68.3%		68.3%	68.3%	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.1	4.1	4.1	3.8	3.8		4.1	4.1		4.7	4.7	
All-Red Time (s)	1.3	1.3	1.3	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		-0.4	-0.4		0.2			-0.1			-0.7	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		12.2	12.2		12.2			25.4			25.4	
Actuated g/C Ratio		0.25	0.25		0.25			0.53			0.53	
v/c Ratio		0.68	0.37		0.55			0.85			0.53	
Control Delay (s/veh)		28.8	6.3		22.1			21.1			9.9	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		28.8	6.3		22.1			21.1			9.9	
LOS		C	A		C			C			A	
Approach Delay (s/veh)		20.3			22.1			21.1			9.9	
Approach LOS		C			C			C			A	
Queue Length 50th (ft)		74	0		42			138			66	
Queue Length 95th (ft)		#198	40		#116			#280			122	
Internal Link Dist (ft)		245			1011			1229			220	
Turn Bay Length (ft)			175									
Base Capacity (vph)		525	549		442			1090			1074	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.56	0.32		0.45			0.60			0.37	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48.2			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay (s/veh): 18.4		Intersection LOS: B	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

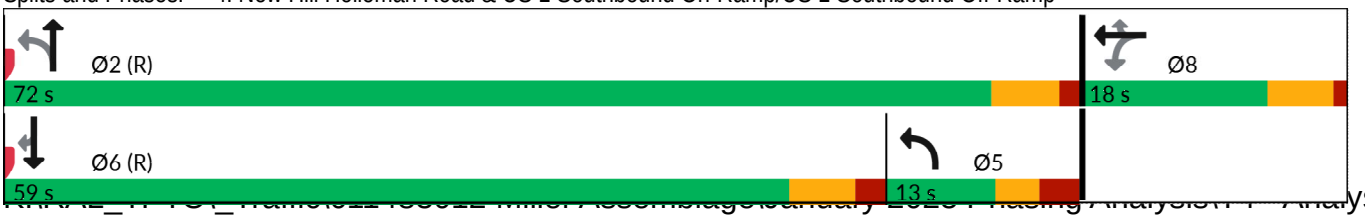


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	119	4	148	177	450	0	0	407	97
Future Volume (vph)	0	0	0	119	4	148	177	450	0	0	407	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	550		75	225		0	0		150
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	0	1494	1428	0	1751	0	0	1785	1436
Flt Permitted					0.954			0.760				
Satd. Flow (perm)	0	0	0	0	1494	1428	0	1350	0	0	1785	1436
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						159						104
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	20%	25%	12%	7%	7%	2%	2%	7%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	132	159	0	674	0	0	438	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)				0	0	0	0	0			300	0
Detector 1 Size(ft)				20	40	40	20	40			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	15.0	0.0	15.0			0.0	0.0
Detector 2 Position(ft)								300				
Detector 2 Size(ft)								6				
Detector 2 Type								Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)								0.0				
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0	7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				13.0	13.0	13.0	13.0	18.0			19.0	19.0
Total Split (s)				18.0	18.0	18.0	13.0	72.0			59.0	59.0
Total Split (%)				20.0%	20.0%	20.0%	14.4%	80.0%			65.6%	65.6%
Yellow Time (s)				4.3	4.3	4.3	3.0	4.6			4.5	4.5
All-Red Time (s)				1.0	1.0	1.0	2.6	1.3			1.9	1.9
Lost Time Adjust (s)					-0.3	-0.3		-0.9			-1.4	-1.4
Total Lost Time (s)					5.0	5.0		5.0			5.0	5.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)					11.3	11.3		68.7			68.7	68.7
Actuated g/C Ratio					0.13	0.13		0.76			0.76	0.76
v/c Ratio					0.71	0.50		0.65			0.32	0.09
Control Delay (s/veh)					58.0	11.9		8.5			4.3	0.9
Queue Delay					0.0	0.0		0.1			0.0	0.0
Total Delay (s/veh)					58.0	11.9		8.6			4.3	0.9
LOS					E	B		A			A	A
Approach Delay (s/veh)					32.8			8.6			3.6	
Approach LOS					C			A			A	
Queue Length 50th (ft)					72	0		102			67	0
Queue Length 95th (ft)					#142	54		189			104	11
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)						75						150
Base Capacity (vph)					215	342		1030			1362	1120
Starvation Cap Reductn					0	0		19			0	0
Spillback Cap Reductn					0	0		0			0	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.61	0.46		0.67			0.32	0.09

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 21 (23%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 11.5		Intersection LOS: B	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp

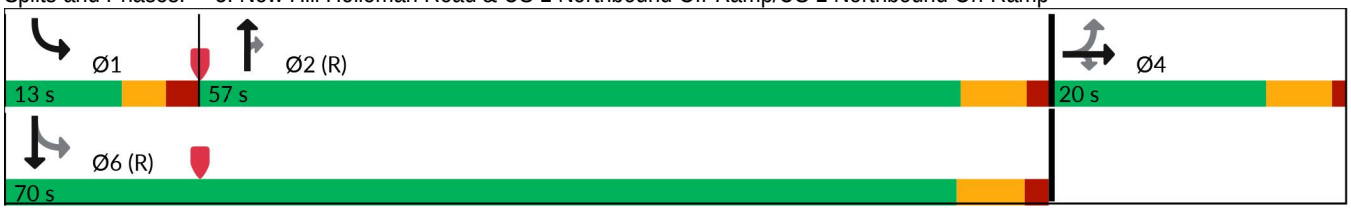


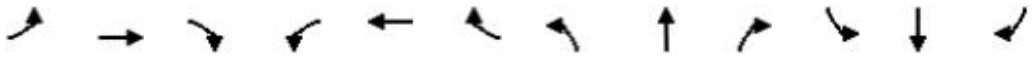
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	4	174	0	0	0	0	518	474	232	271	0
Future Volume (vph)	78	4	174	0	0	0	0	518	474	232	271	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		50	0		0	0		125	200		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1618	1480	0	0	0	0	1783	1545	0	1708	0
Flt Permitted		0.954									0.572	
Satd. Flow (perm)	0	1618	1480	0	0	0	0	1783	1545	0	1000	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185						504			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	9%	50%	8%	2%	2%	2%	2%	6%	4%	6%	11%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	185	0	0	0	0	551	504	0	535	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0	7.0					12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0	13.0					18.0	18.0	13.0	19.0	
Total Split (s)	20.0	20.0	20.0					57.0	57.0	13.0	70.0	
Total Split (%)	22.2%	22.2%	22.2%					63.3%	63.3%	14.4%	77.8%	
Yellow Time (s)	4.3	4.3	4.3					4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0	1.0					1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3	-0.3					-0.8	-0.8		-1.1	
Total Lost Time (s)		5.0	5.0					5.0	5.0		5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)		9.9	9.9					70.1	70.1		70.1	
Actuated g/C Ratio		0.11	0.11					0.78	0.78		0.78	
v/c Ratio		0.49	0.57					0.40	0.38		0.69	
Control Delay (s/veh)		46.6	12.9					4.4	1.2		12.6	
Queue Delay		0.0	0.0					0.0	0.0		0.0	
Total Delay (s/veh)		46.6	12.9					4.4	1.2		12.7	
LOS		D	B					A	A		B	
Approach Delay (s/veh)		23.7						2.9			12.7	
Approach LOS		C						A			B	
Queue Length 50th (ft)		48	0					75	0		80	
Queue Length 95th (ft)		90	58					146	22		197	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			50						125			
Base Capacity (vph)		269	400					1389	1315		779	
Starvation Cap Reductn		0	0					0	0		2	
Spillback Cap Reductn		0	0					0	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.32	0.46					0.40	0.38		0.69	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 8.7		Intersection LOS: A	
Intersection Capacity Utilization 74.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	139	4	4	65	4	4	4	8	4	4	4
Future Volume (vph)	4	139	4	4	65	4	4	4	8	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1845	0	0	1668	0	0	1710	0	0	1750	0
Flt Permitted		0.999			0.997			0.988			0.984	
Satd. Flow (perm)	0	1845	0	0	1668	0	0	1710	0	0	1750	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	15		5	5		15			2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	25%	2%	14%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	79	0	0	17	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.2%		ICU Level of Service A	
Analysis Period (min) 15			

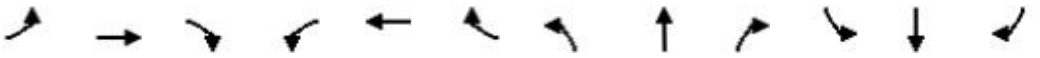
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	139	4	4	65	4	4	4	8	4	4	4
Future Vol, veh/h	4	139	4	4	65	4	4	4	8	4	4	4
Conflicting Peds, #/hr	15	0	5	5	0	15	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	25	2	14	2	2	2	2	2	2	2
Mvmt Flow	4	153	4	4	71	4	4	4	9	4	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	90	0	0	162	0	0	253	266	162	268	266	88
Stage 1	-	-	-	-	-	-	168	168	-	96	96	-
Stage 2	-	-	-	-	-	-	85	98	-	172	170	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1505	-	-	1417	-	-	700	640	883	685	640	970
Stage 1	-	-	-	-	-	-	834	759	-	911	815	-
Stage 2	-	-	-	-	-	-	923	814	-	830	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1410	-	-	687	624	877	660	624	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	687	624	-	660	624	-
Stage 1	-	-	-	-	-	-	827	753	-	896	801	-
Stage 2	-	-	-	-	-	-	911	800	-	813	752	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.4	9.9	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	749	1484	-	-	1410	-	-	721
HCM Lane V/C Ratio	0.023	0.003	-	-	0.003	-	-	0.018
HCM Ctrl Dly (s/v)	9.9	7.4	0	-	7.6	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	141	4	6	60	6	4	4	26	17	4	4
Future Volume (vph)	4	141	4	6	60	6	4	4	26	17	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1828	0	0	1770	0	0	1657	0	0	1661	0
Flt Permitted		0.999			0.996			0.994			0.967	
Satd. Flow (perm)	0	1828	0	0	1770	0	0	1657	0	0	1661	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	3		4	4		3			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	25%	2%	5%	17%	2%	2%	2%	6%	25%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	76	0	0	36	0	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.3%		ICU Level of Service A	
Analysis Period (min) 15			

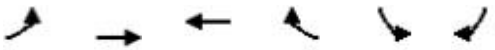
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	141	4	6	60	6	4	4	26	17	4	4
Future Vol, veh/h	4	141	4	6	60	6	4	4	26	17	4	4
Conflicting Peds, #/hr	3	0	4	4	0	3	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	3	25	2	5	17	2	2	2	6	25	2
Mvmt Flow	4	150	4	6	64	6	4	4	28	18	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	73	0	0	158	0	0	247	249	158	260	248	70
Stage 1	-	-	-	-	-	-	164	164	-	82	82	-
Stage 2	-	-	-	-	-	-	83	85	-	178	166	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.75	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.225	3.318
Pot Cap-1 Maneuver	1527	-	-	1422	-	-	707	654	887	685	617	993
Stage 1	-	-	-	-	-	-	838	762	-	916	784	-
Stage 2	-	-	-	-	-	-	925	824	-	815	719	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1523	-	-	1417	-	-	694	645	882	653	608	990
Mov Cap-2 Maneuver	-	-	-	-	-	-	694	645	-	653	608	-
Stage 1	-	-	-	-	-	-	832	757	-	911	779	-
Stage 2	-	-	-	-	-	-	912	818	-	781	714	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.6	9.6	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	820	1523	-	-	1417	-	-	682
HCM Lane V/C Ratio	0.044	0.003	-	-	0.005	-	-	0.039
HCM Ctrl Dly (s/v)	9.6	7.4	0	-	7.6	0	-	10.5
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	328	113	29	71	5
Future Volume (vph)	4	328	113	29	71	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1810	1827	1495	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1810	1827	1495	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Confl. Peds. (#/hr)	3			3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	5%	4%	8%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	345	119	31	75	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.9%		ICU Level of Service A	
Analysis Period (min) 15			

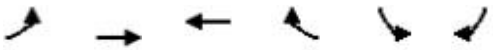
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	328	113	29	71	5
Future Vol, veh/h	4	328	113	29	71	5
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	4	8	2	2
Mvmt Flow	4	345	119	31	75	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	153	0	-	0	475	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1428	-	-	-	548	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1424	-	-	-	543	926
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	709	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1424	-	-	-	543	926
HCM Lane V/C Ratio	0.003	-	-	-	0.138	0.006
HCM Ctrl Dly (s/v)	7.5	-	-	-	12.7	8.9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q (veh)	0	-	-	-	0.5	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	324	178	17	43	6
Future Volume (vph)	4	324	178	17	43	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1623	0	1754	0
Flt Permitted	0.950				0.958	
Satd. Flow (perm)	1770	1776	1623	0	1754	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		582	
Travel Time (s)		17.0	32.1		15.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	17%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	360	217	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.1%		ICU Level of Service A	
Analysis Period (min) 15			

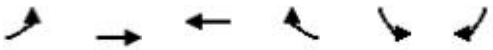
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	324	178	17	43	6
Future Vol, veh/h	4	324	178	17	43	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	17	2	2	2
Mvmt Flow	4	360	198	19	48	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	217	0	-	0	576	208
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	368	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1353	-	-	-	479	832
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	700	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1353	-	-	-	478	832
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	700	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	504
HCM Lane V/C Ratio	0.003	-	-	-	0.108
HCM Ctrl Dly (s/v)	7.7	-	-	-	13
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	366	192	26	78	4
Future Volume (vph)	4	366	192	26	78	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1623	0	1766	0
Flt Permitted	0.950				0.954	
Satd. Flow (perm)	1770	1776	1623	0	1766	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	496		561	
Travel Time (s)		32.1	9.7		15.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	17%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	407	242	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	366	192	26	78	4
Future Vol, veh/h	4	366	192	26	78	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	17	2	2	2
Mvmt Flow	4	407	213	29	87	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	242	0	-	0	643	228
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	415	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1324	-	-	-	438	811
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	666	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1324	-	-	-	437	811
Mov Cap-2 Maneuver	-	-	-	-	437	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	666	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1324	-	-	-	447
HCM Lane V/C Ratio	0.003	-	-	-	0.204
HCM Ctrl Dly (s/v)	7.7	-	-	-	15.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	4	45	33	5	33	59	241	57	48	397	104
Future Volume (vph)	69	4	45	33	5	33	59	241	57	48	397	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1656	0	0	1635	1509	1736	1810	1524	1770	1751	0
Flt Permitted		0.972			0.958		0.950			0.950		
Satd. Flow (perm)	0	1656	0	0	1635	1509	1736	1810	1524	1770	1751	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	2%	12%	10%	20%	7%	4%	5%	6%	2%	6%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	45	39	69	284	67	56	589	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	4	45	33	5	33	59	241	57	48	397	104
Future Vol, veh/h	69	4	45	33	5	33	59	241	57	48	397	104
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	12	10	20	7	4	5	6	2	6	2
Mvmt Flow	81	5	53	39	6	39	69	284	67	56	467	122

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1118	1129	528	1091	1123	284	589	0	0	351	0	0
Stage 1	640	640	-	422	422	-	-	-	-	-	-	-
Stage 2	478	489	-	669	701	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.32	7.2	6.7	6.27	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.408	3.59	4.18	3.363	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	184	204	531	186	191	743	977	-	-	1208	-	-
Stage 1	464	470	-	594	558	-	-	-	-	-	-	-
Stage 2	568	549	-	434	415	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	155	181	531	150	169	743	977	-	-	1208	-	-
Mov Cap-2 Maneuver	155	181	-	150	169	-	-	-	-	-	-	-
Stage 1	431	448	-	552	518	-	-	-	-	-	-	-
Stage 2	495	510	-	369	396	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	48.4	25.2	1.5	0.7
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	977	-	-	214	152	743	1208	-	-
HCM Lane V/C Ratio	0.071	-	-	0.649	0.294	0.052	0.047	-	-
HCM Ctrl Dly (s/v)	9	-	-	48.4	38.3	10.1	8.1	-	-
HCM Lane LOS	A	-	-	E	E	B	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	3.9	1.2	0.2	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	4	10	16	4	4	20	365	40	4	469	19
Future Volume (vph)	10	4	10	16	4	4	20	365	40	4	469	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1488	0	0	1696	0	1770	1792	1583	1444	1737	0
Flt Permitted		0.980			0.968		0.950			0.950		
Satd. Flow (perm)	0	1488	0	0	1696	0	1770	1792	1583	1444	1737	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1284			752	
Travel Time (s)		34.7			8.6			19.5			11.4	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	10%	2%	33%	2%	25%	2%	2%	6%	2%	25%	9%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	29	0	24	429	47	5	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	4	10	16	4	4	20	365	40	4	469	19
Future Vol, veh/h	10	4	10	16	4	4	20	365	40	4	469	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	10	2	33	2	25	2	2	6	2	25	9	2
Mvmt Flow	12	5	12	19	5	5	24	429	47	5	552	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1079	1097	563	1059	1061	429	574	0	0	476	0	0
Stage 1	573	573	-	477	477	-	-	-	-	-	-	-
Stage 2	506	524	-	582	584	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.52	6.53	7.12	6.75	6.22	4.12	-	-	4.35	-	-
Critical Hdwy Stg 1	6.2	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.018	3.597	3.518	4.225	3.318	2.218	-	-	2.425	-	-
Pot Cap-1 Maneuver	189	213	471	202	204	626	999	-	-	976	-	-
Stage 1	491	504	-	569	519	-	-	-	-	-	-	-
Stage 2	534	530	-	499	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	180	207	471	189	198	626	999	-	-	976	-	-
Mov Cap-2 Maneuver	180	207	-	189	198	-	-	-	-	-	-	-
Stage 1	479	501	-	555	507	-	-	-	-	-	-	-
Stage 2	512	517	-	479	461	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.2	24.2	0.4	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	999	-	-	250	216	976	-	-
HCM Lane V/C Ratio	0.024	-	-	0.113	0.131	0.005	-	-
HCM Ctrl Dly (s/v)	8.7	-	-	21.2	24.2	8.7	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.4	0.4	0	-	-

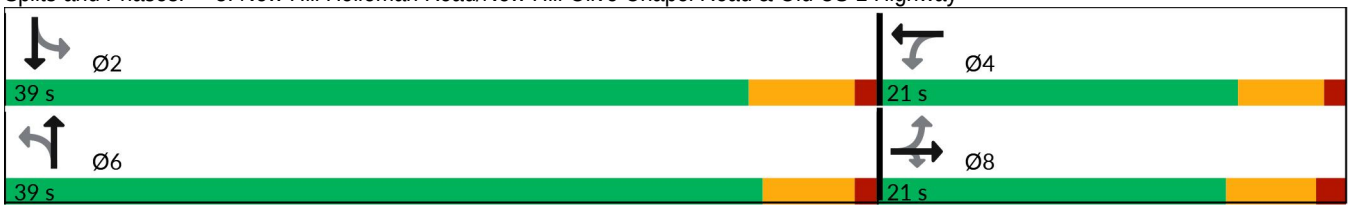
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	144	129	84	276	110	176	258	74	67	346	93
Future Volume (vph)	30	144	129	84	276	110	176	258	74	67	346	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	0	1866	1524	0	1778	0	0	1769	0	0	1771	0
Flt Permitted		0.890			0.904			0.674			0.892	
Satd. Flow (perm)	0	1674	1524	0	1622	0	0	1213	0	0	1590	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130		25			24			31	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		324			1091			1309			300	
Travel Time (s)		6.3			21.3			19.8			4.5	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	3%	5%	2%	5%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	130	0	475	0	0	514	0	0	511	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	40	40	20	40		20	256		20	306	
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	
Detector 1 Size(ft)	20	40	40	20	40		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8		8	4			6			2		
Detector Phase	8	8	8	4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	13.0	13.0	13.0	12.0	12.0		18.0	18.0		18.0	18.0	
Total Split (s)	21.0	21.0	21.0	21.0	21.0		39.0	39.0		39.0	39.0	
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%		65.0%	65.0%		65.0%	65.0%	
Yellow Time (s)	4.1	4.1	4.1	3.8	3.8		4.1	4.1		4.7	4.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	1.3	1.3	1.3	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		-0.4	-0.4		0.2			-0.1			-0.7	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		16.4	16.4		16.4			23.4			23.4	
Actuated g/C Ratio		0.33	0.33		0.33			0.47			0.47	
v/c Ratio		0.32	0.22		0.87			0.89			0.67	
Control Delay (s/veh)		17.5	5.2		38.7			30.2			14.0	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		17.5	5.2		38.7			30.2			14.0	
LOS		B	A		D			C			B	
Approach Delay (s/veh)		12.2			38.7			30.2			14.0	
Approach LOS		B			D			C			B	
Queue Length 50th (ft)		38	0		120			117			96	
Queue Length 95th (ft)		101	34		#351			#288			172	
Internal Link Dist (ft)		244			1011			1229			220	
Turn Bay Length (ft)			175									
Base Capacity (vph)		549	587		548			852			1117	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.32	0.22		0.87			0.60			0.46	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 50
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay (s/veh): 24.8 Intersection LOS: C
Intersection Capacity Utilization 106.1% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

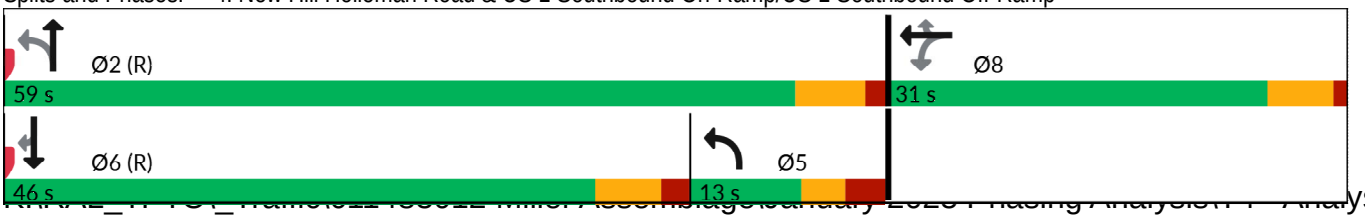


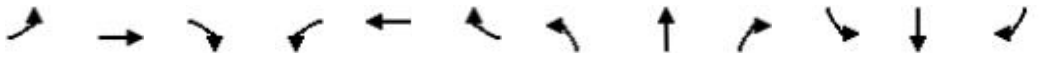
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	470	4	263	240	256	0	0	506	70
Future Volume (vph)	0	0	0	470	4	263	240	256	0	0	506	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	0		75	0		0	0		150
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	0	1724	1568	0	1792	0	0	1836	1591
Flt Permitted					0.953			0.496				
Satd. Flow (perm)	0	0	0	0	1724	1568	0	911	0	0	1836	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						125						99
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	4%	3%	2%	2%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	489	271	0	511	0	0	522	72
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)				0	0	0	0	0			300	0
Detector 1 Size(ft)				20	40	40	20	40			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	15.0	0.0	15.0			0.0	0.0
Detector 2 Position(ft)								300				
Detector 2 Size(ft)								6				
Detector 2 Type								Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)								0.0				
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0	7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				13.0	13.0	13.0	13.0	18.0			19.0	19.0
Total Split (s)				31.0	31.0	31.0	13.0	59.0			46.0	46.0
Total Split (%)				34.4%	34.4%	34.4%	14.4%	65.6%			51.1%	51.1%
Yellow Time (s)				4.3	4.3	4.3	3.0	4.6			4.5	4.5
All-Red Time (s)				1.0	1.0	1.0	2.6	1.3			1.9	1.9
Lost Time Adjust (s)					-0.3	-0.3		-0.9			-1.4	-1.4
Total Lost Time (s)					5.0	5.0		5.0			5.0	5.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)					26.0	26.0		54.0			54.0	54.0
Actuated g/C Ratio					0.29	0.29		0.60			0.60	0.60
v/c Ratio					0.98	0.50		0.94			0.47	0.07
Control Delay (s/veh)					69.8	17.6		51.1			11.8	1.0
Queue Delay					0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)					69.8	17.6		51.1			11.8	1.0
LOS					E	B		D			B	A
Approach Delay (s/veh)					51.2			51.1			10.5	
Approach LOS					D			D			B	
Queue Length 50th (ft)					275	65		253			152	0
Queue Length 95th (ft)					#476	141		#440			227	10
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)						75						150
Base Capacity (vph)					498	541		546			1101	994
Starvation Cap Reductn					0	0		0			0	0
Spillback Cap Reductn					0	0		0			0	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.98	0.50		0.94			0.47	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 19 (21%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 38.2		Intersection LOS: D	
Intersection Capacity Utilization 92.1%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp





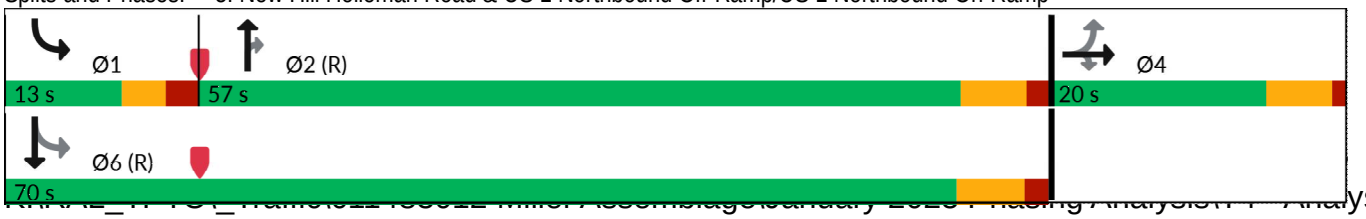
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	4	204	0	0	0	0	416	221	163	804	0
Future Volume (vph)	77	4	204	0	0	0	0	416	221	163	804	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		50	0		0	0		125	200		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1741	1552	0	0	0	0	1818	1530	0	1812	0
Flt Permitted		0.954									0.841	
Satd. Flow (perm)	0	1741	1552	0	0	0	0	1818	1530	0	1536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			219						238			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	25%	3%	2%	2%	2%	2%	4%	5%	4%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	219	0	0	0	0	447	238	0	1040	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0	13.0					18.0	18.0	13.0	19.0	
Total Split (s)	20.0	20.0	20.0					57.0	57.0	13.0	70.0	
Total Split (%)	22.2%	22.2%	22.2%					63.3%	63.3%	14.4%	77.8%	
Yellow Time (s)	4.3	4.3	4.3					4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0	1.0					1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3	-0.3					-0.8	-0.8		-1.1	
Total Lost Time (s)		5.0	5.0					5.0	5.0		5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)		9.6	9.6					70.4	70.4		70.4	
Actuated g/C Ratio		0.11	0.11					0.78	0.78		0.78	
v/c Ratio		0.47	0.61					0.31	0.19		0.87	
Control Delay (s/veh)		45.8	13.0					3.7	0.8		12.4	
Queue Delay		0.0	0.0					0.0	0.0		1.4	
Total Delay (s/veh)		45.8	13.0					3.7	0.8		13.9	
LOS		D	B					A	A		B	
Approach Delay (s/veh)		22.3						2.7			13.9	
Approach LOS		C						A			B	
Queue Length 50th (ft)		48	0					55	0		89	
Queue Length 95th (ft)		91	62					106	16		m107	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			50						125			
Base Capacity (vph)		290	441					1422	1249		1202	
Starvation Cap Reductn		0	0					0	0		55	
Spillback Cap Reductn		0	0					0	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.30	0.50					0.31	0.19		0.91	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 11.4		Intersection LOS: B	
Intersection Capacity Utilization 91.6%		ICU Level of Service F	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	101	4	6	126	6	4	4	9	4	7	4
Future Volume (vph)	4	101	4	6	126	6	4	4	9	4	7	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1850	0	0	1848	0	0	1623	0	0	1680	0
Flt Permitted		0.998			0.998			0.989			0.987	
Satd. Flow (perm)	0	1850	0	0	1848	0	0	1623	0	0	1680	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	2					2	2		1	1		2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	25%	2%	2%	2%	14%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	115	0	0	146	0	0	18	0	0	15	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.3%		ICU Level of Service A	
Analysis Period (min) 15			

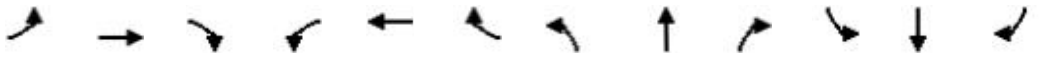
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	101	4	6	126	6	4	4	9	4	7	4
Future Vol, veh/h	4	101	4	6	126	6	4	4	9	4	7	4
Conflicting Peds, #/hr	2	0	0	0	0	2	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	25	2	2	2	14	2
Mvmt Flow	4	107	4	6	134	6	4	4	10	4	7	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	111	0	0	274	271	110	276	270	141
Stage 1	-	-	-	-	-	-	117	117	-	151	151	-
Stage 2	-	-	-	-	-	-	157	154	-	125	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.35	6.52	6.22	7.12	6.64	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.52	-	6.12	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.52	-	6.12	5.64	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.725	4.018	3.318	3.518	4.126	3.318
Pot Cap-1 Maneuver	1441	-	-	1479	-	-	634	636	943	676	617	907
Stage 1	-	-	-	-	-	-	835	799	-	851	750	-
Stage 2	-	-	-	-	-	-	794	770	-	879	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1438	-	-	1479	-	-	621	630	942	660	611	904
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	630	-	660	611	-
Stage 1	-	-	-	-	-	-	832	797	-	847	746	-
Stage 2	-	-	-	-	-	-	778	765	-	862	773	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.3	0.3	9.8	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	761	1438	-	-	1479	-	-	684
HCM Lane V/C Ratio	0.024	0.003	-	-	0.004	-	-	0.023
HCM Ctrl Dly (s/v)	9.8	7.5	0	-	7.4	0	-	10.4
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	120	4	20	137	22	4	4	17	14	4	4
Future Volume (vph)	4	120	4	20	137	22	4	4	17	14	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1853	0	0	1822	0	0	1674	0	0	1695	0
Flt Permitted		0.999			0.994			0.993			0.968	
Satd. Flow (perm)	0	1853	0	0	1822	0	0	1674	0	0	1695	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	4		1	1		4	1					1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	197	0	0	27	0	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.6%		ICU Level of Service A	
Analysis Period (min) 15			

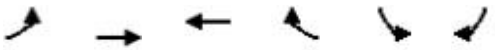
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	120	4	20	137	22	4	4	17	14	4	4
Future Vol, veh/h	4	120	4	20	137	22	4	4	17	14	4	4
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	25
Mvmt Flow	4	132	4	22	151	24	4	4	19	15	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	137	0	0	355	366	135	365	356	168
Stage 1	-	-	-	-	-	-	143	143	-	211	211	-
Stage 2	-	-	-	-	-	-	212	223	-	154	145	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.525
Pot Cap-1 Maneuver	1397	-	-	1447	-	-	600	562	914	591	570	820
Stage 1	-	-	-	-	-	-	860	779	-	791	728	-
Stage 2	-	-	-	-	-	-	790	719	-	848	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1392	-	-	1446	-	-	583	548	913	564	556	816
Mov Cap-2 Maneuver	-	-	-	-	-	-	583	548	-	564	556	-
Stage 1	-	-	-	-	-	-	857	776	-	785	713	-
Stage 2	-	-	-	-	-	-	767	704	-	823	774	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.8	9.9	11.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	763	1392	-	-	1446	-	-	596
HCM Lane V/C Ratio	0.036	0.003	-	-	0.015	-	-	0.041
HCM Ctrl Dly (s/v)	9.9	7.6	0	-	7.5	0	-	11.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	209	386	67	69	4
Future Volume (vph)	4	209	386	67	69	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1827	1845	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1827	1845	1583	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	4%	3%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	222	411	71	73	4
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.8%		ICU Level of Service A	
Analysis Period (min) 15			

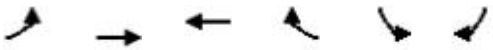
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	209	386	67	69	4
Future Vol, veh/h	4	209	386	67	69	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	2	2	2
Mvmt Flow	4	222	411	71	73	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	482	0	-	0	641	411
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1081	-	-	-	439	641
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1081	-	-	-	437	641
Mov Cap-2 Maneuver	-	-	-	-	437	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	808	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.2	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1081	-	-	-	437	641
HCM Lane V/C Ratio	0.004	-	-	-	0.168	0.007
HCM Ctrl Dly (s/v)	8.3	-	-	-	14.9	10.7
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q (veh)	0	-	-	-	0.6	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	221	412	47	33	4
Future Volume (vph)	7	221	412	47	33	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1837	0	1759	0
Flt Permitted	0.950				0.957	
Satd. Flow (perm)	1770	1827	1837	0	1759	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		598	
Travel Time (s)		17.0	32.1		16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	246	510	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.5%		ICU Level of Service A	
Analysis Period (min) 15			

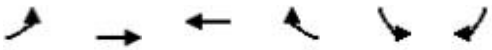
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	221	412	47	33	4
Future Vol, veh/h	7	221	412	47	33	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	8	246	458	52	37	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	510	0	-	0	746	484
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1055	-	-	-	381	583
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1055	-	-	-	378	583
Mov Cap-2 Maneuver	-	-	-	-	378	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.3	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1055	-	-	-	393
HCM Lane V/C Ratio	0.007	-	-	-	0.105
HCM Ctrl Dly (s/v)	8.4	-	-	-	15.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	251	457	88	51	4
Future Volume (vph)	4	251	457	88	51	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1822	0	1763	0
Flt Permitted	0.950				0.955	
Satd. Flow (perm)	1770	1827	1822	0	1763	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	497		553	
Travel Time (s)		32.1	9.7		15.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	279	606	0	61	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	251	457	88	51	4
Future Vol, veh/h	4	251	457	88	51	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	4	279	508	98	57	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	606	0	-	0	844	557
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	972	-	-	-	334	530
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	972	-	-	-	333	530
Mov Cap-2 Maneuver	-	-	-	-	333	-
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	762	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	17.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	972	-	-	-	342
HCM Lane V/C Ratio	0.005	-	-	-	0.179
HCM Ctrl Dly (s/v)	8.7	-	-	-	17.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.6

Synchro Output – Full Build Background

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	4	102	91	4	74	65	506	54	16	314	53
Future Volume (vph)	105	4	102	91	4	74	65	506	54	16	314	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1700	0	0	1697	1583	1671	1792	1509	1656	1734	0
Flt Permitted		0.976			0.954		0.950			0.950		
Satd. Flow (perm)	0	1700	0	0	1697	1583	1671	1792	1509	1656	1734	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Confl. Peds. (#/hr)	4					4	2					2
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	7%	2%	2%	8%	6%	7%	9%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	222	0	0	100	78	68	533	57	17	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	20.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	4	102	91	4	74	65	506	54	16	314	53
Future Vol, veh/h	105	4	102	91	4	74	65	506	54	16	314	53
Conflicting Peds, #/hr	4	0	0	0	0	4	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	7	2	2	8	6	7	9	8	2
Mvmt Flow	111	4	107	96	4	78	68	533	57	17	331	56

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1138	1121	361	1118	1092	537	389	0	0	590	0	0
Stage 1	395	395	-	669	669	-	-	-	-	-	-	-
Stage 2	743	726	-	449	423	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.17	6.52	6.22	4.18	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.17	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.17	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.563	4.018	3.318	2.272	-	-	2.281	-	-
Pot Cap-1 Maneuver	179	206	684	180	215	544	1138	-	-	952	-	-
Stage 1	630	605	-	439	456	-	-	-	-	-	-	-
Stage 2	407	430	-	580	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	141	190	683	140	198	542	1136	-	-	952	-	-
Mov Cap-2 Maneuver	141	190	-	140	198	-	-	-	-	-	-	-
Stage 1	591	593	-	413	429	-	-	-	-	-	-	-
Stage 2	323	404	-	477	576	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	94.5	48	0.9	0.4
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1136	-	-	231	142	542	952	-	-
HCM Lane V/C Ratio	0.06	-	-	0.961	0.704	0.144	0.018	-	-
HCM Control Delay (s/veh)	8.4	-	-	94.5	75.4	12.8	8.9	-	-
HCM Lane LOS	A	-	-	F	F	B	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	8.6	4	0.5	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	4	34	51	4	9	18	608	15	4	494	6
Future Volume (vph)	8	4	34	51	4	9	18	608	15	4	494	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1631	0	0	1735	0	1671	1776	1346	1770	1786	0
Flt Permitted		0.992			0.961		0.950			0.950		
Satd. Flow (perm)	0	1631	0	0	1735	0	1671	1776	1346	1770	1786	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1909			752	
Travel Time (s)		34.7			8.6			28.9			11.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	25%	2%	2%	25%	2%	8%	7%	20%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	67	0	19	640	16	4	526	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	4	34	51	4	9	18	608	15	4	494	6
Future Vol, veh/h	8	4	34	51	4	9	18	608	15	4	494	6
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	25	2	2	25	2	8	7	20	2	6	20
Mvmt Flow	8	4	36	54	4	9	19	640	16	4	520	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1225	1225	523	1229	1212	641	526	0	0	656	0	0
Stage 1	531	531	-	678	678	-	-	-	-	-	-	-
Stage 2	694	694	-	551	534	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.75	6.22	7.12	6.75	6.22	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.225	3.318	3.518	4.225	3.318	2.272	-	-	2.218	-	-
Pot Cap-1 Maneuver	156	162	554	155	165	475	1011	-	-	931	-	-
Stage 1	532	490	-	442	418	-	-	-	-	-	-	-
Stage 2	433	411	-	519	489	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	147	158	554	140	161	475	1011	-	-	931	-	-
Mov Cap-2 Maneuver	147	158	-	140	161	-	-	-	-	-	-	-
Stage 1	522	488	-	434	410	-	-	-	-	-	-	-
Stage 2	412	403	-	479	487	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	18	44.1	0.2	0.1
HCM LOS	C	E		

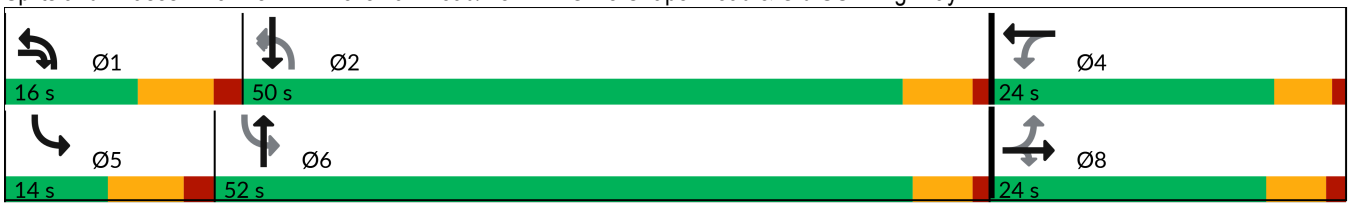
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1011	-	-	326	157	931	-	-
HCM Lane V/C Ratio	0.019	-	-	0.149	0.429	0.005	-	-
HCM Control Delay (s/veh)	8.6	-	-	18	44.1	8.9	-	-
HCM Lane LOS	A	-	-	C	E	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.5	1.9	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	240	214	63	117	52	166	453	137	122	405	38
Future Volume (vph)	83	240	214	63	117	52	166	453	137	122	405	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	250		175	250		0	150		0	150		150
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1787	1863	1337	1633	1666	0	1403	1659	0	1778	1801	1353
Flt Permitted	0.592			0.421			0.389			0.252		
Satd. Flow (perm)	1114	1863	1337	724	1666	0	575	1659	0	472	1801	1353
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			228		22			25				114
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1177			1091			1309			1909	
Travel Time (s)		22.9			21.3			19.8			28.9	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	22%	10%	7%	11%	28%	9%	11%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	255	228	67	179	0	177	628	0	130	431	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	1
Detector Template	Left		Right	Left			Left			Left		Right
Leading Detector (ft)	20	40	20	20	40		20	256		20	306	20
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Size(ft)	20	40	20	20	40		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	pm+ov	Perm	NA		D.P+P	NA		D.P+P	NA	Perm
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4			2			6		2
Detector Phase	8	8	1	4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0		7.0	12.0	12.0
Minimum Split (s)	13.0	13.0	14.0	12.0	12.0		14.0	18.0		14.0	18.0	18.0
Total Split (s)	24.0	24.0	16.0	24.0	24.0		16.0	52.0		14.0	50.0	50.0
Total Split (%)	26.7%	26.7%	17.8%	26.7%	26.7%		17.8%	57.8%		15.6%	55.6%	55.6%

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.1	4.1	5.0	3.8	3.8		5.0	4.1		5.0	4.7	4.7
All-Red Time (s)	1.3	1.3	2.0	1.0	1.0		2.0	1.0		2.0	1.0	1.0
Lost Time Adjust (s)	-0.4	-0.4	-2.0	0.2	0.2		-2.0	-0.1		-2.0	-0.7	-0.7
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Lead/Lag			Lead				Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min
Act Effct Green (s)	13.8	13.8	29.9	13.8	13.8		38.5	33.2		40.0	27.7	27.7
Actuated g/C Ratio	0.20	0.20	0.44	0.20	0.20		0.56	0.49		0.59	0.41	0.41
v/c Ratio	0.39	0.67	0.32	0.46	0.50		0.39	0.77		0.28	0.59	0.06
Control Delay (s/veh)	32.6	37.3	3.9	38.8	29.1		8.1	22.8		6.8	19.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	32.6	37.3	3.9	38.8	29.1		8.1	22.8		6.8	19.1	0.2
LOS	C	D	A	D	C		A	C		A	B	A
Approach Delay (s/veh)		23.3			31.8			19.5			15.2	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	31	98	0	25	58		26	215		18	134	0
Queue Length 95th (ft)	88	212	43	76	143		57	383		41	233	0
Internal Link Dist (ft)		1097			1011			1229			1829	
Turn Bay Length (ft)	250		175	250			150			150		150
Base Capacity (vph)	328	549	728	213	507		473	1202		459	1258	979
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.27	0.46	0.31	0.31	0.35		0.37	0.52		0.28	0.34	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 68.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 20.7		Intersection LOS: C	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

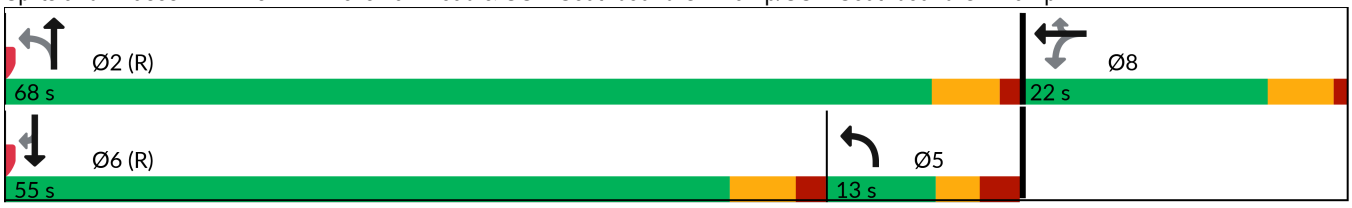


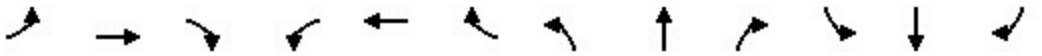
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	182	4	184	217	574	0	0	558	136
Future Volume (vph)	0	0	0	182	4	184	217	574	0	0	558	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	550		75	225		0	0		150
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	1415	1418	1415	1687	1776	0	0	1785	1424
Flt Permitted				0.950	0.954		0.350					
Satd. Flow (perm)	0	0	0	1415	1418	1415	621	1776	0	0	1785	1424
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						198						146
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	20%	25%	13%	7%	7%	2%	2%	7%	14%
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	100	100	198	233	617	0	0	600	146
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)				0	0	0	0	0			300	0
Detector 1 Size(ft)				20	40	40	20	40			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	15.0	0.0	15.0			0.0	0.0
Detector 2 Position(ft)								300				
Detector 2 Size(ft)								6				
Detector 2 Type								Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)								0.0				
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0	7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				13.0	13.0	13.0	13.0	18.0			19.0	19.0
Total Split (s)				22.0	22.0	22.0	13.0	68.0			55.0	55.0
Total Split (%)				24.4%	24.4%	24.4%	14.4%	75.6%			61.1%	61.1%
Yellow Time (s)				4.3	4.3	4.3	3.0	4.6			4.5	4.5
All-Red Time (s)				1.0	1.0	1.0	2.6	1.3			1.9	1.9
Lost Time Adjust (s)				-0.3	-0.3	-0.3	-0.6	-0.9			-1.4	-1.4
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)				11.3	11.3	11.3	68.7	68.7			55.7	55.7
Actuated g/C Ratio				0.13	0.13	0.13	0.76	0.76			0.62	0.62
v/c Ratio				0.57	0.56	0.57	0.41	0.46			0.54	0.16
Control Delay (s/veh)				48.9	48.7	12.0	2.1	2.6			12.8	2.0
Queue Delay				0.0	0.0	0.0	0.0	0.2			0.0	0.0
Total Delay (s/veh)				48.9	48.7	12.0	2.1	2.9			12.8	2.0
LOS				D	D	B	A	A			B	A
Approach Delay (s/veh)					30.5			2.7			10.7	
Approach LOS					C			A			B	
Queue Length 50th (ft)				57	57	0	1	56			176	0
Queue Length 95th (ft)				105	105	57	3	83			310	24
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)				550		75	225					150
Base Capacity (vph)				267	267	427	569	1356			1105	937
Starvation Cap Reductn				0	0	0	0	229			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.37	0.37	0.46	0.41	0.55			0.54	0.16

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 68 (76%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 11.2		Intersection LOS: B	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp



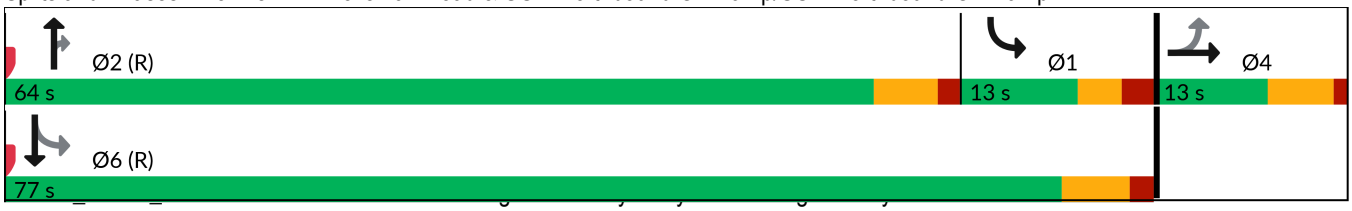


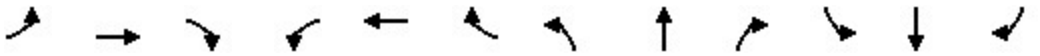
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	4	236	0	0	0	0	658	550	305	411	0
Future Volume (vph)	101	4	236	0	0	0	0	658	550	305	411	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		75	0		0	0		250	200		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1610	1480	0	0	0	0	1783	1545	1703	3252	0
Flt Permitted		0.954								0.308		
Satd. Flow (perm)	0	1610	1480	0	0	0	0	1783	1545	552	3252	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			251						585			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	50%	8%	2%	2%	2%	2%	6%	4%	6%	11%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	111	251	0	0	0	0	700	585	324	437	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Free					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2	6		
Detector Phase	4	4						2	2	1	6	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0						18.0	18.0	13.0	19.0	
Total Split (s)	13.0	13.0						64.0	64.0	13.0	77.0	
Total Split (%)	14.4%	14.4%						71.1%	71.1%	14.4%	85.6%	
Yellow Time (s)	4.3	4.3						4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0						1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3						-0.8	-0.5	-0.1	-1.1	
Total Lost Time (s)		5.0						5.0	5.3	5.0	5.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Act Effct Green (s)		7.9	90.0					59.1	58.8	72.1	72.1	
Actuated g/C Ratio		0.09	1.00					0.66	0.65	0.80	0.80	
v/c Ratio		0.79	0.17					0.60	0.48	0.60	0.17	
Control Delay (s/veh)		77.6	0.3					11.4	2.0	12.2	1.9	
Queue Delay		0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay (s/veh)		77.6	0.3					11.4	2.0	12.2	1.9	
LOS		E	A					B	A	B	A	
Approach Delay (s/veh)		24.0						7.1			6.3	
Approach LOS		C						A			A	
Queue Length 50th (ft)		63	0					201	0	42	0	
Queue Length 95th (ft)		#152	0					301	33	113	0	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			75						250	200		
Base Capacity (vph)		143	1480					1171	1212	544	2606	
Starvation Cap Reductn		0	0					0	0	0	0	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.78	0.17					0.60	0.48	0.60	0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 60 (67%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 9.4		Intersection LOS: A	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	149	4	7	72	11	4	4	12	13	4	4
Future Volume (vph)	4	149	4	7	72	11	4	4	12	13	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1846	0	0	1669	0	0	1691	0	0	1760	0
Flt Permitted		0.999			0.996			0.991			0.969	
Satd. Flow (perm)	0	1846	0	0	1669	0	0	1691	0	0	1760	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	15		5	5		15			2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	25%	2%	14%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	99	0	0	21	0	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.8%		ICU Level of Service A	
Analysis Period (min) 15			

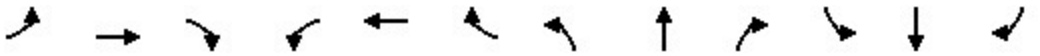
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	149	4	7	72	11	4	4	12	13	4	4
Future Vol, veh/h	4	149	4	7	72	11	4	4	12	13	4	4
Conflicting Peds, #/hr	15	0	5	5	0	15	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	25	2	14	2	2	2	2	2	2	2
Mvmt Flow	4	164	4	8	79	12	4	4	13	14	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	106	0	0	173	0	0	284	301	173	301	297	100
Stage 1	-	-	-	-	-	-	179	179	-	116	116	-
Stage 2	-	-	-	-	-	-	105	122	-	185	181	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1485	-	-	1404	-	-	668	612	871	651	615	956
Stage 1	-	-	-	-	-	-	823	751	-	889	800	-
Stage 2	-	-	-	-	-	-	901	795	-	817	750	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1464	-	-	1397	-	-	653	595	865	623	598	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	653	595	-	623	598	-
Stage 1	-	-	-	-	-	-	816	745	-	874	784	-
Stage 2	-	-	-	-	-	-	886	779	-	796	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.6	10	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	748	1464	-	-	1397	-	-	660
HCM Lane V/C Ratio	0.029	0.003	-	-	0.006	-	-	0.035
HCM Control Delay (s/veh)	10	7.5	0	-	7.6	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	164	4	7	77	13	4	4	26	25	4	4
Future Volume (vph)	4	164	4	7	77	13	4	4	26	25	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1829	0	0	1748	0	0	1657	0	0	1673	0
Flt Permitted		0.999			0.997			0.994			0.963	
Satd. Flow (perm)	0	1829	0	0	1748	0	0	1657	0	0	1673	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	3		4	4		3			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	25%	2%	5%	17%	2%	2%	2%	6%	25%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	0	0	103	0	0	36	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.8%		ICU Level of Service A	
Analysis Period (min) 15			

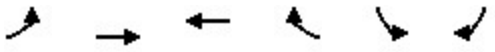
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	164	4	7	77	13	4	4	26	25	4	4
Future Vol, veh/h	4	164	4	7	77	13	4	4	26	25	4	4
Conflicting Peds, #/hr	3	0	4	4	0	3	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	3	25	2	5	17	2	2	2	6	25	2
Mvmt Flow	4	174	4	7	82	14	4	4	28	27	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	99	0	0	182	0	0	295	301	182	308	296	92
Stage 1	-	-	-	-	-	-	188	188	-	106	106	-
Stage 2	-	-	-	-	-	-	107	113	-	202	190	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.75	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.225	3.318
Pot Cap-1 Maneuver	1494	-	-	1393	-	-	657	612	861	637	579	965
Stage 1	-	-	-	-	-	-	814	745	-	890	765	-
Stage 2	-	-	-	-	-	-	898	802	-	791	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1388	-	-	644	603	856	606	570	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	644	603	-	606	570	-
Stage 1	-	-	-	-	-	-	808	740	-	885	759	-
Stage 2	-	-	-	-	-	-	885	796	-	757	697	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.5	9.8	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	787	1490	-	-	1388	-	-	629
HCM Lane V/C Ratio	0.046	0.003	-	-	0.005	-	-	0.056
HCM Control Delay (s/veh)	9.8	7.4	0	-	7.6	0	-	11.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	487	167	44	87	6
Future Volume (vph)	4	487	167	44	87	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1810	1810	1495	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1810	1810	1495	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Confl. Peds. (#/hr)	3			3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	5%	5%	8%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	513	176	46	92	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.1%		ICU Level of Service A	
Analysis Period (min) 15			

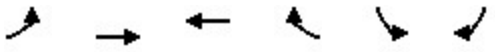
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	487	167	44	87	6
Future Vol, veh/h	4	487	167	44	87	6
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	5	8	2	2
Mvmt Flow	4	513	176	46	92	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	225	0	-	0	700	179
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1344	-	-	-	405	864
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	401	862
Mov Cap-2 Maneuver	-	-	-	-	401	-
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	594	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1340	-	-	-	401	862
HCM Lane V/C Ratio	0.003	-	-	-	0.228	0.007
HCM Control Delay (s/veh)	7.7	-	-	-	16.6	9.2
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q (veh)	0	-	-	-	0.9	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	498	246	12	34	4
Future Volume (vph)	4	498	246	12	34	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1624	0	1759	0
Flt Permitted	0.950				0.957	
Satd. Flow (perm)	1770	1776	1624	0	1759	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		582	
Travel Time (s)		17.0	32.1		15.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	17%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	553	286	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

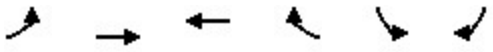
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	498	246	12	34	4
Future Vol, veh/h	4	498	246	12	34	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	17	2	2	2
Mvmt Flow	4	553	273	13	38	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	286	0	-	0	841	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	561	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1276	-	-	-	335	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	571	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1276	-	-	-	334	759
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	571	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1276	-	-	-	355
HCM Lane V/C Ratio	0.003	-	-	-	0.119
HCM Control Delay (s/veh)	7.8	-	-	-	16.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	532	258	13	38	4
Future Volume (vph)	4	532	258	13	38	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1624	0	1759	0
Flt Permitted	0.950				0.956	
Satd. Flow (perm)	1770	1776	1624	0	1759	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	1177		561	
Travel Time (s)		32.1	22.9		15.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	17%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	591	301	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	532	258	13	38	4
Future Vol, veh/h	4	532	258	13	38	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	17	2	2	2
Mvmt Flow	4	591	287	14	42	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	301	0	-	0	893	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	599	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1260	-	-	-	312	745
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	549	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1260	-	-	-	311	745
Mov Cap-2 Maneuver	-	-	-	-	311	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1260	-	-	-	329
HCM Lane V/C Ratio	0.004	-	-	-	0.142
HCM Control Delay (s/veh)	7.9	-	-	-	17.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	4	76	62	6	42	89	342	91	63	505	102
Future Volume (vph)	69	4	76	62	6	42	89	342	91	63	505	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1629	0	0	1638	1509	1752	1810	1524	1770	1759	0
Flt Permitted		0.977			0.956		0.950			0.950		
Satd. Flow (perm)	0	1629	0	0	1638	1509	1752	1810	1524	1770	1759	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	2%	10%	10%	20%	7%	3%	5%	6%	2%	6%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	80	49	105	402	107	74	714	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	38.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	4	76	62	6	42	89	342	91	63	505	102
Future Vol, veh/h	69	4	76	62	6	42	89	342	91	63	505	102
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	10	10	20	7	3	5	6	2	6	2
Mvmt Flow	81	5	89	73	7	49	105	402	107	74	594	120

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1496	1521	654	1461	1474	402	714	0	0	509	0	0
Stage 1	802	802	-	612	612	-	-	-	-	-	-	-
Stage 2	694	719	-	849	862	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.3	7.2	6.7	6.27	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.39	3.59	4.18	3.363	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	101	118	453	103	116	638	882	-	-	1056	-	-
Stage 1	378	396	-	467	457	-	-	-	-	-	-	-
Stage 2	433	433	-	344	348	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 76	97	453	~ 69	95	638	882	-	-	1056	-	-
Mov Cap-2 Maneuver	~ 76	97	-	~ 69	95	-	-	-	-	-	-	-
Stage 1	333	368	-	411	403	-	-	-	-	-	-	-
Stage 2	346	381	-	253	324	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	249.1	157	1.6	0.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	882	-	-	133	71	638	1056	-	-
HCM Lane V/C Ratio	0.119	-	-	1.318	1.127	0.077	0.07	-	-
HCM Control Delay (s/veh)	9.6	-	-	249.1	247.1	11.1	8.7	-	-
HCM Lane LOS	A	-	-	F	F	B	A	-	-
HCM 95th %tile Q (veh)	0.4	-	-	11.2	6.1	0.3	0.2	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	4	16	23	4	5	25	524	47	5	630	11
Future Volume (vph)	7	4	16	23	4	5	25	524	47	5	630	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1391	0	0	1711	0	1770	1792	1583	1444	1740	0
Flt Permitted		0.988			0.966		0.950			0.950		
Satd. Flow (perm)	0	1391	0	0	1711	0	1770	1792	1583	1444	1740	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1909			752	
Travel Time (s)		34.7			8.6			28.9			11.4	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	17%	2%	33%	2%	25%	2%	2%	6%	2%	25%	9%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	32	0	0	38	0	29	616	55	6	754	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	4	16	23	4	5	25	524	47	5	630	11
Future Vol, veh/h	7	4	16	23	4	5	25	524	47	5	630	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	17	2	33	2	25	2	2	6	2	25	9	2
Mvmt Flow	8	5	19	27	5	6	29	616	55	6	741	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1467	1489	748	1446	1440	616	754	0	0	671	0	0
Stage 1	760	760	-	674	674	-	-	-	-	-	-	-
Stage 2	707	729	-	772	766	-	-	-	-	-	-	-
Critical Hdwy	7.27	6.52	6.53	7.12	6.75	6.22	4.12	-	-	4.35	-	-
Critical Hdwy Stg 1	6.27	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.27	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.653	4.018	3.597	3.518	4.225	3.318	2.218	-	-	2.425	-	-
Pot Cap-1 Maneuver	98	124	366	109	119	491	856	-	-	820	-	-
Stage 1	376	414	-	444	420	-	-	-	-	-	-	-
Stage 2	403	428	-	392	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	91	119	366	97	114	491	856	-	-	820	-	-
Mov Cap-2 Maneuver	91	119	-	97	114	-	-	-	-	-	-	-
Stage 1	363	411	-	429	406	-	-	-	-	-	-	-
Stage 2	380	413	-	365	377	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	30.1	52	0.4	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	856	-	-	175	113	820	-	-
HCM Lane V/C Ratio	0.034	-	-	0.182	0.333	0.007	-	-
HCM Control Delay (s/veh)	9.4	-	-	30.1	52	9.4	-	-
HCM Lane LOS	A	-	-	D	F	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.6	1.3	0	-	-

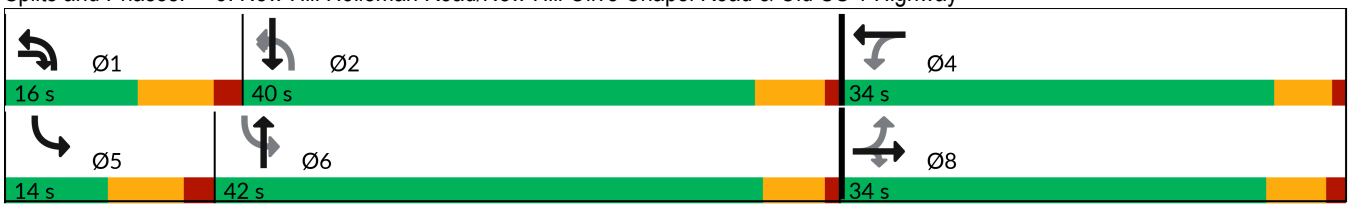
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	147	159	101	318	117	262	365	94	95	487	127
Future Volume (vph)	49	147	159	101	318	117	262	365	94	95	487	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	250		175	250		0	150		0	150		150
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1787	1881	1496	1761	1779	0	1761	1771	0	1778	1819	1561
Flt Permitted	0.219			0.663			0.263			0.341		
Satd. Flow (perm)	412	1881	1496	1229	1779	0	487	1771	0	638	1819	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			161		22			17				119
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1183			1091			1309			1909	
Travel Time (s)		23.0			21.3			19.8			28.9	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	9%	2%	2%	2%	2%	3%	5%	2%	5%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	148	161	102	439	0	265	464	0	96	492	128
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	1
Detector Template	Left		Right	Left			Left			Left		Right
Leading Detector (ft)	20	40	20	20	40		20	256		20	306	20
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Size(ft)	20	40	20	20	40		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	pm+ov	Perm	NA		D.P+P	NA		D.P+P	NA	Perm
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4			2			6		2
Detector Phase	8	8	1	4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0		7.0	12.0	12.0
Minimum Split (s)	13.0	13.0	14.0	12.0	12.0		14.0	18.0		14.0	18.0	18.0
Total Split (s)	34.0	34.0	16.0	34.0	34.0		16.0	42.0		14.0	40.0	40.0
Total Split (%)	37.8%	37.8%	17.8%	37.8%	37.8%		17.8%	46.7%		15.6%	44.4%	44.4%
Yellow Time (s)	4.1	4.1	5.0	3.8	3.8		5.0	4.1		5.0	4.7	4.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	1.3	1.3	2.0	1.0	1.0		2.0	1.0		2.0	1.0	1.0
Lost Time Adjust (s)	-0.4	-0.4	-2.0	0.2	0.2		-2.0	-0.1		-2.0	-0.7	-0.7
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Lead/Lag			Lead				Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min
Act Effct Green (s)	21.0	21.0	37.3	21.0	21.0		35.6	30.2		37.0	24.5	24.5
Actuated g/C Ratio	0.29	0.29	0.52	0.29	0.29		0.49	0.42		0.51	0.34	0.34
v/c Ratio	0.41	0.27	0.19	0.29	0.83		0.61	0.62		0.20	0.80	0.21
Control Delay (s/veh)	34.3	22.4	2.7	23.7	37.8		15.9	22.7		9.5	32.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	34.3	22.4	2.7	23.7	37.8		15.9	22.7		9.5	32.9	5.4
LOS	C	C	A	C	D		B	C		A	C	A
Approach Delay (s/veh)		15.1			35.2			20.2			24.8	
Approach LOS		B			D			C			C	
Queue Length 50th (ft)	17	50	0	35	171		55	166		18	195	3
Queue Length 95th (ft)	56	107	29	84	#327		115	301		45	345	37
Internal Link Dist (ft)		1103			1011			1229			1829	
Turn Bay Length (ft)	250		175	250			150			150		150
Base Capacity (vph)	172	788	857	515	758		445	955		475	920	848
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.28	0.19	0.19	0.20	0.58		0.60	0.49		0.20	0.53	0.15

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 72.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay (s/veh): 24.3 Intersection LOS: C
Intersection Capacity Utilization 86.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

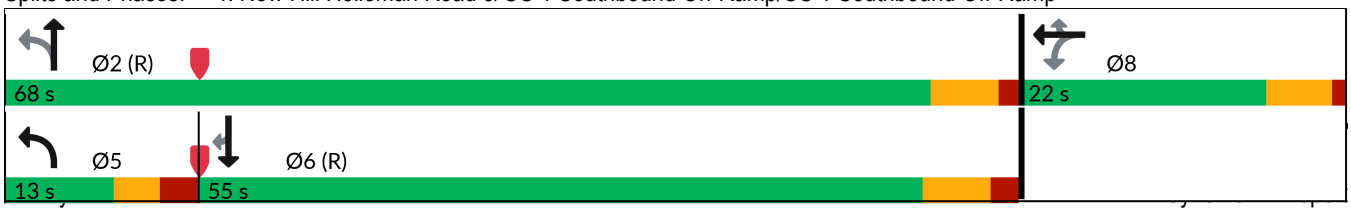


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	553	4	340	302	388	0	0	674	96
Future Volume (vph)	0	0	0	553	4	340	302	388	0	0	674	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	550		75	225		0	0		150
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	1632	1638	1568	1736	1845	0	0	1836	1591
Flt Permitted				0.950	0.953		0.216					
Satd. Flow (perm)	0	0	0	1632	1638	1568	395	1845	0	0	1836	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						240						96
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	4%	3%	2%	2%	4%	2%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	285	289	351	311	400	0	0	695	99
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)				0	0	0	0	0			300	0
Detector 1 Size(ft)				20	40	40	20	40			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	15.0	0.0	15.0			0.0	0.0
Detector 2 Position(ft)								300				
Detector 2 Size(ft)								6				
Detector 2 Type								Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)								0.0				
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0	7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				13.0	13.0	13.0	13.0	18.0			19.0	19.0
Total Split (s)				22.0	22.0	22.0	13.0	68.0			55.0	55.0
Total Split (%)				24.4%	24.4%	24.4%	14.4%	75.6%			61.1%	61.1%
Yellow Time (s)				4.3	4.3	4.3	3.0	4.6			4.5	4.5
All-Red Time (s)				1.0	1.0	1.0	2.6	1.3			1.9	1.9
Lost Time Adjust (s)				-0.3	-0.3	-0.3	-0.6	-0.9			-1.4	-1.4
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)				16.9	16.9	16.9	63.1	63.1			50.0	50.0
Actuated g/C Ratio				0.19	0.19	0.19	0.70	0.70			0.56	0.56
v/c Ratio				0.93	0.94	0.72	0.78	0.31			0.68	0.11
Control Delay (s/veh)				74.3	76.1	20.7	19.2	2.8			18.6	2.5
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay (s/veh)				74.3	76.1	20.7	19.2	2.8			18.6	2.5
LOS				E	E	C	B	A			B	A
Approach Delay (s/veh)					54.5			10.0			16.6	
Approach LOS					D			A			B	
Queue Length 50th (ft)				169	171	56	29	26			264	1
Queue Length 95th (ft)				#328	#332	#156	#86	m48			392	22
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)				550		75	225					150
Base Capacity (vph)				308	309	490	397	1293			1020	926
Starvation Cap Reductn				0	0	0	0	0			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.93	0.94	0.72	0.78	0.31			0.68	0.11

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 27 (30%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 29.1		Intersection LOS: C	
Intersection Capacity Utilization 80.1%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp



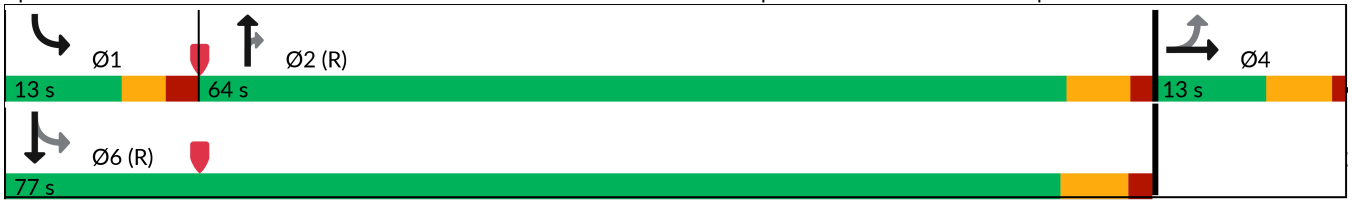
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	4	247	0	0	0	0	574	288	215	1002	0
Future Volume (vph)	115	4	247	0	0	0	0	574	288	215	1002	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		75	0		0	0		250	200		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1747	1552	0	0	0	0	1818	1530	1736	3471	0
Flt Permitted		0.954								0.323		
Satd. Flow (perm)	0	1747	1552	0	0	0	0	1818	1530	590	3471	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			266						310			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	25%	3%	2%	2%	2%	2%	4%	5%	4%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	266	0	0	0	0	617	310	231	1077	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Free					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2	6		
Detector Phase	4	4						2	2	1	6	

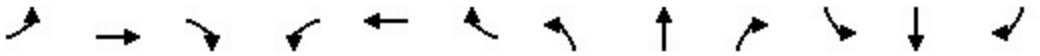
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	7.0	7.0						12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0						18.0	18.0	13.0	19.0	
Total Split (s)	13.0	13.0						64.0	64.0	13.0	77.0	
Total Split (%)	14.4%	14.4%						71.1%	71.1%	14.4%	85.6%	
Yellow Time (s)	4.3	4.3						4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0						1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3						-0.8	-0.5	-0.1	-1.1	
Total Lost Time (s)		5.0						5.0	5.3	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Act Effct Green (s)		8.0	90.0					59.5	59.2	72.0	72.0	
Actuated g/C Ratio		0.09	1.00					0.66	0.66	0.80	0.80	
v/c Ratio		0.83	0.17					0.51	0.28	0.41	0.39	
Control Delay (s/veh)		80.4	0.2					9.8	1.4	6.1	2.1	
Queue Delay		0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay (s/veh)		80.4	0.2					9.8	1.4	6.1	2.1	
LOS		F	A					A	A	A	A	
Approach Delay (s/veh)		26.3						7.0			2.8	
Approach LOS		C						A			A	
Queue Length 50th (ft)		73	0					158	0	28	34	
Queue Length 95th (ft)		#171	0					242	26	m74	m67	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			75						250	200		
Base Capacity (vph)		155	1552					1202	1112	573	2777	
Starvation Cap Reductn		0	0					0	0	0	0	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.83	0.17					0.51	0.28	0.40	0.39	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay (s/veh): 7.8 Intersection LOS: A
Intersection Capacity Utilization 80.1% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	109	4	9	138	13	5	4	14	13	4	4
Future Volume (vph)	4	109	4	9	138	13	5	4	14	13	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1852	0	0	1837	0	0	1613	0	0	1691	0
Flt Permitted		0.998			0.997			0.990			0.969	
Satd. Flow (perm)	0	1852	0	0	1837	0	0	1613	0	0	1691	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	2					2	2		1	1		2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	25%	2%	2%	2%	25%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	171	0	0	24	0	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.6%		ICU Level of Service A	
Analysis Period (min) 15			

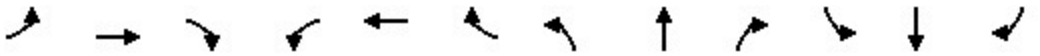
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	109	4	9	138	13	5	4	14	13	4	4
Future Vol, veh/h	4	109	4	9	138	13	5	4	14	13	4	4
Conflicting Peds, #/hr	2	0	0	0	0	2	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	25	2	2	2	25	2
Mvmt Flow	4	116	4	10	147	14	5	4	15	14	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	163	0	0	120	0	0	306	309	119	313	304	158
Stage 1	-	-	-	-	-	-	126	126	-	176	176	-
Stage 2	-	-	-	-	-	-	180	183	-	137	128	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.35	6.52	6.22	7.12	6.75	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.52	-	6.12	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.52	-	6.12	5.75	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.725	4.018	3.318	3.518	4.225	3.318
Pot Cap-1 Maneuver	1416	-	-	1468	-	-	604	605	933	640	573	887
Stage 1	-	-	-	-	-	-	825	792	-	826	712	-
Stage 2	-	-	-	-	-	-	771	748	-	866	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1413	-	-	1468	-	-	592	598	932	620	566	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	592	598	-	620	566	-
Stage 1	-	-	-	-	-	-	823	790	-	822	706	-
Stage 2	-	-	-	-	-	-	756	741	-	844	746	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.3	0.4	9.9	10.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	763	1413	-	-	1468	-	-	645
HCM Lane V/C Ratio	0.032	0.003	-	-	0.007	-	-	0.035
HCM Control Delay (s/veh)	9.9	7.6	0	-	7.5	0	-	10.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	143	4	20	157	28	4	4	18	21	4	4
Future Volume (vph)	4	143	4	20	157	28	4	4	18	21	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1855	0	0	1818	0	0	1672	0	0	1715	0
Flt Permitted		0.999			0.995			0.993			0.964	
Satd. Flow (perm)	0	1855	0	0	1818	0	0	1672	0	0	1715	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	4		1	1		4	1					1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	226	0	0	28	0	0	31	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.4%		ICU Level of Service A	
Analysis Period (min) 15			

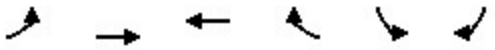
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	143	4	20	157	28	4	4	18	21	4	4
Future Vol, veh/h	4	143	4	20	157	28	4	4	18	21	4	4
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	25
Mvmt Flow	4	157	4	22	173	31	4	4	20	23	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	208	0	0	162	0	0	406	420	160	416	407	194
Stage 1	-	-	-	-	-	-	168	168	-	237	237	-
Stage 2	-	-	-	-	-	-	238	252	-	179	170	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.525
Pot Cap-1 Maneuver	1363	-	-	1417	-	-	555	525	885	547	533	792
Stage 1	-	-	-	-	-	-	834	759	-	766	709	-
Stage 2	-	-	-	-	-	-	765	698	-	823	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1358	-	-	1416	-	-	538	511	884	521	519	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	538	511	-	521	519	-
Stage 1	-	-	-	-	-	-	831	756	-	761	693	-
Stage 2	-	-	-	-	-	-	742	683	-	798	755	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.7	10.1	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	730	1358	-	-	1416	-	-	546
HCM Lane V/C Ratio	0.039	0.003	-	-	0.016	-	-	0.058
HCM Control Delay (s/veh)	10.1	7.7	0	-	7.6	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	306	550	80	84	4
Future Volume (vph)	4	306	550	80	84	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1827	1845	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1827	1845	1583	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	4%	3%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	326	585	85	89	4
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

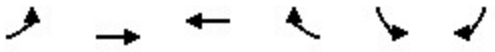
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	306	550	80	84	4
Future Vol, veh/h	4	306	550	80	84	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	2	2	2
Mvmt Flow	4	326	585	85	89	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	670	0	-	0	919	585
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	334	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	920	-	-	-	301	511
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	920	-	-	-	300	511
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	725	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	21.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	920	-	-	-	300	511
HCM Lane V/C Ratio	0.005	-	-	-	0.298	0.008
HCM Control Delay (s/veh)	8.9	-	-	-	22	12.1
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q (veh)	0	-	-	-	1.2	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	335	590	39	23	4
Future Volume (vph)	4	335	590	39	23	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1848	0	1752	0
Flt Permitted	0.950				0.958	
Satd. Flow (perm)	1770	1827	1848	0	1752	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		593	
Travel Time (s)		17.0	32.1		16.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	372	699	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

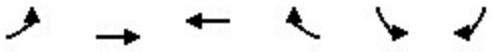
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	335	590	39	23	4
Future Vol, veh/h	4	335	590	39	23	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	4	372	656	43	26	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	699	0	-	0	1058	678
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	380	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	898	-	-	-	249	452
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	691	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	898	-	-	-	248	452
Mov Cap-2 Maneuver	-	-	-	-	248	-
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	691	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	20.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	898	-	-	-	266
HCM Lane V/C Ratio	0.005	-	-	-	0.113
HCM Control Delay (s/veh)	9	-	-	-	20.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	358	629	43	25	4
Future Volume (vph)	4	358	629	43	25	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1846	0	1754	0
Flt Permitted	0.950				0.958	
Satd. Flow (perm)	1770	1827	1846	0	1754	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	1183		538	
Travel Time (s)		32.1	23.0		14.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	398	747	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	358	629	43	25	4
Future Vol, veh/h	4	358	629	43	25	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	4	398	699	48	28	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	747	0	-	0	1129	723
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	406	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	861	-	-	-	226	426
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	673	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	861	-	-	-	225	426
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	673	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	22.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	861	-	-	-	241
HCM Lane V/C Ratio	0.005	-	-	-	0.134
HCM Control Delay (s/veh)	9.2	-	-	-	22.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.5

Synchro Output – Full Build Build-Out

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	4	96	112	4	74	61	525	67	16	337	54
Future Volume (vph)	111	4	96	112	4	74	61	525	67	16	337	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1704	0	0	1712	1583	1656	1792	1524	1656	1736	0
Flt Permitted		0.974			0.954		0.950			0.950		
Satd. Flow (perm)	0	1704	0	0	1712	1583	1656	1792	1524	1656	1736	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Confl. Peds. (#/hr)	4					4	2					2
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%	9%	6%	6%	9%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	222	0	0	122	78	64	553	71	17	412	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.9%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	29

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	4	96	112	4	74	61	525	67	16	337	54
Future Vol, veh/h	111	4	96	112	4	74	61	525	67	16	337	54
Conflicting Peds, #/hr	4	0	0	0	0	4	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	2	9	6	6	9	8	2
Mvmt Flow	117	4	101	118	4	78	64	553	71	17	355	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1182	1172	386	1151	1129	557	414	0	0	624	0	0
Stage 1	420	420	-	681	681	-	-	-	-	-	-	-
Stage 2	762	752	-	470	448	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.16	6.52	6.22	4.19	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.16	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.16	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.554	4.018	3.318	2.281	-	-	2.281	-	-
Pot Cap-1 Maneuver	167	192	662	172	204	530	1108	-	-	924	-	-
Stage 1	611	589	-	434	450	-	-	-	-	-	-	-
Stage 2	397	418	-	566	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	131	177	661	135	188	528	1106	-	-	924	-	-
Mov Cap-2 Maneuver	131	177	-	135	188	-	-	-	-	-	-	-
Stage 1	574	577	-	409	424	-	-	-	-	-	-	-
Stage 2	314	394	-	467	562	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	130	74.9	0.8	0.4
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1106	-	-	208	136	528	924	-	-
HCM Lane V/C Ratio	0.058	-	-	1.068	0.898	0.148	0.018	-	-
HCM Ctrl Dly (s/v)	8.5	-	-	130	114.4	13	9	-	-
HCM Lane LOS	A	-	-	F	F	B	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	10.1	6	0.5	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	4	35	61	4	9	17	629	21	4	530	7
Future Volume (vph)	14	4	35	61	4	9	17	629	21	4	530	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1648	0	0	1739	0	1671	1776	1404	1770	1787	0
Flt Permitted		0.987			0.960		0.950			0.950		
Satd. Flow (perm)	0	1648	0	0	1739	0	1671	1776	1404	1770	1787	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1163			752	
Travel Time (s)		34.7			8.6			17.6			11.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	25%	2%	2%	25%	2%	8%	7%	15%	2%	6%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	77	0	18	662	22	4	565	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	4	35	61	4	9	17	629	21	4	530	7
Future Vol, veh/h	14	4	35	61	4	9	17	629	21	4	530	7
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	25	2	2	25	2	8	7	15	2	6	15
Mvmt Flow	15	4	37	64	4	9	18	662	22	4	558	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1287	1290	562	1288	1271	663	565	0	0	684	0	0
Stage 1	570	570	-	698	698	-	-	-	-	-	-	-
Stage 2	717	720	-	590	573	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.75	6.22	7.12	6.75	6.22	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.75	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.225	3.318	3.518	4.225	3.318	2.272	-	-	2.218	-	-
Pot Cap-1 Maneuver	141	147	526	141	151	461	977	-	-	909	-	-
Stage 1	506	470	-	431	409	-	-	-	-	-	-	-
Stage 2	421	400	-	494	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	133	144	526	126	148	461	977	-	-	909	-	-
Mov Cap-2 Maneuver	133	144	-	126	148	-	-	-	-	-	-	-
Stage 1	497	468	-	423	402	-	-	-	-	-	-	-
Stage 2	400	393	-	453	467	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.1	59.7	0.2	0.1
HCM LOS	C	F		

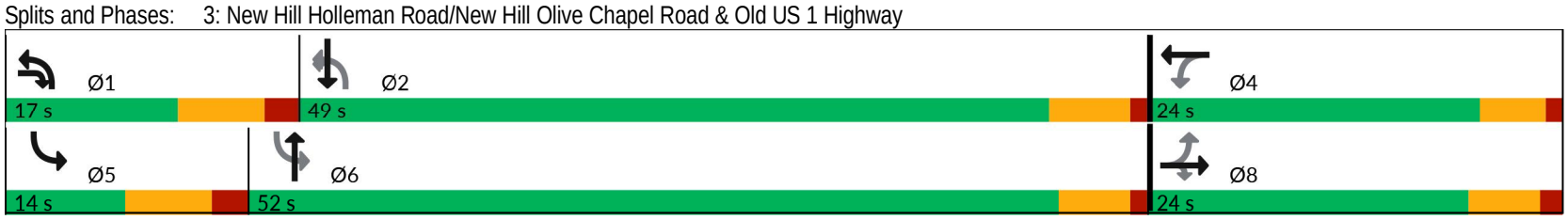
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	977	-	-	266	139	909	-	-
HCM Lane V/C Ratio	0.018	-	-	0.21	0.56	0.005	-	-
HCM Ctrl Dly (s/v)	8.8	-	-	22.1	59.7	9	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.8	2.8	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	259	240	63	144	61	199	481	137	136	436	38
Future Volume (vph)	83	259	240	63	144	61	199	481	137	136	436	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	250		175	250		0	150		0	150		150
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1787	1863	1359	1633	1684	0	1448	1663	0	1778	1801	1353
Flt Permitted	0.503			0.379			0.352			0.230		
Satd. Flow (perm)	946	1863	1359	651	1684	0	537	1663	0	431	1801	1353
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			255		22			24				114
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		375			1091			1309			400	
Travel Time (s)		7.3			21.3			19.8			6.1	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	20%	10%	6%	10%	24%	9%	11%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	276	255	67	218	0	212	658	0	145	464	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	1
Detector Template												
Leading Detector (ft)	40	40	40	40	40		40	256		40	306	40
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Position(ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Size(ft)	40	40	40	40	40		40	6		40	6	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	pm+ov	Perm	NA		D.P+P	NA		D.P+P	NA	Perm
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4			2			6		2
Detector Phase	8	8	1	4	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0		7.0	12.0	12.0
Minimum Split (s)	13.0	13.0	14.0	12.0	12.0		14.0	18.0		14.0	18.0	18.0
Total Split (s)	24.0	24.0	17.0	24.0	24.0		17.0	52.0		14.0	49.0	49.0
Total Split (%)	26.7%	26.7%	18.9%	26.7%	26.7%		18.9%	57.8%		15.6%	54.4%	54.4%
Yellow Time (s)	4.1	4.1	5.0	3.8	3.8		5.0	4.1		5.0	4.7	4.7
All-Red Time (s)	1.3	1.3	2.0	1.0	1.0		2.0	1.0		2.0	1.0	1.0
Lost Time Adjust (s)	-0.4	-0.4	-2.0	0.2	0.2		-2.0	-0.1		-2.0	-0.7	-0.7
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Lead/Lag			Lead				Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min
Act Effct Green (s)	14.9	14.9	31.6	14.9	14.9		40.0	34.8		41.5	28.5	28.5
Actuated g/C Ratio	0.21	0.21	0.45	0.21	0.21		0.57	0.49		0.59	0.40	0.40
v/c Ratio	0.44	0.71	0.34	0.49	0.59		0.47	0.79		0.33	0.64	0.07
Control Delay (s/veh)	35.9	39.3	3.8	42.0	32.3		9.4	24.4		7.5	21.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	35.9	39.3	3.8	42.0	32.3		9.4	24.4		7.5	21.1	0.2
LOS	D	D	A	D	C		A	C		A	C	A
Approach Delay (s/veh)		24.2			34.6			20.8			16.8	
Approach LOS		C			C			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	114	0	26	79		34	243		22	158	0
Queue Length 95th (ft)	90	#235	44	78	175		68	415		45	261	0
Internal Link Dist (ft)		295			1011			1229			320	
Turn Bay Length (ft)	250		175	250			150			150		150
Base Capacity (vph)	269	530	768	185	494		476	1168		434	1187	930
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.33	0.52	0.33	0.36	0.44		0.45	0.56		0.33	0.39	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 70.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 22.2		Intersection LOS: C	
Intersection Capacity Utilization 77.3%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

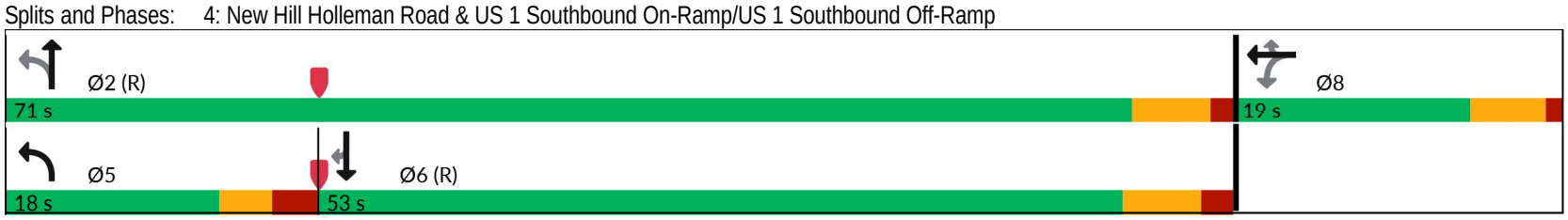


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	181	4	211	217	609	0	0	597	155
Future Volume (vph)	0	0	0	181	4	211	217	609	0	0	597	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	550		75	225		0	0		150
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	1415	1418	1440	1687	1776	0	0	1785	1449
Flt Permitted				0.950	0.954		0.285					
Satd. Flow (perm)	0	0	0	1415	1418	1440	506	1776	0	0	1785	1449
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						227						156
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	20%	25%	11%	7%	7%	2%	2%	7%	12%
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	99	100	227	233	655	0	0	642	167
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)	0	0	0	0	0						300	0
Detector 1 Size(ft)	20	40	40	20	40						6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						0.0	0.0
Detector 1 Delay (s)	0.0	0.0	15.0	0.0	15.0						0.0	0.0
Detector 2 Position(ft)					300							
Detector 2 Size(ft)					6							
Detector 2 Type					Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)					0.0							
Turn Type	Perm	NA	Perm	pm+pt	NA						NA	Perm
Protected Phases		8		5	2						6	
Permitted Phases	8		8	2								6
Detector Phase	8	8	8	5	2						6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	12.0						12.0	12.0
Minimum Split (s)	13.0	13.0	13.0	13.0	18.0						19.0	19.0
Total Split (s)	19.0	19.0	19.0	18.0	71.0						53.0	53.0
Total Split (%)	21.1%	21.1%	21.1%	20.0%	78.9%						58.9%	58.9%
Yellow Time (s)	4.3	4.3	4.3	3.0	4.6						4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	2.6	1.3						1.9	1.9
Lost Time Adjust (s)	-0.3	-0.3	-0.3	-0.6	-0.9						-1.4	-1.4
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0						5.0	5.0
Lead/Lag				Lead							Lag	Lag
Lead-Lag Optimize?				Yes							Yes	Yes
Recall Mode	None	None	None	None	C-Max						C-Max	C-Max
Act Effct Green (s)	10.8	10.8	10.8	69.2	69.2						55.2	55.2
Actuated g/C Ratio	0.12	0.12	0.12	0.77	0.77						0.61	0.61
v/c Ratio	0.58	0.59	0.61	0.46	0.48						0.59	0.18
Control Delay (s/veh)	50.8	51.0	12.6	4.5	3.2						14.2	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.6						0.0	0.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)				50.8	51.0	12.6	4.5	3.8			14.2	2.4
LOS				D	D	B	A	A			B	A
Approach Delay (s/veh)					30.5			4.0			11.8	
Approach LOS					C			A			B	
Queue Length 50th (ft)				56	57	0	3	82			198	2
Queue Length 95th (ft)				107	108	64	m11	100			360	30
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)				550		75	225					150
Base Capacity (vph)				220	220	415	559	1364			1094	949
Starvation Cap Reductn				0	0	0	0	348			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.45	0.45	0.55	0.42	0.64			0.59	0.18

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 79 (88%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 12.3		Intersection LOS: B	
Intersection Capacity Utilization 73.2%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp

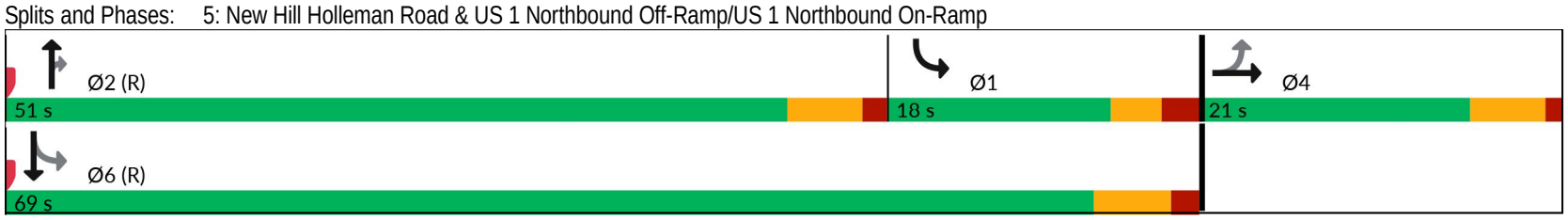


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	4	236	0	0	0	0	670	550	332	423	0
Future Volume (vph)	124	4	236	0	0	0	0	670	550	332	423	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		75	0		0	0		250	200		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1628	1480	0	0	0	0	1783	1545	1703	3252	0
Flt Permitted		0.954								0.243		
Satd. Flow (perm)	0	1628	1480	0	0	0	0	1783	1545	436	3252	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			251						585			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	9%	50%	8%	2%	2%	2%	2%	6%	4%	6%	11%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	136	251	0	0	0	0	713	585	353	450	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Free					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2	6		
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0						12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0						18.0	18.0	13.0	19.0	
Total Split (s)	21.0	21.0						51.0	51.0	18.0	69.0	
Total Split (%)	23.3%	23.3%						56.7%	56.7%	20.0%	76.7%	
Yellow Time (s)	4.3	4.3						4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0						1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3						-0.8	-0.8	-0.1	-1.1	
Total Lost Time (s)		5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Act Effct Green (s)		11.9	90.0					50.1	50.1	68.1	68.1	
Actuated g/C Ratio		0.13	1.00					0.56	0.56	0.76	0.76	
v/c Ratio		0.63	0.17					0.72	0.52	0.69	0.18	
Control Delay (s/veh)		49.7	0.3					20.9	2.9	17.8	4.0	
Queue Delay		0.0	0.0					0.0	0.0	0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)		49.7	0.3					20.9	2.9	17.8	4.0	
LOS		D	A					C	A	B	A	
Approach Delay (s/veh)		17.6						12.8			10.1	
Approach LOS		B						B			B	
Queue Length 50th (ft)		74	0					282	0	73	40	
Queue Length 95th (ft)		127	0					472	50	152	93	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			75						250	200		
Base Capacity (vph)		289	1480					992	1119	512	2459	
Starvation Cap Reductn		0	0					0	0	0	0	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.47	0.17					0.72	0.52	0.69	0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 60 (67%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 12.7		Intersection LOS: B	
Intersection Capacity Utilization 73.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	159	13	6	78	9	7	4	13	10	4	4
Future Volume (vph)	4	159	13	6	78	9	7	4	13	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1833	0	0	1682	0	0	1701	0	0	1760	0
Flt Permitted		0.999			0.997			0.985			0.972	
Satd. Flow (perm)	0	1833	0	0	1682	0	0	1701	0	0	1760	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	15		5	5		15			2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	9%	2%	13%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	193	0	0	103	0	0	26	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	159	13	6	78	9	7	4	13	10	4	4
Future Vol, veh/h	4	159	13	6	78	9	7	4	13	10	4	4
Conflicting Peds, #/hr	15	0	5	5	0	15	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	9	2	13	2	2	2	2	2	2	2
Mvmt Flow	4	175	14	7	86	10	8	4	14	11	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	194	0	0	304	320	189	321	322	106
Stage 1	-	-	-	-	-	-	195	195	-	120	120	-
Stage 2	-	-	-	-	-	-	109	125	-	201	202	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1379	-	-	648	597	853	632	595	948
Stage 1	-	-	-	-	-	-	807	739	-	884	796	-
Stage 2	-	-	-	-	-	-	896	792	-	801	734	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1458	-	-	1372	-	-	634	581	847	604	579	934
Mov Cap-2 Maneuver	-	-	-	-	-	-	634	581	-	604	579	-
Stage 1	-	-	-	-	-	-	801	733	-	869	781	-
Stage 2	-	-	-	-	-	-	882	777	-	779	728	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.5	10.2	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	721	1458	-	-	1372	-	-	649
HCM Lane V/C Ratio	0.037	0.003	-	-	0.005	-	-	0.03
HCM Ctrl Dly (s/v)	10.2	7.5	0	-	7.6	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	161	12	7	74	13	6	4	29	24	4	4
Future Volume (vph)	4	161	12	7	74	13	6	4	29	24	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1818	0	0	1745	0	0	1661	0	0	1671	0
Flt Permitted		0.999			0.997			0.993			0.963	
Satd. Flow (perm)	0	1818	0	0	1745	0	0	1661	0	0	1671	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	3		4	4		3			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	10%	2%	5%	17%	2%	2%	2%	6%	25%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	0	0	100	0	0	41	0	0	34	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	161	12	7	74	13	6	4	29	24	4	4
Future Vol, veh/h	4	161	12	7	74	13	6	4	29	24	4	4
Conflicting Peds, #/hr	3	0	4	4	0	3	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	3	10	2	5	17	2	2	2	6	25	2
Mvmt Flow	4	171	13	7	79	14	6	4	31	26	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	188	0	0	294	300	184	308	299	89
Stage 1	-	-	-	-	-	-	190	190	-	103	103	-
Stage 2	-	-	-	-	-	-	104	110	-	205	196	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.75	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.75	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.225	3.318
Pot Cap-1 Maneuver	1498	-	-	1386	-	-	658	612	858	637	577	969
Stage 1	-	-	-	-	-	-	812	743	-	893	767	-
Stage 2	-	-	-	-	-	-	902	804	-	788	697	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1494	-	-	1381	-	-	645	603	853	604	568	966
Mov Cap-2 Maneuver	-	-	-	-	-	-	645	603	-	604	568	-
Stage 1	-	-	-	-	-	-	806	738	-	888	761	-
Stage 2	-	-	-	-	-	-	889	798	-	751	692	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.6	9.9	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	781	1494	-	-	1381	-	-	628
HCM Lane V/C Ratio	0.053	0.003	-	-	0.005	-	-	0.054
HCM Ctrl Dly (s/v)	9.9	7.4	0	-	7.6	0	-	11.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	510	186	51	97	5
Future Volume (vph)	4	510	186	51	97	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1810	1827	1509	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1810	1827	1509	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Confl. Peds. (#/hr)	3			3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	5%	4%	7%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	537	196	54	102	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	510	186	51	97	5
Future Vol, veh/h	4	510	186	51	97	5
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	4	7	2	2
Mvmt Flow	4	537	196	54	102	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	253	0	-	0	744	199
Stage 1	-	-	-	-	199	-
Stage 2	-	-	-	-	545	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1312	-	-	-	382	842
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	581	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1308	-	-	-	379	840
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	579	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1308	-	-	-	379	840
HCM Lane V/C Ratio	0.003	-	-	-	0.269	0.006
HCM Ctrl Dly (s/v)	7.8	-	-	-	18	9.3
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q (veh)	0	-	-	-	1.1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	530	269	16	40	6
Future Volume (vph)	4	530	269	16	40	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1636	0	1752	0
Flt Permitted	0.950				0.959	
Satd. Flow (perm)	1770	1776	1636	0	1752	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		582	
Travel Time (s)		17.0	32.1		15.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	16%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	589	317	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	530	269	16	40	6
Future Vol, veh/h	4	530	269	16	40	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	16	2	2	2
Mvmt Flow	4	589	299	18	44	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	317	0	-	0	905	308
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	597	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1243	-	-	-	307	732
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1243	-	-	-	306	732
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	550	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1243	-	-	-	331
HCM Lane V/C Ratio	0.004	-	-	-	0.154
HCM Ctrl Dly (s/v)	7.9	-	-	-	17.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.5



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	569	282	13	38	4
Future Volume (vph)	4	569	282	13	38	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1776	1637	0	1759	0
Flt Permitted	0.950				0.956	
Satd. Flow (perm)	1770	1776	1637	0	1759	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	471		561	
Travel Time (s)		32.1	9.2		15.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	16%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	632	327	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	569	282	13	38	4
Future Vol, veh/h	4	569	282	13	38	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	16	2	2	2
Mvmt Flow	4	632	313	14	42	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	327	0	-	0	960	320
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	640	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1233	-	-	-	285	721
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1233	-	-	-	284	721
Mov Cap-2 Maneuver	-	-	-	-	284	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	525	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1233	-	-	-	301
HCM Lane V/C Ratio	0.004	-	-	-	0.155
HCM Ctrl Dly (s/v)	7.9	-	-	-	19.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.5

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	64	543	295	21	40	6
Future Volume (vph)	64	543	295	21	40	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Satd. Flow (prot)	0	1793	1636	0	1752	0
Flt Permitted		0.995			0.959	
Satd. Flow (perm)	0	1793	1636	0	1752	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		471	325		492	
Travel Time (s)		9.2	6.3		13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	16%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	674	351	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	543	295	21	40	6
Future Vol, veh/h	64	543	295	21	40	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	16	2	2	2
Mvmt Flow	71	603	328	23	44	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	351	0	-	0	1085	340
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	745	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1208	-	-	-	240	702
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1208	-	-	-	219	702
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	658	-
Stage 2	-	-	-	-	469	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.9	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1208	-	-	-	241
HCM Lane V/C Ratio	0.059	-	-	-	0.212
HCM Ctrl Dly (s/v)	8.2	0	-	-	23.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q (veh)	0.2	-	-	-	0.8



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	583	266	113	0	50
Future Volume (vph)	0	583	266	113	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Satd. Flow (prot)	0	1810	1631	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	1810	1631	0	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		325	375		509	
Travel Time (s)		6.3	7.3		13.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	6%	16%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	648	422	0	0	56
Enter Blocked Intersection	No	Yes	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	583	266	113	0	50
Future Vol, veh/h	0	583	266	113	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	6	16	2	2	2
Mvmt Flow	0	648	296	126	0	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	359
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	685
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	685
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	685
HCM Lane V/C Ratio	-	-	-	0.081
HCM Ctrl Dly (s/v)	-	-	-	10.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q (veh)	-	-	-	0.3

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	13	41	584	561	21
Future Volume (vph)	76	13	41	584	561	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Satd. Flow (prot)	1752	0	0	1745	1811	0
Flt Permitted	0.959			0.997		
Satd. Flow (perm)	1752	0	0	1745	1811	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	335			350	1163	
Travel Time (s)	9.1			5.3	17.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	9%	5%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	98	0	0	695	646	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	13	41	584	561	21
Future Vol, veh/h	76	13	41	584	561	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	9	5	2
Mvmt Flow	84	14	46	649	623	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1376	635	646	0	-	0
Stage 1	635	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	160	478	939	-	-	-
Stage 1	528	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	478	939	-	-	-
Mov Cap-2 Maneuver	148	-	-	-	-	-
Stage 1	487	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	55	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	939	-	165	-	-
HCM Lane V/C Ratio	0.049	-	0.599	-	-
HCM Ctrl Dly (s/v)	9	0	55	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q (veh)	0.2	-	3.2	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	119	0	625	493	81
Future Volume (vph)	0	119	0	625	493	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Satd. Flow (prot)	0	1611	0	1759	1791	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1759	1791	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	310			400	350	
Travel Time (s)	8.5			6.1	5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	8%	5%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	132	0	694	638	0
Enter Blocked Intersection	No	No	No	Yes	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	119	0	625	493	81
Future Vol, veh/h	0	119	0	625	493	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	8	5	2
Mvmt Flow	0	132	0	694	548	90

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	593	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	506	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	506	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	14.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	506	-	-
HCM Lane V/C Ratio	-	0.261	-	-
HCM Ctrl Dly (s/v)	-	14.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q (veh)	-	1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	4	69	85	6	42	84	370	116	62	531	106
Future Volume (vph)	72	4	69	85	6	42	84	370	116	62	531	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	150		150	200		0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1633	0	0	1668	1509	1752	1810	1538	1770	1759	0
Flt Permitted		0.976			0.955		0.950			0.950		
Satd. Flow (perm)	0	1633	0	0	1668	1509	1752	1810	1538	1770	1759	0
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		404			959			752			1567	
Travel Time (s)		7.9			18.7			11.4			23.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	2%	11%	8%	20%	7%	3%	5%	5%	2%	6%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	107	49	99	435	136	73	750	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			18			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	58.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	4	69	85	6	42	84	370	116	62	531	106
Future Vol, veh/h	72	4	69	85	6	42	84	370	116	62	531	106
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	150	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	11	8	20	7	3	5	5	2	6	2
Mvmt Flow	85	5	81	100	7	49	99	435	136	73	625	125

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1563	1603	688	1510	1529	435	750	0	0	571	0	0
Stage 1	834	834	-	633	633	-	-	-	-	-	-	-
Stage 2	729	769	-	877	896	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.31	7.18	6.7	6.27	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.399	3.572	4.18	3.363	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	91	106	431	~ 96	107	611	855	-	-	1002	-	-
Stage 1	362	383	-	458	446	-	-	-	-	-	-	-
Stage 2	414	411	-	335	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 68	87	431	~ 64	88	611	855	-	-	1002	-	-
Mov Cap-2 Maneuver	~ 68	87	-	~ 64	88	-	-	-	-	-	-	-
Stage 1	320	355	-	405	394	-	-	-	-	-	-	-
Stage 2	330	363	-	249	311	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	$ 326	$ 315.3	1.4	0.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	855	-	-	115	65	611	1002	-	-
HCM Lane V/C Ratio	0.116	-	-	1.483	1.647	0.081	0.073	-	-
HCM Ctrl Dly (s/v)	9.8	-	-	$ 326	$ 455.5	11.4	8.9	-	-
HCM Lane LOS	A	-	-	F	F	B	A	-	-
HCM 95th %tile Q (veh)	0.4	-	-	12.2	9.5	0.3	0.2	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	4	16	35	4	5	25	568	59	5	671	13
Future Volume (vph)	10	4	16	35	4	5	25	568	59	5	671	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		150	200		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			100			75		
Satd. Flow (prot)	0	1427	0	0	1726	0	1770	1792	1583	1444	1756	0
Flt Permitted		0.984			0.962		0.950			0.950		
Satd. Flow (perm)	0	1427	0	0	1726	0	1770	1792	1583	1444	1756	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		1273			317			1162			752	
Travel Time (s)		34.7			8.6			17.6			11.4	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	12%	2%	33%	2%	25%	2%	2%	6%	2%	25%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	36	0	0	52	0	29	668	69	6	804	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	4	16	35	4	5	25	568	59	5	671	13
Future Vol, veh/h	10	4	16	35	4	5	25	568	59	5	671	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	150	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	12	2	33	2	25	2	2	6	2	25	8	2
Mvmt Flow	12	5	19	41	5	6	29	668	69	6	789	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1575	1604	797	1547	1542	668	804	0	0	737	0	0
Stage 1	809	809	-	726	726	-	-	-	-	-	-	-
Stage 2	766	795	-	821	816	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.52	6.53	7.12	6.75	6.22	4.12	-	-	4.35	-	-
Critical Hdwy Stg 1	6.22	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.52	-	6.12	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.018	3.597	3.518	4.225	3.318	2.218	-	-	2.425	-	-
Pot Cap-1 Maneuver	84	105	342	93	102	458	820	-	-	773	-	-
Stage 1	360	394	-	416	397	-	-	-	-	-	-	-
Stage 2	380	399	-	369	360	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	77	100	342	82	98	458	820	-	-	773	-	-
Mov Cap-2 Maneuver	77	100	-	82	98	-	-	-	-	-	-	-
Stage 1	347	391	-	401	383	-	-	-	-	-	-	-
Stage 2	357	385	-	342	357	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	39.8	85.7	0.4	0.1
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	820	-	-	138	92	773	-	-
HCM Lane V/C Ratio	0.036	-	-	0.256	0.563	0.008	-	-
HCM Ctrl Dly (s/v)	9.6	-	-	39.8	85.7	9.7	-	-
HCM Lane LOS	A	-	-	E	F	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	1	2.6	0	-	-

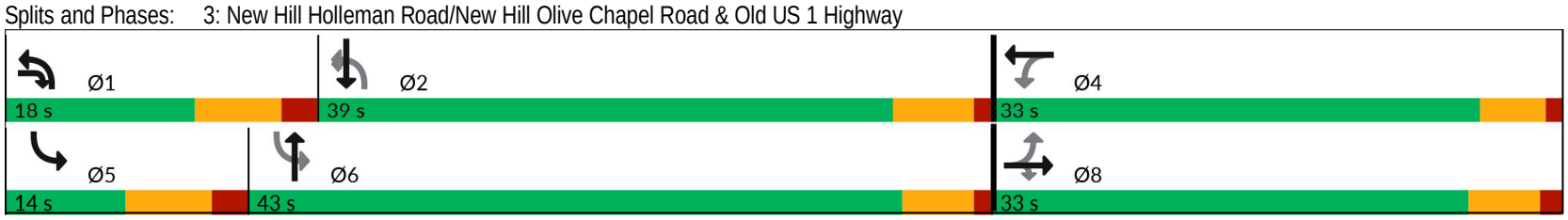
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	156	176	93	361	127	312	397	85	136	550	119
Future Volume (vph)	50	156	176	93	361	127	312	397	85	136	550	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	250		175	250		0	150		0	150		150
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1787	1881	1510	1761	1781	0	1761	1782	0	1778	1836	1561
Flt Permitted	0.163			0.645			0.177			0.301		
Satd. Flow (perm)	307	1881	1510	1195	1781	0	328	1782	0	563	1836	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			157		20			15				114
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		375			1091			1309			400	
Travel Time (s)		7.3			21.3			19.8			6.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	8%	2%	2%	2%	2%	3%	5%	2%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	158	178	94	493	0	315	487	0	137	556	120
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1		1	1	1
Detector Template												
Leading Detector (ft)	40	40	40	40	40		40	256		40	306	40
Trailing Detector (ft)	0	0	0	0	0		0	250		0	300	0
Detector 1 Position(ft)	0	0	0	0	0	0	250		0	300	0	
Detector 1 Size(ft)	40	40	40	40	40	40	6		40	6	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0	0.0	0.0		0.0	0.0	0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA	D.P+P	NA		D.P+P	NA	Perm	
Protected Phases		8	1		4	1	6		5	2		
Permitted Phases	8		8	4		2			6		2	
Detector Phase	8	8	1	4	4	1	6		5	2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	12.0		7.0	12.0	12.0	
Minimum Split (s)	13.0	13.0	14.0	12.0	12.0	14.0	18.0		14.0	18.0	18.0	
Total Split (s)	33.0	33.0	18.0	33.0	33.0	18.0	43.0		14.0	39.0	39.0	
Total Split (%)	36.7%	36.7%	20.0%	36.7%	36.7%	20.0%	47.8%		15.6%	43.3%	43.3%	
Yellow Time (s)	4.1	4.1	5.0	3.8	3.8	5.0	4.1		5.0	4.7	4.7	
All-Red Time (s)	1.3	1.3	2.0	1.0	1.0	2.0	1.0		2.0	1.0	1.0	
Lost Time Adjust (s)	-0.4	-0.4	-2.0	0.2	0.2	-2.0	-0.1		-2.0	-0.7	-0.7	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	
Lead/Lag			Lead			Lead	Lag		Lead	Lag	Lag	
Lead-Lag Optimize?			Yes			Yes	Yes		Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Min		None	Min	Min	
Act Effct Green (s)	24.6	24.6	42.5	24.6	24.6	41.6	32.5		41.6	28.8	28.8	
Actuated g/C Ratio	0.30	0.30	0.52	0.30	0.30	0.51	0.40		0.51	0.35	0.35	
v/c Ratio	0.55	0.28	0.21	0.26	0.90	0.80	0.68		0.32	0.86	0.19	
Control Delay (s/veh)	51.4	24.2	3.4	25.2	47.9	32.5	25.3		10.9	39.7	5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	51.4	24.2	3.4	25.2	47.9	32.5	25.3		10.9	39.7	5.2	
LOS	D	C	A	C	D	C	C		B	D	A	
Approach Delay (s/veh)		18.2			44.3		28.2			29.7		
Approach LOS		B			D		C			C		
Queue Length 50th (ft)	23	64	5	38	243	94	207		33	278	2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#78	116	36	80	#434		#236	315		60	#452	36
Internal Link Dist (ft)		295			1011			1229			320	
Turn Bay Length (ft)	250		175	250			150			150		150
Base Capacity (vph)	107	659	869	418	636		402	855		424	781	729
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.48	0.24	0.20	0.22	0.78		0.78	0.57		0.32	0.71	0.16

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 81.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 30.8		Intersection LOS: C	
Intersection Capacity Utilization 95.5%		ICU Level of Service F	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

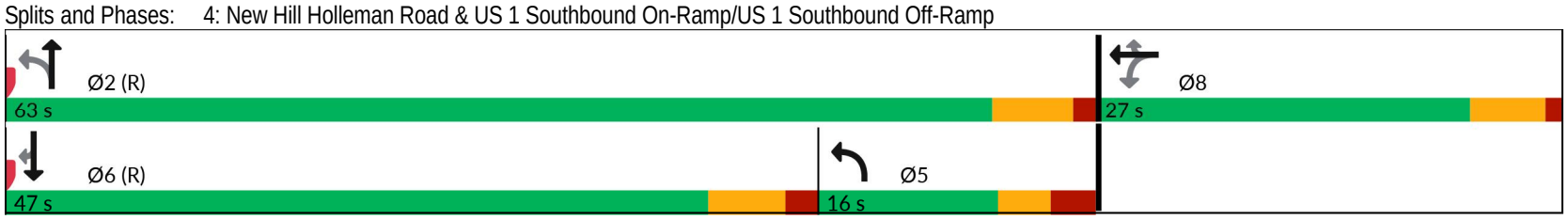


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	552	4	371	303	429	0	0	721	124
Future Volume (vph)	0	0	0	552	4	371	303	429	0	0	721	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			2%			0%			-1%	
Storage Length (ft)	0		0	550		75	225		0	0		150
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			100			100			25		
Satd. Flow (prot)	0	0	0	1632	1638	1568	1736	1845	0	0	1836	1591
Flt Permitted				0.950	0.953		0.177					
Satd. Flow (perm)	0	0	0	1632	1638	1568	323	1845	0	0	1836	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						280						99
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		621			742			561			1085	
Travel Time (s)		9.4			11.2			8.5			16.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	4%	3%	2%	2%	4%	2%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	284	289	382	312	442	0	0	743	128
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			-12			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			1	0
Detector Template				Left			Left					
Leading Detector (ft)				20	40	40	20	306			306	0
Trailing Detector (ft)				0	0	0	0	0			300	0
Detector 1 Position(ft)	0	0	0	0	0						300	0
Detector 1 Size(ft)	20	40	40	20	40						6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						0.0	0.0
Detector 1 Delay (s)	0.0	0.0	15.0	0.0	15.0						0.0	0.0
Detector 2 Position(ft)					300							
Detector 2 Size(ft)					6							
Detector 2 Type					Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)					0.0							
Turn Type	Perm	NA	Perm	pm+pt	NA						NA	Perm
Protected Phases		8		5	2						6	
Permitted Phases	8		8	2								6
Detector Phase	8	8	8	5	2						6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	12.0						12.0	12.0
Minimum Split (s)	13.0	13.0	13.0	13.0	18.0						19.0	19.0
Total Split (s)	27.0	27.0	27.0	16.0	63.0						47.0	47.0
Total Split (%)	30.0%	30.0%	30.0%	17.8%	70.0%						52.2%	52.2%
Yellow Time (s)	4.3	4.3	4.3	3.0	4.6						4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	2.6	1.3						1.9	1.9
Lost Time Adjust (s)	-0.3	-0.3	-0.3	-0.6	-0.9						-1.4	-1.4
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0						5.0	5.0
Lead/Lag				Lag							Lead	Lead
Lead-Lag Optimize?				Yes							Yes	Yes
Recall Mode	None	None	None	None	C-Max						C-Max	C-Max
Act Effct Green (s)	19.2	19.2	19.2	60.8	60.8						44.8	44.8
Actuated g/C Ratio	0.21	0.21	0.21	0.68	0.68						0.50	0.50
v/c Ratio	0.82	0.83	0.69	0.80	0.35						0.81	0.15
Control Delay (s/veh)	52.9	54.0	16.0	29.3	8.4						29.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0						0.0	0.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (s/veh)				52.9	54.0	16.0	29.3	8.4			29.0	5.0
LOS				D	D	B	C	A			C	A
Approach Delay (s/veh)					38.4			17.0			25.5	
Approach LOS					D			B			C	
Queue Length 50th (ft)				158	162	48	78	90			353	8
Queue Length 95th (ft)				#268	#275	143	#199	122			#592	39
Internal Link Dist (ft)		541			662			481			1005	
Turn Bay Length (ft)				550		75	225					150
Base Capacity (vph)				398	400	594	390	1247			914	842
Starvation Cap Reductn				0	0	0	0	0			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.71	0.72	0.64	0.80	0.35			0.81	0.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 84 (93%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 27.8		Intersection LOS: C	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp



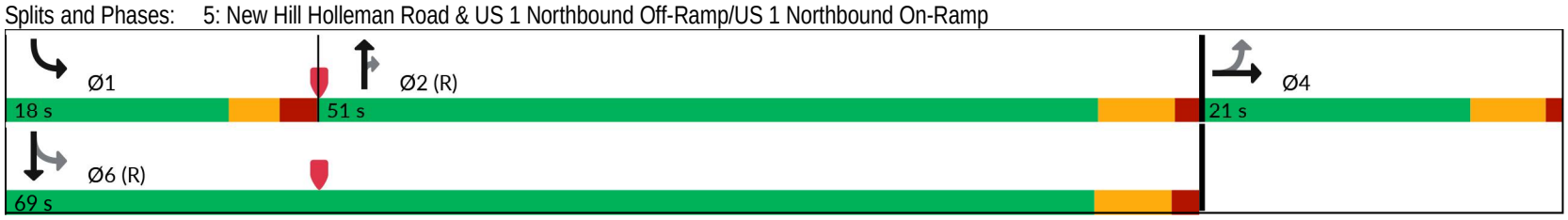
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	4	248	0	0	0	0	590	288	245	1018	0
Future Volume (vph)	142	4	248	0	0	0	0	590	288	245	1018	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			1%			0%	
Storage Length (ft)	0		75	0		0	0		250	200		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			100		
Satd. Flow (prot)	0	1749	1552	0	0	0	0	1818	1530	1736	3471	0
Flt Permitted		0.954								0.278		
Satd. Flow (perm)	0	1749	1552	0	0	0	0	1818	1530	508	3471	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			267						310			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		713			749			924			561	
Travel Time (s)		10.8			11.3			14.0			8.5	
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	25%	3%	2%	2%	2%	2%	4%	5%	4%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	157	267	0	0	0	0	634	310	263	1095	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		-12			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1	0	1	2	
Detector Template	Left									Left		
Leading Detector (ft)	20	40	40					226	0	20	306	
Trailing Detector (ft)	0	0	0					220	0	0	0	
Detector 1 Position(ft)	0	0	0					220	0	0	0	
Detector 1 Size(ft)	20	40	40					6	20	20	40	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	15.0					0.0	0.0	0.0	15.0	
Detector 2 Position(ft)											300	
Detector 2 Size(ft)											6	
Detector 2 Type											Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)											0.0	
Turn Type	Perm	NA	Free					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2	6		
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0						12.0	12.0	7.0	12.0	
Minimum Split (s)	13.0	13.0						18.0	18.0	13.0	19.0	
Total Split (s)	21.0	21.0						51.0	51.0	18.0	69.0	
Total Split (%)	23.3%	23.3%						56.7%	56.7%	20.0%	76.7%	
Yellow Time (s)	4.3	4.3						4.4	4.4	3.0	4.5	
All-Red Time (s)	1.0	1.0						1.4	1.4	2.1	1.6	
Lost Time Adjust (s)		-0.3						-0.8	-0.8	-0.1	-1.1	
Total Lost Time (s)		5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Act Effct Green (s)		12.3	90.0					53.6	53.6	67.7	67.7	
Actuated g/C Ratio		0.14	1.00					0.60	0.60	0.75	0.75	
v/c Ratio		0.66	0.17					0.59	0.30	0.52	0.42	
Control Delay (s/veh)		49.6	0.2					15.3	2.2	10.7	1.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay		0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay (s/veh)		49.6	0.2					15.3	2.2	10.7	1.3	
LOS		D	A					B	A	B	A	
Approach Delay (s/veh)		18.5						11.0			3.1	
Approach LOS		B						B			A	
Queue Length 50th (ft)		85	0					205	0	16	2	
Queue Length 95th (ft)		143	0					375	38	m34	4	
Internal Link Dist (ft)		633			669			844			481	
Turn Bay Length (ft)			75						250	200		
Base Capacity (vph)		310	1552					1082	1036	559	2610	
Starvation Cap Reductn		0	0					0	0	0	0	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.51	0.17					0.59	0.30	0.47	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 8.3		Intersection LOS: A	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	121	13	7	149	11	16	4	11	9	7	4
Future Volume (vph)	4	121	13	7	149	11	16	4	11	9	7	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1837	0	0	1842	0	0	1676	0	0	1706	0
Flt Permitted		0.999			0.998			0.975			0.977	
Satd. Flow (perm)	0	1837	0	0	1842	0	0	1676	0	0	1706	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		765			864			503			625	
Travel Time (s)		14.9			16.8			13.7			17.0	
Confl. Peds. (#/hr)	2					2	2		1	1		2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	14%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	178	0	0	33	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	121	13	7	149	11	16	4	11	9	7	4
Future Vol, veh/h	4	121	13	7	149	11	16	4	11	9	7	4
Conflicting Peds, #/hr	2	0	0	0	0	2	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	8	2	2	2	14	2
Mvmt Flow	4	129	14	7	159	12	17	4	12	10	7	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	143	0	0	331	331	137	334	332	169
Stage 1	-	-	-	-	-	-	144	144	-	181	181	-
Stage 2	-	-	-	-	-	-	187	187	-	153	151	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.18	6.52	6.22	7.12	6.64	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.52	-	6.12	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.52	-	6.12	5.64	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.572	4.018	3.318	3.518	4.126	3.318
Pot Cap-1 Maneuver	1404	-	-	1440	-	-	611	588	911	620	569	875
Stage 1	-	-	-	-	-	-	845	778	-	821	728	-
Stage 2	-	-	-	-	-	-	801	745	-	849	750	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1401	-	-	1440	-	-	597	582	910	603	563	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	582	-	603	563	-
Stage 1	-	-	-	-	-	-	842	776	-	817	723	-
Stage 2	-	-	-	-	-	-	783	740	-	830	748	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.3	10.6	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	677	1401	-	-	1440	-	-	626
HCM Lane V/C Ratio	0.049	0.003	-	-	0.005	-	-	0.034
HCM Ctrl Dly (s/v)	10.6	7.6	0	-	7.5	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	135	12	21	154	28	12	4	18	20	4	4
Future Volume (vph)	4	135	12	21	154	28	12	4	18	20	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1840	0	0	1818	0	0	1697	0	0	1714	0
Flt Permitted		0.999			0.995			0.983			0.965	
Satd. Flow (perm)	0	1840	0	0	1818	0	0	1697	0	0	1714	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		864			404			522			552	
Travel Time (s)		16.8			7.9			14.2			15.1	
Confl. Peds. (#/hr)	4		1	1		4	1					1
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	223	0	0	37	0	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	135	12	21	154	28	12	4	18	20	4	4
Future Vol, veh/h	4	135	12	21	154	28	12	4	18	20	4	4
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	25
Mvmt Flow	4	148	13	23	169	31	13	4	20	22	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	204	0	0	162	0	0	400	414	156	410	405	190
Stage 1	-	-	-	-	-	-	164	164	-	235	235	-
Stage 2	-	-	-	-	-	-	236	250	-	175	170	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.525
Pot Cap-1 Maneuver	1368	-	-	1417	-	-	560	529	890	552	535	796
Stage 1	-	-	-	-	-	-	838	762	-	768	710	-
Stage 2	-	-	-	-	-	-	767	700	-	827	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1363	-	-	1416	-	-	543	515	889	526	521	792
Mov Cap-2 Maneuver	-	-	-	-	-	-	543	515	-	526	521	-
Stage 1	-	-	-	-	-	-	835	759	-	763	694	-
Stage 2	-	-	-	-	-	-	744	685	-	802	755	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.2	0.8	10.6	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	678	1363	-	-	1416	-	-	552
HCM Lane V/C Ratio	0.055	0.003	-	-	0.016	-	-	0.056
HCM Ctrl Dly (s/v)	10.6	7.7	0	-	7.6	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q (veh)	0.2	0	-	-	0.1	-	-	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	333	578	92	96	4
Future Volume (vph)	4	333	578	92	96	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			175	150	0
Storage Lanes	1			1	1	1
Taper Length (ft)	200				200	
Satd. Flow (prot)	1770	1827	1845	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1827	1845	1583	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		1152	875		909	
Travel Time (s)		22.4	17.0		24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	4%	3%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	354	615	98	102	4
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		34	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	333	578	92	96	4
Future Vol, veh/h	4	333	578	92	96	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	175	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	2	2	2
Mvmt Flow	4	354	615	98	102	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	713	0	-	0	977	615
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	362	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	887	-	-	-	278	491
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	887	-	-	-	277	491
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	704	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	887	-	-	-	277	491
HCM Lane V/C Ratio	0.005	-	-	-	0.369	0.009
HCM Ctrl Dly (s/v)	9.1	-	-	-	25.4	12.4
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q (veh)	0	-	-	-	1.6	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	373	628	44	31	4
Future Volume (vph)	5	373	628	44	31	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1846	0	1758	0
Flt Permitted	0.950				0.957	
Satd. Flow (perm)	1770	1827	1846	0	1758	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		875	1650		598	
Travel Time (s)		17.0	32.1		16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	414	747	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	373	628	44	31	4
Future Vol, veh/h	5	373	628	44	31	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	6	414	698	49	34	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	747	0	-	0	1149	723
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	426	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	861	-	-	-	219	426
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	659	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	861	-	-	-	217	426
Mov Cap-2 Maneuver	-	-	-	-	217	-
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	659	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	23.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	861	-	-	-	230
HCM Lane V/C Ratio	0.006	-	-	-	0.169
HCM Ctrl Dly (s/v)	9.2	-	-	-	23.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.6

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	402	671	43	25	4
Future Volume (vph)	4	402	671	43	25	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				25	
Satd. Flow (prot)	1770	1827	1848	0	1754	0
Flt Permitted	0.950				0.958	
Satd. Flow (perm)	1770	1827	1848	0	1754	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		1650	471		553	
Travel Time (s)		32.1	9.2		15.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	447	794	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	402	671	43	25	4
Future Vol, veh/h	4	402	671	43	25	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	4	447	746	48	28	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	794	0	-	0	1225	770
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	455	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	827	-	-	-	198	401
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	639	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	827	-	-	-	197	401
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	639	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	25
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	827	-	-	-	212
HCM Lane V/C Ratio	0.005	-	-	-	0.152
HCM Ctrl Dly (s/v)	9.4	-	-	-	25
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q (veh)	0	-	-	-	0.5

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	70	357	694	40	28	20
Future Volume (vph)	70	357	694	40	28	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Satd. Flow (prot)	0	1836	1850	0	1709	0
Flt Permitted		0.992			0.972	
Satd. Flow (perm)	0	1836	1850	0	1709	0
Link Speed (mph)		35	35		25	
Link Distance (ft)		471	325		506	
Travel Time (s)		9.2	6.3		13.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	475	815	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.9%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	357	694	40	28	20
Future Vol, veh/h	70	357	694	40	28	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	78	397	771	44	31	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	815	0	-	0	1346	793
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	553	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	812	-	-	-	167	389
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	576	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	812	-	-	-	146	389
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	576	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.6	0	29.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	812	-	-	-	197
HCM Lane V/C Ratio	0.096	-	-	-	0.271
HCM Ctrl Dly (s/v)	9.9	0	-	-	29.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q (veh)	0.3	-	-	-	1.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	383	662	130	0	73
Future Volume (vph)	0	383	662	130	0	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Satd. Flow (prot)	0	1845	1822	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	1845	1822	0	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		325	375		507	
Travel Time (s)		6.3	7.3		13.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	426	880	0	0	81
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	383	662	130	0	73
Future Vol, veh/h	0	383	662	130	0	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	0	426	736	144	0	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	808
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	381
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	381
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	381
HCM Lane V/C Ratio	-	-	-	0.213
HCM Ctrl Dly (s/v)	-	-	-	17
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.8

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	146	50	94	480	686	46
Future Volume (vph)	146	50	94	480	686	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Satd. Flow (prot)	1733	0	0	1848	1824	0
Flt Permitted	0.964			0.992		
Satd. Flow (perm)	1733	0	0	1848	1824	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	351			350	1162	
Travel Time (s)	9.6			5.3	17.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	218	0	0	637	813	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 90.5%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	52.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	146	50	94	480	686	46
Future Vol, veh/h	146	50	94	480	686	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	162	56	104	533	762	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1529	788	813	0	-	0
Stage 1	788	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 129	391	814	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 106	391	814	-	-	-
Mov Cap-2 Maneuver	~ 106	-	-	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	$ 394.3	1.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	814	-	130	-	-
HCM Lane V/C Ratio	0.128	-	1.675	-	-
HCM Ctrl Dly (s/v)	10.1	0	$ 394.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q (veh)	0.4	-	16.1	-	-

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	199	0	574	609	125
Future Volume (vph)	0	199	0	574	609	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Satd. Flow (prot)	0	1611	0	1863	1800	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	1800	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	311			400	350	
Travel Time (s)	8.5			6.1	5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	221	0	638	816	0
Enter Blocked Intersection	No	No	No	Yes	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.1

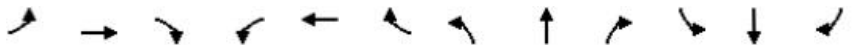
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	199	0	574	609	125
Future Vol, veh/h	0	199	0	574	609	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	0	221	0	638	677	139

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	747	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	413	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	413	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	23.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	413	-	-
HCM Lane V/C Ratio	-	0.535	-	-
HCM Ctrl Dly (s/v)	-	23.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q (veh)	-	3.1	-	-

Synchro Output – Full Build Build-Out Improved

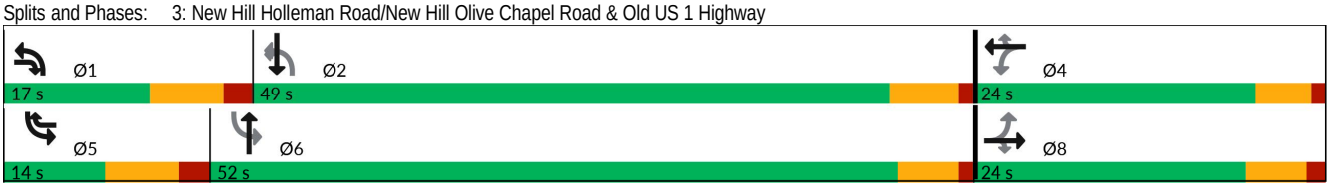


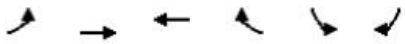
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	259	240	63	144	61	199	481	137	136	436	38
Future Volume (vph)	83	259	240	63	144	61	199	481	137	136	436	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	250		175	250		150	150		0	150		150
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1787	1863	1359	1633	1783	1461	1448	1663	0	1778	1801	1353
Flt Permitted	0.647			0.379			0.352			0.230		
Satd. Flow (perm)	1217	1863	1359	651	1783	1461	537	1663	0	431	1801	1353
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			255			65		24				114
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		375			1091			1309			400	
Travel Time (s)		7.3			21.3			19.8			6.1	
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	3%	20%	10%	6%	10%	24%	9%	11%	2%	6%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	276	255	67	153	65	212	658	0	145	464	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1	1	1	1		1	1	1
Detector Template												
Leading Detector (ft)	40	40	40	40	40	40	40	256		40	306	40
Trailing Detector (ft)	0	0	0	0	0	0	0	250		0	300	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	250		0	300	0
Detector 1 Size(ft)	40	40	40	40	40	40	40	6		40	6	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+ov	D.P+P	NA		D.P+P	NA	Perm
Protected Phases		8	1		4	5	1	6		5	2	
Permitted Phases	8		8	4		4	2			6		2
Detector Phase	8	8	1	4	4	5	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0		7.0	12.0	12.0
Minimum Split (s)	13.0	13.0	14.0	12.0	12.0	14.0	14.0	18.0		14.0	18.0	18.0
Total Split (s)	24.0	24.0	17.0	24.0	24.0	14.0	17.0	52.0		14.0	49.0	49.0
Total Split (%)	26.7%	26.7%	18.9%	26.7%	26.7%	15.6%	18.9%	57.8%		15.6%	54.4%	54.4%
Yellow Time (s)	4.1	4.1	5.0	3.8	3.8	5.0	5.0	4.1		5.0	4.7	4.7
All-Red Time (s)	1.3	1.3	2.0	1.0	1.0	2.0	2.0	1.0		2.0	1.0	1.0
Lost Time Adjust (s)	-0.4	-0.4	-2.0	0.2	0.2	-2.0	-2.0	-0.1		-2.0	-0.7	-0.7
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag			Lead			Lead	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min		None	Min	Min
Act Effct Green (s)	14.9	14.9	31.6	14.9	14.9	29.7	40.0	34.8		41.5	28.5	28.5
Actuated g/C Ratio	0.21	0.21	0.45	0.21	0.21	0.42	0.57	0.49		0.59	0.40	0.40
v/c Ratio	0.35	0.71	0.34	0.49	0.41	0.10	0.47	0.79		0.33	0.64	0.07
Control Delay (s/veh)	31.5	39.3	3.8	42.0	30.9	5.5	9.4	24.4		7.5	21.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	31.5	39.3	3.8	42.0	30.9	5.5	9.4	24.4		7.5	21.1	0.2
LOS	C	D	A	D	C	A	A	C		A	C	A
Approach Delay (s/veh)		23.6			27.7			20.8			16.8	
Approach LOS		C			C			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	114	0	26	59	0	34	243		22	158	0
Queue Length 95th (ft)	86	#235	44	78	134	26	68	415		45	261	0
Internal Link Dist (ft)		295			1011			1229			320	
Turn Bay Length (ft)	250		175	250		150	150			150		150
Base Capacity (vph)	346	530	768	185	507	650	476	1168		434	1187	930
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.25	0.52	0.33	0.36	0.30	0.10	0.45	0.56		0.33	0.39	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 70.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 21.2		Intersection LOS: C	
Intersection Capacity Utilization 77.3%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	64	543	295	21	40	6
Future Volume (vph)	64	543	295	21	40	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Storage Length (ft)	100			50	0	50
Storage Lanes	1			1	1	1
Taper Length (ft)	100				25	
Satd. Flow (prot)	1787	1793	1638	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1787	1793	1638	1583	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		471	325		492	
Travel Time (s)		9.2	6.3		13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	16%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	603	328	23	44	7
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.6%		ICU Level of Service A	
Analysis Period (min) 15			

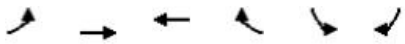
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	543	295	21	40	6
Future Vol, veh/h	64	543	295	21	40	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	50	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	7	16	2	2	2
Mvmt Flow	71	603	328	23	44	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	351	0	-	0	1073	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	745	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1208	-	-	-	244	713
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1208	-	-	-	230	713
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	469	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.9	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1208	-	-	-	230	713
HCM Lane V/C Ratio	0.059	-	-	-	0.193	0.009
HCM Ctrl Dly (s/v)	8.2	-	-	-	24.4	10.1
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q (veh)	0.2	-	-	-	0.7	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	583	266	113	0	50
Future Volume (vph)	0	583	266	113	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	1810	1638	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	1810	1638	1583	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		325	375		509	
Travel Time (s)		6.3	7.3		13.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	6%	16%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	648	296	126	0	56
Enter Blocked Intersection	No	Yes	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	583	266	113	0	50
Future Vol, veh/h	0	583	266	113	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	6	16	2	2	2
Mvmt Flow	0	648	296	126	0	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	296
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	743
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	743
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	743
HCM Lane V/C Ratio	-	-	-	0.075
HCM Ctrl Dly (s/v)	-	-	-	10.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q (veh)	-	-	-	0.2



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	13	41	584	561	21
Future Volume (vph)	76	13	41	584	561	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Storage Length (ft)	250	0	125			50
Storage Lanes	1	1	1			1
Taper Length (ft)	100		100			
Satd. Flow (prot)	1770	1583	1770	1743	1819	1591
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1743	1819	1591
Link Speed (mph)	25			45	45	
Link Distance (ft)	555			350	1163	
Travel Time (s)	15.1			5.3	17.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	9%	5%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	84	14	46	649	623	23
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	13	41	584	561	21
Future Vol, veh/h	76	13	41	584	561	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	250	0	125	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	9	5	2
Mvmt Flow	84	14	46	649	623	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1364	623	646	0	-	0
Stage 1	623	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	163	486	939	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	155	486	939	-	-	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	509	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	47.1	0.6	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	939	-	155	486	-	-
HCM Lane V/C Ratio	0.049	-	0.545	0.03	-	-
HCM Ctrl Dly (s/v)	9	-	53	12.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q (veh)	0.2	-	2.7	0.1	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	119	0	625	493	81
Future Volume (vph)	0	119	0	625	493	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Storage Length (ft)	0	0	0			100
Storage Lanes	0	1	0			1
Taper Length (ft)	25		25			
Satd. Flow (prot)	0	1611	0	1759	1819	1591
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1759	1819	1591
Link Speed (mph)	25			45	45	
Link Distance (ft)	310			400	350	
Travel Time (s)	8.5			6.1	5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	8%	5%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	132	0	694	548	90
Enter Blocked Intersection	No	No	No	Yes	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

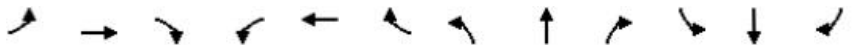
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	119	0	625	493	81
Future Vol, veh/h	0	119	0	625	493	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	8	5	2
Mvmt Flow	0	132	0	694	548	90

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	548	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	536	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	536	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	536	-	-
HCM Lane V/C Ratio	-	0.247	-	-
HCM Ctrl Dly (s/v)	-	13.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q (veh)	-	1	-	-



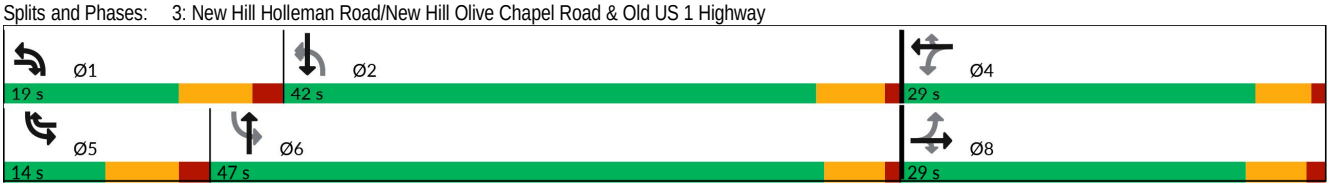
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	156	176	93	361	127	312	397	85	136	550	119
Future Volume (vph)	50	156	176	93	361	127	312	397	85	136	550	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			1%			1%			-1%	
Storage Length (ft)	250		175	250		150	150		0	150		150
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1787	1881	1510	1761	1853	1575	1761	1782	0	1778	1836	1561
Flt Permitted	0.274			0.644			0.208			0.327		
Satd. Flow (perm)	515	1881	1510	1194	1853	1575	386	1782	0	612	1836	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			178			128		16				114
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		375			1091			1309			400	
Travel Time (s)		7.3			21.3			19.8			6.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	8%	2%	2%	2%	2%	3%	5%	2%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	158	178	94	365	128	315	487	0	137	556	120
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1	1	1	1		1	1	1
Detector Template	Left		Right	Left		Right	Left			Left		Right
Leading Detector (ft)	20	40	20	20	40	20	20	256		20	306	20
Trailing Detector (ft)	0	0	0	0	0	0	0	250		0	300	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	250		0	300	0
Detector 1 Size(ft)	20	40	20	20	40	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+ov	D.P+P	NA		D.P+P	NA	Perm
Protected Phases		8	1		4	5	1	6		5	2	
Permitted Phases	8		8	4		4	2			6		2
Detector Phase	8	8	1	4	4	5	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0		7.0	12.0	12.0
Minimum Split (s)	13.0	13.0	14.0	12.0	12.0	14.0	14.0	18.0		14.0	18.0	18.0
Total Split (s)	29.0	29.0	19.0	29.0	29.0	14.0	19.0	47.0		14.0	42.0	42.0
Total Split (%)	32.2%	32.2%	21.1%	32.2%	32.2%	15.6%	21.1%	52.2%		15.6%	46.7%	46.7%
Yellow Time (s)	4.1	4.1	5.0	3.8	3.8	5.0	5.0	4.1		5.0	4.7	4.7
All-Red Time (s)	1.3	1.3	2.0	1.0	1.0	2.0	2.0	1.0		2.0	1.0	1.0
Lost Time Adjust (s)	-0.4	-0.4	-2.0	0.2	0.2	-2.0	-2.0	-0.1		-2.0	-0.7	-0.7
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag			Lead			Lead	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min		None	Min	Min
Act Effct Green (s)	18.4	18.4	36.7	18.4	18.4	33.0	40.7	31.3		40.7	27.6	27.6
Actuated g/C Ratio	0.25	0.25	0.49	0.25	0.25	0.44	0.54	0.42		0.54	0.37	0.37
v/c Ratio	0.40	0.34	0.21	0.32	0.80	0.17	0.70	0.64		0.29	0.82	0.19
Control Delay (s/veh)	36.7	27.1	2.9	28.5	42.2	3.8	20.3	21.2		8.4	33.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	36.7	27.1	2.9	28.5	42.2	3.8	20.3	21.2		8.4	33.1	4.8
LOS	D	C	A	C	D	A	C	C		A	C	A
Approach Delay (s/veh)		17.2			31.7			20.9			24.7	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	20	61	0	36	161	0	63	168		24	236	2

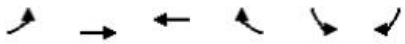
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	60	125	32	86	#312	32	#181	286		53	391	34
Internal Link Dist (ft)		295			1011			1229			320	
Turn Bay Length (ft)	250		175	250		150	150			150		150
Base Capacity (vph)	172	630	859	399	620	766	486	1051		479	947	860
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.30	0.25	0.21	0.24	0.59	0.17	0.65	0.46		0.29	0.59	0.14

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay (s/veh): 24.0 Intersection LOS: C
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	70	357	694	40	28	20
Future Volume (vph)	70	357	694	40	28	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Storage Length (ft)	100			50	0	50
Storage Lanes	1			1	1	1
Taper Length (ft)	100				25	
Satd. Flow (prot)	1787	1845	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1787	1845	1863	1583	1770	1583
Link Speed (mph)		35	35		25	
Link Distance (ft)		472	325		506	
Travel Time (s)		9.2	6.3		13.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	397	771	44	31	22
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.7%		ICU Level of Service A	
Analysis Period (min) 15			

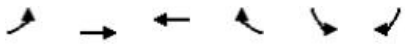
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	357	694	40	28	20
Future Vol, veh/h	70	357	694	40	28	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	50	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	78	397	771	44	31	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	815	0	-	0	1324	771
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	553	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	812	-	-	-	172	400
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	576	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	812	-	-	-	155	400
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	576	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.6	0	25.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	812	-	-	-	155	400
HCM Lane V/C Ratio	0.096	-	-	-	0.201	0.056
HCM Ctrl Dly (s/v)	9.9	-	-	-	34	14.5
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q (veh)	0.3	-	-	-	0.7	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	383	662	130	0	73
Future Volume (vph)	0	383	662	130	0	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	1845	1863	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	1845	1863	1583	0	1611
Link Speed (mph)		35	35		25	
Link Distance (ft)		325	375		507	
Travel Time (s)		6.3	7.3		13.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	426	736	144	0	81
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	383	662	130	0	73
Future Vol, veh/h	0	383	662	130	0	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	2	2	2	2
Mvmt Flow	0	426	736	144	0	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	736
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	419
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	419
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	419
HCM Lane V/C Ratio	-	-	-	0.194
HCM Ctrl Dly (s/v)	-	-	-	15.6
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.7



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	146	50	94	480	686	46
Future Volume (vph)	146	50	94	480	686	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Storage Length (ft)	250	0	125			50
Storage Lanes	1	1	1			1
Taper Length (ft)	100		100			
Satd. Flow (prot)	1770	1583	1770	1863	1836	1591
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1836	1591
Link Speed (mph)	25			45	45	
Link Distance (ft)	494			350	1162	
Travel Time (s)	13.5			5.3	17.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	162	56	104	533	762	51
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	29

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	146	50	94	480	686	46
Future Vol, veh/h	146	50	94	480	686	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	250	0	125	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	162	56	104	533	762	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1503	762	813	0	-	0
Stage 1	762	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 134	405	814	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 117	405	814	-	-	-
Mov Cap-2 Maneuver	~ 117	-	-	-	-	-
Stage 1	402	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	217.2	1.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	814	-	117	405	-	-
HCM Lane V/C Ratio	0.128	-	1.387	0.137	-	-
HCM Ctrl Dly (s/v)	10.1	-	286.3	15.3	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q (veh)	0.4	-	11.1	0.5	-	-

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	199	0	574	609	125
Future Volume (vph)	0	199	0	574	609	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-1%	
Storage Length (ft)	0	0	0			100
Storage Lanes	0	1	0			1
Taper Length (ft)	25		25			
Satd. Flow (prot)	0	1611	0	1863	1836	1591
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	1836	1591
Link Speed (mph)	25			45	45	
Link Distance (ft)	311			400	350	
Travel Time (s)	8.5			6.1	5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	221	0	638	677	139
Enter Blocked Intersection	No	No	No	Yes	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.99	0.99
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	199	0	574	609	125
Future Vol, veh/h	0	199	0	574	609	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	0	221	0	638	677	139

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	677	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	453	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	453	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	453	-	-
HCM Lane V/C Ratio	-	0.488	-	-
HCM Ctrl Dly (s/v)	-	20.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q (veh)	-	2.6	-	-

SimTraffic Output

Intersection: 1: New Hill Olive Chapel Road & Horton Ridge Boulevard

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	141	73	66	32	10	8	35	8
Average Queue (ft)	60	30	24	6	0	0	5	0
95th Queue (ft)	106	60	48	23	6	4	22	4
Link Distance (ft)	338	911			677			1514
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	150		150	200	
Storage Blk Time (%)		0	0					
Queuing Penalty (veh)		0	0					

Intersection: 2: New Hill Olive Chapel Road & Belterra Point Drive/Lex Lane

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	T	L	TR
Maximum Queue (ft)	65	76	34	4	15	12
Average Queue (ft)	24	28	4	0	1	1
95th Queue (ft)	50	54	20	3	8	8
Link Distance (ft)	1232	268		1227		677
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			125		200	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

Movement	EB	EB	WB	NB	SB	B14
Directions Served	LT	R	LTR	LTR	LTR	T
Maximum Queue (ft)	231	141	192	464	283	14
Average Queue (ft)	100	59	83	190	124	1
95th Queue (ft)	177	107	163	352	241	15
Link Distance (ft)	270		1058	1270	244	269
Upstream Blk Time (%)	0	0			2	
Queuing Penalty (veh)	1	0			9	
Storage Bay Dist (ft)		175				
Storage Blk Time (%)	1					
Queuing Penalty (veh)	2					

Intersection: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp

Movement	WB	WB	NB	SB	SB
Directions Served	LT	R	LT	T	R
Maximum Queue (ft)	401	200	373	809	212
Average Queue (ft)	138	71	178	261	68
95th Queue (ft)	317	168	313	802	234
Link Distance (ft)	708		496	1059	
Upstream Blk Time (%)				5	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)		75			150
Storage Blk Time (%)	39	4		28	
Queuing Penalty (veh)	58	5		27	

Intersection: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp

Movement	EB	EB	NB	NB	SB
Directions Served	LT	R	T	R	LT
Maximum Queue (ft)	169	111	150	85	518
Average Queue (ft)	66	52	58	42	404
95th Queue (ft)	127	92	126	75	627
Link Distance (ft)	681		897		496
Upstream Blk Time (%)					19
Queuing Penalty (veh)					101
Storage Bay Dist (ft)		50		125	
Storage Blk Time (%)	27	6	1	0	
Queuing Penalty (veh)	47	5	3	0	

Intersection: 6: Turner Pines Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	10	36	31
Average Queue (ft)	0	0	13	10
95th Queue (ft)	4	5	38	34
Link Distance (ft)	734	804	472	597
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Bordwell Grant Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	5	18	49	50
Average Queue (ft)	0	1	20	21
95th Queue (ft)	4	9	46	48
Link Distance (ft)	804	338	492	524
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Old US 1 Highway & Jordan Pointe Boulevard

Movement	EB	WB	SB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	24	11	64	16
Average Queue (ft)	1	0	23	3
95th Queue (ft)	10	6	49	12
Link Distance (ft)				859
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	175	150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Old US 1 Highway & Utley Farms West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	24	58
Average Queue (ft)	1	25
95th Queue (ft)	11	45
Link Distance (ft)		538
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 10: Old US 1 Highway & Utley Farms East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	17	74
Average Queue (ft)	1	34
95th Queue (ft)	7	62
Link Distance (ft)		527
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 258

Intersection: 1: New Hill Olive Chapel Road & Horton Ridge Boulevard

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	142	76	52	57	4	12	35	18
Average Queue (ft)	58	25	16	16	0	1	10	1
95th Queue (ft)	111	55	40	40	3	8	31	10
Link Distance (ft)	338	911			677			1514
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	150		150	200	
Storage Blk Time (%)		0						
Queuing Penalty (veh)		0						

Intersection: 2: New Hill Olive Chapel Road & Belterra Point Drive/Lex Lane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	69	44	33	10
Average Queue (ft)	16	13	6	0
95th Queue (ft)	50	35	24	6
Link Distance (ft)	1232	268		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			125	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

Movement	EB	EB	B12	WB	NB	SB	B14
Directions Served	LT	R	T	LTR	LTR	LTR	T
Maximum Queue (ft)	233	166	49	635	654	334	123
Average Queue (ft)	87	48	2	368	305	164	6
95th Queue (ft)	179	119	36	766	546	299	51
Link Distance (ft)	269		294	1058	1270	244	268
Upstream Blk Time (%)	1	0		0		5	
Queuing Penalty (veh)	3	0		0		24	
Storage Bay Dist (ft)		175					
Storage Blk Time (%)	3						
Queuing Penalty (veh)	3						

Intersection: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp

Movement	WB	WB	NB	SB	SB
Directions Served	LT	R	LT	T	R
Maximum Queue (ft)	758	200	512	465	161
Average Queue (ft)	520	168	461	180	30
95th Queue (ft)	880	268	627	373	129
Link Distance (ft)	708		496	1059	
Upstream Blk Time (%)	32		35		
Queuing Penalty (veh)	0		171		
Storage Bay Dist (ft)		75			150
Storage Blk Time (%)	68	8		14	
Queuing Penalty (veh)	178	38		9	

Intersection: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp

Movement	EB	EB	NB	NB	SB
Directions Served	LT	R	T	R	LT
Maximum Queue (ft)	278	174	857	225	516
Average Queue (ft)	88	83	446	133	413
95th Queue (ft)	213	154	1051	304	624
Link Distance (ft)	681		897		496
Upstream Blk Time (%)			23		6
Queuing Penalty (veh)			0		60
Storage Bay Dist (ft)		50		125	
Storage Blk Time (%)	34	26	51	0	
Queuing Penalty (veh)	69	21	113	1	

Intersection: 6: Turner Pines Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	15	56	53
Average Queue (ft)	0	1	15	15
95th Queue (ft)	4	6	45	45
Link Distance (ft)	734	804	472	597
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Bordwell Grant Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	12	23	49	48
Average Queue (ft)	0	1	22	15
95th Queue (ft)	6	10	46	43
Link Distance (ft)	804	338	492	524
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Old US 1 Highway & Jordan Pointe Boulevard

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	29	59	16
Average Queue (ft)	2	23	3
95th Queue (ft)	14	47	13
Link Distance (ft)			859
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100	150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Old US 1 Highway & Utley Farms West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	31	52
Average Queue (ft)	2	19
95th Queue (ft)	16	42
Link Distance (ft)		554
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 10: Old US 1 Highway & Utley Farms East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	18	65
Average Queue (ft)	1	27
95th Queue (ft)	9	56
Link Distance (ft)		518
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 690

Intersection: 1: New Hill Olive Chapel Road & Horton Ridge Boulevard

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	296	204	155	63	28	4	34	14
Average Queue (ft)	153	79	37	17	1	0	7	1
95th Queue (ft)	310	165	94	45	12	3	26	8
Link Distance (ft)	338	911			677			1514
Upstream Blk Time (%)	6							
Queuing Penalty (veh)	12							
Storage Bay Dist (ft)			100	150		150	200	
Storage Blk Time (%)		12	0					
Queuing Penalty (veh)		9	0					

Intersection: 2: New Hill Olive Chapel Road & Belterra Point Drive/Lex Lane

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	64	90	28	25	16
Average Queue (ft)	26	33	6	1	1
95th Queue (ft)	53	66	22	10	8
Link Distance (ft)	1232	268			677
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			125	200	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	T	R
Maximum Queue (ft)	113	226	204	134	152	65	250	637	180	275	79
Average Queue (ft)	51	113	74	56	73	25	133	252	65	138	13
95th Queue (ft)	97	192	149	110	131	55	257	498	130	224	47
Link Distance (ft)		293			1051			1264		322	
Upstream Blk Time (%)								0		0	
Queuing Penalty (veh)								0		0	
Storage Bay Dist (ft)	250		175	250		150	150		150		150
Storage Blk Time (%)		2	0		0		3	17	0	5	
Queuing Penalty (veh)		7	1		1		21	35	1	9	

Intersection: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp

Movement	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	R
Maximum Queue (ft)	194	240	192	181	141	302	176
Average Queue (ft)	51	121	86	93	42	114	39
95th Queue (ft)	143	197	165	169	94	237	133
Link Distance (ft)		702			487	1054	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	550		75	225			150
Storage Blk Time (%)		32	10	0		4	
Queuing Penalty (veh)		98	19	3		7	

Intersection: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	R	L	T	T
Maximum Queue (ft)	195	139	344	316	298	348	131
Average Queue (ft)	93	15	176	123	177	66	19
95th Queue (ft)	166	85	301	237	300	292	95
Link Distance (ft)	651		908			487	487
Upstream Blk Time (%)						1	
Queuing Penalty (veh)						3	
Storage Bay Dist (ft)		75		250	200		
Storage Blk Time (%)	19	0	2	0	15	0	
Queuing Penalty (veh)	45	1	11	3	31	0	

Intersection: 6: Turner Pines Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	16	21	40	31
Average Queue (ft)	1	1	18	14
95th Queue (ft)	11	8	43	39
Link Distance (ft)	734	804	472	597
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Bordwell Grant Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	48	6	83	79
Average Queue (ft)	7	1	27	28
95th Queue (ft)	49	7	64	70
Link Distance (ft)	804	338	492	524
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Old US 1 Highway & Jordan Pointe Boulevard

Movement	EB	WB	SB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	18	11	103	17
Average Queue (ft)	1	0	32	3
95th Queue (ft)	10	5	68	13
Link Distance (ft)				859
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	175	150	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 9: Old US 1 Highway & Utley Farms West Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	17	60
Average Queue (ft)	1	21
95th Queue (ft)	8	44
Link Distance (ft)		538
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Old US 1 Highway & Utley Farms East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	25	51
Average Queue (ft)	1	23
95th Queue (ft)	12	50
Link Distance (ft)		526
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 11: Old US 1 Highway & West Site Driveway

Movement	EB	WB	SB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	54	4	58	24
Average Queue (ft)	15	0	24	3
95th Queue (ft)	44	3	51	16
Link Distance (ft)			446	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	50		50
Storage Blk Time (%)			2	
Queuing Penalty (veh)			0	

Intersection: 12: Old US 1 Highway & East Site Driveway

Movement	SB
Directions Served	R
Maximum Queue (ft)	54
Average Queue (ft)	22
95th Queue (ft)	45
Link Distance (ft)	456
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: New Hill Olive Chapel Road & North Site Driveway

Movement	EB	EB	NB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	109	38	47	10
Average Queue (ft)	43	10	16	0
95th Queue (ft)	89	31	41	8
Link Distance (ft)		504		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250		125	50
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 14: New Hill Olive Chapel Road & South Site Driveway

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	105	6
Average Queue (ft)	39	0
95th Queue (ft)	75	4
Link Distance (ft)	264	292
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 316

Intersection: 1: New Hill Olive Chapel Road & Horton Ridge Boulevard

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	225	176	113	63	3	13	45	22
Average Queue (ft)	108	67	24	23	0	1	16	1
95th Queue (ft)	197	145	71	51	2	7	39	10
Link Distance (ft)	338	911			677			1514
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	150		150	200	
Storage Blk Time (%)		8						
Queuing Penalty (veh)		4						

Intersection: 2: New Hill Olive Chapel Road & Belterra Point Drive/Lex Lane

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	95	62	50	29
Average Queue (ft)	26	25	9	2
95th Queue (ft)	68	54	32	12
Link Distance (ft)	1232	270		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			125	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: New Hill Holleman Road/New Hill Olive Chapel Road & Old US 1 Highway

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	T	R
Maximum Queue (ft)	153	154	156	172	349	248	250	534	250	334	250
Average Queue (ft)	56	74	58	55	183	51	163	198	91	228	86
95th Queue (ft)	123	131	126	118	297	159	259	392	225	341	238
Link Distance (ft)		293			1051			1264		323	
Upstream Blk Time (%)										1	
Queuing Penalty (veh)										10	
Storage Bay Dist (ft)	250		175	250		150	150		150		150
Storage Blk Time (%)		0	0		17		20	12	0	24	
Queuing Penalty (veh)		0	0		38		96	38	1	62	

Intersection: 4: New Hill Holleman Road & US 1 Southbound On-Ramp/US 1 Southbound Off-Ramp

Movement	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	R
Maximum Queue (ft)	432	551	200	323	427	558	250
Average Queue (ft)	212	279	174	204	171	319	104
95th Queue (ft)	358	446	259	333	370	535	275
Link Distance (ft)		702			487	1054	
Upstream Blk Time (%)		0			1		
Queuing Penalty (veh)		0			4		
Storage Bay Dist (ft)	550		75	225			150
Storage Blk Time (%)		62	19	14	2	29	0
Queuing Penalty (veh)		402	107	62	6	36	0

Intersection: 5: New Hill Holleman Road & US 1 Northbound Off-Ramp/US 1 Northbound On-Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	R	L	T	T
Maximum Queue (ft)	227	178	335	145	210	40	31
Average Queue (ft)	97	49	153	51	90	4	6
95th Queue (ft)	188	136	317	139	163	22	23
Link Distance (ft)	651		908			487	487
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75		250	200		
Storage Blk Time (%)	23	3	2		1		
Queuing Penalty (veh)	57	4	6		4		

Intersection: 6: Turner Pines Drive & Horton Ridge Boulevard

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	40	40
Average Queue (ft)	0	22	15
95th Queue (ft)	5	46	41
Link Distance (ft)	804	472	597
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Bordwell Grant Drive & Horton Ridge Boulevard

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	12	39	40	52
Average Queue (ft)	0	3	23	18
95th Queue (ft)	6	19	46	46
Link Distance (ft)	804	338	492	524
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Old US 1 Highway & Jordan Pointe Boulevard

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	18	95	16
Average Queue (ft)	2	38	3
95th Queue (ft)	13	73	14
Link Distance (ft)			859
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100	150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Old US 1 Highway & Utley Farms West Driveway

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	24	9	65
Average Queue (ft)	2	0	23
95th Queue (ft)	15	4	52
Link Distance (ft)		1590	557
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 10: Old US 1 Highway & Utley Farms East Driveway

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	24	63
Average Queue (ft)	1	22
95th Queue (ft)	12	50
Link Distance (ft)		516
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 11: Old US 1 Highway & West Site Driveway

Movement	EB	WB	WB	SB	SB
Directions Served	L	T	R	L	R
Maximum Queue (ft)	61	4	22	60	30
Average Queue (ft)	27	0	1	19	9
95th Queue (ft)	55	3	9	47	28
Link Distance (ft)		267		459	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100		50		50
Storage Blk Time (%)				1	0
Queuing Penalty (veh)				0	0

Intersection: 12: Old US 1 Highway & East Site Driveway

Movement	SB
Directions Served	R
Maximum Queue (ft)	64
Average Queue (ft)	30
95th Queue (ft)	55
Link Distance (ft)	456
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: New Hill Olive Chapel Road & North Site Driveway

Movement	EB	EB	NB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	257	213	90	24
Average Queue (ft)	145	38	35	1
95th Queue (ft)	281	134	69	11
Link Distance (ft)		444		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250		125	50
Storage Blk Time (%)	9	0	0	0
Queuing Penalty (veh)	4	0	0	0

Intersection: 14: New Hill Olive Chapel Road & South Site Driveway

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	187	119
Average Queue (ft)	74	10
95th Queue (ft)	151	58
Link Distance (ft)	264	291
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Network Summary

Network wide Queuing Penalty: 944

HE-0010 Interchange Plans

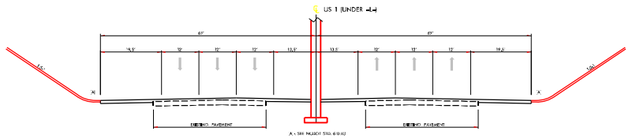
PROJECT REFERENCE NO.	SHEET NO.
HI93554	1

FEASIBILITY PLANS
DO NOT USE FOR CONSTRUCTION

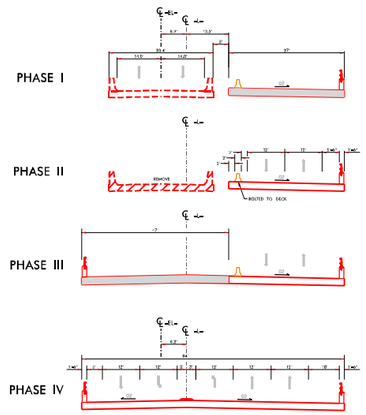
GRAPHIC SCALE
100 50 0 100 200
PLANS

SPOT ID HI93554 – PROJECT TITAN INTERSECTION AND HIGHWAY IMPROVEMENTS
US 1 AND NEW HILL HOLLEMAN ROAD INTERCHANGE
NEW HILL HOLLEMAN ROAD AND FRIENDSHIP ROAD INTERSECTION
ALTERNATIVE 2 – FRIENDSHIP MASTERPLAN FULL BUILD DESIGN

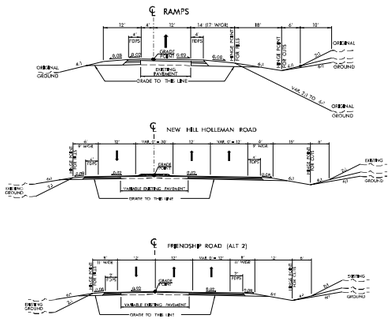
FUTURE US 1



BRIDGE STAGING CONCEPT



TYPICAL SECTIONS





TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONDITIONAL ZONING #24CZ19
New Hill Commons PUD

Pursuant to the provisions of North Carolina General Statutes §160D-602 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Planning Board of the Town of Apex. The purpose of these hearings is to consider the following:

Applicants: Barnett Properties, LLC
Authorized Agents: Alan Maness, Barnett Properties; Matthew Carpenter, Parker Poe
Property Addresses: 0 & 2704 New Hill Olive Chapel Road; 2504, 2508, 2509, 2513 & 2537 Lashlee Way; 8621 Athlete Drive; and 3600 & 3700 Old US 1 Hwy
Acreage: 55.345 acres
Property Identification Numbers (PINs): 0710736732 (portion of); 0710830487; 0710734325; 0710724872; 0710728789; 0710835242; 0710825733; 0710837363; 0710827861; 0710824319 (portion of)
2045 Land Use Map Designation: Office Employment/Commercial Services; Low Density Residential; Low Density Residential/Office Employment
If rezoned as proposed, the 2045 Land Use Map Designation will change to: Office Employment/Commercial Services; Low Density Residential
Existing Zoning of Properties: Planned Unit Development—Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business—Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)
Proposed Zoning of Properties: Planned Unit Development-Conditional Zoning (PUD-CZ)
Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

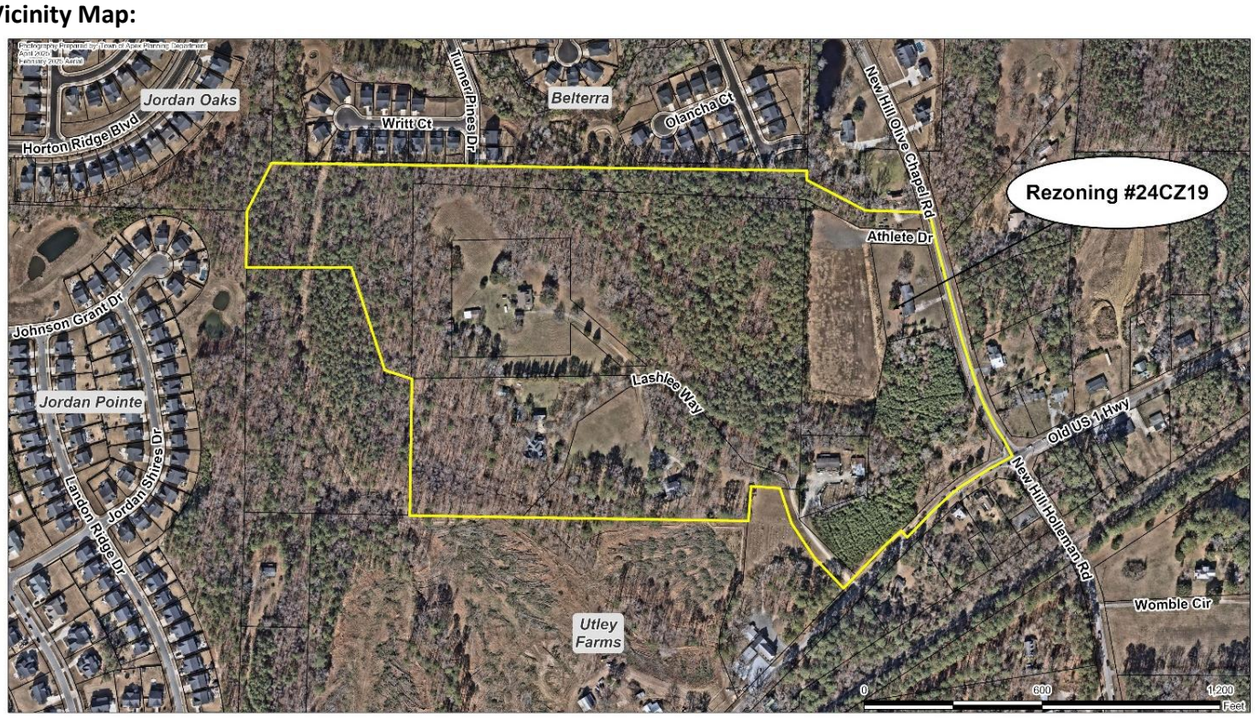
Planning Board Public Hearing Date and Time: May 12, 2025, 4:30 PM

You may attend the meeting in person or view the meeting through the Town's YouTube livestream at: https://www.youtube.com/c/townofapexgov.

If you are unable to attend, you may provide a written statement by email to public.hearing@apexnc.org, or submit it to the clerk of the Planning Board, Jeri Pederson (322 N. Mason Street or USPS mail - P.O. Box 250, Apex, NC 27502), at least two business days prior to the Planning Board vote. You must provide your name and address for the record. The written statements will be delivered to the Planning Board prior to their vote. Please include the Public Hearing name in the subject line.

A separate notice of the Town Council public hearing on this project will be mailed and posted in order to comply with State public notice requirements.

Vicinity Map:



Property owners, tenants, and neighborhood associations within 300 feet of the proposed conditional zoning have been sent this notice via first class mail. All interested parties may submit comments with respect to the application by the means specified above. In addition to the above map, the location of the property may be viewed online at https://maps.raleighnc.gov/imaps. The 2045 Land Use Map may be viewed online at www.apexnc.org/DocumentCenter/View/478. You may call 919-249-3426, Planning Department, with questions or for further information. To view the petition and related documents on-line: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Planning Director

Published Dates: April 28, 2025 - May 12, 2025

TOWN OF APEX
PO BOX 250
APEX, NORTH CAROLINA 27502
TELÉFONO 919-249-3426

NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS

ORDENAMIENTO TERRITORIAL CONDICIONAL #24CZ19
New Hill Commons PUD
(Desarrollo de Unidad Planificada)

De conformidad con las disposiciones de los Estatutos Generales de Carolina del Norte §160D-602 y con la Sección 2.2.11 de la Ordenanza de Desarrollo Unificado (UDO) del Ayuntamiento de Apex, por la presente se notifican las audiencias públicas ante la Junta de Planificación de Apex. El propósito de estas audiencias es considerar lo siguiente:

Solicitante: Barnett Properties, LLC
Agente autorizado: Alan Maness, Barnett Properties; Matthew Carpenter, Parker Poe
Dirección de las propiedades: 0 & 2704 New Hill Olive Chapel Road; 2513, 2509, 2504, 2508 & 2537 Lashlee Way; 8621 Athlete Drive; 3600 & 3700 Old US 1 Hwy
Superficie: ± 55.345 acres
Números de identificación de las propiedades: 0710736732 (porción de); 0710830487; 0710734325; 0710724872; 0710728789; 0710835242; 0710825733; 0710837363; 0710827861; 0710824319 (porción de)
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Si se aprueba el cambio de zonificación como se propone, el Mapa de Uso Territorial para el 2045 cambiará a: Office Employment/Commercial Services; Low Density Residential
Ordenamiento territorial existente de las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)
Ordenamiento territorial propuesto para las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ)

Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

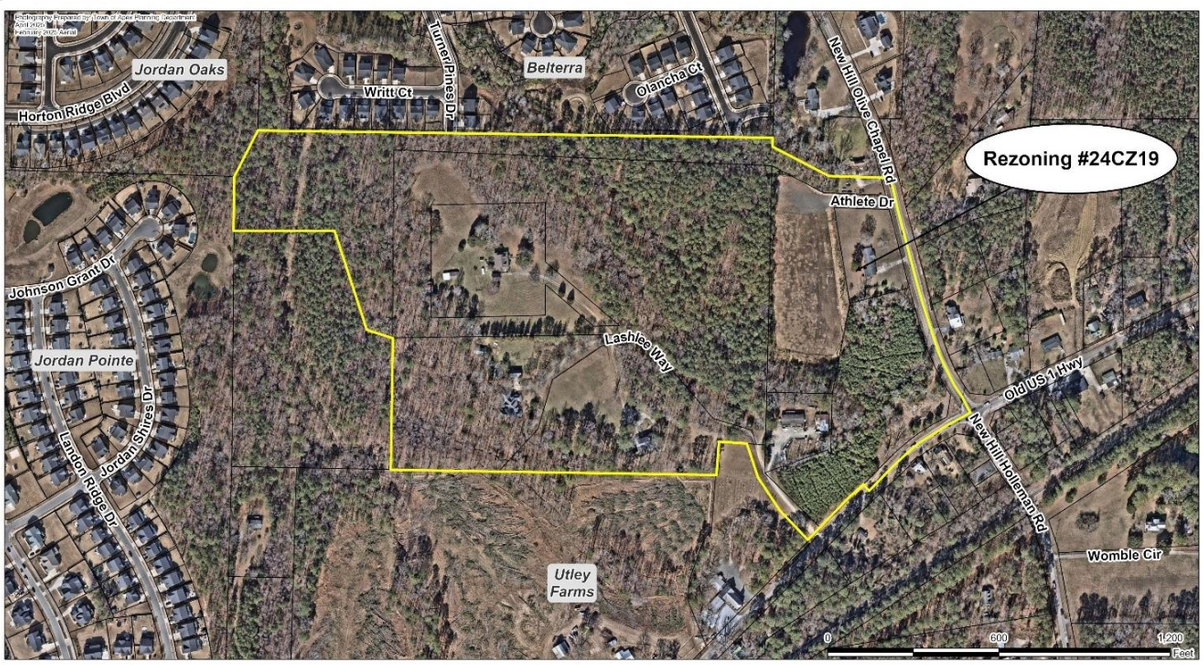
Fecha y hora de la audiencia pública de la Junta de Planificación: 12 de mayo de 2025 4:30 P.M.

Puede asistir a la reunión de manera presencial o seguir la transmisión en directo por YouTube a través del siguiente enlace: https://www.youtube.com/c/townofapexgov.

Si no puede asistir, puede enviar una declaración escrita por correo electrónico a public.hearing@apexnc.org, o presentarla a la secretaría de la Junta de Planificación, Jeri Pederson (322 N. Mason Street o por correo USPS a P.O. Box 250, Apex, NC 27502), al menos dos días hábiles antes de la votación de la Junta de Planificación. Debe proporcionar su nombre y dirección para que conste en el registro. Las declaraciones escritas se entregarán a la Junta de Planificación antes de la votación. No olvide incluir el nombre de la audiencia pública en el asunto.

De conformidad con los requisitos estatales de notificaciones públicas, se enviará por correo y se publicará por separado una notificación de la audiencia pública del Consejo Municipal sobre este proyecto.

Mapa de las inmediaciones:



Los propietarios, inquilinos y asociaciones de vecinos en un radio de 300 pies del Ordenamiento Territorial Condicional propuesto han recibido esta notificación por correo postal de primera clase. Todas las partes interesadas pueden presentar comentarios sobre la solicitud a través de los medios especificados anteriormente. La ubicación de la propiedad también puede verse aquí: https://maps.raleighnc.gov/imaps. Puede ver el Mapa de Uso Territorial para 2045 aquí: www.apexnc.org/DocumentCenter/View/478. Si tiene preguntas o desea obtener más información, puede comunicarse con el Departamento de Planificación al 919-249-3426. Puede ver la solicitud y otros documentos relacionados aquí: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 28 de abril - 12 de mayo 2025

Town of Apex | Legal Notice of Public Hearings / | AGENDA
https://www.apexnc.org/DocumentCenter/View/50467/24CZ19-PB-PN-combined?bidId=
Update
Team Apex Landing... | Town of Apex, Nort... | Planning Departme... | 2045LUM_04092024... | Development in Apex | iMAPS | Home | Books! Online Recor... | PL Team - Internal -... | Lighting Info | Form-Based-Code.p... | Design and Develop... | Other favorites
Draw | 1 of 2

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS
CONDITIONAL ZONING #24CZ19
New Hill Commons PUD

Pursuant to the provisions of North Carolina General Statutes §160D-602 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Planning Board of the Town of Apex. The purpose of these hearings is to consider the following:

Applicants: Barnett Properties, LLC
Authorized Agents: Alan Maness, Barnett Properties; Matthew Carpenter, Parker Poe
Property Addresses: 0 & 2704 New Hill Olive Chapel Road; 2504, 2508, 2509, 2513 & 2537 Lashlee Way; 8621 Athlete Drive; and 3600 & 3700 Old US 1 Hwy
Acreage: 55.345 acres
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Proposed Zoning of Properties: Planned Unit Development-Conditional Zoning (PUD-CZ)
Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Planning Board Public Hearing Date and Time: May 12, 2025, 4:30 PM

You may attend the meeting in person or view the meeting through the Town's YouTube livestream at: https://www.youtube.com/c/townofapexgov.

If you are unable to attend, you may provide a written statement by email to public.hearing@apexnc.org, or submit it to the clerk of the Planning Board, Jeri Pederson (322 N. Mason Street or USPS mail - P.O. Box 250, Apex, NC 27502), at least two business days prior to the Planning Board vote. You must provide your name and address for the record. The written statements will be delivered to the Planning Board prior to their vote. Please include the Public Hearing name in the subject line.

A separate notice of the Town Council public hearing on this project will be mailed and posted in order to comply with State public notice requirements.

Vicinity Map:



Property owners, tenants, and neighborhood associations within 300 feet of the proposed conditional zoning have been sent this notice via first class mail. All interested parties may submit comments with respect to the application by the means specified above. In addition to the above map, the location of the property may be viewed online at https://maps.raleighnc.gov/imaps. The 2045 Land Use Map may be viewed online at www.apexnc.org/DocumentCenter/View/478. You may call 919-249-3426, Planning Department, with questions or for further information. To view the petition and related documents on-line: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Planning Director

69°F Sunny
Search
11:32 AM 4/28/2025

TOWN OF APEX
PO BOX 250
APEX, NORTH CAROLINA 27502
TELÉFONO 919-249-3426

NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS
ORDENAMIENTO TERRITORIAL CONDICIONAL #24CZ19
New Hill Commons PUD
(Desarrollo de Unidad Planificada)

De conformidad con las disposiciones de los Estatutos Generales de Carolina del Norte §160D-602 y con la Sección 2.2.11 de la Ordenanza de Desarrollo Unificado (UDO) del Ayuntamiento de Apex, por la presente se notifican las audiencias públicas ante la Junta de Planificación de Apex. El propósito de estas audiencias es considerar lo siguiente:

Solicitante: Barnett Properties, LLC
Agente autorizado: Alan Maness, Barnett Properties; Matthew Carpenter, Parker Poe
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Superficie: ± 55.345 acres
Números de identificación de las propiedades: 0710736732 (porción de); 0710830487; 0710734325; 0710724872; 0710728789; 0710835242; 0710825733; 0710837363; 0710827861; 0710824319 (porción de)
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Ordenamiento territorial existente de las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)
Ordenamiento territorial propuesto para las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ)

Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

Fecha y hora de la audiencia pública de la Junta de Planificación: 12 de mayo de 2025 4:30 P.M.

Puede asistir a la reunión de manera presencial o seguir la transmisión en directo por YouTube a través del siguiente enlace: https://www.youtube.com/c/townofapexgov.

Si no puede asistir, puede enviar una declaración escrita por correo electrónico a public.hearing@apexnc.org, o presentarla a la secretaría de la Junta de Planificación, Jeri Pederson (322 N. Mason Street o por correo USPS a P.O. Box 250, Apex, NC 27502), al menos dos días hábiles antes de la votación de la Junta de Planificación. Debe proporcionar su nombre y dirección para que conste en el registro. Las declaraciones escritas se entregarán a la Junta de Planificación antes de la votación. No olvide incluir el nombre de la audiencia pública en el asunto.

De conformidad con los requisitos estatales de notificaciones públicas, se enviará por correo y se publicará por separado una notificación de la audiencia pública del Consejo Municipal sobre este proyecto.

Mapa de las inmediaciones:



Los propietarios, inquilinos y asociaciones de vecinos en un radio de 300 pies del Ordenamiento Territorial Condicional propuesto han recibido esta notificación por correo postal de primera clase. Todas las partes interesadas pueden presentar comentarios sobre la solicitud a través de los medios especificados anteriormente. La ubicación de la propiedad también puede verse aquí: https://maps.raleighnc.gov/imaps. Puede ver el Mapa de Uso Territorial para 2045 aquí: www.apexnc.org/DocumentCenter/View/478. Si tiene preguntas o desea obtener más información, puede comunicarse con el Departamento de Planificación al 919-249-3426. Puede ver la solicitud y otros documentos relacionados aquí: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 28 de abril - 12 de mayo 2025

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

AFFIDAVIT CERTIFYING
Public Notification – Written (Mailed) Notice

Section 2.2.11
Town of Apex Unified Development Ordinance

Project Name:	Conditional Zoning #24CZ19 New Hill Commons PUD
Project Location:	0 & 2704 New Hill Olive Chapel Road; 2504, 2508, 2509, 2513 & 2537 Lashlee Way; 8621 Athlete Drive; 3600 & 3700 Old US 1 Hwy
Applicant or Authorized Agents:	Alan Maness, Barnett Properties; Matthew Carpenter
Firm:	Parker Poe
Planning Board Public Hearing Date:	May 12, 2025
Project Planner:	Bruce Venable

This is to certify that I, as Planning Director, mailed or caused to have mailed by first class postage for the above mentioned project on April 28, 2025, a notice containing the time and place, location, nature and scope of the application, where additional information may be obtained, and the opportunity for interested parties to be heard, to the property owners and tenants within 300' of the land subject to notification. I further certify that I relied on information from the Wake County Tax Assessor and the Town of Apex Master Address Repository provided to me by Town of Apex GIS Staff as to accuracy of the list and accuracy of mailing addresses of property owners and tenants within 300' of the land subject to notification.

4/28/2025
Date

Planning Director

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, LAUREN J SISSON, a Notary Public for the above State and County, this the 28th day of APRIL, 2025.

LAUREN J SISSON
Notary Public - North Carolina
Wake County
My Commission Expires Oct 3, 2027
SEAL

Notary Public

My Commission Expires: 10/03/2027

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONDITIONAL ZONING #24CZ19
New Hill Commons PUD

Pursuant to the provisions of North Carolina General Statutes §160D-602 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

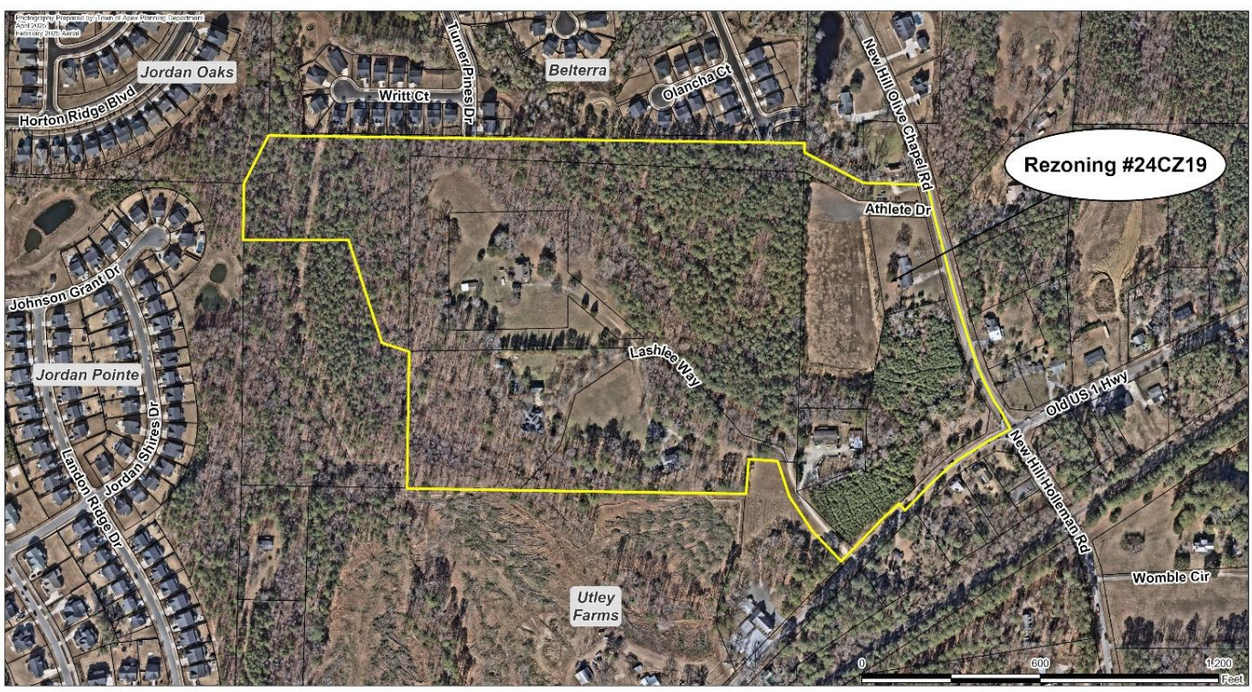
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Existing Zoning of Properties: Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)
Proposed Zoning of Properties: Planned Unit Development-Conditional Zoning (PUD-CZ)
Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Comments received prior to the Planning Board public hearing will not be provided to the Town Council.
Separate comments for the Town Council public hearing must be provided by the deadline specified below.

Town Council Public Hearing Date and Time: May 27, 2025, 6:00 PM
You may attend the meeting in person or view the meeting through the Town's YouTube livestream at: https://www.youtube.com/c/townofapexgov.

If you are unable to attend, you may provide a written statement by email to public.hearing@apexnc.org, or submit it to the Office of the Town Clerk (73 Hunter Street or USPS mail - P.O. Box 250, Apex, NC 27502), at least two business days prior to the Town Council vote. You must provide your name and address for the record. The written statements will be delivered to the Town Council prior to their vote. Please include the Public Hearing name in the subject line.

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Dianne F. Khin, AICP
Planning Director

Published Dates: May 2, 2025 - May 27, 2025

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS

ORDENAMIENTO TERRITORIAL CONDICIONAL #24CZ19
New Hill Commons PUD
(Desarrollo de Unidad Planificada)

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Dirección de las propiedades: 0 & 2704 New Hill Olive Chapel Road; 2513, 2509, 2504, 2508 & 2537 Lashlee Way; 8621 Athlete Drive; 3600 & 3700 Old US 1 Hwy
Superficie: ± 55.345 acres
Números de identificación de las propiedades: 0710736732 (porción de); 0710830487; 0710734325; 0710724872; 0710728789; 0710835242; 0710825733; 0710837363; 0710827861; 0710824319 (porción de)
Designación actual en el Mapa de Uso Territorial para 2045: Office Employment/Commercial Services; Low Density Residential/Office Employment; Low Density Residential
Si se aprueba el cambio de zonificación como se propone, el Mapa de Uso Territorial para el 2045 cambiará a: Office Employment/Commercial Services; Low Density Residential
Ordenamiento territorial existente de las propiedades: Pl
Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)

Ordenamiento territorial propuesto para las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ)

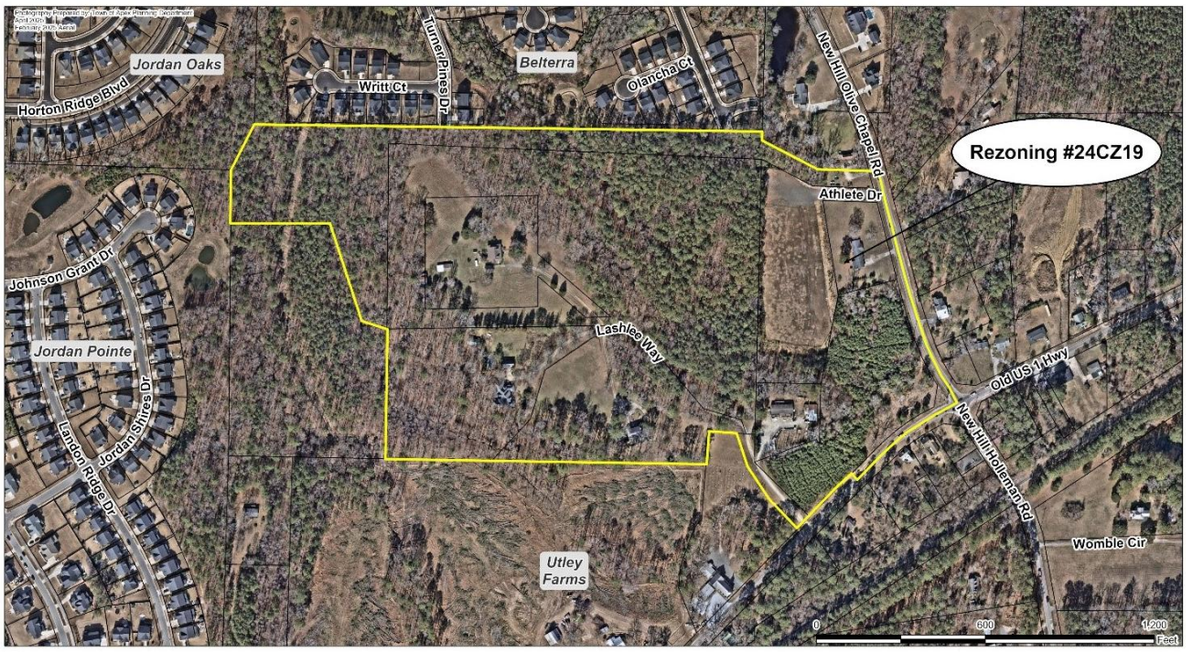
Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

Fecha y hora de la audiencia pública del Consejo Municipal: 27 de mayo de 2025, 6:00 P.M.
Puede asistir a la reunión de manera presencial o seguir la transmisión en directo por YouTube a través del siguiente enlace: https://www.youtube.com/c/townofapexgov.

Si no puede asistir, puede enviar una declaración escrita por correo electrónico a public.hearing@apexnc.org, o presentarla a la secretaría de la Junta de Planificación, Jeri Pederson (322 N. Mason Street o por correo USPS a P.O. Box 250, Apex, NC 27502), al menos dos días hábiles antes de la votación de la Junta de Planificación. Debe proporcionar su nombre y dirección para que conste en el registro. Las declaraciones escritas se entregarán a la Junta de Planificación antes de la votación. No olvide incluir el nombre de la audiencia pública en el asunto.

De conformidad con los requisitos estatales de notificaciones públicas, se enviará por correo y se publicará por separado una notificación de la audiencia pública del Consejo Municipal sobre este proyecto.

Mapa de las inmediaciones:



Los propietarios, inquilinos y asociaciones de vecinos en un radio de 300 pies del Ordenamiento Territorial Condicional propuesto han recibido esta notificación por correo postal de primera clase. Todas las partes interesadas pueden presentar comentarios sobre la solicitud a través de los medios especificados anteriormente. La ubicación de la propiedad también puede verse aquí: https://maps.raleighnc.gov/imaps. Puede ver el Mapa de Uso Territorial para 2045 aquí: www.apexnc.org/DocumentCenter/View/478. Si tiene preguntas o desea obtener más información, puede comunicarse con el Departamento de Planificación al 919-249-3426. Puede ver la solicitud y otros documentos relacionados aquí: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 2 de mayo 2025 – 27 de mayo 2025

https://www.apexnc.org/DocumentCenter/View/50467/24CZ19-PB-PN-combined?bidId=

Team Apex Landing... Town of Apex, Nort... Planning Departme... 2045LUM_04092024... Development in Apex iMAPS Home Books! Online Recor... PL Team - Internal -... Lighting Info Form-Based-Code.p... Design and Develop... Other favorites

Draw 2 of 2

TOWN OF APEX
PO BOX 250
APEX, NORTH CAROLINA 27502
TELÉFONO 919-249-3426

NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS
ORDENAMIENTO TERRITORIAL CONDICIONAL #24CZ19
New Hill Commons PUD
(Desarrollo de Unidad Planificada)

De conformidad con las disposiciones de los Estatutos Generales de Carolina del Norte §160D-602 y con la Sección 2.2.11 de la Ordenanza de Desarrollo Unificado (UDO) del Ayuntamiento de Apex, por la presente se notifican las audiencias públicas ante la Junta de Planificación de Apex. El propósito de estas audiencias es considerar lo siguiente:

Solicitante: Barnett Properties, LLC
Agente autorizado: Alan Maness, Barnett Properties; Matthew Carpenter, Parker Poe
Dirección de las propiedades: 0 & 2704 New Hill Olive Chapel Road; 2513, 2509, 2504, 2508 & 2537 Lashlee Way; 8621 Athlete Drive; 3600 & 3700 Old US 1 Hwy
Superficie: ± 55.345 acres
Números de identificación de las propiedades: 0710736732 (porción de); 0710830487; 0710734325; 0710724872; 0710728789; 0710835242; 0710825733; 0710837363; 0710827861; 0710824319 (porción de)
Designación actual en el Mapa de Uso Territorial para 2045: Office Employment/Commercial Services; Low Density Residential;
Si se aprueba el cambio de zonificación como se propone, el Mapa de Uso Territorial para el 2045 cambiará a: Office Employment/Commercial Services; Low Density Residential
Ordenamiento territorial existente de las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)
Ordenamiento territorial propuesto para las propiedades: Planned Unit Development-Conditional Zoning (PUD-CZ)

Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

Fecha y hora de la audiencia pública de la Junta de Planificación: 12 de mayo de 2025 4:30 P.M.

Puede asistir a la reunión de manera presencial o seguir la transmisión en directo por YouTube a través del siguiente enlace: https://www.youtube.com/c/townofapexgov.

Si no puede asistir, puede enviar una declaración escrita por correo electrónico a public.hearing@apexnc.org, o presentarla a la secretaría de la Junta de Planificación, Jeri Pederson (322 N. Mason Street o por correo USPS a P.O. Box 250, Apex, NC 27502), al menos dos días hábiles antes de la votación de la Junta de Planificación. Debe proporcionar su nombre y dirección para que conste en el registro. Las declaraciones escritas se entregarán a la Junta de Planificación antes de la votación. No olvide incluir el nombre de la audiencia pública en el asunto.

De conformidad con los requisitos estatales de notificaciones públicas, se enviará por correo y se publicará por separado una notificación de la audiencia pública del Consejo Municipal sobre este proyecto.

Mapa de las inmediaciones:



Los propietarios, inquilinos y asociaciones de vecinos en un radio de 300 pies del Ordenamiento Territorial Condicional propuesto han recibido esta notificación por correo postal de primera clase. Todas las partes interesadas pueden presentar comentarios sobre la solicitud a través de los medios especificados anteriormente. La ubicación de la propiedad también puede verse aquí: https://maps.raleighnc.gov/imaps. Puede ver el Mapa de Uso Territorial para 2045 aquí: www.apexnc.org/DocumentCenter/View/478. Si tiene preguntas o desea obtener más información, puede comunicarse con el Departamento de Planificación al 919-249-3426. Puede ver la solicitud y otros documentos relacionados aquí: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 28 de abril - 12 de mayo 2025

81°F Sunny Search 12:12 PM 5/2/2025

https://www.apexnc.org/DocumentCenter/View/50529/24CZ19-TC-PN-COMBINED-2?bidId=

Team Apex Landing... | Town of Apex, Nort... | Planning Departme... | 2045LUM_04092024... | Development in Apex | iMAPS | Home | Books! Online Recor... | PL Team - Internal -... | Lighting Info | Form-Based-Code.p... | Design and Develop... | Other favorites

Draw | 1 of 2

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION
OF PUBLIC HEARINGS
CONDITIONAL ZONING #24CZ19
New Hill Commons PUD

Pursuant to the provisions of North Carolina General Statutes §160D-602 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

Applicants: Barnett Properties, LLC
Authorized Agents: Alan Maness, Barnett Properties; Matthew Carpenter, Parker Poe
Property Addresses: 0 & 2704 New Hill Olive Chapel Road; 2504, 2508, 2509, 2513 & 2537 Lashlee Way; 8621 Athlete Drive; and 3600 & 3700 Old US 1 Hwy
Acreage: 55.345 acres
Property Identification Numbers (PINs): 0710736732 (portion of); 0710830487; 0710734325; 0710724872; 0710728789; 0710835242; 0710825733; 0710837363; 0710827861; 0710824319 (portion of)
Current 2045 Land Use Map Designation: Office Employment/Commercial Services; Low Density Residential; Low Density Residential/Office Employment
If rezoned as proposed, the 2045 Land Use Map Designation will change to: Office Employment/Commercial Services; Low Density Residential
Existing Zoning of Properties: Planned Unit Development-Conditional Zoning (PUD-CZ #22CZ09); Residential-40 Watershed (Wake County R-40W); Neighborhood Business-Conditional Zoning (B1-CZ #21CZ11); Mixed Office-Residential-Retail-Conditional Zoning (MORR-CZ #19CZ19)
Proposed Zoning of Properties: Planned Unit Development-Conditional Zoning (PUD-CZ)
Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Comments received prior to the Planning Board public hearing will not be provided to the Town Council.
Separate comments for the Town Council public hearing must be provided by the deadline specified below.

Town Council Public Hearing Date and Time: May 27, 2025, 6:00 PM
You may attend the meeting in person or view the meeting through the Town's YouTube livestream at:
https://www.youtube.com/c/townofapexgov.

If you are unable to attend, you may provide a written statement by email to public.hearing@apexnc.org, or submit it to the Office of the Town Clerk (73 Hunter Street or USPS mail - P.O. Box 250, Apex, NC 27502), at least two business days prior to the Town Council vote. You must provide your name and address for the record. The written statements will be delivered to the Town Council prior to their vote. Please include the Public Hearing name in the subject line.

Vicinity Map:



Property owners, tenants, and neighborhood associations within 300 feet of the proposed conditional zoning have been sent this notice via first class mail. All interested parties may submit comments with respect to the application by the means specified above. In addition to the above map, the location of the property may be viewed online at https://maps.raleighnc.gov/imaps. The 2045 Land Use Map may be viewed online at www.apexnc.org/DocumentCenter/View/478. You may call 919-249-3426, Planning Department, with questions or for further information. To view the petition and related documents on-line: https://www.apexnc.org/DocumentCenter/View/49032.

Dianne F. Khin, AICP
Planning Director

Published Dates: May 2, 2025 - May 27, 2025

81°F Sunny | Search | 12:12 PM 5/2/2025

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

AFFIDAVIT CERTIFYING
Public Notification – Written (Mailed) Notice

Section 2.2.11
Town of Apex Unified Development Ordinance

Project Name:	Conditional Zoning #24CZ19 New Hill Commons PUD
Project Location:	0 & 2704 New Hill Olive Chapel Road; 2504, 2508, 2509, 2513 & 2537 Lashlee Way; 8621 Athlete Drive; 3600 & 3700 Old US 1 Hwy
Applicant or Authorized Agents:	Alan Maness, Barnett Properties; Matthew Carpenter
Firm:	Parker Poe
Town Council Public Hearing Date:	May 27, 2025
Project Planner:	Bruce Venable

This is to certify that I, as Planning Director, mailed or caused to have mailed by first class postage for the above mentioned project on May 2, 2025, a notice containing the time and place, location, nature and scope of the application, where additional information may be obtained, and the opportunity for interested parties to be heard, to the property owners and tenants within 300' of the land subject to notification. I further certify that I relied on information from the Wake County Tax Assessor and the Town of Apex Master Address Repository provided to me by Town of Apex GIS Staff as to accuracy of the list and accuracy of mailing addresses of property owners and tenants within 300' of the land subject to notification.

5/5/2025
Date

Planning Director

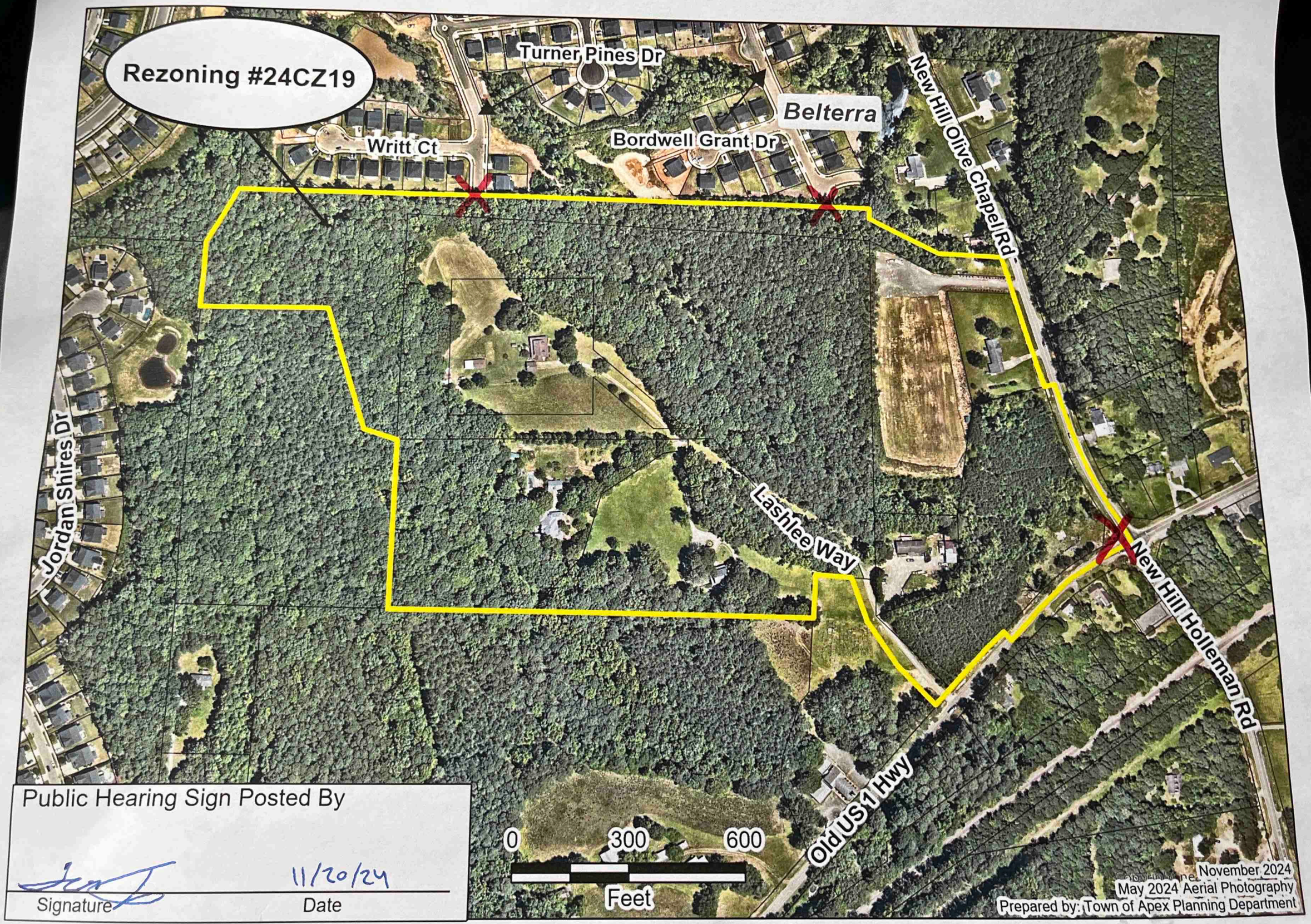
STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, LAUREN J SISSON, a Notary Public for the above State and County, this the 5th day of May, 2025.

LAUREN J SISSON
Notary Public - North Carolina
Wake County
My Commission Expires Oct 3, 2027

Notary Public

My Commission Expires: 10/03/2027



Public Hearing Sign Posted By

Signature

11/20/24

Date

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Office of Student Assignment
5625 Dillard Dr.
Cary, NC 27518
studentassignment@wcpss.net

tel: (919) 431-7333
fax: (919) 694-7753

December 16, 2024

Dianne Khin, AICP
Director, Planning Department
Town of Apex
Dianne.Khin@apexnc.org

Dear Dianne,

The Wake County Public School System (WCPSS) Office of School Assignment received information about a proposed rezoning/development within the Town of Apex planning area. We are providing this letter to share information about WCPSS's capacity related to the proposal. The following information about the proposed rezoning/development was provided through the Wake County Residential Development Notification database:

- Date of application: November 1, 2024
- Name of development: 24CZ19 New Hill Commons PUD
- Address of rezoning: 0 & 2704 New Hill Olive Chapel Rd; 2504, 2508, 2509, 2513, & 2537 Lashlee Way; 8621 Athletic Dr; 3600 & 3700 Old US 1 HWY
- Total number of proposed residential units: 166
- Type(s) of residential units proposed: Single-family detached

Based on the information received at the time of application, the Office of School Assignment is providing the following assessment of possible impacts to the Wake County Public School System:

☐ Schools at all grade levels within the current assignment area for the proposed rezoning/development are anticipated to have sufficient capacity for future students.

☑ Schools at the following grade levels within the current assignment area for the proposed rezoning/development are anticipated to have insufficient capacity for future students; transportation to schools outside of the current assignment area should be anticipated:

☐ Elementary ☑ Middle ☐ High

The following mitigation of capacity concerns due to school construction or expansion is anticipated:

☐ Not applicable – existing school capacity is anticipated to be sufficient.

☐ School expansion or construction within the next five years is not anticipated to address concerns.

☑ School ~~expansion or construction~~ reassignments within the next five years may address concerns at these grade levels:

☐ Elementary ☑ Middle ☐ High

Thank you for sharing this information with the Town of Apex Planning Board and Town Council as they consider the proposed rezoning/development.

Sincerely,

Susan W. Pullium, MSA
Senior Director

*Recent reassignments are projected to address current crowding concerns @ elementary + high