All property owners, tenants, and neighborhood associations within 500 feet of this rezoning have been notified per UDO Sec. 2.2.11 *Public Notification*.

The Background Information and staff report information describes the properties following the Land Exchange:

BACKGROUND INFORMATION:		
Properties:	**ACRE (Hopson Gateway)**	**Town of Apex**
Addresses:	0 Tingen Road (portion) and 1341 Perry Road (portion)	0 Tingen Road (portion), 1341 Perry Road (portion), and 0 Perry Road
Applicants:	Acre Manager, LLC	Town of Apex/ Matt Wetherell
Current Owners:	Sure & Steadfast Properties Limited Partnership & Town of Apex	Town of Apex & Sure & Steadfast Properties Limited Partnership
PROJECT DESCRIPTION:		
Acreage:	+/- 58.54 acres	+/- 39.62 acres
PINs:	0741331566 (portion) & 0741326706 (portion)	0741331566 (portion), 0741326706 (portion), & 0741427922
Current Zoning:	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)
Proposed Zoning:	Planned Unit Development-Conditional Zoning (PUD-CZ)	Light Industrial-Conditional Zoning (LI-CZ)
Current 2045 Land Use Map:	Office Employment and Office Employment/Industrial Employment	Office Employment/Industrial Employment
2045 Land Use Map if rezoning is approved:	Medium/High Density Residential and Medium/High Density Residential/ Commercial Services	Office Employment/Industrial Employment
Town Limits:	Corporate Limits and ETJ	Corporate Limits and ETJ

LAND EXCHANGE AGREEMENT:

The proposed rezoning is a collaboration between ACRE (applicant/developer) and the Town of Apex. The Town of Apex is the owner of a 54.16-acre tract of land (Wake County PINs 0741-32-6706 and 0741-42-7922). ACRE is under contract to purchase a 47.01-acre tract of land (PIN 0741-33-1566). (See Figure 1: Land Owners Before Land Exchange).

ACRE and the Town of Apex have entered a land exchange agreement approved by the Town of Apex Town Council on October 8, 2024, to reconfigure the properties dividing along realigned Perry Road, to create more developable sites for the Town and ACRE. (See Figure 2: Land Owners After Land Exchange).

Following the land exchange:

- ACRE Manager, LLC will own approximately 58.54-acre parcel west of realigned Perry Road
- The Town will own approximately 39.62-acre parcel east of realigned Perry Road.

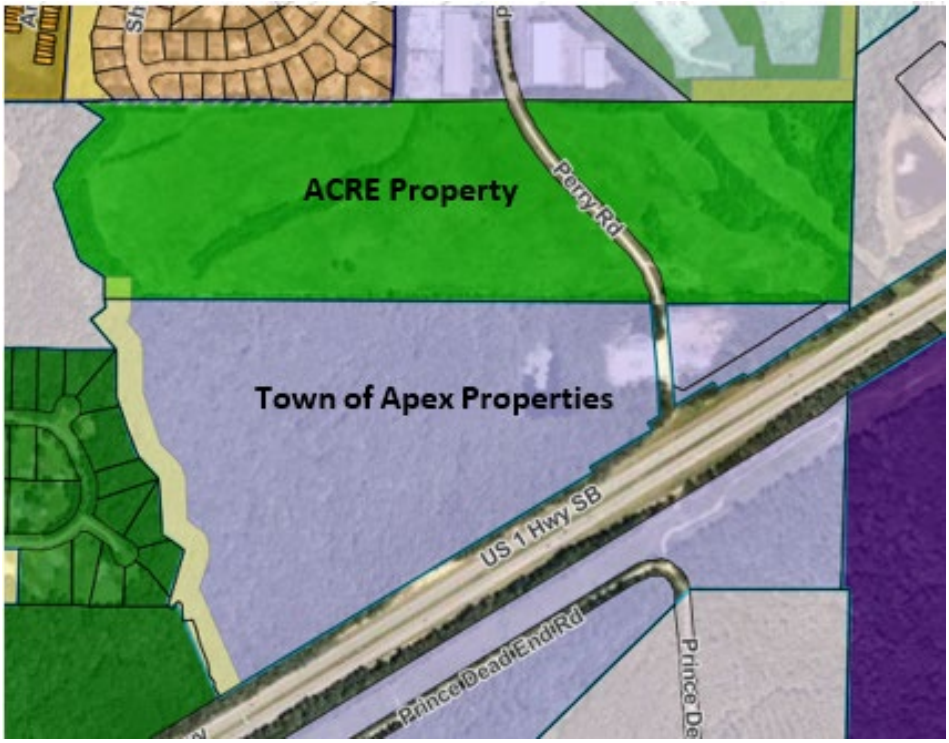


Figure 1: Land Owners Before Land Exchange

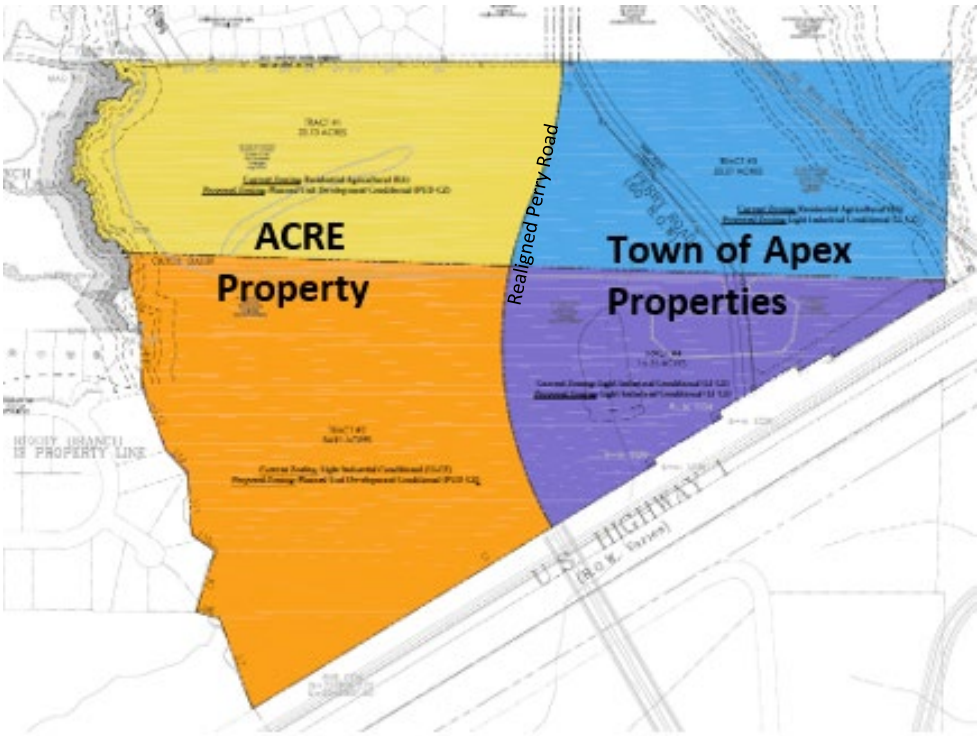


Figure 2: Land Owners After Land Exchange

ADJACENT ZONING & LAND USES:		
	ACRE (Hopson Gateway)	**Town of Apex**
North:	Manufactured Housing Residential-Conditional Use (MH-CU #96CU05) & Light Industrial (LI) Single-family Residential (Lexington Subdivision) & Building Material Supplier Warehouse	Light Industrial (LI) & Tech/Flex (TF) Multi-tenant Light Industrial uses & Multi-tenant Tech/Flex uses
South:	Light Industrial (LI) US Hwy 1 & Vacant	Light Industrial (LI) US Hwy 1 & Vacant
East:	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08) Currently vacant (Future: Proposed realigned Perry Road & Future Town facility)	Planned Unit Development-Conditional Zoning (PUD-CZ #10CZ10) Multi-family (Village at Broadstone Station Apartments)
West:	Planned Unit Development-Conditional Zoning (PUD-CZ #23CZ13) & Rural Residential (RR) Vacant, Single-family Residential (Irongate), & future GRACE Christian School	Residential Agricultural (RA) & Light Industrial Conditional Zoning (LI-CZ #24CZ08) Currently vacant (Future: Proposed realigned Perry Road & Hopson Gateway residential uses)

EXISTING CONDITIONS:

The ACRE (Hopson Gateway) site consists of a portion of two (2) parcels totaling +/- 58.54 acres and is located west of the proposed realigned Perry Road. The Town of Apex site consists of a portion of two (2) parcels and another parcel totaling +/- 39.62 acres and is located east of the proposed realigned Perry Road. The table below describes the existing site features. (See Figure 3: Existing Conditions).

	ACRE (Hopson Gateway)	Town of Apex Property
Northern parcel:	Grassland field and streams with mature trees located along the western property line and interior to the site	Grassland fields with two streams with mature trees along the eastern property line
Southern parcel:	Heavily wooded and a stream located along the western property line and interior to the site	Heavily wooded with a pond and a Town facility

Figure 3: Existing Conditions

NEIGHBORHOOD MEETING:

The applicant conducted two neighborhood meetings on September 18, 2024 and September 25, 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 the proposed Hopson Gateway PUD-CZ rezoning and is included in the staff report packet. WCPSS indicates that all grade levels within the current assignment area for this rezoning/development are anticipated to have sufficient capacity for future students.

2045 LAND USE MAP:

The current 2045 Land Use Map classification for the Town of Apex properties is Office Employment/Industrial Employment. The proposed Light Industrial-Conditional Zoning is consistent with that Land Use classification (See Figure 4: Current 2045 Land Use Map and Figure 5: Proposed 2045 Land Use Map).

The 2045 Land Use Map classifications for the Hopson Gateway PUD properties are Office Employment and Office Employment/Industrial Employment (See Figure 4: Current 2045 Land Use Map). The proposed Hopson Gateway PUD includes residential densities between 9.7 units per acre to 11.5 units per acre and the ability to develop live/work units. The proposed Hopson Gateway PUD properties are not consistent with the current Land Use Map classification. If the properties are rezoned as proposed, the 2045 Land Use Map will automatically be amended as per NCGS 160D-605(a) to Medium/High Density Residential and Medium/High Density Residential/Commercial Services (See Figure 5: Proposed 2045 Land Use Map).

Current 2045 Land Use Map

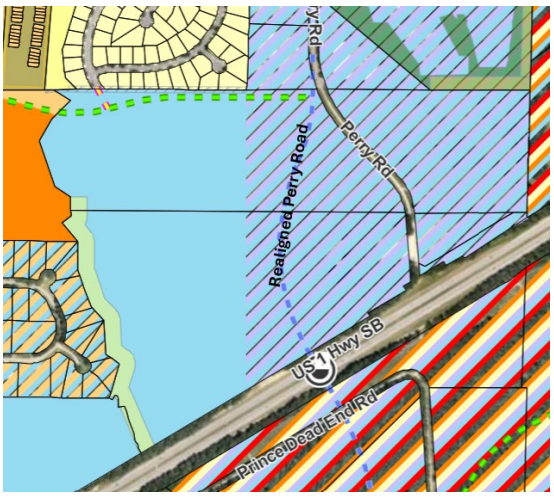


Figure 4: Current 2045 Land Use Map

Proposed 2045 Land Use Map

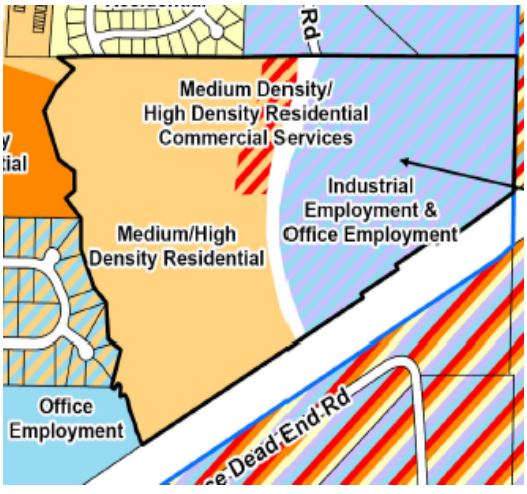


Figure 5: Proposed 2045 Land Use Map

TOWN OF APEX PROPOSED LIGHT INDUSTRIAL-CONDITIONAL ZONING:

As shown in Figures 1 and 2, the land exchange agreement will reconfigure the properties dividing them along realigned Perry Road. The following proposed uses and zoning conditions apply to the LI-CZ portion of the rezoning request which is 39.62 acres in size.

PROPOSED ZONING CONDITIONS:

Proposed Uses:

1. The LI-CZ 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. An "S" indicates that a use category or specific use type is allowed only in accordance with the procedures and standards of UDO Sec. 2.3.5 Special Use Permit.

    a. Yard waste transfer station (S)
    b. Utility, minor
    c. Government Services
    d. Chipping and mulching (S)
    e. Communication tower, commercial (S)
    f. Communication tower, public safety (S)
    g. Greenway
    h. Organics (food waste) drop off, recycling, recovery, processing, and/or composting (S)
    i. Composting facility (S)
    j. Recycling Center (S)
    k. Recycling Collection Station (S)

Proposed Conditions:

2. Required buffers and screening:

    a. A 60' Type A buffer shall be provided along US Hwy 1, except for electric substations under the use "Utility, minor"; there is no buffer required along the boundary of the electric substation and associated lines coming into the substation.

    b. If the other permitted uses are visible through the electric substation or associated lines, those other permitted uses must be screened from US Hwy 1 though the planting of a line of evergreen trees/shrubs meeting a 10' Type A standard or by way of an 8' tall opaque fence in lieu of vegetation; the screening (vegetation or fence) can be located either on the highway side or development side of the electric substation and associated lines, as determined by the Planning Director after consultation with the Electric Utilities Director.

3. All other standards of the UDO may be varied based on the financial and operational needs of the Town of Apex, but any changes to the site shall be required to be shown on a site plan for Technical Review Committee review and comment, and made available to the public on the Interactive Development Map or similar. Known variations include, but are not limited to:

    a. The right-of-way, road improvements, and buffers typically required by the UDO shall not be required along the existing Perry Road section that is to be abandoned.

    b. Road improvements to the new/aligned Perry Road shall be the responsibility of ACRE, the developer of the parcel(s) west of the new/realigned Perry Road as set forth in the Hopson Gateway PUD.

    c. If a tree located within a buffer has a portion of the critical root zone extending outside of that buffer, the Town shall not be required to protect the critical root zone outside the buffer.

    d. A tree survey is only needed within the buffers immediately adjacent to the limits of disturbance.

e. Outdoor storage is allowed as a stand-alone use; no building shall be required for any use with outdoor storage.

f. Resource Conservation Area (RCA) within a perimeter buffer that is shown on a Minor or Major Site Plan may be relocated through a Site Plan revision to accommodate future development with adjoining properties.

g. Existing lighting shall be considered legally established, non-conforming lighting and shall be allowed to remain until such time as the property is redeveloped in such a manner that the lighting is replaced.

h. The yard waste pile associated with a "Yard waste transfer station" shall be limited to 30' in height, with a slope no greater than 2:1.

HOPSON GATEWAY PROPOSED PLANNED UNIT DEVELOPMENT-CONDITIONAL ZONING:

As stated earlier and shown in Figure 1 and Figure 2 of this staff report, the land exchange agreement will reconfigure the properties dividing along realigned Perry Road. The following proposed uses and zoning conditions apply to the PUD-CZ portion of the rezoning request which is 58.54 acres in size.

PROPOSED PLANNED UNIT DEVELOPMENT PLAN:

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

Proposed 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.

	District A	District B
Residential		
Single-family	P	
Townhouse	P	P
Live/work Townhouse*	P	
Small-scale multi-family**	P	P
Multi-family or apartment		P
Accessory apartment	P	P
Recreational Uses		
Park, active	P	P
Greenway	P	P
Park, passive	P	P
Recreation facility, private	P	P
Utility, minor	P	P

*In District A, Live/Work Townhouse shall only be permitted along Perry Road. Live/Work Townhouse shall be defined as a townhouse with a first floor business/office space and a second and/or third floor residence, each with a separate street front entrance. The only permitted non-residential principal use in a Live/Work Townhouse shall be office, business or professional.

**Small scale multi-family shall be defined as: A building constructed to accommodate between two and

ten dwelling units that are vertically or horizontally integrated. Multiple small-scale multi-family buildings may be located on one Lot.

PROPOSED DESIGN CONTROLS:

Acreages for each district are approximate and may increase or decrease by up to 20% based on updated surveys at Master Subdivision Plan.

Development shall comply with the following minimum design controls:

	DISTRICT A	DISTRICT B
Approximate Acreage	24.8	33.74
Maximum Total Units	220	400
Minimum Apartment Units	N/A	300*
Maximum Built-Upon Area	70%	70%

*Townhouse and/or small-scale multi-family units may be developed and constructed in District B before any apartment units are developed, provided sufficient land in District B is reserved to accommodate the future construction of at least 300 apartment units.

	Single-Family	Small Scale Multi-family	Townhouses & Live/Work Townhouses	Multi-Family	Private Recreation Facility
Minimum Lot Size	5,000 sf	N/A	None	None	None
Minimum Lot Width	50 ft.	20 ft.	20 ft.	None	None
Minimum Setbacks					
Front	20 ft.	10 ft.	Rear loaded and parking lot style: 10 ft. Front Loaded: 20 ft.	10 ft.	20 ft.
Side	5 ft.	0 ft. (3 ft. for end units)	0 ft. (3 ft. for end units)	20 ft.	20 ft.
Rear	10 ft.	10 ft.	10 ft.	20 ft.	20 ft.
Corner Side	10 ft.	10 ft.	10 ft.	20 ft.	20 ft.
Minimum from Buffer/RCA	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.
Maximum Building Height	3 stories; 45 ft.	3 stories; 45 ft.	3 stories; 45 ft.	4 stories; 60 ft.	4 stories; 48 ft.
Minimum Building Separation	N/A	10 ft.	10 ft.	15 ft.	N/A

ARCHITECTURAL CONDITIONS:

The Hopson Gateway 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.

DESIGN GUIDELINES

Single-Family:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. Garage doors shall have windows, decorative details or carriage-style adornments on them.
3. The garage shall not protrude more than 1 foot out from the front façade and/or front porch. However, the garage may protrude beyond 1 foot out from the front façade and front porch if the garage is accessed from the side via a J-driveway.
4. The visible side of a home on a corner lot facing the public street shall contain at least 3 decorative elements such as, but not limited to, the following elements:

- Windows
- Bay window
- Recessed window
- Decorative window
- Wrap around porch or side porch
- Two or more building materials
- Decorative brick/stone
- Decorative trim
- Decorative shake
- Decorative air vents on gable
- Decorative gable
- Decorative cornice
- Column
- Portico
- Balcony
- Dormer

5. A varied color palette shall be utilized on homes throughout the subdivision to include a minimum of three (3) color families for siding and shall include 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. No more than 25% of lots may be accessed with J-driveways. There shall be no more than 3 such homes in a row on any single block. Any lots eligible for a J-driveway home shall be identified on the Final Plat.
8. All single-family garages will be wired with a 220/240-volt electric outlet.

Townhouses (front and rear loaded) and Small-Scale Multi-Family:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. The roofline for townhouses and small-scale multi-family cannot be a single mass; it must be broken up horizontally and vertically between every other unit.
3. Front facing garage doors must have windows, decorative details or carriage-style adornments on them.
4. The project shall include a minimum of two (2) or more garage door styles for the front-loaded

townhouses.

5. Entrances shall have a covered porch/stoop area leading to the front door.
6. Side entry townhouses that do not have a front elevation door shall have a covered porch/stoop area leading to the main entry side door. In addition, the side entry townhomes shall include windows on the front elevation adjacent to the garage.
7. The garage cannot protrude more than 1 foot out from the front façade or front porch.
8. The visible side of a townhome or small-scale multi-family building on a corner lot facing the public street shall contain at least 3 decorative elements such as, but not limited to, the following elements:
    - Windows
    - Bay window
    - Recessed window
    - Decorative window
    - Wrap around porch or side porch
    - Two or more building materials
    - Decorative brick/stone
    - Decorative trim
    - Decorative shake
    - Decorative air vents on gable
    - Decorative gable
    - Decorative cornice
    - Column
    - Portico
    - Balcony
    - Dormer
9. A varied color palette shall be utilized on homes throughout the subdivision to include a minimum of three (3) color families for siding and shall include varied trim, shutter, and accent colors complementing the siding color.
10. The rear and side elevations of the units facing public right-of-way shall have trim around the windows.
11. Side and rear elevations shall include architectural features to break up the flat walls both vertically and horizontally.
12. Townhouse buildings shall have no more than one unadorned side-gabled roof in a row within a single building.

Multi-Family/Apartments/Condominiums:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements, and trim are permitted.
2. All elevations shall have either recessed windows or trim around the windows.
3. A minimum of four of the following decorative features shall be used on each building:
    a. Decorative shake
    b. Board and batten
    c. Decorative porch railing/posts
    d. Shutters
    e. Decorative/functional air vents on roof or foundation
    f. Recessed windows
    g. Decorative windows
    h. Decorative brick/stone
    i. Decorative gables
    j. Decorative cornices
    k. Tin/metal roof
4. Garage doors must have windows, decorative details, or carriage-style adornments on them.
5. Siding materials shall be varied in type and/or color on at least 30% of each façade on each building.
6. Windows must vary in size and/or type.
7. To reduce the Urban Heat Island Effect and conserve energy, for multi-family and non-residential

buildings, all flat roofs shall be light or white colored or utilize a cool roof material.

Parking:

Multi-Family and Small-Scale Multi-family buildings shall provide the following minimum parking spaces per dwelling unit based on the number of bedrooms:

Bedrooms per unit	Minimum ratio
1 or 2	1.3 spaces per dwelling unit
3	1.8 spaces per dwelling unit

All other development shall comply with minimum parking standards set forth in UDO Section 8.3.

NATURAL RESOURCES AND ENVIRONMENTAL DATA

RCA and Buffers:

The property is within the Secondary Watershed Protection Overlay District and not located within a designated current or future 100- year floodplain. UDO Section 8.1.2 requires minimum Resource Conservation Area ("RCA") of 20% for the proposed PUD project. Preserved streams, wetlands, and associated riparian buffers provide the primary RCA throughout the project property. Additional RCAs may include portions of the stormwater control measures permitted by the UDO, multi-use paths, and perimeter buffers.

Location:	UDO Buffer Size & Type	Proposed Buffer Size & Type:
Adjacent to PIN 0741243405 and existing lots in the Lexington subdivision.	15' Type A	20' Type B*
Adjacent to PIN 0741346113	50' Type A	40' Type A
Along the west side of Perry Road adjacent to District A and District B	30' Type B	30' Type B
Along both sides of the east/west collector street.	10' Type A	10' Type B
Along US-1	100' Type A	80' Type A
Along the eastern boundary of the Town of Apex Greenway and Utility Easement along the western property line.		0'

* There is a 20-foot Town of Apex sewer easement along the property line. The 20-foot Type B buffer may overlap with the easement, provided there is a planting area outside the easement with a minimum width of 10 feet.

Stormwater:

Stormwater control devices shall be designed and constructed to exceed UDO standards 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. Otherwise, the Development shall meet all stormwater management requirements for quality and quantity treatment in accordance with Section 6.1 of the UDO.

PUBLIC FACILITIES:

The Hopson Gateway 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 Analyses performed for this rezoning, which are 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. Proposed modifications to turn lanes noted below based on constraints identified at the time of Major Site Plan/Master Subdivision are subject to review and approval by the Director of Transportation and Infrastructure Development and shall not require a PUD amendment. Except as set forth herein, all proposed roadway infrastructure and right-of-way dedications will be consistent with the Town of Apex Comprehensive Transportation Plan.

1. **Apex Peakway/Perry Road Intersection**. Developer shall make the following improvements to the intersection of Apex Peakway and Perry Road:

    a. Restripe northbound and southbound left turn lanes on Perry Road, each with 100 feet of storage plus 50 feet of deceleration and 100 feet of taper.

    b. Restripe an eastbound left turn lane on Apex Peakway with 50 feet of storage plus 50 feet of deceleration and 150 feet of taper.

    c. Construct a westbound left turn lane on Apex Peakway with 100 feet of storage plus 50 feet of deceleration and 100 feet of taper.

    d. Install a metal strain pole traffic signal (or design as otherwise required by NCDOT) with signalized crosswalks (the "Perry Signal"). If at the time of construction drawing approval for the Perry Signal, the fee in lieu required for the Perry Signal by the Seymour PUD (ORD-2024-007)(the "Seymour FIL") has been paid, the Seymour FIL shall be available to the Hopson Gateway PUD developer to construct the Perry Signal. A warrant study shall be performed prior to platting 50 single-family or townhouse residential units or site plan final plat for up to 300 apartment dwelling units. If NCDOT does not permit a traffic signal at that time, developer shall provide an engineer's estimate for the cost of design and installation of the Perry Signal plus 15% contingency for review and approval by Apex staff and pay a fee in lieu in that amount, less the amount of any fee in lieu payments made or pending as part of approved construction plans toward the Perry Signal by others (the "Hopson FIL"). If the Seymour FIL has not been paid at the time the Hopson FIL is due, developer shall pay the full Hopson FIL but be entitled to the Seymour FIL when it is collected by the Town.

2. **Apex Peakway/Tingen Road Intersection**. Developer shall pay a fee in lieu equal to 10% of the estimated costs to design and install a metal strain pole traffic signal, a westbound left turn lane with 150 feet of storage plus 50 feet of deceleration and 100 feet of taper on Apex Peakway, and northbound and southbound left turn lanes each with 150 feet of storage plus 50 feet of deceleration and 100 feet of taper on Tingen Road at the intersection of Apex Peakway and Tingen Road.

3. **East-West Collector**. Developer shall construct an east-west collector street across the property in the approximate location shown on the Concept Plan (the "East-West Collector") as a 35-foot wide back-to-back curb and gutter Major Collector Street with bicycle lanes, a 10-foot wide side path on the north side, and a 5-foot side sidewalk on the south side, in a 60-foot wide public right of way. If the Army Corps of Engineers, or other applicable permitting body, does not permit the construction of the road through the existing stream buffer along the western property line, Developer shall pay a fee in lieu based on estimated construction costs of the remaining extension plus permitting and design fees for half the stream crossing. The final location of the East-West Collector may be modified at Major Site

Plan/Master Subdivision, provided the modified location is approved by the Developer and Town staff. Developer shall construct the following improvements along the East-West Collector:

a. Extend Shackleton Road to intersect with the East-West Collector.

b. A full movement intersection between Shackleton Road and Perry Road accessing District A and District B.

c. A full movement intersection aligned with Shackleton Road accessing District B.

d. Turnouts in the right of way for the future Town driveway at the intersection of the East-West Collector and Perry Road.

4. **Perry Road.** Developer shall design, construct, and realign Perry Road as a 71-foot wide back-to-back curb and gutter four-lane median-divided thoroughfare with a 10-foot side path on the west side and 5-foot sidewalk on the east side and dedicate half of a 110-foot wide public right of way (the "Perry Road Section"). Completion of the Perry Road Section is subject to agreement with the Town of Apex for dedication of right of way and easements on property owned by the Town required to construct the Perry Road Section. The southern terminus of Perry Road shall accommodate the anticipated future bridge elevation over US 1 based on a preliminary profile to be provided by the developer. Developer shall construct the following improvements along Perry Road:

   a. A right-in/right-out driveway to District B.

   b. Northbound and southbound left turn bays, each with 100 feet of storage plus 50 feet of deceleration and 100 feet of taper where the median divided section is constructed through the full-movement intersection with the East-West Collector and future Town driveway.

   c. Southbound left turn bay with 100 feet of deceleration and 100 feet of taper along with turnouts in the right of way serving a future secondary Town driveway south of the East-West Collector.

5. If any of the committed transportation improvements require acquisition of offsite rights of way, easements, or other property interests (the "Offsite ROW"), Developer shall make good faith efforts to acquire the Offsite ROW. If Developer is unable to acquire any Offsite ROW through private negotiation and the Town is unwilling or unable to assist in the acquisition, Developer shall pay a fee in lieu for the transportation improvement that cannot be completed.

Transportation Plan Amendment

The applicant has requested a Transportation Plan Amendment regarding the location of the major collector street shown on the Town of Apex Thoroughfare and Collector Street Plan Map between Tingen Road and Perry Road. The request includes a shift of the major collector street to the south.

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, and bike lanes, as follows:

- Sidewalks shall be provided along both sides of all streets other than Perry Road and the Major Collector street which will have 10-foot Side Paths on one side of the road/street.
- Perry Road shall include a 10-foot Side Path consistent with the Perry Road streetscape recommended by the Transportation Plan as shown on the Concept Plan.

- The Major Collector shall include a 10-foot Side Path and marked and signed bike lanes recommended by the Transportation Plan as shown on the Concept Plan.

ENVIRONMENTAL ADVISORY BOARD:

The Apex Environmental Advisory Board (EAB) held a pre-application meeting for this rezoning on January 16, 2025. The zoning conditions suggested by the EAB are listed below along with the applicant's response to each condition.

	EAB Suggested Condition	Applicant's Response
1	The project shall ensure that 75% 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.	Revised
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	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	No
6	The project shall install at least one (1) pet waste station per 25 townhome units and at least two (2) pet waste stations per apartment building 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
7	A solar PV system of at least 4 kW shall be installed on at least 10 townhome units 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 these homes are located shall be identified on the Master Subdivision Plat, which may be amended from time to time.	No
8	All homes shall be pre-configured with conduit for a solar energy system	No
9	A 220-volt outlet shall be provided in the garage of each townhome unit	Yes
Conditions applicable only to the apartment portion of the PUD		
10	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.	No
11	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	No

12	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	Revised

PUD Environmental Conditions:
The following environmental conditions shall apply to the Development:

- 70% of landscaping in common areas shall be native or nativar species. This requirement shall not apply to landscaping on individual residential lots.
- 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.
- The project shall plant/include warm season grasses.
- Apartment buildings (but not small-scale multi-family buildings) shall be designed to meet the requirements for one of the following green building certifications: LEED, Energy Star, BREEAM, Green Globes, NGBS Green, NAHB, or GreenGuard. 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. The application shall be submitted prior to the issuance of a certificate of occupancy for the multi-family building.
- The project shall install at least one (1) pet waste station per 25 units (single-family or townhome units) and at least two (2) pet waste stations per apartment building 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.
- A 220-volt outlet shall be provided in the garage of each townhome unit.

AFFORDABLE HOUSING:

Proposed by Applicant:

The following affordable housing commitment shall apply to apartments in District B (but shall not apply to Small-Scale Multifamily units):

A minimum of twenty percent (20%) of the total apartment units (as shown on the first site plan submittal for apartments) shall be affordable housing units. Final affordable housing unit floor plan selection which includes unit size and bedroom size is at the discretion of the developer. If the affordable units calculation results in a fraction between 0.50 and 0.99, the affordable units shall be rounded up to the nearest whole number. If the affordable units calculation results in a fraction between 0.01 and 0.49, the affordable units shall be rounded down to the nearest whole number.

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

- The affordable units shall be occupied by low-income households earning no more than eighty percent (80%) of the Raleigh, NC Metropolitan Statistical Area (MSA) Area Median Income, adjusted for family size, as most recently published by the U.S. Department of Housing and Urban Development (HUD)(the

"AMI") for a period of thirty (30) years starting from the date of issuance of the first residential Certificate of Occupancy (the "Affordability Period").

- Prior to issuance of the first residential Certificate of Occupancy for apartments in District B, a restrictive covenant between the Town and property owner shall be executed and recorded in the Wake County Registry to memorialize the affordable housing terms and conditions.
- During the Affordability Period, the property owner shall submit annual compliance reports to the Town to verify compliance with the affordable housing terms and conditions.
- Following expiration of the Affordability Period, this affordable housing condition shall expire, the property owner shall be relieved of all obligations set forth in this affordable housing condition, and the affordable units may be freely marketed and leased at market-rate rents.
- Townhouse and/or small-scale multi-family units may be developed and constructed in District B before any apartment units are developed, provided sufficient land in District B is reserved to accommodate the future construction of 300 apartment units.

Housing Staff Analysis:

The proposed PUD project includes 20% of the total apartment units shall be affordable housing units and a condition that a minimum of 300 apartment units shall be constructed (a minimum of 60 affordable housing units). The proposed project is consistent with the Town of Apex's adopted Affordable Housing Incentive Zoning Policy.

PARKS, RECREATION, AND CULTURAL RESOURCES ADVISORY COMMISSION:

On February 26, 2025 the Parks, Recreation, and Cultural Resources Advisory Commission unanimously recommended a fee-in-lieu of dedication with credit for construction of greenway for a maximum combination of 220 single-family detached and single-family attached, and a maximum of 400 multi-family residential 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 total fee-in-lieu (based on the final unit count) will be calculated at Major Site Plan/Master Subdivision Plan and Construction Document review.

The greenway in District A shall be completed prior to issuance of building permits for 25% of the total residential units in District A. The greenway in District B shall be completed prior to issuance of building permits for 50% of the total residential units in District B. Final greenway alignment shall be determined at Major Site Plan/Master Subdivision Plan and shall be generally consistent with the Parks, Recreation, Greenways, and Open Space Master Plan and the Bicycle and Pedestrian System Plan Map.

PLANNING BOARD RECOMMENDATION:

The Planning Board will hold a public hearing on November 10, 2025. The Planning Board recommendation will be presented at the November 13, 2025 Town Council meeting.

PLANNING STAFF RECOMMENDATION:

Planning staff recommends approval of Rezoning #24CZ20 Hopson Gateway PUD and Town of Apex LI-CZ as proposed by the applicants.

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 Town of Apex site as Office Employment/Industrial Employment classification. The Town of Apex site rezoning to Light Industrial-Conditional Zoning is consistent with the 2045 Land Use Map.

The 2045 Land Use Map designates the Hopson Gateway site as Office Employment and Office Employment/Industrial Employment classification. The proposed Planned Unit Development-Conditional Zoning (PUD-CZ) district includes residential densities between 9.7 units to 11.5 units per acre and an area along Perry Road for live/work townhomes for office and professional uses within townhomes. The Hopson Gateway site is located within the Transit-Oriented Development area which supports the apartment use within the Medium/High Density Residential classification. If the Hopson Gateway properties are rezoned as proposed, the 2045 Land Use Map will automatically be amended to Medium/High Density Residential and Medium/High Density Residential/Commercial Services per NCGS 160D-605(a). The proposed rezoning to Planned Unit Development–Conditional Zoning (PUD-CZ) will provide the flexibility to accommodate the growth in population and infrastructure consistent with that contemplated by the 2045 Land Use Map.

The proposed rezoning is reasonable and is in the public interest because the Town of Apex site will include a public works facility, improving the efficiency of Town operations, and the proposed PUD rezoning provides a minimum of 20% of the total apartment units as income restricted affordable apartment units at 80% AMI for 30 years. In addition, the PUD provides for the realignment and construction of the full Perry Road extension as shown on the Thoroughfare and Collector Street Plan and will help facilitate a permanent sewer solution for the property. The proposed rezoning to PUD-CZ and LI-CZ is compatible with surrounding uses.

LIGHT INDUSTRIAL-CONDITIONAL ZONING STANDARDS:

CONDITIONAL ZONING STANDARDS:
Town Council shall find the LI-CZ designation demonstrates compliance with the following standards. 2.3.3.F:

Legislative Considerations

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.

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.

Conditional Zoning Standards

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

Legislative Considerations

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.

October 24, 2025

Lyle Overcash, PE.
Kimley-Horn and Associates
421 Fayetteville St, Ste. 600
Raleigh, NC 27601

Subject: Staff summary and comments for Hopson Gateway TIA Revision, 8/8/2025

Mr. Overcash:

This comment letter is being reissued to clarify typos in the Hopson Gateway TIA Revision and review letter. Changes are noted in blue text. **None of the recommendations are impacted by these notes and resubmittal is not requested.**

The following clarifications are provided for the trip generation tables found on page 3 of the TIA Revision. **It should be noted that the tables provided in the appendix that were used for the traffic analyses referred to the correct volumes.**

Table 1 – Non-Residential Development
ITE Traffic Generation (Vehicles)

Land Use Code	Land Use	Intensity	Daily	AM Peak Hour		PM Peak Hour	
			Total	In	Out	In	Out
150	Warehousing *(Existing)*	120,000 s.f.	236	28	15	10 ~~31~~	31 ~~41~~
-	Yard Waste Transfer Station and Drop off Convenience Center *(Proposed)*	13.5 acres	302	14	14	4	4
770	Business Park	25,000 s.f.	982	31	6	11	32 ~~31~~
Total Net New Trips			**1,520**	**73**	**35**	**25**	**67**

As shown in Table 1, the non-residential portion of the development is expected to generate 1,520 daily trips, 108 AM peak hour trips (73 entering and 35 exiting), and 92 PM peak hour trips (25 entering and 67 exiting) on a typical weekday.

Table 2 – Residential Development
ITE Traffic Generation (Vehicles)

Land Use Code	Land Use	Intensity	Daily	AM Peak Hour		PM Peak Hour	
			Total	In	Out	In	Out
210	Single-Family Detached Housing	50 d.u.	534	10	30	33	19
215	Single-Family Attached Housing	170 d.u.	1,246	21	62	58	40
221	Multifamily Housing (Mid-Rise)	~~200~~ d.u.	1,862	38	126	95 ~~85~~	61
Total Net New Trips		400	**3,642**	**69**	**218**	**186**	**120**

As shown in Table 2, the residential portion of the development is expected to generate 3,642 daily trips, 287 AM peak hour trips (69 entering and 218 exiting), and 306 PM peak hour trips (186 entering and 120 exiting) on a typical weekday.

Please review the following summary of my comments and recommendations. You may schedule a meeting with me and your client to discuss at your convenience.

Revisions

Since the original TIA was submitted in November 2024, the following changes have been made to the development and analysis assumptions:

- *Addition of 25,000 s.f. business park*
- *Built-out year of 2028*
- *Removal of Tingen Corners development and roadway improvements*
- *Addition of Grace Christian School traffic (AM peak hour)*

Study Area

The TIA studied two sites – one mixed-use (Hopson Gateway) and an adjacent Town facilities site. Access to the Town site is via one (1) site driveway:

- Perry Road and future East – West Collector / Site Driveway 1

Access to Hopson Gateway is proposed via four (4) site driveways:

- Future East – West Collector at Site Driveway 2
- Future East – West Collector at Shackleton Road / Site Driveway 3
- Perry Road at Site Driveway 4 (right-in / right-out)
- Perry Road at Site Driveway 5 (full movement)

Additionally, the following seven (7) intersections were included for analysis in the TIA study area:

- NC 55 at Apex Peakway
- Apex Peakway at S Hughes Street
- Apex Peakway at Perry Road
- Apex Peakway at Shackleton Road
- Apex Peakway at Tingen Road
- S Hughes Street at James Street
- S Hughes Street at Perry Road

Tingen Corners (fka Seymour PUD) is not moving forward at this time; therefore, the East-West Collector does not connect to Tingen Road in this revised analysis.

Trip Generation

The proposed Town site is anticipated to consist of the existing laydown yard, a 13.5-acre yard waste transfer station, a yard waste drop-off convenience center, and a Water Resources office building with a maximum of 75 employees. However, the office portion is anticipated to be constructed after the build-out of the Hopson Gateway development and is not included in the analysis. The Town site is projected to generate 42 trips entering and 29 trips exiting during the weekday AM peak hour, and 14 trips entering and 35 trips exiting the site during the weekday

PM peak hour. The Town site is expected to add 538 daily trips to the adjacent roadway network.

The Hopson Gateway development is anticipated to consist of approximately 170 townhomes, 50 single family homes, and 400 multifamily (mid-rise) apartment units and a 25,000 s.f. business park. This development is projected to generate 100 new trips entering the site and 224 new trips exiting the site during the weekday AM peak hour, and 197 new trips entering the site and 151 new trips exiting the site during the weekday PM peak hour. The development is projected to add 4,624 new daily trips to the adjacent roadway network.

Background traffic

Background traffic consists of 3% annual non-specific background traffic growth compounded to build out year 2028 plus the traffic generated by the following five (5) approved development plans.

- Fast food restaurant (Chick-fil-a)
- Veridea Phase 1
- Broadstone Hotel
- Broadstone Retail
- Grace Christian School (AM Peak hour)

Additionally, traffic patterns were modified to account for the future Apex Peakway Connector (TIP project U-5928). The following adjustments were made at the Apex Peakway and Tingen Road intersection:

- 25% of northbound through movement on Tingen Road was reassigned to a northbound left-turn movement
- 25% of the northbound through movement on Tingen Road was reassigned as a northbound right-turn movement
- 25% of the westbound right-turn movement on Apex Peakway was reassigned to the westbound through movement

Trip Distribution and Assignment

The trip distributions to and from the non-residential development (Town site and Hopson Gateway business park) are as follows:

- 30% to/from the south on NC 55
- 30% to/from the west on Apex Peakway
- 20% to/from the south on Tingen Road
- 15% to/from the north on S Hughes Street
- 5% to/from the north on NC 55

The trip distributions to and from the residential development are as follows:

- 30% to/from the south on NC 55

- 25% to/from the west on Apex Peakway
- 25% to/from the south on Tingen Road
- 15% to/from the north on S Hughes Street
- 5% to/from the north on NC 55

Traffic Capacity Analysis and Recommendations

Level of Service (LOS) is a grade of A through F assigned to an intersection, approach, or movement to describe how well or how poorly it operates based on the average delay experienced by drivers. LOS A through D is considered acceptable for peak hour operation. LOS E or F describes potentially unacceptable operation and developers may be required to mitigate their anticipated traffic impact to improve LOS based on the Apex Unified Development Ordinance (UDO).

Tables 1 through 12 describe the levels of service (LOS) for the scenarios analyzed in the TIA. "NA" is shown when the scenario does not apply. The scenarios are as follows:

- **Existing 2024** - Existing year 2024 traffic.
- **No Build** - Projected year (2028) with background traffic growth and background developments.
- **Build** - Projected year (2028) with background traffic, Town site build-out, and Hopson Gateway site build-out.
- **Build – Improved** - Projected year (2028) with background traffic, Town site build-out, and Hopson Gateway site build-out including recommended improvements where applicable.

Perry Road and East-West Collector / Site Driveway 1

Table 1. A.M. / P.M. Unsignalized Peak Hour Levels of Service Perry Road and East-West Collector / Site Driveway 1			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (E-W Collector)	NA	NA	*B / B*[1]
Westbound (Site Driveway 1)	NA	NA	*A / A*[1]
Northbound (Perry Road)	NA	NA	*A / A*[2]
Southbound (Perry Road)	NA	NA	*A / A*[2]

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

- The TIA recommends construction of the East-West Collector as a stop-controlled full movement eastbound approach with one ingress lane and one egress lane at Perry Road.
- The TIA recommends the Town constructs Site Driveway 1 as a westbound approach across from the East-West Collector as a stop-controlled full movement driveway with one ingress lane and one egress lane.
- The TIA recommends the construction of a southbound right-turn lane on Perry Road with 50 feet of storage plus appropriate taper.

Apex staff recommendations:

Apex staff concur with the recommendations in the TIA, provided the developer can coordinate with adjacent owners and NCDOT to obtain approval for closing or converting the private driveways on either side of Perry Road immediately north of the site to right-in/right-out access.

NCDOT recommends the E-W Collector be located at least 600 feet from the nearest full movement intersection or driveway to be considered a full movement intersection. If the existing private driveways just north of the site can be modified to right-in/right-out, the location of the E-W Collector intersection would be approximately 1,200 feet south of Apex Peakway on realigned Perry Road.

The eastbound approach (East-West Collector) is anticipated to operate at LOS B during both the AM and PM peak hours at build-out. All other movements and approaches are anticipated to operate at LOS A during both the AM and PM peak hours at build-out. The 95th percentile queues are anticipated to be one vehicle or less. Traffic volumes do not warrant turn lanes; however, the second northbound lane on Perry Road will terminate as an exclusive right-turn lane into the Town Site due to the existing Perry Road geometry north of this intersection.

Staff note that the non-residential site trips were distributed proportionately based on the daily volumes, with approximately 35% to/from the Town Site and 65% to/from the Hopson Gateway Site. This overall distribution of non-residential trips produced slightly lower entering and exiting traffic volumes for the Town Site than shown in the trip generation table. Town staff analyzed the entering/exiting volumes from the trip generation table in the models, and the levels of service were not impacted from what was originally reported. Vehicle queueing for all approaches and movements reported was less than one vehicle.

East-West Collector and Site Driveway 2

Table 2. A.M. / P.M. Unsignalized Peak Hour Levels of Service East-West Collector and Site Driveway 2			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (E-W Collector)	NA	NA	NA
Westbound (E-W Collector)	NA	NA	*A / A*[2]
Northbound (Site Driveway 2)	NA	NA	*A / A*[1]

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

- The TIA recommends the construction of a two lane, undivided major collector from Perry Road to a point to be determined within the proposed development.
- The TIA recommends construction of Site Driveway 2 as a stop controlled northbound approach with one ingress lane and one egress lane approximately 600 feet west of Perry Road.

Apex staff recommendations:

Apex staff concur with the recommendations in the TIA. The westbound left-turn movement from East-West Collector into Site Driveway 2 is expected to operate at LOS A during the AM and PM peak hours at build-out. Site Driveway 2 is expected to operate at LOS A during the AM and PM peak hours at build-out. The 95th percentile queues are anticipated to be one vehicle or less. Traffic volumes do not warrant turn lanes.

East-West Collector and Shackleton Road / Site Driveway 3

Table 3. A.M. / P.M. Unsignalized Peak Hour Levels of Service East-West Collector and Shackleton Road / Site Driveway 3			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (E-W Collector)	NA	NA	*A / A*[2]
Westbound (E-W Collector)	NA	NA	*A / A*[2]
Northbound (Site Driveway 3)	NA	NA	*A / A*[1]
Southbound (Shackleton Road)	NA	NA	*A / A*[1]

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

- The TIA recommends the construction of a two lane, undivided major collector from Perry Road to a point to be determined within the proposed development.
- The TIA recommends construction of Site Driveway 3 as a stop controlled northbound approach with one ingress lane and one egress lane.

Apex staff recommendations:

Apex staff concur with the recommendations in the TIA. The Shackleton Road and Site Driveway 3 approaches are expected to operate at LOS A during both the AM and PM peak hours at build-out, with 95th percentile queues less than 75 feet. Traffic volumes do not warrant turn lanes.

Perry Road and Site Driveway 4

Table 4. A.M. / P.M. Unsignalized Peak Hour Levels of Service Perry Road and Site Driveway 4			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (Site Driveway 4)	NA	NA	*A / A*[1]
Northbound (Perry Road)	NA	NA	NA
Southbound (Perry Road)	NA	NA	NA

1. Level of service for stop-controlled minor street approaches.

TIA recommendations:

- The TIA recommends extending Perry Road as a four-lane divided thoroughfare from the northern property limit to south of Site Driveway 5, exact terminus to be determined.
- The TIA recommends construction of the western leg (Site Driveway 4) with stop control and one ingress and one egress lane approximately 350 feet south of East-West Collector/Site Driveway 1. This driveway will be restricted to right-in / right-out movements only.

Apex staff recommendations:

Apex staff concur with the recommendations in the TIA. The Site Driveway 4 approach is expected to operate at LOS A during both the AM and PM peak hours at build-out. Traffic volumes do not warrant turn lanes.

Perry Road and Site Driveway 5

Table 5. A.M. / P.M. Unsignalized Peak Hour Levels of Service Perry Road and Site Driveway 5			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (Site Driveway 4)	NA	NA	*A / A*[1]
Northbound (Perry Road)	NA	NA	*A / A*[2]
Southbound (Perry Road)	NA	NA	*A / A*[2]

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

- The TIA recommends extending Perry Road as a four-lane divided thoroughfare from the northern property limit to south of Site Driveway 5, exact terminus to be determined.
- The TIA recommends construction of the western leg with stop control and one ingress and one egress lane.
- Construct a northbound left-turn lane with approximately 100 feet of storage and appropriate taper.
- Construct a southbound left-turn lane with approximately 100 feet of storage and appropriate taper to allow for future connection.

Apex staff recommendations:

Site Driveway 5 should be located approximately 800 feet to 1000 feet south of the East-West Connector intersection with Perry Road to provide acceptable intersection spacing along the thoroughfare and to align with the planned second Town Site driveway subject to NCDOT and Town of Apex approval. The final location for Site Driveway 5 is pending Town approval based on the proposed Town Site access.

Northbound and southbound left-turn lanes should be accommodated to the extent possible on Perry Road at this intersection to avoid future median reconstruction. A minimum of 100 feet of storage plus 50 feet of deceleration and appropriate taper is to be provided.

NC 55 and Apex Peakway

Table 6. A.M. / P.M. Signalized Peak Hour Levels of Service NC 55 and Apex Peakway			
	Existing	**2028 No Build**	**2028 Build**
Overall	*B / C*	*B / D*	*C / D*
Eastbound (Apex Peakway)	*C / E*	*B / D*	*B / D*
Northbound (NC 55)	*B / C*	*C / D*	*C / D*
Southbound (NC 55)	*A / B*	*C / C*	*C / C*

TIA recommendations:

- The TIA notes that NCDOT TIP project U-2901B is expected to widen NC 55 to a multi-lane facility.
- No improvements by the developer are proposed at this intersection.

Apex staff recommendations:

Apex staff concur with the recommendations in the TIA. The intersection is anticipated to operate at an overall LOS D or better during the peak hours under build conditions. The improvement in level of service for the eastbound approach from existing to 2028 no build conditions can be attributed to signal timing modifications.

It should be noted that this intersection is fully built out given the physical constraints of the area. Future extension of the Apex Peakway eastward is currently not funded, but that will eventually provide an additional route around and across NC 55 to the east. The Apex Peakway is already a 4-lane median-divided section terminating at NC 55 and there are three through lanes on NC 55 heading toward US 1 with opposing dual left turn lanes. Any further improvement would require an additional (second) through lane heading toward Downtown Apex on NC 55. As noted in the TIA, NCDOT TIP Project U-2901B is expected to widen NC 55 in the study area and alleviate congestion. Currently, construction of U-2901B is scheduled to begin in 2031.

Apex Peakway and S Hughes Street

Table 7. A.M. / P.M. Signalized Peak Hour Levels of Service Apex Peakway and S Hughes Street			
	Existing	**2028 No Build**	**2028 Build**
Overall	*B / B*	*C / C*	*C / C*
Eastbound (Apex Peakway)	*D / D*	*E / D*	*E / D*
Westbound (Apex Peakway)	*D / C*	*D / D*	*C / D*
Northbound (S Hughes St)	*A / A*	*B / B*	*B / B*
Southbound (S Hughes St)	*C / B*	*C / C*	*B / D*

TIA recommendations:

- No improvements by the developer are proposed at this intersection.

Apex staff recommendations:

Apex staff concur with the TIA. The traffic patterns at this intersection will be impacted by the completion of the Apex Peakway Connector project. However, the intersection is expected to operate at overall LOS C or better during both the AM and PM peak hours throughout the analysis periods. Proposed site traffic is expected to have minimal impact on this intersection, and no improvements are recommended.

Apex Peakway and Perry Road

Table 8. A.M. / P.M. Peak Hour Levels of Service Apex Peakway and Perry Road				
	Unsignalized			Signalized
	Existing	2028 No Build	2028 Build	2028 Build Improved
Overall	NA	NA	NA	*C / C*
Eastbound (Apex Peakway)	*A / A*[2]	*A / A*[2]	*A / A*[2]	*C / C*
Westbound (Apex Peakway)	*A / A*[2]	*A / A*[2]	*B / B*[2]	*B / A*
Northbound (Perry Rd)	*B / B*[1]	*F / F*[1]	*F / F*[1]	*C / C*
Southbound (Perry Rd)	*B / B*[1]	*F / F*[1]	*F / F*[1]	*C / B*

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

The following improvements are recommended for the Hopson Gateway development:

- Construct an eastbound left-turn lane on Apex Peakway with 50 feet of storage and appropriate taper.
- Construct a westbound left-turn lane on Apex Peakway with 100 feet of storage and appropriate taper.
- Restripe a northbound left-turn lane with approximately 100 feet of storage and appropriate taper.
- Restripe a southbound left-turn lane with approximately 100 feet of storage and appropriate taper.
- Install a traffic signal when warranted and if approved by NCDOT.

Apex staff recommendations:

Under Build conditions the northbound and southbound approaches are expected to operate at LOS F with significant delays and queueing. An eastbound left-turn lane on Apex Peakway is currently warranted based on existing traffic volumes.

The Town recommends the developer install left-turn lanes on all approaches, each with 100 feet of full width storage plus 50 feet of deceleration and appropriate taper, except on the eastbound approach as described below. To utilize existing pavement without widening Perry Road to accommodate left turn lanes, the through and left lanes can be striped 10 feet wide, subject to NCDOT approval. Eastbound Peakway can be striped with 11 feet wide lanes, which may also avoid widening subject to review. The eastbound left-turn lane can be striped as approximately 50 feet of full width storage plus 50 feet of deceleration and 150’ of taper to

coincide with the existing pavement and curb line on the north side of the Peakway. Westbound Peakway will need to be widened to accommodate a left turn lane.

It is recommended the developer install a traffic signal when permitted by NCDOT.

Apex Peakway and Tingen Road

Table 9. A.M. / P.M. Peak Hour Levels of Service Apex Peakway and Tingen Road					
	Unsignalized		**Signalized**		
	Existing	**2028 No Build**	**2028 No Build - Improved**	**2028 Build**	**2028 Build - Improved**
Overall	NA	NA	*D / C*	*E / C*	*D / C*
Eastbound (Apex Peakway)	*C / C*[1]	*F / F*[1]	*E / C*	*E / C*	*E / C*
Westbound (Apex Peakway)	*C / D*[1]	*F / F*[1]	*C / B*	*D / B*	*D / A*
Northbound (Tingen Rd)	*A / A*[2]	*A / A*[2]	*E / C*	*E / C*	*E / C*
Southbound (Tingen Rd)	*A / A*[2]	*A / A*[2]	*C / D*	*C / D*	*C / D*

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

The following improvements were analyzed under 2028 No Build conditions ("2028 No Build – Improved" scenario in the table above), to improve the levels of service for the Apex Peakway approaches, per UDO Section 13.19:

- Construct a westbound left-turn lane with approximately 200 feet of storage and appropriate taper.
- Construct a northbound right-turn lane with approximately 150 feet of storage and appropriate taper.
- Install a traffic signal.

The TIA does not make any recommendations for the Hopson Gateway development.

Apex staff recommendations:

Under No Build conditions, the eastbound and westbound approaches, which are currently stop-controlled, experience long delays and queueing. The TIA identifies improvements necessary to improve No Build conditions to an overall LOS D and these are carried through the Build - Improved conditions analyses. The proposed development trips are 8.8% of the Build AM peak hour traffic and 9.9% of the Build PM peak hour traffic.

Staff recommends the Hopson Gateway development provide a fee-in-lieu towards the cost of left-turn lanes and a traffic signal, proportional to the impact of development traffic at this intersection.

S Hughes Street and James Street

Table 10. A.M. / P.M. Unsignalized All-Way Stop-Control Peak Hour Levels of Service S Hughes Street and James Street			
	Existing	**2028 No Build**	**2028 Build**
Overall	*A / B*	*B / B*	*B / C*
Eastbound (James St)	*B / B*	*B / B*	*B / B*
Westbound (James St)	*A / A*	*A / B*	*B / B*
Northbound (S Hughes St)	*B / B*	*B / B*	*B / C*
Southbound (S Hughes St)	*A / B*	*B / B*	*B / C*

TIA recommendations:

- No improvements are recommended at this intersection.

Apex staff recommendations:

Apex staff concur with the TIA. The intersection is expected to operate at an overall LOS C or better during both the AM and PM peak hours throughout the analysis periods. The proposed site traffic is anticipated to have minimal impact on this intersection, and no improvements are recommended.

S Hughes Street and Perry Road

Table 11. A.M. / P.M. Unsignalized Peak Hour Levels of Service S Hughes Street and Perry Road			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (Perry Rd)	*B / C*[1]	*C / C*[1]	*C / C*[1]
Westbound (Perry Rd)	*B / B*[1]	*B / B*[1]	*B / B*[1]
Northbound (S Hughes St)	*A / A*[2]	*A / A*[2]	*A / A*[2]
Southbound (S Hughes St)	*A / A*[2]	*A / A*[2]	*A / A*[2]

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

- No improvements are recommended at this intersection.

Apex staff recommendations:

Apex staff concur with the TIA. All approaches are expected to operate at LOS C or better during all scenarios analyzed. Queues on the minor approaches are less than two vehicles. No improvements are recommended at this intersection.

Apex Peakway and Shackleton Road

Table 12. A.M. / P.M. Unsignalized Peak Hour Levels of Service Apex Peakway and Shackleton Road			
	Existing	**2028 No Build**	**2028 Build**
Overall	NA	NA	NA
Eastbound (Apex Peakway)	*A / A*[2]	*A / A*[2]	*B / A*[2]
Westbound (Apex Peakway)	*A / A*[2]	*A / A*[2]	*A / A*[2]
Northbound (Shackleton Rd)	*B / B*[1]	*E / D*[1]	*F / F*[1]
Southbound (Shackleton Rd)	*B / B*[1]	*F / E*[1]	*F / F*[1]

1. Level of service for stop-controlled minor street approaches.
2. Level of service for left turn movements on free-flowing major street approaches.

TIA recommendations:

- No improvements are recommended at this intersection.

Apex staff recommendations:

Apex staff concur with the TIA. The northbound and southbound approaches are anticipated to operate in the range of LOS D to F during the peak hours under no build conditions. The northbound and southbound approaches are anticipated to operate at LOS F during both peak hours under Build conditions. However, 95th percentile queues are anticipated to be approximately 3 vehicles or less. It is not uncommon for minor approaches of roadways with heavy volumes to operate at LOS F during peak periods.

Please coordinate with the NCDOT District Engineer's Office concerning any recommendations on NCDOT facilities. Town staff will be available for meetings to discuss recommendations as needed.

Sincerely,

Jessica McClure, PE
Traffic Engineer | 919-372-7448

Rezoning #24CZ20
Lexington Farm
Shackleton Rd
Lexington Farm Rd
Village at Broadstone Station
Broadstone Way
Perry Rd
Tingen Rd
1
US 1 Hwy SB
US 1 Hwy NB
Irongate
Irongate Dr
Prince Dead End Rd
Grace Christian School
Veridea Pkwy
US 1 Hwy
Veridea
0
500
1,000
Feet
September 2025
May 2025 Aerial
Photography Prepared by: Town of Apex Planning Department

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 #: 24CZ20 Submittal Date: 11-1-2024

Fee Paid $ Check #

PETITION TO AMEND THE OFFICIAL ZONING DISTRICT MAP

Project Name: Hopson Gateway

Address(es): a portion of 0 Tingen Road &1341 Perry Road

PIN(s) a portion of PINs 0741331566 & 0741326706

the "ACRE Tract" as described in the attached exhibit Acreage: 58.54

Current Zoning: Residential Agricultural (RA) & Light Industrial Conditional (LI-CZ) Proposed Zoning: Planned Unit Development Conditional (PUD-CZ)

Current 2045 LUM Designation: Office Employment/Industrial 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: ACRE MANAGER, LLC

Address: 252 NW 29th Street, 9th floor

City: Miami State: FL Zip: 33127

Phone: 786-634-4857 E-mail: Jesse.Kehoe@acremgt.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: Jeff Roach; Peak Engineering; JRoach@peakengineering.com; 919-439-0100

PETITION TO AMEND THE OFFICIAL ZONING MAP

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 #: 24CZ20 Submittal Date: 11-1-2024

Fee Paid:

Project Information

Project Name: Town of Apex

Address(es): a portion of 0 Tingen Road and 1341 Perry Road; 0 Perry Road

PIN(s): a portion of PINs 0741331566 & 0741326706; PIN 0741427922

the "Town Tract" as described in the attached Exhibit Acreage: 39.62

Current Zoning: Residential Agricultural (RA) & Light Industrial Conditional (LI-CZ) Proposed Zoning: Light Industrial Conditional (LI-CZ)

Current 2045 LUM Classification(s): Office Employment/Industrial 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: Town of Apex; Attention Matt Wetherell

Address: PO Box 250

City: Apex State: NC Zip: 27502

Phone: 919-249-3534 E-mail: matt.wetherell@apexnc.org

Owner Information

Name: same as Applicant

Address:

City: State: Zip:

Phone: E-mail:

Agent Information

Name: same as Applicant

Address:

City: State: Zip:

Phone: E-mail:

Other contacts:

PETITION INFORMATION

Application #: 24CZ20 **Submittal Date:** 11-1-2024

An application has been duly filed requesting that the property described in this application be rezoned from RA & LI-CZ to LI-CZ. It is understood and acknowledged that if the property is rezoned as requested, the property described in this request will be perpetually bound to the use(s) authorized and subject to such conditions as imposed, unless subsequently changed or amended as provided for in the Unified Development Ordinance (UDO). It is further understood and acknowledged that final plans for any specific development to be made pursuant to any such Conditional Zoning shall be submitted for site or subdivision plan approval, as required by the UDO. Use additional pages as needed.

PROPOSED 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.

1	See attached	21	
2		22	
3		23	
4		24	
5		25	
6		26	
7		27	
8		28	
9		29	
10		30	
11		31	
12		32	
13		33	
14		34	
15		35	
16		36	
17		37	
18		38	
19		39	
20		40	

Proposed Uses and Zoning Conditions for Town Tract

1. The LI-CZ Rezoned Lands may be used for, and only 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. An "S" indicates that a use category or specific use type is allowed only is reviewed and approved in accordance with the procedures and standards of UDO Sec. 2.3.5 Special Use.
    a. Yard waste transfer station (S)
    b. Utility, minor
    c. Government Services
    d. Chipping and mulching (S)
    e. Communication tower, commercial (S)
    f. Communication tower, public safety (S)
    g. Greenway
    h. Organics (food waste) drop off, recycling, recovery, processing, and/or composting (S)
    i. Composting facility (S)
    j. Recycling Center (S)
    k. Recycling Collection Station (S)
2. Required buffers and screening:
    - A 60' Type A buffer shall be provided along US Hwy 1, except for electric substations under the use "Utility, minor"; there is no buffer required along the boundary of the electric substation and associated lines coming into the substation.
    - If the other permitted uses are visible through the electric substation or associated lines, those other permitted uses must be screened from US Hwy 1 through the planting of a line of evergreen trees/shrubs meeting a 10' Type A standard or by way of an 8' tall opaque fence in lieu of vegetation; the screening (vegetation or fence) can be located either on the highway side or development side of the electric substation and associated lines, as determined by the Planning Director after consultation with the Electric Utilities Director.
3. All other standards of the UDO may be varied based on the financial and operational needs of the Town of Apex, but any changes to the site shall be required to be shown on a site plan for Technical Review Committee review and comment, and made available to the public on the Interactive Development Map or similar. Known variations include, but are not limited to:
    a. The right-of-way, road improvements, and buffers typically required by the UDO shall not be required along the existing Perry Rd section that is to be abandoned.
    b. Road improvements to the new/realigned Perry Road shall be the responsibility of ACRE, the developer of the parcel(s) west of the new/realigned Perry Road as set forth in the Hopson Gateway PUD.
    c. If a tree located within a buffer has a portion of the critical root zone extending outside of that buffer, the Town shall not be required to protect the critical root zone outside the buffer.
    d. A tree survey is only needed within the buffers immediately adjacent to the limits of disturbance.
    e. Outdoor storage is allowed as a stand-alone use; no building shall be required for any use with outdoor storage.
    f. Resource Conservation Area (RCA) within a perimeter buffer that is shown on a Minor or Major Site Plan may be relocated through a Site Plan revision to accommodate future development with adjoining properties.
    g. Existing lighting shall be considered legally established, non-conforming lighting and shall be allowed to remain until such time as the property is redeveloped in such a manner that the lighting is replaced.

h. The yard waste pile associated with a “Yard waste transfer station” shall be limited to 30’ in height, with a slope no greater than 2:1.

TRACT #1
23.73 ACRES

Current Zoning: Residential Agricultural (RA)
Proposed Zoning: Planned Unit Development Conditional (PUD-CZ)

TRACT #2
34.81 ACRES

Current Zoning: Light Industrial Conditional (LI-CZ)
Proposed Zoning: Planned Unit Development Conditional (PUD-CZ)

TRACT #3
23.27 ACRES

Current Zoning: Residential Agricultural (RA)
Proposed Zoning: Light Industrial Conditional (LI-CZ)

TRACT #4
16.35 ACRES

Current Zoning: Light Industrial Conditional (LI-CZ)
Proposed Zoning: Light Industrial Conditional (LI-CZ)

PUMP STATION

20.0' SANITARY SEWER EASEMENT
SEE DB 6008, PG 705

50' Wide COLONIAL PIPELINE

PERRY ROAD
(60' R.O.W)

U.S. HIGHWAY 1
(R.O.W. Varies)

LEXINGTON FARM RD.
50' PUBLIC R/W

SHACKLEFORD
60' PUBLIC R/W

IRONGATE DR.
NCSR 1209
60' PUBLIC R/W

REEDY BRANCH
IS PROPERTY LINE

CATCH BASIN

MAG NAIL

1/2IN OTP

CP

IPF

6-in CCM

6X6 CCM
N=711861.272
E=2042981.00

30" WHITE OAK
N=713917.434
E=2045176.348

S01°18'17"W
752.20'

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L13 L14 L15

N/F GORE LINE PROPERTIES, LLC
DB 14039 PG 1409
PIN 0741-34-6113
ZONING:LI
USE: INDUSTRIAL WAREHOUSE

N/F KING INVESTMENT PROPERTIES, LLC
DB 15649 PG 1887
PIN 0741-44-4740
ZONING:LI
USE: INDUSTRIAL WAREHOUSE

N/F PEAKWAY DEVELOPMENT, LLC
BM 2006 PG 0136
PIN 0741-44-5486
ZONING: TR
USE: WAREHOUSE/FLEX

N/F KRG PEAKWAY AT 55, LLC
DB 14870 PG 1783
PIN 0741-53-4819
ZONING:PUD-CZ
USE: APARTMENT OPEN SPACE

N/F SURE & STEADFAST PROPERTY LTD PRINPP
DB 8494 PG 1595
PIN 0741-33-1566
ZONING: RA
USE: VACANT

N/F TOWN OF APEX
DB 8494 PG
PIN 0741-32-6706
ZONING:LI
USE: TOWN SERVICES

N/F TOWN OF APEX
DB 8494 PG
PIN 0741-32-6706
ZONING:LI
USE: TOWN SERVICES

N/F TOWN OF APEX
DB 8494 PG
PIN 0741-32-6706
ZONING:LI
USE: TOWN SERVICES

SET
UND
OINT

IOR
CTRIC LINES
NGS
ROM PLAT/DEED

Exhibit A

Hopson Gateway PUD

Owner Information Addendum

PIN: 0741331566

Site Address: 0 Tingen Road
Deed Reference (book/page): 8494/1585
Acreage: 48.79 ac
Owner: Sure & Steadfast Properties Limited Partnership
Owner Address: 2201 Candun Drive, Suite 103, Apex, NC 27523-6413

PIN: 0741326706

Site Address: 1341 Perry Road
Deed Reference (book/page): 1736/E
Acreage: 49.48 ac
Owner: Town of Apex
Owner Address: P.O. Box 250, Apex, NC 27502-0250

PIN: 0741427922

Site Address: 0 Perry Road
Deed Reference (book/page): 1736/E
Acreage: 1.07 ac
Owner: Town of Apex
Owner Address: P.O. Box 250, Apex, NC 27502-0250

The ACRE Tract
to be rezoned from RA &LI-CZ to PUD-CZ

TRACT 1

BEING A PORTION OF THAT 48.786 ACRE TRACT OF LAND SHOWN ON THE SURVEY FOR MYRTLE S. HOPSON DATED MAY 2, 1997, DRAWN BY SMITH AND SMITH SURVEYORS AND RECORDED AT BOOK OF MAPS 1997, PAGE 835, WAKE COUNTY, NORTH CAROLINA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 30IN WHITE OAK TREE AT THE NORTHEAST CORNER OF THE ABOVE REFERENCED SURVEY, DESCRIBED AT THAT TIME AS A 24IN WHITE OAK TREE WITH STATE PLAN COORDINATES N 713,917.474 E 2,045,176.348; THENCE SOUTH 89°52'59" WEST, PASSING OVER A REFERENCE IRON PIN AT 3.45 FEET AND AN IRON PIN FOUND ON THE WESTERLY RIGHT-OF-WAY (ROW) OF EXISTING PERRY ROAD (60.0' R.O.W.)AT 1305.43 FEET, FOR A TOTAL DISTANCE OF 1329.28 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE CENTERLINE OF A PROPOSED 110' ROW (PROPOSED PERRY ROAD);

THENCE ALONG SAID PROPOSED CENTERLINE THE FOLLOWING THREE COURSES:

- A CURVE FROM SAID POINT OF BEGINNING SOUTHERLY AND SOUTHWESTERLY A DISTANCE OF 419.85 FEET ALONG THE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 1,202.781 FEET WITH A CHORD ANGLE SOUTH 10°46'12" WEST FOR 417.72 FEET TO A COMPUTED POINT;
- A TANGENT SOUTH 22°30'45" WEST FOR 110.19 FEET TO A COMPUTED POINT IN THE FUTURE CENTERLINE OF THE PERRY ROAD RIGHT-OF-WAY;
- A CURVE FROM SAID TANGENT POINT SOUTHERLY AND SOUTHEASTERLY A DISTANCE OF 197.22 FEET ALONG THE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,310.34 FEET WITH A CHORD ANGLE SOUTH 16°35'32" WEST FOR 197.03 FEET TO A COMPUTED POINT;

THENCE LEAVING SAID FUTURE ROW NORTH 88°08'27" WEST ALONG THE NORTHERN BOUNDARY OF THE TOWN OF APEX PROPERTY SHOWN AS TRACT C-1 OF A DIVISION OF TRACT "C" AS SHOWN ON THE SURVEY FOR THE TOWN OF APEX DATED JAN 3, 1989, ASHLEY ELKINS, RLS AND RECORDED AT BOOK OF MAPS 1989, PAGE 59, WAKE COUNTY, ALONG SAID LINE A DISTANCE OF 1,329.42 FEET TO THE CENTERLINE OF REEDY BRANCH;

THENCE ALONG SAID BRANCH THE FOLLOWING EIGHTY-ONE (81) COURSES:
NORTH 05°25'47" WEST, A DISTANCE OF 1.31 FEET;
NORTH 50°01'02" EAST, A DISTANCE OF 10.31 FEET;
NORTH 03°35'38" EAST, A DISTANCE OF 10.02 FEET;
SOUTH 86°01'00" WEST, A DISTANCE OF 8.68 FEET;
NORTH 85°49'45" WEST, A DISTANCE OF 9.59 FEET;
NORTH 09°06'26" WEST, A DISTANCE OF 14.90 FEET;
NORTH 51°11'31" WEST, A DISTANCE OF 18.15 FEET;
SOUTH 84°17'27" WEST, A DISTANCE OF 19.61 FEET;
SOUTH 73°46'34" WEST, A DISTANCE OF 15.65 FEET;
NORTH 25°54'11" WEST, A DISTANCE OF 11.70 FEET;
NORTH 54°01'02" WEST, A DISTANCE OF 12.51 FEET;
NORTH 23°30'12" WEST, A DISTANCE OF 7.85 FEET;
NORTH 53°15'06" WEST, A DISTANCE OF 17.96 FEET;
NORTH 38°05'48" EAST, A DISTANCE OF 13.16 FEET;
NORTH 03°36'55" WEST, A DISTANCE OF 18.53 FEET;

NORTH 85°34'24" WEST, A DISTANCE OF 11.66 FEET;
NORTH 22°48'47" WEST, A DISTANCE OF 18.07 FEET;
NORTH 41°18'00" EAST, A DISTANCE OF 17.82 FEET;
NORTH 16°01'24" WEST, A DISTANCE OF 10.52 FEET;
NORTH 49°00'38" WEST, A DISTANCE OF 16.20 FEET;
NORTH 26°16'07" EAST, A DISTANCE OF 17.98 FEET;
NORTH 43°38'42" WEST, A DISTANCE OF 20.40 FEET;
NORTH 30°35'24" EAST, A DISTANCE OF 11.55 FEET;
NORTH 36°18'13" WEST, A DISTANCE OF 11.34 FEET;
NORTH 68°50'56" WEST, A DISTANCE OF 16.19 FEET;
NORTH 32°05'29" EAST, A DISTANCE OF 19.07 FEET;
NORTH 12°55'07" WEST, A DISTANCE OF 21.22 FEET;
NORTH 81°36'19" WEST, A DISTANCE OF 14.59 FEET;
SOUTH 39°51'36" WEST, A DISTANCE OF 11.16 FEET;
SOUTH 14°02'17" WEST, A DISTANCE OF 13.00 FEET;
NORTH 60°58'47" WEST, A DISTANCE OF 24.24 FEET;
NORTH 19°43'42" WEST, A DISTANCE OF 8.99 FEET;
NORTH 61°53'30" EAST, A DISTANCE OF 12.57 FEET;
NORTH 20°19'31" WEST, A DISTANCE OF 19.81 FEET;
NORTH 19°34'26" WEST, A DISTANCE OF 15.29 FEET;
NORTH 12°22'57" EAST, A DISTANCE OF 11.35 FEET;
NORTH 70°51'42" EAST, A DISTANCE OF 15.30 FEET;
NORTH 21°04'48" EAST, A DISTANCE OF 8.34 FEET;
NORTH 48°02'59" WEST, A DISTANCE OF 8.86 FEET;
NORTH 10°31'36" WEST, A DISTANCE OF 7.95 FEET;
NORTH 16°10'12" EAST, A DISTANCE OF 10.49 FEET;
NORTH 16°17'00" WEST, A DISTANCE OF 9.42 FEET;
NORTH 35°18'22" EAST, A DISTANCE OF 14.45 FEET;
NORTH 14°54'43" WEST, A DISTANCE OF 25.99 FEET;
NORTH 20°12'47" EAST, A DISTANCE OF 14.48 FEET;
SOUTH 87°24'30" EAST, A DISTANCE OF 19.45 FEET;
NORTH 04°34'41" EAST, A DISTANCE OF 18.24 FEET;
NORTH 57°58'19" EAST, A DISTANCE OF 17.36 FEET;
NORTH 11°33'41" WEST, A DISTANCE OF 17.23 FEET;
NORTH 26°07'38" EAST, A DISTANCE OF 8.35 FEET;
SOUTH 66°56'34" EAST, A DISTANCE OF 18.95 FEET;
NORTH 77°53'41" EAST, A DISTANCE OF 9.13 FEET;
NORTH 54°09'37" EAST, A DISTANCE OF 14.36 FEET;
NORTH 04°11'48" WEST, A DISTANCE OF 11.56 FEET;
NORTH 24°06'07" EAST, A DISTANCE OF 14.25 FEET;
NORTH 43°36'27" WEST, A DISTANCE OF 27.21 FEET;
NORTH 39°56'03" EAST, A DISTANCE OF 18.84 FEET;
NORTH 10°33'19" WEST, A DISTANCE OF 9.89 FEET;
NORTH 67°55'45" EAST, A DISTANCE OF 11.34 FEET;
NORTH 88°04'17" EAST, A DISTANCE OF 13.12 FEET;
NORTH 61°34'23" EAST, A DISTANCE OF 17.04 FEET;
SOUTH 72°14'18" EAST, A DISTANCE OF 13.77 FEET;
NORTH 71°04'29" EAST, A DISTANCE OF 13.81 FEET;
SOUTH 62°21'34" EAST, A DISTANCE OF 18.21 FEET;
NORTH 22°09'30" EAST, A DISTANCE OF 12.76 FEET;
NORTH 41°54'53" EAST, A DISTANCE OF 12.93 FEET;

NORTH 14°59'57" EAST, A DISTANCE OF 12.00 FEET;
NORTH 33°16'53" EAST, A DISTANCE OF 15.41 FEET;
NORTH 74°51'41" EAST, A DISTANCE OF 18.51 FEET;
NORTH 26°38'41" WEST, A DISTANCE OF 14.66 FEET;
NORTH 26°33'40" WEST, A DISTANCE OF 11.86 FEET;
NORTH 67°49'40" WEST, A DISTANCE OF 8.00 FEET;
SOUTH 25°39'13" WEST, A DISTANCE OF 16.08 FEET;
NORTH 70°29'35" WEST, A DISTANCE OF 33.42 FEET;
NORTH 24°10'42" EAST, A DISTANCE OF 15.18 FEET;
NORTH 17°15'26" WEST, A DISTANCE OF 18.75 FEET;
NORTH 34°33'29" WEST, A DISTANCE OF 27.20 FEET;
SOUTH 66°33'15" WEST, A DISTANCE OF 10.65 FEET;
SOUTH 61°21'47" WEST, A DISTANCE OF 12.99 FEET;
NORTH 47°02'12" WEST, A DISTANCE OF 17.27 FEET;
NORTH 59°40'27" WEST, A DISTANCE OF 8.89 FEET TO A POINT THAT IS NORTH 89°58'32" EAST, A DISTANCE OF 5.08 FEET FROM A FOUND #4 REBAR;

THENCE LEAVING SAID BRANCH NORTH 89°58'32" EAST, A DISTANCE OF 305.81 FEET TO A FOUND IRON PIN ON THE EASTERLY ROW OF SHACKELTON ROAD (60.0 R.O.W.);
THENCE ALONG THE SOUTHERN BOUNDARY OF LOTS 18, 19, & 21-27 OF LEXINGTON PHASE 1, SECTIONS “B & C”, BM 1995, PAGES 1200-1203 THE FOLLOWING SIX (6)COURSES:
NORTH 89°57'45" EAST, A DISTANCE OF 80.82 FEET TO A FOUND IRON PIN;
NORTH 89°52'55" EAST, A DISTANCE OF 337.08 FEET TO A FOUND IRON PIN;
NORTH 89°55'07" EAST, A DISTANCE OF 93.02 FEET TO A FOUND IRON PIN;
NORTH 89°50'00" EAST, A DISTANCE OF 59.78 FEET TO A FOUND IRON PIN;
NORTH 89°46'56" EAST, A DISTANCE OF 117.80 FEET TO A FOUND IRON PIN;
NORTH 89°54'21" EAST, A DISTANCE OF 171.33 FEET TO A FOUND IRON PIN;
THENCE NORTH 89°52'30" EAST, A DISTANCE OF 415.93 FEET TO THE POINT OF BEGINNING, CONTAINING 23.73 ACRES, MORE OR LESS.

TRACT 2

BEING A PORTION OF TRACT C-1 OF A DIVISION OF TRACT "C" AS SHOWN ON THE SURVEY FOR THE TOWN OF APEX DATED JAN 3, 1989, ASHLEY ELKINS, RLS AND RECORDED AT BOOK OF MAPS 1989, PAGE 59, WAKE COUNTY, NORTH CAROLINA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 30IN WHITE OAK TREE AT THE NORTHEAST CORNER OF THE ABOVE REFERENCED SURVEY, DESCRIBED AT THAT TIME AS A 24IN WHITE OAK TREE WITH STATE PLAN COORDINATES N 713,917.474 E 2,045,176.348; THENCE SOUTH 89°52'59" WEST, PASSING OVER A REFERENCE IRON PIN AT 3.45 FEET AND AN IRON PIN FOUND ON THE WESTERLY RIGHT-OF-WAY (ROW) OF EXISTING PERRY ROAD (60.0' R.O.W.) AT 1305.43 FEET, FOR A TOTAL DISTANCE OF 1329.28 FEET TO A POINT, SAID POINT BEING ON THE CENTERLINE OF A PROPOSED 110' ROW;

THENCE ALONG SAID PROPOSED CENTERLINE THE FOLLOWING THREE COURSES:

- A CURVE FROM SAID POINT OF BEGINNING SOUTHERLY AND SOUTHWESTERLY A DISTANCE OF 419.85 FEET ALONG THE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 1,202.781 FEET WITH A CHORD ANGLE SOUTH 10°46'12" WEST FOR 417.72 FEET TO A COMPUTED POINT;
- A TANGENT SOUTH 22°30'45" WEST FOR 110.19 FEET TO A COMPUTED POINT IN THE FUTURE CENTERLINE OF THE PERRY ROAD RIGHT-OF-WAY;
- A CURVE FROM SAID TANGENT POINT SOUTHERLY AND SOUTHEASTERLY A DISTANCE OF 197.22 FEET ALONG THE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,310.34 FEET WITH A CHORD ANGLE SOUTH 16°35'32" WEST FOR 197.03 FEET TO A COMPUTED POINT; SAID POINT BEING THE

POINT OF BEGINNING;

THENCE CONTINUING ALONG SAID CENTERLINE OF THE FUTURE PERRY ROAD EXTENSION WITH A CURVE FROM SAID POINT OF BEGINNING SOUTHERLY AND SOUTHEASTERLY A DISTANCE OF 928.00 FEET ALONG A CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,244.07 FEET WITH A CHORD ANGLE SOUTH 09°10'23" EAST FOR 906.63 FEET TO A COMPUTED POINT ALONG THE NORTHERN RIGHT-OF-WAY OF US 1 HIGHWAY;

THENCE LEAVING SAID PROPOSED ROW AND ALONG THE US HIGHWAY 1 ROW SOUTH 58°34'57" WEST, A DISTANCE OF 977.38 FEET TO A CALCULATED POINT;
THENCE ALONG THE NORTHERN US HIGHWAY 1 ROW TO A FOUND 6-IN CONCRETE MONUMENT WITH STATE PLANE COORDINATES N 711,809.272 AND E 2,042,981.00;
THENCE SOUTH 58°55'33" WEST, A DISTANCE OF 221.57 FEET TO THE CENTER OF REEDY BRANCH;
THENCE ALONG SAID BRANCH THE FOLLOWING TWENTY-THREE (23) COURSES;
NORTH 20°02'18" WEST, A DISTANCE OF 329.56 FEET;
NORTH 74°05'29" WEST, A DISTANCE OF 84.99 FEET;
NORTH 17°23'59" EAST, A DISTANCE OF 217.31 FEET;
NORTH 55°30'13" WEST, A DISTANCE OF 96.25 FEET;
NORTH 03°43'27" WEST, A DISTANCE OF 208.74 FEET;
NORTH 42°12'57" WEST, A DISTANCE OF 115.08 FEET;

NORTH 20°21'51" WEST, A DISTANCE OF 204.80 FEET;
NORTH 20°31'32" WEST, A DISTANCE OF 30.00 FEET;
NORTH 00°41'48" WEST, A DISTANCE OF 181.88 FEET;
NORTH 12°04'12" WEST, A DISTANCE OF 179.91 FEET;
NORTH 41°37'43" WEST, A DISTANCE OF 8.65 FEET;
NORTH 27°36'56" EAST, A DISTANCE OF 18.18 FEET;
NORTH 21°03'46" WEST, A DISTANCE OF 13.80 FEET;
NORTH 31°11'08" EAST, A DISTANCE OF 10.66 FEET;
NORTH 00°04'20" EAST, A DISTANCE OF 11.34 FEET;
NORTH 46°43'00" WEST, A DISTANCE OF 13.69 FEET;
NORTH 76°43'52" WEST, A DISTANCE OF 11.75 FEET;
NORTH 06°15'16" WEST, A DISTANCE OF 7.49 FEET;
NORTH 66°29'35" EAST, A DISTANCE OF 15.99 FEET;
NORTH 32°25'43" WEST, A DISTANCE OF 9.99 FEET;
SOUTH 79°43'00" WEST, A DISTANCE OF 7.50 FEET;
NORTH 78°53'05" WEST, A DISTANCE OF 10.59 FEET;
NORTH 05°25'53" WEST, A DISTANCE OF 4.86 FEET;

THENCE LEAVING SAID BRANCH SOUTH 88°08'27" EAST ALONG THE SOUTHERN BORDER OF THE HEREIN DESCRIBED TRACT 1, BEING ALSO THE SOUTHERN BOUNDARY OF THAT 48.786 ACRE TRACT OF LAND SHOWN ON THE SURVEY FOR MYRTLE S. HOPSON DATED MAY 2, 1997, DRAWN BY SMITH AND SMITH SURVEYORS AND RECORDED AT BOOK OF MAPS 1997, PAGE 835, WAKE COUNTY, A DISTANCE OF 1329.43 FEET TO THE POINT OF BEGINNING, CONTAINING 34.81 ACRES, MORE OR LESS.

The Town Tract
to be rezoned from RA & LI-CZ to LI-CZ

TRACT 3

BEING A PORTION OF THAT 48.786 ACRE TRACT OF LAND SHOWN ON THE SURVEY FOR MYRTLE S. HOPSON DATED MAY 2, 1997, DRAWN BY SMITH AND SMITH SURVEYORS AND RECORDED AT BOOK OF MAPS 1997, PAGE 835, WAKE COUNTY, NORTH CAROLINA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 30IN WHITE OAK TREE REFERENCED ON SAID SURVEY AS A 24IN WHITE OAK TREE WITH STATE PLAN COORDINATES N 713,917.474 E 2,045,176.348; THENCE SOUTH 01°18'17" WEST, A DISTANCE OF 752.20 FEET;
THENCE NORTH 88°08'27" WEST, ALONG THE NORTHERN BOUNDARY OF THE TOWN OF APEX PROPERTY SHOWN AS TRACT C-1 OF A DIVISION OF TRACT "C" AS SHOWN ON THE SURVEY FOR THE TOWN OF APEX DATED JAN 3, 1989, ASHLEY ELKINS, RLS AND RECORDED AT BOOK OF MAPS 1989, PAGE 59, WAKE COUNTY, A DISTANCE OF 1489.45 FEET TO THE CENTERLINE OF THE AFOREMENTIONED FUTURE PERRY ROAD ROW;

THENCE ALONG SAID CENTERLINE THE FOLLOWING THREE (3) COURSES:

- A CURVE FROM SAID TANGENT POINT NORTHERLY AND NORTHEASTERLY A DISTANCE OF 197.22 FEET ALONG THE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,310.34 FEET WITH A CHORD ANGLE NORTH 16°35'32" EAST FOR 197.03 FEET TO A COMPUTED POINT;
- A TANGENT NORTH 22°30'45" EAST FOR 110.19 FEET TO A COMPUTED POINT IN THE FUTURE CENTERLINE OF THE PERRY ROAD RIGHT-OF-WAY;
- A CURVE FROM SAID POINT OF BEGINNING NORTHERLY AND NORTHEASTERLY A DISTANCE OF 419.85 FEET ALONG THE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 1,202.78 FEET WITH A CHORD ANGLE NORTH 10°46'12" EAST FOR 417.72 FEET TO A COMPUTED POINT;

THENCE NORTH 89°53'00" EAST, A DISTANCE OF 1329.28 FEET PASSING OVER A REFERENCE IRON PIN AT A DISTANCE OF 1329.28 FEET TO THE POINT OF BEGINNING, CONTAINING 23.27 ACRES, MORE OR LESS.

TRACT 4

BEING A PORTION OF TRACT C-1 AND A 1.209 AC PARCEL “RESERVED FOR FUTURE USE” OF A DIVISION OF TRACT “C” AS SHOWN ON THE SURVEY FOR THE TOWN OF APEX DATED JAN 3, 1989, ASHLEY ELKINS, RLS AND RECORDED AT BOOK OF MAPS 1989, PAGE 59, WAKE COUNTY, NORTH CAROLINA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 30IN WHITE OAK TREE REFERENCED ON SAID SURVEY AS A 24IN WHITE OAK TREE WITH STATE PLAN COORDINATES N 713,917.474 E 2,045,176.348; THENCE SOUTH 01° 18' 17” WEST A DISTANCE OF 752.20 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 01°01'00" WEST, A DISTANCE OF 30.06 FEET TO THE ROW OF US HIGHWAY 1; THENCE ALONG SAID ROW THE FOLLOWING NINE (9) COURSES:
SOUTH 58°44'46" WEST, A DISTANCE OF 451.51 FEET;
NORTH 31°14'30" WEST, A DISTANCE OF 20.00 FEET;
SOUTH 58°41'04" WEST, A DISTANCE OF 120.82 FEET;
NORTH 31°18'56" WEST, A DISTANCE OF 24.43 FEET;
SOUTH 58°41'04" WEST, A DISTANCE OF 308.03 FEET;
SOUTH 31°18'56" EAST, A DISTANCE OF 24.43 FEET;
SOUTH 59°08'11" WEST, A DISTANCE OF 274.39 FEET;
SOUTH 31°12'30" EAST, A DISTANCE OF 21.26 FEET;
SOUTH 58°34'57" WEST, A DISTANCE OF 417.56 FEET TO THE CENTERLINE OF THE AFOREMENTIONED FUTURE PERRY ROAD 110' ROW;

THENCE LEAVING US HIGHWAY 1 ALONG SAID PROPOSED CENTERLINE ALONG SAID CENTERLINE OF THE FUTURE PERRY ROAD EXTENSION WITH A CURVE FROM SAID POINT NORTHERLY AND NORTHEASTERLY A DISTANCE OF 928.00 FEET ALONG A CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,244.07 FEET WITH A CHORD ANGLE NORTH 09°10'23" WEST FOR 906.63 FEET TO A COMPUTED POINT;

THENCE ALONG THE SOUTHERN BOUNDARY OF THAT 48.786 ACRE TRACT OF LAND SHOWN ON THE SURVEY FOR MYRTLE S. HOPSON DATED MAY 2, 1997, DRAWN BY SMITH AND SMITH SURVEYORS AND RECORDED AT BOOK OF MAPS 1997, PAGE 835, WAKE COUNTY, SOUTH 88°08'27" EAST, A DISTANCE OF 1489.45 FEET TO THE POINT OF BEGINNING, CONTAINING 16.35 ACRES, MORE OR LESS.

PLANNED UNIT DEVELOPMENT APPLICATION

Application #: 24CZ20 Submittal Date: 11-1-2024

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 neede[redacted]

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 Ma[redacted]

The proposed rezoning to Light Industrial Conditional (LI-CZ) is consistent with the property's Office Employment/Industrial [redacted]loyment LUM designation because it will facilitate the redevelopment of the Town Tract into a public works facility with office and industrial uses. The proposed PUD includes a Non-Residential District at the corner of future Perry Road and the east/west [redacted]ector street that permits office and small scale non-residential uses and is consistent with the Office Employment LUM [redacted]signation. Although the LUM shows some Industrial Employment west of Perry Road, the proposed mix of uses provides a [redacted]er transition with Perry Road as the divider between industrial and residential uses. Additionally, the PUD is reasonable and in [redacted]public interest for several reasons. First, 20% of the apartment units will be affordable housing units. Second, the mix of [redacted]sing types will provide a transition between single-family and townhome neighborhoods to the west (Salem Village, Seymour, [redacted] and more intense industrial and commercial uses to the east.

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

The proposed uses have been located to ensure compatibility with the existing and planned adjacent [redacted]d uses. The apartments are located on the southern portion of the site, well buffered by Perry [redacted]ad to the east, US-1 to the south, and a riparian buffer to the west. The townhomes are located in the northwestern portion of the site, adjacent to planned townhomes in the Seymour Subdivision [redacted]d separated from the Lexington subdivision by a road and buffer. The Town's office/industrial [redacted]es are concentrated east of Perry Road, adjacent to existing office and industrial uses to the [redacted]th.

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

[redacted]e proposed uses will comply with all applicable Supplemental Standards in UDO Section 4.4.

[redacted]

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 nuisanc[redacted]

As discussed above, proposed uses have been located to provide a proper transition between uses and ensure compatibility between existing and proposed land uses. Development will meet all UDO standards regarding screening of trash, service delivery, 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 project will meet all applicable environmental regulations.

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 zoning will not have adverse impacts on public facilities and services. As part of the PUD, the developer is realigning and constructing the full Perry Road extension as shown on the Comprehensive Transportation Plan and an east/west Collector Street that will connect to Tingen Road, improving overall vehicular and pedestrian connectivity.

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 zoning will improve the health, safety, and welfare of residents of the Town by providing additional market rate and affordable housing choices and by allowing the Town of Apex to improve the operation of Town services.

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

The proposed uses have been located to ensure compatibility with the existing and planned adjacent land uses. The apartments are located on the southern portion of the site, well buffered by Perry Road to the east, US-1 to the south, and a riparian buffer to the west. The townhomes are located in the northwestern portion of the site, adjacent to planned townhomes in the Seymour Subdivision and separated from the Lexington subdivision by a road and buffer. The Town's office/industrial uses are concentrated east of Perry Road, adjacent to existing office and industrial uses to the north.

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 proposed zoning will not constitute a nuisance or hazard. As discussed above, the project will include significant transportation infrastructure improvements as determined by the final Traffic Impact Analysis (TIA).

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

The proposed zoning will comply with all applicable UDO regulations.

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: _____ 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 #: 24CZ20 Submittal Date: _____

Proposed Subdivision/Development Information

Description of location: Perry Road

Nearest intersecting roads: Perry Road/Apex Peakway

Wake County PIN(s): 0741331566; 0741326706; 0741427922

Township: White Oak

Contact Information (as appropriate)

Contact person: Matthew 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: _____

Phone number: _____ Fax number: _____

Address: _____

E-mail address: _____

Proposed Subdivision/Development Name

1st Choice: TBD

2nd Choice *(Optional)*: _____

Town of Apex Staff Approval:

_____ _____

Town of Apex Planning Department Staff Date

STREET NAME APPROVAL APPLICATION

Application #: 24CZ20 Submittal Date: _____

Wake County Approval Date: _____

Guidelines:

- No names duplicating or sounding similar to existing road names
- Avoid difficult to pronounce names
- No individuals' names
- Avoid proper names of a business, e.g. Hannaford Drive
- Limit names to 14 characters in length
- No directionals, e.g. North, South, East, West
- No punctuation marks, e.g. periods, hyphens, apostrophes, etc.
- Avoid using double suffixes, e.g. Deer Path Lane
- All names must have an acceptable suffix, e.g. Street, Court, Lane, Path, etc.
- Use only suffixes which are Town of Apex approved
- Town of Apex has the right to deny any street name that is determined to be inappropriate

Information:

Description of location: Perry Road

Nearest intersecting roads: Perry Road/Apex Peakway

Wake County PIN(s): 0741331566; 0741326706; 0741427922

Township: White Oak

Contact information (as appropriate)

Contact person: Matthew Carpenter

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

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

E-mail address: _____

Owner: _____

Phone number: _____ Fax number: _____

Address: _____

E-mail address: _____

STREET NAME APPROVAL APPLICATION

Application #: _____ Submittal Date: _____

# of roads to be named: TBD

Please submit twice as many road names as needed, with preferred names listed first. Proposed road names should be written exactly as one would want them to appear. Town of Apex Planning Department staff will send all approved street names to the Wake County GIS Department for county approval. Please allow several weeks for approval. Upon approval Wake County GIS – Street Addressing will inform you of the approved street names.

Example:	Road Name	Suffix
	Hunter	Street

1	TBD	11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

TOWN OF APEX STAFF APPROVAL

Town of Apex Staff Approval Date

WAKE COUNTY STAFF APPROVAL:

GIS certifies that _____ names indicated by checkmark ☑ are approved.
Please disregard all other names.

Comments:

Wake County GIS Staff Approval Date

TOWN OF APEX UTILITIES OFFER AND AGREEMENT

Application #: 24CZ20 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

_____

_____
(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.

ACRE MANAGER 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: _____	TOWN OF APEX
BY: _____ Authorized Agent	BY: _____ Authorized Agent
DATE: _____	DATE: _____

AGENT AUTHORIZATION FORM

Application #: 24CZ20 Submittal Date: 11-1-2024

Sure & Steadfast Properties Limited Partnership 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: 0 Perry Road; PIN 0741331566

The agent for this project is: Jesse Kehoe and Matthew Carpenter

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

Agent Name: Jesse Kehoe and Matthew 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)*

SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP

Donna M. Evenson — Oct 28, 2024

Name: Donna M. Evenson
Title: General Partner

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 #: 24CZ20 Submittal Date: 11-1-2024

The undersigned, _____ (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 0741331566 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 December 30, 1999, and recorded in the Wake County Register of Deeds Office on December 30, 1999, in Book 8494 Page 1585.

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 December 30, 1999, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on December 30, 1999, 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 28th day of October, 2024.

SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP

By: Donna M. Everson
Name: Donna M. Everson
Title: General Partner

STATE OF NORTH CAROLINA
COUNTY OF WAKE

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

Notary Public
State of North Carolina
My Commission Expires: 11-14-2026

ROBERT B. DASCOMBE
NOTARY PUBLIC
Wake County
North Carolina
My Commission Expires Nov. 14, 2026

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: 24CZ20 Submittal Date: _____

Insert legal description below.

BEING all of that 48.786 acre tract of land shown on the survey for Myrtle S. Hopson dated May 2, 1997 drawn by Smith and Smith Surveyors and recorded at Book of Maps 1997, Page 835, Wake County Registry.

AGENT AUTHORIZATION FORM

Application #: 24CZ20 Submittal Date: 11-1-2024

Town of Apex 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: 1341 Perry Road; 0 Perry Road

The agent for this project is: Matt Wetherell

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

Agent Name: Town of Apex, Matt Wetherell

Address: 73 Hunter Street, Apex, NC 27502

Telephone Number: 919-249-3534

E-Mail Address: matt.wetherell@apexnc.org

Signature(s) of Owner(s)*

Randal Vosburg

Randal Vosburg, Town Manager, Town of Apex — 10/31/24

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 #: 24CZ20 Submittal Date: 11-1-2024

The undersigned, Randal Vosburg (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 1341 Perry Road (PIN 0741326706) & 0 Perry Road (PIN 0741427922) 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 December 21, 1985, and recorded in the Wake County Register of Deeds Office on N/A, in Book 01736 Page 0000E.

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 December 21, 1985, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on December 21, 1985, 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 31st day of October, 2024.

Randal Vosburg (seal)

Randal Vosburg

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 Randal Vosburg, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's _____, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.

SANDRA S BURKE NOTARY PUBLIC [NOTARY SEAL] WAKE COUNTY, NC

Sandra S. Burke

Notary Public
State of North Carolina
My Commission Expires: 9/9/2025

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Wake County Residential Development Notification

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

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

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

Developer Company *Information*	
Company *Name*	ACRE MANAGER, LLC, c/o Matthew J. Carpenter
Company Phone *Number*	919-835-4032
Developer Representative *Name*	Matthew J. Carpenter
Developer Representative *Phone Number*	919-835-4032
Developer Representative *Email*	MatthewCarpenter@parkerpoe.com

New Residential Subdivision *Information*	
Date of Application for Subdivision	TBD
City, Town or Wake County Jurisdiction	Town of Apex
Name of Subdivision	TBD
Address of Subdivision (if unknown enter nearest cross streets)	Perry Road
REID(s)	0033086; 0054584; 0180844
PIN(s)	0741331566; 0741326706; 0741427922

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	50					50								2028			
Townhomes	170				100	70								2028			
Condos																	
Apartments	400			200	200									2028			
Other																	

Revised 08/10/2018

Hopson Gateway 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 September 18, 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.

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.

September 4, 2024
Date

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

See attached Exhibit A — Address(es)

See attached Exhibit A — 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 proposed rezoning will allow the development of a mix of housing types west of Perry Road, including apartments, townhomes, and single-family homes; and the development of office/industrial uses east of Perry Road.

Estimated submittal date: October 1, 2024

MEETING INFORMATION:

Property Owner(s) name(s):	See attached Exhibit A
Applicant(s):	ACRE Manager, LLC c/o Matthew Carpenter; Town of Apex
Contact information (email/phone):	matthewcarpenter@parkerpoe.com; (919) 835-4032
Meeting Address:	Virtual (Zoom) - See attached notice letter
Date/Time of meeting**:	September 18, 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: September 4, 2024

Re: Notice of Virtual Neighborhood Meeting

You are invited to attend a virtual neighborhood meeting on September 18, 2024 at 5:30 PM to discuss an upcoming application to rezone three properties located at 0 Tingen Road (PIN 0741331566), 0 Perry Road (PIN 0741427922), and 1341 Perry Road (PIN 0741326706) from Residential Agricultural (RA) and Light Industrial Conditional Zoning (LI-CZ) to Planned Unit Development Conditional Zoning (PUD-CZ) and Light Industrial Conditional Zoning (LI-CZ) generally as shown on the attached Concept Plan.

The purpose of the rezoning is to allow development of a mix of residential uses west of the future Perry Road extension and a new Town of Apex public works facility east of the future Perry Road extension. 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:	818 3433 8597
Enter the following password:	649867

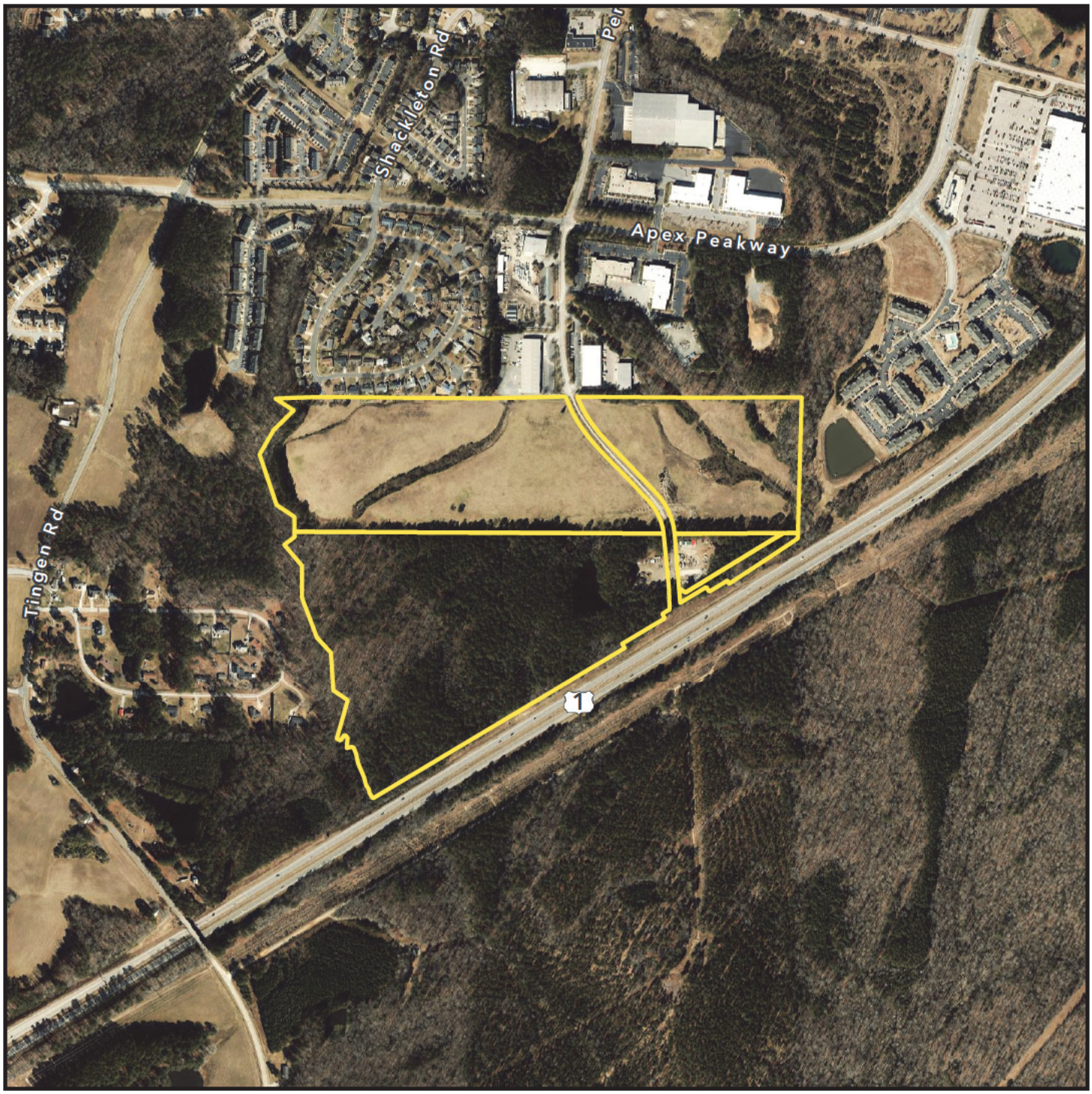
To participate by telephone:

Dial:	1 929 205 6099
Enter the following meeting ID:	818 3433 8597 #
Enter the Participant ID:	#
Enter the Meeting password:	649867 #

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



0 Tingen Road; &
0 & 1341 Perry Road

N

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 Tingen Road; &
0 & 1341 Perry Road

N

0 50 800 1,600

1 inch equals 800 feet

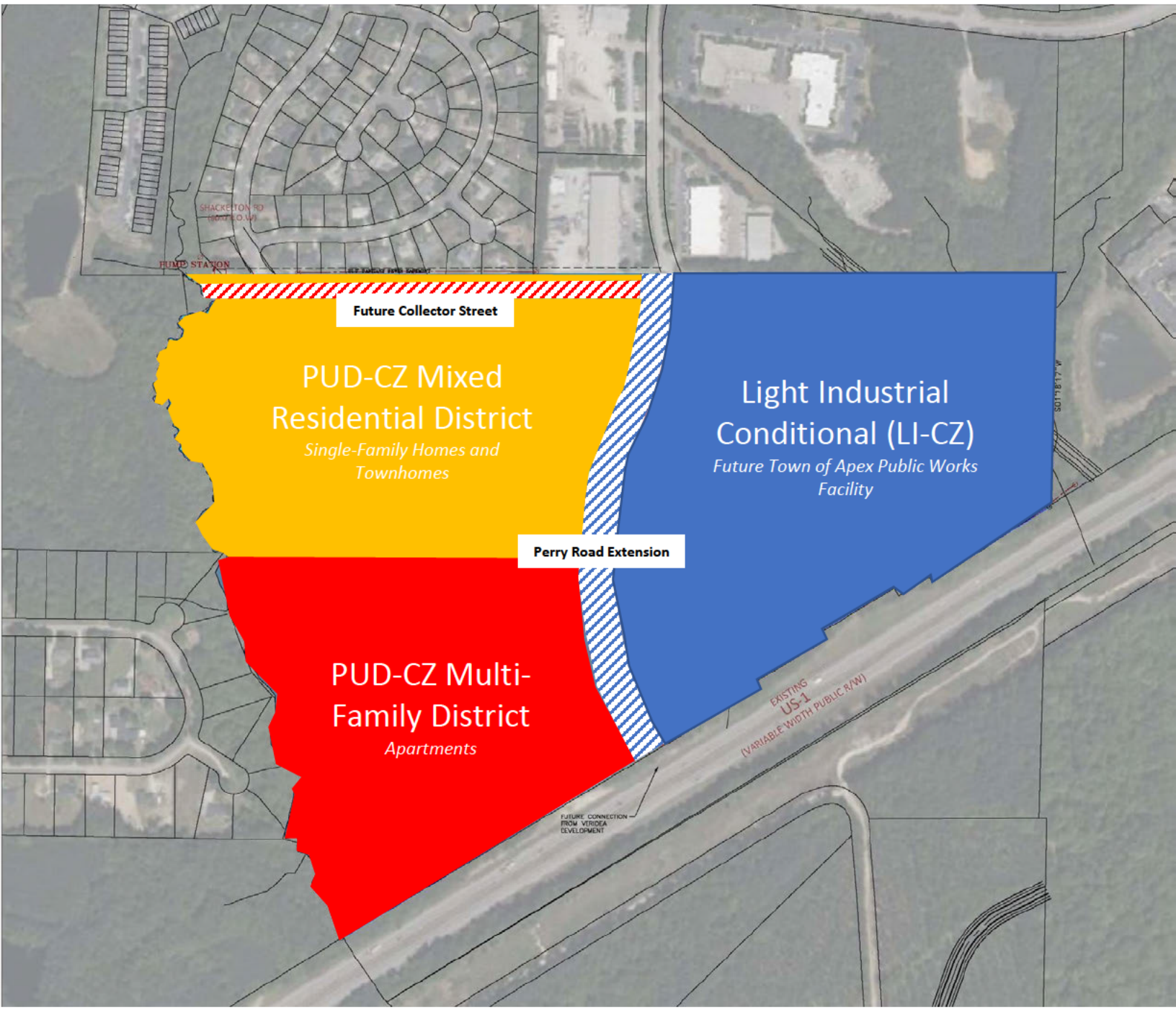
Zoning Map

Current Zoning: RA & LI-CZ

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.*

DRAFT Rezoning Concept Plan

District boundaries, uses, and site elements are subject to change



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: Hopson Gateway PUD Zoning: RA and LI-CZ

Location: See attached Exhibit A

Property PIN(s): See attached Exhibit A Acreage/Square Feet: +/- 99.34 ac

Property Owner: See attached Exhibit A

Address:

City: State: Zip:

Phone: Email:

Developer: ACRE Manager, LLC c/o Matthew Carpenter; Town of Apex

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): ACRE Manager, LLC c/o Matthew 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
Transportation & Infrastructure Development Russell Dalton, Traffic Engineering Manager	(919) 249-3358
Water Resources Department Jessica Bolin, Environmental Engineering Manager (Stormwater, Sedimentation & Erosion Control) Matt Reker, Utility Engineer/FOG Program Manager (Water & Sewer)	(919) 249-3537 (919) 946-4394
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Exhibit A

Hopson Gateway PUD

Owner Information Addendum

PIN: 0741331566

Site Address: 0 Tingen Road
Deed Reference (book/page): 8494/1585
Acreage: 48.79 ac
Owner: Sure & Steadfast Properties Limited Partnership
Owner Address: 2201 Candun Drive, Suite 103, Apex, NC 27523-6413

PIN: 0741326706

Site Address: 1341 Perry Road
Deed Reference (book/page): 1736/E
Acreage: 49.48 ac
Owner: Town of Apex
Owner Address: P.O. Box 250, Apex, NC 27502-0250

PIN: 0741427922

Site Address: 0 Perry Road
Deed Reference (book/page): 1736/E
Acreage: 1.07 ac
Owner: Town of Apex
Owner Address: P.O. Box 250, Apex, NC 27502-0250

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 am to 8:30 pm 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-Friday from 8:00 am to 5:00 pm. Report violations of construction hours and other noise complaints to the Non-Emergency Police phone number at 919-362-8661.

Construction Traffic:	**Infrastructure Inspections**	**919-249-3386**

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:	**Infrastructure Inspections**	**919-249-3386**

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 Transportation & Infrastructure Development – Infrastructure Inspections at 919-249-1109. 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:	**Water Resources**	**919-362-8166**

Sediment (dirt) and mud gets into the existing roads due to rain events and/or vehicle traffic. These incidents should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed. Staff will coordinate the cleaning of the roadways with the developer.

Dirt on Properties or in Streams:	**Water Resources**	**919-362-8166**

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 by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed so that staff can coordinate the appropriate repairs with the developer.

Dust:	**Water Resources**	**919-362-8166**

During dry weather dust often becomes a problem blowing into existing neighborhoods or roadways. These incidents should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed so that staff can coordinate the use of water trucks onsite with the grading contractor to help control the dust.

Trash:	**Water Resources**	**919-362-8166**

Excessive garbage and construction debris can blow around on a site or even off of the site. These incidents should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed. Staff will coordinate the cleanup and trash collection with the developer/home builder.

Temporary Sediment Basins:	**Water Resources**	**919-362-8166**

Temporary sediment basins during construction (prior to the conversion to the final stormwater pond) are often quite unattractive. Concerns should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed so that he can coordinate the cleaning and/or mowing of the slopes and bottom of the pond with the developer.

Stormwater Control Measures:	**Water Resources**	**919-362-8166**

Post-construction concerns related to Stormwater Control Measures (typically a stormwater pond) such as conversion and long-term maintenance should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed.

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: September 18, 2024 Time of meeting: 5:30 PM

Property Owner(s) name(s): SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP; TOWN OF APEX

Applicant(s): ACRE MANAGER, 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.	John Cooley	1203 Lexington Farm Road	n/a	[redacted]	
2.	Jimmy King	PO Box 1798, Apex, NC 27502	n/a		
3.	Abraham Gonzalez	1206 Lexington Farm Road	n/a		
4.	Denise Kane	1211 Canterbury Brook Lane	n/a		
5.	Patrick Stevens	2301 Sugar Bush Road, Suite 220, Raleigh	n/a		
6.					
7.					
8.					
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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): SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP; TOWN OF APEX

Applicant(s): ACRE MANAGER, LLC c/o Matthew J. Carpenter

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

Meeting Address: virtual via Zoom

Date of meeting: September 18, 2024 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
Hopson Gateway

I. WELCOME
   a. Introduction of development team
      i. Matthew Carpenter w/ Parker Poe
      ii. Jesse Kehoe w/ ACRE Management, the developer
      iii. Jeff Roach w/ Peak Engineering, civil 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 - Rural Residential (RR) and Light Industrial Conditional (LI-CZ)
   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 divided by the future realignment of Perry Road. The portion of the property west of Perry Road is designated Office Employment (area shown in blue) and the portion east of Perry Road is Office Employment/Industrial Employment (cross hatched blue/purple area).
      iii. When we start the rezoning process, we consider the LUM designations and what type of development is appropriate here. Obviously, since COVID, the office market faces significant challenges, and it's unlikely that this property can support office on the entire tract.
   d. 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. As I mentioned, Perry Road will be re-aligned as part of this project and will act as the divider between office/industrial uses and residential uses.
      iii. East of Perry Road (area shown in blue) will be rezoned to Light Industrial and used by the Town for a public works site. This site offers the Town the opportunity to build a new public works headquarters and concentrate operations to improve overall efficiency.
      iv. West of Perry Road will be a residential development with a mix of apartments (area in red) and single-family homes and townhomes (area shown in orange). Final unit counts and densities have not been determined, but the goal was to provide a transition between single-family residential development to the west and more intense commercial corridors to the west (US-1 and NC 55).
      v. As part of the project, the developer will be constructing the full Perry Road extension and the future collector street at the top of the screen. The future collector street will connect to the Seymour project which is

directly adjacent to the west and provide east/west connectivity to Tingen Road.

e. 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 around six months.

III. QUESTION AND ANSWER

a. ***How many units are you proposing?***
    i. We haven't finalized the overall density and mix of housing types, but we anticipate up to 450 apartment units and 200 single-family homes/townhomes.

b. How will you connect to sewer?
    i. We are working with other developments in this area (Lennar, builder of the Seymour project to the east and Veridea to the south and Grace Christian School) on a joint sewer solution. The sewer line will come from Veridea south of US-1.

c. I own the industrial property adjacent to the north and there's an old pump station I'm interested in taking offline. I had spoken to Town staff before, but could you direct me to the appropriate contact?
    i. Yes. We have a bi-weekly meeting with utilities staff regarding the sewer situation in this area and are happy to include you in the discussions. I'll send you a separate e-mail after this meeting.

d. What will the buffers look like?
    i. The UDO requires planted buffers adjacent to existing development and we will include buffer standards in our PUD Text. There is an existing stream along the western property line. The stream requires 50-foot riparian buffers on each side.
    ii. It's hard to see on this slide, but there will also be a planted buffer on the north side of the Future Collector street. We've discussed with staff the possibility of programming this area as a walking park with trails and other amenities.

e. What about affordability?
    i. We haven't landed on an exact number, but the project will include a certain percentage of total units set aside as affordable housing units that can only be leased to tenants at or below a certain Area Median Income (AMI). We will likely target 80% AMI which is often considered workforce housing; housing for teachers, nurses, fire fighters, etc. These units are not built or managed using tax dollars, but are subsidized, managed, and leased by the developer/property owner.

OWNER	MAILING ADDRESS		
ACKERMAN, MARK A ACKERMAN, NANCY	1215 LEXINGTON FARM RD	APEX NC 27502-5308	
ANDERSON, BETTIE J	1026 IRONGATE DR	APEX NC 27502-6505	
APEX TOWN OF	PO BOX 250	APEX NC 27502-0250	
BEATTY, RICHARD ALLAN JR BEATTY, KERRI ANNE	353 ANTERBURY DR	APEX NC 27502-4713	
BEDNARZ, STANLEY M BEDNARZ, ELAINE	1207 LEXINGTON FARM RD	APEX NC 27502-5308	
BRADLEY TERRACE HOMEOWNERS ASSOCIATION INC	3308 WHITTINGHAM DR	NEW HILL NC 27562-8985	
CAIN, DEREK L CAIN, TIFFANI L GRIMES	1212 CANTERBURY BROOK LN	APEX NC 27502-5346	
CHAN, PAUL KI BUN CHAN, ELAINE FONGKIN	1201 LEXINGTON FARM RD	APEX NC 27502-5308	
CHMIEL, DAWN	359 ANTERBURY DR	APEX NC 27502-4713	
CLINKSCALE, TRACI L	3364 KYLEE DAWN CIR	LAWRENCEVILLE GA 30045-2762	
COOLEY, JOHN R COOLEY, VICTORIA J	1203 LEXINGTON FARM RD	APEX NC 27502-5308	
CULL, KRISTA M	1226 SHACKLETON RD	APEX NC 27502-5317	
DOTY, TIMOTHY DOTY, FRANCESCA	1209 LEXINGTON FARM RD	APEX NC 27502-5308	
EBT FARMS, LLC	472 HENRYS RIDGE RD	PITTSBORO NC 27312-4641	
ELLIS, MATTHEW H ELLIS, RHONDA E	363 ANTERBURY DR	APEX NC 27502-4713	
FETZER, MARGARET	1216 LEXINGTON FARM RD	APEX NC 27502-5307	
GILBERT, JACQUES K GILBERT, MESHARA M	1224 SHACKLETON RD	APEX NC 27502-5317	
GONZALEZ, ABRAHAM GONZALEZ, DIANA NICOLE	1206 LEXINGTON FARM RD	APEX NC 27502-5307	
GORE LINE PROPERTIES LLC	PO BOX 1118	GARNER NC 27529-1118	
GREATER RALEIGH AREA CHRISTIAN EDUCATION INC	1101 BUCK JONES RD	RALEIGH NC 27606-3324	
HITCH, THOMAS REEVES HITCH, PATRICIA CARNEY	1205 LEXINGTON FARM RD	APEX NC 27502-5308	
JASPER, TODD J JASPER, PATRICIA J	1202 LEXINGTON RIDGE LN	APEX NC 27502-5345	
JONES, W GREGG TRUSTEE JONES, DOROTHY G TRUSTEE	5081 BARRINGTON FARMS DR	AIKEN SC 29803-9749	
KANE, MICHAEL J KANE, DENISE M	1211 CANTERBURY BROOK LN	APEX NC 27502-5346	
KENNEDY, ANGELA HUDSON HUDSON, DONALD E SR	1210 LEXINGTON FARM RD	APEX NC 27502-5307	
KING INVESTMENT PROPERTIES LLC MARKHAM, KENNETH MILES	PO BOX 1798	APEX NC 27502-2798	
KRG PEAKWAY AT 55 LLC	KITE REALTY GROUP	30 S MERIDIAN ST STE 100	INDIANAPOLIS IN 46204-3510
LANGENFELD, DELANTY LANGENFELD, JENNIFER	1203 LEXINGTON RIDGE LN	APEX NC 27502-5345	
LASSITER, ROBERT M SR LASSITER, VANESSA JOHNSON	1011 IRONGATE DR	APEX NC 27502-6506	
LASSITER, ROBERT MCCOY SR	1011 IRONGATE DR	APEX NC 27502-6506	
LINCOLN, ROBERT W LINCOLN, LINDA S	1115 LEXINGTON FARM RD	APEX NC 27502-5306	
MARROW, LAWRENCE MARROW, EDNA MAE	1222 SHACKLETON RD	APEX NC 27502-5317	
MCLEAN, DAWN MARIE	1221 SHACKLETON RD	APEX NC 27502-5318	
MILLER, STEPHEN J MILLER, ANGELA J	PO BOX 532	APEX NC 27502-0532	
MORRISON, CHERIE REPONZO WILLIAMS, CLINTON M	1113 LEXINGTON FARM RD	APEX NC 27502-5306	
MURRAY, DAVID O	1212 LEXINGTON FARM RD	APEX NC 27502-5307	
MYERS, CHRISTOPHER G GREENLEAF, MICHELLE R	1211 LEXINGTON FARM RD	APEX NC 27502-5308	
PARIKH, TANMAY SHAH, BHURNI	2133 BLUFF OAK DR	CARY NC 27519-0105	
PEAKWAY DEVELOPMENT LLC	PO BOX 1798	APEX NC 27502-2798	
PERKINS, JOSEPH E PERKINS, SANDRA A	PO BOX 702	APEX NC 27502-0702	
PERKINS, JOSEPH E PERKINS, SANDRA M	PO BOX 702	APEX NC 27502-0702	
PERKINS, JOSEPH EDWARD	PO BOX 702	APEX NC 27502-0702	
PERKINS, JOSEPH EDWARD PERKINS, SANDRA A	PO BOX 702	APEX NC 27502-0702	
PRESSLEY, JORDAN MARK CO-TRUSTEES PRESSLEY, ASHLEY MCNEILL CO-TRUSTEES	1205 LEXINGTON RIDGE LN	APEX NC 27502-5345	
QUINCE, PRISCILLA STELLO	1214 LEXINGTON FARM RD	APEX NC 27502-5307	
RAVAL, DEEPA J	1300 SHACKLETON RD	APEX NC 27502-5309	
ROBINETTE, ELIZABETH ROGERS	365 ANTERBURY DR	APEX NC 27502-4713	
RXR LEN APEX OWNER LLC	GENERAL COUNSEL	625 RXR PLZ	UNIONDALE NY 11556-3815
SEYMOUR FARM PROPERTIES LLC	PO BOX 177	APEX NC 27502-0177	
SPENCER, SHEILA KILPATRICK	1213 CANTERBURY BROOK LN	APEX NC 27502-5346	
STUART, NORMA J	1038 IRONGATE DR	APEX NC 27502-6505	
SURE & STEADFAST PROP LTD PTNRP	2201 CANDUN DR STE 103	APEX NC 27523-6413	
THORSON, MARY JEAN	1202 LEXINGTON FARM RD	APEX NC 27502-5307	
UNITED DEVELOPMENT ORGANIZATION LLC	SIMON NATH	677 ALLEN AVE	PORTLAND ME 04103-3705
UNLIMITED RELOAD LLC	216 WALNUT AVE # B	CHARLOTTE NC 28208-4427	
VALERI, MICHAEL ANTHONY DISCEPOLI, SARAH DANIELLE	1200 LEXINGTON FARM RD	APEX NC 27502-5307	
VILLAGE AT BROADSTONE STATION I LLC JHG VBS I LLC	5550 TOPANGA CANYON BLVD STE 350	WOODLAND HILLS CA 91367-7454	
WILSON, JASON	1213 LEXINGTON FARM RD	APEX NC 27502-5308	
Current Tenant	351 Anterbury DR	APEX NC 27502	
Current Tenant	357 Anterbury DR	APEX NC 27502	
Current Tenant	361 Anterbury DR	APEX NC 27502	
Current Tenant	3403 Apex PEWY	APEX NC 27502	
Current Tenant	3405 Apex PEWY	APEX NC 27502	
Current Tenant	3407 Apex PEWY	APEX NC 27502	
Current Tenant	3409 Apex PEWY	APEX NC 27502	
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Current Tenant	5250 Broadstone WAY	APEX NC 27502
Current Tenant	5260 Broadstone WAY	APEX NC 27502
Current Tenant	5270 Broadstone WAY	APEX NC 27502
Current Tenant	5280 Broadstone WAY	APEX NC 27502
Current Tenant	5310 Broadstone WAY	APEX NC 27502
Current Tenant	5320 Broadstone WAY	APEX NC 27502

Current Tenant	5330 Broadstone WAY	APEX NC 27502
Current Tenant	5340 Broadstone WAY	APEX NC 27502
Current Tenant	5350 Broadstone WAY	APEX NC 27502
Current Tenant	5360 Broadstone WAY	APEX NC 27502
Current Tenant	5370 Broadstone WAY	APEX NC 27502
Current Tenant	5380 Broadstone WAY	APEX NC 27502
Current Tenant	6000 Broadstone WAY	APEX NC 27502
Current Tenant	6110 Broadstone WAY	APEX NC 27502
Current Tenant	6120 Broadstone WAY	APEX NC 27502
Current Tenant	6130 Broadstone WAY	APEX NC 27502
Current Tenant	6140 Broadstone WAY	APEX NC 27502
Current Tenant	6150 Broadstone WAY	APEX NC 27502
Current Tenant	6160 Broadstone WAY	APEX NC 27502
Current Tenant	6170 Broadstone WAY	APEX NC 27502
Current Tenant	6180 Broadstone WAY	APEX NC 27502
Current Tenant	6210 Broadstone WAY	APEX NC 27502
Current Tenant	6220 Broadstone WAY	APEX NC 27502
Current Tenant	6230 Broadstone WAY	APEX NC 27502
Current Tenant	6240 Broadstone WAY	APEX NC 27502
Current Tenant	6250 Broadstone WAY	APEX NC 27502
Current Tenant	6260 Broadstone WAY	APEX NC 27502
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Current Tenant	6280 Broadstone WAY	APEX NC 27502
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Current Tenant	6360 Broadstone WAY	APEX NC 27502
Current Tenant	6370 Broadstone WAY	APEX NC 27502
Current Tenant	6380 Broadstone WAY	APEX NC 27502
Current Tenant	8000 Broadstone WAY	APEX NC 27502
Current Tenant	8110 Broadstone WAY	APEX NC 27502
Current Tenant	8120 Broadstone WAY	APEX NC 27502
Current Tenant	8130 Broadstone WAY	APEX NC 27502
Current Tenant	8140 Broadstone WAY	APEX NC 27502
Current Tenant	8150 Broadstone WAY	APEX NC 27502
Current Tenant	8160 Broadstone WAY	APEX NC 27502
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Current Tenant	8350 Broadstone WAY	APEX NC 27502
Current Tenant	8360 Broadstone WAY	APEX NC 27502
Current Tenant	8370 Broadstone WAY	APEX NC 27502
Current Tenant	8380 Broadstone WAY	APEX NC 27502
Current Tenant	9000 Broadstone WAY	APEX NC 27502
Current Tenant	9110 Broadstone WAY	APEX NC 27502
Current Tenant	9120 Broadstone WAY	APEX NC 27502
Current Tenant	9130 Broadstone WAY	APEX NC 27502
Current Tenant	9140 Broadstone WAY	APEX NC 27502
Current Tenant	9150 Broadstone WAY	APEX NC 27502
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Current Tenant	9210 Broadstone WAY	APEX NC 27502
Current Tenant	9220 Broadstone WAY	APEX NC 27502
Current Tenant	9230 Broadstone WAY	APEX NC 27502
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Current Tenant	9270 Broadstone WAY	APEX NC 27502
Current Tenant	9280 Broadstone WAY	APEX NC 27502
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Current Tenant	9320 Broadstone WAY	APEX NC 27502
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Current Tenant	9340 Broadstone WAY	APEX NC 27502

Current Tenant	9350 Broadstone WAY	APEX NC 27502
Current Tenant	9360 Broadstone WAY	APEX NC 27502
Current Tenant	9370 Broadstone WAY	APEX NC 27502
Current Tenant	9380 Broadstone WAY	APEX NC 27502
Current Tenant	1027 Irongate DR	APEX NC 27502
Current Tenant	1208 Lexington Farm RD	APEX NC 27502
Current Tenant	1204 Lexington Ridge LN	APEX NC 27502
Current Tenant	3004 River CIR	APEX NC 27502

APEX ENVIRONMENTAL ADVISORY BOARD
Suggested Zoning Conditions

Project Name: Hopson Gateway 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 _____% 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 _____ 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:

Hopson Gateway 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 500 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 September 25, 2025 (date) from 5:30PM (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.

9/29/25
Date

By: _____

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Lynn Sullivan, a Notary Public for the above State and County, on this the 29th day of September, 2025.

SEAL
LYNN SULLIVAN
NOTARY PUBLIC
WAKE COUNTY, NC

_____
Notary Public

Lynn Sullivan.
Print Name

My Commission Expires: 11/16/2027

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: September 25, 2025 Time of meeting: 5:30 PM

Property Owner(s) name(s): SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP; TOWN OF APEX

Applicant(s): ACRE MANAGER, LLC; TOWN OF APEX

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.	Jennifer Langenfeld	1203 Lexington Ridge Ln, Apex, NC 27502	not provided	[redacted]	☐
2.	Jimmy King	PO Box 1798, Apex, NC 27502	not provided		☐
3.	Joseph Perkins Jr.	3004 River Cir, Apex, NC 27502	not provided		☐
4.	Tim Doty	1209 Lexington Farm Rd, Apex, NC 27502	not provided		☐
5.	Chris Myers	1211 Lexington Farm Rd, Apex, NC 27502	not provided		☐
6.	John Cooley	1203 Lexington Farm Rd, Apex, NC 27502	not provided		☐
7.	Priscilla Quince	1214 Lexington Farm Rd, Apex, NC 27502	not provided		☐
8.	Mike Stanton	1204 Dunn Ridge Ln, Apex, NC 27502	not provided		☐
9.	Anita Hynus	1114 Lexington Farm Rd, Apex, NC 27502	not provided		☐
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): SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP; TOWN OF APEX

Applicant(s): ACRE MANAGER, LLC; TOWN OF APEX

Contact information (email/phone): c/o Matthew J. Carpenter; MatthewCarpenter@parkerpoe.com; 919-835-4032

Meeting Address: virtual via Zoom

Date of meeting: September 25, 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 Second Neighborhood Meeting
Hopson Gateway PUD
September 25, 2025

I. WELCOME
   a. Introduction of development team
      i. Matthew Carpenter w/ Parker Poe on behalf of ACRE Management, the developer
      ii. Jeff Roach w/ Peak Engineering, civil engineer
   b. Explanation of process. This is the second neighborhood meeting for the Hopson Gateway PUD rezoning. We held the first neighborhood meeting in September 2024. At that time, we had not filed the rezoning case, but were gathering feedback as we put together our filing. We did file the rezoning November 1, and over the last 11 months have been working through staff review and several issues related to the development. Now, we are close to Planning Board and Town Council public hearings, so the purpose of tonight's meeting is to update you on our progress. Since it's been a while and some folks may have not been at the first neighborhood meeting, I'll provide an overview of the project and then we'll be happy to answer any questions.

II. PRESENTATION
   a. Site Overview - location, existing uses adjacent, and surrounding development in progress.
   b. Current Zoning - Rural Residential (RR) and Light Industrial Conditional (LI-CZ)
   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 two designations, Office Employment (area shown in blue) and Office Employment/Industrial Employment (cross hatched blue/purple area).
      iii. When we start the rezoning process, we consider the LUM designations and what type of development is appropriate here. Since COVID, the office market faces significant challenges, and it's unlikely that this property can support office on the entire tract.
   d. PUD Plan
      i. This slide shows our current PUD Concept Plan. This project includes a land exchange between the developer and the Town of Apex to create more developable sites on each side of the future realigned Perry Road.
      ii. After the land exchange, the Town will own the east side of Perry Road shown in blue and ACRE will own the west side of Perry Road shown in yellow, orange, and red.
      iii. East of Perry Road (area shown in blue) will be rezoned to Light Industrial and used by the Town for a public works site. This site offers the Town the opportunity to build a new public works headquarters and concentrate operations to improve overall efficiency.
      iv. West of Perry Road is the Hopson Gateway PUD which includes several districts. The area shown in yellow permits up to 220 townhomes and single-family homes. The area in orange permits up to 400 multi-family

and/or townhome units. The area in red allows small scale neighborhood commercial uses.

v. As part of the project, the developer will be constructing the full Perry Road extension and the future collector street at the top of the screen. The future collector street will connect to the Seymour project which is directly adjacent to the west and provide east/west connectivity to Tingen Road.

vi. The project includes 1.2 miles of trails including side paths on Perry Road and the Major Collector and greenways along the stream buffer and US-1.

vii. The PUD includes a condition that 20% of the apartment units will be affordable units at 80% AMI for a period of 30 years.

e. Current and Proposed Land Use Map Designations

i. The current LUM designations are Office Employment and Office Employment/Industrial Employment. If the rezoning is approved, it will update the LUM designations as shown on the right side of the screen. Our PUD will be Medium/High Density Residential and the Town's property will be Office Employment/Industrial Employment.

f. Transportation Plan Amendment

i. We're also proposing an amendment to the Town's long range Transportation Plan. The plan shows a Major Collector street crossing our property from east to west. We're proposing to shift the road slightly north to leave more developable area south of the street. We're also looking at other options with Town staff, and the location of the new road could shift.

g. Rezoning Process and Timeline

i. We are resubmitting the case October 3 and hope to go to Planning Board and Town Council public hearings in October/November.

III. QUESTION AND ANSWER

a. ***I live in the Lexington Subdivision. Our major concern is the traffic flow through our neighborhood. Hoping that some items to deter drivers from making Lexington as a shortcut/bypass. Concern for children and residents that play and walk and ride bikes, etc. on our streets. Perhaps speed bumps and other items could help. Shackleton Road doesn't need to be a speedway through Lexington.***

i. We expect the street network will not incentivize drivers to use Shackleton Road to get to Apex Peakway. Perry Road is a more direct connection and will come out at a traffic signal at Perry Road/Apex Peakway to be constructed by this project.

ii. As part of the rezoning, we completed a Traffic Impact Analysis which recommends transportation infrastructure improvements to help mitigate traffic generated by the project. Based on the TIA, the project is extending Perry Road as a four lane divided road, constructing the major collector to provide future connectivity to the west, signalizing the intersection of Apex Peakway/Perry Road, and paying a fee in lieu for future signalization of the Apex Peakway/Tingen Road intersection. The project also includes construction of several dedicated turn lanes to help with future traffic volumes.

iii. The Town's development ordinance requires us to make the connection to Shackleton Road. The Town has to approve traffic calming on Town streets, and those are typically evaluated when requested by residents. We're happy to point you in the right direction if/when you want to reach out to Town staff.

b. Will there be an entrance off US-1 into the development?

i. No. Access for the project will be from Perry Road and the Major Collector. The extension of Perry Road will stub at the south to allow for a future connection to a bridge over US-1 that's shown on the Town's long range Transportation Plan. There are no current plans for the bridge, and it's such a large project, it will likely require funding from the Town and/or the state.

c. What about the wildlife that currently resides in these areas?

i. Over half the site is an open field that has been farmed for many years. As part of our project, we will have to set aside 25% of our site as Resource Conservation Area (RCA) that cannot be developed. During site grading and construction, tree protection fence is installed to protect these areas from grading and construction.

d. What about construction vehicles on Shackleton?

i. Our intent is for construction vehicles to use Perry Road and the Major Collector, and not cut through the Lexington neighborhood. I will pass this on to the developer to ensure their contractors monitor construction traffic during the development process. There are also several existing utility easements along the rear of the Lexington lots.

e. How many lanes will the Major Collector be? How much space will there be between the collector and the Lexington property lines? Will there be any green space between the collector and the Lexington property lines?

i. The Major Collector street will be a two lane street with bike lanes and sidewalks on each side. The street will have 60 feet of public right of way. Along the north side of the Major Collector right of way, there will be a 20-foot Type B undisturbed buffer.

f. How long is all this construction going to take? This seems pretty advanced where it's not a proposal just an info of what is going to happen already.

i. That may sound like the case because the rezoning process is very involved, and this is a large project, but the rezoning is actually only the first stage of the development process. The rezoning addresses what uses and densities can be developed on the property, but does not approve subdivision, lot, or road designs. If the rezoning is approved, we'll then file a Master Subdivision and/or Site Plan application which will be reviewed by staff and typically requires 6-10 months from filing to approval. After Master Subdivision/Site Plan, we file Construction Drawings which take another 6 months or so for approval. Only after construction drawings are approved can we pull building permits. So, with that timeline, grading and construction will likely not start until 2027 at the earliest.

g. We live in the Iron Gate subdivision that will be bordering the new Grace Christian site. Will there be any construction of the greenway across US-1 where the future children's hospital will be constructed?

i. Our project will construct greenway trails along the stream buffer on site and US-1. The Town's long range pedestrian plan envisions future connectivity west across the Grace Christian School site and across a future Perry Road bridge over US-1. Typically, each project builds the portion of greenway shown over its property on the master plan, so as more sites develop, pedestrian connectivity in the area improves.

h. What types of homes will be in the yellow mixed residential district? Which way will the homes face?

i. In the yellow district, the proposed PUD permits up to 220 total units and allows townhomes and single-family homes. Although the PUD allows flexibility, the current plan is for the entire area in yellow to be townhomes. The exact layout has not been designed, but our current expectation is that the townhomes will back up to the Major Collector street.

i. Any plans for Tingen Road to be widened due to this development?

i. This development is not widening Tingen Road, however, the approved Seymour PUD - a separate rezoning approval - includes a condition that Tingen Road be widened to the full section shown on the Town's Transportation Plan. The Seymour site has frontage on both sides of Tingen Road, so if/when that property develops, the developer will complete the full Tingen Road section. The Seymour PUD also includes a condition that the project will install a traffic signal at the Tingen Road/Apex Peakway intersection.

j. What will the speed limit be on the collector road? Will there be a fence or other barrier between the road and the Lexington property?

i. The Town and/or NCDOT will set the speed limit of the road once it's constructed. We don't know for sure yet, but it will likely be 35 mph.

k. Any impact studies as to what this will do to property values?

i. No, we have not done any appraisals or appraisal reports as part of this rezoning. However, generally speaking, property values in this area of Apex have risen in recent years. Also, note that the Town's Land Use Map shows this property as office and industrial, so any current appraisals should take that into account regardless of our rezoning. We believe the proposed residential uses are a better fit adjacent to existing neighborhoods than the office and industrial uses shown on the LUM.

l. How will this all be sewered and what are the plans?

i. The plans are to extend sewer from the south which will take collaboration between the developer of this project and several other developers in the area.

m. How tall are the homes? A 3-story townhome will be looking down at lots that back up to the new subdivision.

i. The maximum height for townhomes and single-family homes is 3 stories/45 feet. Many of the homes in Lexington are 2+ stories tall. Keep in mind, with the proposed Major Collector location, Lexington lots will be separated from the proposed lots by a 20-foot buffer on the north side, then a 60-foot public right of way and another buffer on the south side. Additionally, the topo falls southwest from the rear of Lexington lots. We will attempt to work with existing grade to the greatest extent possible,

meaning some of the homes will have lower elevations than the homes in Lexington.

n. Is the only entrance on Perry Road?

i. No, we will also have an entrance on the new Major Collector street. There will also be internal streets that are not shown on this plan that will be designed at Master Subdivision/Site Plan.

o. Will the mixed residential area be lowered or raised or set at current grade?

i. We will try to work with existing grade as much as possible. The topo falls from the back of the Lexington lots onto our site to the southwest, so the yellow area will likely be lower than existing Lexington lots.

p. Will the sewer solution you discussed also include the Town's portion of this overall development?

i. No, the Town's tract flows to a different pump station.

q. Will the sidewalk and path along the collector terminate or will they be tied into sidewalks/paths to the east and west?

i. They will stub to the adjacent property to the west which, as I mentioned, was rezoned for the Seymour PUD. The Seymour PUD includes a condition that the developer will build the Major Collector from the property line to Tingen Road, including side paths and sidewalks. I believe the Town's long range pedestrian plan shows side paths along the collector street going west then connecting to future side paths on Tingen that connect north to side paths on the Peakway.

r. When this plan is further along and you have the plans for where buildings, etc. will be, will there be a similar type meeting?

i. Yes, we will hold an additional neighborhood meeting before we file our Master Subdivision/Site Plan application, likely early next year.

s. What is the estimated number of new homes in the project?

i. The proposed zoning permits up to 620 units on the property, 220 in the yellow area and 400 in the orange area. The final unit count will be determined at site plan/subdivision when we lay out the lots and account for all constraints (required RCAs, parking, etc.).

t. What are the estimated number of homes that are low income?

i. The affordable housing commitment is for 20% of the apartment units. The PUD requires a minimum of 300 apartment units and permits a maximum of 400 units. So, if 400 apartment units are built, 80 will be affordable housing units at 80% AMI for 30 years. The affordable units will be in the same project and generally indistinguishable from the market rate units.

u. So there will be more apartments and townhomes than single-family dwellings?

i. Yes, although the PUD permits single-family homes, our current plans are for an all townhome and multi-family project.

v. Will the townhomes be rentals or owner occupied?

i. Generally, current plans are for the townhomes to be owner occupied, but that decision is not final and the proposed zoning allows either ownership type. In North Carolina, zoning conditions cannot distinguish based on the type of ownership (owned v. rented).

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.

September 11, 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 allow for the development of (1) a mix of housing types (including apartments, townhomes, and single-family homes) and non-residential uses west of Perry Road, and (2) the development of office/industrial uses east of Perry Road.

Estimated submittal date: submitted November 1, 2024

MEETING INFORMATION:

Property Owner(s) name(s):	See attached Exhibit A
Applicant(s):	ACRE Manager, 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**:	September 25, 2025

Welcome: 5:30 PM Project Presentation: between 5:30 - 6:30 PM Question & Answer: between 5:30 - 6:30 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: September 11, 2025

Re: Notice of Second Virtual Neighborhood Meeting

You are invited to attend a virtual neighborhood meeting on September 25, 2025 at 5:30 PM to discuss Rezoning Case #24CZ20, the requested rezoning of 0 Tingen Road (PIN 0741331566), 0 Perry Road (PIN 0741427922), and 1341 Perry Road (PIN 0741326706) from Residential Agricultural (RA) and Light Industrial Conditional Zoning (LI-CZ) to Planned Unit Development Conditional Zoning (PUD-CZ) and Light Industrial Conditional Zoning (LI-CZ) generally as shown on the attached Concept Plan.

The purpose of the rezoning is to allow development of a mix of residential and non-residential uses west of the future Perry Road extension and a new Town of Apex public works facility east of the future Perry Road extension. During the meeting, the applicant will describe the nature of the rezoning request, provide updates since the first neighborhood meeting, and field any questions from the public. Enclosed are: (1) a vicinity map; (2) a current zoning map; (3) an updated PUD concept plan; (4) a Land Use Map exhibit; (5) a Thoroughfare and Collector Street Plan amendment exhibit; (6) a project contact information sheet; and (7) 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:	831 4286 9265
Enter the following password:	208737

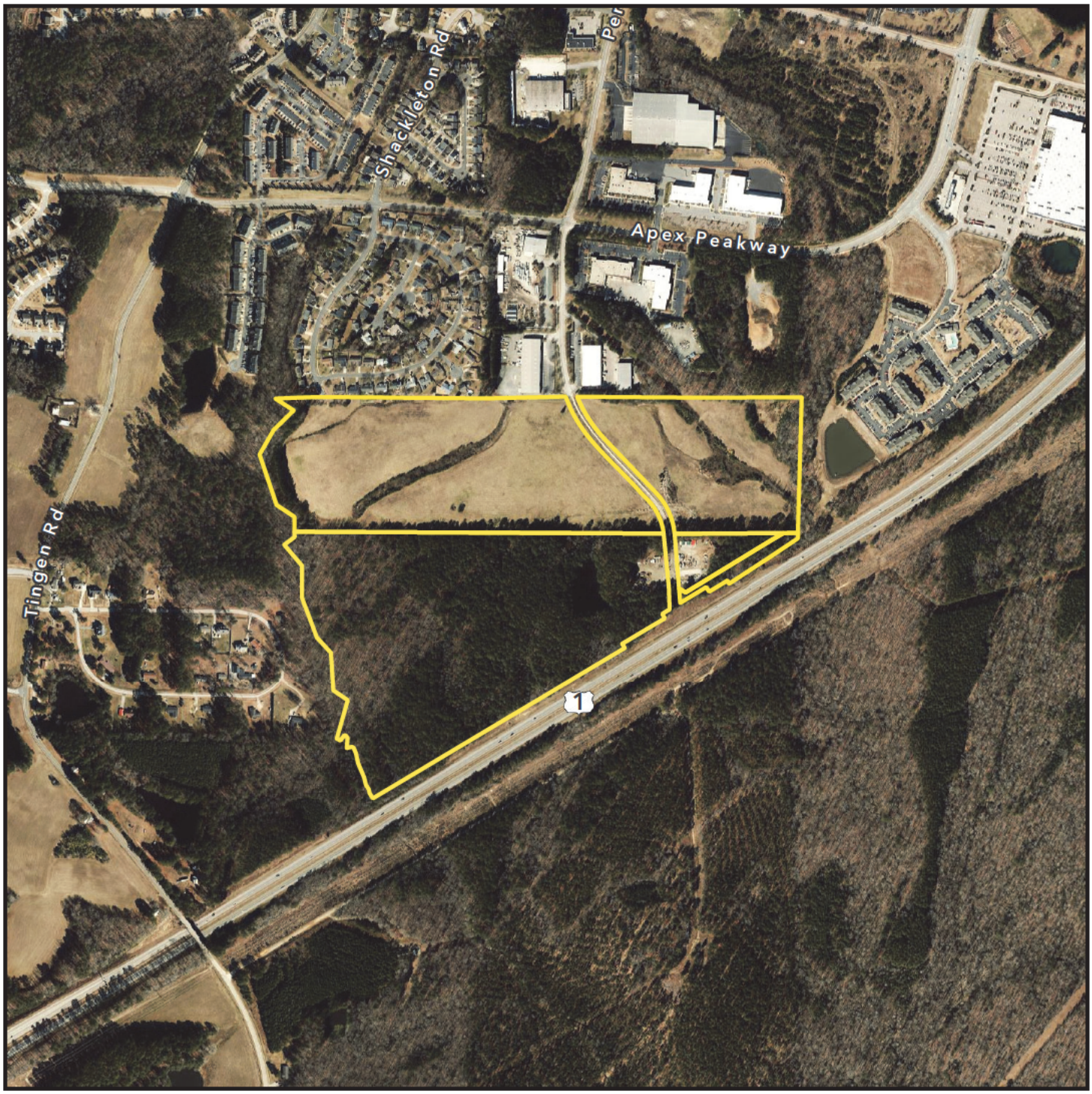
To participate by telephone:

Dial:	1 929 205 6099
Enter the following meeting ID:	831 4286 9265 #
Enter the Participant ID:	#
Enter the Meeting password:	208737 #

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



0 Tingen Road; &
0 & 1341 Perry Road

N

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 Tingen Road; &
0 & 1341 Perry Road

Zoning Map

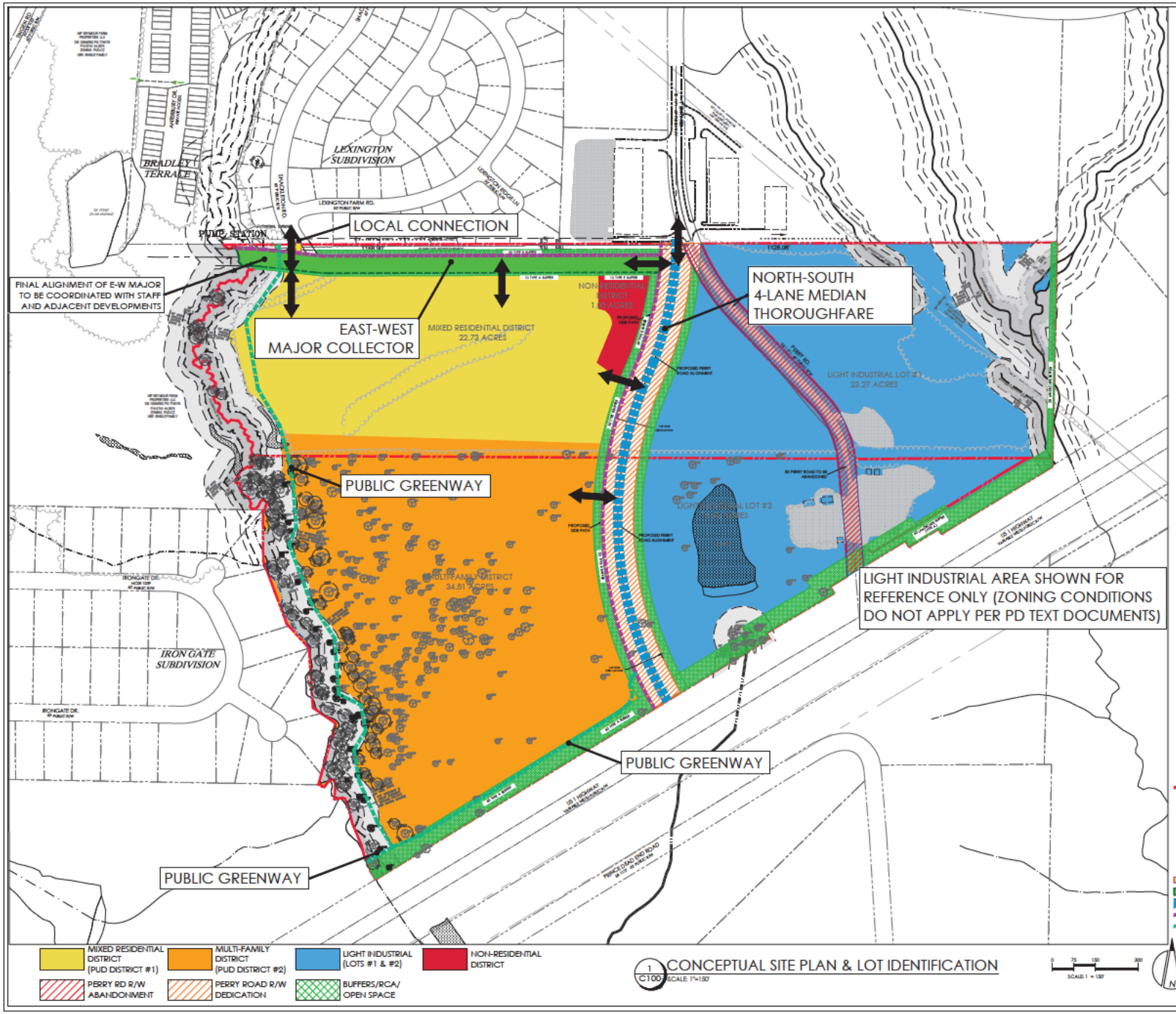
Current Zoning: RA & LI-CZ

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.*



1 C100 CONCEPTUAL SITE PLAN & LOT IDENTIFICATION
SCALE: 1"=150'

SCALE 1" = 150'

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

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, DWR, AND/OR THE TOWN OF APEX.
TOWN OF APEX PROJECT # 23-001
DWR PROJECT # 24-319

EXISTING CONDITIONS NOTES:

1. BOUNDARY SURVEY PROVIDED BY SMITH & SMITH SURVEYORS OF APEX, NC.
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 WITHIN THE BOUNDARY OF THE PROJECT
5. PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN. FINAL LOCATION TO BE COORDINATED WITH STAFF.
6. 100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.
7. PROPERTIES ARE LOCATED WITHIN THE SECONDARY WATERSHED OVERLAY DISTRICT BIG BRANCH CREEK, HARRIS LAKE, CAPE FEAR RIVER BASIN

SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION OR MAJOR/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 OR MAJOR/MINOR SITE PLAN DESIGN AND APPROVAL
3. ALL ZONING PLAN SHEETS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN COMPONENTS ARE DETERMINED AT MASTER SUBDIVISION OR MAJOR/MINOR 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 OR MAJOR/MINOR 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/DS/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 CLOSER 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 (C100) AND CONCEPTUAL UTILITY PLAN (C110) 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 IN THE FIELD AT THE TIME OF MASTER SUBDIVISION PLAN, MINOR SITE PLAN, OR MAJOR SITE PLAN REVIEW AND APPROVAL.

LOCATION OF ACCESS POINTS DEPICTED ARE APPROXIMATE AND SUBJECT TO TOWN OF APEX AND NCDOT APPROVAL AT THE TIME OF SITE PLAN OR SUBDIVISION PLAN APPROVAL

STREAM BUFFERS
PROJECT PERIMETER BOUNDARY
POTENTIAL WATER CONNECTIONS
POTENTIAL SEWER CONNECTIONS
POTENTIAL ACCESS POINTS
LOCAL CONNECTOR
MAJOR COLLECTOR
THOROUGHFARE
PROPOSED SIDE PATH
PUBLIC GREENWAY

PEAK Engineering & Design
1126 Apex Parkway | Apex, NC 27502
ph: 919.439.2150
www.peakengineering.com
NC License #P-0873

project:
HOPSON GATEWAY ZONING
PERRY ROAD @ US 1 HIGHWAY
WHITE OAK TOWNSHIP
APEX, NORTH CAROLINA 27502

seal:
NORTH CAROLINA PRELIMINARY NOT FOR CONSTRUCTION JEFFREY A. ROACH

title:
CONCEPTUAL SITE PLAN & LOT IDENTIFICATION

proj #: 240307
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: *C100*
(PUD PLAN)

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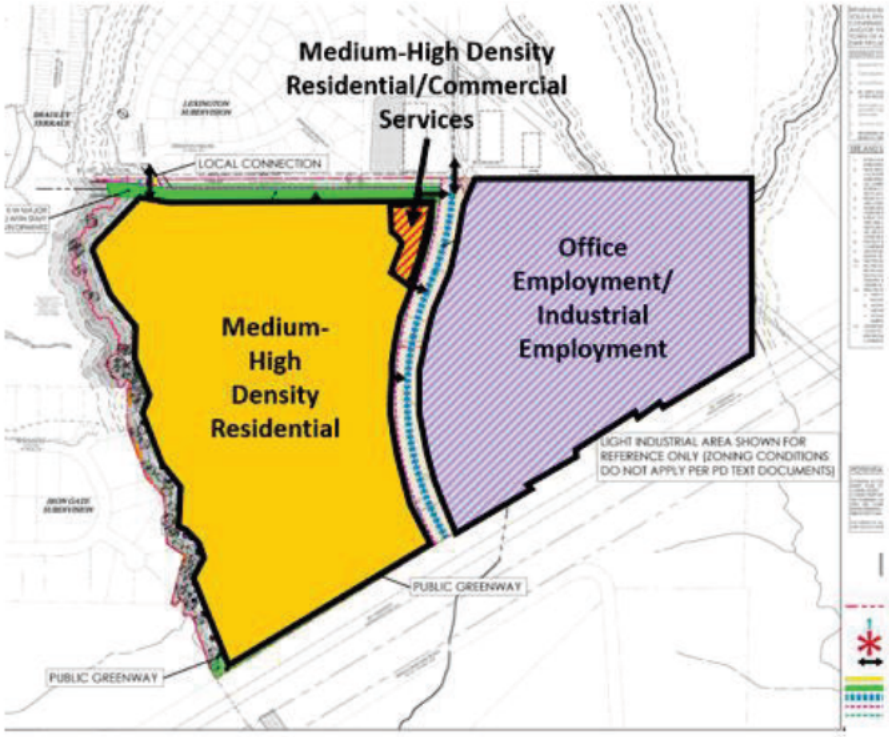
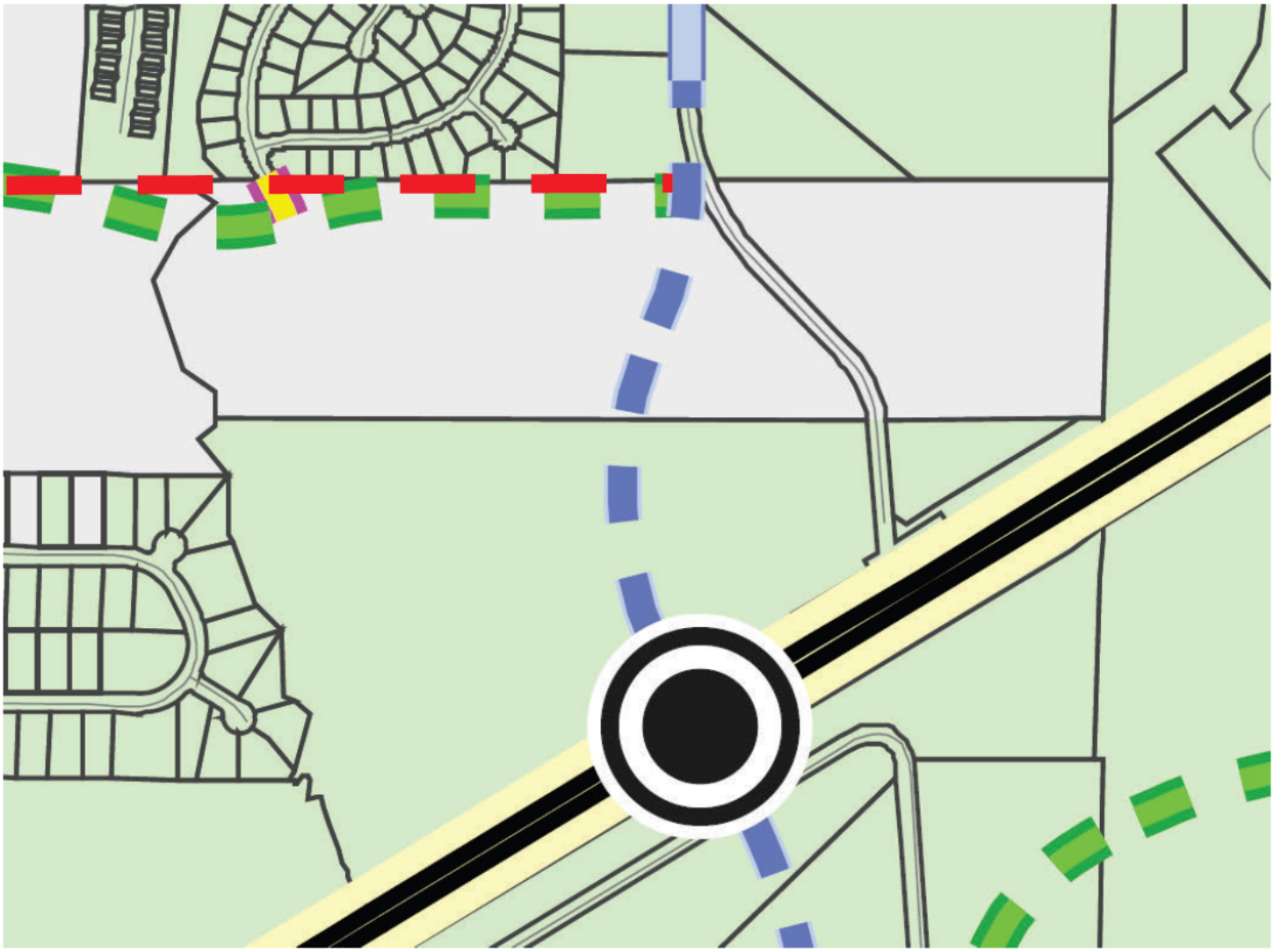
Current Land Use Map Designations

Proposed Land Use Map Designations



Proposed Amendment to Thoroughfare and Collector Street Plan



Current:
Proposed:

***See Concept Plan for more detailed location of future Major Collector street**

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: Hopson Gateway PUD Zoning: RA and LI-CZ

Location: See attached Exhibit A

Property PIN(s): See attached Exhibit A Acreage/Square Feet: +/- 99.34 ac

Property Owner: See attached Exhibit A

Address:

City: State: Zip:

Phone: Email:

Developer: ACRE Manager, LLC c/o Matthew 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): ACRE Manager, LLC c/o Matthew 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
Transportation & Infrastructure Development Russell Dalton, Traffic Engineering Manager	(919) 249-3358
Water Resources Department Jessica Bolin, Environmental Engineering Manager (Stormwater, Sedimentation & Erosion Control) Matt Reker, Utility Engineer/FOG Program Manager (Water & Sewer)	(919) 249-3537 (919) 946-4394
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Exhibit A

Perry Road Mixed-Use PUD

Owner Information Addendum

PIN: 0741331566

Site Address: 0 Tingen Road
Deed Reference (book/page): 8494/1585
Acreage: 48.79 ac
Owner: Sure & Steadfast Properties Limited Partnership
Owner Address: 2201 Candun Drive, Suite 103, Apex, NC 27523-6413

PIN: 0741326706

Site Address: 1341 Perry Road
Deed Reference (book/page): 1736/E
Acreage: 49.48 ac
Owner: Town of Apex
Owner Address: P.O. Box 250, Apex, NC 27502-0250

PIN: 0741427922

Site Address: 0 Perry Road
Deed Reference (book/page): 1736/E
Acreage: 1.07 ac
Owner: Town of Apex
Owner Address: P.O. Box 250, Apex, NC 27502-0250

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 am to 8:30 pm 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-Friday from 8:00 am to 5:00 pm. Report violations of construction hours and other noise complaints to the Non-Emergency Police phone number at 919-362-8661.

Construction Traffic:	**Infrastructure Inspections**	**919-249-3386**

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:	**Infrastructure Inspections**	**919-249-3386**

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 Transportation & Infrastructure Development – Infrastructure Inspections at 919-249-1109. 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:	**Water Resources**	**919-362-8166**

Sediment (dirt) and mud gets into the existing roads due to rain events and/or vehicle traffic. These incidents should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed. Staff will coordinate the cleaning of the roadways with the developer.

Dirt on Properties or in Streams:	**Water Resources**	**919-362-8166**

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 by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed so that staff can coordinate the appropriate repairs with the developer.

Dust:	**Water Resources**	**919-362-8166**

During dry weather dust often becomes a problem blowing into existing neighborhoods or roadways. These incidents should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed so that staff can coordinate the use of water trucks onsite with the grading contractor to help control the dust.

Trash:	**Water Resources**	**919-362-8166**

Excessive garbage and construction debris can blow around on a site or even off of the site. These incidents should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed. Staff will coordinate the cleanup and trash collection with the developer/home builder.

Temporary Sediment Basins:	**Water Resources**	**919-362-8166**

Temporary sediment basins during construction (prior to the conversion to the final stormwater pond) are often quite unattractive. Concerns should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed so that he can coordinate the cleaning and/or mowing of the slopes and bottom of the pond with the developer.

Stormwater Control Measures:	**Water Resources**	**919-362-8166**

Post-construction concerns related to Stormwater Control Measures (typically a stormwater pond) such as conversion and long-term maintenance should be reported by visiting the Report a Concern page at https://www.apexnc.org/1173/ or by calling the number listed.

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.

SITE ADDRESS	PIN NUMBER	OWNER	MAILING ADDRESS	
1215 LEXINGTON FARM RD	0741235998	ACKERMAN, MARK A ACKERMAN, NANCY	1215 LEXINGTON FARM RD	APEX NC 27502-5308
1040 IRONGATE DR	0741129440	ANDERSON, BETTIE J	1026 IRONGATE DR	APEX NC 27502-6505
1341 PERRY RD	0741326706	APEX TOWN OF	PO BOX 250	APEX NC 27502-0250
1202 DUNN RIDGE LN	0741249396	BAI, RE YANG, LIPING	320 EUPHORIA CIR	CARY NC 27519-5547
1110 LEXINGTON FARM RD	0741341493	BATES, ASHLEY	1110 LEXINGTON FARM RD	APEX NC 27502-5305
353 ANTERBURY DR	0741241149	BEATTY, RICHARD ALLAN JR BEATTY, KERRI ANNE	353 ANTERBURY DR	APEX NC 27502-4713
1207 LEXINGTON FARM RD	0741239919	BEDNARZ, STANLEY M BEDNARZ, ELAINE	1207 LEXINGTON FARM RD	APEX NC 27502-5308
1200 PERRY RD	0741346623	BLAND REAL ESTATE HOLDINGS INC	3724 FRIENDSHIP RD	APEX NC 27502-8721
0 ANTERBURY DR	0741240185	BRADLEY TERRACE HOMEOWNERS ASSOCIATION INC	3308 WHITTINGHAM DR	NEW HILL NC 27562-8985
2000 BROADSTONE WAY	0741640123	BROADSTONE APEX NC LP, LIMITED PARTNERSHIP	8149 SANTA MONICA BLVD STE 298	WEST HOLLYWOOD CA 90046-4912
1210 CANTERBURY BROOK LN	0741247410	BYRNE, CATHERINE MARY	1210 CANTERBURY BROOK LN	APEX NC 27502-5346
1212 CANTERBURY BROOK LN	0741246360	CAIN, DEREK L CAIN, TIFFANI L GRIMES	1212 CANTERBURY BROOK LN	APEX NC 27502-5346
1201 LEXINGTON FARM RD	0741341048	CHAN, PAUL KI BUN CHAN, ELAINE FONGKIN	1201 LEXINGTON FARM RD	APEX NC 27502-5308
359 ANTERBURY DR	0741241132	CHMIEL, DAWN	359 ANTERBURY DR	APEX NC 27502-4713
1213 SHACKLETON RD	0741246447	CHUANG, WEIDUNG	222 MACY GRV	CHAPEL HILL NC 27517-9620
1202 LEXINGTON RIDGE LN	0741332908	CLEMENT, KATHERINE I. CLEMENT, ROBERT J.	1202 LEXINGTON RIDGE LN	APEX NC 27502-5345
1021 IRONGATE DR	0741220858	CLINKSCALE, TRACI L	3364 KYLEE DAWN CIR	LAWRENCEVILLE GA 30045-2762
1203 LEXINGTON FARM RD	0741340082	COOLEY, JOHN R COOLEY, VICTORIA J	1203 LEXINGTON FARM RD	APEX NC 27502-5308
339 ANTERBURY DR	0741241375	CORDER, MEGHAN P CORDER, PRESTON D	339 ANTERBURY DR	APEX NC 27502-4713
333 ANTERBURY DR	0741241471	CORLEY, KYLE FRANK CORLEY, HALLEY JOY	333 ANTERBURY DR	APEX NC 27502-4713
1226 SHACKLETON RD	0741243068	CULL, KRISTA M	1226 SHACKLETON RD	APEX NC 27502-5317
354 ANTERBURY DR	0741240211	DEFILIPPO, SOPHIA	354 ANTERBURY DR	APEX NC 27502-4712
341 ANTERBURY DR	0741241363	DEMARCO, SARA E	341 ANTERBURY DR	APEX NC 27502-4713
1215 SHACKLETON RD	0741245490	DEVLIN, ANNMARIE DEVLIN, KEVIN M	210 TENBURY WELLS DR	CARY NC 27518-2416
1209 LEXINGTON FARM RD	0741238938	DOTY, TIMOTHY DOTY, FRANCESCA	1209 LEXINGTON FARM RD	APEX NC 27502-5308
0 PRINCE DEAD END RD	0741217259	EBT FARMS, LLC	472 HENRYS RIDGE RD	PITTSBORO NC 27312-4641
363 ANTERBURY DR	0741241039	ELLIS, MATTHEW H ELLIS, RHONDA E	363 ANTERBURY DR	APEX NC 27502-4713
338 ANTERBURY DR	0741240338	FARAJ, SAM JEANNE TRUSTEE TRUSTEE OF SJF LIVING TRUST	308 KNIGHT AVE	CARY NC 27511-3109
1216 LEXINGTON FARM RD	0741245122	FETZER, MARGARET	1216 LEXINGTON FARM RD	APEX NC 27502-5307
356 ANTERBURY DR	0741240118	GARRY, JO ANN	356 ANTERBURY DR	APEX NC 27502-4712
337 ANTERBURY DR	0741241377	GAUTREAU, TIM	337 ANTERBURY DR	APEX NC 27502-4713
1224 SHACKLETON RD	0741243166	GILBERT, JACQUES K GILBERT, MESHARA M	1224 SHACKLETON RD	APEX NC 27502-5317
1206 LEXINGTON FARM RD	0741249125	GONZALEZ, ABRAHAM GONZALEZ, DIANA NICOLE	1206 LEXINGTON FARM RD	APEX NC 27502-5307
1220 PERRY RD	0741346113	GORE LINE PROPERTIES LLC	PO BOX 1118	GARNER NC 27529-1118
0 VERIDEA PKWY	0741119629	GREATER RALEIGH AREA CHRISTIAN EDUCATION INC	1101 BUCK JONES RD	RALEIGH NC 27606-3324
1037 IRONGATE DR	0741221133	GREENE, SHARON F	1037 IRONGATE DR	APEX NC 27502-6506
1209 CANTERBURY BROOK LN	0741249310	HICKMAN, JEFFREY L HICKMAN, JENICE J	1209 CANTERBURY BROOK LN	APEX NC 27502-5346
1205 LEXINGTON FARM RD	0741340000	HITCH, THOMAS REEVES HITCH, PATRICIA CARNEY	1205 LEXINGTON FARM RD	APEX NC 27502-5308
1019 IRONGATE DR	0741129847	HOLLAND, FLORA ANN	708 WALNUT WOODS DR	MORRISVILLE NC 27560-6792
1114 LEXINGTON FARM RD	0741341218	HYNUS, ANITA E	1114 LEXINGTON FARM RD	APEX NC 27502-5305
1111 LEXINGTON FARM RD	0741343363	JONES, MINNIE BARNES TRUSTEE MINNIE BARNES JONES REVOCABLE TRUST	113 WINTERVIEW PL	APEX NC 27539-6245
1204 LEXINGTON RIDGE LN	0741333918	JONES, W GREGG TRUSTEE JONES, DOROTHY G TRUSTEE	5081 BARRINGTON FARMS DR	AIKEN SC 29803-9749
1211 CANTERBURY BROOK LN	0741248245	KANE, MICHAEL J KANE, DENISE M	1211 CANTERBURY BROOK LN	APEX NC 27502-5346
350 ANTERBURY DR	0741240215	KASINATHAN, ARULCHELVAN KRISHNAN, ARCHANA MOHAN	350 ANTERBURY DR	APEX NC 27502-4712
1210 LEXINGTON FARM RD	0741247164	KENNEDY, ANGELA HUDSON HUDSON, DONALD E SR	1210 LEXINGTON FARM RD	APEX NC 27502-5307
1229 PERRY RD	0741440140	KING INVESTMENT PROPERTIES LLC MARKHAM, KENNETH MILES	PO BOX 1798	APEX NC 27502-2798
346 ANTERBURY DR	0741240229	KINSEY, CYNTHIA D DAWSON, RALPH E	346 ANTERBURY DR	APEX NC 27502-4712
2990 BROADSTONE WAY	0741534819	KRG PEAKWAY AT 55 LLC	KITE REALTY GROUP	30 S MERIDIAN ST STE 100 INDIANAPOLIS IN 46204-3510
1203 LEXINGTON RIDGE LN	0741343124	LANGENFELD, DELANTY LANGENFELD, JENNIFER	1203 LEXINGTON RIDGE LN	APEX NC 27502-5345
1017 IRONGATE DR	0741128837	LASSITER, ROBERT M SR LASSITER, VANESSA JOHNSON	1011 IRONGATE DR	APEX NC 27502-6506
1027 IRONGATE DR	0741223721	LASSITER, ROBERT MCCOY SR	1011 IRONGATE DR	APEX NC 27502-6506
348 ANTERBURY DR	0741240227	LE, TRI-TIN PHAM LE, YEN LUU	PO BOX 684	HOLLY SPRINGS NC 27540-0684
343 ANTERBURY DR	0741241269	LI, PING-AN ANDY QINGPING, HE	102 AMIABLE LOOP	CARY NC 27519-5566
1115 LEXINGTON FARM RD	0741342240	LINCOLN, ROBERT W LINCOLN, LINDA S	1115 LEXINGTON FARM RD	APEX NC 27502-5306
342 ANTERBURY DR	0741240323	LIU, DAOHUA LIU, KANGMIN	342 ANTERBURY DR	APEX NC 27502-4712
1222 SHACKLETON RD	0741243273	MARROW, LAWRENCE MARROW, EDNA MAE	1222 SHACKLETON RD	APEX NC 27502-5317
352 ANTERBURY DR	0741240213	MCDANIELS, JERRY	352 ANTERBURY DR	APEX NC 27502-4712
1221 SHACKLETON RD	0741245233	MCLEAN, DAWN I	1221 SHACKLETON RD	APEX NC 27502-5318
1112 LEXINGTON FARM RD	0741341375	MEADOR, HENRY T MEADOR, SUSAN WEBB	1112 LEXINGTON FARM RD	APEX NC 27502-5305
1220 SHACKLETON RD	0741243391	MORGAN, JASON LLOYD MORGAN, SUSAN ANN	1220 SHACKLETON RD	APEX NC 27502-5317
1113 LEXINGTON FARM RD	0741343244	MORRISON, CHERIE REPONZO WILLIAMS, CLINTON M	1113 LEXINGTON FARM RD	APEX NC 27502-5306
1212 LEXINGTON FARM RD	0741246183	MURRAY, DAVID O	1212 LEXINGTON FARM RD	APEX NC 27502-5307
1211 LEXINGTON FARM RD	0741237958	MYERS, CHRISTOPHER G GREENLEAF, MICHELLE R	1211 LEXINGTON FARM RD	APEX NC 27502-5308
1218 SHACKLETON RD	0741244410	NASEEM, NAGEH GUIRGUIS, HANNA	1218 SHACKLETON RD	APEX NC 27502-5317
335 ANTERBURY DR	0741241379	NAVARRO, ALICIA R	335 ANTERBURY DR	APEX NC 27502-4713
351 ANTERBURY DR	0741241251	PARIKH, TANMAY SHAH, BHURNI	2133 BLUFF OAK DR	CARY NC 27519-0105
3453 APEX PEAKWAY	0741445499	PEAKWAY DEVELOPMENT LLC	PO BOX 1798	APEX NC 27502-2798
3005 RIVER CIR	0741224339	PERKINS, JOSEPH E PERKINS, SANDRA A	3004 RIVER CIR	APEX NC 27502-3781
3004 RIVER CIR	0741223182	PERKINS, JOSEPH E PERKINS, SANDRA M	3004 RIVER CIR	APEX NC 27502-3781
3006 RIVER CIR	0741222186	PERKINS, JOSEPH EDWARD	3004 RIVER CIR	APEX NC 27502-3781
3002 RIVER CIR	0741225009	PERKINS, JOSEPH EDWARD PERKINS, SANDRA A	3004 RIVER CIR	APEX NC 27502-3781
1205 LEXINGTON RIDGE LN	0741343076	PRESSLEY, JORDAN MARK CO-TRUSTEES PRESSLEY, ASHLEY MCNEILL CO-TRUSTEES	1205 LEXINGTON RIDGE LN	APEX NC 27502-5345
1214 LEXINGTON FARM RD	0741246113	QUINCE, PRISCILLA STELLO	1214 LEXINGTON FARM RD	APEX NC 27502-5307
340 ANTERBURY DR	0741240336	RADKE, JEAN MARIE	340 ANTERBURY DR	APEX NC 27502-4712
1216 SHACKLETON RD	0741244447	RAHN, JASON L RAHN, DIANE I	1216 SHACKLETON RD	APEX NC 27502-5317
1208 CANTERBURY BROOK LN	0741247475	RATCLIFFE, JANNEKE RATCLIFFE, JOHN	74 BYNUM HL	PITTSBORO NC 27312-9512
1300 SHACKLETON RD	0741233998	RAVAL, DEEPA J	1300 SHACKLETON RD	APEX NC 27502-5309
1200 LEXINGTON FARM RD	0741340263	RICK, MITCHELL S RICK, SARAH H	1200 LEXINGTON FARM RD	APEX NC 27502-5307
1022 IRONGATE DR	0741220651	RICKS, GAIL A	1022 IRONGATE DR	APEX NC 27502-6505
1109 LEXINGTON FARM RD	0741343472	RIVERA, JUAN BALTAZAR RIVERA, BALTAZAR	1109 LEXINGTON FARM RD	APEX NC 27502-5306
349 ANTERBURY DR	0741241253	ROBERT, DEBRA MITCHELL, STEVEN J	349 ANTERBURY DR	APEX NC 27502-4713
365 ANTERBURY DR	0741241036	ROBINETTE, ELIZABETH ROGERS	365 ANTERBURY DR	APEX NC 27502-4713
0 US 1 HWY	0741614057	RXR LEN APEX OWNER LLC	GENERAL COUNSEL	625 RXR PLZ UNIONDALE NY 11556-3815
345 ANTERBURY DR	0741241267	SCALES, JOSEPH TYLER SCALES, SARAH PUCKETT	345 ANTERBURY DR	APEX NC 27502-4713
0 TINGEN RD	0741142574	SEYMOUR FARM PROPERTIES LLC	PO BOX 177	APEX NC 27502-0177
1213 CANTERBURY BROOK LN	0741247224	SPENCER, SHEILA KILPATRICK	1213 CANTERBURY BROOK LN	APEX NC 27502-5346
1020 IRONGATE DR	0741129650	SPULLER, RICHARD E SPULLER, ALISON B	1020 IRONGATE DR	APEX NC 27502-6505
1204 DUNN RIDGE LN	0741340461	STANTON, RUSSELL L STANTON, JOAN E	1204 DUNN RIDGE LN	APEX NC 27502-5347
1038 IRONGATE DR	0741220461	STUART, NORMA J	1038 IRONGATE DR	APEX NC 27502-6505
0 TINGEN RD	0741331566	SURE & STEADFAST PROP LTD PTNRP	2201 CANDUN DR STE 103	APEX NC 27523-6413
1202 LEXINGTON FARM RD	0741340108	THORSON, MARY JEAN	1202 LEXINGTON FARM RD	APEX NC 27502-5307
1208 LEXINGTON FARM RD	0741248144	TRICKEL, ROBERT TRICKEL, JAQUELINE	1208 LEXINGTON FARM RD	APEX NC 27502-5307
357 ANTERBURY DR	0741241145	UNITED DEVELOPMENT ORGANIZATION LLC	SIMON NATH	677 ALLEN AVE PORTLAND ME 04103-3705
361 ANTERBURY DR	0741241130	UNLIMITED RELOAD LLC	216 WALNUT AVE # B	CHARLOTTE NC 28208-4427
1213 LEXINGTON FARM RD	0741236978	WILSON, JASON	1213 LEXINGTON FARM RD	APEX NC 27502-5308
1217 SHACKLETON RD	0741245352	WINBERRY, WILLIAM THOMAS JR	1502 LAUGHRIDGE DR	CARY NC 27511-5218
1207 CANTERBURY BROOK LN	0741249411	XU, QIUHUA XU, LI LI	1004 PUEBLO RIDGE PL	CARY NC 27519-0823
347 ANTERBURY DR	0741241255	ZUK, VICTORIA JANELLE	347 ANTERBURY DR	APEX NC 27502-4713
		Current Tenant	338 Anterbury DR	APEX NC 27502
		Current Tenant	343 Anterbury DR	APEX NC 27502
		Current Tenant	348 Anterbury DR	APEX NC 27502
		Current Tenant	351 Anterbury DR	APEX NC 27502
		Current Tenant	357 Anterbury DR	APEX NC 27502
		Current Tenant	361 Anterbury DR	APEX NC 27502
		Current Tenant	3403 Apex PEAKWAY	APEX NC 27502
		Current Tenant	3405 Apex PEAKWAY	APEX NC 27502

Current Tenant	3407 Apex PEAKWAY	APEX NC 27502
Current Tenant	3409 Apex PEAKWAY	APEX NC 27502
Current Tenant	3411 Apex PEAKWAY	APEX NC 27502
Current Tenant	3413 Apex PEAKWAY	APEX NC 27502
Current Tenant	3415 Apex PEAKWAY	APEX NC 27502
Current Tenant	3417 Apex PEAKWAY	APEX NC 27502
Current Tenant	3419 Apex PEAKWAY	APEX NC 27502
Current Tenant	3421 Apex PEAKWAY	APEX NC 27502
Current Tenant	3423 Apex PEAKWAY	APEX NC 27502
Current Tenant	3451 Apex PEAKWAY	APEX NC 27502
Current Tenant	1000 Broadstone WAY	APEX NC 27502
Current Tenant	10000 Broadstone WAY	APEX NC 27502
Current Tenant	10110 Broadstone WAY	APEX NC 27502
Current Tenant	10120 Broadstone WAY	APEX NC 27502
Current Tenant	10130 Broadstone WAY	APEX NC 27502
Current Tenant	10140 Broadstone WAY	APEX NC 27502
Current Tenant	10210 Broadstone WAY	APEX NC 27502
Current Tenant	10220 Broadstone WAY	APEX NC 27502
Current Tenant	10230 Broadstone WAY	APEX NC 27502
Current Tenant	10240 Broadstone WAY	APEX NC 27502
Current Tenant	10310 Broadstone WAY	APEX NC 27502
Current Tenant	10320 Broadstone WAY	APEX NC 27502
Current Tenant	10330 Broadstone WAY	APEX NC 27502
Current Tenant	10340 Broadstone WAY	APEX NC 27502
Current Tenant	11000 Broadstone WAY	APEX NC 27502
Current Tenant	11110 Broadstone WAY	APEX NC 27502
Current Tenant	11120 Broadstone WAY	APEX NC 27502
Current Tenant	11130 Broadstone WAY	APEX NC 27502
Current Tenant	11140 Broadstone WAY	APEX NC 27502
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Current Tenant	1207 Canterbury Brook LN	APEX NC 27502
Current Tenant	1208 Canterbury Brook LN	APEX NC 27502
Current Tenant	1202 Dunn Ridge LN	APEX NC 27502
Current Tenant	1027 Irongate DR	APEX NC 27502
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Current Tenant	1111 Lexington Farm RD	APEX NC 27502
Current Tenant	1204 Lexington Ridge LN	APEX NC 27502
Current Tenant	1200 Perry RD	APEX NC 27502
Current Tenant	1220 Perry RD	APEX NC 27502
Current Tenant	1229 Perry RD Suite 101	APEX NC 27502
Current Tenant	1229 Perry RD Suite 102	APEX NC 27502
Current Tenant	1229 Perry RD Suite 103	APEX NC 27502
Current Tenant	1229 Perry RD Suite 105	APEX NC 27502
Current Tenant	1229 Perry RD Suite 106	APEX NC 27502
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Current Tenant	1231 Perry RD Suite 105	APEX NC 27502
Current Tenant	1231 Perry RD Suite 106	APEX NC 27502
Current Tenant	1341 Perry RD	APEX NC 27502
Current Tenant	1213 Shackleton RD	APEX NC 27502
Current Tenant	1215 Shackleton RD	APEX NC 27502
Current Tenant	1217 Shackleton RD	APEX NC 27502

Created by Town of Apex Planning Department
Date Created: 8/19/2025

HOPSON GATEWAY PUD

Planned Unit Development

Apex, North Carolina

Submittal Dates
First Submittal: November 1, 2024
Second Submittal: February 7, 2025
Third Submittal: August 8, 2025
Fourth Submittal: September 5, 2025
Fifth Submittal: October 3, 2025
Sixth Submittal: October 20, 2025
Seventh Submittal: October 27, 2025

Developer
ACRE
252 NW 29th Street, 9th Floor
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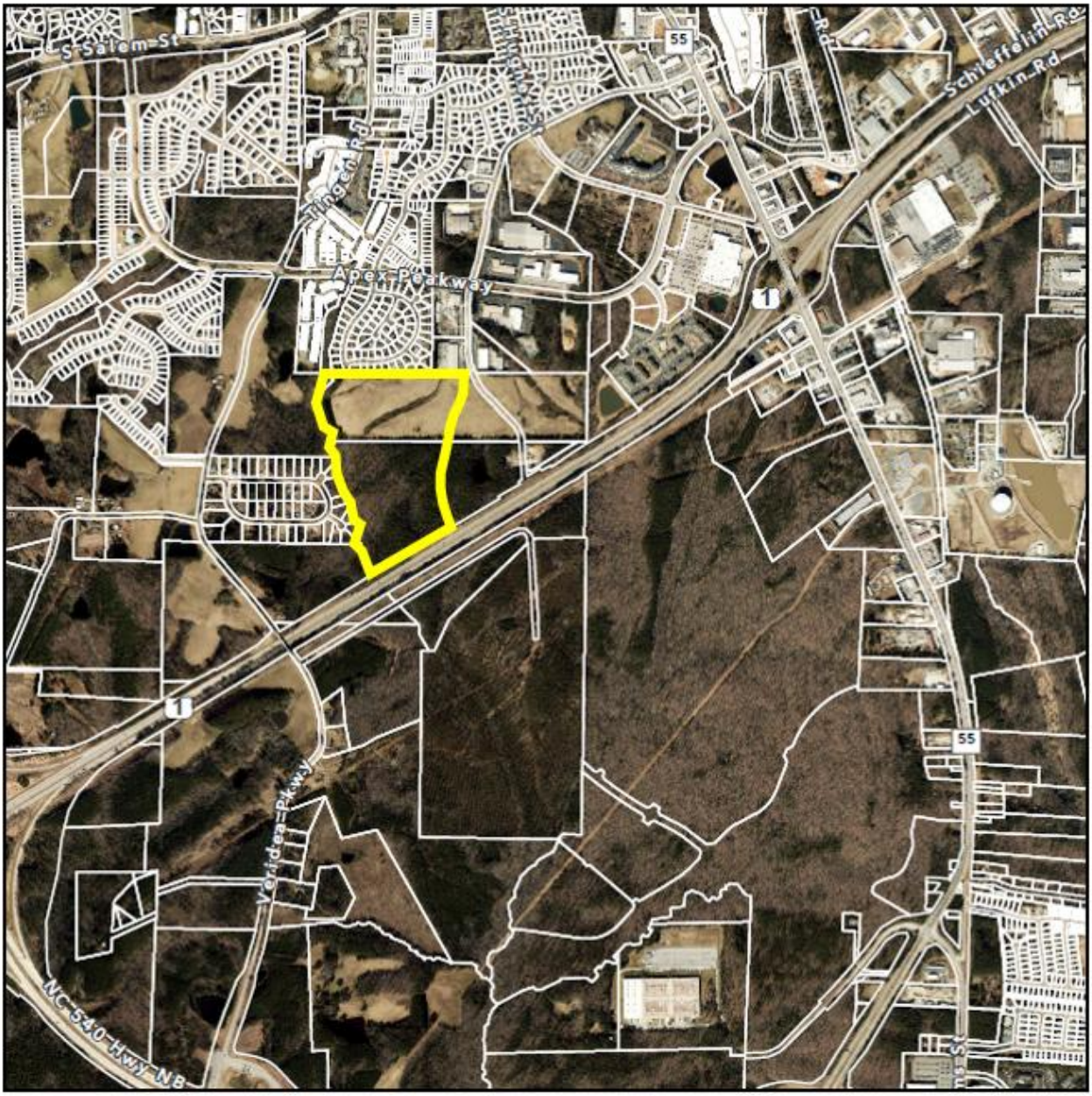
VICINITY MAP



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0 800 1,600 3,200 ft

1 inch equals 1,600 feet

PROJECT DATA

Name of Project:	Hopson Gateway PUD
Property Owners:	SURE & STEADFAST PROPERTIES LIMITED PARTNERSHIP; Town of Apex
Developer:	ACRE 252 NW 29th Street, 9th Floor Miami, FL 33127
Prepared by:	Parker Poe Adams & Bernstein LLP 301 Fayetteville Street, Suite 1400 Raleigh, NC 27601 Peak Engineering & Design 1125 Apex Peakway Apex, NC 27502
Current Zoning:	portion of PIN 0741331566: Residential Agricultural (RA); portion of PIN 0741326706: Light Industrial Conditional (LI-CZ)
Proposed Zoning:	Planned Unit Development Conditional Zoning (PUD-CZ)
Current 2045 LUM Designations:	Office Employment & Office Employment/Industrial Employment
Proposed 2045 LUM Designations:	Medium-High Density Residential; Commercial Services
Site Address:	0 Tingen Road; 1341 Perry Road
Property Identification Number:	portion of 0741331566; portion of 0741326706
Total Acreage of PUD:	58.54 acres as described in **Exhibit A** attached hereto
Area Designated as Mixed Use on LUM:	None
Area Proposed as Non-Residential:	None

PURPOSE STATEMENT

This Planned Unit Development is part of a collaboration between ACRE and the Town of Apex (the "Town"). The Town is owner of a 54.16-acre tract of land (Wake County PINs 0741326706 and 0741427922) and ACRE is under contract to purchase a 47.01-acre tract of land (PIN 0741331566). The properties are adjacent and ACRE and the Town have entered a land exchange agreement (the "Land Exchange"), approved by the Apex Town Council October 8, 2024, to reconfigure the properties to create more developable sites for the Town and ACRE. Following the exchange, ACRE will own an approximately 58.54-acre parcel west of Perry Road described in Exhibit A attached hereto (the "ACRE Tract" and the "Property") and the Town will own an approximately 39.62-acre parcel east of Perry Road (the "Town Tract"). This PUD addresses development of the ACRE Tract. A separate rezoning application has been filed to rezone the Town Tract to Light Industrial Conditional (LI-CZ). Although the Town Tract is not part of this PUD, its redevelopment is discussed as it relates to comprehensive planning efforts.

The PUD includes two districts to facilitate the development of market rate and affordable housing units. District A permits single-family homes and townhomes at a density and scale compatible with existing and planned adjacent neighborhoods. Live/work townhomes are permitted along Perry Road as an amenity for residents who work from home. District B will facilitate the development of a minimum of 300 apartments with 20% of the apartment units set aside as income restricted affordable housing units, double the recommendation of the Affordable Housing Policy. Together, the districts allow a mix of single-family homes, rear loaded townhouses, front loaded townhouses, and apartments to provide a transition between existing industrial uses to the east and established neighborhoods to the north and west. The mix of housing types will serve residents with varying budgets, backgrounds, and family needs. The community will be conveniently located to existing goods and services and have access to highways and existing infrastructure.

The Town of Apex 2045 Land Use Map (the "LUM") designates the Property as Office Employment & Office Employment/Industrial Employment. Although the proposed residential uses are inconsistent with the office and industrial designations, the PUD is in the public interest for several reasons:

- It will facilitate the Land Exchange which will allow the Town of Apex to develop a public works facility on the Town Tract, improving the efficiency of Town operations.

- Development of the Town Tract will provide the office and industrial uses recommended by the LUM.

- The location of residential, office, and industrial uses under the PUD and Land Exchange is preferred to the location of uses recommended by the LUM. The Property is adjacent to existing or planned residential neighborhoods on three sides (Iron Gate and Seymour PUD to the west and Lexington to the North) and current LUM designations would place office and industrial uses directly adjacent. In contrast, the proposed PUD places residential

uses adjacent to existing neighborhoods and utilizes Perry Road to separate residential uses from the Town's planned office and industrial uses.

- The PUD provides for a minimum of 60, and up to 80 (20% of total apartment units), income restricted affordable apartment units at 80% AMI for 30 years.

- The PUD will provide a mix of housing types at different price points for residents of different ages and income levels.

- The PUD provides for realignment and construction of the full Perry Road extension as shown on the Thoroughfare and Collector Street Plan (the "Transportation Plan").

- The PUD will help facilitate a permanent sewer solution for the Property and adjacent properties.

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 within this PUD are permitted within this designation 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 Hopson Gateway PUD is a mixed-use community with a mix of housing types. None of the parcels in the PUD have three stripes on the LUM. Accordingly, this PUD is not required to designate 30% of the property as non-residential.

(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 development has been designed to prioritize pedestrians and will include construction of sidewalks, side paths, and greenways. In total, the PUD includes 1.2 miles of pedestrian paths and greenways.

(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 will be designed to enhance pedestrian and vehicular connectivity while protecting sensitive environmental features and being mindful of existing residential development. The development will facilitate the vision of the Transportation Plan by realigning and constructing the full Perry Road extension. The project proposes a Transportation Plan Amendment to shift the east/west collector south to avoid spacing issues between the collector street and existing driveways to the north.

(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. Adjacent properties are largely residential subdivisions and include Iron Gate, Lexington, and the planned Seymour PUD neighborhood. Iron Gate and Lexington are single-family subdivisions and the Seymour PUD permits townhomes, single-family homes, apartments, and non-residential uses. As discussed above, the property to the east is the Town Tract which is owned by the Town of Apex and will be redeveloped for a public works headquarters. The proposed PUD includes a mix of housing types compatible with adjacent neighborhoods and will offer a transition between existing lower density residential uses to the west and commercial and industrial uses to the east. The existing stream and associated stream buffers along the western property line of the property will serve as a natural buffer between the project and the Iron Gate neighborhood.

(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

Hopson Gateway PUD is consistent with the conditional zoning standards set forth in UDO Section 2.3.3.F.1-10. Please see the accompanying PUD-CZ Application for the 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 in the UDO and any additional limitations or regulations below. For convenience, some relevant sections of the UDO are referenced; such references do not imply other sections of the UDO do not apply. Homeowners Association covenants shall not restrict the construction of accessory dwelling units.

The following uses shall be permitted:

	District A	***District B***
Residential		
Single-family	P	
Townhouse	P	P
Live/Work Townhouse*	P	
Small-scale multi-family**	P	P
Multi-family or apartment		P
Accessory apartment	P	P
Recreational Uses		
Park, active	P	P
Greenway	P	P
Park, passive	P	P
Recreation facility, private	P	P
Utility, minor	P	P

*In District A, Live/Work Townhouse shall only be permitted along Perry Road. Live/Work Townhouse shall be defined as a townhouse with a first floor business/office space and a second and/or third floor residence, each with a separate street front entrance. The only permitted non-residential principal use in a Live/Work Townhouse shall be office, business or professional.

**Small scale multi-family shall be defined as a building constructed to accommodate between two and ten dwelling units that are vertically or horizontally integrated. Multiple small-scale multi-family buildings may be located on one Lot.

AFFORDABLE HOUSING

The following affordable housing commitment shall apply to apartments in District B (but shall not apply to Small-Scale Multifamily units):

A minimum of twenty percent (20%) of the total apartment units (as shown on the first site plan submittal for apartments) shall be affordable housing units. Final affordable housing unit floor plan selection which includes unit size and bedroom size is at the discretion of the developer. If the affordable units calculation results in a fraction between 0.50 and 0.99, the affordable units shall be rounded up to the nearest whole number. If the affordable units calculation results in a fraction between 0.01 and 0.49, the affordable units shall be rounded down to the nearest whole number.

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

- The affordable units shall be occupied by low-income households earning no more than eighty percent (80%) of the Raleigh, NC Metropolitan Statistical Area (MSA) Area Median Income, adjusted for family size, as most recently published by the U.S. Department of Housing and Urban Development (HUD)(the "AMI") for a period of thirty (30) years starting from the date of issuance of the first residential Certificate of Occupancy (the "Affordability Period").

- Prior to issuance of the first residential Certificate of Occupancy for apartments in District B, a restrictive covenant between the Town and property owner shall be executed and recorded in the Wake County Registry to memorialize the affordable housing terms and conditions.

- During the Affordability Period, the property owner shall submit annual compliance reports to the Town to verify compliance with the affordable housing terms and conditions.

- Following expiration of the Affordability Period, this affordable housing condition shall expire, the property owner shall be relieved of all obligations set forth in this affordable housing condition, and the affordable units may be freely marketed and leased at market-rate rents.

- Townhouse and/or small-scale multi-family units may be developed and constructed in District B before any apartment units are developed, provided sufficient land in District B is reserved to accommodate the future construction of 300 apartment units.

DESIGN CONTROLS

Acreages for each district are approximate and may increase or decrease by up to 20% based on updated surveys at Master Subdivision Plan/Site Plan.

Development shall comply with the following minimum design controls:

	DISTRICT A	**DISTRICT B**
Approximate Acreage	24.8	33.74
Maximum Total Units	220	400
Minimum Apartment Units	N/A	300*
Maximum Built-Upon Area	70%	70%

	Single-Family	**Small Scale Multi-family**	**Townhouses & Live/Work Townhouses**	**Multi-Family**	**Private Recreation Facility**
Minimum Lot Size	5,000 sf	N/A	None	None	None
Minimum Lot Width	50 ft.	20 ft.	20 ft.	None	None
Minimum Setbacks					
Front	20 ft.	10 ft.	Rear loaded and parking lot style: 10 ft. Front Loaded: 20 ft.	10 ft.	20 ft.
Side	5 ft.	0 ft. (3 ft. for end units)	0 ft. (3 ft. for end units)	20 ft.	20 ft.
Rear	10 ft.	10 ft.	10 ft.	20 ft.	20 ft.
Corner Side	10 ft.	10 ft.	10 ft.	20 ft.	20 ft.
Minimum from Buffer/RCA	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.	Buildings: 10 ft. Parking: 5 ft.
Maximum Building Height	3 stories; 45 ft.	3 stories; 45 ft.	3 stories; 45 ft.	4 stories; 60 ft.	4 stories; 48 ft.
Minimum Building Separation	N/A	10 ft.	10 ft.	15 ft.	N/A

*Townhouse and/or small-scale multi-family units may be developed and constructed in District B before any apartment units are developed, provided sufficient land in District B is reserved to accommodate the future construction of 300 apartment units.

LANDSCAPING, BUFFERING, AND SCREENING

Perimeter buffers shall be built and planted to the following lot width and planting standards:

Location:	**Buffer Size & Type:**
Adjacent to PIN 0741243405 and existing lots in the Lexington subdivision	20 ft. Type B*
Adjacent to PIN 0741346113	40 ft. Type A
Along the west side of Perry Road adjacent to District A and District B	30 ft. Type B
Along both sides of the east/west collector street	10 ft. Type B
Along US-1	80 ft. Type A
Along the eastern boundary of the Town of Apex Greenway and Utility Easement along the western property line	0 ft.

*There is a 20-foot Town of Apex sewer easement along the property line. The 20-foot Type B buffer may overlap with the easement, provided there is a planting area outside the easement with a minimum width of 10 feet.

ARCHITECTURAL STANDARDS

Hopson Gateway PUD offers the following architectural controls to ensure consistency of character throughout the development, but allow variety to create interest and avoid monotony. Included elevations are conceptual examples only. Final elevations may differ from the conceptual elevations, but must comply with these written architectural standards. 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. Garage doors shall have windows, decorative details or carriage-style adornments on them.
3. The garage shall not protrude more than 1 foot out from the front façade and/or front porch. However, the garage may protrude beyond 1 foot out from the front façade and front porch if the garage is accessed from the side via a J-driveway.
4. The visible side of a home on a corner lot facing the public street shall contain at least 3 decorative elements such as, but not limited to, the following elements:
   - Windows
   - Bay window
   - Recessed window
   - Decorative window
   - Wrap around porch or side porch
   - Two or more building materials
   - Decorative brick/stone
   - Decorative trim
   - Decorative shake
   - Decorative air vents on gable
   - Decorative gable
   - Decorative cornice
   - Column
   - Portico
   - Balcony
   - Dormer

5. A varied color palette shall be utilized on homes throughout the subdivision to include a minimum of three (3) color families for siding and shall include 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. No more than 25% of lots may be accessed with J-driveways. There shall be no more than 3 such homes in a row on any single block. Any lots eligible for a J-driveway home shall be identified on the Final Plat.
8. All single-family garages will be wired with a 220/240-volt electric outlet.

Townhouses (front and rear loaded), Live/Work Townhouses, & Small-Scale Multi-Family

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. The roofline for townhouses and small-scale multi-family cannot be a single mass; it must be broken up horizontally and vertically between every other unit.
3. Front facing garage doors must have windows, decorative details or carriage-style adornments on them.
4. The project shall include a minimum of two (2) or more garage door styles for the front-loaded townhouses.
5. Entrances shall have a covered porch/stoop area leading to the front door.
6. Side entry townhouses that do not have a front elevation door shall have a covered porch/stoop area leading to the main entry side door. In addition, the side entry townhomes shall include windows on the front elevation adjacent to the garage.
7. The garage cannot protrude more than 1 foot out from the front façade or front porch.
8. The visible side of a townhome or small-scale multi-family building on a corner lot facing the public street shall contain at least 3 decorative elements such as, but not limited to, the following elements:
    - Windows
    - Bay window
    - Recessed window
    - Decorative window
    - Wrap around porch or side porch
    - Two or more building materials
    - Decorative brick/stone
    - Decorative trim
    - Decorative shake
    - Decorative air vents on gable
    - Decorative gable
    - Decorative cornice
    - Column
    - Portico
    - Balcony
    - Dormer

9. A varied color palette shall be utilized on homes throughout the subdivision to include a minimum of three (3) color families for siding and shall include varied trim, shutter, and accent colors complementing the siding color.
10. The rear and side elevations of the units facing public right-of-way shall have trim around the windows.
11. Side and rear elevations shall include architectural features to break up the flat walls both vertically and horizontally.
12. Townhouse buildings shall have no more than one unadorned side-gabled roof in a row within a single building.

Multi-Family/Apartments:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements, and trim are permitted.
2. All elevations shall have either recessed windows or trim around the windows.
3. A minimum of four of the following decorative features shall be used on each building:
    a. Decorative shake
    b. Board and batten
    c. Decorative porch railing/posts
    d. Shutters
    e. Decorative/functional air vents on roof or foundation
    f. Recessed windows
    g. Decorative windows
    h. Decorative brick/stone
    i. Decorative gables
    j. Decorative cornices
    k. Tin/metal roof
4. Garage doors must have windows, decorative details, or carriage-style adornments on them.
5. Siding materials shall be varied in type and/or color on at least 30% of each façade on each building.
6. Windows must vary in size and/or type.
7. To reduce the Urban Heat Island Effect and conserve energy, for multi-family and accessory buildings, all flat roofs shall be light or white colored or utilize a cool roof material.

PARKING AND LOADING

Multi-Family and Small-Scale Multi-family buildings shall provide the following minimum parking spaces per dwelling unit based on the number of bedrooms:

Bedrooms per unit	**Minimum ratio**
1 or 2	1.3 spaces per dwelling unit
3	1.8 spaces per dwelling unit

SIGNAGE

Signage shall comply with UDO Section 8.7.

NATURAL RESOURCES AND ENVIRONMENTAL DATA

RIVER BASINS AND WATERSHED PROTECTION OVERLAY DISTRICTS

The property is in the Secondary Watershed Protection Overlay District as shown on the Town of Apex Watershed Protection Overlay Map 2019. Except as set forth herein, the development will comply with all built upon area, vegetated conveyances, structural SCMs and riparian stream buffer requirements of UDO Section 6.1.8.

Resource Conservation Areas (RCA)

The project shall dedicate RCA as required by UDO Section 8.1.2. 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.

No clearing or land disturbance shall be permitted within the state of North Carolina required riparian buffer, except the minimum necessary to install required utility infrastructure, SCM outlets, and greenway trails. The SCM water storage and treatment area shall not be permitted in the riparian buffer. Grading and location of SCMs in the Town of Apex Zone 3 buffer shall be governed by the UDO. Zone 3 may be averaged as permitted in the UDO.

Floodplain

The project site is not located within a designated current or future 100-year floodplain as shown on the Town of Apex Watershed & FEMA Map dated April 2015. FIRM Panel 3720072200J dated May 2, 2006 does not include a floodplain within the property boundary.

Historic Structures

There are no known historic structures present on the Property.

Environmental Commitments Summary

As shown elsewhere in the PUD, the following environmental conditions shall apply to the Development:

- 70% of landscaping in common areas shall be native or nativar species. This requirement shall not apply to landscaping on individual residential lots.

- 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.

- The project shall plant/include warm season grasses.

- Apartment buildings (but not small-scale multi-family buildings) shall be designed to meet the requirements for one of the following green building certifications: LEED, Energy Star, BREEAM, Green Globes, NGBS Green, NAHB, or GreenGuard. 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. The application shall be submitted prior to the issuance of a certificate of occupancy for the multi-family building.

- The project shall install at least one (1) pet waste station per 25 units (single-family or townhome units) and at least two (2) pet waste stations per apartment building 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.

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

STORMWATER MANAGEMENT

Stormwater control devices shall be designed and constructed to exceed UDO standards 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. Otherwise, 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

Hopson Gateway PUD, #24CZ20, was reviewed at the February 26, 2025 PRCR Advisory Commission meeting. The Commission recommended a fee-in-lieu of dedication with credit for construction of greenway for a maximum combination of 220 single-family detached and single-family attached, and a maximum of 400 multi-family residential 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 total fee-in-lieu (based on the final unit count) will be calculated at Major Site Plan/Master Subdivision Plan and Construction Document review.

The greenway in District A shall be completed prior to issuance of building permits for 25% of the total residential units in District A. The greenway in District B shall be completed prior to issuance of building permits for 50% of the total residential units in District B. Final greenway alignment shall be determined at Major Site Plan/Master Subdivision Plan and shall be generally consistent with the Parks, Recreation, Greenways, and Open Space Master Plan and the Bicycle and Pedestrian System Plan Map.

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 Analyses performed for this rezoning, which are 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. Proposed modifications to turn lanes noted below based on constraints identified at the time of Major Site Plan/Master Subdivision are subject to review and approval by the Director of Transportation and Infrastructure Development and shall not require a PUD amendment. Except as set forth herein, all proposed roadway infrastructure and right-of-way dedications will be consistent with the Town of Apex Comprehensive Transportation Plan.

1. **Apex Peakway/Perry Road Intersection**. Developer shall make the following improvements to the intersection of Apex Peakway and Perry Road:

    a. Restripe northbound and southbound left turn lanes on Perry Road, each with 100 feet of storage plus 50 feet of deceleration and 100 feet of taper.

    b. Restripe an eastbound left turn lane on Apex Peakway with 50 feet of storage plus 50 feet of deceleration and 150 feet of taper.

    c. Construct a westbound left turn lane on Apex Peakway with 100 feet of storage plus 50 feet of deceleration and 100 feet of taper.

    d. Install a metal strain pole traffic signal (or design as otherwise required by NCDOT) with signalized crosswalks (the "Perry Signal"). If at the time of construction drawing approval for the Perry Signal, the fee in lieu required for the Perry Signal by the Seymour PUD (ORD-2024-007)(the "Seymour FIL") has been paid, the Seymour FIL shall be available to the Hopson Gateway PUD developer to construct the Perry Signal. A warrant study shall be performed prior to platting 50 single-family or townhouse residential units or site plan final plat for up to 300 apartment dwelling units. If NCDOT does not permit a traffic

signal at that time, developer shall provide an engineer's estimate for the cost of design and installation of the Perry Signal plus 15% contingency for review and approval by Apex staff and pay a fee in lieu in that amount, less the amount of any fee in lieu payments made or pending as part of approved construction plans toward the Perry Signal by others (the "Hopson FIL"). If the Seymour FIL has not been paid at the time the Hopson FIL is due, developer shall pay the full Hopson FIL but be entitled to the Seymour FIL when it is collected by the Town.

2. **Apex Peakway/Tingen Road Intersection**. Developer shall pay a fee in lieu equal to 10% of the estimated costs to design and install a metal strain pole traffic signal, a westbound left turn lane with 150 feet of storage plus 50 feet of deceleration and 100 feet of taper on Apex Peakway, and northbound and southbound left turn lanes each with 150 feet of storage plus 50 feet of deceleration and 100 feet of taper on Tingen Road at the intersection of Apex Peakway and Tingen Road.

3. **East-West Collector**. Developer shall construct an east-west collector street across the property in the approximate location shown on the Concept Plan (the "East-West Collector") as a 35-foot wide back-to-back curb and gutter Major Collector Street with bicycle lanes, a 10-foot wide side path on the north side, and a 5-foot side sidewalk on the south side, in a 60-foot wide public right of way. If the Army Corps of Engineers, or other applicable permitting body, does not permit the construction of the road through the existing stream buffer along the western property line, Developer shall pay a fee in lieu based on estimated construction costs of the remaining extension plus permitting and design fees for half the stream crossing. The final location of the East-West Collector may be modified at Major Site Plan/Master Subdivision, provided the modified location is approved by the Developer and Town staff. Developer shall construct the following improvements along the East-West Collector:

   a. Extend Shackleton Road to intersect with the East-West Collector.

   b. A full movement intersection between Shackleton Road and Perry Road accessing District A and District B.

   c. A full movement intersection aligned with Shackleton Road accessing District B.

   d. Turnouts in the right of way for the future Town driveway at the intersection of the East-West Collector and Perry Road.

4. **Perry Road.** Developer shall design, construct, and realign Perry Road as a 71-foot wide back-to-back curb and gutter four-lane median-divided thoroughfare with a 10-foot side path on the west side and 5-foot sidewalk on the east side and dedicate half of a 110-foot wide public right of way (the "Perry Road Section"). Completion of the Perry Road Section is subject to agreement with the Town of Apex for dedication of right of way and easements on property owned by the Town required to construct the Perry Road Section. The southern terminus of Perry Road shall accommodate the anticipated

future bridge elevation over US 1 based on a preliminary profile to be provided by the developer. Developer shall construct the following improvements along Perry Road:

a. A right-in/right-out driveway to District B.

b. Northbound and southbound left turn bays, each with 100 feet of storage plus 50 feet of deceleration and 100 feet of taper where the median divided section is constructed through the full-movement intersection with the East-West Collector and future Town driveway.

c. Southbound left turn bay with 100 feet of deceleration and 100 feet of taper along with turnouts in the right of way serving a future secondary Town driveway south of the East-West Collector.

5. If any of the committed transportation improvements require acquisition of offsite rights of way, easements, or other property interests (the "Offsite ROW"), Developer shall make good faith efforts to acquire the Offsite ROW. If Developer is unable to acquire any Offsite ROW through private negotiation and the Town is unwilling or unable to assist in the acquisition, Developer shall pay a fee in lieu for the transportation improvement that cannot be completed.

PEDESTRIAN AND BICYCLE IMPROVEMENTS

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

- Sidewalks shall be provided along both sides of all streets other than Perry Road and the Major Collector street which will have 10-foot Side Paths on one side of the road/street.
- Perry Road shall include a 10-foot Side Path consistent with the Perry Road streetscape recommended by the Transportation Plan as shown on the Concept Plan.
- The Major Collector shall include a 10-foot Side Path and marked and signed bike lanes recommended by the Transportation Plan as shown on the Concept Plan.

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. 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 Review and Approval.

CONSISTENCY WITH LAND USE PLAN

The Town of Apex 2045 Land Use Map (the "LUM") designates the Property as Office Employment & Office Employment/Industrial Employment. Although the proposed residential uses are inconsistent with the office and industrial designations, the PUD is in the public interest for several reasons:

- It will facilitate the Land Exchange which will allow the Town of Apex to develop a public works facility on the Town Tract, improving the efficiency of Town operations.
- Development of the Town Tract will provide the office and industrial uses recommended by the LUM.
- The location of residential, office, and industrial uses under the PUD and Land Exchange is preferred to the location of uses recommended by the LUM. The Property is adjacent to existing or planned residential neighborhoods on three sides (Iron Gate and Seymour PUD to the west and Lexington to the North) and current LUM designations would place office and industrial uses directly adjacent. In contrast, the proposed PUD places residential uses adjacent to existing neighborhoods and utilizes Perry Road to separate residential uses from the Town's planned office and industrial uses.
- The PUD provides for a minimum of 60, and up to 80 (20% of total apartment units), income restricted affordable apartment units at 80% AMI for 30 years.
- The PUD will provide a mix of housing types at different price points for residents of different ages and income levels.
- The PUD provides for realignment and construction of the full Perry Road extension as shown on the Thoroughfare and Collector Street Plan (the "Transportation Plan").
- The PUD will help facilitate a permanent sewer solution for the Property and adjacent properties.

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 Hopson Gateway 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

TRACT 1

BEING A PORTION OF THAT 48.786 ACRE TRACT OF LAND SHOWN ON THE SURVEY FOR MYRTLE S. HOPSON DATED MAY 2, 1997, DRAWN BY SMITH AND SMITH SURVEYORS AND RECORDED AT BOOK OF MAPS 1997, PAGE 835, WAKE COUNTY, NORTH CAROLINA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 30IN WHITE OAK TREE AT THE NORTHEAST CORNER OF THE ABOVE REFERENCED SURVEY, DESCRIBED AT THAT TIME AS A 24IN WHITE OAK TREE WITH STATE PLAN COORDINATES N 713,917.474 E 2,045,176.348; THENCE SOUTH 89°52'59" WEST, PASSING OVER A REFERENCE IRON PIN AT 3.45 FEET AND AN IRON PIN FOUND ON THE WESTERLY RIGHT-OF-WAY (ROW) OF EXISTING PERRY ROAD (60.0' R.O.W.)AT 1305.43 FEET, FOR A TOTAL DISTANCE OF 1329.28 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE CENTERLINE OF A PROPOSED 110' ROW (PROPOSED PERRY ROAD);

THENCE ALONG SAID PROPOSED CENTERLINE THE FOLLOWING THREE COURSES:

- A CURVE FROM SAID POINT OF BEGINNING SOUTHERLY AND SOUTHWESTERLY A DISTANCE OF 419.85 FEET ALONG THE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 1,202.781 FEET WITH A CHORD ANGLE SOUTH 10°46'12" WEST FOR 417.72 FEET TO A COMPUTED POINT;
- A TANGENT SOUTH 22°30'45" WEST FOR 110.19 FEET TO A COMPUTED POINT IN THE FUTURE CENTERLINE OF THE PERRY ROAD RIGHT-OF-WAY;
- A CURVE FROM SAID TANGENT POINT SOUTHERLY AND SOUTHEASTERLY A DISTANCE OF 197.22 FEET ALONG THE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,310.34 FEET WITH A CHORD ANGLE SOUTH 16°35'32" WEST FOR 197.03 FEET TO A COMPUTED POINT;

THENCE LEAVING SAID FUTURE ROW NORTH 88°08'27" WEST ALONG THE NORTHERN BOUNDARY OF THE TOWN OF APEX PROPERTY SHOWN AS TRACT C-1 OF A DIVISION OF TRACT "C" AS SHOWN ON THE SURVEY FOR THE TOWN OF APEX DATED JAN 3, 1989, ASHLEY ELKINS, RLS AND RECORDED AT BOOK OF MAPS 1989, PAGE 59, WAKE COUNTY, ALONG SAID LINE A DISTANCE OF 1,329.42 FEET TO THE CENTERLINE OF REEDY BRANCH;

THENCE ALONG SAID BRANCH THE FOLLOWING EIGHTY-ONE (81) COURSES:
NORTH 05°25'47" WEST, A DISTANCE OF 1.31 FEET;
NORTH 50°01'02" EAST, A DISTANCE OF 10.31 FEET;
NORTH 03°35'38" EAST, A DISTANCE OF 10.02 FEET;
SOUTH 86°01'00" WEST, A DISTANCE OF 8.68 FEET;
NORTH 85°49'45" WEST, A DISTANCE OF 9.59 FEET;
NORTH 09°06'26" WEST, A DISTANCE OF 14.90 FEET;
NORTH 51°11'31" WEST, A DISTANCE OF 18.15 FEET;
SOUTH 84°17'27" WEST, A DISTANCE OF 19.61 FEET;
SOUTH 73°46'34" WEST, A DISTANCE OF 15.65 FEET;
NORTH 25°54'11" WEST, A DISTANCE OF 11.70 FEET;
NORTH 54°01'02" WEST, A DISTANCE OF 12.51 FEET;
NORTH 23°30'12" WEST, A DISTANCE OF 7.85 FEET;
NORTH 53°15'06" WEST, A DISTANCE OF 17.96 FEET;
NORTH 38°05'48" EAST, A DISTANCE OF 13.16 FEET;
NORTH 03°36'55" WEST, A DISTANCE OF 18.53 FEET;

NORTH 85°34'24" WEST, A DISTANCE OF 11.66 FEET;
NORTH 22°48'47" WEST, A DISTANCE OF 18.07 FEET;
NORTH 41°18'00" EAST, A DISTANCE OF 17.82 FEET;
NORTH 16°01'24" WEST, A DISTANCE OF 10.52 FEET;
NORTH 49°00'38" WEST, A DISTANCE OF 16.20 FEET;
NORTH 26°16'07" EAST, A DISTANCE OF 17.98 FEET;
NORTH 43°38'42" WEST, A DISTANCE OF 20.40 FEET;
NORTH 30°35'24" EAST, A DISTANCE OF 11.55 FEET;
NORTH 36°18'13" WEST, A DISTANCE OF 11.34 FEET;
NORTH 68°50'56" WEST, A DISTANCE OF 16.19 FEET;
NORTH 32°05'29" EAST, A DISTANCE OF 19.07 FEET;
NORTH 12°55'07" WEST, A DISTANCE OF 21.22 FEET;
NORTH 81°36'19" WEST, A DISTANCE OF 14.59 FEET;
SOUTH 39°51'36" WEST, A DISTANCE OF 11.16 FEET;
SOUTH 14°02'17" WEST, A DISTANCE OF 13.00 FEET;
NORTH 60°58'47" WEST, A DISTANCE OF 24.24 FEET;
NORTH 19°43'42" WEST, A DISTANCE OF 8.99 FEET;
NORTH 61°53'30" EAST, A DISTANCE OF 12.57 FEET;
NORTH 20°19'31" WEST, A DISTANCE OF 19.81 FEET;
NORTH 19°34'26" WEST, A DISTANCE OF 15.29 FEET;
NORTH 12°22'57" EAST, A DISTANCE OF 11.35 FEET;
NORTH 70°51'42" EAST, A DISTANCE OF 15.30 FEET;
NORTH 21°04'48" EAST, A DISTANCE OF 8.34 FEET;
NORTH 48°02'59" WEST, A DISTANCE OF 8.86 FEET;
NORTH 10°31'36" WEST, A DISTANCE OF 7.95 FEET;
NORTH 16°10'12" EAST, A DISTANCE OF 10.49 FEET;
NORTH 16°17'00" WEST, A DISTANCE OF 9.42 FEET;
NORTH 35°18'22" EAST, A DISTANCE OF 14.45 FEET;
NORTH 14°54'43" WEST, A DISTANCE OF 25.99 FEET;
NORTH 20°12'47" EAST, A DISTANCE OF 14.48 FEET;
SOUTH 87°24'30" EAST, A DISTANCE OF 19.45 FEET;
NORTH 04°34'41" EAST, A DISTANCE OF 18.24 FEET;
NORTH 57°58'19" EAST, A DISTANCE OF 17.36 FEET;
NORTH 11°33'41" WEST, A DISTANCE OF 17.23 FEET;
NORTH 26°07'38" EAST, A DISTANCE OF 8.35 FEET;
SOUTH 66°56'34" EAST, A DISTANCE OF 18.95 FEET;
NORTH 77°53'41" EAST, A DISTANCE OF 9.13 FEET;
NORTH 54°09'37" EAST, A DISTANCE OF 14.36 FEET;
NORTH 04°11'48" WEST, A DISTANCE OF 11.56 FEET;
NORTH 24°06'07" EAST, A DISTANCE OF 14.25 FEET;
NORTH 43°36'27" WEST, A DISTANCE OF 27.21 FEET;
NORTH 39°56'03" EAST, A DISTANCE OF 18.84 FEET;
NORTH 10°33'19" WEST, A DISTANCE OF 9.89 FEET;
NORTH 67°55'45" EAST, A DISTANCE OF 11.34 FEET;
NORTH 88°04'17" EAST, A DISTANCE OF 13.12 FEET;
NORTH 61°34'23" EAST, A DISTANCE OF 17.04 FEET;
SOUTH 72°14'18" EAST, A DISTANCE OF 13.77 FEET;
NORTH 71°04'29" EAST, A DISTANCE OF 13.81 FEET;
SOUTH 62°21'34" EAST, A DISTANCE OF 18.21 FEET;
NORTH 22°09'30" EAST, A DISTANCE OF 12.76 FEET;
NORTH 41°54'53" EAST, A DISTANCE OF 12.93 FEET;

NORTH 14°59'57" EAST, A DISTANCE OF 12.00 FEET;
NORTH 33°16'53" EAST, A DISTANCE OF 15.41 FEET;
NORTH 74°51'41" EAST, A DISTANCE OF 18.51 FEET;
NORTH 26°38'41" WEST, A DISTANCE OF 14.66 FEET;
NORTH 26°33'40" WEST, A DISTANCE OF 11.86 FEET;
NORTH 67°49'40" WEST, A DISTANCE OF 8.00 FEET;
SOUTH 25°39'13" WEST, A DISTANCE OF 16.08 FEET;
NORTH 70°29'35" WEST, A DISTANCE OF 33.42 FEET;
NORTH 24°10'42" EAST, A DISTANCE OF 15.18 FEET;
NORTH 17°15'26" WEST, A DISTANCE OF 18.75 FEET;
NORTH 34°33'29" WEST, A DISTANCE OF 27.20 FEET;
SOUTH 66°33'15" WEST, A DISTANCE OF 10.65 FEET;
SOUTH 61°21'47" WEST, A DISTANCE OF 12.99 FEET;
NORTH 47°02'12" WEST, A DISTANCE OF 17.27 FEET;
NORTH 59°40'27" WEST, A DISTANCE OF 8.89 FEET TO A POINT THAT IS NORTH 89°58'32" EAST, A DISTANCE OF 5.08 FEET FROM A FOUND #4 REBAR;

THENCE LEAVING SAID BRANCH NORTH 89°58'32" EAST, A DISTANCE OF 305.81 FEET TO A FOUND IRON PIN ON THE EASTERLY ROW OF SHACKELTON ROAD (60.0 R.O.W.);
THENCE ALONG THE SOUTHERN BOUNDARY OF LOTS 18, 19, & 21-27 OF LEXINGTON PHASE 1, SECTIONS "B & C", BM 1995, PAGES 1200-1203 THE FOLLOWING SIX (6)COURSES:
NORTH 89°57'45" EAST, A DISTANCE OF 80.82 FEET TO A FOUND IRON PIN;
NORTH 89°52'55" EAST, A DISTANCE OF 337.08 FEET TO A FOUND IRON PIN;
NORTH 89°55'07" EAST, A DISTANCE OF 93.02 FEET TO A FOUND IRON PIN;
NORTH 89°50'00" EAST, A DISTANCE OF 59.78 FEET TO A FOUND IRON PIN;
NORTH 89°46'56" EAST, A DISTANCE OF 117.80 FEET TO A FOUND IRON PIN;
NORTH 89°54'21" EAST, A DISTANCE OF 171.33 FEET TO A FOUND IRON PIN;
THENCE NORTH 89°52'30" EAST, A DISTANCE OF 415.93 FEET TO THE POINT OF BEGINNING, CONTAINING 23.73 ACRES, MORE OR LESS.

TRACT 2

BEING A PORTION OF TRACT C-1 OF A DIVISION OF TRACT "C" AS SHOWN ON THE SURVEY FOR THE TOWN OF APEX DATED JAN 3, 1989, ASHLEY ELKINS, RLS AND RECORDED AT BOOK OF MAPS 1989, PAGE 59, WAKE COUNTY, NORTH CAROLINA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 30IN WHITE OAK TREE AT THE NORTHEAST CORNER OF THE ABOVE REFERENCED SURVEY, DESCRIBED AT THAT TIME AS A 24IN WHITE OAK TREE WITH STATE PLAN COORDINATES N 713,917.474 E 2,045,176.348; THENCE SOUTH 89°52'59" WEST, PASSING OVER A REFERENCE IRON PIN AT 3.45 FEET AND AN IRON PIN FOUND ON THE WESTERLY RIGHT-OF-WAY (ROW) OF EXISTING PERRY ROAD (60.0' R.O.W.) AT 1305.43 FEET, FOR A TOTAL DISTANCE OF 1329.28 FEET TO A POINT, SAID POINT BEING ON THE CENTERLINE OF A PROPOSED 110' ROW;

THENCE ALONG SAID PROPOSED CENTERLINE THE FOLLOWING THREE COURSES:

- A CURVE FROM SAID POINT OF BEGINNING SOUTHERLY AND SOUTHWESTERLY A DISTANCE OF 419.85 FEET ALONG THE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 1,202.781 FEET WITH A CHORD ANGLE SOUTH 10°46'12" WEST FOR 417.72 FEET TO A COMPUTED POINT;
- A TANGENT SOUTH 22°30'45" WEST FOR 110.19 FEET TO A COMPUTED POINT IN THE FUTURE CENTERLINE OF THE PERRY ROAD RIGHT-OF-WAY;
- A CURVE FROM SAID TANGENT POINT SOUTHERLY AND SOUTHEASTERLY A DISTANCE OF 197.22 FEET ALONG THE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,310.34 FEET WITH A CHORD ANGLE SOUTH 16°35'32" WEST FOR 197.03 FEET TO A COMPUTED POINT; SAID POINT BEING THE

POINT OF BEGINNING;

THENCE CONTINUING ALONG SAID CENTERLINE OF THE FUTURE PERRY ROAD EXTENSION WITH A CURVE FROM SAID POINT OF BEGINNING SOUTHERLY AND SOUTHEASTERLY A DISTANCE OF 928.00 FEET ALONG A CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 1,244.07 FEET WITH A CHORD ANGLE SOUTH 09°10'23" EAST FOR 906.63 FEET TO A COMPUTED POINT ALONG THE NORTHERN RIGHT-OF-WAY OF US 1 HIGHWAY;

THENCE LEAVING SAID PROPOSED ROW AND ALONG THE US HIGHWAY 1 ROW SOUTH 58°34'57" WEST, A DISTANCE OF 977.38 FEET TO A CALCULATED POINT;
THENCE ALONG THE NORTHERN US HIGHWAY 1 ROW TO A FOUND 6-IN CONCRETE MONUMENT WITH STATE PLANE COORDINATES N 711,809.272 AND E 2,042,981.00;
THENCE SOUTH 58°55'33" WEST, A DISTANCE OF 221.57 FEET TO THE CENTER OF REEDY BRANCH;
THENCE ALONG SAID BRANCH THE FOLLOWING TWENTY-THREE (23) COURSES;
NORTH 20°02'18" WEST, A DISTANCE OF 329.56 FEET;
NORTH 74°05'29" WEST, A DISTANCE OF 84.99 FEET;
NORTH 17°23'59" EAST, A DISTANCE OF 217.31 FEET;
NORTH 55°30'13" WEST, A DISTANCE OF 96.25 FEET;
NORTH 03°43'27" WEST, A DISTANCE OF 208.74 FEET;
NORTH 42°12'57" WEST, A DISTANCE OF 115.08 FEET;

NORTH 20°21'51" WEST, A DISTANCE OF 204.80 FEET;
NORTH 20°31'32" WEST, A DISTANCE OF 30.00 FEET;
NORTH 00°41'48" WEST, A DISTANCE OF 181.88 FEET;
NORTH 12°04'12" WEST, A DISTANCE OF 179.91 FEET;
NORTH 41°37'43" WEST, A DISTANCE OF 8.65 FEET;
NORTH 27°36'56" EAST, A DISTANCE OF 18.18 FEET;
NORTH 21°03'46" WEST, A DISTANCE OF 13.80 FEET;
NORTH 31°11'08" EAST, A DISTANCE OF 10.66 FEET;
NORTH 00°04'20" EAST, A DISTANCE OF 11.34 FEET;
NORTH 46°43'00" WEST, A DISTANCE OF 13.69 FEET;
NORTH 76°43'52" WEST, A DISTANCE OF 11.75 FEET;
NORTH 06°15'16" WEST, A DISTANCE OF 7.49 FEET;
NORTH 66°29'35" EAST, A DISTANCE OF 15.99 FEET;
NORTH 32°25'43" WEST, A DISTANCE OF 9.99 FEET;
SOUTH 79°43'00" WEST, A DISTANCE OF 7.50 FEET;
NORTH 78°53'05" WEST, A DISTANCE OF 10.59 FEET;
NORTH 05°25'53" WEST, A DISTANCE OF 4.86 FEET;

THENCE LEAVING SAID BRANCH SOUTH 88°08'27" EAST ALONG THE SOUTHERN BORDER OF THE HEREIN DESCRIBED TRACT 1, BEING ALSO THE SOUTHERN BOUNDARY OF THAT 48.786 ACRE TRACT OF LAND SHOWN ON THE SURVEY FOR MYRTLE S. HOPSON DATED MAY 2, 1997, DRAWN BY SMITH AND SMITH SURVEYORS AND RECORDED AT BOOK OF MAPS 1997, PAGE 835, WAKE COUNTY, A DISTANCE OF 1329.43 FEET TO THE POINT OF BEGINNING, CONTAINING 34.81 ACRES, MORE OR LESS.

REZONING CASE #24CZ20
SUBMITTED NOVEMBER 1, 2024

<PUD REZONING>

HOPSON GATEWAY PUD

PERRY ROAD @ US 1 HIGHWAY
APEX, NORTH CAROLINA 27502
PROJECT NUMBER: 240307

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, DWR, AND/OR THE TOWN OF APEX.
TOWN OF APEX PROJECT # 23-001
DWR PROJECT # 24-319

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

APPLICANTS

ACRE MANAGER, LLC and **TOWN OF APEX**

JESSE KEHOE
DIRECTOR OF DEVELOPMENT
252 NW 29TH STREET, 9TH FLOOR
MIAMI, FL 33127
(786) 634-4857
www.AcreMgmt.com

AMANDA BUNCE
PLANNING DEPARTMENT
P.O. BOX 250
APEX, NC 27502
(919) 249-3529
www.ApexNC.org

LAND USE ATTORNEY

PARKER, POE, ADAMS, & BERNSTEIN LLP
MATTHEW CARPENTER
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

SMITH & SMITH SURVEYORS
BEN SMITH / STALEY SMITH
P.O. BOX 457
APEX, NC 27502
(919) 362-7111
www.SmithandSmithSurveyors.net

ENVIRONMENTAL CONSULTANT

NATURAL RESOURCE CONSULTANTS
JENNIFER BURDETTE
308 W. MILLBROOK ROAD, SUITE d #200
RALEIGH, NC 27609
(919) 422-3605
www.NRConsultNC.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

FORESTER/ENVIRONMENTAL

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

PROPERTY DATA

PIN 0741-33-1566	0 Tingen Road	48.79 acres
Sure & Steadfast Properties Limited Partnership		
2201 Candun Drive Suite 103, Apex, NC 27523		
Deed Book/Page: 8494 / 1585		
Jurisdiction: Town of Apex ETJ		
PIN 0741-32-6706	1341 Perry Road	49.48 acres
Town of Apex		
PO Box 250, Apex, NC 27502		
Deed Book/Page: 1736 / Estate File		
Jurisdiction: Apex Town Limits		
PIN 0741-42-7922	0 Perry Road	1.07 acres
Town of Apex		
PO Box 250, Apex, NC 27502		
Deed Book/Page: 1736 / Estate File		
Jurisdiction: Apex Town Limits		

Total Acreage: 99.34 acres
Total Acreage breakdown after the Land Exchange Agreement
PUD-CZ Acreage: 58.54 acres
LI-CZ Acreage: 40.80 acres
(Deeded acreage and final Survey data may vary slightly)

SITE DATA TABLE

Township:	White Oak Township
Flood Zone Information:	Firm Panel 3720074100J effective May 2, 2006 does not show the presence of flood zones on the properties (flood zones are not located within 100' of the property)
Watershed Information:	Secondary Watershed Protection Overlay District, Big Branch Creek, Harris Lake, Cape Fear River Basin
Historical:	NC SHPO does not show any existing historical structures on or near the properties
Annexation:	Annexation required prior to Construction Document approval for parcels located outside of the Apex Town Limits
Current Zoning:	Rural Agriculture (RA) LI-CZ (zoning case #24CZ08)
Proposed Zoning:	PUD - CZ (Planned Unit Development - Conditional Zoning)
Current 2045 Land Use Map:	Office Employment and Industrial Employment (west of Perry Road) Office Employment and Industrial Employment (east of Perry Road)
Proposed 2045 Land Use Map:	Medium/High Density Residential; Commercial Services (west of Perry Road)
Current Use:	Vacant residential, vacant industrial, Town work yard (Industrial)

Proposed Uses:

District 'A'

Single-family	Townhouse	Live/Work Townhouse ***	Small-scale multi-family *	Accessory apartment **
Park, active	Park, passive	Greenway	Recreation facility, private	Utility, minor

* Small scale multi-family shall be defined as a building constructed to accommodate between two and ten dwelling units that are vertically or horizontally integrated. Multiple small-scale multi-family buildings may be located on one lot.
** Homeowners Association covenants shall not restrict the construction of Accessory apartment.
*** In District A, townhouses along Perry Road may be live/work townhouses which shall be defined as townhouses that have a first-floor business/office space and a second and/or third floor residence, each with a separate street front entrance ("Live/Work Units"). The only permitted non-residential principal use in the Live/Work Units shall be office, business or professional.

District 'B'

Townhouse	Small-scale multi-family*	Multi-family or apartment	Accessory apartment **
Park, active	Park, passive	Greenway	Recreation facility, private	Utility, minor

* Small scale multi-family shall be defined as a building constructed to accommodate between two and ten dwelling units that are vertically or horizontally integrated. Multiple small-scale multi-family buildings may be located on one lot.
** Homeowners Association covenants shall not restrict the construction of Accessory apartment.

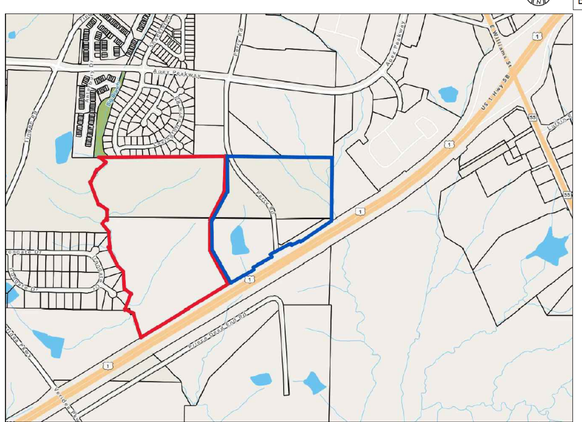
District Standards	Single-family	District 'A' (~24.80 acres) Small Scale Multi-family	District 'A' & 'B' Townhouse Live/Work Townhouse	District 'B' (~33.74 acres) Multi-family	Private Recreation Facility
Maximum Built-Upon Area	70%	70%	70%	70%	70%
Max Units	220 total residential lots/units			400 units	20,000 SF
Minimum Lot Size	5,000 SF	N/A	none	N/A	N/A
Minimum Lot Width	50 feet	20 feet	20 feet	N/A	N/A
Front Setback	20 feet	10 feet	20 feet	10 feet	20 feet
Front Setback (rear loaded/parking lot style)			10 feet	N/A	
Side Setback	5 feet	0 feet (3' end units)	0 feet (3' end units)	20 feet	20 feet
Rear Setback	10 feet	10 feet	10 feet	20 feet	20 feet
Side (corner) Setback	10 feet	10 feet	10 feet	20 feet	20 feet
Buffer/RCA setback - building	10 feet	10 feet	10 feet	10 feet	10 feet
Buffer/RCA setback - parking	5 feet	5 feet	5 feet	5 feet	5 feet
Max Building Height	45 feet (3 stories)	45 feet (3 stories)	45 feet (3 stories)	60 feet (4 stories)	48 feet (4 stories)
Minimum building separation	N/A	10 feet	10 feet	15 feet	N/A

[Townhouse is included in District 'A' and District 'B']

Parking Standards:	Parking shall be provided as noted below or per UDO 8.3
Single-family	2 parking spaces/dwelling unit
Small-scale multi-family & townhouse	2 parking spaces/dwelling unit + 0.25 guest spaces/dwelling unit
Multi-family or apartments	
1 or 2 bedroom units	1.3 parking spaces/dwelling unit
3 bedroom units	1.8 parking spaces/dwelling unit
Private Amenity	Parking provided per UDO 8.3.2
EV Parking:	Parking to be provided per UDO 8.3.11
Bicycle Parking:	Parking to be provided per UDO 8.3.2
RCA Required:	The project shall dedicate RCA as required by UDO Section 8.1.2. Designated RCAs will be consistent with UDO Section 8.1.2(B).
Grading:	Project shall be "Mass Graded"
% of lots graded prior to first plat:	No restriction or grading limitation
% of pre-development drainage areas preserved within their natural basins:	80% per UDO Section 7.2.5.B

PROJECT AERIAL NOT TO SCALE

RED OUTLINE: PRIVATE DEVELOPMENT PUD-CZ OUTLINE
BLUE OUTLINE: TOWN OF APEX LI-CZ OUTLINE



VICINITY MAP NOT TO SCALE

INDEX OF DRAWINGS:

C000 COVER SHEET

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

C100 CONCEPTUAL SITE PLAN & LOT IDENTIFICATION
C110 CONCEPTUAL UTILITY PLAN

C120 BUILDING ELEVATIONS - TOWNHOUSE
C121 BUILDING ELEVATIONS - TOWNHOUSE & SMALL-SCALE MULTI-FAMILY
C122 BUILDING ELEVATIONS - SINGLE-FAMILY RESIDENTIAL
C123 BUILDING ELEVATIONS - MULTI-FAMILY
C124 BUILDING ELEVATIONS - MULTI-FAMILY & CLUBHOUSE

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 XX NO___.

Hopson Gateway PUD, zoning #24CZ20, was reviewed at the February 26, 2025 Parks, Recreation, and Cultural Resources Advisory Commission meeting. The Commission recommended a fee in lieu of dedication with credit for construction of greenway for a maximum combination of 220 single-family detached and single-family attached, and a maximum of 400 multi-family residential 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 total fee in lieu (based on the final unit count) will be calculated at Major Site Plan/Master Subdivision Plan and Construction Document review.

The greenway in District A shall be completed prior to issuance of building permits for 25% of the total residential units in District A. The greenway in District B shall be completed prior to issuance of building permits for 50% of the total residential units in District B. Final greenway alignment shall be determined at Major Site Plan/Master Subdivision Plan and shall be generally consistent with the Parks, Recreation, Greenway, and Open Space Master Plan and the Bicycle and Pedestrian System Plan Map.

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

project:
HOPSON GATEWAY ZONING
PERRY ROAD @ US 1 HIGHWAY
WHITE OAK TOWNSHIP
APEX, NORTH CAROLINA 27502

seal:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 049161 JEFFREY A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	AUGUST 8 2025	TOWN OF APEX - 2ND ZONING COMMENTS	JR
2	NOVEMBER 1 2025	TOWN OF APEX - 3RD ZONING COMMENTS	JR
3	SEPTEMBER 22 2025	TOWN OF APEX - 4TH ZONING COMMENTS	JR
4	APRIL 3 2025	TOWN OF APEX - 1ST ZONING COMMENTS	JR
5			

title:
PUD COVER SHEET

proj #:
240307
date:
November 1, 2024
dwg by: FS chkd by: JR
scale:
As Noted
sheet:
C000
(PUD PLAN)

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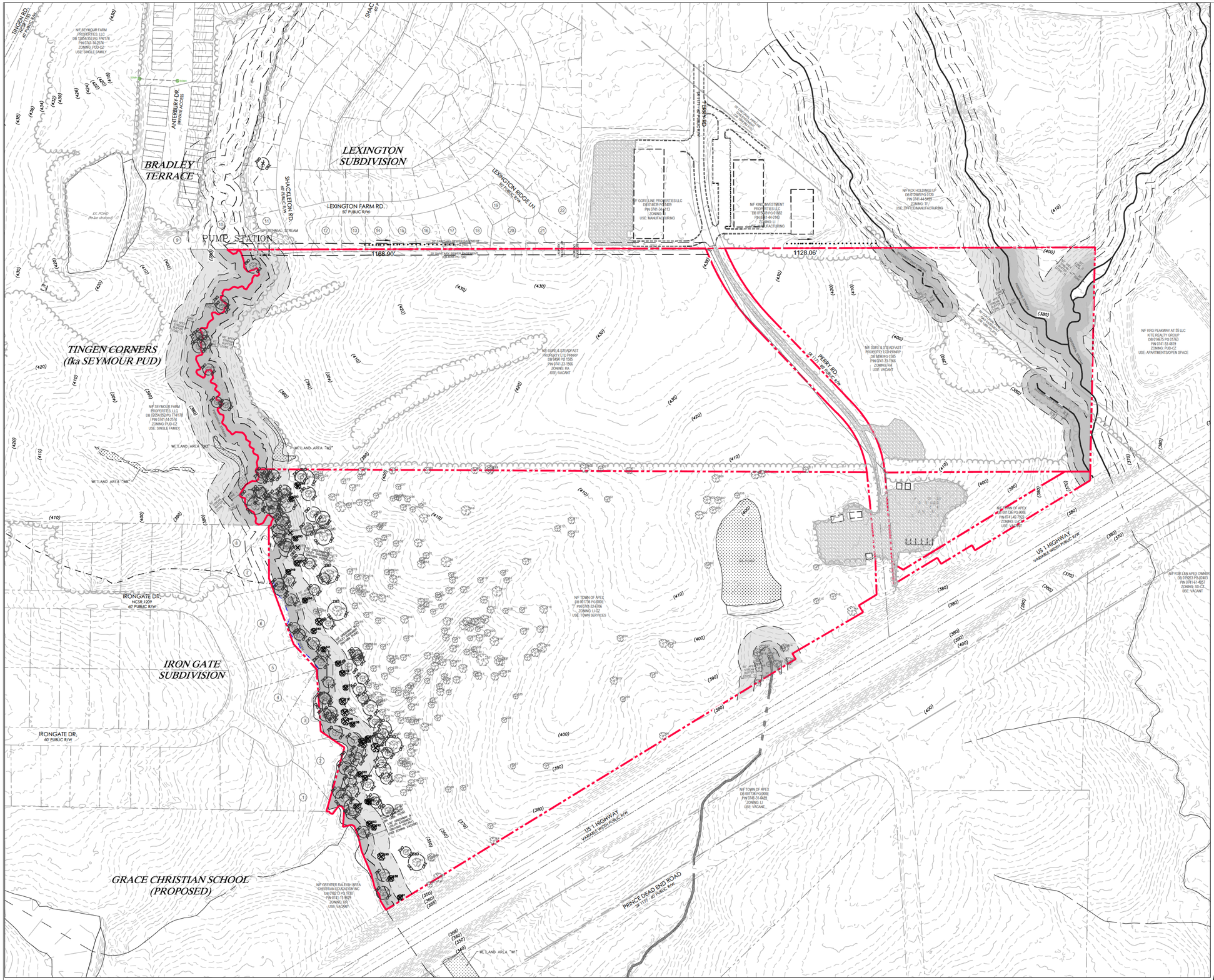
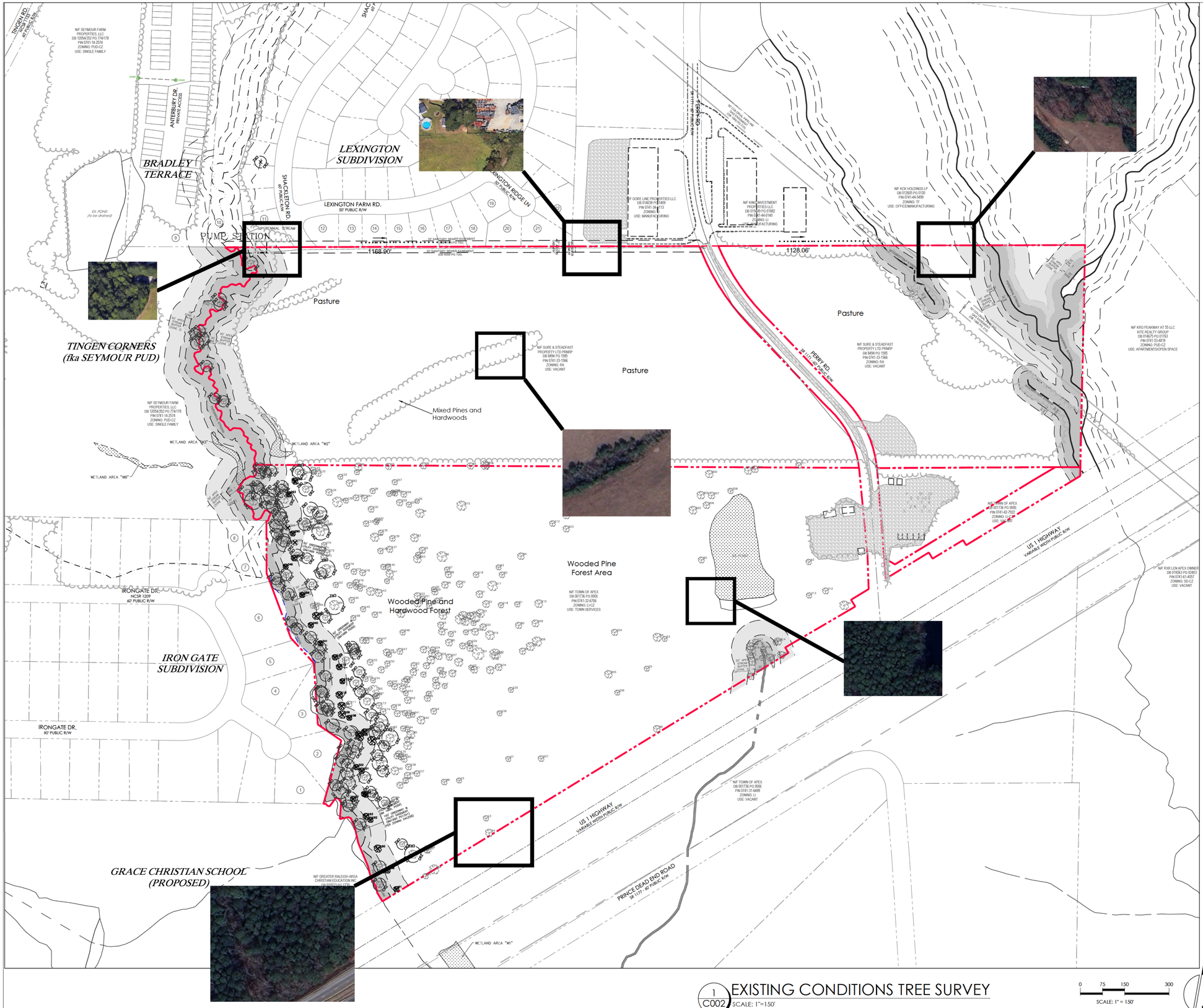

BRADLEY TERRACE
LEXINGTON SUBDIVISION
TINGEN CORNERS (fka SEYMOUR PUD)
IRON GATE SUBDIVISION
GRACE CHRISTIAN SCHOOL (PROPOSED)
PUMP STATION
1168.90'
1128.06'
LEXINGTON FARM RD.
50' PUBLIC R/W
SHACKLETON RD.
60' PUBLIC R/W
LEXINGTON RIDGE LN
50' PUBLIC R/W
ANTERBURY DR.
50' PUBLIC R/W
TINGEN RD.
NCSR 1105
60' PUBLIC R/W
IRONGATE DR.
NCSR 1209
60' PUBLIC R/W
IRONGATE DR.
60' PUBLIC R/W
PERRY RD.
VARIABLE WIDTH PUBLIC R/W
US 1 HIGHWAY
VARIABLE WIDTH PUBLIC R/W
PRINCE DEAD END ROAD
58'117' - 60' PUBLIC R/W
NIF SEYMOUR FARM PROPERTIES, LLC
DB 12054/352 PG 774178
PIN 0741-14-2574
ZONING: PUD-C2
USE: SINGLE FAMILY
NIF SEYMOUR FARM PROPERTIES, LLC
DB 12054/352 PG 774178
PIN 0741-14-2574
ZONING: PUD-C2
USE: SINGLE FAMILY
NIF GORILLINE PROPERTIES LLC
DB 014039 PG 01409
PIN 0741-34-4113
ZONING: LI
USE: MANUFACTURING
NIF KNC INVESTMENT PROPERTIES LLC
DB 015549 PG 01992
PIN 0741-44-0140
ZONING: LI
USE: MANUFACTURING
NIF KCK HOLDINGS LP
DB 012605 PG 0120
PIN 0741-44-5495
ZONING: TT
USE: OFFICE/MANUFACTURING
NIF KRG PEAKWAY AT 55 LLC
KITE REALTY GROUP
DB 014675 PG 01763
PIN 0741-53-4819
ZONING: PUD-C2
USE: APARTMENTS/OPEN SPACE
NR SURE & STEADFAST PROPERTY LTD PRINEP
DB 8494 PG 1585
PIN 0741-33-1566
ZONING: RA
USE: VACANT
NR SURE & STEADFAST PROPERTY LTD PRINEP
DB 8494 PG 1585
PIN 0741-33-1566
ZONING: RA
USE: VACANT
NIF TOWN OF APEX
DB 007736 PG 00000
PIN 0741-32-6706
ZONING: LI-CZ
USE: TOWN SERVICES
NIF TOWN OF APEX
DB 007736 PG 00000
PIN 0741-31-6688
ZONING: LI
USE: VACANT
NIF TOWN OF APEX
DB 001726 PG 00000
PIN 0741-40-7520
ZONING: LI-CZ
USE: VACANT
NIF FOR LION APEX OWNER
DB 019063 PG 00483
PIN 0741-41-4057
ZONING: SD-CZ
USE: VACANT
NIF GREATER RALEIGH AREA CHRISTIAN EDUCATION INC
DB 018273 PG 01361
PIN 0741-11-8629
ZONING: SD
USE: VACANT
WETLAND AREA "WB"
WETLAND AREA "WC"
WETLAND AREA "WD"
WETLAND AREA "WE"
WETLAND AREA "WF"
EX. POND
(fill-in shortly)
EX. INTERMITTENT STREAM
EX. PERENNIAL STREAM
50' DUKE ENERGY EASEMENT
DB 8494 PG 1585
50' SANITARY SEWER EASEMENT
DB 8494 PG 1585
NEW 50' DUKE ENERGY EASEMENT
DB 8494 PG 1585
NEW



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, DWR, AND/OR THE TOWN OF APEX.

TOWN OF APEX PROJECT # 23-001

DWR PROJECT # 24-319

EXISTING CONDITIONS NOTES:

1. *BOUNDARY SURVEY PROVIDED BY SMITH & SMITH SURVEYORS OF APEX, NC.*
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 WITHIN THE BOUNDARY OF THE PROJECT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN. FINAL LOCATION TO BE COORDINTED WITH STAFF.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE SECONDARY WATERSHED OVERLAY DISTRICT BIG BRANCH CREEK HARRIS LAKE CAPE FEAR RIVER BASIN.

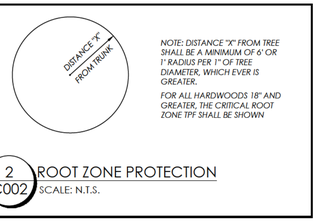
REQUIRED PLAN NOTES:

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.).

LARGE TREES ON-SITE HAVE BEEN INCLUDED FOR REFERENCE ONLY. TREE SURVEY PROVIDED BY S&EC, INC. FUTURE PRESERVATION AND AVOIDANCE OF EXISTING VEGETATION TO BE COORDINATED WITH BUILDER.



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.

ZONE 1 ZONE 2 ZONE 3 STREAM BUFFERS

PROJECT PERIMETER BOUNDARY

1 / C002 EXISTING CONDITIONS TREE SURVEY
SCALE: 1"=150'

0 75 150 300
SCALE: 1" = 150'

N

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

PEAK Engineering & Design
1125 Apex Peakway | Apex, NC 27502
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NC License #P-0673

project:
HOPSON GATEWAY ZONING
PERRY ROAD @ US 1 HIGHWAY
WHITE OAK TOWNSHIP
APEX, NORTH CAROLINA 27502

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047127 REBECCA A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	JANUARY 3 2023	TOWN OF APEX - 2ND ZONING COMMENTS	R
2	SEPTEMBER 20 2023	TOWN OF APEX - 3RD ZONING COMMENTS	R
3	SEPTEMBER 20 2023	TOWN OF APEX - 4TH ZONING COMMENTS	R
4	APRIL 3 2023	TOWN OF APEX - 1ST ZONING COMMENTS	R
5			

title:
EXISTING CONDITIONS TREE SURVEY

proj #: 240307
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
1	19"GUM	SURVEYED
2	22"POPLAR	SURVEYED
3	22"WHITEOAK	SURVEYED
4	23"POPLAR	SURVEYED
5	20"WHITEOAK	SURVEYED
6	25"POPLAR	SURVEYED
7	18"WHITEOAK	SURVEYED
8	24"WHITEOAK	SURVEYED
9	28"GUM	SURVEYED
10	18"POPLAR	SURVEYED
11	24"POPLAR	SURVEYED
12	26"GUM	SURVEYED
13	19"GUM	SURVEYED
14	25"GUM	SURVEYED
15	18"GUM	SURVEYED
16	21"POPLAR	SURVEYED
17	18"REDOAK	SURVEYED
18	22"POPLAR	SURVEYED
19	23"POPLAR	SURVEYED
20	22"POPLAR	SURVEYED
21	23"REDOAK	SURVEYED
22	21"MAPLE	SURVEYED
23	23"POPLAR	SURVEYED
24	23"WHITEOAK	SURVEYED
25	21"WHITEOAK	SURVEYED
26	27"WHITEOAK	SURVEYED
27	19"REDOAK	SURVEYED
28	18"WHITEOAK	SURVEYED
29	22"WHITEOAK	SURVEYED
30	18"REDOAK	SURVEYED
31	19"WHITEOAK	SURVEYED
32	22"WHITEOAK	SURVEYED
33	27"WHITEOAK	SURVEYED
34	29"WHITEOAK	SURVEYED
35	16"GUM	SURVEYED
36	22"WHITEOAK	SURVEYED
37	22"REDOAK	SURVEYED
38	19"REDOAK	SURVEYED
39	26"WHITEOAK	SURVEYED
40	18"WHITEOAK	SURVEYED
41	24"POPLAR	SURVEYED
42	26"MAPLE	SURVEYED
43	19"GUM	SURVEYED
44	30"ELM	SURVEYED
45	25"GUM	SURVEYED
46	24"POPLAR	SURVEYED
47	18"POPLAR	SURVEYED
48	27"POPLAR	SURVEYED
49	23"POPLAR	SURVEYED
50	21"REDOAK	SURVEYED
51	22"GUM	SURVEYED
52	20"GUM	SURVEYED
53	18"GUM	SURVEYED
54	28"GUM	SURVEYED
55	18"GUM	SURVEYED
56	24"GUM	SURVEYED
57	18"GUM	SURVEYED
58	28"WHITEOAK	SURVEYED
59	22"WATEROAK	SURVEYED
60	22"MAPLE	SURVEYED
61	19"POPLAR	SURVEYED
62	20"GUM	SURVEYED

Point Table		
Point #	Description	CONDITION
63	18"GUM	SURVEYED
64	23"POPLAR	SURVEYED
65	22"WHITEOAK	SURVEYED
66	34"WHITEOAK	SURVEYED
67	19"GUM	SURVEYED
68	22"REDOAK	SURVEYED
69	23"REDOAK	SURVEYED
70	23"GUM	SURVEYED
71	24"GUM	SURVEYED
72	24"GUM	SURVEYED
73	28"POPLAR	SURVEYED
74	35"POPLAR	SURVEYED
75	24"POPLAR	SURVEYED
76	28"POPLAR	SURVEYED
77	29"POPLAR	SURVEYED
78	33"POPLAR	SURVEYED
79	19"WHITEOAK	SURVEYED
80	24"POPLAR	SURVEYED
81	27"POPLAR	SURVEYED
82	18"POPLAR	SURVEYED
83	19"WHITEOAK	SURVEYED
84	18"WHITEOAK	SURVEYED
85	28"GUM	SURVEYED
86	19"GUM	SURVEYED
87	27"POPLAR	SURVEYED
88	20"POPLAR	SURVEYED
89	31"POPLAR	SURVEYED
90	19"GUM	SURVEYED
91	18"GUM	DEMOLITION
92	28"POPLAR	SURVEYED
93	18"GUM	SURVEYED
94	19"POPLAR	SURVEYED
95	20"POPLAR	SURVEYED
96	18"GUM	SURVEYED
97	19"WHITEOAK	DEMOLITION
98	18"WHITEOAK	DEMOLITION
99	19"WHITEOAK	DEMOLITION
100	18"POPLAR	SURVEYED
101	19"POPLAR	SURVEYED
102	26"WHITEOAK	SURVEYED
103	18"WHITEOAK	SURVEYED
104	18"WHITEOAK	SURVEYED
105	30"WHITEOAK	DEMOLITION
106	20"POPLAR	SURVEYED
107	19"WHITEOAK	DEMOLITION
108	18"WHITEOAK	DEMOLITION
109	26"WHITEOAK	DEMOLITION
110	25"WHITEOAK	DEMOLITION
111	21"WHITEOAK	SURVEYED
112	23"WHITEOAK	DEMOLITION
113	18"WHITEOAK	SURVEYED
114	21"REDOAK	SURVEYED
115	18"WHITEOAK	DEMOLITION
116	20"REDOAK	DEMOLITION
117	19"POPLAR	DEMOLITION
118	25"WHITEOAK	SURVEYED
119	18"WHITEOAK	SURVEYED
120	18"REDOAK	SURVEYED
121	19"WHITEOAK	SURVEYED
122	18"GUM	SURVEYED
123	23"WHITEOAK	SURVEYED
124	18"POPLAR	SURVEYED

Point Table		
Point #	Description	CONDITION
125	20"POPLAR	SURVEYED
126	23"POPLAR	SURVEYED
127	34"WHITEOAK	SURVEYED
128	18"WHITEOAK	SURVEYED
129	21"REDOAK	SURVEYED
130	21"REDOAK	SURVEYED
131	18"REDOAK	SURVEYED
132	19"WHITEOAK	SURVEYED
133	20"WHITEOAK	SURVEYED
134	29"POPLAR	SURVEYED
135	18"WHITEOAK	SURVEYED
136	20"POPLAR	SURVEYED
137	22"REDOAK	SURVEYED
138	20"WHITEOAK	SURVEYED
139	19"REDOAK	SURVEYED
140	20"WHITEOAK	SURVEYED
141	26"WHITEOAK	SURVEYED
142	18"WHITEOAK	SURVEYED
143	25"WHITEOAK	SURVEYED
144	28"WHITEOAK	SURVEYED
145	19"WHITEOAK	SURVEYED
146	20"WHITEOAK	SURVEYED
147	19"WHITEOAK	SURVEYED
148	24"REDOAK	SURVEYED
149	19"WHITEOAK	SURVEYED
150	19"POPLAR	SURVEYED
151	22"REDOAK	SURVEYED
152	21"POPLAR	SURVEYED
153	18"WHITEOAK	SURVEYED
154	18"WHITEOAK	SURVEYED
155	38"REDOAK	SURVEYED
156	18"WHITEOAK	SURVEYED
157	20"WHITEOAK	SURVEYED
158	19"WHITEOAK	SURVEYED
159	19"GUM	SURVEYED
160	19"POPLAR	SURVEYED
161	22"POPLAR	SURVEYED
162	20"WHITEOAK	SURVEYED
163	19"WHITEOAK	SURVEYED
164	32"POPLAR	SURVEYED
165	20"POPLAR	SURVEYED
166	18"WATEROAK	SURVEYED
167	22"POPLAR	SURVEYED
168	21"POPLAR	SURVEYED
169	19"REDOAK	SURVEYED
170	18"REDOAK	SURVEYED
171	25"REDOAK	SURVEYED
172	20"POPLAR	SURVEYED
173	21"WHITEOAK	SURVEYED
174	21"WHITEOAK	SURVEYED
175	30"POPLAR	SURVEYED
176	19"WHITEAOK	SURVEYED
177	28"POPLAR	SURVEYED
178	20"POPLAR	SURVEYED
179	21"POPLAR	SURVEYED
180	19"POPLAR	SURVEYED
181	22"WHITEOAK	SURVEYED
182	27"GUM	SURVEYED
183	20"POPLAR	SURVEYED
184	22"POPLAR	SURVEYED
185	18"GUM	SURVEYED
186	26"POPLAR	SURVEYED

Point Table		
Point #	Description	CONDITION
187	22"POPLAR	SURVEYED
188	20"GUM	DEMOLITION
189	21"WHITEOAK	SURVEYED
190	25"REDOAK	DEMOLITION
191	19"WHITEOAK	SURVEYED
192	19"GUM	DEMOLITION
193	21"GUM	DEMOLITION
194	19"WHITEOAK	SURVEYED
195	28"GUM	SURVEYED
196	28"GUM	SURVEYED
197	19"GUM	SURVEYED
198	22"MAPLE	SURVEYED
199	20"POPLAR	SURVEYED
200	20"POPLAR	SURVEYED
201	20"WHITEOAK	DEMOLITION
202	30"GUM	SURVEYED
203	22"GUM	SURVEYED
204	22"GUM	SURVEYED
205	26"GUM	SURVEYED
206	18"GUM	SURVEYED
207	20"GUM	SURVEYED
208	32"WHITEOAK	SURVEYED
209	24"MAPLE	SURVEYED
210	27"POSTOAK	SURVEYED
211	23"GUM	SURVEYED
212	20"GUM	SURVEYED
213	30"WHITEOAK	SURVEYED
214	21"MAPLE	SURVEYED
215	32"MAPLE	SURVEYED
216	20"POPLAR	SURVEYED
217	33"POPLAR	SURVEYED
218	19"GUM	SURVEYED
219	30"WHITEOAK	SURVEYED
220	23"POPLAR	SURVEYED
221	18"WHITEOAK	SURVEYED
222	18"GUM	SURVEYED
223	24"GUM	SURVEYED
224	20"WHITEOAK	SURVEYED
225	24"REDOAK	SURVEYED
226	24"POPLAR	SURVEYED
227	22"GUM	SURVEYED
228	21"WHITEOAK	SURVEYED
229	19"WHITEOAK	SURVEYED
230	22"WHITEOAK	SURVEYED
231	40"WHITEOAK	SURVEYED
232	36"POPLAR	SURVEYED
233	23"GUM	SURVEYED
234	23"MAPLE	SURVEYED
235	18"POPLAR	SURVEYED
236	18"POPLAR	SURVEYED
237	20"POPLAR	SURVEYED
238	21"POPLAR	SURVEYED
239	22"POPLAR	SURVEYED
240	27"POPLAR	SURVEYED
241	18"GUM	SURVEYED
242	23"POPLAR	SURVEYED
243	18"WHITEOAK	SURVEYED
244	23"WHITEOAK	SURVEYED
245	21"REDOAK	SURVEYED
246	19"WHITEOAK	SURVEYED
247	21"REDOAK	SURVEYED
248	19"POPLAR	SURVEYED

Point Table		
Point #	Description	CONDITION
249	27"WHITEOAK	SURVEYED
250	25"REDOAK	SURVEYED
251	18"WHITEOAK	SURVEYED
252	23"POPLAR	SURVEYED
253	27"GUM	SURVEYED
254	19"WHITEOAK	SURVEYED
255	22"REDOAK	SURVEYED
256	21"REDOAK	SURVEYED
257	19"REDOAK	SURVEYED
258	18"WHITEOAK	SURVEYED
259	18"REDOAK	SURVEYED
260	18"REDOAK	SURVEYED
261	22"REDOAK	SURVEYED
262	23"WHITEOAK	SURVEYED
263	20"WHITEOAK	SURVEYED
264	33"POPLAR	SURVEYED
265	21"WHITEOAK	DEMOLITION
266	23"WHITEOAK	SURVEYED
267	25"REDOAK	SURVEYED
268	24"WHITEOAK	SURVEYED
269	29"WHITEOAK	SURVEYED
270	18"GUM	SURVEYED
271	22"REDOAK	SURVEYED
272	22"WHITEOAK	SURVEYED
273	23"WHITEOAK	SURVEYED
274	19"WHITEOAK	SURVEYED
275	30"WHITEOAK	SURVEYED
276	20"POPLAR	SURVEYED
277	20"WHITEOAK	SURVEYED
278	21"WHITEOAK	SURVEYED
279	22"WHITEOAK	SURVEYED
280	18"WHITEOAK	SURVEYED
281	18"WHITEOAK	SURVEYED
282	19"WHITEOAK	SURVEYED
283	24"WHITEOAK	DEMOLITION
284	18"POPLAR	SURVEYED
285	18"WHITEOAK	SURVEYED
286	18"WHITEAGK	DEMOLITION
287	18"POPLAR	SURVEYED
288	18"REDOAK	SURVEYED
289	21"WHITEOAK	DEMOLITION
290	18"GUM	DEMOLITION
291	21"REDOAK	SURVEYED
292	29"POPLAR	SURVEYED
293	18"POPLAR	DEMOLITION
294	22"GUM	SURVEYED
295	21"GUM	SURVEYED
296	25"POPLAR	SURVEYED
297	20"GUM	SURVEYED
298	20"MAPLE	SURVEYED
299	19"MAPLE	SURVEYED
300	18"GUM	SURVEYED
301	18"POPLAR	SURVEYED
302	18"WHITEOAK	SURVEYED
303	18"GUM	SURVEYED
304	19"GUM	SURVEYED
305	26"GUM	SURVEYED
306	23"GUM	SURVEYED
307	23"POPLAR	SURVEYED
308	19"POPLAR	SURVEYED
309	26"POPLAR	SURVEYED
310	23"GUM	SURVEYED

Point Table		
Point #	Description	CONDITION
311	20"GUM	SURVEYED
312	21"GUM	SURVEYED
313	19"GUM	SURVEYED
314	25"POPLAR	SURVEYED
315	18"GUM	SURVEYED
316	20"MAPLE	SURVEYED
317	20"MAPLE	SURVEYED
318	25"GUM	SURVEYED
319	26"GUM	SURVEYED
320	27"POPLAR	SURVEYED
321	18"GUM	SURVEYED
322	19"POPLAR	DEMOLITION
323	21"POPLAR	SURVEYED
324	22"GUM	SURVEYED
325	22"WHITEOAK	SURVEYED
326	22"WHITEOAK	SURVEYED
327	24"GUM	SURVEYED
328	25"WHITEOAK	DEMOLITION
329	21"GUM	DEMOLITION
330	24"GUM	SURVEYED
331	23"WHITEOAK	SURVEYED
332	18"POPLAR	SURVEYED
333	22"WHITEOAK	SURVEYED
334	21"WHITEOAK	SURVEYED
335	27"WHITEOAK	SURVEYED
336	19"WHITEOAK	SURVEYED
337	18"POPLAR	SURVEYED
338	21"WHITEOAK	SURVEYED
339	19"WHITEOAK	SURVEYED
340	19"WHITEOAK	DEMOLITION
341	18"WHITEOAK	DEMOLITION
342	20"POPLAR	SURVEYED
343	19"REDOAK	SURVEYED
344	18"WHITEOAK	SURVEYED
345	20"WHITEOAK	SURVEYED
346	22"REDOAK	SURVEYED
347	20"GUM	SURVEYED
348	19"WHITEOAK	SURVEYED
349	18"WHITEOAK	DEMOLITION
350	20"GUM	SURVEYED
351	20"WHITEOAK	DEMOLITION
352	26"WHITEOAK	SURVEYED
353	22"POPLAR	SURVEYED
354	18"POPLAR	SURVEYED
355	23"POPLAR	SURVEYED
356	21"GUM	SURVEYED
357	22"GUM	SURVEYED
358	23"MAPLE	SURVEYED
359	22"GUM	SURVEYED
360	28"POPLAR	SURVEYED
361	29"POPLAR	SURVEYED
362	26"MAPLE	SURVEYED
363	18"POPLAR	SURVEYED
364	19"POPLAR	SURVEYED
365	22"POPLAR	SURVEYED
366	18"MAPLE	SURVEYED
367	22"POPLAR	SURVEYED
368	19"MAPLE	SURVEYED
369	21"POPLAR	SURVEYED
370	23"POPLAR	SURVEYED

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

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

project:
HOPSON GATEWAY ZONING
PERRY ROAD @ US 1 HIGHWAY
WHITE OAK TOWNSHIP
APEX, NORTH CAROLINA 27502

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

No.	DATE	REVISION	BY
1	AUGUST 8 2023	TOWN OF APEX - 2nd ZONING COMMENTS	K
2	SEPTEMBER 29 2023	TOWN OF APEX - 3rd ZONING COMMENTS	K
3	SEPTEMBER 25 2023	TOWN OF APEX - 4th ZONING COMMENTS	K
4	APRIL 3 2023	TOWN OF APEX - 1st ZONING COMMENTS	K
5	DATE	REVISION	BY

title:
EXISTING CONDITIONS TREE SURVEY TABLE

proj #:
240307

date:
November 1, 2024

dwg by: FS
chkd by: JR

scale:
As Noted

sheet:
C003
(PUD PLAN)

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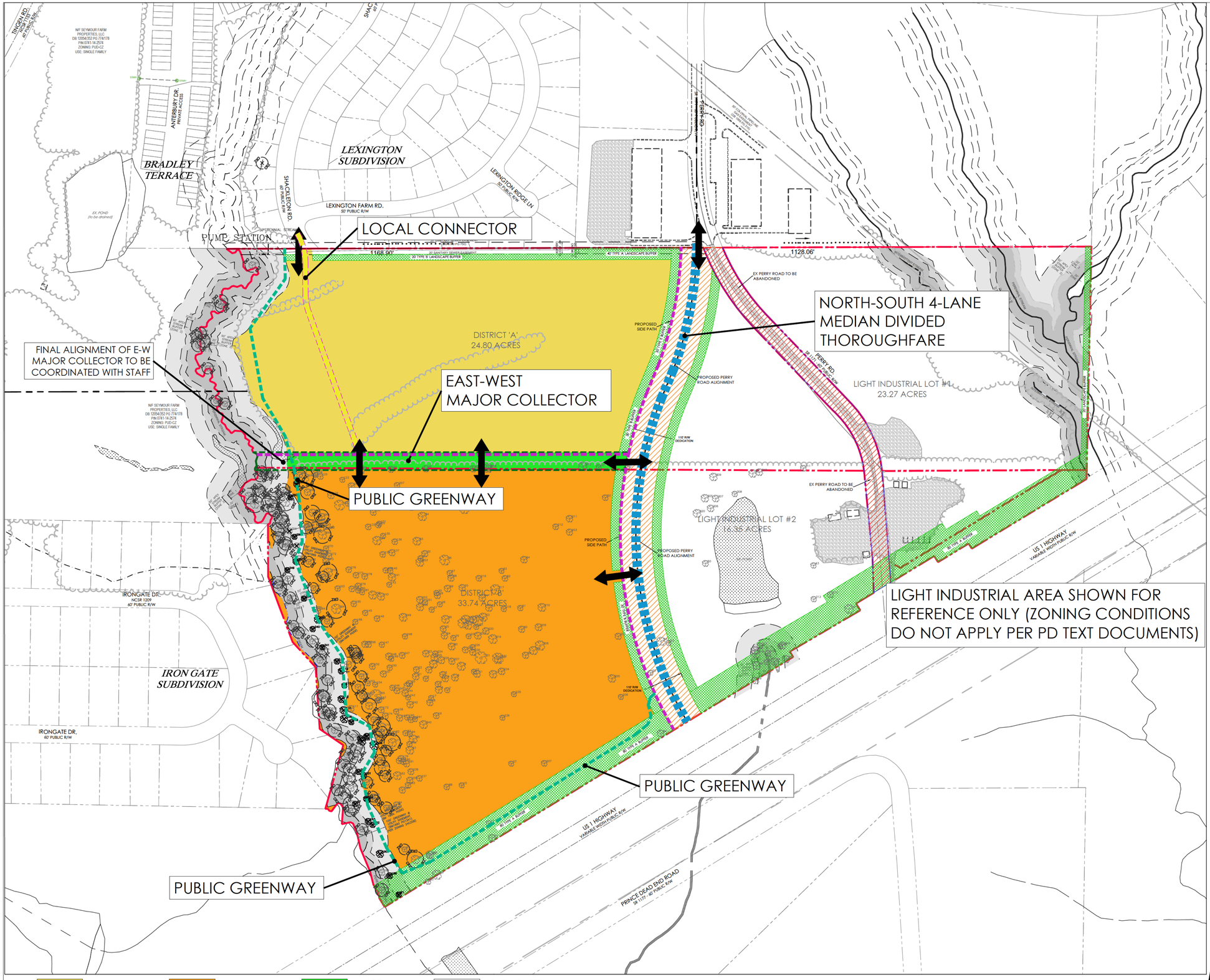

1 C100 CONCEPTUAL SITE PLAN & LOT IDENTIFICATION

SCALE: 1"=150'

0 75 150 300

SCALE: 1" = 150'

N

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, DWR, AND/OR THE TOWN OF APEX.

TOWN OF APEX PROJECT # 23-001

DWR PROJECT # 24-319

EXISTING CONDITIONS NOTES:

1. *BOUNDARY SURVEY PROVIDED BY SMITH & SMITH SURVEYORS OF APEX, NC.*
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 WITHIN THE BOUNDARY OF THE PROJECT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN. FINAL LOCATION TO BE COORDINATED WITH STAFF.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE SECONDARY WATERSHED OVERLAY DISTRICT BIG BRANCH CREEK HARRIS LAKE CAPE FEAR RIVER BASIN.

SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION OR MAJOR/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 OR MAJOR/MINOR SITE PLAN DESIGN AND APPROVAL.
3. ALL ZONING PLAN SHEETS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN COMPONENTS ARE DETERMINED AT MASTER SUBDIVISION OR MAJOR/MINOR 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 OR MAJOR/MINOR 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.).

POTENTIAL ACCESS POINTS:

POTENTIAL ACCESS POINTS SHOWN ON THE CONCEPTUAL SITE PLAN (C100) AND CONCEPTUAL UTILITY PLAN (C110) 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.

LOCATION OF ACCESS POINTS DEPICTED ARE APPROXIMATE AND SUBJECT TO TOWN OF APEX AND NCDOT APPROVAL AT THE TIME OF SITE PLAN OR SUBDIVISION PLAN APPROVAL.

ZONE 1 ZONE 2 ZONE 3 STREAM BUFFERS

PROJECT PERIMETER BOUNDARY

POTENTIAL WATER CONNECTIONS

POTENTIAL SEWER CONNECTIONS

POTENTIAL ACCESS POINTS

LOCAL CONNECTOR

MAJOR COLLECTOR

THOROUGHFARE

PROPOSED SIDE PATH

PUBLIC GREENWAY

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

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APEX, NORTH CAROLINA 27502

seal:
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 4417 BRET A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	AUGUST 7 2023	TOWN OF APEX - 2ND ZONING COMMENTS	
2	NOVEMBER 3 2023	TOWN OF APEX - 3RD ZONING COMMENTS	
3	SEPTEMBER 22 2023	TOWN OF APEX - 4TH ZONING COMMENTS	
4	APRIL 3 2023	TOWN OF APEX - 1ST ZONING COMMENTS	
5			

title:
CONCEPTUAL SITE PLAN & LOT IDENTIFICATION

proj #: 240307

date: November 1, 2024

dwg by: FS chkd by: JR

scale: As Noted

sheet: *C100*

(PUD PLAN)

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1 C110 CONCEPTUAL UTILITY PLAN
SCALE: 1"=150'

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, DWR, AND/OR THE TOWN OF APEX.
TOWN OF APEX PROJECT # 23-001
DWR PROJECT # 24-319

EXISTING CONDITIONS NOTES:

1. *BOUNDARY SURVEY PROVIDED BY SMITH & SMITH SURVEYORS OF APEX, NC.*
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 WITHIN THE BOUNDARY OF THE PROJECT.
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN. FINAL LOCATION TO BE COORDINATED WITH STAFF.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE SECONDARY WATERSHED OVERLAY DISTRICT BIG BRANCH CREEK HARRIS LAKE CAPE FEAR RIVER BASIN.

SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION OR MAJOR/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 OR MAJOR/MINOR SITE PLAN DESIGN AND APPROVAL.
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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
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POTENTIAL ACCESS POINTS:

POTENTIAL ACCESS POINTS SHOWN ON THE CONCEPTUAL SITE PLAN (C100) AND CONCEPTUAL UTILITY PLAN (C110) 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.

LOCATION OF ACCESS POINTS DEPICTED ARE APPROXIMATE AND SUBJECT TO TOWN OF APEX AND NCDOT APPROVAL AT THE TIME OF SITE PLAN OR SUBDIVISION PLAN APPROVAL.

ZONE 1 ZONE 2 ZONE 3 STREAM BUFFERS

PROJECT PERIMETER BOUNDARY
POTENTIAL WATER CONNECTIONS
POTENTIAL SEWER CONNECTIONS
POTENTIAL ACCESS POINTS
LOCAL CONNECTOR
MAJOR COLLECTOR
THOROUGHFARE
SIDEPATH
PUBLIC GREENWAY

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

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APEX, NORTH CAROLINA 27502

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047417 JEFFREY A. ROACH
PRELIMINARY NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	AUGUST 9 2023	TOWN OF APEX - 1st ZONING COMMENTS	
2	SEPTEMBER 25 2023	TOWN OF APEX - 2nd ZONING COMMENTS	
3	APRIL 3 2023	TOWN OF APEX - 3rd ZONING COMMENTS	
4			
5			
6			

title:
CONCEPTUAL UTILITY PLAN

proj #: 240307
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: *C110*
(PUD PLAN)

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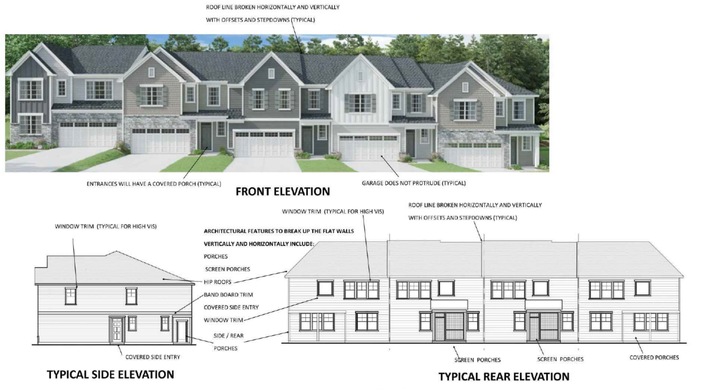
FRONT ELEVATION

TYPICAL SIDE ELEVATION

TYPICAL REAR ELEVATION

Emory Collection

Apex, NC



FRONT ELEVATION

TYPICAL SIDE ELEVATION

TYPICAL REAR ELEVATION

Emory Collection

Typical Street Facing Elevations

Apex, NC

Sonoma Ranch Panels
with Stockbridge Glass Windows

Sonoma Panels
with Stockton Glass Windows

Proposed Garage Door Styles

Front Load Townhomes

Apex, NC

ALTERNATE GARAGE DOOR STYLES (TOWNHOUSE UNITS)

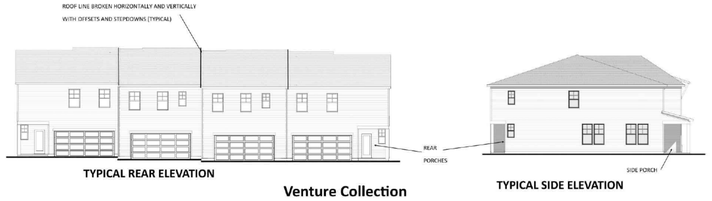
TOWNHOUSE BUILDING ELEVATIONS ALSO APPLY TO DUPLEX UNITS IF INCORPORATED INTO THE PROJECT SCOPE.

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

FINAL BUILDING ELEVATIONS MUST COMPLY WITH THESE STANDARDS BUT MAY VARY FROM HOME-TO-HOME AND BUILDING-TO-BUILDING.

FOR MULTI-FAMILY AND NON-RESIDENTIAL BUILDINGS, ALL FLAT ROOFS SHALL BE LIGHT OR WHITE COLORED OR UTILIZE A COOL ROOF MATERIAL.

FRONT ELEVATION



TYPICAL REAR ELEVATION

TYPICAL SIDE ELEVATION

Venture Collection

Apex, NC

FRONT ELEVATION

TYPICAL REAR ELEVATION

TYPICAL SIDE ELEVATION

Venture Collection

Typical Street Facing Elevations

Apex, NC

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project:
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WHITE OAK TOWNSHIP
APEX, NORTH CAROLINA 27502

seal:

PRELIMINARY NOT FOR CONSTRUCTION
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044477 CASEY A. ROACH

No.	DATE	REVISION	BY
1	APRIL 3 2023	TOWN OF APEX - 1st ZONING COMMENTS	K
2	SEPTEMBER 25 2023	TOWN OF APEX - 2nd ZONING COMMENTS	K
3	AUGUST 2 2024	TOWN OF APEX - 3rd ZONING COMMENTS	K

title:
CONCEPTUAL BUILDING ELEVATIONS TOWNHOUSE RESIDENTIAL

proj #:
240307

date:
November 1, 2024

dwg by: FS chkd by: JR

scale:
As Noted

sheet:
C120
(PUD PLAN)

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TOWNHOUSE ELEVATION 'A'

TOWNHOUSE ELEVATION 'B'

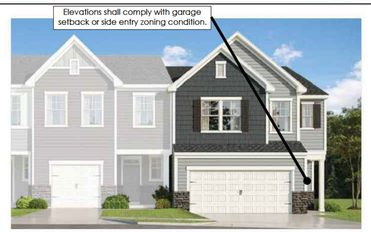
TOWNHOUSE ELEVATION 'C'

TOWNHOUSE ELEVATION 'D'

Elevation H

Elevation D

Elevation E



Elevation E

Elevation F

Elevation E

Elevation D

TOWNHOUSE ELEVATION 'E' TOWNHOUSE ELEVATION 'F' TOWNHOUSE ELEVATION 'G'

SMALL-SCALE MULTI-FAMILY 'A'

SMALL-SCALE MULTI-FAMILY 'B'

TOWNHOUSE ELEVATION 'H'

TOWNHOUSE ELEVATION 'J'

TOWNHOUSE ELEVATION 'I'

TOWNHOUSE ELEVATION 'K'

SMALL-SCALE MULTI-FAMILY 'C'

SMALL-SCALE MULTI-FAMILY 'D'

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

FINAL BUILDING ELEVATIONS MUST COMPLY WITH THESE STANDARDS BUT MAY VARY FROM HOME-TO-HOME AND BUILDING-TO-BUILDING.

FOR MULTI-FAMILY AND NON-RESIDENTIAL BUILDINGS, ALL FLAT ROOFS SHALL BE LIGHT OR WHITE COLORED OR UTILIZE A COOL ROOF MATERIAL.

TOWNHOUSE BUILDING ELEVATIONS ALSO APPLY TO DUPLEX UNITS IF INCORPORATED INTO THE PROJECT SCOPE.

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APEX, NORTH CAROLINA 27502

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL REYA A. ROACH
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No.	DATE	REVISION	BY
1	AUGUST 2025	TOWN OF APEX - 2ND ZONING COMMENTS	K
2	SEPTEMBER 2025	TOWN OF APEX - 3RD ZONING COMMENTS	K
3	SEPTEMBER 23, 2025	TOWN OF APEX - 4th ZONING COMMENTS	K
4	APRIL 3, 2023	TOWN OF APEX - 1st ZONING COMMENTS	K

title:
CONCEPTUAL BUILDING ELEVATIONS TOWNHOUSE RESIDENTIAL

proj #:
240307

date:
November 1, 2024

dwg by: FS
chkd by: JR

scale:
As Noted

sheet:
C121
(PUD PLAN)

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SINGLE-FAMILY
ELEVATION 'A'

SINGLE-FAMILY
ELEVATION 'B'

SINGLE-FAMILY
ELEVATION 'C'

SINGLE-FAMILY
ELEVATION 'D'

SINGLE-FAMILY
ELEVATION 'E'

SINGLE-FAMILY
ELEVATION 'F'

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

FINAL BUILDING ELEVATIONS MUST COMPLY WITH THESE STANDARDS BUT MAY VARY FROM HOME-TO-HOME AND BUILDING-TO-BUILDING.

FOR MULTI-FAMILY AND NON-RESIDENTIAL BUILDINGS, ALL FLAT ROOFS SHALL BE LIGHT OR WHITE COLORED OR UTILIZE A COOL ROOF MATERIAL.

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seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047127 GREGORY A. ROACH
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No.	DATE	REVISION	BY
1	AUGUST 8 2025	TOWN OF APEX - 2ND ZONING COMMENTS	
2	AUGUST 8 2025	TOWN OF APEX - 2ND ZONING COMMENTS	
3	SEPTEMBER 25 2025	TOWN OF APEX - 4TH ZONING COMMENTS	
4			
5	APR 3 2023	TOWN OF APEX - 1ST ZONING COMMENTS	

title:
CONCEPTUAL BUILDING ELEVATIONS SINGLE-FAMILY RESIDENTIAL

proj #:
240307

date:
November 1, 2024

dwg by: FS
chkd by: JR

scale:
As Noted

sheet:
C122
(PUD PLAN)

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MULTI-FAMILY ELEVATION 'A'
(WALKER RIDGE)

MULTI-FAMILY ELEVATION 'C'
(ARDEN)

MULTI-FAMILY ELEVATION 'B'
(SOLIS)

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

FINAL BUILDING ELEVATIONS MUST COMPLY WITH THESE STANDARDS BUT MAY VARY FROM HOME-TO-HOME AND BUILDING-TO-BUILDING.

FOR MULTI-FAMILY AND NON-RESIDENTIAL BUILDINGS, ALL FLAT ROOFS SHALL BE LIGHT OR WHITE COLORED OR UTILIZE A COOL ROOF MATERIAL.

MULTI-FAMILY ELEVATION 'D'
(CONCEPT)

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seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047417 GREYA A. ROACH
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No.	DATE	REVISION	BY
1	AUGUST 2023	TOWN OF APEX - 2ND ZONING COMMENTS	N
2	SEPTEMBER 2023	TOWN OF APEX - 3RD ZONING COMMENTS	N
3	SEPTEMBER 25, 2023	TOWN OF APEX - 4th ZONING COMMENTS	N
4	APRIL 3, 2023	TOWN OF APEX - 1st ZONING COMMENTS	N
5			

title:
CONCEPTUAL BUILDING ELEVATIONS MULTI-FAMILY BUILDINGS

proj #:
240307

date:
November 1, 2024

dwg by: FS
chkd by: JR

scale:
As Noted

sheet:
C123
(PUD PLAN)

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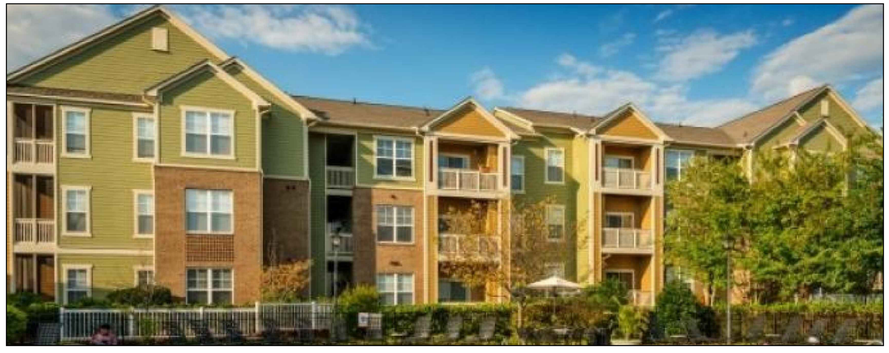
ELEVATION REMOVED

MULTI-FAMILY
ELEVATION 'E'

MULTI-FAMILY
ELEVATION 'F'

MULTI-FAMILY
ELEVATION 'G'

MULTI-FAMILY ELEVATION 'H'
(GARDEN STYLE A)



MULTI-FAMILY ELEVATION 'I'
(GARDEN STYLE B)

CLUBHOUSE
ELEVATION 'A'

CLUBHOUSE
ELEVATION 'B'

CLUBHOUSE
ELEVATION 'C'

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

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

No.	DATE	REVISION	BY
1	AUGUST 8, 2025	TOWN OF APEX - 2ND ZONING COMMENTS	JR
2	AUGUST 8, 2025	TOWN OF APEX - 2ND ZONING COMMENTS	JR
3	SEPTEMBER 23, 2025	TOWN OF APEX - 4TH ZONING COMMENTS	JR
4	APR 3, 2023	TOWN OF APEX - 1ST ZONING COMMENTS	JR
5			JR

title:
CONCEPTUAL BUILDING ELEVATIONS MULTI-FAMILY & CLUBHOUSE

proj #: 240307
date: November 1, 2024
dwg by: FS
chkd by: JR
scale: As Noted
sheet: C124
(PUD PLAN)

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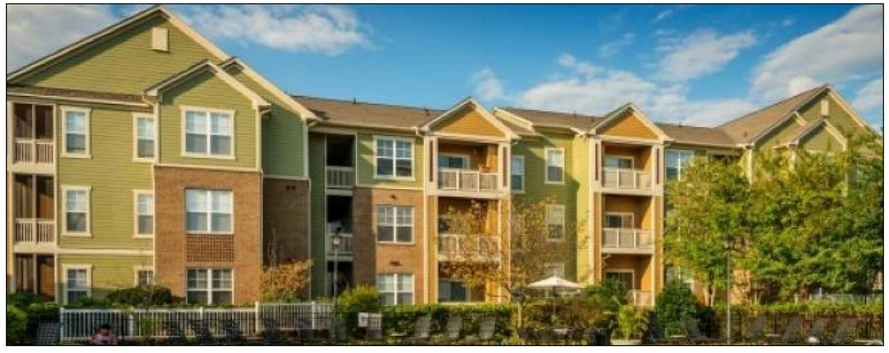
ELEVATION REMOVED

MULTI-FAMILY
ELEVATION 'E'

MULTI-FAMILY
ELEVATION 'F'

MULTI-FAMILY
ELEVATION 'G'

MULTI-FAMILY ELEVATION 'H'
(GARDEN STYLE A)



MULTI-FAMILY ELEVATION 'I'
(GARDEN STYLE B)

CLUBHOUSE
ELEVATION 'A'

CLUBHOUSE
ELEVATION 'B'

CLUBHOUSE
ELEVATION 'C'

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seal:
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No.	DATE	REVISION	BY
1	AUGUST 8, 2025	TOWN OF APEX - 2ND ZONING COMMENTS	JR
2	AUGUST 8, 2025	TOWN OF APEX - 2ND ZONING COMMENTS	JR
3	SEPTEMBER 23, 2025	TOWN OF APEX - 4TH ZONING COMMENTS	JR
4	APR 3, 2023	TOWN OF APEX - 1ST ZONING COMMENTS	JR
5			JR

title:
CONCEPTUAL BUILDING ELEVATIONS MULTI-FAMILY & CLUBHOUSE

proj #: 240307
date: November 1, 2024
dwg by: FS
chkd by: JR
scale: As Noted
sheet: C124
(PUD PLAN)

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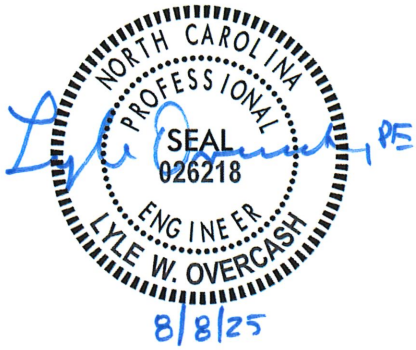
Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC
NC License #F-0102



MEMORANDUM

To: Daniel Boulware, P.E. – NCDOT
Jessica McClure, P.E. – Town of Apex

From: Lyle Overcash, P.E. – Kimley-Horn and Associates, Inc.

Date: August 8, 2025

Subject: Hopson Gateway – Apex, NC – Traffic Impact Analysis

Kimley-Horn and Associates, Inc. has previously performed and submitted a Traffic Impact Analysis (TIA) for the proposed development (*Hopson Gateway Development TIA*, November 2024). Since the submittal of this TIA, there have been changes to the density, build-out year, and background assumptions of the proposed development. The Town and residential portion of the development are expected to remain the same as the previously submitted TIA (120,000 square foot (SF) warehouse and 13.5-acre yard waste center for the Town site and 170 townhomes, 50 single family homes, and 400 mid-rise apartments for the residential portion). A 25,000 SF non-residential land use is now expected to be part of this development, and the build-out year is now expected to be 2028. The nearby Tingen Corners development (formerly known as Seymour PUD) is no longer moving forward in the development process; therefore, the proposed East-West Connector will not connect to Tingen Road at this time. However, Apex Peakway is moving forward and is anticipated to be completed in 2027. Additionally, the Grace Chrisitan School development was included in this update to the analysis as this site is expected to be constructed prior to the Hopson Gateway Development. This traffic impact memorandum analyzes and summarizes the impacts of the proposed development with these changes. See **Figure 1** for the conceptual site plan for the Hopson Gateway Development.

Study Area and Existing Traffic Volumes

Based on methodology from the previously submitted and approved TIA, the following intersections were analyzed as part of this study:

- NC 55 at Apex Peakway
- Apex Peakway at S Hughes Street
- Apex Peakway at Perry Road
- Apex Peakway at Tingen Road
- S Hughes Street at James Street
- Perry Road at S Hughes Street
- Apex Peakway at Shackleton Road
- Perry Road/East-West Collector at Site Driveway 1 (*full movement*)
- East-West Collector at Site Driveway 2 (*full movement*)
- Perry Road at Site Driveway 3/Shackleton Road (*full movement*)
- Perry Road at Site Driveway 4 (*right-in/right-out*)
- Perry Road at Site Driveway 5 (*full movement*)

Weekday AM (7:00 – 9:00 am) and PM (4:00 – 6:00 pm) peak hour turning movement counts were collected at each of the existing study intersections in May and October of 2024 while Wake County Public Schools were in session. Additionally, 16-hour (6:00 am – 10:00 pm) peak hour turning movement counts were collected at the intersection of Apex Peakway at Perry Road. Refer to the attachments for the traffic count data.

Background Traffic Volumes

To obtain the projected (2028) background traffic volumes, existing traffic volumes were grown to the build-out year of 2028 using a growth rate of 3%. Traffic diversions were also calculated to take into account the proposed future State Transportation Improvement Program (TIP) project U-5928, also known as the Apex Peakway Southwest Connector which is consistent with the methodology in the previously submitted and approved TIA.

Approved development traffic is generated by approved but not yet constructed projects in the vicinity of the proposed project. Based on discussions with the Town and NCDOT, there were five (5) approved developments in the study area that were identified for inclusion as background traffic. These approved developments include Fast-Food Restaurant (Chick-fil-a), Veridea Phase 1, Grace Christian School, Broadstone Hotel, and Broadstone Retail. It should be noted that adjusted peak hour factors were calculated for movements impacted by the Grace Christian School site traffic. The approved development traffic volumes are shown in **Figure 2.** The projected (2028) background AM and PM peak hour traffic volumes are shown in **Figure 3**.

Trip Generation and Distribution

The trip generation for the Town Site was obtained from the trip generation memorandum provided by the Town (Trip Generation for Rezoning Case #24CZ08, Town of Apex, May 2024). The traffic generation potential of the proposed project was calculated using the data published in the *11th Edition of the ITE Trip Generation Manual*.

As currently envisioned, the Hopson Gateway Development will consist of approximately 50 single-family homes, 170 townhomes, 400 mid-rise apartment units, and a 25,000 SF business park (assumed land use for the non-residential portion). The Town Site is planned to consist of an existing warehouse with 120,000 square feet (SF), a 13.5-acre yard waste transfer station, a yard waste drop off convenience center, and a water resources office building with a maximum of 75 employees. However, based on coordination with the Town of Apex, the office portion of the site is not included in this study as this is expected to be constructed after the build-out year of the proposed Hopson Gateway Development.

Table 1 and Table 2, located on the following page, summarize the estimated traffic generation for the non-residential (Town Site and Business Park) and residential portions of the development, respectively.

Table 1 – Non-Residential Development ITE Traffic Generation (Vehicles)							
Land Use Code	Land Use	Intensity	Daily	AM Peak Hour		PM Peak Hour	
			Total	In	Out	In	Out
150	Warehousing *(Existing)*	120,000 s.f.	236	28	15	31	41
-	Yard Waste Transfer Station and Drop off Convenience Center *(Proposed)*	13.5 acres	302	14	14	4	4
770	Business Park	25,000 s.f.	982	31	6	11	31
Total Net New Trips			**1,520**	**73**	**35**	**25**	**67**

As shown in Table 1, the non-residential portion of the development is expected to generate 1,520 daily trips, 108 AM peak hour trips (73 entering and 35 exiting), and 92 PM peak hour trips (25 entering and 67 exiting) on a typical weekday.

Table 2 – Residential Development ITE Traffic Generation (Vehicles)							
Land Use Code	Land Use	Intensity	Daily	AM Peak Hour		PM Peak Hour	
			Total	In	Out	In	Out
210	Single-Family Detached Housing	50 d.u.	534	10	30	33	19
215	Single-Family Attached Housing	170 d.u.	1,246	21	62	58	40
221	Multifamily Housing (Mid-Rise)	200 d.u.	1,862	38	126	85	61
Total Net New Trips			**3,642**	**69**	**218**	**186**	**120**

As shown in Table 2, the residential portion of the development is expected to generate 3,642 daily trips, 287 AM peak hour trips (69 entering and 218 exiting), and 306 PM peak hour trips (186 entering and 120 exiting) on a typical weekday.

The proposed site generated trips were assigned to the surrounding roadway network. The directional distribution and assignment are based on existing travel patterns.

The following overall distribution will be used for the non-residential development entering and exiting traffic:

- 30% to/from the south on NC 55
- 30% to/from the west on Apex Peakway
- 20% to/from the south on Tingen Road
- 15% to/from the north on S Hughes Street
- 5% to/from the north on NC 55

The following overall distribution will be used for the residential development entering and exiting traffic:

- 30% to/from the south on NC 55
- 25% to/from the west on Apex Peakway
- 25% to/from the south on Tingen Road
- 15% to/from the north on S Hughes Street
- 5% to/from the north on NC 55

The site traffic distribution and percent assignment for the Non-Residential and Residential portions of the development are shown in **Figure 4** and **Figure 5**, respectively.

The projected AM and PM peak hour non-residential, residential and total site traffic volumes for the are shown on **Figure 6A**, **Figure 6B**, **Figure 7A**, **Figure 7B**, **Figure 8A** and **Figure 8B**, respectively.

Build-Out Traffic Volumes

To obtain the projected (2028) build-out traffic volumes, the projected site traffic volumes were added to the projected (2028) background traffic. Traffic volume calculations are detailed in the intersection spreadsheets in the attachments. **Figure 9A** and **Figure 9B** show the projected (2028) AM and PM peak hour build-out traffic volumes.

Capacity Analysis

Peak hour capacity analyses for the build-out condition were performed at the study intersections using Synchro version 12 software. Table 3, on the following pages, presents results for background (2028), build (2028), and build (2028) with improvements traffic conditions.

Under the background (2028) traffic conditions with Improvements scenario, changes in LOS and delay are primarily due to signal optimization, except at the Apex Peakway at Tingen Road intersection. At this location, geometric and signalization improvements were considered due to traffic increases due to the Apex Peakway completion and Grace Christian school development.

Table 3 Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
NC 55 at Apex Peakway (Signalized)		
Background (2028) Traffic	Overall – B (19.2) EB – B (11.8) NB – C (20.8) SB – C (21.2)	Overall – D (36.0) EB – D (51.2) NB – D (39.9) SB – C (20.5)
Background (2028) Traffic – *with Improvements*	Overall – C (22.4) EB – C (24.2) NB – C (23.2) SB – B (19.3)	Overall – D (35.7) EB – D (50.0) NB – D (39.9) SB – C (20.5)
Build (2028) Traffic	Overall – C (22.5) EB – B (23.3) NB – C (22.8) SB – C (21.3)	Overall – D (40.8) EB – D (50.3) NB – D (50.2) SB – C (20.5)
Build-Out (2028) Traffic – *with Improvements*	Overall – C (28.7) EB – C (33.4) NB – C (26.4) SB – C (30.0)	Overall – C (31.1) EB – C (32.1) NB – C (27.7) SB – D (35.6)
Apex Peakway at S Hughes Street (Signalized)		
Background (2028) Traffic	Overall – C (26.7) EB – E (58.7) WB – D (46.5) NB – B (13.0) SB – C (30.1)	Overall – C (27.7) EB – D (53.5) WB – D (35.9) NB – B (15.3) SB – C (32.4)
Background (2028) Traffic – *with Improvements*	Overall – C (20.2) EB – D (42.3) WB – C (32.5) NB – B (15.5) SB – B (18.5)	Overall – C (27.8) EB – D (53.5) WB – D (35.9) NB – B (15.6) SB – C (32.4)
Build (2028) Traffic	Overall – C (20.7) EB – E (42.3) WB – C (32.4) NB – B (16.4) SB – B (19.2)	Overall – C (29.5) EB – D (53.5) WB – D (35.9) NB – B (16.4) SB – D (36.3)
Build-Out (2028) Traffic – *with Improvements*	Overall – B (18.2) EB – D (42.3) WB – D (32.4) NB – A (9.2) SB – C (20.3)	Overall – B (16.3) EB – D (44.5) WB – C (30.9) NB – B (12.1) SB – B (10.9)

Table 3 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
Apex Peakway at Perry Road (Unsignalized/Signalized)		
Background (2028) Traffic – *with/without Improvements*	NB – F (72.5) SB – F (81.9) EBL – A (9.7) WBL – A (9.3)	NB – F (60.6) SB – F (61.4) EBL – A (9.1) WBL – A (9.8)
Build (2028) Traffic	NB – N/A* SB – N/A* EBL – A (9.7) WBL – B (10.0)	NB – F (>500) SB – F (>500) EBL – A (9.1) WBL – B (11.1)
Build-Out (2028) Traffic – *with Improvements*	Overall – C (20.2) EB – C (23.8) WB – B (12.7) NB – C (30.1) SB – C (23.5)	Overall – C (21.6) EB – C (29.2) WB – A (8.2) NB – C (33.2) SB – B (17.6)
Apex Peakway at Tingen Road (Unsignalized/Signalized)		
Background (2028) Traffic	EB – N/A* WB – N/A* NBL – A (8.3) SBL – A (8.8)	EB – N/A* WB – N/A* NBL – A (8.0) SBL – A (8.1)
Background (2028) Traffic – *with Improvements*	Overall – D (47.9) EB – E (61.2) WB – C (24.7) NB – E (66.0) SB – C (32.3)	Overall – C (25.2) EB – C (23.4) WB – B (12.7) NB – C (26.2) SB – D (45.3)
Build (2028) Traffic	Overall – E (56.3) EB – E (78.0) WB – D (40.0) NB – E (64.2) SB – C (32.3)	Overall – C (25.4) EB – C (25.6) WB – B (13.5) NB – C (25.8) SB – D (45.3)
Build-Out (2028) Traffic – *with Improvements*	Overall – D (54.2) EB – E (80.8) WB – D (31.2) NB – E (64.5) SB – C (32.3)	Overall – C (22.9) EB – C (25.6) WB – A (5.9) NB – C (25.8) SB – D (45.3)

*Due to Synchro limitations, delay could not be calculated

Table 3 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
S Hughes at James Street (Unsignalized – All-Way Stop-Control)		
Background (2028) Traffic – *with/without Improvements*	Overall – B (12.4) EB – B (13.2) WB – A (10.0) NB – B (12.6) SB – B (12.2)	Overall – B (13.9) EB – B (13.7) WB – B (11.1) NB – B (15.0) SB – B (13.9)
Build (2028) Traffic – *with/without Improvements*	Overall – B (13.6) EB – B (14.0) WB – B (10.4) NB – B (14.3) SB – B (13.3)	Overall – C (15.4) EB – B (14.6) WB – B (11.6) NB – C (16.8) SB – C (15.8)
S Hughes at Perry Road (Unsignalized)		
Background (2028) Traffic – *with/without Improvements*	EB – C (15.8) WB – B (12.7) NBL – A (7.8) SBL – A (7.7)	EB – C (19.5) WB – B (14.3) NBL – A (7.9) SBL – A (7.8)
Build (2028) Traffic – *with/without Improvements*	EB – C (18.4) WB – B (12.9) NBL – A (7.9) SBL – A (7.7)	EB – C (23.4) WB – B (14.6) NBL – A (8.0) SBL – A (7.8)
Apex Peakway at Shackleton Road (Unsignalized)		
Background (2028) Traffic – *with/without Improvements*	NB – E (37.9) SB – F (55.0) EBL – A (9.5) WBL – A (9.4)	NB – D (33.9) SB – E (46.9) EBL – A (8.9) WBL – A (9.5)
Build (2028) Traffic – *with/without Improvements*	NB – F (90.6) SB – F (93.2) EBL – B (10.1) WBL – A (9.7)	NB – F (53.6) SB – F (73.4) EBL – A (9.3) WBL – A (10.0)
Perry Road at East-West Collector/Site Driveway 1 (Unsignalized)		
Build-Out (2028) Traffic – *with Improvements*	EB – B (11.9) WB – A (9.8) NBL – A (7.5) SBL – A (7.5)	EB – B (11.1) WB – A (9.3) NBL – A (7.7) SBL – A (7.4)
East-West Collector at Site Driveway 2 (Unsignalized)		
Build (2028) Traffic	NB – A (8.9) WBL – A (7.4)	NB – A (8.8) WBL – A (7.3)

Table 3 (cont.) Level-of-Service Summary		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
East-West Collector at Site Driveway 3/Shackleton Road (Unsignalized)		
Build (2028) Traffic	NB – A (9.0) SB – A (9.2) EBL – A (7.2) WBL – A (7.3)	NB – A (9.1) SB – A (9.7) EBL – A (7.2) WBL – A (7.3)
Perry Road at Site Driveway 4 (Unsignalized)		
Build-Out (2028) Traffic	EB – A (8.5)	EB – A (8.6)
Perry Road at Site Driveway 5 (Unsignalized)		
Condition	**AM Peak Hour LOS (Delay)**	**PM Peak Hour LOS (Delay)**
Build-Out (2028) Traffic	EB – A (9.2) NBL – A (7.3) SBL – A (7.2)	EB – A (9.1) NBL – A (7.4) SBL – A (7.2)

Summary & Recommendations

As shown in Table 3, all study intersections are expected to operate with acceptable levels-of-service in the build-out condition with the committed and recommended roadway laneage in place, with exception of the following locations:

Apex Peakway at Shackleton Road

Under background traffic conditions, the minor street approaches of this intersection (Shackleton Road) are projected to operate with moderate to long delays in the AM peak hour and moderate delays in the PM peak hour. Under build-out traffic conditions, the minor street approaches are projected to operate with long delays in both peak hours.

It is typical for stop sign-controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. Ultimately, future traffic signals on either side of Shackleton Road, at Tingen Road and Perry Road, will likely provide additional gaps in the traffic stream for minor street movements. Therefore, no further improvements are recommended to accommodate site traffic.

Apex Peakway at Tingen Road

Under background traffic conditions, the stop-controlled major street approaches of this intersection (Apex Peakway) are projected to operate with long delays in the AM and PM peak hours. Per the Unified Development Ordinance (UDO) for the Town of Apex, geometric and traffic control improvements are required to be proposed for intersections projected to operate worse than LOS D in background conditions.

Therefore, the following improvements were analyzed under background conditions:

- Construct a westbound left-turn lane with approximately 200 feet of storage and appropriate taper
- Construct a northbound right-turn lane with approximately 150 feet of storage and appropriate taper
- Install traffic signal

Under background traffic conditions, the signalized intersection is projected to operate at LOS D in the AM peak hour and LOS C in the PM peak hour. No further improvements are recommended under build-out conditions, as the proposed development's site traffic is anticipated to have an impact of less than 10% on the overall intersection, per the UDO.

The following improvements are recommended to be performed as part of the Hopson Gateway Development and were assumed to be in place in the build-out (2028) condition:

Apex Peakway at Perry Road

- Construct an eastbound left-turn lane with approximately 50 feet of storage and appropriate taper
- Construct a westbound left-turn lane with approximately 100 feet of storage and appropriate taper

- Restripe a northbound left-turn lane with approximately 100 feet of storage and appropriate taper
- Restripe a southbound left-turn lane with approximately 100 feet of storage and appropriate taper
- Install traffic signal

Perry Road

- Construct a 4-lane divided thoroughfare from the northern property limits to south of Site Driveway 5, exact terminus to be determined

Perry Road at East-West Collector/Site Driveway 1

- Construct an eastern leg with stop control and one ingress lane and one egress lane
- Construct a western leg with stop control and one ingress lane and one egress lane

East-West Collector at Site Driveway 2

- Construct a southern leg with stop control and one ingress lane and one egress lane

East-West Collector at Site Driveway 3/Shackleton Road

- Construct a southern leg with stop control and one ingress lane and one egress lane

Perry Road at Site Driveway 4

- Construct a western leg with stop control and one ingress lane and one egress lane, restricted to right-in/right-out (RIRO) only movements

Perry Road at Site Driveway 5

- Construct a western leg with stop control and one ingress lane and one egress lane
- Construct a northbound left-turn lane with approximately 100 feet of storage and appropriate taper
- Construct a southbound left-turn lane with approximately 100 feet of storage and appropriate taper to allow for future connection

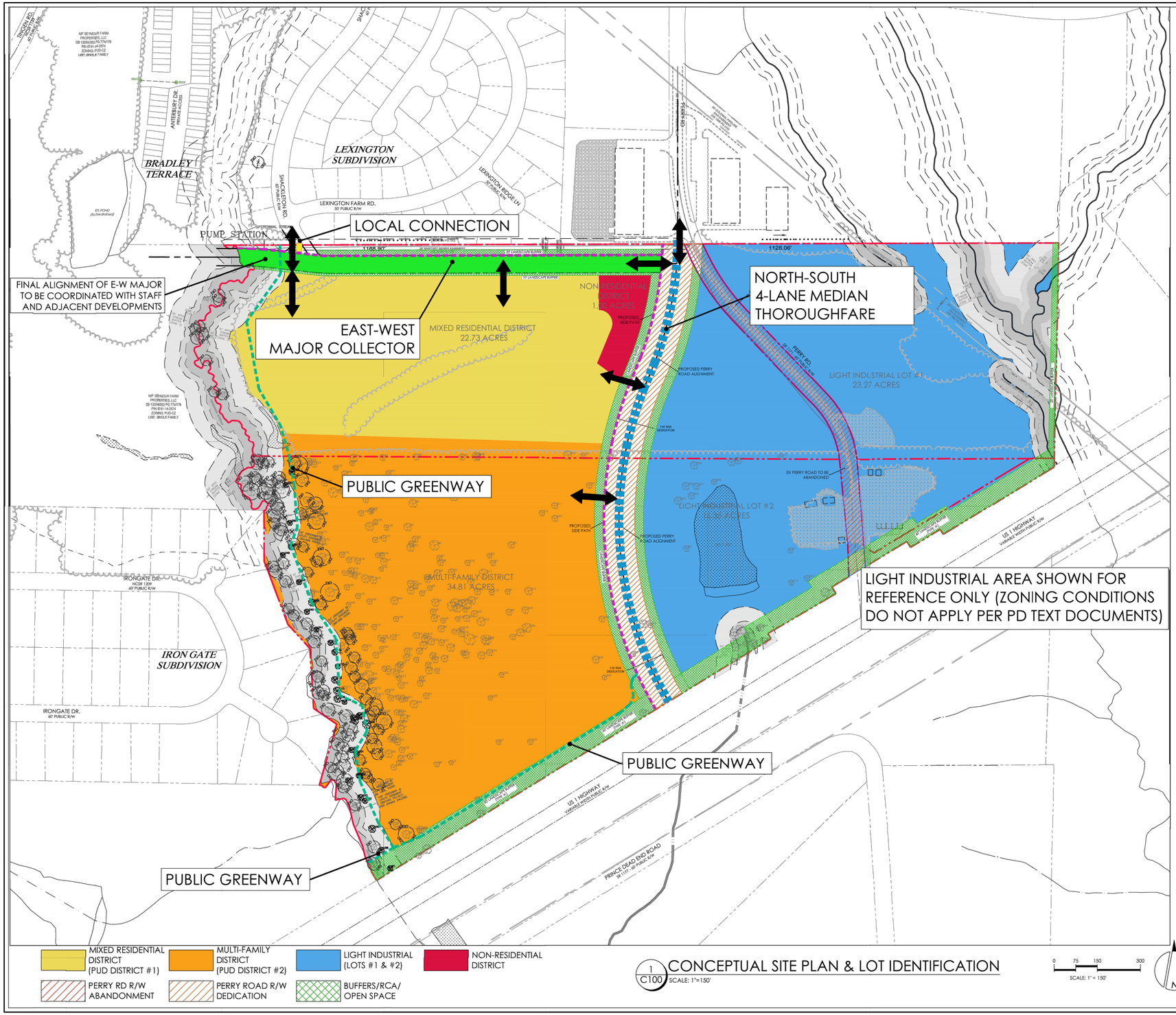
Figures 10A and **10B** show the committed and recommended laneage.

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

Attachments: Figures 1-10B, Trip Generation, Traffic Count Data, Intersection Spreadsheets, Synchro Reports, SimTraffic Reports, Approved Development Data

Attachments

Figures 1-10B



1 C100 CONCEPTUAL SITE PLAN & LOT IDENTIFICATION
SCALE: 1"=150'

SCALE: 1" = 150'

N

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, DWR, AND/OR THE TOWN OF APEX.

TOWN OF APEX PROJECT # 23-001
DWR PROJECT # 24-319

EXISTING CONDITIONS NOTES:

1. *BOUNDARY SURVEY PROVIDED BY SMITH & SMITH SURVEYORS OF APEX, NC.*
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 WITHIN THE BOUNDARY OF THE PROJECT.*
5. *PROPOSED GREENWAY, SIDEPATHS, AND/OR MULTI-USE TRAILS ARE SHOWN ON THE ADOPTED PARKS AND GREENWAYS MASTER PLAN. FINAL LOCATION TO BE COORDINATED WITH STAFF.*
6. *100-YR FLOOD PLAIN IS NOT LOCATED ON OR WITHIN 100' OF THE PROPERTIES.*
7. PROPERTIES ARE LOCATED WITHIN THE SECONDARY WATERSHED OVERLAY DISTRICT, BIG BRANCH CREEK, HARRIS LAKE, CAPE FEAR RIVER BASIN.

SITE AND UTILITY NOTES:

1. DEVELOPMENT ACCESS AND STUB STREET LOCATIONS SHALL BE FINALIZED AT MASTER SUBDIVISION OR MAJOR/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 OR MAJOR/MINOR SITE PLAN DESIGN AND APPROVAL.
3. ALL ZONING PLAN SHEETS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN COMPONENTS ARE DETERMINED AT MASTER SUBDIVISION OR MAJOR/MINOR 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 OR MAJOR/MINOR 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.).

POTENTIAL ACCESS POINTS:

POTENTIAL ACCESS POINTS SHOWN ON THE CONCEPTUAL SITE PLAN (C100) AND CONCEPTUAL UTILITY PLAN (C110) 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.

LOCATION OF ACCESS POINTS DEPICTED ARE APPROXIMATE AND SUBJECT TO TOWN OF APEX AND NCDOT APPROVAL AT THE TIME OF SITE PLAN AND/OR SUBDIVISION PLAN APPROVAL.

ZONE 1 ZONE 2 ZONE 3 STREAM BUFFERS

PROJECT PERIMETER BOUNDARY
POTENTIAL WATER CONNECTIONS
POTENTIAL SEWER CONNECTIONS
POTENTIAL ACCESS POINTS
LOCAL CONNECTOR
MAJOR COLLECTOR
THOROUGHFARE
PROPOSED SIDE PATH
PUBLIC GREENWAY

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE PURPOSES ONLY

PEAK Engineering & Design
1125 Apex Peakway Apex, NC 27502
(919) 439-5050
www.PeakEngineering.com
NC License #P-0673

project:
HOPSON GATEWAY ZONING
PERRY ROAD @ US 1 HIGHWAY
WHITE OAK TOWNSHIP
APEX, NORTH CAROLINA 27502

seal:
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047671 JOSEPH T. WOOTEN
PRELIMINARY NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY
1	FEBRUARY 7, 2025	SCHOOLS AREA - ELEVENSES COMMENTS	JR
2	AUGUST 8, 2025	SCHOOLS AREA - DAVIS/NCDOT COMMENTS	JR

title:
CONCEPTUAL SITE PLAN & LOT IDENTIFICATION

proj #: 240307
date: November 1, 2024
dwg by: FS chkd by: JR
scale: As Noted
sheet: *C100*
(PUD PLAN)

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FIGURE 1

CONCEPTUAL SITE PLAN

HOPSON GATEWAY
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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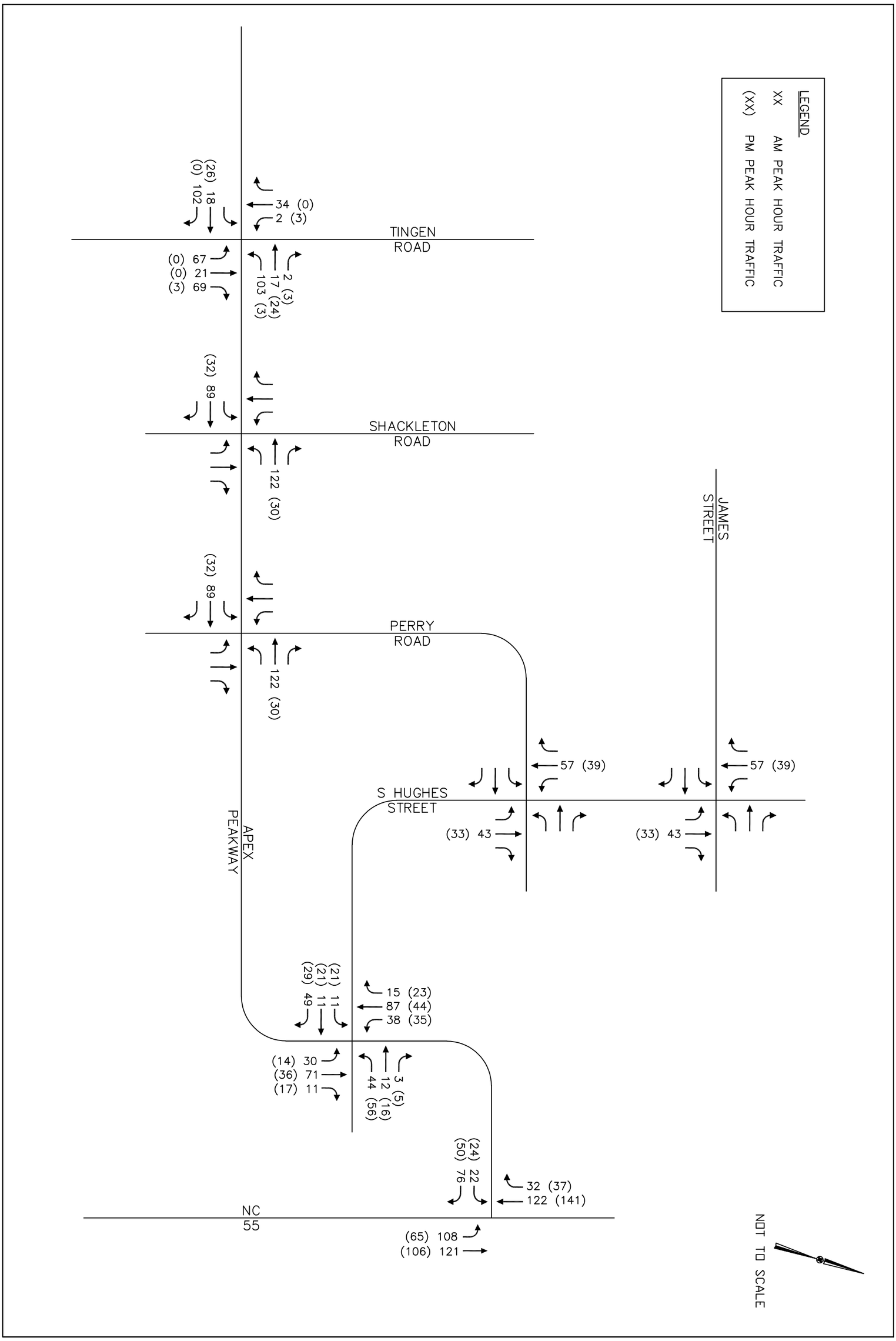

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	APPROVED DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 2

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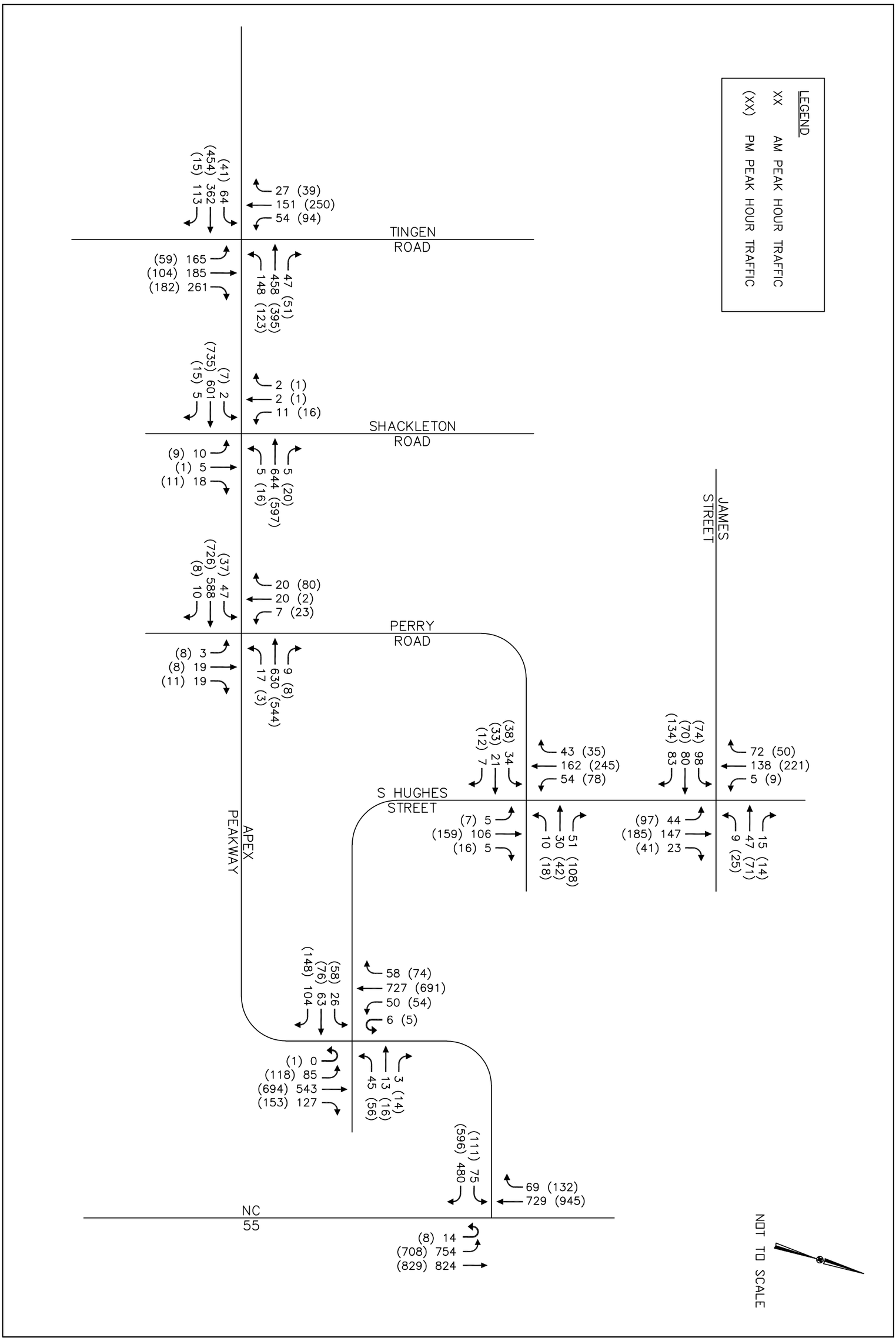

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	BACKGROUND (2028) AM AND PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 3

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LEGEND

(XX%) OVERALL DISTRIBUTION

XX% INBOUND PERCENT ASSIGNMENT

(XX%) OUTBOUND PERCENT ASSIGNMENT

NOT TO SCALE

JAMES STREET

TINGEN ROAD

SHACKLETON ROAD

PERRY ROAD

S HUGHES STREET

NC 55

APEX PEAKWAY

E/W CONNECTOR

SITE DRIVEWAY 1

SITE DRIVEWAY 2

SITE DRIVEWAY 3

SITE DRIVEWAY 4

SITE DRIVEWAY 5

HOPSON GATEWAY SITE

TOWN SITE

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	SITE TRIP DISTRIBUTION & PERCENT ASSIGNMENT – NON–RESIDENTIAL SITE TRAFFIC	FIGURE 4

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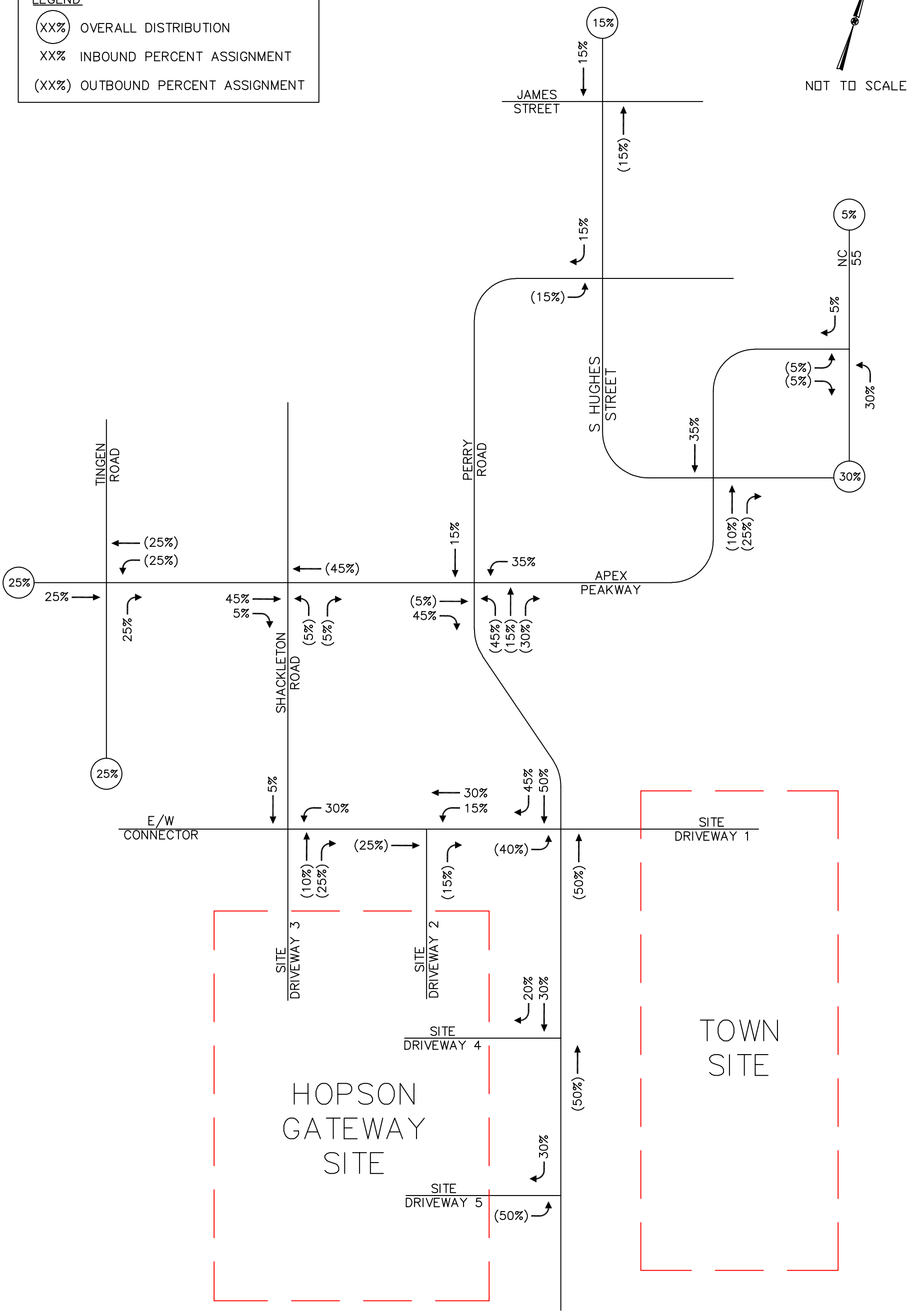
LEGEND

(XX%) OVERALL DISTRIBUTION

XX% INBOUND PERCENT ASSIGNMENT

(XX%) OUTBOUND PERCENT ASSIGNMENT

NOT TO SCALE



Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	SITE TRIP DISTRIBUTION & PERCENT ASSIGNMENT – RESIDENTIAL SITE TRAFFIC	FIGURE 5

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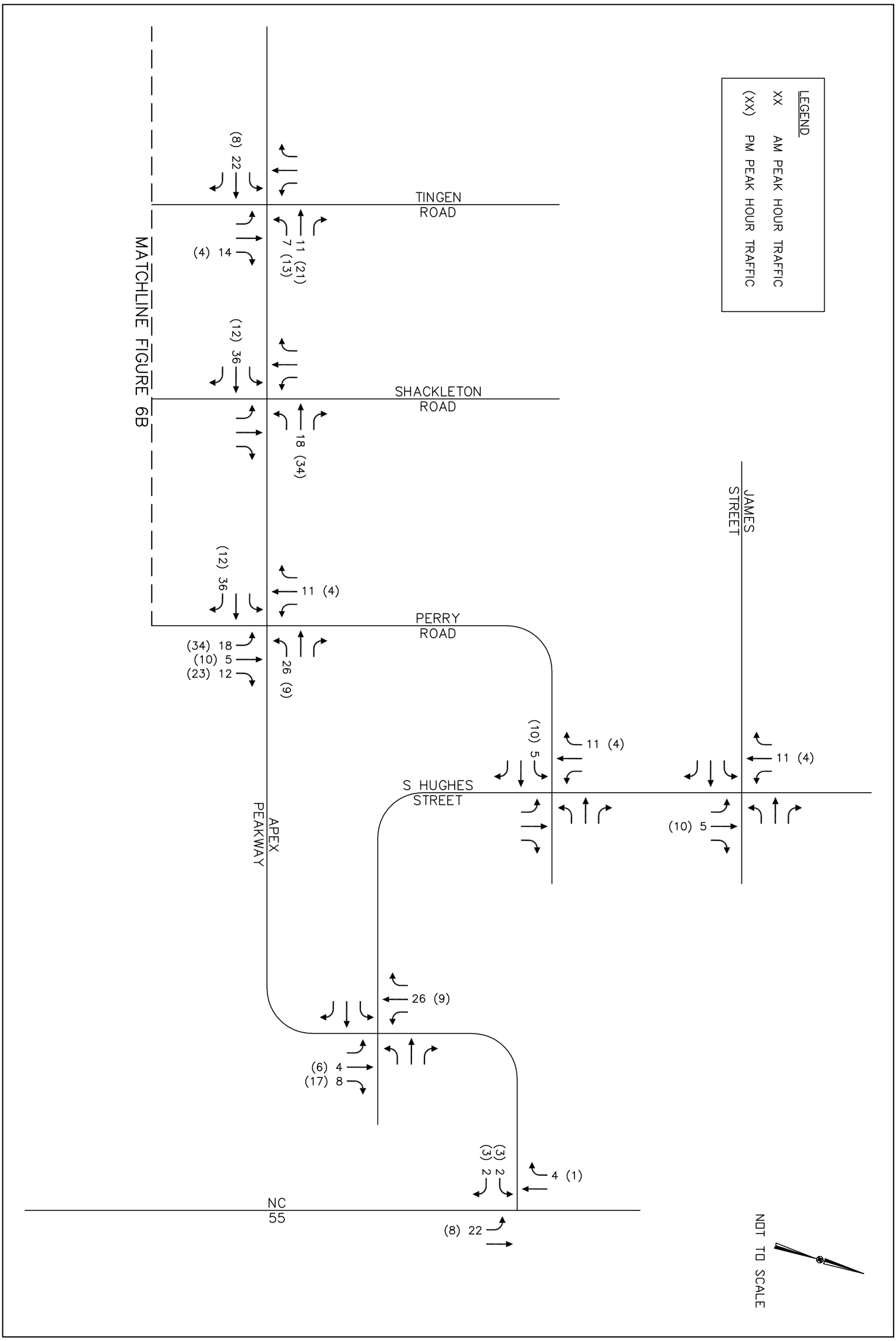

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	AM AND PM PEAK HOUR NON-RESIDENTIAL SITE TRIPS	FIGURE 6A

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LEGEND

XX AM PEAK HOUR TRAFFIC

(XX) PM PEAK HOUR TRAFFIC

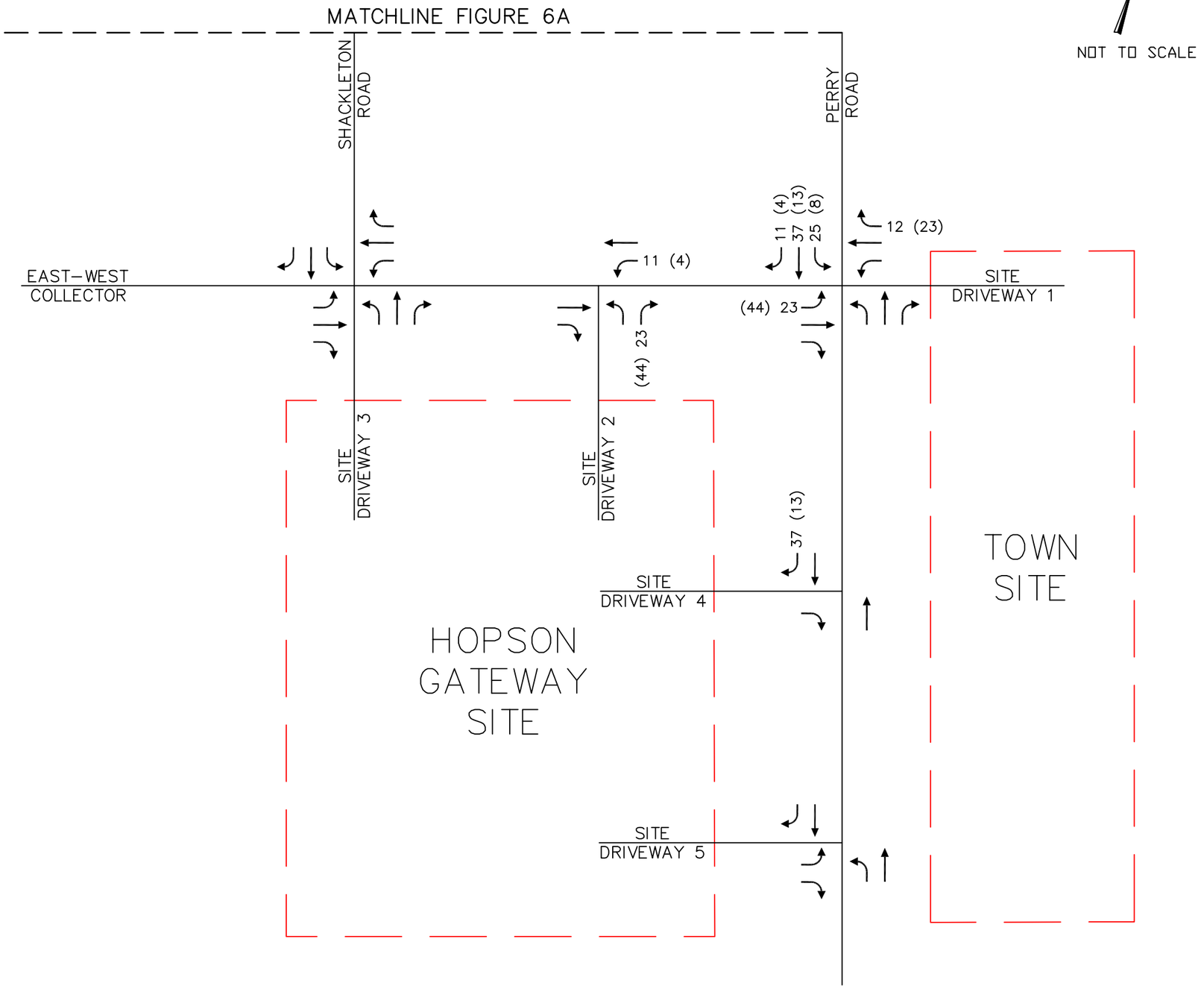

FIGURE 6B

AM AND PM PEAK HOUR
NON–RESIDENTIAL SITE TRIPS

HOPSON GATEWAY
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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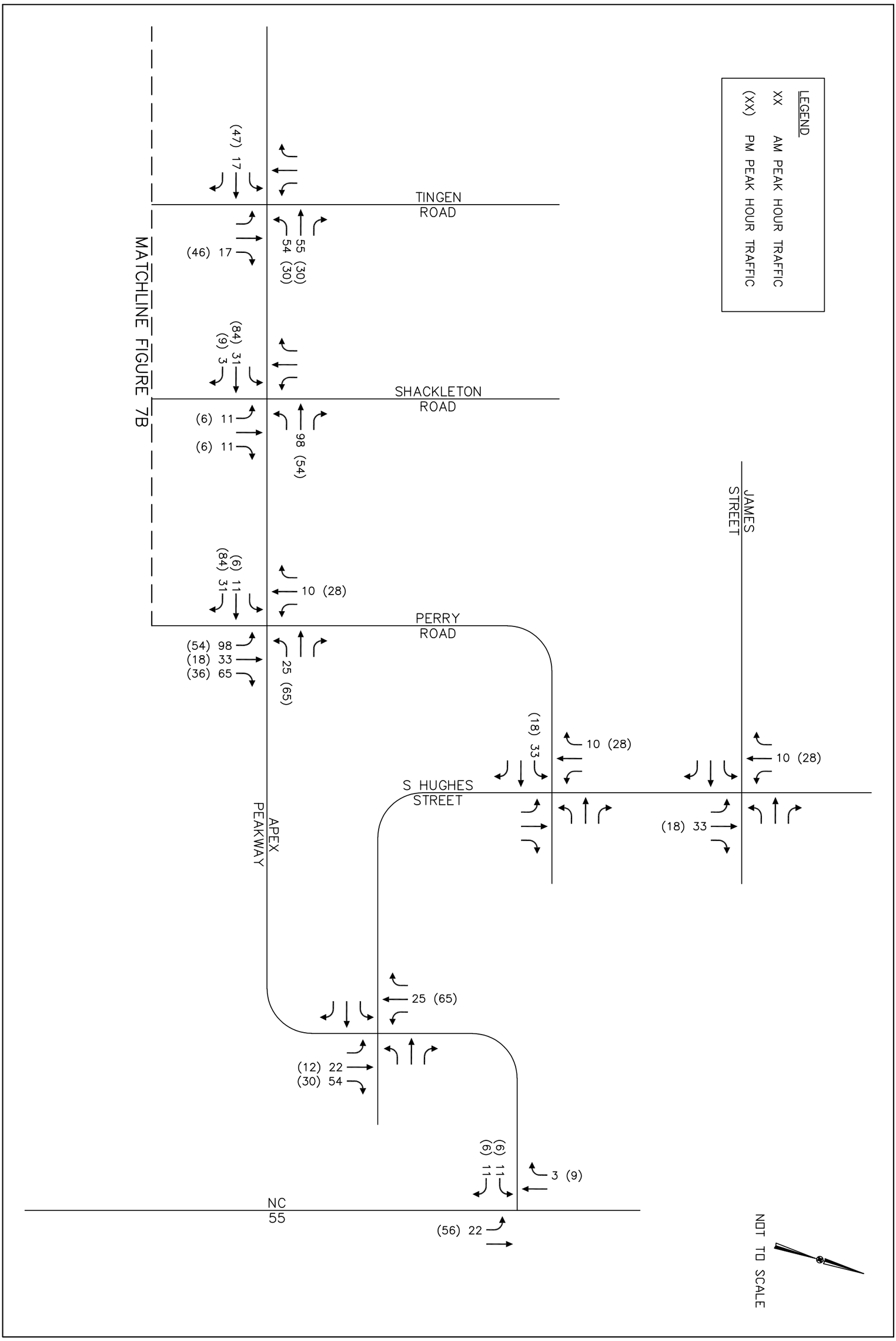

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	AM AND PM PEAK HOUR RESIDENTIAL SITE TRIPS	FIGURE 7A

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LEGEND

XX AM PEAK HOUR TRAFFIC

(XX) PM PEAK HOUR TRAFFIC

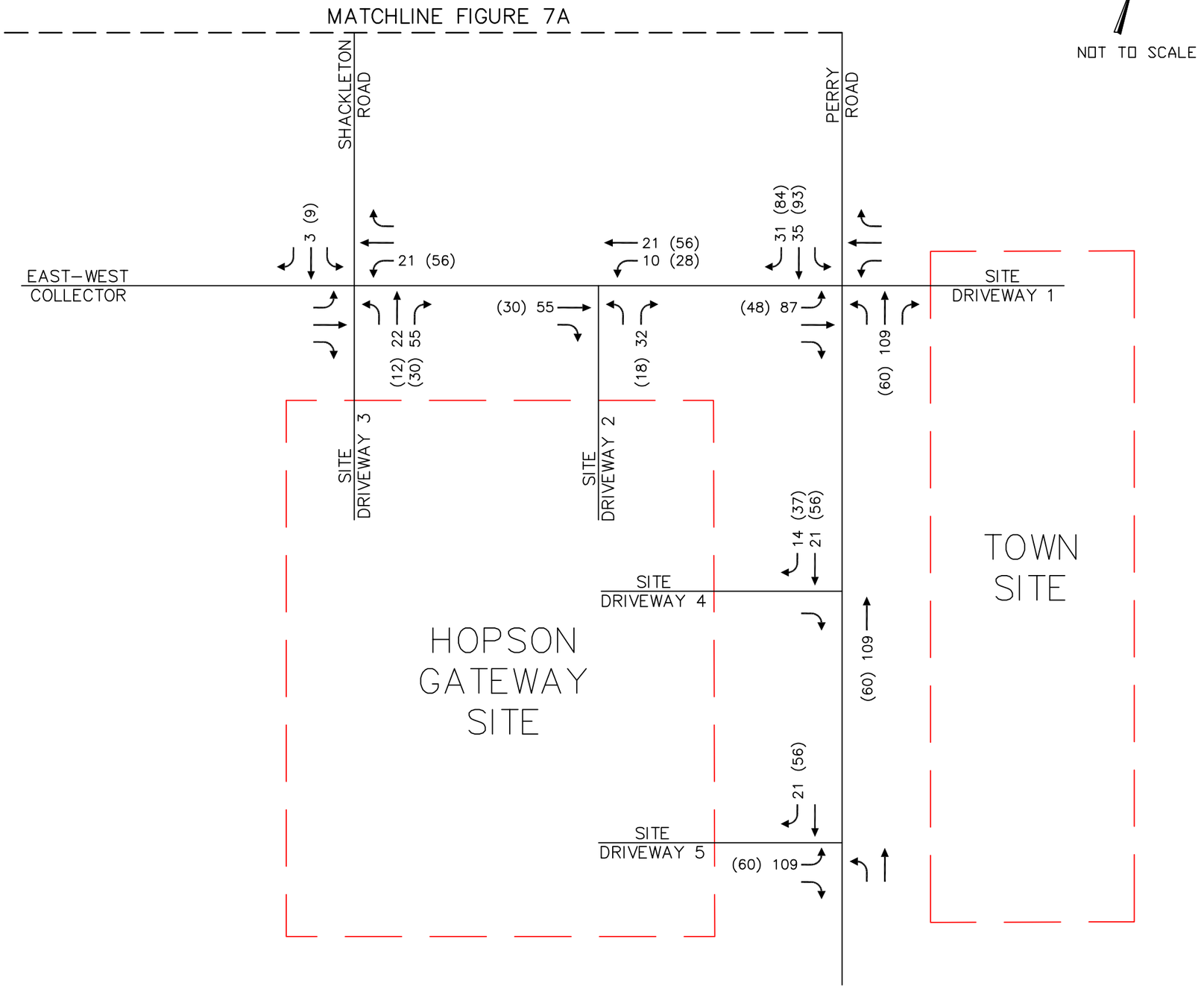

FIGURE 7B

AM AND PM PEAK HOUR RESIDENTIAL SITE TRIPS

HOPSON GATEWAY
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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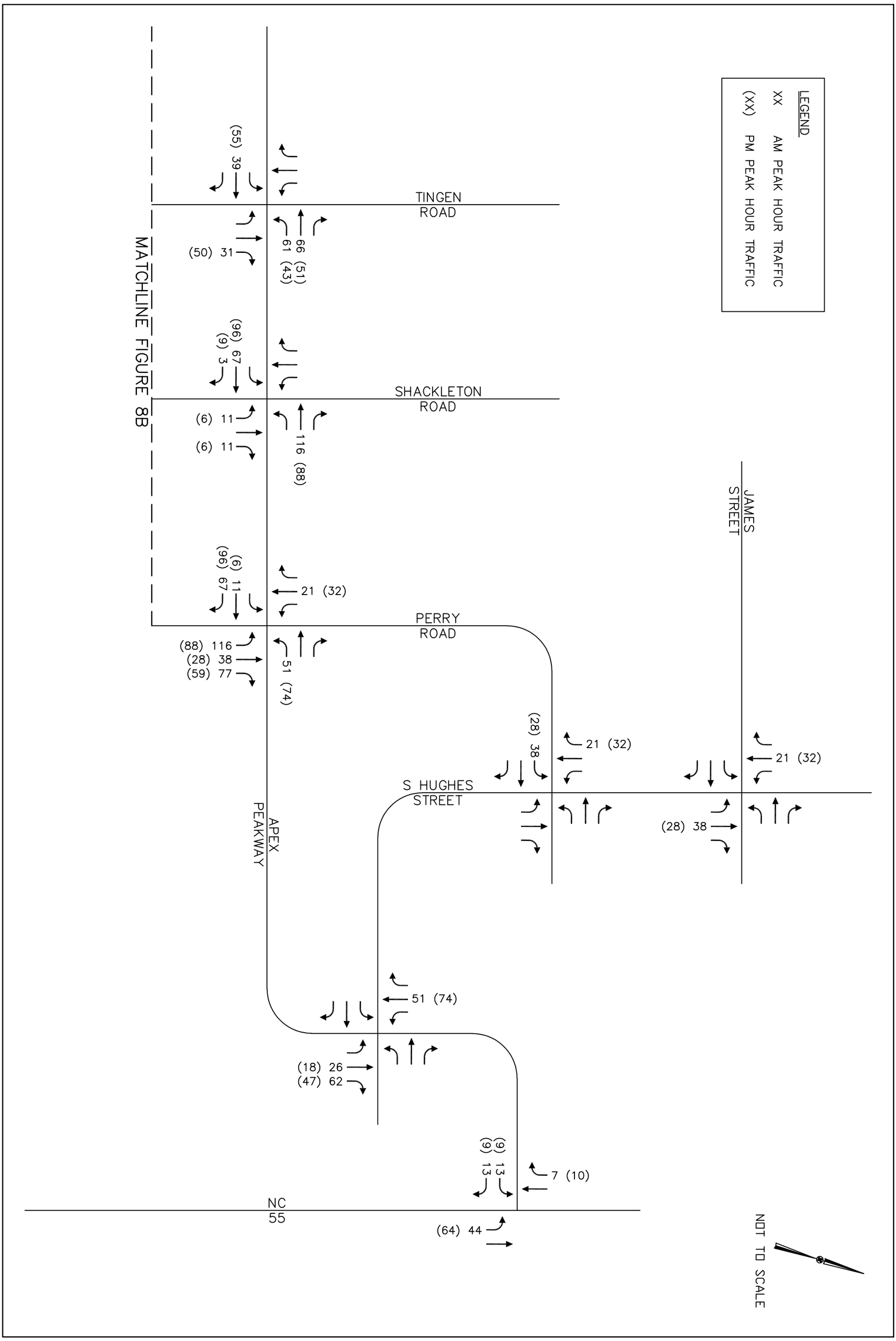

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	AM AND PM PEAK HOUR TOTAL SITE TRIPS	FIGURE 8A

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LEGEND

XX AM PEAK HOUR TRAFFIC

(XX) PM PEAK HOUR TRAFFIC

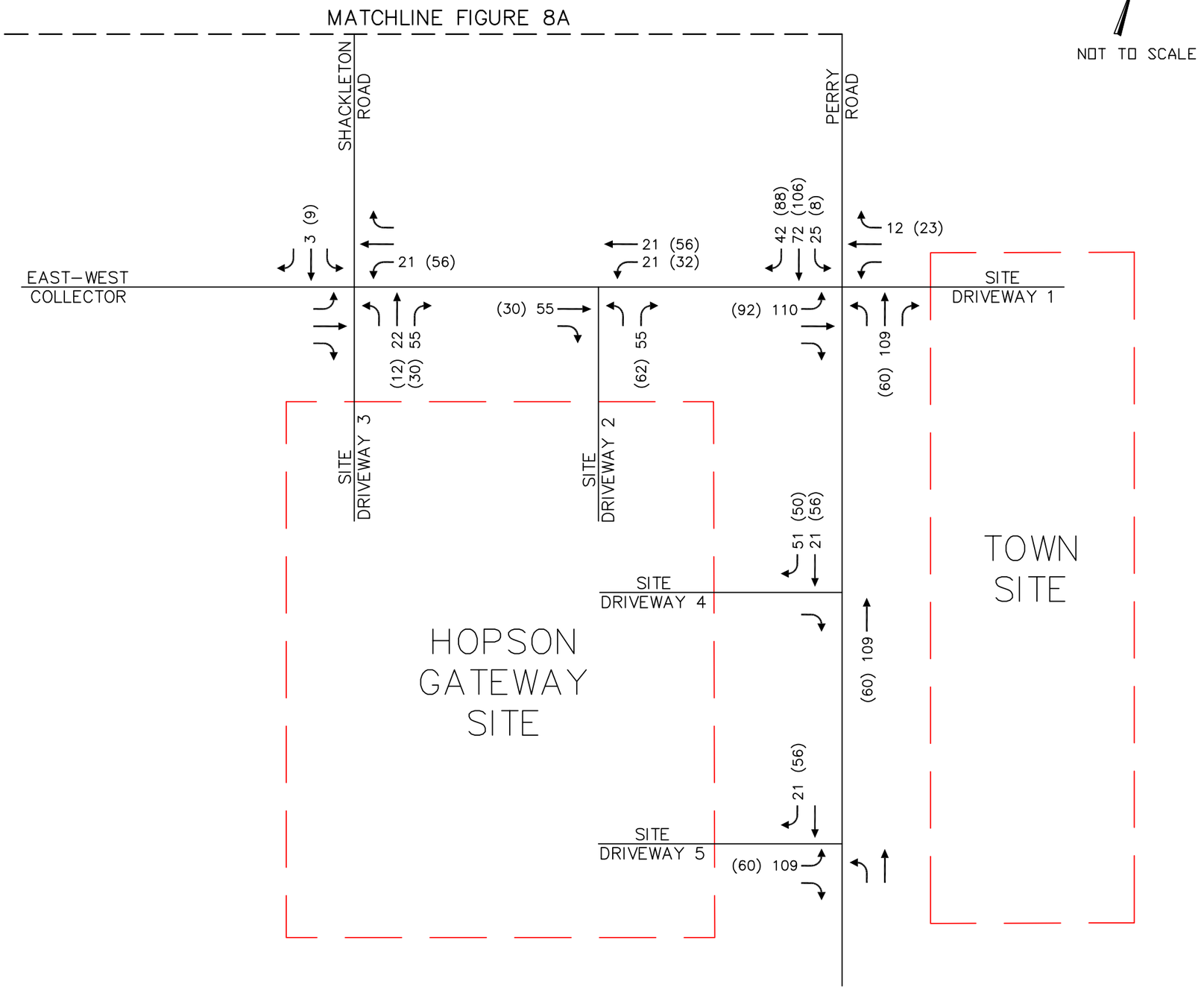

FIGURE 8B

AM AND PM PEAK HOUR TOTAL SITE TRIPS

HOPSON GATEWAY
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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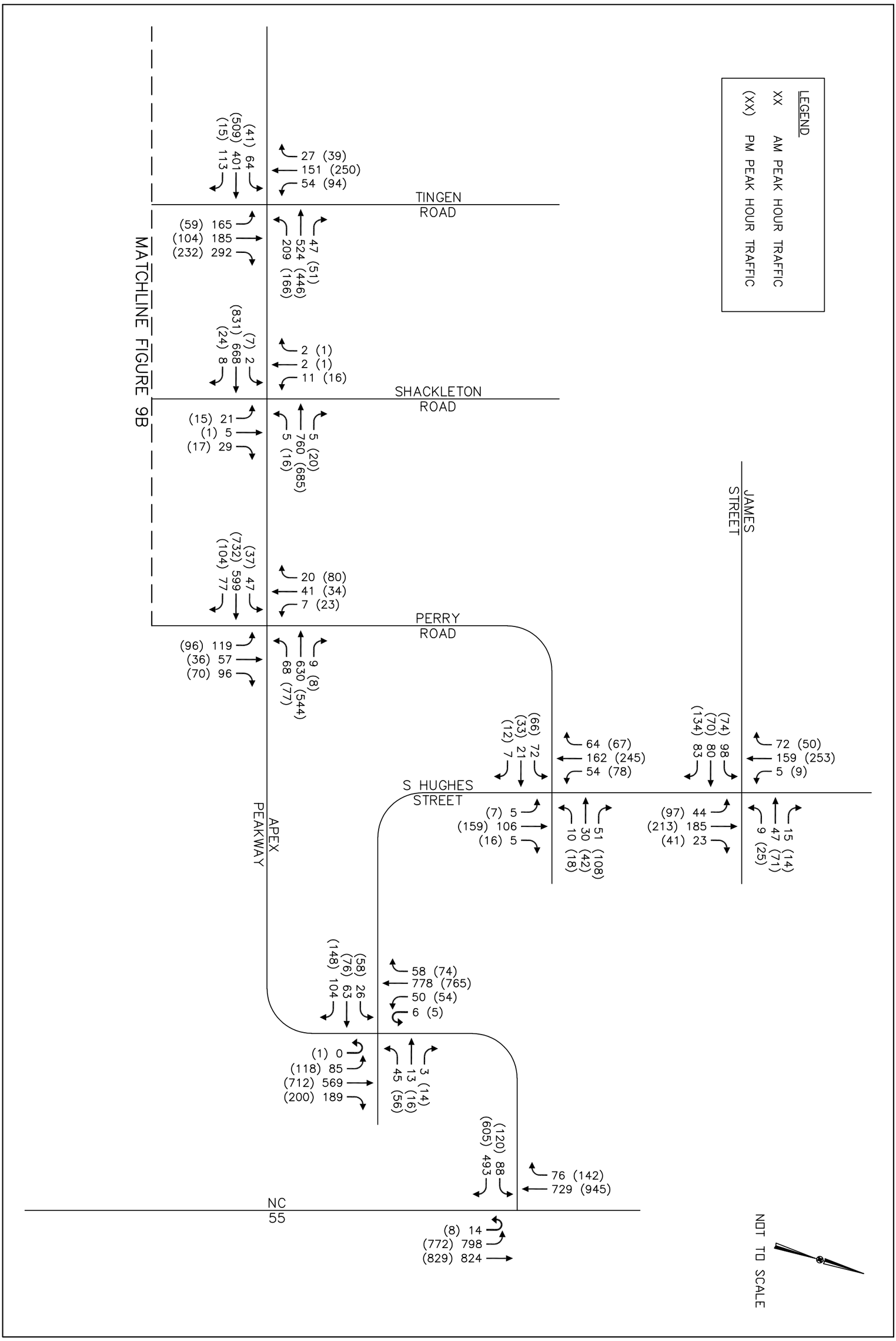

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	BUILD-OUT (2028) AM AND PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 9A

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LEGEND

XX AM PEAK HOUR TRAFFIC

(XX) PM PEAK HOUR TRAFFIC

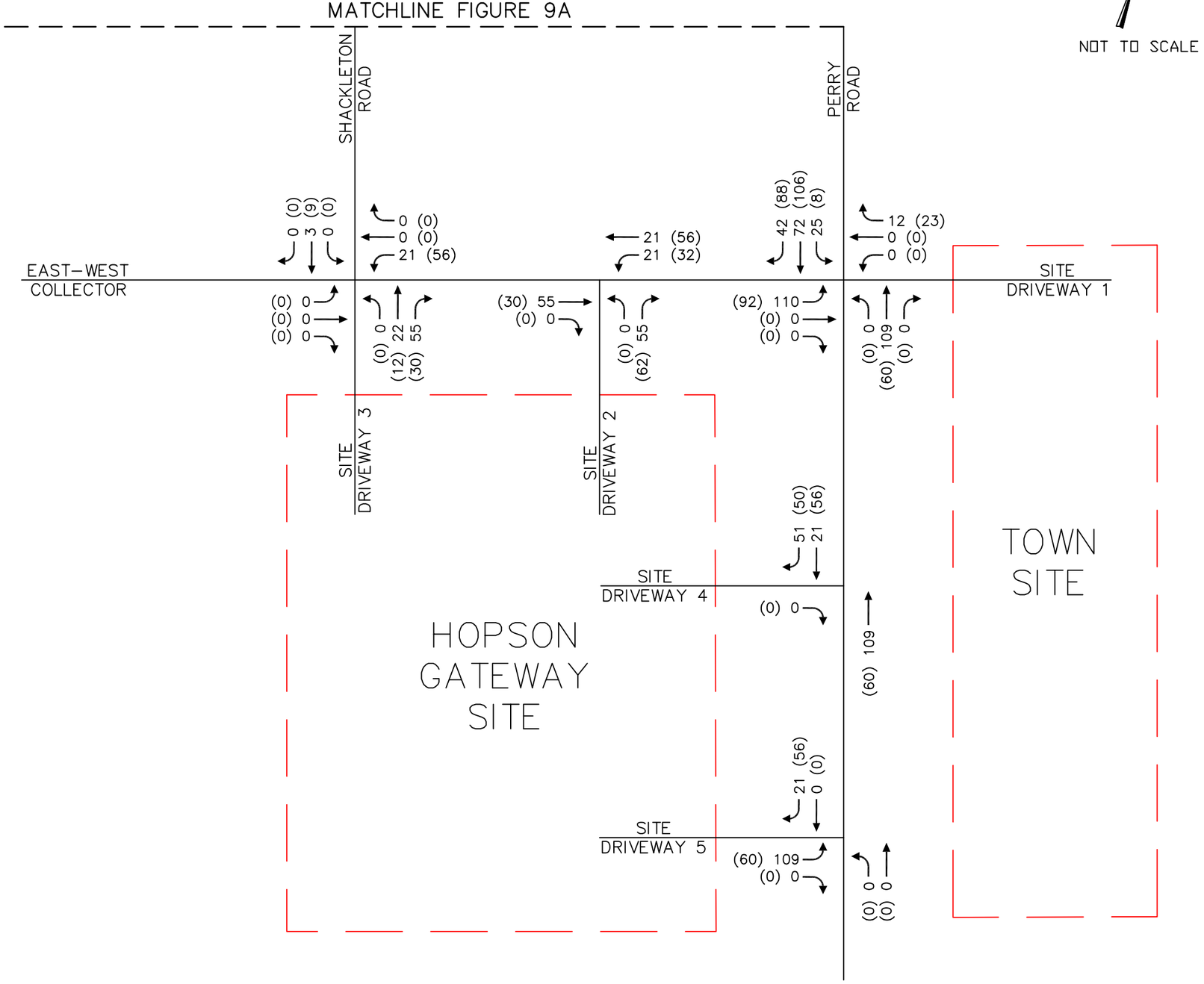

FIGURE 9B

BUILD–OUT (2028) AM AND PM PEAK HOUR TRAFFIC VOLUMES

HOPSON GATEWAY
APEX, NC
TRAFFIC IMPACT ANALYSIS

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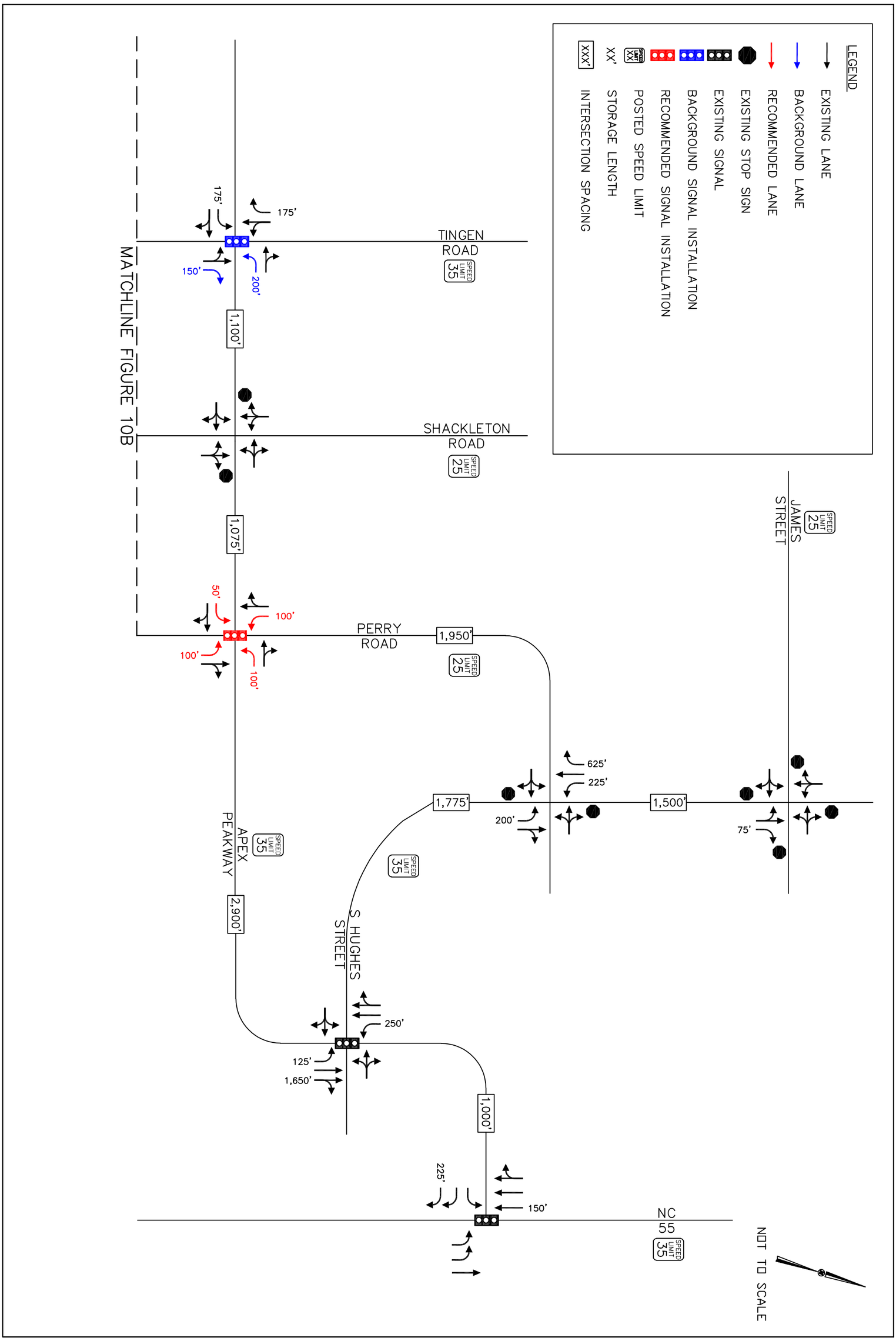

Kimley»Horn	HOPSON GATEWAY APEX, NC TRAFFIC IMPACT ANALYSIS	RECOMMENDED LANEAGE	FIGURE 10A

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MATCHLINE FIGURE 10A

NOT TO SCALE

SHACKLETON ROAD

PERRY ROAD

EAST–WEST COLLECTOR

725'

600'

50'

SITE DRIVEWAY 1

SITE DRIVEWAY 3

SITE DRIVEWAY 2

360'

SITE DRIVEWAY 4

400'

100'

SITE DRIVEWAY 5

100'

HOPSON GATEWAY SITE

TOWN SITE

LEGEND

- EXISTING LANE
- RECOMMENDED LANE
- RECOMMENDED LANE (BY TOWN)
- RECOMMENDED STOP SIGN
- XX' STORAGE LENGTH
- [XXX'] INTERSECTION SPACING

FIGURE 10B

RECOMMENDED LANEAGE

HOPSON GATEWAY
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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Trip Generation

Hopson Gateway - Non-Residential

Table 1 - Trip Generation

Land Use		Intensity		Daily			AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out	Total	In	Out
-	Yard Waste Transfer Station and Drop Off Convenience Center (Proposed)	13.5	acre	302	151	151	28	14	14	8	4	4
150	Warehousing (Existing)	120,000	s.f.	236	118	118	43	28	15	41	10	31
770	Business Park[4]	25,000	s.f.	982	491	491	37	31	6	43	11	32
Subtotal				**1,520**	**760**	**760**	**108**	**73**	**35**	**92**	**25**	**67**

Hopson Gateway - Residential
Table 2 - Trip Generation

Land Use	Intensity		Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
210 Single Family Detached Housing	50	d.u.	534	267	267	40	10	30	52	33	19
215 Single Family Attached Housing	170	d.u.	1,246	623	623	83	21	62	98	58	40
221 Multifamily Housing (Mid-Rise)	400	d.u.	1,862	931	931	164	38	126	156	95	61
Subtotal			**3,642**	**1,821**	**1,821**	**287**	**69**	**218**	**306**	**186**	**120**

Traffic Count Data

Prepared by National Data & Surveying Services

E Williams St / SR 55 & Apex Peakway

Peak Hour Turning Movement Count

ID: 24-160066-001
City: Apex

Day: Thursday
Date: 10/10/2024

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (E Williams St/SR 55)

AM	33	806	0	0	1026	AM
NOON	0	0	0	0	0	NOON
PM	84	1070	0	0	985	PM
	0.5	2.5	0	0		

EASTBOUND (Apex Peakway)

AM	NOON	PM	
253	0	390	
1	0	1	0
46	0	76	1
0	0	0	0
92	0	130	2
AM	NOON	PM	

WESTBOUND (Apex Peakway)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

CONTROL

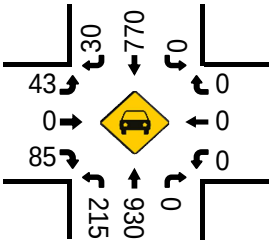
Signalized

TEV	2189 AM	0 NOON	2582 PM
PHF	0.92		0.98

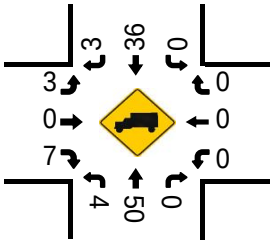
	0	2	1	0
PM	1207	7	305	909	0	PM
NOON	0	0	0	0	0	NOON
AM	910	12	219	980	0	AM

NORTHBOUND (E Williams St/SR 55)

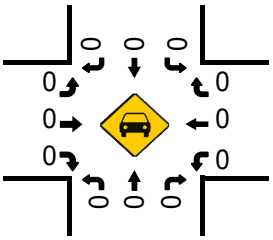
Cars (AM)



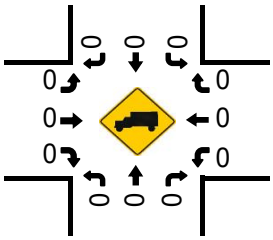
HT (AM)



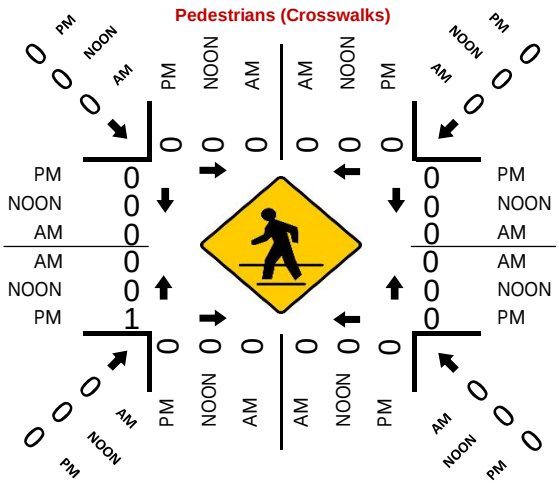
Cars (NOON)



HT (NOON)



Pedestrians (Crosswalks)


PM
NOON
AM
0
0
0
0
0
0
0
0
0
0
0
0
1
0
0
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0
0
0
0
0
0
0
0
0

Prepared by National Data & Surveying Services

Tingen Rd & Apex Peakway

Peak Hour Turning Movement Count

ID: 24-160066-002
City: Apex

Day: Thursday
Date: 10/10/2024

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Tingen Rd)

AM	24	104	46	0	422	AM
NOON	0	0	0	0	0	NOON
PM	35	222	80	1	279	PM

EASTBOUND (Apex Peakway)

AM	NOON	PM		
50	0	89		
0	0	0	0	
57	0	36	1	
59	0	48	0.5	
10	0	13	0.5	
AM	NOON	PM		

WESTBOUND (Apex Peakway)

	PM	NOON	AM
0	58	0	54
1	48	0	22
0	107	0	40
0	0	0	0
	242	0	193
	PM	NOON	AM

NORTHBOUND (Tingen Rd)

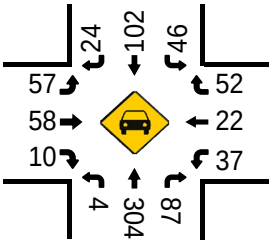
PM	342	0	6	184	114	PM
NOON	0	0	0	0	0	NOON
AM	154	0	4	311	88	AM

CONTROL

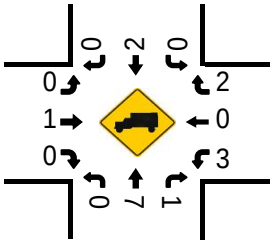
2-Way Stop(EB/WB)

TEV	819 AM	0 NOON	952 PM
PHF	0.88		0.95

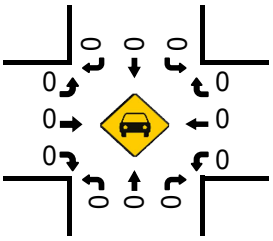
Cars (AM)



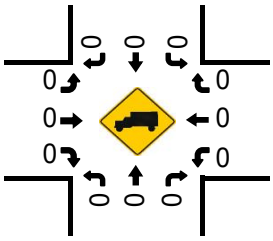
HT (AM)



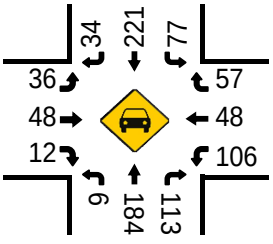
Cars (NOON)



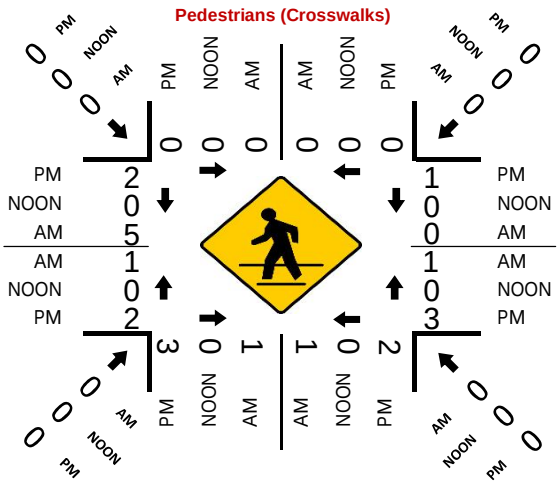
HT (NOON)



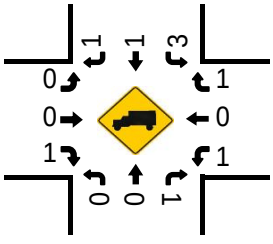
Cars (PM)



Pedestrians (Crosswalks)



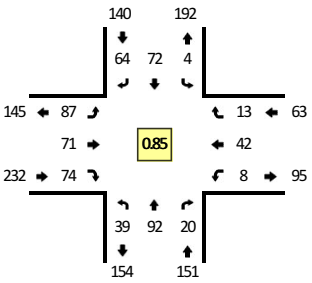
HT (PM)

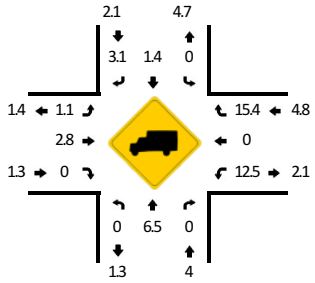


Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

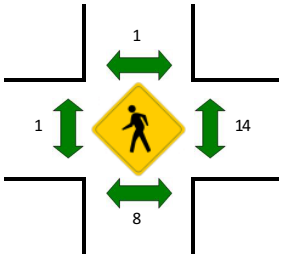
LOCATION: Hughes St -- James St | **QC JOB #:** 16613601
CITY/STATE: Apex, NC | **DATE:** Thu, May 23 2024

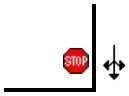
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

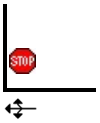


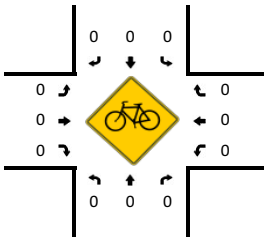


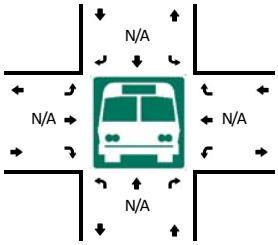
TRUE DATA TO IMPROVE MOBILITY

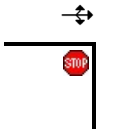


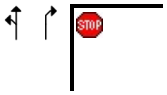


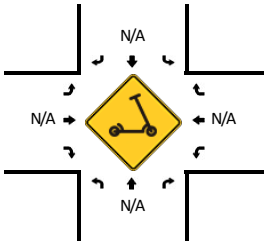












15-Min Count Period Beginning At	Hughes St (Northbound)				Hughes St (Southbound)				James St (Eastbound)				James St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	29	2	0	1	12	2	0	17	11	21	0	4	8	0	0	115	
7:15 AM	8	17	2	0	1	12	9	0	15	8	13	0	4	8	1	0	98	
7:30 AM	8	21	3	0	1	18	11	0	12	16	18	0	1	8	4	0	121	
7:45 AM	12	30	7	0	1	16	20	0	38	19	17	0	2	9	1	0	172	506
8:00 AM	9	22	6	0	2	22	16	0	22	21	21	0	2	14	5	0	162	553
8:15 AM	10	19	4	0	0	16	17	0	15	15	18	0	3	11	3	0	131	586
8:30 AM	13	16	4	0	1	18	9	0	12	14	12	0	5	7	2	0	113	578
8:45 AM	18	38	13	0	1	27	5	0	23	15	16	0	5	12	0	0	173	579

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	120	28	0	4	64	80	0	152	76	68	0	8	36	4	0	688
Heavy Trucks	0	12	0		0	0	0		0	8	0		0	0	0		20
Buses																	
Pedestrians		8				0				0				16			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

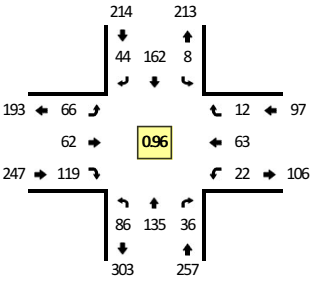
Report generated on 5/30/2024 12:47 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

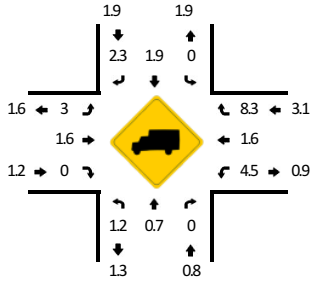
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: Hughes St -- James St
CITY/STATE: Apex, NC

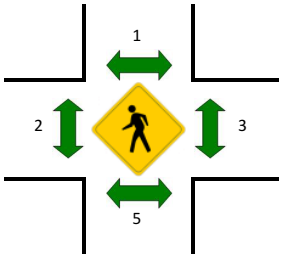
QC JOB #: 16613602
DATE: Thu, May 23 2024

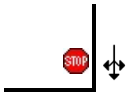
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

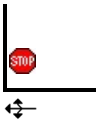


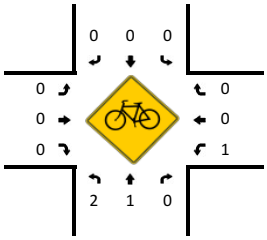


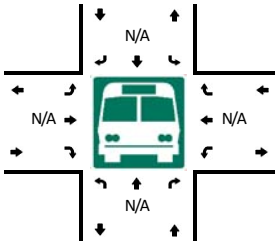
TRUE DATA TO IMPROVE MOBILITY

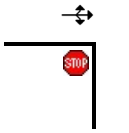


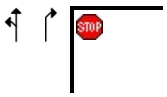


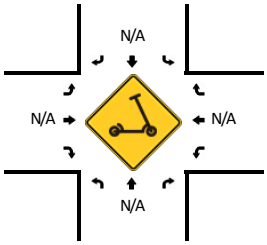












15-Min Count Period Beginning At	Hughes St (Northbound)				Hughes St (Southbound)				James St (Eastbound)				James St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	12	45	13	0	3	30	14	0	12	28	24	0	8	13	5	0	207	
4:15 PM	27	26	9	0	0	39	11	0	15	13	32	0	7	8	3	0	190	
4:30 PM	19	36	7	0	5	31	7	0	13	14	20	0	7	6	0	0	165	
4:45 PM	28	17	13	0	1	34	13	0	10	14	31	0	10	11	7	0	189	751
5:00 PM	26	40	10	0	3	33	5	0	14	17	22	0	3	18	3	0	194	738
5:15 PM	19	26	12	0	1	29	19	0	22	18	31	0	13	21	2	0	213	761
5:30 PM	24	33	7	0	3	50	10	0	16	12	31	0	1	13	5	0	205	801
5:45 PM	17	36	7	0	1	50	10	0	14	15	35	0	5	11	2	0	203	815

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	104	48	0	4	116	76	0	88	72	124	0	52	84	8	0	852
Heavy Trucks	4	0	0		0	8	0		0	0	0		4	4	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	0	0		4	0	0		8
Scooters																	

Comments:

Report generated on 5/30/2024 12:47 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

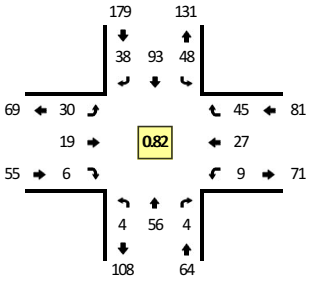
Type of peak hour being reported: Intersection Peak

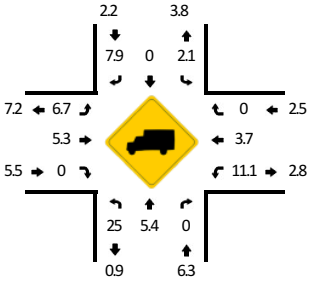
Method for determining peak hour: Total Entering Volume

LOCATION: Hughes St -- Perry Rd
CITY/STATE: Apex, NC

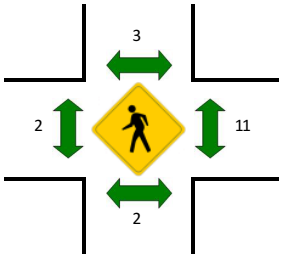
QC JOB #: 16613603
DATE: Thu, May 23 2024

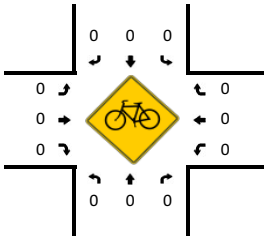
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

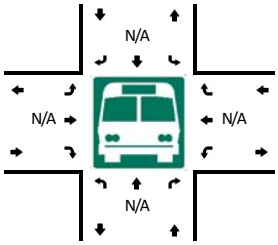


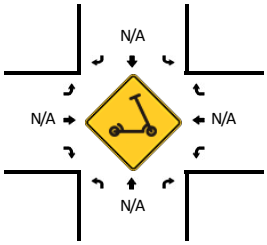


TRUE DATA TO IMPROVE MOBILITY









15-Min Count Period Beginning At	Hughes St (Northbound)				Hughes St (Southbound)				Perry Rd (Eastbound)				Perry Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	14	1	0	12	20	8	0	0	2	4	0	4	7	7	0	79	
7:15 AM	2	8	3	1	11	18	4	0	4	3	1	0	3	5	10	0	73	
7:30 AM	3	11	0	0	8	16	12	0	2	1	1	0	1	1	11	0	67	
7:45 AM	1	17	2	0	7	18	11	0	10	1	5	0	1	1	17	0	91	310
8:00 AM	1	14	1	0	12	24	10	0	6	3	2	0	3	7	9	0	92	323
8:15 AM	2	6	0	0	13	13	14	0	5	2	0	0	2	7	13	0	77	327
8:30 AM	0	15	1	0	11	26	6	0	8	8	4	0	2	5	9	0	95	355
8:45 AM	1	21	2	0	12	30	8	0	11	6	0	0	2	8	14	0	115	379

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	84	8	0	48	120	32	0	44	24	0	0	8	32	56	0	460
Heavy Trucks	4	4	0		0	0	0		4	4	0		0	4	0		20
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 5/30/2024 12:47 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

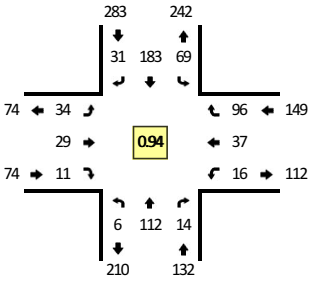
Type of peak hour being reported: Intersection Peak

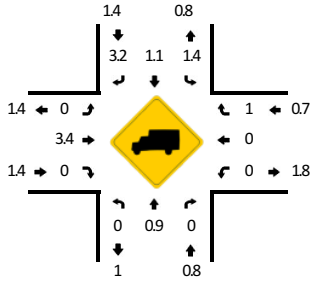
Method for determining peak hour: Total Entering Volume

LOCATION: Hughes St -- Perry Rd
CITY/STATE: Apex, NC

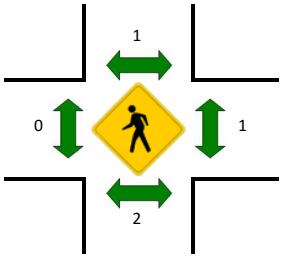
QC JOB #: 16613604
DATE: Thu, May 23 2024

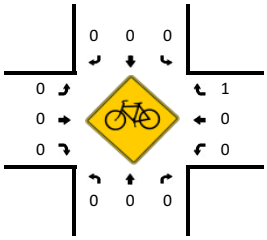
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:45 PM -- 6:00 PM

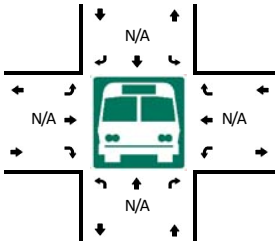


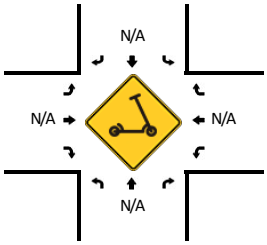


TRUE DATA TO IMPROVE MOBILITY









15-Min Count Period Beginning At	Hughes St (Northbound)				Hughes St (Southbound)				Perry Rd (Eastbound)				Perry Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	42	1	0	9	34	7	0	6	9	5	0	3	6	13	0	136	
4:15 PM	1	37	2	0	24	39	8	0	4	8	3	0	3	3	23	0	155	
4:30 PM	1	25	0	0	10	39	4	0	16	6	1	0	2	9	19	0	132	
4:45 PM	0	30	3	0	19	34	11	0	7	8	0	0	1	4	24	0	141	564
5:00 PM	3	26	3	0	15	37	7	0	16	8	2	0	2	11	34	0	164	592
5:15 PM	0	20	3	0	23	36	9	0	9	10	3	0	2	7	21	0	143	580
5:30 PM	1	27	3	0	19	43	8	0	3	6	5	0	7	13	27	0	162	610
5:45 PM	2	39	5	0	12	67	7	0	6	5	1	0	5	6	14	0	169	638

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	156	20	0	48	268	28	0	24	20	4	0	20	24	56	0	676
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	4		4
Scooters																	

Comments:

Report generated on 5/30/2024 12:47 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

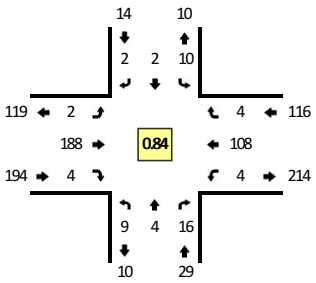
Type of peak hour being reported: Intersection Peak

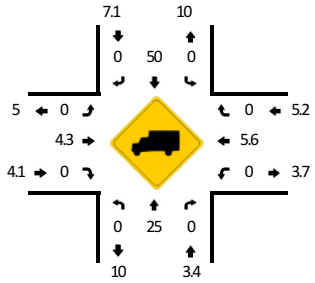
Method for determining peak hour: Total Entering Volume

LOCATION: Shackleton Rd -- Apex Peakway
CITY/STATE: Apex, NC

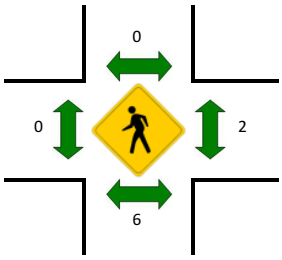
QC JOB #: 16613605
DATE: Thu, May 23 2024

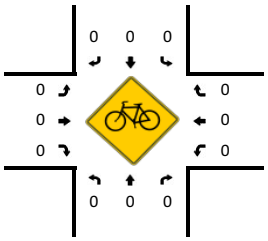
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

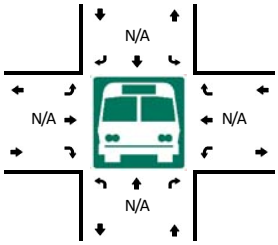


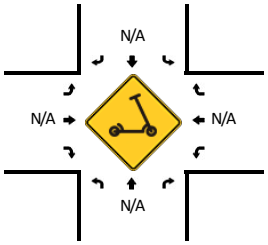


TRUE DATA TO IMPROVE MOBILITY









15-Min Count Period Beginning At	Shackleton Rd (Northbound)				Shackleton Rd (Southbound)				Apex Peakway (Eastbound)				Apex Peakway (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	3	0	1	0	2	0	0	37	0	0	0	10	1	0	55	
7:15 AM	2	0	4	0	4	0	1	0	0	34	0	0	1	15	1	0	62	
7:30 AM	3	0	5	0	3	1	0	0	0	37	2	0	1	22	0	0	74	
7:45 AM	5	1	6	0	0	0	1	0	1	41	0	0	1	15	1	0	72	263
8:00 AM	1	2	5	0	0	0	0	0	1	44	2	0	0	32	1	0	88	296
8:15 AM	1	1	2	0	5	1	2	0	0	37	1	0	1	21	2	0	74	308
8:30 AM	3	0	5	0	1	0	0	0	1	48	1	0	1	26	0	0	86	320
8:45 AM	4	1	4	0	4	1	0	0	0	59	0	0	2	29	1	0	105	353

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	4	16	0	16	4	0	0	0	236	0	0	8	116	4	0	420
Heavy Trucks	0	0	0		0	0	0		0	20	0		0	12	0		32
Buses																	
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

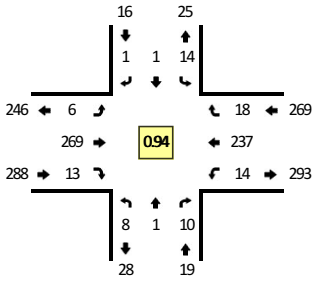
Report generated on 5/30/2024 12:47 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

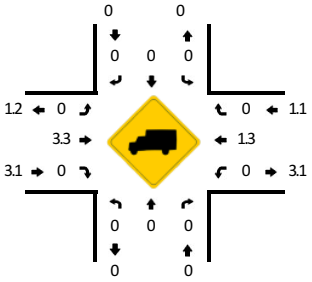
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

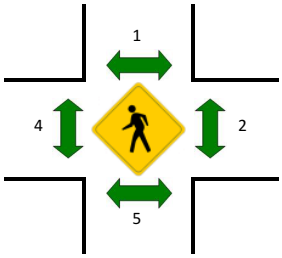
LOCATION: Shackleton Rd -- Apex Peakway | **QC JOB #:** 16613606
CITY/STATE: Apex, NC | **DATE:** Thu, May 23 2024

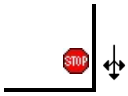
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

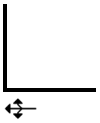


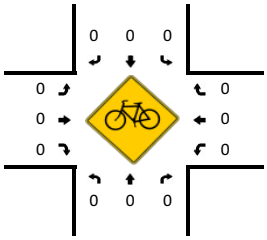
TRUE DATA TO IMPROVE MOBILITY

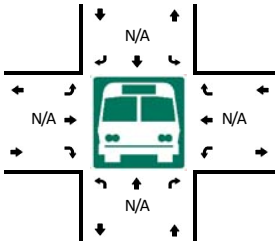


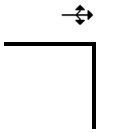


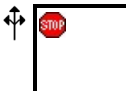


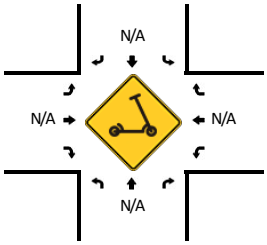












15-Min Count Period Beginning At	Shackleton Rd (Northbound)				Shackleton Rd (Southbound)				Apex Peakway (Eastbound)				Apex Peakway (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	0	4	0	2	1	0	0	0	57	4	0	3	42	0	0	116	
4:15 PM	1	0	2	0	0	0	0	0	1	46	2	0	4	46	3	0	105	
4:30 PM	0	0	3	0	1	0	1	0	2	61	3	0	3	38	5	0	117	
4:45 PM	1	0	1	0	6	0	1	0	0	53	3	0	5	61	1	0	132	470
5:00 PM	1	1	1	0	4	0	0	0	1	59	2	0	4	81	4	0	158	512
5:15 PM	2	0	1	0	5	1	0	0	0	65	3	0	3	60	5	0	145	552
5:30 PM	2	0	2	0	3	0	1	0	3	62	4	0	4	56	4	0	141	576
5:45 PM	3	0	6	0	2	0	0	0	2	83	4	0	3	40	5	0	148	592

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	4	4	0	16	0	0	0	4	236	8	0	16	324	16	0	632
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	4	0		12
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 5/30/2024 12:47 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

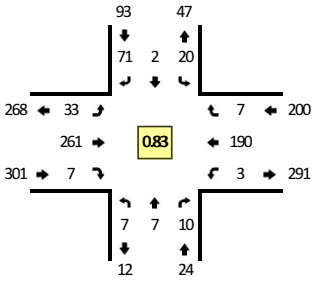
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

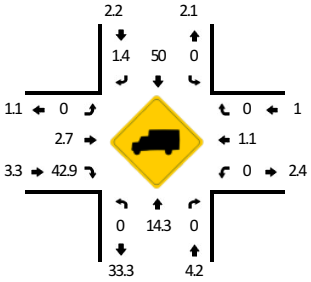
LOCATION: Perry Rd -- Apex Peakway
CITY/STATE: Apex, NC

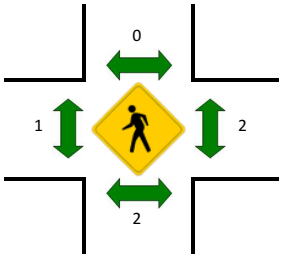
QC JOB #: 16613607
DATE: Thu, May 23 2024

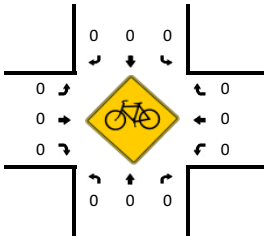
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

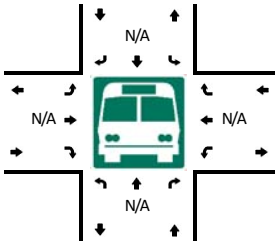


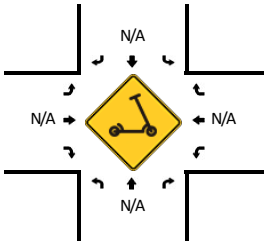
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Perry Rd (Northbound)				Perry Rd (Southbound)				Apex Peakway (Eastbound)				Apex Peakway (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	1	0	0	0	0	2	0	0	2	11	1	0	10	7	0	0	34	
6:15 AM	4	1	0	0	1	10	1	0	0	13	1	0	16	10	1	0	58	
6:30 AM	0	4	4	0	1	4	2	0	2	29	2	0	4	13	0	0	65	
6:45 AM	0	6	10	0	1	4	3	0	3	27	5	0	11	17	1	0	88	245
7:00 AM	1	1	5	0	2	4	3	0	5	35	4	0	7	9	1	0	77	288
7:15 AM	0	2	3	0	1	3	2	0	3	42	3	0	6	15	1	0	81	311
7:30 AM	3	1	8	0	1	4	5	0	2	39	5	0	6	15	1	0	90	336
7:45 AM	1	4	4	0	0	4	2	0	9	39	5	0	5	15	0	0	88	336
8:00 AM	0	5	6	0	2	2	6	0	11	37	5	0	6	26	0	0	106	365
8:15 AM	0	3	6	0	2	3	5	0	3	42	2	0	3	19	5	0	93	377
8:30 AM	1	5	2	0	2	5	3	0	17	38	2	0	3	24	1	0	103	390
8:45 AM	2	4	3	0	0	8	4	0	11	60	0	0	3	27	2	0	124	426
9:00 AM	0	4	2	0	0	2	10	0	12	69	2	0	2	22	7	0	132	452
9:15 AM	2	1	2	0	4	3	7	0	19	24	3	0	4	26	3	0	98	457
9:30 AM	3	0	1	0	2	2	2	0	4	23	5	0	3	15	4	0	64	418
9:45 AM	0	1	5	0	2	5	2	0	4	23	3	0	0	25	1	0	71	365
10:00 AM	1	1	8	0	0	1	1	0	5	28	0	0	5	13	1	0	64	297
10:15 AM	1	4	4	0	1	2	1	0	4	26	1	0	4	15	1	0	64	263
10:30 AM	1	4	6	0	3	2	3	0	4	15	1	0	3	17	0	0	59	258
10:45 AM	3	2	1	0	3	2	5	0	4	24	5	0	0	16	2	0	67	254
11:00 AM	2	4	2	0	2	1	5	0	4	25	2	0	1	17	2	0	67	257
11:15 AM	1	2	2	0	0	3	2	0	6	27	0	0	1	16	2	0	62	255
11:30 AM	2	3	6	0	3	0	6	0	4	22	3	0	1	13	3	0	66	262
11:45 AM	3	3	1	0	4	3	3	0	2	18	2	0	1	19	1	0	60	255
12:00 PM	0	1	4	0	2	2	3	0	3	24	2	0	1	21	3	0	66	254
12:15 PM	1	1	4	0	3	3	3	0	0	30	0	0	3	26	3	0	77	269
12:30 PM	2	0	6	0	4	3	8	0	3	35	4	0	7	32	3	0	107	310
12:45 PM	0	4	5	0	1	0	8	0	11	18	4	0	2	28	2	0	83	333
1:00 PM	0	2	4	0	3	1	9	0	5	33	2	0	5	19	1	0	84	351
1:15 PM	1	2	8	0	0	4	10	0	6	14	0	0	4	25	3	0	77	351
1:30 PM	0	2	4	0	4	5	3	0	2	28	0	0	7	23	0	0	78	322
1:45 PM	1	2	7	0	0	4	2	0	2	34	4	0	2	20	2	0	80	319
2:00 PM	0	3	3	0	2	3	3	0	4	22	0	0	3	30	0	0	73	308
2:15 PM	1	3	3	0	3	2	4	0	1	28	3	0	4	32	1	0	85	316
2:30 PM	0	1	6	0	4	1	4	0	3	19	2	0	5	28	1	0	74	312
2:45 PM	5	1	3	0	2	3	6	0	4	34	3	0	2	23	2	0	88	320
3:00 PM	3	2	4	0	0	4	7	0	3	22	3	0	3	31	4	0	86	333
3:15 PM	3	1	13	0	2	3	3	0	2	33	3	0	3	42	0	0	108	356

15-Min Count Period Beginning At	Perry Rd (Northbound)				Perry Rd (Southbound)				Apex Peakway (Eastbound)				Apex Peakway (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	6	4	9	0	3	1	3	0	0	24	5	0	3	30	1	0	89	371
3:45 PM	1	4	7	0	2	3	12	0	9	47	0	0	5	27	2	0	119	402
4:00 PM	2	2	15	0	4	0	11	0	6	53	1	0	4	31	3	0	132	448
4:15 PM	4	0	8	0	1	2	7	0	9	41	1	0	0	44	1	0	118	458
4:30 PM	1	2	11	0	2	0	13	0	15	49	1	0	2	33	2	0	131	500
4:45 PM	4	2	3	0	1	1	11	0	8	50	1	0	0	55	0	0	136	517
5:00 PM	5	3	7	0	15	1	23	0	4	60	1	0	1	62	5	0	187	572
5:15 PM	1	2	2	0	2	0	14	0	11	58	3	0	1	52	0	0	146	600
5:30 PM	1	0	1	0	0	0	22	0	10	58	3	0	1	41	0	0	137	606
5:45 PM	0	2	0	0	3	1	12	0	8	85	0	0	0	35	2	0	148	618
6:00 PM	2	2	2	0	1	3	11	0	8	39	0	0	1	34	2	0	105	536
6:15 PM	0	1	4	0	3	0	7	0	5	47	0	0	2	49	0	0	118	508
6:30 PM	2	0	3	0	1	2	11	0	5	33	1	0	1	26	1	0	86	457
6:45 PM	0	0	0	0	1	0	8	0	5	18	0	0	0	28	2	0	62	371
7:00 PM	0	0	0	0	1	0	11	0	5	34	0	0	0	26	0	0	77	343
7:15 PM	0	0	0	0	0	0	6	0	4	22	0	0	0	28	1	0	61	286
7:30 PM	1	0	0	0	0	0	6	0	3	18	0	0	1	33	0	0	62	262
7:45 PM	1	1	4	0	0	0	2	0	1	25	0	0	1	30	0	0	65	265
8:00 PM	0	2	0	0	0	0	10	0	3	13	0	0	0	27	0	0	55	243
8:15 PM	0	0	0	0	0	0	3	0	0	11	0	0	0	16	0	0	30	212
8:30 PM	0	0	0	0	1	0	5	0	0	27	0	0	0	17	0	0	50	200
8:45 PM	0	0	0	0	0	0	4	0	1	14	0	0	0	24	0	0	43	178
9:00 PM	0	0	0	0	1	0	4	0	3	9	0	0	0	20	0	0	37	160
9:15 PM	0	0	0	0	0	0	3	0	1	14	0	0	0	18	0	0	36	166
9:30 PM	0	0	0	0	0	0	2	0	0	12	0	0	0	22	0	0	36	152
9:45 PM	0	0	0	0	0	0	1	0	0	19	0	0	0	15	0	0	35	144

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	12	28	0	60	4	92	0	16	240	4	0	4	248	20	0	748
Heavy Trucks	0	0	0		0	4	4		0	4	4		0	0	0		16
Buses																	
Pedestrians		4				0				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 5/30/2024 12:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

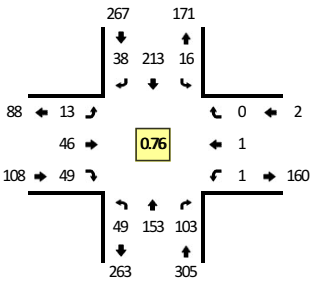
Type of peak hour being reported: Intersection Peak

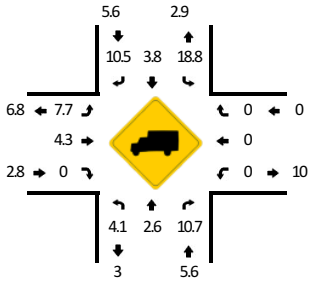
Method for determining peak hour: Total Entering Volume

LOCATION: Apex Peakway -- Hughes St
CITY/STATE: Apex, NC

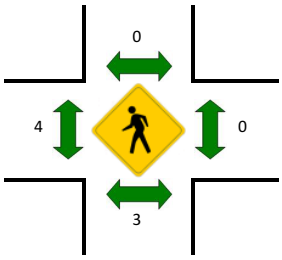
QC JOB #: 16650301
DATE: Thu, Jun 6 2024

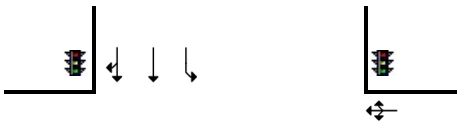
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

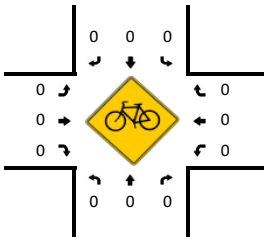


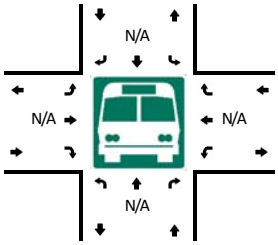


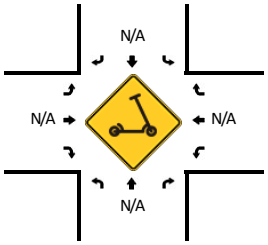
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Apex Peakway (Northbound)				Apex Peakway (Southbound)				Hughes St (Eastbound)				Hughes St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	30	28	0	5	44	10	1	1	10	9	0	1	0	0	0	145	
7:15 AM	8	30	25	0	3	48	3	1	1	13	12	0	0	0	0	0	144	
7:30 AM	9	36	17	0	1	37	6	0	3	12	7	0	0	0	0	0	128	
7:45 AM	5	31	28	0	3	43	9	0	2	12	9	0	0	2	1	0	145	562
8:00 AM	3	37	21	0	4	48	15	1	2	10	14	0	0	0	0	0	155	572
8:15 AM	18	34	24	0	1	56	7	1	2	4	13	0	0	0	0	0	160	588
8:30 AM	13	30	19	0	3	50	3	1	2	13	7	0	0	1	0	0	142	602
8:45 AM	15	52	39	0	3	59	13	2	7	19	15	0	1	0	0	0	225	682

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	208	156	0	12	236	52	8	28	76	60	0	4	0	0	0	900
Heavy Trucks	0	4	28		0	12	8		4	4	0		0	0	0		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/11/2024 11:35 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

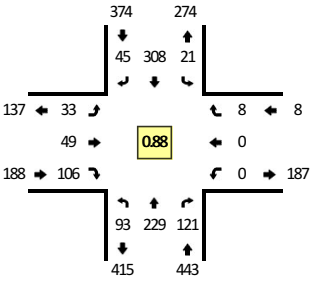
Type of peak hour being reported: Intersection Peak

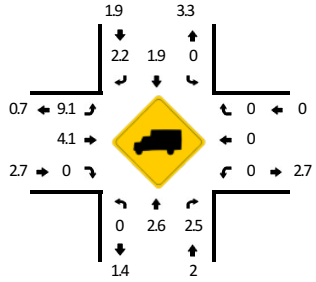
Method for determining peak hour: Total Entering Volume

LOCATION: Apex Peakway -- Hughes St
CITY/STATE: Apex, NC

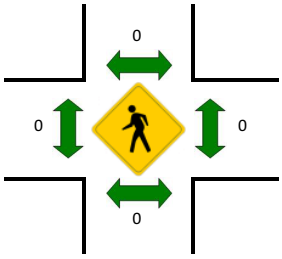
QC JOB #: 16650302
DATE: Thu, Jun 6 2024

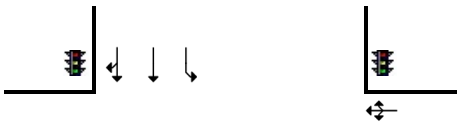
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

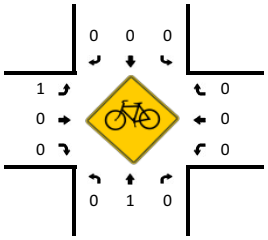


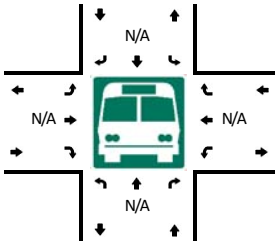


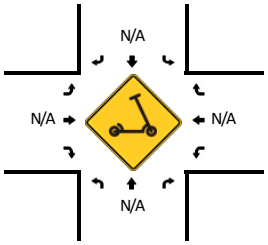
TRUE DATA TO IMPROVE MOBILITY











15-Min Count Period Beginning At	Apex Peakway (Northbound)				Apex Peakway (Southbound)				Hughes St (Eastbound)				Hughes St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	19	61	28	1	4	69	9	0	11	19	18	0	0	1	1	0	241	
4:15 PM	25	38	32	0	1	83	8	0	7	12	30	0	0	0	6	0	242	
4:30 PM	20	69	26	0	8	73	10	0	13	9	20	0	0	0	0	0	248	
4:45 PM	22	50	29	1	1	74	10	0	7	13	28	0	0	0	1	0	236	967
5:00 PM	25	72	34	0	7	78	17	4	6	15	28	0	0	0	1	0	287	1013
5:15 PM	27	50	26	0	3	63	9	2	5	10	27	0	1	0	2	0	225	996
5:30 PM	17	43	35	0	2	77	15	0	8	7	20	0	0	1	0	0	225	973
5:45 PM	15	39	30	0	6	67	14	1	3	17	31	0	0	0	0	0	223	960

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	100	288	136	0	28	312	68	16	24	60	112	0	0	0	4	0	1148
Heavy Trucks	0	8	4		0	4	4		4	4	0		0	0	0		28
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/11/2024 11:35 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Intersection Spreadsheets

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**10/10/2024**
N/S Street:	**NC 55**
E/W Street:	**Apex Peakway**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.92

Description	Apex Peakway Eastbound				- Westbound				NC 55 Northbound				NC 55 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	47	0	92	0	0	0	0	12	219	980	0	0	0	806	33
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	47	0	92	0	0	0	0	12	219	980	0	0	0	806	33
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	6	0	12	0	0	0	0	2	27	123	0	0	0	101	4
Committed Projects																
Apex Fast Food	0	4	0	13	0	0	0	0	0	13	0	0	0	0	0	4
Veridea	0	0	0	0	0	0	0	0	0	0	121	0	0	0	122	0
Broadstone Hotel	0	6	0	6	0	0	0	0	0	15	0	0	0	0	0	15
Broadstone Retail	0	5	0	17	0	0	0	0	0	17	0	0	0	0	0	6
Grace Christian	0	7	0	40	0	0	0	0	0	63	0	0	0	0	0	7
Total Committed Traffic	0	22	0	76	0	0	0	0	0	108	121	0	0	0	122	32
Traffic Diversions	0	0	0	300	0	0	0	0	0	400	-400	0	0	0	-300	0
2028 Background Traffic	0	75	0	480	0	0	0	0	14	754	824	0	0	0	729	69
Adjusted PHF		0.88		0.89						0.88						0.88
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	5%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	4
Percent Assignment Outbound	0%	5%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	2	0	2	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%	0%	0%	30%	0%	0%	0%	0%	0%	5%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	3
Percent Assignment Outbound	0%	5%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	2	0	2	0	0	0	0	0	22	0	0	0	0	0	4
Total Residential Site Traffic	0	11	0	11	0	0	0	0	0	22	0	0	0	0	0	3
Total Site Traffic	**0**	**13**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**44**	**0**	**0**	**0**	**0**	**0**	**7**
2028 Buildout Total	0	88	0	493	0	0	0	0	14	798	824	0	0	0	729	76
Adjusted PHF		0.89		0.89						0.89						0.88
		0.88	#DIV/0!	0.89	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.92	0.88	0.92	#DIV/0!	#DIV/0!	#DIV/0!	0.92	0.88

PM PEAK HOUR
PM PHF = 0.98

Description	Apex Peakway Eastbound				- Westbound				NC 55 Northbound				NC 55 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	77	0	130	0	0	0	0	7	305	909	0	0	0	1070	84
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	77	0	130	0	0	0	0	7	305	909	0	0	0	1070	84
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	10	0	16	0	0	0	0	1	38	114	0	0	0	134	11
Committed Projects																
Apex Fast Food	0	4	0	12	0	0	0	0	0	12	0	0	0	0	0	4
Veridea	0	0	0	0	0	0	0	0	0	0	106	0	0	0	141	0
Broadstone Hotel	0	12	0	13	0	0	0	0	0	23	0	0	0	0	0	23
Broadstone Retail	0	8	0	25	0	0	0	0	0	30	0	0	0	0	0	10
Grace Christian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	24	0	50	0	0	0	0	0	65	106	0	0	0	141	37
Traffic Diversions	0	0	0	400	0	0	0	0	0	300	-300	0	0	0	-400	0
2028 Background Traffic	0	111	0	596	0	0	0	0	8	708	829	0	0	0	945	132
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	5%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	1
Percent Assignment Outbound	0%	5%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	3	0	3	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%	0%	0%	30%	0%	0%	0%	0%	0%	5%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	56	0	0	0	0	0	9
Percent Assignment Outbound	0%	5%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	3	0	3	0	0	0	0	0	8	0	0	0	0	0	1
Total Residential Site Traffic	0	6	0	6	0	0	0	0	0	56	0	0	0	0	0	9
Total Site Traffic	**0**	**9**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**64**	**0**	**0**	**0**	**0**	**0**	**10**
2028 Buildout Total	0	120	0	605	0	0	0	0	8	772	829	0	0	0	945	142

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**6/6/2024**
N/S Street:	**Apex Peakway**
E/W Street:	**S Hughes Street**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.76

Description	S Hughes Street Eastbound				S Hughes Street Westbound				Apex Peakway Northbound				Apex Peakway 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	13	46	49	0	1	1	0	0	49	153	103	5	11	213	38
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	13	46	49	0	1	1	0	0	49	153	103	5	11	213	38
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	2	6	6	0	0	0	0	0	6	19	13	1	1	27	5
Committed Projects																
Apex Fast Food	0	2	2	0	0	25	4	0	0	0	2	2	0	38	-21	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	9	9	0	0	2	2	0	0	0	3	3	0	0	15	15
Broadstone Retail	0	0	0	17	0	17	6	3	0	10	19	6	0	0	23	0
Grace Christian	0	0	0	32	0	0	0	0	0	20	47	0	0	0	70	0
Total Committed Traffic	0	11	11	49	0	44	12	3	0	30	71	11	0	38	87	15
Traffic Diversions	0	0	0	0	0	0	0	0	0	0	300	0	0	0	400	0
2028 Background Traffic	0	26	63	104	0	45	13	3	0	85	543	127	6	50	727	58
Adjusted PHF				0.68						0.70	0.74				0.73	
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	25%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	25%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	22	54	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	4	8	0	0	26	0
Total Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	22	54	0	0	25	0
Total Site Traffc	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**62**	**0**	**0**	**51**	**0**
2028 Buildout Total	0	26	63	104	0	45	13	3	0	85	569	189	6	50	778	58
Adjusted PHF				0.68						0.70	0.74				0.74	

PM PEAK HOUR
PM PHF = 0.88

Description	S Hughes Street Eastbound				S Hughes Street Westbound				Apex Peakway Northbound				Apex Peakway 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	33	49	106	0	0	0	8	1	92	229	121	4	17	308	45
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	33	49	106	0	0	0	8	1	92	229	121	4	17	308	45
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	4	6	13	0	0	0	1	0	12	29	15	1	2	39	6
Committed Projects																
Apex Fast Food	0	2	2	0	0	24	4	0	0	0	2	2	0	35	-19	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	19	19	0	0	3	3	0	0	0	6	6	0	0	23	23
Broadstone Retail	0	0	0	29	0	29	9	5	0	14	28	9	0	0	40	0
Grace Christian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	21	21	29	0	56	16	5	0	14	36	17	0	35	44	23
Traffic Diversions	0	0	0	0	0	0	0	0	0	0	400	0	0	0	300	0
2028 Background Traffic	0	58	76	148	0	56	16	14	1	118	694	153	5	54	691	74
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	25%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	6	17	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	25%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	12	30	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	6	17	0	0	9	0
Total Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	12	30	0	0	65	0
Total Site Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**47**	**0**	**0**	**74**	**0**
2028 Buildout Total	0	58	76	148	0	56	16	14	1	118	712	200	5	54	765	74

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**5/23/2024**
N/S Street:	**Perry Road**
E/W Street:	**Apex Peakway**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.86

Description	Apex Peakway Eastbound				Apex Peakway Westbound				Perry Road Northbound				Perry 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	42	177	9	0	15	96	8	0	3	17	17	0	6	18	18
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	42	177	9	0	15	96	8	0	3	17	17	0	6	18	18
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	5	22	1	0	2	12	1	0	0	2	2	0	1	2	2
Committed Projects																
Apex Fast Food	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	14	0	0	0	13	0	0	0	0	0	0	0	0	0
Grace Christian	0	0	67	0	0	0	102	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	89	0	0	0	122	0	0	0	0	0	0	0	0	0
Traffic Diversions	0	0	300	0	0	0	400	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	47	588	10	0	17	630	9	0	3	19	19	0	7	20	20
Adjusted PHF			0.82				0.80									
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	50%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%
Inbound Project Traffic	0	0	0	36	0	26	0	0	0	0	0	0	0	0	11	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	15%	35%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	18	5	12	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	0%	45%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%
Inbound Project Traffic	0	0	0	31	0	25	0	0	0	0	0	0	0	0	10	0
Percent Assignment Outbound	0%	0%	5%	0%	0%	0%	0%	0%	0%	45%	15%	30%	0%	0%	0%	0%
Outbound Project Traffic	0	0	11	0	0	0	0	0	0	98	33	65	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	36	0	26	0	0	0	18	5	12	0	0	11	0
Total Residential Site Traffic	0	0	11	31	0	25	0	0	0	98	33	65	0	0	10	0
Total Site Traffc	**0**	**0**	**11**	**67**	**0**	**51**	**0**	**0**	**0**	**116**	**38**	**77**	**0**	**0**	**21**	**0**
2028 Buildout Total	0	47	599	77	0	68	630	9	0	119	57	96	0	7	41	20
Adjusted PHF			0.82				0.80									

PM PEAK HOUR
PM PHF = 0.83

Description	Apex Peakway Eastbound				Apex Peakway Westbound				Perry Road Northbound				Perry 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	33	261	7	0	3	190	7	0	7	7	10	0	20	2	71
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	33	261	7	0	3	190	7	0	7	7	10	0	20	2	71
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	4	33	1	0	0	24	1	0	1	1	1	0	3	0	9
Committed Projects																
Apex Fast Food	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0
Grace Christian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	32	0	0	0	30	0	0	0	0	0	0	0	0	0
Traffic Diversions	0	0	400	0	0	0	300	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	37	726	8	0	3	544	8	0	8	8	11	0	23	2	80
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	50%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%
Inbound Project Traffic	0	0	0	12	0	9	0	0	0	0	0	0	0	0	4	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	15%	35%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	34	10	23	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	0%	45%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%
Inbound Project Traffic	0	0	0	84	0	65	0	0	0	0	0	0	0	0	28	0
Percent Assignment Outbound	0%	0%	5%	0%	0%	0%	0%	0%	0%	45%	15%	30%	0%	0%	0%	0%
Outbound Project Traffic	0	0	6	0	0	0	0	0	0	54	18	36	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	12	0	9	0	0	0	34	10	23	0	0	4	0
Total Residential Site Traffic	0	0	6	84	0	65	0	0	0	54	18	36	0	0	28	0
Total Site Traffic	**0**	**0**	**6**	**96**	**0**	**74**	**0**	**0**	**0**	**88**	**28**	**59**	**0**	**0**	**32**	**0**
2028 Buildout Total	0	37	732	104	0	77	544	8	0	96	36	70	0	23	34	80

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**5/10/2023**
N/S Street:	**Tingen Road**
E/W Street:	**Apex Peakway**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.88

Description	Apex Peakway Eastbound				Apex Peakway Westbound				Tingen Road Northbound				Tingen 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	57	59	10	0	40	22	54	0	4	311	88	0	46	104	24
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	57	59	10	0	40	22	54	0	4	311	88	0	46	104	24
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	7	7	1	0	5	3	7	0	1	39	11	0	6	13	3
Committed Projects																
Apex Fast Food	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	1	0	2	0	0	0	2	0	2	0	0
Broadstone Retail	0	0	14	0	0	0	13	0	0	0	0	0	0	0	0	0
Grace Christian	0	0	0	102	0	102	0	0	0	67	21	67	0	0	34	0
Total Committed Traffic	0	0	18	102	0	103	17	2	0	67	21	69	0	2	34	0
Traffic Diversions	0	0	278	0	0	0	416	-16	0	93	-186	93	0	0	0	0
2028 Background Traffic	0	64	362	113	0	148	458	47	0	165	185	261	0	54	151	27
Adjusted PHF				0.54		0.62				0.73	0.84	0.78			0.79	
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%
Inbound Project Traffic	0	0	22	0	0	0	0	0	0	0	0	14	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	20%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	7	11	0	0	0	0	0	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%
Inbound Project Traffic	0	0	17	0	0	0	0	0	0	0	0	17	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	54	55	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	22	0	0	7	11	0	0	0	0	14	0	0	0	0
Total Residential Site Traffic	0	0	17	0	0	54	55	0	0	0	0	17	0	0	0	0
Total Site Traffc	**0**	**0**	**39**	**0**	**0**	**61**	**66**	**0**	**0**	**0**	**0**	**31**	**0**	**0**	**0**	**0**
2028 Buildout Total	0	64	401	113	0	209	524	47	0	165	185	292	0	54	151	27
Adjusted PHF				0.54		0.69				0.73	0.84	0.79			0.79	

PM PEAK HOUR
PM PHF = 0.95

Description	Apex Peakway Eastbound				Apex Peakway Westbound				Tingen Road Northbound				Tingen 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	36	48	13	0	107	48	58	0	6	184	114	0	81	222	35
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	36	48	13	0	107	48	58	0	6	184	114	0	81	222	35
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	5	6	2	0	13	6	7	0	1	23	14	0	10	28	4
Committed Projects																
Apex Fast Food	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	3	0	3	0	0	0	3	0	3	0	0
Broadstone Retail	0	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0
Grace Christian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	26	0	0	3	24	3	0	0	0	3	0	3	0	0
Traffic Diversions	0	0	374	0	0	0	317	-17	0	52	-103	51	0	0	0	0
2028 Background Traffic	0	41	454	15	0	123	395	51	0	59	104	182	0	94	250	39
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%
Inbound Project Traffic	0	0	8	0	0	0	0	0	0	0	0	4	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	20%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	13	21	0	0	0	0	0	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%
Inbound Project Traffic	0	0	47	0	0	0	0	0	0	0	0	46	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	8	0	0	13	21	0	0	0	0	4	0	0	0	0
Total Residential Site Traffic	0	0	47	0	0	30	30	0	0	0	0	46	0	0	0	0
Total Site Traffic	**0**	**0**	**55**	**0**	**0**	**43**	**51**	**0**	**0**	**0**	**0**	**50**	**0**	**0**	**0**	**0**
2028 Buildout Total	0	41	509	15	0	166	446	51	0	59	104	232	0	94	250	39

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**5/23/2024**
N/S Street:	**S Hughes Street**
E/W Street:	**James Street**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.85

Description	James Street Eastbound				James Street Westbound				S Hughes Street Northbound				S Hughes Street 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	87	71	74	0	8	42	13	0	39	92	20	0	4	72	64
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	87	71	74	0	8	42	13	0	39	92	20	0	4	72	64
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	11	9	9	0	1	5	2	0	5	12	3	0	1	9	8
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	16	0	0	0	17	0
Grace Christian	0	0	0	0	0	0	0	0	0	0	20	0	0	0	32	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	43	0	0	0	57	0
Traffic Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	98	80	83	0	9	47	15	0	44	147	23	0	5	138	72
Adjusted PHF											0.80				0.77	
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	5	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%	15%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	5	0	0	0	11	0
Total Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	33	0	0	0	10	0
Total Site Traffc	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**0**	**0**	**0**	**21**	**0**
2028 Buildout Total	0	98	80	83	0	9	47	15	0	44	185	23	0	5	159	72
Adjusted PHF											0.81				0.78	

PM PEAK HOUR
PM PHF = 0.96

Description	James Street Eastbound				James Street Westbound				S Hughes Street Northbound				S Hughes Street 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	66	62	119	0	22	63	12	0	86	135	36	0	8	162	44
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	66	62	119	0	22	63	12	0	86	135	36	0	8	162	44
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	8	8	15	0	3	8	2	0	11	17	5	0	1	20	6
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	23	0	0	0	29	0
Grace Christian	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	33	0	0	0	39	0
Traffic Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	74	70	134	0	25	71	14	0	97	185	41	0	9	221	50
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	10	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%	15%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	10	0	0	0	4	0
Total Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	18	0	0	0	28	0
Total Site Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**32**	**0**
2028 Buildout Total	0	74	70	134	0	25	71	14	0	97	213	41	0	9	253	50

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**5/23/2024**
N/S Street:	**S Hughes Street**
E/W Street:	**Perry Road**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.82

Description	Perry Road Eastbound				Perry Road Westbound				S Hughes Street Northbound				S Hughes Street 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	30	19	6	0	9	27	45	0	4	56	4	0	48	93	38
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	30	19	6	0	9	27	45	0	4	56	4	0	48	93	38
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	4	2	1	0	1	3	6	0	1	7	1	0	6	12	5
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	16	0	0	0	17	0
Grace Christian	0	0	0	0	0	0	0	0	0	0	20	0	0	0	32	0
Total Committed Traffic	0	0	0	0	0	0	0	0	0	0	43	0	0	0	57	0
Traffic Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	34	21	7	0	10	30	51	0	5	106	5	0	54	162	43
Adjusted PHF											0.76				0.76	
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Percent Assignment Outbound	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	5	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%	0%	0%	0%	0%	0%	0%	0%	0%	15%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Percent Assignment Outbound	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Total Residential Site Traffic	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total Site Traffc	**0**	**38**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**
2028 Buildout Total	0	72	21	7	0	10	30	51	0	5	106	5	0	54	162	64
Adjusted PHF											0.76				0.76	

PM PEAK HOUR
PM PHF = 0.94

Description	Perry Road Eastbound				Perry Road Westbound				S Hughes Street Northbound				S Hughes Street 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	34	29	11	0	16	37	96	0	6	112	14	0	69	183	31
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	34	29	11	0	16	37	96	0	6	112	14	0	69	183	31
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	4	4	1	0	2	5	12	0	1	14	2	0	9	23	4
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	23	0	0	0	29	0
Grace Christian	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	33	0	0	0	39	0
Traffic Diversions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	38	33	12	0	18	42	108	0	7	159	16	0	78	245	35
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Percent Assignment Outbound	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	10	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%	0%	0%	0%	0%	0%	0%	0%	0%	15%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Percent Assignment Outbound	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Residential Site Traffic	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Total Site Traffic	**0**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**32**
2028 Buildout Total	0	66	33	12	0	18	42	108	0	7	159	16	0	78	245	67

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**5/23/2024**
N/S Street:	**Shackleton Road**
E/W Street:	**Apex Peakway**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.84

Description	Apex Peakway Eastbound				Apex Peakway Westbound				Shackleton Road Northbound				Shackleton 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	2	188	4	0	4	108	4	0	9	4	16	0	10	2	2
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	2	188	4	0	4	108	4	0	9	4	16	0	10	2	2
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	24	1	0	1	14	1	0	1	1	2	0	1	0	0
Committed Projects																
Apex Fast Food	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	14	0	0	0	13	0	0	0	0	0	0	0	0	0
Grace Christian	0	0	67	0	0	0	102	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	89	0	0	0	122	0	0	0	0	0	0	0	0	0
Traffic Diversions	0	0	300	0	0	0	400	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	2	601	5	0	5	644	5	0	10	5	18	0	11	2	2
Adjusted PHF			0.80				0.79									
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	45%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	31	3	0	0	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	45%	0%	0%	5%	0%	5%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	98	0	0	11	0	11	0	0	0	0
Total Non-Residential Site Traffic	0	0	36	0	0	0	18	0	0	0	0	0	0	0	0	0
Total Residential Site Traffic	0	0	31	3	0	0	98	0	0	11	0	11	0	0	0	0
Total Site Traffc	**0**	**0**	**67**	**3**	**0**	**0**	**116**	**0**	**0**	**11**	**0**	**11**	**0**	**0**	**0**	**0**
2028 Buildout Total	0	2	668	8	0	5	760	5	0	21	5	29	0	11	2	2
Adjusted PHF			0.81				0.79									

PM PEAK HOUR
PM PHF = 0.94

Description	Apex Peakway Eastbound				Apex Peakway Westbound				Shackleton Road Northbound				Shackleton 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	269	13	0	14	237	18	0	8	1	10	0	14	1	1
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024 Existing Traffic	0	6	269	13	0	14	237	18	0	8	1	10	0	14	1	1
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	1	34	2	0	2	30	2	0	1	0	1	0	2	0	0
Committed Projects																
Apex Fast Food	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0
Grace Christian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Committed Traffic	0	0	32	0	0	0	30	0	0	0	0	0	0	0	0	0
Traffic Diversions	0	0	400	0	0	0	300	0	0	0	0	0	0	0	0	0
2028 Background Traffic	0	7	735	15	0	16	597	20	0	9	1	11	0	16	1	1
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	45%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	84	9	0	0	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	45%	0%	0%	5%	0%	5%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	54	0	0	6	0	6	0	0	0	0
Total Non-Residential Site Traffic	0	0	12	0	0	0	34	0	0	0	0	0	0	0	0	0
Total Residential Site Traffic	0	0	84	9	0	0	54	0	0	6	0	6	0	0	0	0
Total Site Traffic	**0**	**0**	**96**	**9**	**0**	**0**	**88**	**0**	**0**	**6**	**0**	**6**	**0**	**0**	**0**	**0**
2028 Buildout Total	0	7	831	24	0	16	685	20	0	15	1	17	0	16	1	1

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**N/A**
N/S Street:	**Perry Road**
E/W Street:	**East-West Collector/Site Driveway 1**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.9

Description	East-West Collector Eastbound				Site Driveway 1 Westbound				Perry Road Northbound				Perry 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	0	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted PHF																
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35%	50%	15%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	25	37	11
Percent Assignment Outbound	0%	65%	0%	0%	0%	0%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	23	0	0	0	0	0	12	0	0	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%	50%	45%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	31
Percent Assignment Outbound	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	87	0	0	0	0	0	0	0	0	109	0	0	0	0	0
Total Non-Residential Site Traffic	0	23	0	0	0	0	0	12	0	0	0	0	0	25	37	11
Total Residential Site Traffic	0	87	0	0	0	0	0	0	0	0	109	0	0	0	35	31
Total Site Traffc	**0**	**110**	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**109**	**0**	**0**	**25**	**72**	**42**
2028 Buildout Total	0	110	0	0	0	0	0	12	0	0	109	0	0	25	72	42
Adjusted PHF																

PM PEAK HOUR
PM PHF = 0.9

Description	East-West Collector Eastbound				Site Driveway 1 Westbound				Perry Road Northbound				Perry 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	0	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35%	50%	15%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	8	13	4
Percent Assignment Outbound	0%	65%	0%	0%	0%	0%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	44	0	0	0	0	0	23	0	0	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%	50%	45%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	84
Percent Assignment Outbound	0%	40%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	48	0	0	0	0	0	0	0	0	60	0	0	0	0	0
Total Non-Residential Site Traffic	0	44	0	0	0	0	0	23	0	0	0	0	0	8	13	4
Total Residential Site Traffic	0	48	0	0	0	0	0	0	0	0	60	0	0	0	93	84
Total Site Traffic	**0**	**92**	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**60**	**0**	**0**	**8**	**106**	**88**
2028 Buildout Total	0	92	0	0	0	0	0	23	0	0	60	0	0	8	106	88

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**N/A**
N/S Street:	**Site Driveway 2**
E/W Street:	**East-West Collector**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.9

Description	East-West Collector Eastbound				East-West Collector Westbound				Site Driveway 2 Northbound				- 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	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted PHF																
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	15%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	0	0	0	10	21	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%
Outbound Project Traffic	0	0	55	0	0	0	0	0	0	0	0	32	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	11	0	0	0	0	0	23	0	0	0	0
Total Residential Site Traffic	0	0	55	0	0	10	21	0	0	0	0	32	0	0	0	0
Total Site Traffc	**0**	**0**	**55**	**0**	**0**	**21**	**21**	**0**	**0**	**0**	**0**	**55**	**0**	**0**	**0**	**0**
2028 Buildout Total	0	0	55	0	0	21	21	0	0	0	0	55	0	0	0	0
Adjusted PHF																

PM PEAK HOUR
PM PHF = 0.9

Description	East-West Collector Eastbound				East-West Collector Westbound				Site Driveway 2 Northbound				- 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	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0	0
Project Traffic - Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	15%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	0	0	0	28	56	0	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%
Outbound Project Traffic	0	0	30	0	0	0	0	0	0	0	0	18	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	4	0	0	0	0	0	44	0	0	0	0
Total Residential Site Traffic	0	0	30	0	0	28	56	0	0	0	0	18	0	0	0	0
Total Site Traffic	**0**	**0**	**30**	**0**	**0**	**32**	**56**	**0**	**0**	**0**	**0**	**62**	**0**	**0**	**0**	**0**
2028 Buildout Total	0	0	30	0	0	32	56	0	0	0	0	62	0	0	0	0

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**N/A**
N/S Street:	**Shackleton Road/Site Driveway 3**
E/W Street:	**East-West Collector**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.9

Description	East-West Collector Eastbound				East-West Collector Westbound				Site Driveway 3 Northbound				Shackleton 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	0	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted PHF																
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	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%	0%
Outbound Project Traffic	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%	30%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%
Inbound Project Traffic	0	0	0	0	0	21	0	0	0	0	0	0	0	0	3	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	25%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	22	55	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residential Site Traffic	0	0	0	0	0	21	0	0	0	0	22	55	0	0	3	0
Total Site Traffc	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**22**	**55**	**0**	**0**	**3**	**0**
2028 Buildout Total	0	0	0	0	0	21	0	0	0	0	22	55	0	0	3	0
Adjusted PHF																

PM PEAK HOUR
PM PHF = 0.9

Description	East-West Collector Eastbound				East-West Collector Westbound				Site Driveway 3 Northbound				Shackleton 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	0	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	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%	0%
Outbound Project Traffic	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%	30%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%
Inbound Project Traffic	0	0	0	0	0	56	0	0	0	0	0	0	0	0	9	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	25%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	12	30	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residential Site Traffic	0	0	0	0	0	56	0	0	0	0	12	30	0	0	9	0
Total Site Traffic	**0**	**0**	**0**	**0**	**0**	**56**	**0**	**0**	**0**	**0**	**12**	**30**	**0**	**0**	**9**	**0**
2028 Buildout Total	0	0	0	0	0	56	0	0	0	0	12	30	0	0	9	0

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**N/A**
N/S Street:	**Perry Road**
E/W Street:	**Site Driveway 4**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.9

	Site Driveway 4 Eastbound				- Westbound				Perry Road Northbound				Perry Road Southbound			
Description	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	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted PHF																
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	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%	0%	0%	0%	0%	0%	0%	0%	30%	20%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	14
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	109	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Total Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	109	0	0	0	21	14
Total Site Traffc	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**109**	**0**	**0**	**0**	**21**	**51**
2028 Buildout Total	0	0	0	0	0	0	0	0	0	0	109	0	0	0	21	51
Adjusted PHF																

PM PEAK HOUR
PM PHF = 0.9

	Site Driveway 4 Eastbound				- Westbound				Perry Road Northbound				Perry Road Southbound			
Description	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	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	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%	0%	0%	0%	0%	0%	0%	0%	30%	20%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	37
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Total Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	60	0	0	0	56	37
Total Site Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60**	**0**	**0**	**0**	**56**	**50**
2028 Buildout Total	0	0	0	0	0	0	0	0	0	0	60	0	0	0	56	50

Intersection Analysis Sheet

Project:	**Hopson Gateway**
Location:	**Apex, NC**
Scenario:	**Residential & Non-Residential**
Ct. Date	**N/A**
N/S Street:	**Perry Road**
E/W Street:	**Site Driveway 5**

	AM In	AM Out	PM In	PM Out
Non-Residential Site Trips	73	35	25	67
Residential Site Trips	69	218	186	120

Annual Growth Rate:	3.0%	**Existing Year:**	2024
Growth Factor:	0.125509	**Buildout Year:**	2028

AM PEAK HOUR
AM PHF = 0.9

Description	Site Driveway 5 Eastbound				- Westbound				Perry Road Northbound				Perry 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	0	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted PHF																
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	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%	0%
Outbound Project Traffic	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%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Percent Assignment Outbound	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residential Site Traffic	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Total Site Traffc	**0**	**109**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**
2028 Buildout Total	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Adjusted PHF																

PM PEAK HOUR
PM PHF = 0.9

Description	Site Driveway 5 Eastbound				- Westbound				Perry Road Northbound				Perry 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	0	0	0	0	0	0	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
2024 Existing Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Factor 3.0% per year	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2028 Background Growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Committed Projects																
Apex Fast Food	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Veridea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadstone Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grace Christian	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
2028 Background Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Traffic - Non-Residential																
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	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%	0%
Outbound Project Traffic	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%	0%	0%	0%	0%	0%	0%	0%	0%	30%
Inbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
Percent Assignment Outbound	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Project Traffic	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Non-Residential Site Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residential Site Traffic	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	56
Total Site Traffic	**0**	**60**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**56**
2028 Buildout Total	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	56

Synchro Reports

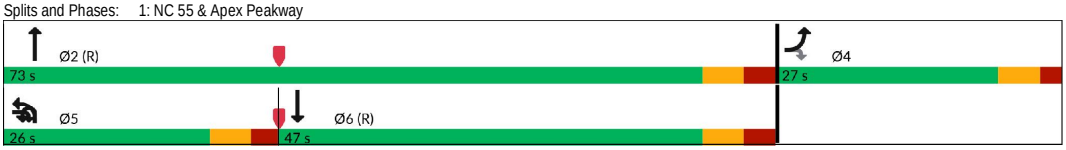
Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	75	480	14	754	824	729	69
Future Volume (vph)	75	480	14	754	824	729	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1695	2670	0	3318	1800	4900	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1695	2670	0	3318	1800	4900	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.88	0.89	0.92	0.88	0.92	0.92	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	85	539	0	872	896	870	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	13.4	13.4	13.4	16.9	51.0	
Total Split (s)	27.0	26.0	26.0	26.0	73.0	47.0	
Total Split (%)	27.0%	26.0%	26.0%	26.0%	73.0%	47.0%	
Maximum Green (s)	21.0	19.6	19.6	19.6	66.1	40.1	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Minimum Gap (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	C-Max	
Walk Time (s)	11.0					14.0	
Flash Don't Walk (s)	18.0					29.0	
Pedestrian Calls (#/hr)	0					0	
Act Effct Green (s)	10.8	48.0		34.8	82.8	42.0	
Actuated g/C Ratio	0.11	0.48		0.35	0.83	0.42	
v/c Ratio	0.47	0.42		0.75	0.60	0.42	
Control Delay (s/veh)	40.2	7.3		35.6	6.4	21.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	40.2	7.3		35.6	6.4	21.2	
LOS	D	A		D	A	C	
Approach Delay (s/veh)	11.8				20.8	21.2	
Approach LOS	B				C	C	
Queue Length 50th (ft)	32	39		260	179	139	
Queue Length 95th (ft)	m63	46		#379	343	175	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	372	1281		1156	1491	2058	

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
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	0.23	0.42		0.75	0.60	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 67 (67%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay (s/veh): 19.2		Intersection LOS: B	
Intersection Capacity Utilization 66.8%		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.
m Volume for 95th percentile queue is metered by upstream signal.
! Phase conflict between lane groups.

Splits and Phases: 1: NC 55 & Apex Peakway



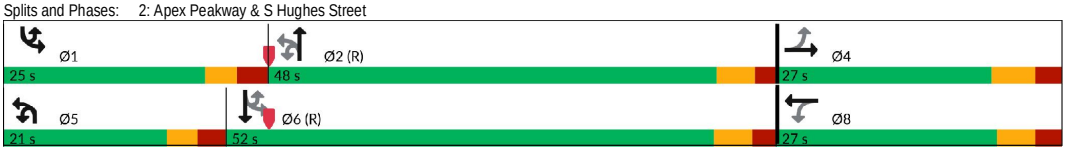
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	26	63	104	45	13	4	4	85	543	127	6	50	727	58
Future Volume (vph)	26	63	104	45	13	4	4	85	543	127	6	50	727	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1703	0	0	1765	0	0	1669	3244	0	0	1686	3326	0
Flt Permitted		0.950			0.436			0.192				0.270		
Satd. Flow (perm)	0	1627	0	0	797	0	0	337	3244	0	0	479	3326	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)			3	3				4						4
Confl. Bikes (#/hr)														
Peak Hour Factor	0.76	0.76	0.68	0.76	0.76	0.76	0.76	0.70	0.74	0.76	0.76	0.76	0.73	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	270	0	0	81	0	0	126	901	0	0	74	1072	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	27.0	27.0		27.0	27.0		21.0	21.0	48.0		25.0	25.0	52.0	
Total Split (%)	27.0%	27.0%		27.0%	27.0%		21.0%	21.0%	48.0%		25.0%	25.0%	52.0%	
Maximum Green (s)	20.4	20.4		20.8	20.8		15.4	15.4	42.4		19.1	19.1	46.1	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lead	Lead	Lag		Lead	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0				7.0				7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0				8.0				7.0	
Pedestrian Calls (#/hr)	0	0		0	0				0				0	
Act Effct Green (s)		20.2			20.2			66.1	59.4			64.5	56.5	
Actuated g/C Ratio		0.20			0.20			0.66	0.59			0.65	0.57	
v/c Ratio		0.82			0.50			0.38	0.47			0.18	0.57	
Control Delay (s/veh)		58.7			46.5			8.9	13.5			10.6	31.5	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		58.7			46.5			8.9	13.5			10.6	31.5	
LOS		E			D			A	B			B	C	
Approach Delay (s/veh)		58.7			46.5				13.0				30.1	
Approach LOS		E			D				B				C	
Queue Length 50th (ft)		162			45			25	177			35	364	
Queue Length 95th (ft)		205			77			33	174			m39	346	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		357			175			448	1926			575	1880	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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		0.76			0.46			0.28	0.47			0.13	0.57	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 26.7		Intersection LOS: C	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Apex Peakway & S Hughes Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	588	10	17	630	9	4	19	19	7	20	20
Future Volume (vph)	47	588	10	17	630	9	4	19	19	7	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1818	0	0	1839	0	0	1366	0	0	1559	0
Flt Permitted		0.997			0.999			0.995			0.993	
Satd. Flow (perm)	0	1818	0	0	1839	0	0	1366	0	0	1559	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			2264			1934	
Travel Time (s)		20.8			23.6			61.7			52.7	
Confl. Peds. (#/hr)			5	5			2		1	1		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.82	0.86	0.86	0.80	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	30%	30%	30%	14%	14%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	784	0	0	818	0	0	49	0	0	54	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	47	588	10	17	630	9	4	19	19	7	20	20
Future Vol, veh/h	47	588	10	17	630	9	4	19	19	7	20	20
Conflicting Peds, #/hr	0	0	5	5	0	0	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	86	82	86	86	80	86	86	86	86	86	86	86
Heavy Vehicles, %	4	4	4	3	3	3	30	30	30	14	14	14
Mvmt Flow	55	717	12	20	788	10	5	22	22	8	23	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	734	0	0	1696	1676	729	1689	1677	795
Stage 1	-	-	-	-	-	-	838	838	-	833	833	-
Stage 2	-	-	-	-	-	-	858	838	-	856	844	-
Critical Hdwy	4.14	-	-	4.13	-	-	7.4	6.8	6.5	7.24	6.64	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.4	5.8	-	6.24	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.4	5.8	-	6.24	5.64	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.77	4.27	3.57	3.626	4.126	3.426
Pot Cap-1 Maneuver	816	-	-	866	-	-	63	82	380	69	89	369
Stage 1	-	-	-	-	-	-	323	345	-	346	367	-
Stage 2	-	-	-	-	-	-	315	345	-	336	363	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	816	-	-	862	-	-	40	69	378	43	75	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	69	-	43	75	-
Stage 1	-	-	-	-	-	-	285	305	-	307	352	-
Stage 2	-	-	-	-	-	-	264	331	-	260	321	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.7	0.2	72.5	81.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	99	816	-	-	862	-	-	97
HCM Lane V/C Ratio	0.493	0.067	-	-	0.023	-	-	0.563
HCM Control Delay (s/veh)	72.5	9.7	0	-	9.3	0	-	81.9
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	2.2	0.2	-	-	0.1	-	-	2.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	362	113	148	458	47	165	185	261	54	151	27
Future Volume (vph)	64	362	113	148	458	47	165	185	261	54	151	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	0		0	0		0	0		175
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	100			100			100			150		
Satd. Flow (prot)	1770	1768	0	0	1783	0	0	1730	0	0	1840	1583
Flt Permitted	0.950				0.985			0.986			0.988	
Satd. Flow (perm)	1770	1768	0	0	1783	0	0	1730	0	0	1840	1583
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			565			1478	
Travel Time (s)		28.6			21.1			11.0			28.8	
Confl. Peds. (#/hr)			2	2			6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.54	0.62	0.88	0.88	0.73	0.84	0.78	0.88	0.79	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	620	0	0	812	0	0	781	0	0	252	31
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 120.7%		ICU Level of Service H	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	362	113	148	458	47	165	185	261	54	151	27
Future Vol, veh/h	64	362	113	148	458	47	165	185	261	54	151	27
Conflicting Peds, #/hr	0	0	2	2	0	0	6	0	1	1	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	-	-	-	-	-	-	-	-	175
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	54	62	88	88	73	84	78	88	79	88
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	2	2	2
Mvmt Flow	73	411	209	239	520	53	226	220	335	61	191	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1445	1327	199	1482	1191	389	228	0	0	556	0	0
Stage 1	319	319	-	841	841	-	-	-	-	-	-	-
Stage 2	1126	1008	-	641	350	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.14	6.54	6.24	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.536	4.036	3.336	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	110	~ 155	842	~ 102	~ 186	655	1340	-	-	1015	-	-
Stage 1	693	653	-	356	~ 378	-	-	-	-	-	-	-
Stage 2	249	~ 318	-	460	629	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 106	836	-	~ 127	654	1332	-	-	1014	-	-
Mov Cap-2 Maneuver	-	~ 106	-	-	~ 127	-	-	-	-	-	-	-
Stage 1	511	604	-	263	~ 280	-	-	-	-	-	-	-
Stage 2	-	~ 235	-	~ 102	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v			2.4	1.9
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	-	150	-	1014	-	-
HCM Lane V/C Ratio	0.17	-	-	-	4.137	-	0.061	-	-
HCM Control Delay (s/veh)	8.3	0	-	-	$ 1471.8	-	8.8	0	-
HCM Lane LOS	A	A	-	-	F	-	A	A	-
HCM 95th %tile Q (veh)	0.6	-	-	-	62.5	-	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)	98	80	83	9	47	15	44	147	23	5	138	72
Future Volume (vph)	98	80	83	9	47	15	44	147	23	5	138	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1751	0	0	1745	0	0	1807	1553	0	1781	0
Flt Permitted		0.982			0.993			0.989			0.999	
Satd. Flow (perm)	0	1751	0	0	1745	0	0	1807	1553	0	1781	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		8	8		1	1		14	14		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.80	0.85	0.85	0.77	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	84	0	0	236	27	0	270	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	80	83	9	47	15	44	147	23	5	138	72
Future Vol, veh/h	98	80	83	9	47	15	44	147	23	5	138	72
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.80	0.85	0.85	0.77	0.85
Heavy Vehicles, %	2	2	2	5	5	5	4	4	4	2	2	2
Mvmt Flow	115	94	98	11	55	18	52	184	27	6	179	85
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	13.2	10	12.6	12.2
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	0%	38%	13%	2%
Vol Thru, %	77%	0%	31%	66%	64%
Vol Right, %	0%	100%	32%	21%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	23	261	71	215
LT Vol	44	0	98	9	5
Through Vol	147	0	80	47	138
RT Vol	0	23	83	15	72
Lane Flow Rate	236	27	307	84	270
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.405	0.04	0.466	0.138	0.407
Departure Headway (Hd)	6.187	5.36	5.464	5.963	5.43
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	582	666	657	598	661
Service Time	3.936	3.109	3.512	4.03	3.478
HCM Lane V/C Ratio	0.405	0.041	0.467	0.14	0.408
HCM Control Delay, s/veh	13.1	8.3	13.2	10	12.2
HCM Lane LOS	B	A	B	A	B
HCM 95th-tile Q	2	0.1	2.5	0.5	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	21	7	10	30	51	5	106	5	54	162	43
Future Volume (vph)	34	21	7	10	30	51	5	106	5	54	162	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1718	0	0	1698	0	1703	1782	0	1770	1863	1583
Flt Permitted		0.974			0.995		0.950			0.950		
Satd. Flow (perm)	0	1718	0	0	1698	0	1703	1782	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	3		2	2		3	2		11	11		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.76	0.82	0.82	0.76	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	6%	6%	6%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	76	0	0	111	0	6	145	0	66	213	52
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.9%		ICU Level of Service A	
Analysis Period (min) 15			

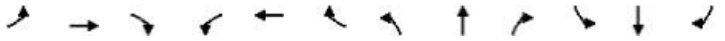
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	21	7	10	30	51	5	106	5	54	162	43
Future Vol, veh/h	34	21	7	10	30	51	5	106	5	54	162	43
Conflicting Peds, #/hr	3	0	2	2	0	3	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	76	82	82	76	82
Heavy Vehicles, %	6	6	6	3	3	3	6	6	6	2	2	2
Mvmt Flow	41	26	9	12	37	62	6	139	6	66	213	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	554	515	217	556	564	156	267	0	0	156	0	0
Stage 1	347	347	-	165	165	-	-	-	-	-	-	-
Stage 2	207	168	-	391	399	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.13	6.53	6.23	4.16	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.527	4.027	3.327	2.254	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	458	813	440	433	887	1274	-	-	1424	-	-
Stage 1	661	628	-	835	760	-	-	-	-	-	-	-
Stage 2	786	752	-	631	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	361	429	810	394	406	875	1272	-	-	1409	-	-
Mov Cap-2 Maneuver	361	429	-	394	406	-	-	-	-	-	-	-
Stage 1	656	597	-	822	749	-	-	-	-	-	-	-
Stage 2	689	741	-	568	571	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	15.8	12.7	0.3	1.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1272	-	-	408	578	1409	-	-
HCM Lane V/C Ratio	0.005	-	-	0.185	0.192	0.047	-	-
HCM Control Delay (s/veh)	7.8	-	-	15.8	12.7	7.7	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.7	0.7	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	601	5	5	644	5	10	5	18	11	4	4
Future Volume (vph)	4	601	5	5	644	5	10	5	18	11	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1825	0	0	1808	0	0	1668	0	0	1678	0
Flt Permitted								0.985			0.973	
Satd. Flow (perm)	0	1825	0	0	1808	0	0	1668	0	0	1678	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			513			817	
Travel Time (s)		21.1			20.8			14.0			22.3	
Confl. Peds. (#/hr)			6	6					2	2		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.80	0.84	0.84	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	4%	4%	4%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	762	0	0	827	0	0	39	0	0	23	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.2%	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	601	5	5	644	5	10	5	18	11	4	4
Future Vol, veh/h	4	601	5	5	644	5	10	5	18	11	4	4
Conflicting Peds, #/hr	0	0	6	6	0	0	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	84	80	84	84	79	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	7	7	7
Mvmt Flow	5	751	6	6	815	6	12	6	21	13	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	821	0	0	763	0	0	1605	1603	762	1610	1603	818
Stage 1	-	-	-	-	-	-	770	770	-	830	830	-
Stage 2	-	-	-	-	-	-	835	833	-	780	773	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.14	6.54	6.24	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.536	4.036	3.336	3.563	4.063	3.363
Pot Cap-1 Maneuver	800	-	-	836	-	-	84	104	402	82	103	368
Stage 1	-	-	-	-	-	-	390	407	-	357	378	-
Stage 2	-	-	-	-	-	-	359	381	-	381	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	800	-	-	831	-	-	78	101	399	73	100	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	101	-	73	100	-
Stage 1	-	-	-	-	-	-	383	400	-	353	373	-
Stage 2	-	-	-	-	-	-	345	376	-	351	395	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.1	37.9	55
HCM LOS			E	F

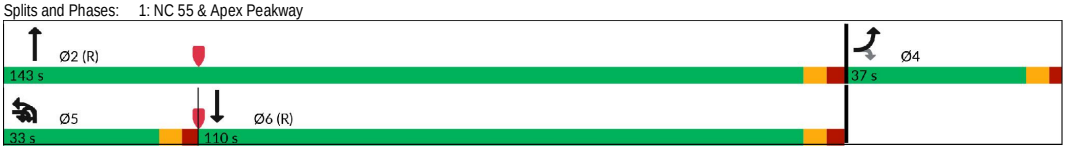
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	800	-	-	831	-	-	94
HCM Lane V/C Ratio	0.265	0.006	-	-	0.007	-	-	0.241
HCM Control Delay (s/veh)	37.9	9.5	0	-	9.4	0	-	55
HCM Lane LOS	E	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	1	0	-	-	0	-	-	0.9

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	111	596	8	708	829	945	132
Future Volume (vph)	111	596	8	708	829	945	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1761	2773	0	3416	1853	5011	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1761	2773	0	3414	1853	5011	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)				1			1
Confl. Bikes (#/hr)							
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	113	608	0	730	846	1099	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	15.0	15.0	15.0	18.0	51.0	
Total Split (s)	37.0	33.0	33.0	33.0	143.0	110.0	
Total Split (%)	20.6%	18.3%	18.3%	18.3%	79.4%	61.1%	
Maximum Green (s)	31.0	26.6	26.6	26.6	136.1	103.1	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Minimum Gap (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	C-Max	
Walk Time (s)	11.0					14.0	
Flash Don't Walk (s)	18.0					29.0	
Pedestrian Calls (#/hr)	0					0	
Act Effct Green (s)	16.9	65.0		43.1	153.1	105.0	
Actuated g/C Ratio	0.09	0.36		0.24	0.85	0.58	
v/c Ratio	0.68	0.61		0.89	0.54	0.38	
Control Delay (s/veh)	112.4	39.8		79.7	5.5	20.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	112.4	39.8		79.7	5.5	20.5	
LOS	F	D		E	A	C	
Approach Delay (s/veh)	51.2				39.9	20.5	
Approach LOS	D				D	C	
Queue Length 50th (ft)	141	250		435	226	246	
Queue Length 95th (ft)	m212	293		#612	371	279	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	313	1001		817	1575	2923	

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
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	0.36	0.61		0.89	0.54	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 158 (88%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 36.0		Intersection LOS: D	
Intersection Capacity Utilization 89.6%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			
! Phase conflict between lane groups.			

Splits and Phases: 1: NC 55 & Apex Peakway



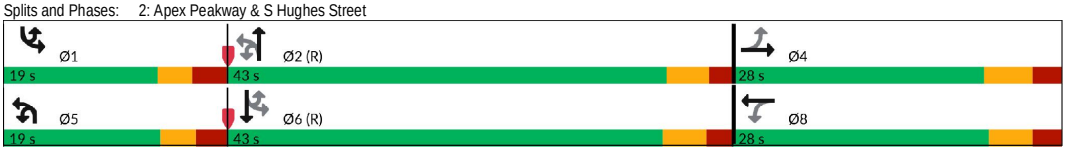
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	58	76	148	56	16	14	4	118	694	153	5	54	691	74
Future Volume (vph)	58	76	148	56	16	14	4	118	694	153	5	54	691	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1722	0	0	1746	0	0	1734	3362	0	0	1752	3455	0
Flt Permitted		0.916			0.510			0.242				0.232		
Satd. Flow (perm)	0	1593	0	0	920	0	0	442	3362	0	0	428	3455	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)														
Confl. Bikes (#/hr)										1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	320	0	0	98	0	0	139	963	0	0	67	869	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	28.0	28.0		28.0	28.0		19.0	19.0	43.0		19.0	19.0	43.0	
Total Split (%)	31.1%	31.1%		31.1%	31.1%		21.1%	21.1%	47.8%		21.1%	21.1%	47.8%	
Maximum Green (s)	21.4	21.4		21.8	21.8		13.4	13.4	37.4		13.1	13.1	37.1	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lead	Lead	Lag		Lead	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0				7.0				7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0				8.0				7.0	
Pedestrian Calls (#/hr)	0	0		0	0				0				0	
Act Effct Green (s)		21.4			21.4			55.1	48.2			53.1	45.2	
Actuated g/C Ratio		0.24			0.24			0.61	0.54			0.59	0.50	
v/c Ratio		0.84			0.45			0.36	0.53			0.18	0.50	
Control Delay (s/veh)		53.5			35.9			9.1	16.2			14.4	33.8	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		53.5			35.9			9.1	16.2			14.4	33.8	
LOS		D			D			A	B			B	C	
Approach Delay (s/veh)		53.5			35.9				15.3				32.4	
Approach LOS		D			D				B				C	
Queue Length 50th (ft)		170			46			28	196			50	410	
Queue Length 95th (ft)		#289			93			50	250			m73	541	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		407			235			488	1801			483	1733	

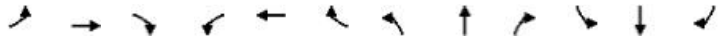
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0	0			0	0	
Spillback Cap Reductn		0			0			0	0			0	0	
Storage Cap Reductn		0			0			0	0			0	0	
Reduced v/c Ratio		0.79			0.42			0.28	0.53			0.14	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 11 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 27.7		Intersection LOS: C	
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
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: 2: Apex Peakway & S Hughes Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	726	8	4	544	8	8	8	11	23	4	80
Future Volume (vph)	37	726	8	4	544	8	8	8	11	23	4	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1839	0	0	1859	0	0	1704	0	0	1658	0
Flt Permitted		0.998						0.985			0.989	
Satd. Flow (perm)	0	1839	0	0	1859	0	0	1704	0	0	1658	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			2264			1934	
Travel Time (s)		20.8			23.6			61.7			52.7	
Confl. Peds. (#/hr)			2	2			1		2	2		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	930	0	0	670	0	0	33	0	0	129	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

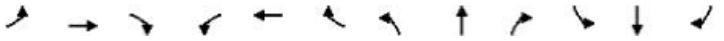
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	37	726	8	4	544	8	8	8	11	23	4	80
Future Vol, veh/h	37	726	8	4	544	8	8	8	11	23	4	80
Conflicting Peds, #/hr	0	0	2	2	0	0	1	0	2	2	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	45	875	10	5	655	10	10	10	13	28	5	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	887	0	0	1694	1647	884	1654	1647	661
Stage 1	-	-	-	-	-	-	972	972	-	670	670	-
Stage 2	-	-	-	-	-	-	722	675	-	984	977	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	763	-	-	73	98	342	78	99	462
Stage 1	-	-	-	-	-	-	301	328	-	446	455	-
Stage 2	-	-	-	-	-	-	415	450	-	299	329	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	919	-	-	762	-	-	51	88	341	63	88	462
Mov Cap-2 Maneuver	-	-	-	-	-	-	51	88	-	63	88	-
Stage 1	-	-	-	-	-	-	272	296	-	403	450	-
Stage 2	-	-	-	-	-	-	321	446	-	251	297	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	0.1	60.6	61.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	96	919	-	-	762	-	-	183
HCM Lane V/C Ratio	0.339	0.049	-	-	0.006	-	-	0.704
HCM Control Delay (s/veh)	60.6	9.1	0	-	9.8	0	-	61.4
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	1.3	0.2	-	-	0	-	-	4.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	454	15	123	395	51	59	104	182	94	250	39
Future Volume (vph)	41	454	15	123	395	51	59	104	182	94	250	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	0		0	0		0	0		175
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	100			100			100			0		
Satd. Flow (prot)	1770	1853	0	0	1820	0	0	1717	0	0	1839	1583
Flt Permitted	0.950				0.989			0.992			0.987	
Satd. Flow (perm)	1770	1853	0	0	1820	0	0	1717	0	0	1839	1583
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			577			1478	
Travel Time (s)		28.6			21.1			11.2			28.8	
Confl. Peds. (#/hr)			5	5			4		4	4		4
Confl. Bikes (#/hr)												2
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	494	0	0	599	0	0	363	0	0	362	41
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	107.3%	ICU Level of Service G	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	454	15	123	395	51	59	104	182	94	250	39
Future Vol, veh/h	41	454	15	123	395	51	59	104	182	94	250	39
Conflicting Peds, #/hr	0	0	5	5	0	0	4	0	4	4	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	-	-	-	-	-	-	-	-	175
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	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	478	16	129	416	54	62	109	192	99	263	41

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1029	894	272	1067	839	209	308	0	0	305	0	0
Stage 1	465	465	-	333	333	-	-	-	-	-	-	-
Stage 2	564	429	-	734	506	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	212	~ 280	767	200	~ 302	831	1253	-	-	1256	-	-
Stage 1	578	563	-	681	644	-	-	-	-	-	-	-
Stage 2	510	584	-	412	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 236	760	-	~ 254	828	1248	-	-	1251	-	-
Mov Cap-2 Maneuver	-	~ 236	-	-	~ 254	-	-	-	-	-	-	-
Stage 1	540	507	-	637	602	-	-	-	-	-	-	-
Stage 2	139	546	-	~ 21	486	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v			1.4	2
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	-	241	-	1251	-	-
HCM Lane V/C Ratio	0.05	-	-	-	2.048	-	0.079	-	-
HCM Control Delay (s/veh)	8	0	-	-	$ 519.3	-	8.1	0	-
HCM Lane LOS	A	A	-	-	F	-	A	A	-
HCM 95th %tile Q (veh)	0.2	-	-	-	36.6	-	0.3	-	-

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)	74	70	134	25	71	14	97	185	41	9	221	50
Future Volume (vph)	74	70	134	25	71	14	97	185	41	9	221	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1719	0	0	1792	0	0	1831	1583	0	1814	0
Flt Permitted		0.987			0.989			0.983			0.998	
Satd. Flow (perm)	0	1719	0	0	1792	0	0	1831	1583	0	1814	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		5	5		1	2		3	3		2
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	0	115	0	0	294	43	0	291	0
Sign Control		Stop			Stop			Stop			Stop	

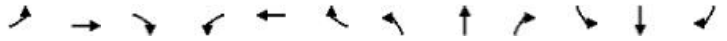
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	70	134	25	71	14	97	185	41	9	221	50
Future Vol, veh/h	74	70	134	25	71	14	97	185	41	9	221	50
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	77	73	140	26	74	15	101	193	43	9	230	52
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	13.7	11.1	15	13.9
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	0%	27%	23%	3%
Vol Thru, %	66%	0%	25%	65%	79%
Vol Right, %	0%	100%	48%	13%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	282	41	278	110	280
LT Vol	97	0	74	25	9
Through Vol	185	0	70	71	221
RT Vol	0	41	134	14	50
Lane Flow Rate	294	43	290	115	292
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.519	0.065	0.461	0.205	0.467
Departure Headway (Hd)	6.363	5.477	5.728	6.433	5.764
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	564	648	623	561	621
Service Time	4.144	3.258	3.813	4.433	3.848
HCM Lane V/C Ratio	0.521	0.066	0.465	0.205	0.47
HCM Control Delay, s/veh	15.9	8.6	13.7	11.1	13.9
HCM Lane LOS	C	A	B	B	B
HCM 95th-tile Q	3	0.2	2.4	0.8	2.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	33	12	18	42	108	7	159	16	78	245	35
Future Volume (vph)	38	33	12	18	42	108	7	159	16	78	245	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1785	0	0	1692	0	1770	1837	0	1770	1863	1583
Flt Permitted		0.978			0.995		0.950			0.950		
Satd. Flow (perm)	0	1785	0	0	1692	0	1770	1837	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	1		2	2		1			1	1		
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	179	0	7	186	0	83	261	37
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			

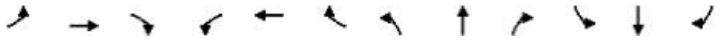
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	33	12	18	42	108	7	159	16	78	245	35
Future Vol, veh/h	38	33	12	18	42	108	7	159	16	78	245	35
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
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	2	2	2	2	2	2
Mvmt Flow	40	35	13	19	45	115	7	169	17	83	261	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	700	628	263	665	657	180	298	0	0	187	0	0
Stage 1	427	427	-	193	193	-	-	-	-	-	-	-
Stage 2	273	201	-	472	464	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	354	400	776	374	385	863	1263	-	-	1387	-	-
Stage 1	606	585	-	809	741	-	-	-	-	-	-	-
Stage 2	733	735	-	573	564	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	264	373	775	324	359	861	1263	-	-	1386	-	-
Mov Cap-2 Maneuver	264	373	-	324	359	-	-	-	-	-	-	-
Stage 1	602	550	-	804	736	-	-	-	-	-	-	-
Stage 2	593	730	-	495	530	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.5	14.3	0.3	1.7
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1263	-	-	335	564	1386	-	-
HCM Lane V/C Ratio	0.006	-	-	0.264	0.317	0.06	-	-
HCM Control Delay (s/veh)	7.9	-	-	19.5	14.3	7.8	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	1	1.4	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	735	15	16	597	20	9	4	11	16	4	4
Future Volume (vph)	7	735	15	16	597	20	9	4	11	16	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1839	0	0	1853	0	0	1714	0	0	1762	0
Flt Permitted					0.999			0.981			0.967	
Satd. Flow (perm)	0	1839	0	0	1853	0	0	1714	0	0	1762	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			513			817	
Travel Time (s)		21.1			20.8			14.0			22.3	
Confl. Peds. (#/hr)	1		5	5		1	4		2	2		4
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	805	0	0	673	0	0	26	0	0	25	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.1%	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	7	735	15	16	597	20	9	4	11	16	4	4
Future Vol, veh/h	7	735	15	16	597	20	9	4	11	16	4	4
Conflicting Peds, #/hr	1	0	5	5	0	1	4	0	2	2	0	4
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, %	3	3	3	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	782	16	17	635	21	10	4	12	17	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	657	0	0	803	0	0	1497	1500	797	1495	1498	651
Stage 1	-	-	-	-	-	-	809	809	-	681	681	-
Stage 2	-	-	-	-	-	-	688	691	-	814	817	-
Critical Hdwy	4.13	-	-	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	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	926	-	-	821	-	-	101	122	387	101	122	469
Stage 1	-	-	-	-	-	-	374	394	-	440	450	-
Stage 2	-	-	-	-	-	-	436	446	-	372	390	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	925	-	-	817	-	-	93	116	384	92	116	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	116	-	92	116	-
Stage 1	-	-	-	-	-	-	367	387	-	433	435	-
Stage 2	-	-	-	-	-	-	412	431	-	351	383	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.2	33.9	46.9
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	150	925	-	-	817	-	-	111
HCM Lane V/C Ratio	0.17	0.008	-	-	0.021	-	-	0.23
HCM Control Delay (s/veh)	33.9	8.9	0	-	9.5	0	-	46.9
HCM Lane LOS	D	A	A	-	A	A	-	E
HCM 95th %tile Q (veh)	0.6	0	-	-	0.1	-	-	0.8

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	75	480	14	754	824	729	69
Future Volume (vph)	75	480	14	754	824	729	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1695	2670	0	3318	1800	4900	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1695	2670	0	3318	1800	4900	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.88	0.89	0.92	0.88	0.92	0.92	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	85	539	0	872	896	870	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	13.4	13.4	13.4	16.9	51.0	
Total Split (s)	37.0	13.4	13.4	13.4	63.0	49.6	
Total Split (%)	37.0%	13.4%	13.4%	13.4%	63.0%	49.6%	
Maximum Green (s)	31.0	7.0	7.0	7.0	56.1	42.7	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Minimum Gap (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	C-Max	
Walk Time (s)	11.0					14.0	
Flash Don't Walk (s)	18.0					29.0	
Pedestrian Calls (#/hr)	0					0	
Act Effct Green (s)	10.8	45.4		32.2	82.8	44.6	
Actuated g/C Ratio	0.11	0.45		0.32	0.83	0.45	
v/c Ratio	0.47	0.44		0.82	0.60	0.40	
Control Delay (s/veh)	49.7	20.2		40.5	6.4	19.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	49.7	20.2		40.5	6.4	19.3	
LOS	D	C		D	A	B	
Approach Delay (s/veh)	24.2				23.2	19.3	
Approach LOS	C				C	B	
Queue Length 50th (ft)	52	129		271	179	132	
Queue Length 95th (ft)	94	176		#410	344	167	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	542	1212		1068	1490	2185	

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
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	0.16	0.44		0.82	0.60	0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 22.4		Intersection LOS: C	
Intersection Capacity Utilization 66.8%		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.
! Phase conflict between lane groups.

Splits and Phases: 1: NC 55 & Apex Peakway

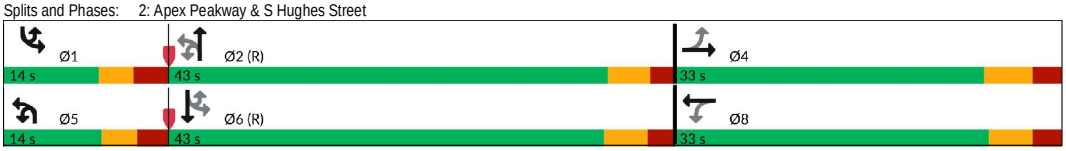
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	26	63	104	45	13	4	4	85	543	127	6	50	727	58
Future Volume (vph)	26	63	104	45	13	4	4	85	543	127	6	50	727	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1703	0	0	1765	0	0	1669	3244	0	0	1686	3327	0
Flt Permitted		0.952			0.519			0.174				0.256		
Satd. Flow (perm)	0	1631	0	0	948	0	0	306	3244	0	0	454	3327	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)			3	3				4						4
Confl. Bikes (#/hr)														
Peak Hour Factor	0.76	0.76	0.68	0.76	0.76	0.76	0.76	0.70	0.74	0.76	0.76	0.76	0.73	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	270	0	0	81	0	0	126	901	0	0	74	1072	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	43.0		14.0	14.0	43.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		15.6%	15.6%	47.8%		15.6%	15.6%	47.8%	
Maximum Green (s)	26.4	26.4		26.8	26.8		8.4	8.4	37.4		8.1	8.1	37.1	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lead	Lead	Lag		Lead	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0				7.0				7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0				8.0				7.0	
Pedestrian Calls (#/hr)	0	0		0	0				0				0	
Act Effct Green (s)		20.8			20.8			55.3	48.7			54.2	46.1	
Actuated g/C Ratio		0.23			0.23			0.61	0.54			0.60	0.51	
v/c Ratio		0.72			0.37			0.41	0.51			0.19	0.63	
Control Delay (s/veh)		42.3			32.4			11.2	16.1			8.3	19.2	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		42.3			32.4			11.2	16.1			8.3	19.2	
LOS		D			C			B	B			A	B	
Approach Delay (s/veh)		42.3			32.4				15.5				18.5	
Approach LOS		D			C				B				B	
Queue Length 50th (ft)		142			39			28	153			13	216	
Queue Length 95th (ft)		165			60			m40	167			30	251	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		507			294			327	1755			401	1703	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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		0.53			0.28			0.39	0.51			0.18	0.63	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 20.2		Intersection LOS: C	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Apex Peakway & S Hughes Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	588	10	17	630	9	4	19	19	7	20	20
Future Volume (vph)	47	588	10	17	630	9	4	19	19	7	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1818	0	0	1839	0	0	1366	0	0	1559	0
Flt Permitted		0.997			0.999			0.995			0.993	
Satd. Flow (perm)	0	1818	0	0	1839	0	0	1366	0	0	1559	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			2264			1934	
Travel Time (s)		20.8			23.6			61.7			52.7	
Confl. Peds. (#/hr)			5	5			2		1	1		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.82	0.86	0.86	0.80	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	30%	30%	30%	14%	14%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	784	0	0	818	0	0	49	0	0	54	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	47	588	10	17	630	9	4	19	19	7	20	20
Future Vol, veh/h	47	588	10	17	630	9	4	19	19	7	20	20
Conflicting Peds, #/hr	0	0	5	5	0	0	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	86	82	86	86	80	86	86	86	86	86	86	86
Heavy Vehicles, %	4	4	4	3	3	3	30	30	30	14	14	14
Mvmt Flow	55	717	12	20	788	10	5	22	22	8	23	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	734	0	0	1696	1676	729	1689	1677	795
Stage 1	-	-	-	-	-	-	838	838	-	833	833	-
Stage 2	-	-	-	-	-	-	858	838	-	856	844	-
Critical Hdwy	4.14	-	-	4.13	-	-	7.4	6.8	6.5	7.24	6.64	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.4	5.8	-	6.24	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.4	5.8	-	6.24	5.64	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.77	4.27	3.57	3.626	4.126	3.426
Pot Cap-1 Maneuver	816	-	-	866	-	-	63	82	380	69	89	369
Stage 1	-	-	-	-	-	-	323	345	-	346	367	-
Stage 2	-	-	-	-	-	-	315	345	-	336	363	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	816	-	-	862	-	-	40	69	378	43	75	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	69	-	43	75	-
Stage 1	-	-	-	-	-	-	285	305	-	307	352	-
Stage 2	-	-	-	-	-	-	264	331	-	260	321	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.7	0.2	72.5	81.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	99	816	-	-	862	-	-	97
HCM Lane V/C Ratio	0.493	0.067	-	-	0.023	-	-	0.563
HCM Control Delay (s/veh)	72.5	9.7	0	-	9.3	0	-	81.9
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	2.2	0.2	-	-	0.1	-	-	2.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	362	113	148	458	47	165	185	261	54	151	27
Future Volume (vph)	64	362	113	148	458	47	165	185	261	54	151	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	200		0	0		150	0		175
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100			100			100			150		
Satd. Flow (prot)	1770	1754	0	1736	1801	0	0	1816	1583	0	1840	1583
Flt Permitted	0.449			0.108				0.615			0.584	
Satd. Flow (perm)	836	1754	0	197	1801	0	0	1142	1550	0	1088	1539
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			565			1478	
Travel Time (s)		28.6			21.1			11.0			28.8	
Confl. Peds. (#/hr)			2	2			6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.54	0.62	0.88	0.88	0.73	0.84	0.78	0.88	0.79	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	620	0	239	573	0	0	446	335	0	252	31
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	37.0	37.0		16.0	53.0		37.0	37.0	16.0	37.0	37.0	37.0
Total Split (%)	41.1%	41.1%		17.8%	58.9%		41.1%	41.1%	17.8%	41.1%	41.1%	41.1%
Maximum Green (s)	30.0	30.0		9.0	46.0		30.0	30.0	9.0	30.0	30.0	30.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	32.0	32.0		48.0	48.0			32.0	43.0		32.0	32.0
Actuated g/C Ratio	0.36	0.36		0.53	0.53			0.36	0.48		0.36	0.36
v/c Ratio	0.25	1.00		0.82	0.60			1.10	0.45		0.65	0.06
Control Delay (s/veh)	23.3	65.7		52.7	13.0			104.2	15.0		33.8	19.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	23.3	65.7		52.7	13.0			104.2	15.0		33.8	19.6
LOS	C	E		D	B			F	B		C	B
Approach Delay (s/veh)		61.2			24.7			66.0			32.3	
Approach LOS		E			C			E			C	
Queue Length 50th (ft)	29	347		103	113			~290	106		118	11
Queue Length 95th (ft)	62	#552		118	205			#425	138		170	30
Internal Link Dist (ft)		1387			1002			485			1398	
Turn Bay Length (ft)	175			200					150			175
Base Capacity (vph)	297	623		293	960			406	744		386	547

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.25	1.00		0.82	0.60			1.10	0.45		0.65	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay (s/veh): 47.9		Intersection LOS: D	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Tingen Road & Apex Peakway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	80	83	9	47	15	44	147	23	5	138	72
Future Volume (vph)	98	80	83	9	47	15	44	147	23	5	138	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1751	0	0	1745	0	0	1807	1553	0	1781	0
Flt Permitted		0.982			0.993			0.989			0.999	
Satd. Flow (perm)	0	1751	0	0	1745	0	0	1807	1553	0	1781	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		8	8		1	1		14	14		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.80	0.85	0.85	0.77	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	84	0	0	236	27	0	270	0
Sign Control		Stop			Stop			Stop			Stop	

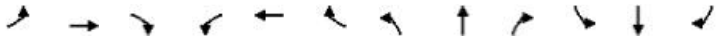
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	80	83	9	47	15	44	147	23	5	138	72
Future Vol, veh/h	98	80	83	9	47	15	44	147	23	5	138	72
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.80	0.85	0.85	0.77	0.85
Heavy Vehicles, %	2	2	2	5	5	5	4	4	4	2	2	2
Mvmt Flow	115	94	98	11	55	18	52	184	27	6	179	85
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	13.2	10	12.6	12.2
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	0%	38%	13%	2%
Vol Thru, %	77%	0%	31%	66%	64%
Vol Right, %	0%	100%	32%	21%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	23	261	71	215
LT Vol	44	0	98	9	5
Through Vol	147	0	80	47	138
RT Vol	0	23	83	15	72
Lane Flow Rate	236	27	307	84	270
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.405	0.04	0.466	0.138	0.407
Departure Headway (Hd)	6.187	5.36	5.464	5.963	5.43
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	582	666	657	598	661
Service Time	3.936	3.109	3.512	4.03	3.478
HCM Lane V/C Ratio	0.405	0.041	0.467	0.14	0.408
HCM Control Delay, s/veh	13.1	8.3	13.2	10	12.2
HCM Lane LOS	B	A	B	A	B
HCM 95th-tile Q	2	0.1	2.5	0.5	2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	21	7	10	30	51	5	106	5	54	162	43
Future Volume (vph)	34	21	7	10	30	51	5	106	5	54	162	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1718	0	0	1698	0	1703	1782	0	1770	1863	1583
Flt Permitted		0.974			0.995		0.950			0.950		
Satd. Flow (perm)	0	1718	0	0	1698	0	1703	1782	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	3		2	2		3	2		11	11		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.76	0.82	0.82	0.76	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	6%	6%	6%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	76	0	0	111	0	6	145	0	66	213	52
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.9%		ICU Level of Service A	
Analysis Period (min) 15			

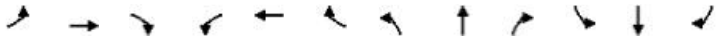
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	21	7	10	30	51	5	106	5	54	162	43
Future Vol, veh/h	34	21	7	10	30	51	5	106	5	54	162	43
Conflicting Peds, #/hr	3	0	2	2	0	3	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	76	82	82	76	82
Heavy Vehicles, %	6	6	6	3	3	3	6	6	6	2	2	2
Mvmt Flow	41	26	9	12	37	62	6	139	6	66	213	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	554	515	217	556	564	156	267	0	0	156	0	0
Stage 1	347	347	-	165	165	-	-	-	-	-	-	-
Stage 2	207	168	-	391	399	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.13	6.53	6.23	4.16	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.527	4.027	3.327	2.254	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	458	813	440	433	887	1274	-	-	1424	-	-
Stage 1	661	628	-	835	760	-	-	-	-	-	-	-
Stage 2	786	752	-	631	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	361	429	810	394	406	875	1272	-	-	1409	-	-
Mov Cap-2 Maneuver	361	429	-	394	406	-	-	-	-	-	-	-
Stage 1	656	597	-	822	749	-	-	-	-	-	-	-
Stage 2	689	741	-	568	571	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	15.8	12.7	0.3	1.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1272	-	-	408	578	1409	-	-
HCM Lane V/C Ratio	0.005	-	-	0.185	0.192	0.047	-	-
HCM Control Delay (s/veh)	7.8	-	-	15.8	12.7	7.7	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.7	0.7	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	601	5	5	644	5	10	5	18	11	4	4
Future Volume (vph)	4	601	5	5	644	5	10	5	18	11	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1825	0	0	1808	0	0	1668	0	0	1678	0
Flt Permitted								0.985			0.973	
Satd. Flow (perm)	0	1825	0	0	1808	0	0	1668	0	0	1678	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			513			817	
Travel Time (s)		21.1			20.8			14.0			22.3	
Confl. Peds. (#/hr)			6	6					2	2		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.80	0.84	0.84	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	4%	4%	4%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	762	0	0	827	0	0	39	0	0	23	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.2%	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	601	5	5	644	5	10	5	18	11	4	4
Future Vol, veh/h	4	601	5	5	644	5	10	5	18	11	4	4
Conflicting Peds, #/hr	0	0	6	6	0	0	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	84	80	84	84	79	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	7	7	7
Mvmt Flow	5	751	6	6	815	6	12	6	21	13	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	821	0	0	763	0	0	1605	1603	762	1610	1603	818
Stage 1	-	-	-	-	-	-	770	770	-	830	830	-
Stage 2	-	-	-	-	-	-	835	833	-	780	773	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.14	6.54	6.24	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.536	4.036	3.336	3.563	4.063	3.363
Pot Cap-1 Maneuver	800	-	-	836	-	-	84	104	402	82	103	368
Stage 1	-	-	-	-	-	-	390	407	-	357	378	-
Stage 2	-	-	-	-	-	-	359	381	-	381	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	800	-	-	831	-	-	78	101	399	73	100	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	101	-	73	100	-
Stage 1	-	-	-	-	-	-	383	400	-	353	373	-
Stage 2	-	-	-	-	-	-	345	376	-	351	395	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.1	37.9	55
HCM LOS			E	F

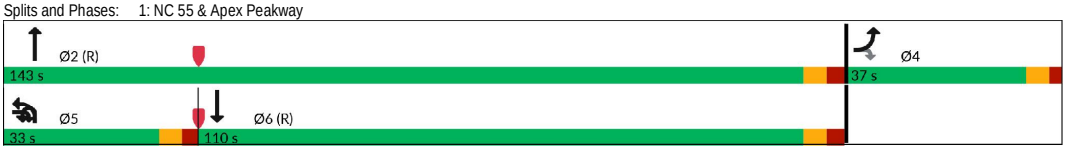
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	800	-	-	831	-	-	94
HCM Lane V/C Ratio	0.265	0.006	-	-	0.007	-	-	0.241
HCM Control Delay (s/veh)	37.9	9.5	0	-	9.4	0	-	55
HCM Lane LOS	E	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	1	0	-	-	0	-	-	0.9

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	111	596	8	708	829	945	132
Future Volume (vph)	111	596	8	708	829	945	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1761	2773	0	3416	1853	5011	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1761	2773	0	3414	1853	5011	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)				1			1
Confl. Bikes (#/hr)							
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	113	608	0	730	846	1099	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	15.0	15.0	15.0	18.0	51.0	
Total Split (s)	37.0	33.0	33.0	33.0	143.0	110.0	
Total Split (%)	20.6%	18.3%	18.3%	18.3%	79.4%	61.1%	
Maximum Green (s)	31.0	26.6	26.6	26.6	136.1	103.1	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Minimum Gap (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	C-Max	
Walk Time (s)	11.0					14.0	
Flash Don't Walk (s)	18.0					29.0	
Pedestrian Calls (#/hr)	0					0	
Act Effct Green (s)	16.9	65.0		43.1	153.1	105.0	
Actuated g/C Ratio	0.09	0.36		0.24	0.85	0.58	
v/c Ratio	0.68	0.61		0.89	0.54	0.38	
Control Delay (s/veh)	113.4	38.2		79.7	5.5	20.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	113.4	38.2		79.7	5.5	20.5	
LOS	F	D		E	A	C	
Approach Delay (s/veh)	50.0				39.9	20.5	
Approach LOS	D				D	C	
Queue Length 50th (ft)	141	243		435	226	246	
Queue Length 95th (ft)	m212	284		#612	371	279	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	313	1001		817	1575	2923	

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
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	0.36	0.61		0.89	0.54	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 158 (88%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 35.7		Intersection LOS: D	
Intersection Capacity Utilization 89.6%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			
! Phase conflict between lane groups.			

Splits and Phases: 1: NC 55 & Apex Peakway



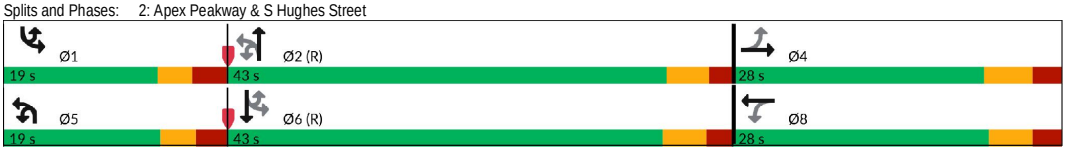
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	58	76	148	56	16	14	4	118	694	153	5	54	691	74
Future Volume (vph)	58	76	148	56	16	14	4	118	694	153	5	54	691	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1722	0	0	1746	0	0	1734	3362	0	0	1752	3455	0
Flt Permitted		0.916			0.510			0.242				0.232		
Satd. Flow (perm)	0	1593	0	0	920	0	0	442	3362	0	0	428	3455	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)														
Confl. Bikes (#/hr)										1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	320	0	0	98	0	0	139	963	0	0	67	869	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	28.0	28.0		28.0	28.0		19.0	19.0	43.0		19.0	19.0	43.0	
Total Split (%)	31.1%	31.1%		31.1%	31.1%		21.1%	21.1%	47.8%		21.1%	21.1%	47.8%	
Maximum Green (s)	21.4	21.4		21.8	21.8		13.4	13.4	37.4		13.1	13.1	37.1	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lead	Lead	Lag		Lead	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0				7.0				7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0				8.0				7.0	
Pedestrian Calls (#/hr)	0	0		0	0				0				0	
Act Effct Green (s)		21.4			21.4			55.1	48.2			53.1	45.2	
Actuated g/C Ratio		0.24			0.24			0.61	0.54			0.59	0.50	
v/c Ratio		0.84			0.45			0.36	0.53			0.18	0.50	
Control Delay (s/veh)		53.5			35.9			10.0	16.4			14.4	33.8	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		53.5			35.9			10.0	16.4			14.4	33.8	
LOS		D			D			B	B			B	C	
Approach Delay (s/veh)		53.5			35.9				15.6				32.4	
Approach LOS		D			D				B				C	
Queue Length 50th (ft)		170			46			29	174			50	410	
Queue Length 95th (ft)		#289			93			m49	219			m73	541	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		407			235			488	1801			483	1733	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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		0.79			0.42			0.28	0.53			0.14	0.50	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 11 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay (s/veh): 27.8 Intersection LOS: C
Intersection Capacity Utilization 58.5% ICU Level of Service B
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: 2: Apex Peakway & S Hughes Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	726	8	4	544	8	8	8	11	23	4	80
Future Volume (vph)	37	726	8	4	544	8	8	8	11	23	4	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1839	0	0	1859	0	0	1704	0	0	1658	0
Flt Permitted		0.998						0.985			0.989	
Satd. Flow (perm)	0	1839	0	0	1859	0	0	1704	0	0	1658	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			2264			1934	
Travel Time (s)		20.8			23.6			61.7			52.7	
Confl. Peds. (#/hr)			2	2			1		2	2		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	930	0	0	670	0	0	33	0	0	129	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	37	726	8	4	544	8	8	8	11	23	4	80
Future Vol, veh/h	37	726	8	4	544	8	8	8	11	23	4	80
Conflicting Peds, #/hr	0	0	2	2	0	0	1	0	2	2	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	45	875	10	5	655	10	10	10	13	28	5	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	887	0	0	1694	1647	884	1654	1647	661
Stage 1	-	-	-	-	-	-	972	972	-	670	670	-
Stage 2	-	-	-	-	-	-	722	675	-	984	977	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	763	-	-	73	98	342	78	99	462
Stage 1	-	-	-	-	-	-	301	328	-	446	455	-
Stage 2	-	-	-	-	-	-	415	450	-	299	329	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	919	-	-	762	-	-	51	88	341	63	88	462
Mov Cap-2 Maneuver	-	-	-	-	-	-	51	88	-	63	88	-
Stage 1	-	-	-	-	-	-	272	296	-	403	450	-
Stage 2	-	-	-	-	-	-	321	446	-	251	297	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	0.1	60.6	61.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	96	919	-	-	762	-	-	183
HCM Lane V/C Ratio	0.339	0.049	-	-	0.006	-	-	0.704
HCM Control Delay (s/veh)	60.6	9.1	0	-	9.8	0	-	61.4
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	1.3	0.2	-	-	0	-	-	4.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	454	15	123	395	51	59	104	182	94	250	39
Future Volume (vph)	41	454	15	123	395	51	59	104	182	94	250	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	200		0	0		150	0		175
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100			100			100			0		
Satd. Flow (prot)	1770	1852	0	1770	1831	0	0	1829	1583	0	1839	1583
Flt Permitted	0.494			0.277				0.525			0.803	
Satd. Flow (perm)	920	1852	0	515	1831	0	0	977	1544	0	1494	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			577			1478	
Travel Time (s)		28.6			21.1			11.2			28.8	
Confl. Peds. (#/hr)			5	5			4		4	4		4
Confl. Bikes (#/hr)												2
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	494	0	129	470	0	0	171	192	0	362	41
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		14.0	25.0		25.0	25.0	14.0	25.0	25.0	25.0
Total Split (s)	42.0	42.0		14.0	56.0		34.0	34.0	14.0	34.0	34.0	34.0
Total Split (%)	46.7%	46.7%		15.6%	62.2%		37.8%	37.8%	15.6%	37.8%	37.8%	37.8%
Maximum Green (s)	35.0	35.0		7.0	49.0		27.0	27.0	7.0	27.0	27.0	27.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	39.7	39.7		54.0	54.0			26.0	35.3		26.0	26.0
Actuated g/C Ratio	0.44	0.44		0.60	0.60			0.29	0.39		0.29	0.29
v/c Ratio	0.11	0.60		0.29	0.43			0.61	0.32		0.84	0.09
Control Delay (s/veh)	17.2	24.0		11.4	13.0			36.9	16.7		47.8	22.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	17.2	24.0		11.4	13.0			36.9	16.7		47.8	22.5
LOS	B	C		B	B			D	B		D	C
Approach Delay (s/veh)		23.4			12.7			26.2			45.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	15	220		36	152			81	62		186	16
Queue Length 95th (ft)	37	329		m75	257			147	106		#315	40
Internal Link Dist (ft)		1387			1002			497			1398	
Turn Bay Length (ft)	175			200					150			175
Base Capacity (vph)	406	817		438	1098			314	609		481	495

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.11	0.60		0.29	0.43			0.54	0.32		0.75	0.08

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 25.2		Intersection LOS: C	
Intersection Capacity Utilization 76.0%		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: Tingen Road & Apex Peakway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	70	134	25	71	14	97	185	41	9	221	50
Future Volume (vph)	74	70	134	25	71	14	97	185	41	9	221	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1719	0	0	1792	0	0	1831	1583	0	1814	0
Flt Permitted		0.987			0.989			0.983			0.998	
Satd. Flow (perm)	0	1719	0	0	1792	0	0	1831	1583	0	1814	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		5	5		1	2		3	3		2
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	0	115	0	0	294	43	0	291	0
Sign Control		Stop			Stop			Stop			Stop	

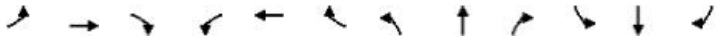
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	63.2%	ICU Level of Service B	
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	70	134	25	71	14	97	185	41	9	221	50
Future Vol, veh/h	74	70	134	25	71	14	97	185	41	9	221	50
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	77	73	140	26	74	15	101	193	43	9	230	52
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	13.7	11.1	15	13.9
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	0%	27%	23%	3%
Vol Thru, %	66%	0%	25%	65%	79%
Vol Right, %	0%	100%	48%	13%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	282	41	278	110	280
LT Vol	97	0	74	25	9
Through Vol	185	0	70	71	221
RT Vol	0	41	134	14	50
Lane Flow Rate	294	43	290	115	292
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.519	0.065	0.461	0.205	0.467
Departure Headway (Hd)	6.363	5.477	5.728	6.433	5.764
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	564	648	623	561	621
Service Time	4.144	3.258	3.813	4.433	3.848
HCM Lane V/C Ratio	0.521	0.066	0.465	0.205	0.47
HCM Control Delay, s/veh	15.9	8.6	13.7	11.1	13.9
HCM Lane LOS	C	A	B	B	B
HCM 95th-tile Q	3	0.2	2.4	0.8	2.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	33	12	18	42	108	7	159	16	78	245	35
Future Volume (vph)	38	33	12	18	42	108	7	159	16	78	245	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1785	0	0	1692	0	1770	1837	0	1770	1863	1583
Flt Permitted		0.978			0.995		0.950			0.950		
Satd. Flow (perm)	0	1785	0	0	1692	0	1770	1837	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	1		2	2		1			1	1		
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	179	0	7	186	0	83	261	37
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			

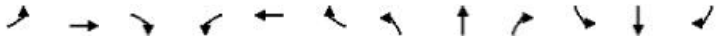
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	33	12	18	42	108	7	159	16	78	245	35
Future Vol, veh/h	38	33	12	18	42	108	7	159	16	78	245	35
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
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	2	2	2	2	2	2
Mvmt Flow	40	35	13	19	45	115	7	169	17	83	261	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	700	628	263	665	657	180	298	0	0	187	0	0
Stage 1	427	427	-	193	193	-	-	-	-	-	-	-
Stage 2	273	201	-	472	464	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	354	400	776	374	385	863	1263	-	-	1387	-	-
Stage 1	606	585	-	809	741	-	-	-	-	-	-	-
Stage 2	733	735	-	573	564	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	264	373	775	324	359	861	1263	-	-	1386	-	-
Mov Cap-2 Maneuver	264	373	-	324	359	-	-	-	-	-	-	-
Stage 1	602	550	-	804	736	-	-	-	-	-	-	-
Stage 2	593	730	-	495	530	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.5	14.3	0.3	1.7
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1263	-	-	335	564	1386	-	-
HCM Lane V/C Ratio	0.006	-	-	0.264	0.317	0.06	-	-
HCM Control Delay (s/veh)	7.9	-	-	19.5	14.3	7.8	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	1	1.4	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	735	15	16	597	20	9	4	11	16	4	4
Future Volume (vph)	7	735	15	16	597	20	9	4	11	16	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1839	0	0	1853	0	0	1714	0	0	1762	0
Flt Permitted					0.999			0.981			0.967	
Satd. Flow (perm)	0	1839	0	0	1853	0	0	1714	0	0	1762	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			513			817	
Travel Time (s)		21.1			20.8			14.0			22.3	
Confl. Peds. (#/hr)	1		5	5		1	4		2	2		4
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	805	0	0	673	0	0	26	0	0	25	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.1%	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	7	735	15	16	597	20	9	4	11	16	4	4
Future Vol, veh/h	7	735	15	16	597	20	9	4	11	16	4	4
Conflicting Peds, #/hr	1	0	5	5	0	1	4	0	2	2	0	4
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, %	3	3	3	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	782	16	17	635	21	10	4	12	17	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	657	0	0	803	0	0	1497	1500	797	1495	1498	651
Stage 1	-	-	-	-	-	-	809	809	-	681	681	-
Stage 2	-	-	-	-	-	-	688	691	-	814	817	-
Critical Hdwy	4.13	-	-	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	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	926	-	-	821	-	-	101	122	387	101	122	469
Stage 1	-	-	-	-	-	-	374	394	-	440	450	-
Stage 2	-	-	-	-	-	-	436	446	-	372	390	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	925	-	-	817	-	-	93	116	384	92	116	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	116	-	92	116	-
Stage 1	-	-	-	-	-	-	367	387	-	433	435	-
Stage 2	-	-	-	-	-	-	412	431	-	351	383	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.2	33.9	46.9
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	150	925	-	-	817	-	-	111
HCM Lane V/C Ratio	0.17	0.008	-	-	0.021	-	-	0.23
HCM Control Delay (s/veh)	33.9	8.9	0	-	9.5	0	-	46.9
HCM Lane LOS	D	A	A	-	A	A	-	E
HCM 95th %tile Q (veh)	0.6	0	-	-	0.1	-	-	0.8

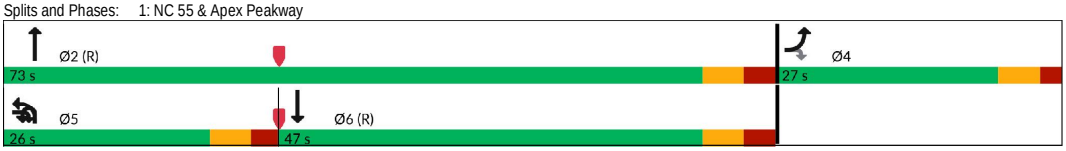
Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	88	493	14	798	824	729	76
Future Volume (vph)	88	493	14	798	824	729	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1695	2670	0	3318	1800	4890	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1695	2670	0	3318	1800	4890	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.89	0.89	0.92	0.89	0.92	0.92	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	99	554	0	912	896	878	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	13.4	13.4	13.4	16.9	51.0	
Total Split (s)	27.0	26.0	26.0	26.0	73.0	47.0	
Total Split (%)	27.0%	26.0%	26.0%	26.0%	73.0%	47.0%	
Maximum Green (s)	21.0	19.6	19.6	19.6	66.1	40.1	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Minimum Gap (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	C-Max	
Walk Time (s)	11.0					14.0	
Flash Don't Walk (s)	18.0					29.0	
Pedestrian Calls (#/hr)	0					0	
Act Effct Green (s)	11.5	48.0		34.1	82.1	42.0	
Actuated g/C Ratio	0.12	0.48		0.34	0.82	0.42	
v/c Ratio	0.51	0.43		0.81	0.61	0.43	
Control Delay (s/veh)	50.3	18.4		38.5	6.9	21.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	50.3	18.4		38.5	6.9	21.3	
LOS	D	B		D	A	C	
Approach Delay (s/veh)	23.2				22.8	21.3	
Approach LOS	C				C	C	
Queue Length 50th (ft)	61	126		280	189	141	
Queue Length 95th (ft)	106	172		#429	363	177	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	372	1281		1132	1478	2053	

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
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	0.27	0.43		0.81	0.61	0.43	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 67 (67%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay (s/veh): 22.5		Intersection LOS: C	
Intersection Capacity Utilization 68.7%		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.
! Phase conflict between lane groups.

Splits and Phases: 1: NC 55 & Apex Peakway



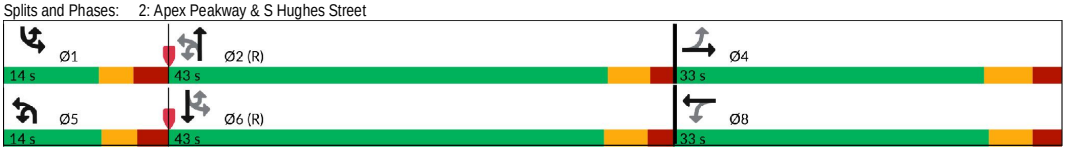
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	26	63	104	45	13	4	4	85	569	189	6	50	778	58
Future Volume (vph)	26	63	104	45	13	4	4	85	569	189	6	50	778	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1703	0	0	1765	0	0	1669	3214	0	0	1686	3331	0
Flt Permitted		0.952			0.519			0.157				0.211		
Satd. Flow (perm)	0	1631	0	0	948	0	0	276	3214	0	0	374	3331	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)			3	3				4						4
Confl. Bikes (#/hr)														
Peak Hour Factor	0.76	0.76	0.68	0.76	0.76	0.76	0.76	0.70	0.74	0.76	0.76	0.76	0.74	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	270	0	0	81	0	0	126	1018	0	0	74	1127	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	43.0		14.0	14.0	43.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		15.6%	15.6%	47.8%		15.6%	15.6%	47.8%	
Maximum Green (s)	26.4	26.4		26.8	26.8		8.4	8.4	37.4		8.1	8.1	37.1	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lead	Lead	Lag		Lead	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0				7.0				7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0				8.0				7.0	
Pedestrian Calls (#/hr)	0	0		0	0				0				0	
Act Effct Green (s)		20.8			20.8			55.3	48.7			54.2	46.1	
Actuated g/C Ratio		0.23			0.23			0.61	0.54			0.60	0.51	
v/c Ratio		0.72			0.37			0.43	0.59			0.22	0.66	
Control Delay (s/veh)		42.3			32.4			11.5	17.0			8.6	19.8	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		42.3			32.4			11.5	17.0			8.6	19.8	
LOS		D			C			B	B			A	B	
Approach Delay (s/veh)		42.3			32.4				16.4				19.2	
Approach LOS		D			C				B				B	
Queue Length 50th (ft)		142			39			27	181			13	233	
Queue Length 95th (ft)		165			60			m39	m199			30	273	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		507			294			311	1738			360	1705	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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		0.53			0.28			0.41	0.59			0.21	0.66	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 20.7		Intersection LOS: C	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Apex Peakway & S Hughes Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	599	77	68	630	9	119	57	96	7	41	20
Future Volume (vph)	47	599	77	68	630	9	119	57	96	7	41	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1796	0	0	1834	0	0	1362	0	0	1594	0
Flt Permitted		0.997			0.996			0.979			0.995	
Satd. Flow (perm)	0	1796	0	0	1834	0	0	1362	0	0	1594	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			1023			1934	
Travel Time (s)		20.8			23.6			27.9			52.7	
Confl. Peds. (#/hr)			5	5			2		1	1		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.82	0.86	0.86	0.80	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	30%	30%	30%	14%	14%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	875	0	0	877	0	0	316	0	0	79	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.6

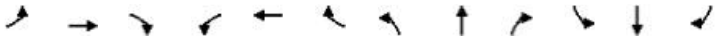
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	47	599	77	68	630	9	119	57	96	7	41	20
Future Vol, veh/h	47	599	77	68	630	9	119	57	96	7	41	20
Conflicting Peds, #/hr	0	0	5	5	0	0	2	0	1	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	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	86	82	86	86	80	86	86	86	86	86	86	86
Heavy Vehicles, %	4	4	4	3	3	3	30	30	30	14	14	14
Mvmt Flow	55	730	90	79	788	10	138	66	112	8	48	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	825	0	0	1879	1846	781	1926	1886	795
Stage 1	-	-	-	-	-	-	890	890	-	951	951	-
Stage 2	-	-	-	-	-	-	989	956	-	975	935	-
Critical Hdwy	4.14	-	-	4.13	-	-	7.4	6.8	6.5	7.24	6.64	6.34
Critical Hdwy Stg 1	-	-	-	-	-	-	6.4	5.8	-	6.24	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.4	5.8	-	6.24	5.64	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.77	4.27	3.57	3.626	4.126	3.426
Pot Cap-1 Maneuver	816	-	-	801	-	-	~ 46	~ 64	354	47	66	369
Stage 1	-	-	-	-	-	-	302	325	-	297	323	-
Stage 2	-	-	-	-	-	-	264	302	-	288	329	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	816	-	-	797	-	-	-	~ 46	352	-	~ 47	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 46	-	-	~ 47	-
Stage 1	-	-	-	-	-	-	263	283	-	260	266	-
Stage 2	-	-	-	-	-	-	167	248	-	132	286	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.6	0.9		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	816	-	-	797	-	-	-
HCM Lane V/C Ratio	-	0.067	-	-	0.099	-	-	-
HCM Control Delay (s/veh)	-	9.7	0	-	10	0	-	-
HCM Lane LOS	-	A	A	-	B	A	-	-
HCM 95th %tile Q (veh)	-	0.2	-	-	0.3	-	-	-

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)	64	401	113	209	524	47	165	185	292	54	151	27
Future Volume (vph)	64	401	113	209	524	47	165	185	292	54	151	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	200		0	0		150	0		175
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100			100			100			150		
Satd. Flow (prot)	1770	1762	0	1736	1805	0	0	1816	1583	0	1840	1583
Flt Permitted	0.384			0.108				0.615			0.584	
Satd. Flow (perm)	715	1762	0	197	1805	0	0	1142	1550	0	1088	1539
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			606			1478	
Travel Time (s)		28.6			21.1			11.8			28.8	
Confl. Peds. (#/hr)			2	2			6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.54	0.69	0.88	0.88	0.73	0.84	0.79	0.88	0.79	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	665	0	303	648	0	0	446	370	0	252	31
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	37.0	37.0		16.0	53.0		37.0	37.0	16.0	37.0	37.0	37.0
Total Split (%)	41.1%	41.1%		17.8%	58.9%		41.1%	41.1%	17.8%	41.1%	41.1%	41.1%
Maximum Green (s)	30.0	30.0		9.0	46.0		30.0	30.0	9.0	30.0	30.0	30.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	32.0	32.0		48.0	48.0			32.0	43.0		32.0	32.0
Actuated g/C Ratio	0.36	0.36		0.53	0.53			0.36	0.48		0.36	0.36
v/c Ratio	0.29	1.06		1.03	0.67			1.10	0.50		0.65	0.06
Control Delay (s/veh)	24.7	83.9		93.4	15.0			104.2	15.9		33.8	19.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	24.7	83.9		93.4	15.0			104.2	15.9		33.8	19.6
LOS	C	F		F	B			F	B		C	B
Approach Delay (s/veh)		78.0			40.0			64.2			32.3	
Approach LOS		E			D			E			C	
Queue Length 50th (ft)	29	~420		~143	140			~290	121		118	11
Queue Length 95th (ft)	65	#607		#182	249			#425	157		170	30
Internal Link Dist (ft)		1387			1002			526			1398	
Turn Bay Length (ft)	175			200					150			175
Base Capacity (vph)	254	626		293	962			406	744		386	547

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.29	1.06		1.03	0.67			1.10	0.50		0.65	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay (s/veh): 56.3		Intersection LOS: E	
Intersection Capacity Utilization 86.1%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Tingen Road & Apex Peakway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	80	83	9	47	15	44	185	23	5	159	72
Future Volume (vph)	98	80	83	9	47	15	44	185	23	5	159	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1751	0	0	1745	0	0	1810	1553	0	1788	0
Flt Permitted		0.982			0.993			0.991			0.999	
Satd. Flow (perm)	0	1751	0	0	1745	0	0	1810	1553	0	1788	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		8	8		1	1		14	14		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.81	0.85	0.85	0.78	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	84	0	0	280	27	0	295	0
Sign Control		Stop			Stop			Stop			Stop	

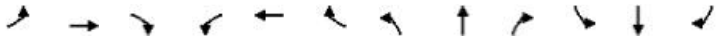
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	80	83	9	47	15	44	185	23	5	159	72
Future Vol, veh/h	98	80	83	9	47	15	44	185	23	5	159	72
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.81	0.85	0.85	0.78	0.85
Heavy Vehicles, %	2	2	2	5	5	5	4	4	4	2	2	2
Mvmt Flow	115	94	98	11	55	18	52	228	27	6	204	85
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	14	10.4	14.3	13.3
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	38%	13%	2%
Vol Thru, %	81%	0%	31%	66%	67%
Vol Right, %	0%	100%	32%	21%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	23	261	71	236
LT Vol	44	0	98	9	5
Through Vol	185	0	80	47	159
RT Vol	0	23	83	15	72
Lane Flow Rate	280	27	307	84	294
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.487	0.041	0.485	0.145	0.456
Departure Headway (Hd)	6.259	5.45	5.684	6.232	5.577
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	574	653	629	571	642
Service Time	4.022	3.213	3.749	4.322	3.644
HCM Lane V/C Ratio	0.488	0.041	0.488	0.147	0.458
HCM Control Delay, s/veh	14.9	8.4	14	10.4	13.3
HCM Lane LOS	B	A	B	B	B
HCM 95th-tile Q	2.7	0.1	2.7	0.5	2.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	21	7	10	30	51	5	106	5	54	162	64
Future Volume (vph)	72	21	7	10	30	51	5	106	5	54	162	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1712	0	0	1698	0	1703	1782	0	1770	1863	1583
Flt Permitted		0.965			0.995		0.950			0.950		
Satd. Flow (perm)	0	1712	0	0	1698	0	1703	1782	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	3		2	2		3	2		11	11		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.76	0.82	0.82	0.76	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	6%	6%	6%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	111	0	6	145	0	66	213	78
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			

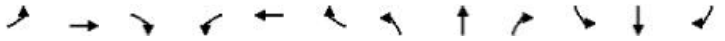
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	21	7	10	30	51	5	106	5	54	162	64
Future Vol, veh/h	72	21	7	10	30	51	5	106	5	54	162	64
Conflicting Peds, #/hr	3	0	2	2	0	3	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	76	82	82	76	82
Heavy Vehicles, %	6	6	6	3	3	3	6	6	6	2	2	2
Mvmt Flow	88	26	9	12	37	62	6	139	6	66	213	78

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	554	515	217	569	590	156	293	0	0	156	0	0
Stage 1	347	347	-	165	165	-	-	-	-	-	-	-
Stage 2	207	168	-	404	425	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.13	6.53	6.23	4.16	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.527	4.027	3.327	2.254	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	458	813	431	419	887	1246	-	-	1424	-	-
Stage 1	661	628	-	835	760	-	-	-	-	-	-	-
Stage 2	786	752	-	621	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	361	429	810	386	393	875	1244	-	-	1409	-	-
Mov Cap-2 Maneuver	361	429	-	386	393	-	-	-	-	-	-	-
Stage 1	656	597	-	822	749	-	-	-	-	-	-	-
Stage 2	689	741	-	559	556	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	18.4	12.9	0.3	1.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1244	-	-	389	567	1409	-	-
HCM Lane V/C Ratio	0.005	-	-	0.313	0.196	0.047	-	-
HCM Control Delay (s/veh)	7.9	-	-	18.4	12.9	7.7	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	1.3	0.7	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	668	8	5	760	5	21	5	29	11	4	4
Future Volume (vph)	4	668	8	5	760	5	21	5	29	11	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1823	0	0	1808	0	0	1663	0	0	1678	0
Flt Permitted								0.981			0.973	
Satd. Flow (perm)	0	1823	0	0	1808	0	0	1663	0	0	1678	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			1172			817	
Travel Time (s)		21.1			20.8			32.0			22.3	
Confl. Peds. (#/hr)			6	6					2	2		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.81	0.84	0.84	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	4%	4%	4%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	840	0	0	974	0	0	66	0	0	23	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		

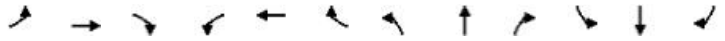
Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	4	668	8	5	760	5	21	5	29	11	4	4
Future Vol, veh/h	4	668	8	5	760	5	21	5	29	11	4	4
Conflicting Peds, #/hr	0	0	6	6	0	0	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	84	81	84	84	79	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	7	7	7
Mvmt Flow	5	825	10	6	962	6	25	6	35	13	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	968	0	0	841	0	0	1828	1826	838	1840	1828	965
Stage 1	-	-	-	-	-	-	846	846	-	977	977	-
Stage 2	-	-	-	-	-	-	982	980	-	863	851	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.14	6.54	6.24	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.536	4.036	3.336	3.563	4.063	3.363
Pot Cap-1 Maneuver	704	-	-	782	-	-	58	76	363	56	74	303
Stage 1	-	-	-	-	-	-	354	376	-	295	323	-
Stage 2	-	-	-	-	-	-	297	325	-	342	370	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	704	-	-	778	-	-	53	73	360	46	71	303
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	73	-	46	71	-
Stage 1	-	-	-	-	-	-	347	369	-	291	318	-
Stage 2	-	-	-	-	-	-	283	319	-	300	363	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.1	90.6	93.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	101	704	-	-	778	-	-	62
HCM Lane V/C Ratio	0.648	0.007	-	-	0.008	-	-	0.365
HCM Control Delay (s/veh)	90.6	10.1	0	-	9.7	0	-	93.2
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q (veh)	3.2	0	-	-	0	-	-	1.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	4	4	4	4	12	4	109	4	25	72	42
Future Volume (vph)	110	4	4	4	4	12	4	109	4	25	72	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1772	0	0	1691	0	0	1852	0	0	1770	0
Flt Permitted		0.955			0.991			0.998			0.991	
Satd. Flow (perm)	0	1772	0	0	1691	0	0	1852	0	0	1770	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		608			894			362			1023	
Travel Time (s)		16.6			24.4			9.9			27.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	0	0	21	0	0	129	0	0	155	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	110	4	4	4	4	12	4	109	4	25	72	42
Future Vol, veh/h	110	4	4	4	4	12	4	109	4	25	72	42
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	122	4	4	4	4	13	4	121	4	28	80	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	300	293	104	295	314	123	127	0	0	125	0	0
Stage 1	160	160	-	131	131	-	-	-	-	-	-	-
Stage 2	140	133	-	164	183	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	652	618	951	657	601	928	1459	-	-	1462	-	-
Stage 1	842	766	-	873	788	-	-	-	-	-	-	-
Stage 2	863	786	-	838	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	627	603	951	639	587	928	1459	-	-	1462	-	-
Mov Cap-2 Maneuver	627	603	-	639	587	-	-	-	-	-	-	-
Stage 1	839	750	-	870	786	-	-	-	-	-	-	-
Stage 2	843	784	-	812	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.2	9.8	0.3	1.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1459	-	-	633	769	1462	-	-
HCM Lane V/C Ratio	0.003	-	-	0.207	0.029	0.019	-	-
HCM Control Delay (s/veh)	7.5	0	-	12.2	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.8	0.1	0.1	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	4	21	21	4	55
Future Volume (vph)	55	4	21	21	4	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1848	0	0	1818	1621	0
Flt Permitted				0.976	0.997	
Satd. Flow (perm)	1848	0	0	1818	1621	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	722			608	624	
Travel Time (s)	19.7			16.6	17.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	46	65	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	4	21	21	4	55
Future Vol, veh/h	55	4	21	21	4	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	4	23	23	4	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	132	63
Stage 1	-	-	-	-	63	-
Stage 2	-	-	-	-	69	-
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	-	-	1537	-	862	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	849	1002
Mov Cap-2 Maneuver	-	-	-	-	849	-
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	940	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	3.7	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	990	-	-	1537	-
HCM Lane V/C Ratio	0.066	-	-	0.015	-
HCM Control Delay (s/veh)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.2	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	21	4	4	4	22	55	4	4	4
Future Volume (vph)	4	4	4	21	4	4	4	22	55	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1750	0	0	1765	0	0	1686	0	0	1750	0
Flt Permitted		0.984			0.964			0.998			0.984	
Satd. Flow (perm)	0	1750	0	0	1765	0	0	1686	0	0	1750	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		592			722			731			1172	
Travel Time (s)		16.1			19.7			19.9			32.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	31	0	0	89	0	0	12	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.9%		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	4	4	4	21	4	4	4	22	55	4	4	4
Future Vol, veh/h	4	4	4	21	4	4	4	22	55	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	23	4	4	4	24	61	4	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	8	0	0	70	68	6	109	68	6
Stage 1	-	-	-	-	-	-	14	14	-	52	52	-
Stage 2	-	-	-	-	-	-	56	54	-	57	16	-
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	1612	-	-	1612	-	-	922	823	1077	870	823	1077
Stage 1	-	-	-	-	-	-	1006	884	-	961	852	-
Stage 2	-	-	-	-	-	-	956	850	-	955	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1612	-	-	904	810	1077	792	810	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	792	810	-
Stage 1	-	-	-	-	-	-	1004	882	-	959	840	-
Stage 2	-	-	-	-	-	-	934	838	-	874	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.4	5.3	9	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	980	1612	-	-	1612	-	-	876
HCM Lane V/C Ratio	0.092	0.003	-	-	0.014	-	-	0.015
HCM Control Delay (s/veh)	9	7.2	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	4	0	109	21	51
Future Volume (vph)	0	4	0	109	21	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	0	1611	0	1863	1684	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	1684	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	462			400	362	
Travel Time (s)	12.6			10.9	9.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	0	121	80	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	14.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	109	21	51
Future Vol, veh/h	0	4	0	109	21	51
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	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	121	23	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	52	-	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	1016	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1016	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	1016	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s/veh)	-	8.6	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q (veh)	-	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	109	4	4	4	4	21
Future Volume (vph)	109	4	4	4	4	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1770	0	0	1818	1649	0
Flt Permitted	0.954			0.976		
Satd. Flow (perm)	1770	0	0	1818	1649	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	570			839	400	
Travel Time (s)	15.5			22.9	10.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	125	0	0	8	27	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	109	4	4	4	4	21
Future Vol, veh/h	109	4	4	4	4	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	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	4	4	4	4	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	28	16	27	0	-	0
Stage 1	16	-	-	-	-	-
Stage 2	12	-	-	-	-	-
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	987	1063	1587	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	984	1063	1587	-	-	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.2	3.6	0
HCM LOS	A		

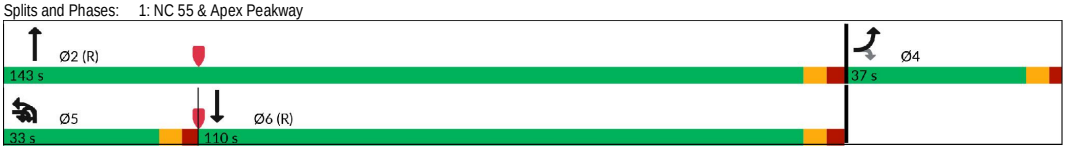
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	987	-	-
HCM Lane V/C Ratio	0.003	-	0.127	-	-
HCM Control Delay (s/veh)	7.3	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0.4	-	-

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	120	605	8	772	829	945	142
Future Volume (vph)	120	605	8	772	829	945	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1761	2773	0	3416	1853	5000	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1761	2773	0	3414	1853	5000	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)				1			1
Confl. Bikes (#/hr)							
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	122	617	0	796	846	1109	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	15.0	15.0	15.0	18.0	51.0	
Total Split (s)	37.0	33.0	33.0	33.0	143.0	110.0	
Total Split (%)	20.6%	18.3%	18.3%	18.3%	79.4%	61.1%	
Maximum Green (s)	31.0	26.6	26.6	26.6	136.1	103.1	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Minimum Gap (s)	2.0	2.0	2.0	2.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	C-Max	
Walk Time (s)	11.0					14.0	
Flash Don't Walk (s)	18.0					29.0	
Pedestrian Calls (#/hr)	0					0	
Act Effct Green (s)	17.9	65.0		42.1	152.1	105.0	
Actuated g/C Ratio	0.10	0.36		0.23	0.85	0.58	
v/c Ratio	0.70	0.62		1.00	0.54	0.38	
Control Delay (s/veh)	112.5	38.0		97.3	5.8	20.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	112.5	38.0		97.3	5.8	20.5	
LOS	F	D		F	A	C	
Approach Delay (s/veh)	50.3				50.2	20.5	
Approach LOS	D				D	C	
Queue Length 50th (ft)	153	247		490	237	250	
Queue Length 95th (ft)	m225	289		#712	387	283	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	313	1001		799	1566	2916	

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
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	0.39	0.62		1.00	0.54	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 180			
Offset: 158 (88%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay (s/veh): 40.8		Intersection LOS: D	
Intersection Capacity Utilization 91.7%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			
! Phase conflict between lane groups.			

Splits and Phases: 1: NC 55 & Apex Peakway



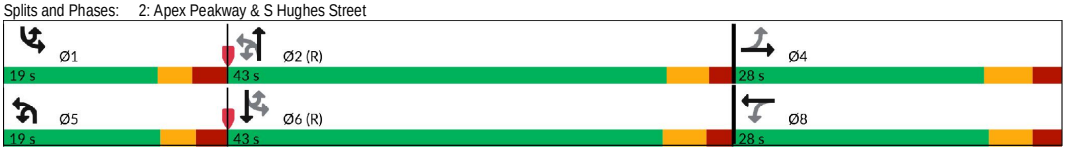
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	58	76	148	56	16	14	4	118	712	200	5	54	765	74
Future Volume (vph)	58	76	148	56	16	14	4	118	712	200	5	54	765	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1722	0	0	1746	0	0	1734	3339	0	0	1752	3458	0
Flt Permitted		0.916			0.510			0.210				0.205		
Satd. Flow (perm)	0	1593	0	0	920	0	0	383	3339	0	0	378	3458	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)														
Confl. Bikes (#/hr)										1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	320	0	0	98	0	0	139	1036	0	0	67	953	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	28.0	28.0		28.0	28.0		19.0	19.0	43.0		19.0	19.0	43.0	
Total Split (%)	31.1%	31.1%		31.1%	31.1%		21.1%	21.1%	47.8%		21.1%	21.1%	47.8%	
Maximum Green (s)	21.4	21.4		21.8	21.8		13.4	13.4	37.4		13.1	13.1	37.1	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lead	Lead	Lag		Lead	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Minimum Gap (s)	2.0	2.0		2.0	2.0		2.0	2.0	3.0		2.0	2.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0				7.0				7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0				8.0				7.0	
Pedestrian Calls (#/hr)	0	0		0	0				0				0	
Act Effct Green (s)		21.4			21.4			55.1	48.2			53.1	45.2	
Actuated g/C Ratio		0.24			0.24			0.61	0.54			0.59	0.50	
v/c Ratio		0.84			0.45			0.39	0.58			0.19	0.55	
Control Delay (s/veh)		53.5			35.9			10.6	17.2			14.8	37.8	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		53.5			35.9			10.6	17.2			14.8	37.8	
LOS		D			D			B	B			B	D	
Approach Delay (s/veh)		53.5			35.9				16.4				36.3	
Approach LOS		D			D				B				D	
Queue Length 50th (ft)		170			46			29	202			49	474	
Queue Length 95th (ft)		#289			93			m47	246			m71	m569	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		407			235			459	1789			458	1735	

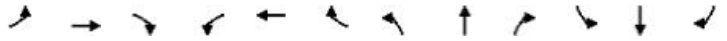
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0	0			0	0	
Spillback Cap Reductn		0			0			0	0			0	0	
Storage Cap Reductn		0			0			0	0			0	0	
Reduced v/c Ratio		0.79			0.42			0.30	0.58			0.15	0.55	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 11 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay (s/veh): 29.5 Intersection LOS: C
Intersection Capacity Utilization 60.5% ICU Level of Service B
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: 2: Apex Peakway & S Hughes Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	732	104	77	544	8	96	36	70	23	34	80
Future Volume (vph)	37	732	104	77	544	8	96	36	70	23	34	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1812	0	0	1848	0	0	1701	0	0	1702	0
Flt Permitted		0.998			0.994			0.977			0.992	
Satd. Flow (perm)	0	1812	0	0	1848	0	0	1701	0	0	1702	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			1023			1934	
Travel Time (s)		20.8			23.6			27.9			52.7	
Confl. Peds. (#/hr)			2	2			1		2	2		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1052	0	0	758	0	0	243	0	0	165	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1171.6

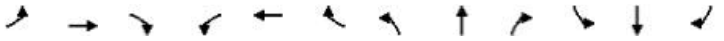
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	37	732	104	77	544	8	96	36	70	23	34	80
Future Vol, veh/h	37	732	104	77	544	8	96	36	70	23	34	80
Conflicting Peds, #/hr	0	0	2	2	0	0	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	45	882	125	93	655	10	116	43	84	28	41	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	1009	0	0	1953	1888	949	1946	1945	661
Stage 1	-	-	-	-	-	-	1037	1037	-	846	846	-
Stage 2	-	-	-	-	-	-	916	851	-	1100	1099	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	687	-	-	~ 48	70	313	49	65	462
Stage 1	-	-	-	-	-	-	277	306	-	357	378	-
Stage 2	-	-	-	-	-	-	324	374	-	257	288	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	919	-	-	686	-	-	~ 6	49	312	~ 7	45	462
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 6	49	-	~ 7	45	-
Stage 1	-	-	-	-	-	-	245	270	-	316	297	-
Stage 2	-	-	-	-	-	-	173	294	-	139	254	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	1.4	$ 9286.4	$ 2042.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	12	919	-	-	686	-	-	33
HCM Lane V/C Ratio	20.281	0.049	-	-	0.135	-	-	5.002
HCM Control Delay (s/veh)	$ 9286.4	9.1	0	-	11.1	0	-	$ 2042.3
HCM Lane LOS	F	A	A	-	B	A	-	F
HCM 95th %tile Q (veh)	31.8	0.2	-	-	0.5	-	-	19.7

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



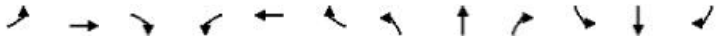
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	509	15	166	446	51	59	104	232	94	250	39
Future Volume (vph)	41	509	15	166	446	51	59	104	232	94	250	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	200		0	0		150	0		175
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100			100			100			150		
Satd. Flow (prot)	1770	1854	0	1770	1835	0	0	1829	1583	0	1839	1583
Flt Permitted	0.470			0.228				0.525			0.803	
Satd. Flow (perm)	875	1854	0	424	1835	0	0	977	1544	0	1494	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			601			1478	
Travel Time (s)		28.6			21.1			11.7			28.8	
Confl. Peds. (#/hr)			5	5			4		4	4		4
Confl. Bikes (#/hr)												2
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	552	0	175	523	0	0	171	244	0	362	41
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	42.0	42.0		14.0	56.0		34.0	34.0	14.0	34.0	34.0	34.0
Total Split (%)	46.7%	46.7%		15.6%	62.2%		37.8%	37.8%	15.6%	37.8%	37.8%	37.8%
Maximum Green (s)	35.0	35.0		7.0	49.0		27.0	27.0	7.0	27.0	27.0	27.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	39.5	39.5		54.0	54.0			26.0	35.5		26.0	26.0
Actuated g/C Ratio	0.44	0.44		0.60	0.60			0.29	0.39		0.29	0.29
v/c Ratio	0.11	0.68		0.44	0.48			0.61	0.40		0.84	0.09
Control Delay (s/veh)	17.4	26.2		13.9	13.4			36.9	18.0		47.8	22.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	17.4	26.2		13.9	13.4			36.9	18.0		47.8	22.5
LOS	B	C		B	B			D	B		D	C
Approach Delay (s/veh)		25.6			13.5			25.8			45.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	15	257		60	202			81	82		186	16
Queue Length 95th (ft)	37	381		m99	262			147	136		#315	40
Internal Link Dist (ft)		1387			1002			521			1398	
Turn Bay Length (ft)	175			200					150			175
Base Capacity (vph)	384	814		395	1100			314	612		481	495

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.11	0.68		0.44	0.48			0.54	0.40		0.75	0.08

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 25.4		Intersection LOS: C	
Intersection Capacity Utilization 80.7%		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: Tingen Road & Apex Peakway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	70	134	25	71	14	97	213	41	9	253	50
Future Volume (vph)	74	70	134	25	71	14	97	213	41	9	253	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1719	0	0	1792	0	0	1835	1583	0	1820	0
Flt Permitted		0.987			0.989			0.985			0.999	
Satd. Flow (perm)	0	1719	0	0	1792	0	0	1835	1583	0	1820	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		5	5		1	2		3	3		2
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	0	115	0	0	323	43	0	325	0
Sign Control		Stop			Stop			Stop			Stop	

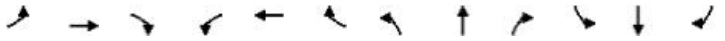
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	70	134	25	71	14	97	213	41	9	253	50
Future Vol, veh/h	74	70	134	25	71	14	97	213	41	9	253	50
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	77	73	140	26	74	15	101	222	43	9	264	52
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	14.6	11.6	16.8	15.8
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	0%	27%	23%	3%
Vol Thru, %	69%	0%	25%	65%	81%
Vol Right, %	0%	100%	48%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	310	41	278	110	312
LT Vol	97	0	74	25	9
Through Vol	213	0	70	71	253
RT Vol	0	41	134	14	50
Lane Flow Rate	323	43	290	115	325
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.579	0.066	0.486	0.213	0.54
Departure Headway (Hd)	6.578	5.706	6.041	6.704	5.981
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	552	632	599	536	605
Service Time	4.278	3.406	4.056	4.737	4.001
HCM Lane V/C Ratio	0.585	0.068	0.484	0.215	0.537
HCM Control Delay, s/veh	17.9	8.8	14.6	11.6	15.8
HCM Lane LOS	C	A	B	B	C
HCM 95th-tile Q	3.7	0.2	2.7	0.8	3.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	33	12	18	42	108	7	159	16	78	245	67
Future Volume (vph)	66	33	12	18	42	108	7	159	16	78	245	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1782	0	0	1692	0	1770	1837	0	1770	1863	1583
Flt Permitted		0.971			0.995		0.950			0.950		
Satd. Flow (perm)	0	1782	0	0	1692	0	1770	1837	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	1		2	2		1			1	1		
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	118	0	0	179	0	7	186	0	83	261	71
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			

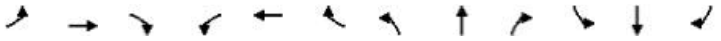
Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	33	12	18	42	108	7	159	16	78	245	67
Future Vol, veh/h	66	33	12	18	42	108	7	159	16	78	245	67
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
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	2	2	2	2	2	2
Mvmt Flow	70	35	13	19	45	115	7	169	17	83	261	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	700	628	263	682	691	180	332	0	0	187	0	0
Stage 1	427	427	-	193	193	-	-	-	-	-	-	-
Stage 2	273	201	-	489	498	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	354	400	776	364	368	863	1227	-	-	1387	-	-
Stage 1	606	585	-	809	741	-	-	-	-	-	-	-
Stage 2	733	735	-	561	544	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	262	373	775	315	343	861	1227	-	-	1386	-	-
Mov Cap-2 Maneuver	262	373	-	315	343	-	-	-	-	-	-	-
Stage 1	602	550	-	803	736	-	-	-	-	-	-	-
Stage 2	593	730	-	485	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	23.4	14.6	0.3	1.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1227	-	-	312	551	1386	-	-
HCM Lane V/C Ratio	0.006	-	-	0.378	0.324	0.06	-	-
HCM Control Delay (s/veh)	8	-	-	23.4	14.6	7.8	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	1.7	1.4	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	831	24	16	685	20	15	4	17	16	4	4
Future Volume (vph)	7	831	24	16	685	20	15	4	17	16	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1837	0	0	1853	0	0	1707	0	0	1762	0
Flt Permitted					0.999			0.979			0.967	
Satd. Flow (perm)	0	1837	0	0	1853	0	0	1707	0	0	1762	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			1172			817	
Travel Time (s)		21.1			20.8			32.0			22.3	
Confl. Peds. (#/hr)	1		5	5		1	4		2	2		4
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	917	0	0	767	0	0	38	0	0	25	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

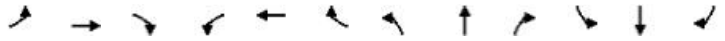
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	7	831	24	16	685	20	15	4	17	16	4	4
Future Vol, veh/h	7	831	24	16	685	20	15	4	17	16	4	4
Conflicting Peds, #/hr	1	0	5	5	0	1	4	0	2	2	0	4
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, %	3	3	3	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	884	26	17	729	21	16	4	18	17	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	751	0	0	915	0	0	1698	1701	904	1699	1704	745
Stage 1	-	-	-	-	-	-	916	916	-	775	775	-
Stage 2	-	-	-	-	-	-	782	785	-	924	929	-
Critical Hdwy	4.13	-	-	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	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	854	-	-	745	-	-	73	92	335	73	91	414
Stage 1	-	-	-	-	-	-	326	351	-	391	408	-
Stage 2	-	-	-	-	-	-	387	404	-	323	346	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	853	-	-	741	-	-	66	86	333	63	85	412
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	86	-	63	85	-
Stage 1	-	-	-	-	-	-	319	343	-	384	392	-
Stage 2	-	-	-	-	-	-	363	388	-	296	338	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.2	53.6	73.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	111	853	-	-	741	-	-	77
HCM Lane V/C Ratio	0.345	0.009	-	-	0.023	-	-	0.332
HCM Control Delay (s/veh)	53.6	9.3	0	-	10	0	-	73.4
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	1.4	0	-	-	0.1	-	-	1.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	4	4	4	4	23	4	60	4	8	106	88
Future Volume (vph)	92	4	4	4	4	23	4	60	4	8	106	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1772	0	0	1661	0	0	1844	0	0	1749	0
Flt Permitted		0.956			0.994			0.997			0.998	
Satd. Flow (perm)	0	1772	0	0	1661	0	0	1844	0	0	1749	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		608			894			362			1023	
Travel Time (s)		16.6			24.4			9.9			27.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	34	0	0	75	0	0	225	0
Sign Control		Stop			Stop			Free			Free	

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	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	92	4	4	4	4	23	4	60	4	8	106	88
Future Vol, veh/h	92	4	4	4	4	23	4	60	4	8	106	88
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	4	4	4	4	26	4	67	4	9	118	98

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	277	264	167	266	311	69	216	0	0	71	0	0
Stage 1	185	185	-	77	77	-	-	-	-	-	-	-
Stage 2	92	79	-	189	234	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	675	641	877	687	604	994	1354	-	-	1529	-	-
Stage 1	817	747	-	932	831	-	-	-	-	-	-	-
Stage 2	915	829	-	813	711	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	649	635	877	675	598	994	1354	-	-	1529	-	-
Mov Cap-2 Maneuver	649	635	-	675	598	-	-	-	-	-	-	-
Stage 1	815	742	-	929	829	-	-	-	-	-	-	-
Stage 2	884	827	-	798	706	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.6	9.3	0.5	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1354	-	-	655	867	1529	-	-
HCM Lane V/C Ratio	0.003	-	-	0.17	0.04	0.006	-	-
HCM Control Delay (s/veh)	7.7	0	-	11.6	9.3	7.4	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.6	0.1	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	30	4	32	56	4	62
Future Volume (vph)	30	4	32	56	4	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1835	0	0	1829	1619	0
Flt Permitted				0.982	0.997	
Satd. Flow (perm)	1835	0	0	1829	1619	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	722			608	624	
Travel Time (s)	19.7			16.6	17.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	0	0	98	73	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	30	4	32	56	4	62
Future Vol, veh/h	30	4	32	56	4	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	4	36	62	4	69

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	37	0	169	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	134	-
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	-	-	1574	-	821	1038
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	892	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1574	-	801	1038
Mov Cap-2 Maneuver	-	-	-	-	801	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	871	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.7	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1020	-	-	1574	-
HCM Lane V/C Ratio	0.072	-	-	0.023	-
HCM Control Delay (s/veh)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.2	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	56	4	4	4	12	30	4	9	4
Future Volume (vph)	4	4	4	56	4	4	4	12	30	4	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1750	0	0	1770	0	0	1690	0	0	1787	0
Flt Permitted		0.984			0.958			0.996			0.989	
Satd. Flow (perm)	0	1750	0	0	1770	0	0	1690	0	0	1787	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		592			722			731			1172	
Travel Time (s)		16.1			19.7			19.9			32.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	70	0	0	50	0	0	18	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.1%	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	4	4	4	56	4	4	4	12	30	4	9	4
Future Vol, veh/h	4	4	4	56	4	4	4	12	30	4	9	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	62	4	4	4	13	33	4	10	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	8	0	0	151	146	6	167	146	6
Stage 1	-	-	-	-	-	-	14	14	-	130	130	-
Stage 2	-	-	-	-	-	-	137	132	-	37	16	-
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	1612	-	-	1612	-	-	816	745	1077	797	745	1077
Stage 1	-	-	-	-	-	-	1006	884	-	874	789	-
Stage 2	-	-	-	-	-	-	866	787	-	978	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1612	-	-	779	714	1077	737	714	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	779	714	-	737	714	-
Stage 1	-	-	-	-	-	-	1004	882	-	872	758	-
Stage 2	-	-	-	-	-	-	818	756	-	932	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.4	6.4	9.1	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	924	1612	-	-	1612	-	-	782
HCM Lane V/C Ratio	0.055	0.003	-	-	0.039	-	-	0.024
HCM Control Delay (s/veh)	9.1	7.2	0	-	7.3	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.2	0	-	-	0.1	-	-	0.1

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	4	0	60	56	50
Future Volume (vph)	0	4	0	60	56	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	0	1611	0	1863	1744	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	1744	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	462			400	362	
Travel Time (s)	12.6			10.9	9.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	0	67	118	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	60	56	50
Future Vol, veh/h	0	4	0	60	56	50
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	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	67	62	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	90	-	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	968	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	968	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	968	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s/veh)	-	8.7	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q (veh)	-	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	4	4	4	4	56
Future Volume (vph)	60	4	4	4	4	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1765	0	0	1818	1626	0
Flt Permitted	0.955			0.976		
Satd. Flow (perm)	1765	0	0	1818	1626	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	570			839	400	
Travel Time (s)	15.5			22.9	10.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	0	8	66	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	14.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	60	4	4	4	4	56
Future Vol, veh/h	60	4	4	4	4	56
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	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	4	4	4	4	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	47	35	66	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	12	-	-	-	-	-
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	963	1038	1536	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	960	1038	1536	-	-	-
Mov Cap-2 Maneuver	960	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9	3.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1536	-	965	-	-
HCM Lane V/C Ratio	0.003	-	0.074	-	-
HCM Control Delay (s/veh)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0.2	-	-

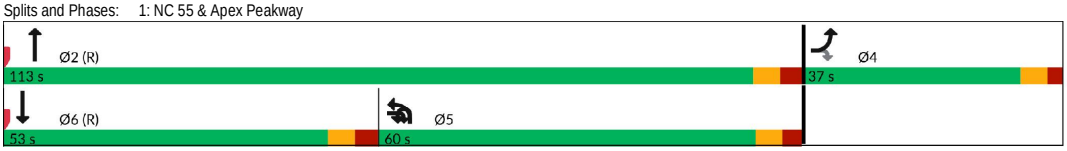
Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	88	493	14	798	824	729	76
Future Volume (vph)	88	493	14	798	824	729	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1695	2670	0	3318	1800	4890	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1695	2670	0	3318	1800	4890	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.89	0.89	0.92	0.89	0.92	0.92	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	99	554	0	912	896	878	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	13.4	13.4	13.4	16.9	51.0	
Total Split (s)	37.0	60.0	60.0	60.0	113.0	53.0	
Total Split (%)	24.7%	40.0%	40.0%	40.0%	75.3%	35.3%	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lag	Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	
Act Effct Green (s)	14.2	74.2		55.0	125.8	65.8	
Actuated g/C Ratio	0.09	0.49		0.37	0.84	0.44	
v/c Ratio	0.62	0.42		0.75	0.59	0.41	
Control Delay (s/veh)	81.1	24.9		46.2	6.2	30.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	81.1	24.9		46.2	6.2	30.0	
LOS	F	C		D	A	C	
Approach Delay (s/veh)	33.4				26.4	30.0	
Approach LOS	C				C	C	
Queue Length 50th (ft)	95	192		401	226	212	
Queue Length 95th (ft)	151	223		474	391	269	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	361	1320		1216	1509	2145	
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	0.27	0.42		0.75	0.59	0.41	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay (s/veh): 28.7	Intersection LOS: C
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 1: NC 55 & Apex Peakway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	26	63	104	45	13	4	4	85	569	189	6	50	778	58
Future Volume (vph)	26	63	104	45	13	4	4	85	569	189	6	50	778	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1703	0	0	1765	0	0	1669	3214	0	0	1686	3331	0
Flt Permitted		0.952			0.519			0.214				0.144		
Satd. Flow (perm)	0	1631	0	0	948	0	0	375	3214	0	0	256	3331	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)			3	3				4						4
Confl. Bikes (#/hr)														
Peak Hour Factor	0.76	0.76	0.68	0.76	0.76	0.76	0.76	0.70	0.74	0.76	0.76	0.76	0.74	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	270	0	0	81	0	0	126	1018	0	0	74	1127	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	43.0		14.0	14.0	43.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		15.6%	15.6%	47.8%		15.6%	15.6%	47.8%	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lag	Lag	Lag		Lead	Lead	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Act Effct Green (s)		20.8			20.8			48.5	48.5			45.2	45.2	
Actuated g/C Ratio		0.23			0.23			0.54	0.54			0.50	0.50	
v/c Ratio		0.72			0.37			0.38	0.59			0.28	0.67	
Control Delay (s/veh)		42.3			32.4			13.5	8.7			16.5	20.5	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		42.3			32.4			13.5	8.7			16.5	20.5	
LOS		D			C			B	A			B	C	
Approach Delay (s/veh)		42.3			32.4				9.2				20.3	
Approach LOS		D			C				A				C	
Queue Length 50th (ft)		142			39			15	83			21	242	
Queue Length 95th (ft)		165			60			m31	168			43	272	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		507			294			331	1732			272	1673	
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		0.53			0.28			0.38	0.59			0.27	0.67	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 14 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay (s/veh): 18.2	Intersection LOS: B
Intersection Capacity Utilization 54.6%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Apex Peakway & S Hughes Street

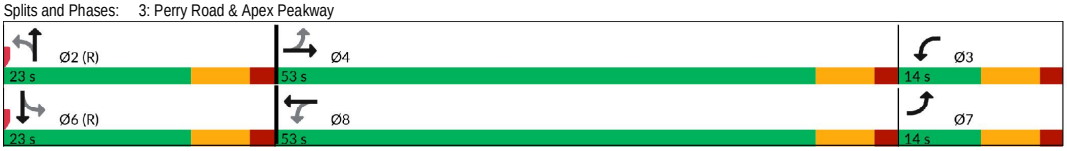
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	599	77	68	630	9	119	57	96	7	41	20
Future Volume (vph)	47	599	77	68	630	9	119	57	96	7	41	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1736	1793	0	1752	1841	0	1388	1305	0	1583	1572	0
Flt Permitted	0.143			0.124			0.711			0.558		
Satd. Flow (perm)	261	1793	0	229	1841	0	1034	1305	0	928	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			1			85			23	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			1023			1934	
Travel Time (s)		20.8			23.6			27.9			52.7	
Confl. Peds. (#/hr)			5	5			2		1	1		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.82	0.86	0.86	0.80	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	30%	30%	30%	14%	14%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	820	0	79	798	0	138	178	0	8	71	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	14.0	17.0		14.0	17.0		14.0	14.0		14.0	14.0	
Total Split (s)	14.0	53.0		14.0	53.0		23.0	23.0		23.0	23.0	
Total Split (%)	15.6%	58.9%		15.6%	58.9%		25.6%	25.6%		25.6%	25.6%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag	Lead		Lag	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	55.1	46.0		55.9	48.7		22.8	22.8		22.8	22.8	
Actuated g/C Ratio	0.61	0.51		0.62	0.54		0.25	0.25		0.25	0.25	
v/c Ratio	0.18	0.89		0.27	0.80		0.53	0.45		0.03	0.17	
Control Delay (s/veh)	5.6	25.1		5.4	13.4		41.3	21.3		30.1	22.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	5.6	25.1		5.4	13.4		41.3	21.3		30.1	22.8	
LOS	A	C		A	B		D	C		C	C	
Approach Delay (s/veh)		23.8			12.7			30.1			23.5	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	5	350		6	116		73	46		4	23	
Queue Length 95th (ft)	m8	m409		m7	163		#144	105		m15	m56	
Internal Link Dist (ft)		988			1131			943			1854	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	308	961		294	1031		261	394		235	415	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.85		0.27	0.77		0.53	0.45		0.03	0.17	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 16 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 20.2	Intersection LOS: C
Intersection Capacity Utilization 67.9%	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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Perry Road & Apex Peakway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	401	113	209	524	47	165	185	292	54	151	27
Future Volume (vph)	64	401	113	209	524	47	165	185	292	54	151	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	200		0	0		150	0		175
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100			100			100			150		
Satd. Flow (prot)	1770	1762	0	1736	1805	0	0	1816	1583	0	1840	1583
Flt Permitted	0.175			0.108				0.615			0.584	
Satd. Flow (perm)	326	1762	0	197	1805	0	0	1142	1550	0	1088	1539
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			606			1478	
Travel Time (s)		28.6			21.1			11.8			28.8	
Confl. Peds. (#/hr)			2	2			6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.54	0.69	0.88	0.88	0.73	0.84	0.79	0.88	0.79	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	665	0	303	648	0	0	446	370	0	252	31
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	37.0	37.0		16.0	53.0		37.0	37.0	16.0	37.0	37.0	37.0
Total Split (%)	41.1%	41.1%		17.8%	58.9%		41.1%	41.1%	17.8%	41.1%	41.1%	41.1%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lead		Lag					Lag			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	32.0	32.0		48.0	48.0			32.0	43.0		32.0	32.0
Actuated g/C Ratio	0.36	0.36		0.53	0.53			0.36	0.48		0.36	0.36
v/c Ratio	0.63	1.06		1.03	0.67			1.10	0.50		0.65	0.06
Control Delay (s/veh)	52.5	83.9		79.5	8.6			104.2	16.6		33.8	19.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	52.5	83.9		79.5	8.6			104.2	16.6		33.8	19.6
LOS	D	F		E	A			F	B		C	B
Approach Delay (s/veh)		80.8			31.2			64.5			32.3	
Approach LOS		F			C			E			C	
Queue Length 50th (ft)	34	~420		~139	81			~290	121		118	11
Queue Length 95th (ft)	#102	#607		#169	132			#425	157		170	30
Internal Link Dist (ft)		1387			1002			526			1398	
Turn Bay Length (ft)	175			200					150			175
Base Capacity (vph)	115	626		293	962			406	744		386	547
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.63	1.06		1.03	0.67			1.10	0.50		0.65	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 78 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay (s/veh): 54.2	Intersection LOS: D
Intersection Capacity Utilization 86.1%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Tingen Road & Apex Peakway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	80	83	9	47	15	44	185	23	5	159	72
Future Volume (vph)	98	80	83	9	47	15	44	185	23	5	159	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1751	0	0	1745	0	0	1810	1553	0	1788	0
Flt Permitted		0.982			0.993			0.991			0.999	
Satd. Flow (perm)	0	1751	0	0	1745	0	0	1810	1553	0	1788	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		8	8		1	1		14	14		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.81	0.85	0.85	0.78	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	84	0	0	280	27	0	295	0
Sign Control		Stop			Stop			Stop			Stop	

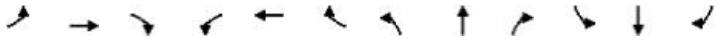
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	80	83	9	47	15	44	185	23	5	159	72
Future Vol, veh/h	98	80	83	9	47	15	44	185	23	5	159	72
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.81	0.85	0.85	0.78	0.85
Heavy Vehicles, %	2	2	2	5	5	5	4	4	4	2	2	2
Mvmt Flow	115	94	98	11	55	18	52	228	27	6	204	85
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	14	10.4	14.3	13.3
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	38%	13%	2%
Vol Thru, %	81%	0%	31%	66%	67%
Vol Right, %	0%	100%	32%	21%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	23	261	71	236
LT Vol	44	0	98	9	5
Through Vol	185	0	80	47	159
RT Vol	0	23	83	15	72
Lane Flow Rate	280	27	307	84	294
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.487	0.041	0.485	0.145	0.456
Departure Headway (Hd)	6.259	5.45	5.684	6.232	5.577
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	574	653	629	571	642
Service Time	4.022	3.213	3.749	4.322	3.644
HCM Lane V/C Ratio	0.488	0.041	0.488	0.147	0.458
HCM Control Delay, s/veh	14.9	8.4	14	10.4	13.3
HCM Lane LOS	B	A	B	B	B
HCM 95th-tile Q	2.7	0.1	2.7	0.5	2.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	21	7	10	30	51	5	106	5	54	162	64
Future Volume (vph)	72	21	7	10	30	51	5	106	5	54	162	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1712	0	0	1698	0	1703	1782	0	1770	1863	1583
Flt Permitted		0.965			0.995		0.950			0.950		
Satd. Flow (perm)	0	1712	0	0	1698	0	1703	1782	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	3		2	2		3	2		11	11		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.76	0.82	0.82	0.76	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	6%	6%	6%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	111	0	6	145	0	66	213	78
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			

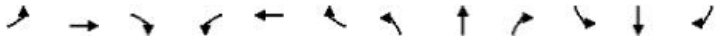
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	21	7	10	30	51	5	106	5	54	162	64
Future Vol, veh/h	72	21	7	10	30	51	5	106	5	54	162	64
Conflicting Peds, #/hr	3	0	2	2	0	3	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	76	82	82	76	82
Heavy Vehicles, %	6	6	6	3	3	3	6	6	6	2	2	2
Mvmt Flow	88	26	9	12	37	62	6	139	6	66	213	78

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	554	515	217	569	590	156	293	0	0	156	0	0
Stage 1	347	347	-	165	165	-	-	-	-	-	-	-
Stage 2	207	168	-	404	425	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.13	6.53	6.23	4.16	-	-	4.12	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.527	4.027	3.327	2.254	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	458	813	431	419	887	1246	-	-	1424	-	-
Stage 1	661	628	-	835	760	-	-	-	-	-	-	-
Stage 2	786	752	-	621	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	361	429	810	386	393	875	1244	-	-	1409	-	-
Mov Cap-2 Maneuver	361	429	-	386	393	-	-	-	-	-	-	-
Stage 1	656	597	-	822	749	-	-	-	-	-	-	-
Stage 2	689	741	-	559	556	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	18.4	12.9	0.3	1.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1244	-	-	389	567	1409	-	-
HCM Lane V/C Ratio	0.005	-	-	0.313	0.196	0.047	-	-
HCM Control Delay (s/veh)	7.9	-	-	18.4	12.9	7.7	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	1.3	0.7	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	668	8	5	760	5	21	5	29	11	4	4
Future Volume (vph)	4	668	8	5	760	5	21	5	29	11	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1823	0	0	1808	0	0	1663	0	0	1678	0
Flt Permitted								0.981			0.973	
Satd. Flow (perm)	0	1823	0	0	1808	0	0	1663	0	0	1678	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			1172			817	
Travel Time (s)		21.1			20.8			32.0			22.3	
Confl. Peds. (#/hr)			6	6					2	2		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.81	0.84	0.84	0.79	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	4%	4%	4%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	840	0	0	974	0	0	66	0	0	23	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.6%	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	4	668	8	5	760	5	21	5	29	11	4	4
Future Vol, veh/h	4	668	8	5	760	5	21	5	29	11	4	4
Conflicting Peds, #/hr	0	0	6	6	0	0	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	84	81	84	84	79	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	7	7	7
Mvmt Flow	5	825	10	6	962	6	25	6	35	13	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	968	0	0	841	0	0	1828	1826	838	1840	1828	965
Stage 1	-	-	-	-	-	-	846	846	-	977	977	-
Stage 2	-	-	-	-	-	-	982	980	-	863	851	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.14	6.54	6.24	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.17	5.57	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.536	4.036	3.336	3.563	4.063	3.363
Pot Cap-1 Maneuver	704	-	-	782	-	-	58	76	363	56	74	303
Stage 1	-	-	-	-	-	-	354	376	-	295	323	-
Stage 2	-	-	-	-	-	-	297	325	-	342	370	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	704	-	-	778	-	-	53	73	360	46	71	303
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	73	-	46	71	-
Stage 1	-	-	-	-	-	-	347	369	-	291	318	-
Stage 2	-	-	-	-	-	-	283	319	-	300	363	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.1	90.6	93.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	101	704	-	-	778	-	-	62
HCM Lane V/C Ratio	0.648	0.007	-	-	0.008	-	-	0.365
HCM Control Delay (s/veh)	90.6	10.1	0	-	9.7	0	-	93.2
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q (veh)	3.2	0	-	-	0	-	-	1.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	4	4	4	4	12	4	109	4	25	72	42
Future Volume (vph)	110	4	4	4	4	12	4	109	4	25	72	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1772	0	0	1691	0	0	1859	1583	0	1839	1583
Flt Permitted		0.955			0.991			0.998			0.987	
Satd. Flow (perm)	0	1772	0	0	1691	0	0	1859	1583	0	1839	1583
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		608			894			362			1023	
Travel Time (s)		16.6			24.4			9.9			27.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	0	0	21	0	0	125	4	0	108	47
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	110	4	4	4	4	12	4	109	4	25	72	42
Future Vol, veh/h	110	4	4	4	4	12	4	109	4	25	72	42
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	-	-	-	-	-	-	-	-	0	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	122	4	4	4	4	13	4	121	4	28	80	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	276	269	80	293	312	121	127	0	0	125	0	0
Stage 1	136	136	-	129	129	-	-	-	-	-	-	-
Stage 2	140	133	-	164	183	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	676	637	980	659	603	930	1459	-	-	1462	-	-
Stage 1	867	784	-	875	789	-	-	-	-	-	-	-
Stage 2	863	786	-	838	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	650	622	980	641	589	930	1459	-	-	1462	-	-
Mov Cap-2 Maneuver	650	622	-	641	589	-	-	-	-	-	-	-
Stage 1	864	768	-	872	787	-	-	-	-	-	-	-
Stage 2	843	784	-	812	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.9	9.8	0.3	1.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1459	-	-	656	771	1462	-	-
HCM Lane V/C Ratio	0.003	-	-	0.2	0.029	0.019	-	-
HCM Control Delay (s/veh)	7.5	0	-	11.9	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.7	0.1	0.1	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	4	21	21	4	55
Future Volume (vph)	55	4	21	21	4	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1848	0	0	1818	1621	0
Flt Permitted				0.976	0.997	
Satd. Flow (perm)	1848	0	0	1818	1621	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	722			608	624	
Travel Time (s)	19.7			16.6	17.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	46	65	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

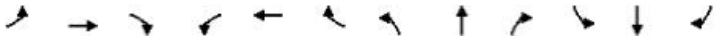
Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	4	21	21	4	55
Future Vol, veh/h	55	4	21	21	4	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	4	23	23	4	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	132	63
Stage 1	-	-	-	-	63	-
Stage 2	-	-	-	-	69	-
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	-	-	1537	-	862	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	849	1002
Mov Cap-2 Maneuver	-	-	-	-	849	-
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	940	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	3.7	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	990	-	-	1537	-
HCM Lane V/C Ratio	0.066	-	-	0.015	-
HCM Control Delay (s/veh)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.2	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	21	4	4	4	22	55	4	4	4
Future Volume (vph)	4	4	4	21	4	4	4	22	55	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1750	0	0	1765	0	0	1686	0	0	1750	0
Flt Permitted		0.984			0.964			0.998			0.984	
Satd. Flow (perm)	0	1750	0	0	1765	0	0	1686	0	0	1750	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		592			722			731			1172	
Travel Time (s)		16.1			19.7			19.9			32.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	31	0	0	89	0	0	12	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.9%		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	4	4	4	21	4	4	4	22	55	4	4	4
Future Vol, veh/h	4	4	4	21	4	4	4	22	55	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	23	4	4	4	24	61	4	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	8	0	0	70	68	6	109	68	6
Stage 1	-	-	-	-	-	-	14	14	-	52	52	-
Stage 2	-	-	-	-	-	-	56	54	-	57	16	-
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	1612	-	-	1612	-	-	922	823	1077	870	823	1077
Stage 1	-	-	-	-	-	-	1006	884	-	961	852	-
Stage 2	-	-	-	-	-	-	956	850	-	955	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1612	-	-	904	810	1077	792	810	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	792	810	-
Stage 1	-	-	-	-	-	-	1004	882	-	959	840	-
Stage 2	-	-	-	-	-	-	934	838	-	874	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.4	5.3	9	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	980	1612	-	-	1612	-	-	876
HCM Lane V/C Ratio	0.092	0.003	-	-	0.014	-	-	0.015
HCM Control Delay (s/veh)	9	7.2	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.3	0	-	-	0	-	-	0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	4	0	109	21	51
Future Volume (vph)	0	4	0	109	21	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	0	1611	0	3539	3161	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3161	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	462			400	362	
Travel Time (s)	12.6			10.9	9.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	0	121	80	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

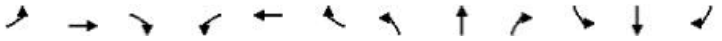
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	109	21	51
Future Vol, veh/h	0	4	0	109	21	51
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	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	121	23	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	40	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1022	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1022	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	1022	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s/veh)	-	8.5	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q (veh)	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	0	4	0	0	0	4	4	0	4	4	21
Future Volume (vph)	109	0	4	0	0	0	4	4	0	4	4	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1770	0	0	0	0	1770	3539	0	1770	3086	0
Flt Permitted		0.954					0.950			0.950		
Satd. Flow (perm)	0	1770	0	0	0	0	1770	3539	0	1770	3086	0
Link Speed (mph)		25			30			25			25	
Link Distance (ft)		570			117			839			400	
Travel Time (s)		15.5			2.7			22.9			10.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	0	0	4	4	0	4	27	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	0	4	0	0	0	4	4	0	4	4	21
Future Vol, veh/h	109	0	4	0	0	0	4	4	0	4	4	21
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	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	121	0	4	0	0	0	4	4	0	4	4	23

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	34	36	14			27	0	-	4	0	0
Stage 1	24	24	-			-	-	-	-	-	-
Stage 2	10	12	-			-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94			4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-			-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32			2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	975	856	1062			1585	-	0	1616	-	-
Stage 1	995	875	-			-	-	0	-	-	-
Stage 2	1011	885	-			-	-	0	-	-	-
Platoon blocked, %							-			-	-
Mov Cap-1 Maneuver	970	0	1062			1585	-	-	1616	-	-
Mov Cap-2 Maneuver	970	0	-			-	-	-	-	-	-
Stage 1	992	0	-			-	-	-	-	-	-
Stage 2	1009	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.2	3.6	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1585	-	973	1616	-	-
HCM Lane V/C Ratio	0.003	-	0.129	0.003	-	-
HCM Control Delay (s/veh)	7.3	-	9.2	7.2	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0.4	0	-	-

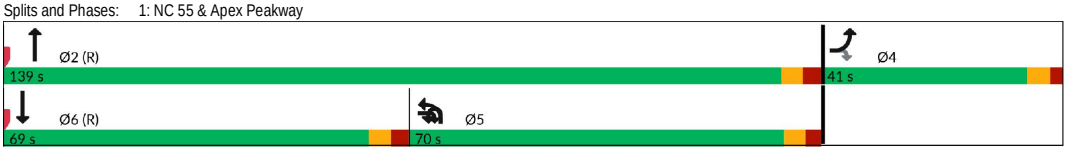
Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	120	605	8	772	829	945	142
Future Volume (vph)	120	605	8	772	829	945	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	-1%				1%	-1%	
Storage Length (ft)	0	225		0			0
Storage Lanes	1	1		2			0
Taper Length (ft)	25			100			
Satd. Flow (prot)	1761	2773	0	3416	1853	5000	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1761	2773	0	3414	1853	5000	0
Right Turn on Red		No					No
Satd. Flow (RTOR)							
Link Speed (mph)	35				35	35	
Link Distance (ft)	1046				702	705	
Travel Time (s)	20.4				13.7	13.7	
Confl. Peds. (#/hr)				1			1
Confl. Bikes (#/hr)							
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	122	617	0	796	846	1109	0
Turn Type	Prot	pm+ov	Prot	Prot	NA	NA	
Protected Phases	4	5!	5!	5	2	6	
Permitted Phases		4					
Detector Phase	4	5	5	5	2	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	10.0	10.0	
Minimum Split (s)	37.0	15.0	15.0	15.0	18.0	51.0	
Total Split (s)	41.0	70.0	70.0	70.0	139.0	69.0	
Total Split (%)	22.8%	38.9%	38.9%	38.9%	77.2%	38.3%	
Yellow Time (s)	3.9	3.8	3.8	3.8	3.8	3.8	
All-Red Time (s)	2.1	2.6	2.6	2.6	3.1	3.1	
Lost Time Adjust (s)	-1.0	-1.4		-1.4	-1.9	-1.9	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	
Lead/Lag		Lag	Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	
Act Effct Green (s)	17.9	87.9		65.0	152.1	82.1	
Actuated g/C Ratio	0.10	0.49		0.36	0.85	0.46	
v/c Ratio	0.70	0.46		0.65	0.54	0.49	
Control Delay (s/veh)	79.6	22.7		50.9	5.8	35.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	79.6	22.7		50.9	5.8	35.6	
LOS	E	C		D	A	D	
Approach Delay (s/veh)	32.1				27.7	35.6	
Approach LOS	C				C	D	
Queue Length 50th (ft)	138	242		405	237	333	
Queue Length 95th (ft)	193	265		479	387	403	
Internal Link Dist (ft)	966				622	625	
Turn Bay Length (ft)		225					
Base Capacity (vph)	352	1353		1233	1566	2281	
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	0.35	0.46		0.65	0.54	0.49	

Intersection Summary	
Area Type:	Other
Cycle Length: 180	
Actuated Cycle Length: 180	

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 31.1	Intersection LOS: C
Intersection Capacity Utilization 91.7%	ICU Level of Service F
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 1: NC 55 & Apex Peakway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	58	76	148	56	16	14	4	118	712	200	5	54	765	74
Future Volume (vph)	58	76	148	56	16	14	4	118	712	200	5	54	765	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			2%				4%				2%	
Storage Length (ft)	0		0	0		0		125		0		250		0
Storage Lanes	0		0	0		0		1		0		1		0
Taper Length (ft)	25			25				100				100		
Satd. Flow (prot)	0	1722	0	0	1746	0	0	1734	3339	0	0	1752	3458	0
Flt Permitted		0.914			0.547			0.284				0.121		
Satd. Flow (perm)	0	1590	0	0	987	0	0	518	3339	0	0	223	3458	0
Right Turn on Red			No			No				No				No
Satd. Flow (RTOR)														
Link Speed (mph)		35			35				35				35	
Link Distance (ft)		1773			683				920				1046	
Travel Time (s)		34.5			13.3				17.9				20.4	
Confl. Peds. (#/hr)														
Confl. Bikes (#/hr)										1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)														
Mid-Block Traffic (%)		0%			0%				0%				0%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	320	0	0	98	0	0	139	1036	0	0	67	953	0
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			8		5	5	2		1	1	6	
Permitted Phases	4			8			2	2			6	6		
Detector Phase	4	4		8	8		5	5	2		1	1	6	
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	10.0		7.0	7.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	22.0		14.0	14.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		14.0	14.0	43.0		14.0	14.0	43.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		15.6%	15.6%	47.8%		15.6%	15.6%	47.8%	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.0	3.0	3.6		3.0	3.0	3.7	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.6	2.6	2.0		2.9	2.9	2.2	
Lost Time Adjust (s)		-1.6			-1.2			-0.6	-0.6			-0.9	-0.9	
Total Lost Time (s)		5.0			5.0			5.0	5.0			5.0	5.0	
Lead/Lag							Lag	Lag	Lag		Lead	Lead	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	C-Max		None	None	C-Max	
Act Effct Green (s)		23.2			23.2			46.2	46.2			42.8	42.8	
Actuated g/C Ratio		0.26			0.26			0.51	0.51			0.48	0.48	
v/c Ratio		0.78			0.39			0.36	0.60			0.27	0.58	
Control Delay (s/veh)		44.5			30.9			13.4	11.9			14.8	10.6	
Queue Delay		0.0			0.0			0.0	0.0			0.0	0.0	
Total Delay (s/veh)		44.5			30.9			13.4	11.9			14.8	10.6	
LOS		D			C			B	B			B	B	
Approach Delay (s/veh)		44.5			30.9				12.1				10.9	
Approach LOS		D			C				B				B	
Queue Length 50th (ft)		167			45			22	132			11	82	
Queue Length 95th (ft)		240			84			m34	m204			m41	132	
Internal Link Dist (ft)		1693			603				840				966	
Turn Bay Length (ft)								125				250		
Base Capacity (vph)		494			307			387	1714			259	1645	
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		0.65			0.32			0.36	0.60			0.26	0.58	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 15 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 16.3	Intersection LOS: B
Intersection Capacity Utilization 60.5%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Apex Peakway & S Hughes Street

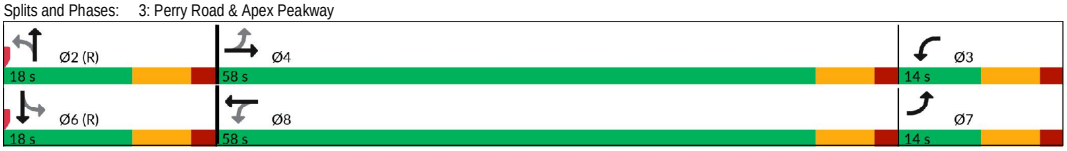
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	732	104	77	544	8	96	36	70	23	34	80
Future Volume (vph)	37	732	104	77	544	8	96	36	70	23	34	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1752	1805	0	1770	1859	0	1736	1617	0	1770	1640	0
Flt Permitted	0.279			0.076			0.604			0.634		
Satd. Flow (perm)	515	1805	0	142	1859	0	1100	1617	0	1174	1640	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			1			84			96	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1068			1211			1023			1934	
Travel Time (s)		20.8			23.6			27.9			52.7	
Confl. Peds. (#/hr)			2	2			1		2	2		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	1007	0	93	665	0	116	127	0	28	137	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	14.0	17.0		14.0	17.0		14.0	14.0		14.0	14.0	
Total Split (s)	14.0	58.0		14.0	58.0		18.0	18.0		18.0	18.0	
Total Split (%)	15.6%	64.4%		15.6%	64.4%		20.0%	20.0%		20.0%	20.0%	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag	Lead		Lag	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	60.1	52.6		59.6	52.4		16.2	16.2		16.2	16.2	
Actuated g/C Ratio	0.67	0.58		0.66	0.58		0.18	0.18		0.18	0.18	
v/c Ratio	0.09	0.95		0.36	0.62		0.59	0.35		0.13	0.37	
Control Delay (s/veh)	2.1	30.4		16.6	7.0		50.6	17.3		35.3	14.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	2.1	30.4		16.6	7.0		50.6	17.3		35.3	14.0	
LOS	A	C		B	A		D	B		D	B	
Approach Delay (s/veh)		29.2			8.2			33.2			17.6	
Approach LOS		C			A			C			B	
Queue Length 50th (ft)	2	452		37	159		64	22		14	21	
Queue Length 95th (ft)	m4	#674		48	73		#131	63		m29	46	
Internal Link Dist (ft)		988			1131			943			1854	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	508	1068		256	1153		197	360		211	374	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.94		0.36	0.58		0.59	0.35		0.13	0.37	

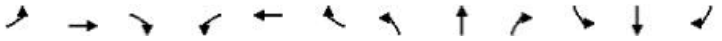
Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 24 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 21.6	Intersection LOS: C
Intersection Capacity Utilization 75.2%	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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Perry Road & Apex Peakway





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	509	15	166	446	51	59	104	232	94	250	39
Future Volume (vph)	41	509	15	166	446	51	59	104	232	94	250	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	200		0	0		150	0		175
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	100			100			100			150		
Satd. Flow (prot)	1770	1854	0	1770	1835	0	0	1829	1583	0	1839	1583
Flt Permitted	0.470			0.228				0.525			0.803	
Satd. Flow (perm)	875	1854	0	424	1835	0	0	977	1544	0	1494	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1467			1082			601			1478	
Travel Time (s)		28.6			21.1			11.7			28.8	
Confl. Peds. (#/hr)			5	5			4		4	4		4
Confl. Bikes (#/hr)												2
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	552	0	175	523	0	0	171	244	0	362	41
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0		7.0	10.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	17.0	17.0		14.0	17.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	42.0	42.0		14.0	56.0		34.0	34.0	14.0	34.0	34.0	34.0
Total Split (%)	46.7%	46.7%		15.6%	62.2%		37.8%	37.8%	15.6%	37.8%	37.8%	37.8%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	39.5	39.5		54.0	54.0			26.0	35.5		26.0	26.0
Actuated g/C Ratio	0.44	0.44		0.60	0.60			0.29	0.39		0.29	0.29
v/c Ratio	0.11	0.68		0.44	0.48			0.61	0.40		0.84	0.09
Control Delay (s/veh)	17.4	26.2		6.9	5.6			36.9	18.0		47.8	22.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	17.4	26.2		6.9	5.6			36.9	18.0		47.8	22.5
LOS	B	C		A	A			D	B		D	C
Approach Delay (s/veh)		25.6			5.9			25.8			45.3	
Approach LOS		C			A			C			D	
Queue Length 50th (ft)	15	257		14	62			81	82		186	16
Queue Length 95th (ft)	37	381		51	152			147	136		#315	40
Internal Link Dist (ft)		1387			1002			521			1398	
Turn Bay Length (ft)	175			200					150			175
Base Capacity (vph)	384	814		395	1100			314	612		481	495
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.11	0.68		0.44	0.48			0.54	0.40		0.75	0.08

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 22.9	Intersection LOS: C
Intersection Capacity Utilization 80.7%	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: Tingen Road & Apex Peakway

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	70	134	25	71	14	97	213	41	9	253	50
Future Volume (vph)	74	70	134	25	71	14	97	213	41	9	253	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1719	0	0	1792	0	0	1835	1583	0	1820	0
Flt Permitted		0.987			0.989			0.985			0.999	
Satd. Flow (perm)	0	1719	0	0	1792	0	0	1835	1583	0	1820	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1425			1063			1503			855	
Travel Time (s)		38.9			29.0			29.3			16.7	
Confl. Peds. (#/hr)	1		5	5		1	2		3	3		2
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	0	115	0	0	323	43	0	325	0
Sign Control		Stop			Stop			Stop			Stop	

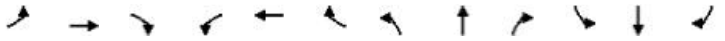
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	70	134	25	71	14	97	213	41	9	253	50
Future Vol, veh/h	74	70	134	25	71	14	97	213	41	9	253	50
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	77	73	140	26	74	15	101	222	43	9	264	52
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	14.6	11.6	16.8	15.8
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	0%	27%	23%	3%
Vol Thru, %	69%	0%	25%	65%	81%
Vol Right, %	0%	100%	48%	13%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	310	41	278	110	312
LT Vol	97	0	74	25	9
Through Vol	213	0	70	71	253
RT Vol	0	41	134	14	50
Lane Flow Rate	323	43	290	115	325
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.579	0.066	0.486	0.213	0.54
Departure Headway (Hd)	6.578	5.706	6.041	6.704	5.981
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	552	632	599	536	605
Service Time	4.278	3.406	4.056	4.737	4.001
HCM Lane V/C Ratio	0.585	0.068	0.484	0.215	0.537
HCM Control Delay, s/veh	17.9	8.8	14.6	11.6	15.8
HCM Lane LOS	C	A	B	B	C
HCM 95th-tile Q	3.7	0.2	2.7	0.8	3.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	33	12	18	42	108	7	159	16	78	245	67
Future Volume (vph)	66	33	12	18	42	108	7	159	16	78	245	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	200		0	225		625
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1782	0	0	1692	0	1770	1837	0	1770	1863	1583
Flt Permitted		0.971			0.995		0.950			0.950		
Satd. Flow (perm)	0	1782	0	0	1692	0	1770	1837	0	1770	1863	1583
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1934			833			1773			1503	
Travel Time (s)		52.7			22.7			34.5			29.3	
Confl. Peds. (#/hr)	1		2	2		1			1	1		
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	118	0	0	179	0	7	186	0	83	261	71
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	33	12	18	42	108	7	159	16	78	245	67
Future Vol, veh/h	66	33	12	18	42	108	7	159	16	78	245	67
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	225	-	625
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	2	2	2	2	2	2
Mvmt Flow	70	35	13	19	45	115	7	169	17	83	261	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	700	628	263	682	691	180	332	0	0	187	0	0
Stage 1	427	427	-	193	193	-	-	-	-	-	-	-
Stage 2	273	201	-	489	498	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	354	400	776	364	368	863	1227	-	-	1387	-	-
Stage 1	606	585	-	809	741	-	-	-	-	-	-	-
Stage 2	733	735	-	561	544	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	262	373	775	315	343	861	1227	-	-	1386	-	-
Mov Cap-2 Maneuver	262	373	-	315	343	-	-	-	-	-	-	-
Stage 1	602	550	-	803	736	-	-	-	-	-	-	-
Stage 2	593	730	-	485	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	23.4	14.6	0.3	1.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1227	-	-	312	551	1386	-	-
HCM Lane V/C Ratio	0.006	-	-	0.378	0.324	0.06	-	-
HCM Control Delay (s/veh)	8	-	-	23.4	14.6	7.8	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	1.7	1.4	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	831	24	16	685	20	15	4	17	16	4	4
Future Volume (vph)	7	831	24	16	685	20	15	4	17	16	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1837	0	0	1853	0	0	1707	0	0	1762	0
Flt Permitted					0.999			0.979			0.967	
Satd. Flow (perm)	0	1837	0	0	1853	0	0	1707	0	0	1762	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1082			1068			1172			817	
Travel Time (s)		21.1			20.8			32.0			22.3	
Confl. Peds. (#/hr)	1		5	5		1	4		2	2		4
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	917	0	0	767	0	0	38	0	0	25	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.8%	ICU Level of Service B	
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	7	831	24	16	685	20	15	4	17	16	4	4
Future Vol, veh/h	7	831	24	16	685	20	15	4	17	16	4	4
Conflicting Peds, #/hr	1	0	5	5	0	1	4	0	2	2	0	4
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, %	3	3	3	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	884	26	17	729	21	16	4	18	17	4	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	751	0	0	915	0	0	1698	1701	904	1699	1704	745
Stage 1	-	-	-	-	-	-	916	916	-	775	775	-
Stage 2	-	-	-	-	-	-	782	785	-	924	929	-
Critical Hdwy	4.13	-	-	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	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	854	-	-	745	-	-	73	92	335	73	91	414
Stage 1	-	-	-	-	-	-	326	351	-	391	408	-
Stage 2	-	-	-	-	-	-	387	404	-	323	346	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	853	-	-	741	-	-	66	86	333	63	85	412
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	86	-	63	85	-
Stage 1	-	-	-	-	-	-	319	343	-	384	392	-
Stage 2	-	-	-	-	-	-	363	388	-	296	338	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.2	53.6	73.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	111	853	-	-	741	-	-	77
HCM Lane V/C Ratio	0.345	0.009	-	-	0.023	-	-	0.332
HCM Control Delay (s/veh)	53.6	9.3	0	-	10	0	-	73.4
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q (veh)	1.4	0	-	-	0.1	-	-	1.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	4	4	4	4	23	4	60	4	8	106	88
Future Volume (vph)	92	4	4	4	4	23	4	60	4	8	106	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1772	0	0	1661	0	0	1857	1583	0	1855	1583
Flt Permitted		0.956			0.994			0.997			0.996	
Satd. Flow (perm)	0	1772	0	0	1661	0	0	1857	1583	0	1855	1583
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		608			894			362			1023	
Travel Time (s)		16.6			24.4			9.9			27.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	34	0	0	71	4	0	127	98
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.1%		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	92	4	4	4	4	23	4	60	4	8	106	88
Future Vol, veh/h	92	4	4	4	4	23	4	60	4	8	106	88
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	-	-	-	-	-	-	-	-	0	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	4	4	4	4	26	4	67	4	9	118	98

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	215	118	264	309	67	216	0	0	71	0	0
Stage 1	136	136	-	75	75	-	-	-	-	-	-	-
Stage 2	92	79	-	189	234	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	727	683	934	689	605	997	1354	-	-	1529	-	-
Stage 1	867	784	-	934	833	-	-	-	-	-	-	-
Stage 2	915	829	-	813	711	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	699	676	934	677	599	997	1354	-	-	1529	-	-
Mov Cap-2 Maneuver	699	676	-	677	599	-	-	-	-	-	-	-
Stage 1	864	779	-	931	831	-	-	-	-	-	-	-
Stage 2	884	827	-	799	706	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.1	9.3	0.5	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1354	-	-	705	869	1529	-	-
HCM Lane V/C Ratio	0.003	-	-	0.158	0.04	0.006	-	-
HCM Control Delay (s/veh)	7.7	0	-	11.1	9.3	7.4	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.6	0.1	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	30	4	32	56	4	62
Future Volume (vph)	30	4	32	56	4	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1835	0	0	1829	1619	0
Flt Permitted				0.982	0.997	
Satd. Flow (perm)	1835	0	0	1829	1619	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	722			608	624	
Travel Time (s)	19.7			16.6	17.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	37	0	0	98	73	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

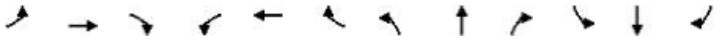
Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	30	4	32	56	4	62
Future Vol, veh/h	30	4	32	56	4	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	4	36	62	4	69

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	37	0	169	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	134	-
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	-	-	1574	-	821	1038
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	892	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1574	-	801	1038
Mov Cap-2 Maneuver	-	-	-	-	801	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	871	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.7	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1020	-	-	1574	-
HCM Lane V/C Ratio	0.072	-	-	0.023	-
HCM Control Delay (s/veh)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.2	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	4	4	56	4	4	4	12	30	4	9	4
Future Volume (vph)	4	4	4	56	4	4	4	12	30	4	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1750	0	0	1770	0	0	1690	0	0	1787	0
Flt Permitted		0.984			0.958			0.996			0.989	
Satd. Flow (perm)	0	1750	0	0	1770	0	0	1690	0	0	1787	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		592			722			731			1172	
Travel Time (s)		16.1			19.7			19.9			32.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	70	0	0	50	0	0	18	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.1%	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	4	4	4	56	4	4	4	12	30	4	9	4
Future Vol, veh/h	4	4	4	56	4	4	4	12	30	4	9	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	62	4	4	4	13	33	4	10	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	8	0	0	151	146	6	167	146	6
Stage 1	-	-	-	-	-	-	14	14	-	130	130	-
Stage 2	-	-	-	-	-	-	137	132	-	37	16	-
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	1612	-	-	1612	-	-	816	745	1077	797	745	1077
Stage 1	-	-	-	-	-	-	1006	884	-	874	789	-
Stage 2	-	-	-	-	-	-	866	787	-	978	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1612	-	-	779	714	1077	737	714	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	779	714	-	737	714	-
Stage 1	-	-	-	-	-	-	1004	882	-	872	758	-
Stage 2	-	-	-	-	-	-	818	756	-	932	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	2.4	6.4	9.1	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	924	1612	-	-	1612	-	-	782
HCM Lane V/C Ratio	0.055	0.003	-	-	0.039	-	-	0.024
HCM Control Delay (s/veh)	9.1	7.2	0	-	7.3	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.2	0	-	-	0.1	-	-	0.1

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	4	0	60	56	50
Future Volume (vph)	0	4	0	60	56	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	0	1611	0	3539	3288	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3288	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	462			400	362	
Travel Time (s)	12.6			10.9	9.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	0	67	118	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

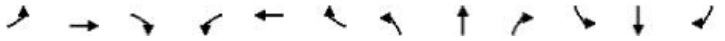
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	60	56	50
Future Vol, veh/h	0	4	0	60	56	50
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	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	67	62	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	59	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	994	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	994	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	994	-	-
HCM Lane V/C Ratio	-	0.004	-	-
HCM Control Delay (s/veh)	-	8.6	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q (veh)	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	0	4	0	0	0	4	4	0	4	4	56
Future Volume (vph)	60	0	4	0	0	0	4	4	0	4	4	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1765	0	0	0	0	1770	3539	0	1770	3040	0
Flt Permitted		0.955					0.950			0.950		
Satd. Flow (perm)	0	1765	0	0	0	0	1770	3539	0	1770	3040	0
Link Speed (mph)		25			30			25			25	
Link Distance (ft)		570			130			839			400	
Travel Time (s)		15.5			3.0			22.9			10.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	0	0	0	0	4	4	0	4	66	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	0	4	0	0	0	4	4	0	4	4	56
Future Vol, veh/h	60	0	4	0	0	0	4	4	0	4	4	56
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	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	0	4	0	0	0	4	4	0	4	4	62

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	53	55	33			66	0	-	4	0	0
Stage 1	43	43	-			-	-	-	-	-	-
Stage 2	10	12	-			-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94			4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-			-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32			2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	949	836	1033			1534	-	0	1616	-	-
Stage 1	974	858	-			-	-	0	-	-	-
Stage 2	1011	885	-			-	-	0	-	-	-
Platoon blocked, %							-			-	-
Mov Cap-1 Maneuver	944	0	1033			1534	-	-	1616	-	-
Mov Cap-2 Maneuver	944	0	-			-	-	-	-	-	-
Stage 1	971	0	-			-	-	-	-	-	-
Stage 2	1009	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.1	3.7	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1534	-	949	1616	-	-
HCM Lane V/C Ratio	0.003	-	0.075	0.003	-	-
HCM Control Delay (s/veh)	7.4	-	9.1	7.2	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0.2	0	-	-

SimTraffic Reports

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	134	149	152	676	688	692	249	342	354
Average Queue (ft)	51	63	75	487	471	382	142	214	182
95th Queue (ft)	105	119	135	784	822	856	262	326	356
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				25	42	37			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)							1	19	
Queuing Penalty (veh)							3	45	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	1418	197	96	136	217	350	976	981
Average Queue (ft)	711	67	37	43	101	130	672	652
95th Queue (ft)	1608	169	79	108	184	393	1251	1273
Link Distance (ft)	1693	637		864	864		938	938
Upstream Blk Time (%)	3						32	33
Queuing Penalty (veh)	5						130	132
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	0		0	65	
Queuing Penalty (veh)			1	0		0	36	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	WB	B30	B29	B29	NB	SB
Directions Served	LTR	LTR	T	T		LTR	LTR
Maximum Queue (ft)	73	1264	785	907	901	228	363
Average Queue (ft)	10	979	539	606	587	69	130
95th Queue (ft)	42	1747	1088	1263	1258	256	356
Link Distance (ft)	1010	1151	671	864	864	2235	1855
Upstream Blk Time (%)		72	68	36	42		
Queuing Penalty (veh)		645	600	161	184		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	LT	R
Maximum Queue (ft)	275	1481	1036	170	104	26
Average Queue (ft)	165	1385	1027	50	28	2
95th Queue (ft)	384	1687	1082	115	73	14
Link Distance (ft)		1428	1022	527	1446	
Upstream Blk Time (%)		83	53			
Queuing Penalty (veh)		0	357			
Storage Bay Dist (ft)	175					175
Storage Blk Time (%)		100			0	
Queuing Penalty (veh)		64			0	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	111	64	80	54	111
Average Queue (ft)	58	30	40	16	48
95th Queue (ft)	91	54	67	43	83
Link Distance (ft)	1395	1017	1431		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	76	107	24	5	59	100	7
Average Queue (ft)	22	40	1	0	7	12	0
95th Queue (ft)	57	97	11	4	63	116	4
Link Distance (ft)	1855	792		1693		1431	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200		225		625
Storage Blk Time (%)						2	
Queuing Penalty (veh)						2	

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	9	1026	190	88
Average Queue (ft)	1	955	71	26
95th Queue (ft)	7	1276	194	80
Link Distance (ft)	1022	1010	485	788
Upstream Blk Time (%)		50		
Queuing Penalty (veh)		339		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 2703

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	213	318	293	660	659	597	250	344	352
Average Queue (ft)	100	174	172	546	525	339	128	202	162
95th Queue (ft)	180	267	257	740	752	806	280	326	300
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				15	20	20			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		4	3				3	21	
Queuing Penalty (veh)		13	10				8	65	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	483	115	110	207	265	349	615	601
Average Queue (ft)	206	53	49	69	141	111	371	306
95th Queue (ft)	438	100	91	158	232	344	655	616
Link Distance (ft)	1693	637		864	864		938	938
Upstream Blk Time (%)							0	1
Queuing Penalty (veh)							1	3
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	1		0	20	
Queuing Penalty (veh)			1	1		0	12	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	WB	B30	B29	B29	NB	SB
Directions Served	LTR	LTR	T	T		LTR	LTR
Maximum Queue (ft)	107	1256	773	846	756	149	1004
Average Queue (ft)	12	676	305	272	215	54	374
95th Queue (ft)	54	1613	896	874	792	156	1029
Link Distance (ft)	1010	1151	671	864	864	2235	1855
Upstream Blk Time (%)		38	31	5	6		
Queuing Penalty (veh)		330	264	22	27		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	LTR	LT	R
Maximum Queue (ft)	275	1479	1038	78	99	29
Average Queue (ft)	152	1332	985	26	35	3
95th Queue (ft)	375	1781	1203	61	76	17
Link Distance (ft)		1428	1022	539	1446	
Upstream Blk Time (%)		78	35			
Queuing Penalty (veh)		0	212			
Storage Bay Dist (ft)	175					175
Storage Blk Time (%)		99			0	
Queuing Penalty (veh)		41			0	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	126	70	103	54	128
Average Queue (ft)	62	34	52	23	58
95th Queue (ft)	99	58	84	48	97
Link Distance (ft)	1395	1017	1431		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			1	0	

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	62	91	27	2	45	3	3
Average Queue (ft)	26	46	1	0	10	0	0
95th Queue (ft)	49	76	12	2	35	2	2
Link Distance (ft)	1855	792		1693		1431	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200		225		625
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	27	1027	201	123
Average Queue (ft)	2	770	69	33
95th Queue (ft)	14	1422	185	99
Link Distance (ft)	1022	1010	485	788
Upstream Blk Time (%)		26		
Queuing Penalty (veh)		165		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 1176

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	124	225	214	556	522	376	235	279	212
Average Queue (ft)	54	104	109	330	286	126	108	177	103
95th Queue (ft)	106	182	183	533	511	364	223	255	179
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				2	3	2			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		0	0				1	12	
Queuing Penalty (veh)		1	0				1	29	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	238	99	110	221	271	193	419	348
Average Queue (ft)	113	40	43	56	121	34	156	105
95th Queue (ft)	194	83	92	147	224	120	356	272
Link Distance (ft)	1693	637		864	864		938	938
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	1			4	
Queuing Penalty (veh)			1	1			2	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	WB	B29	B29	NB	SB
Directions Served	LTR	LTR	T		LTR	LTR
Maximum Queue (ft)	169	132	185	133	101	78
Average Queue (ft)	35	21	10	5	36	32
95th Queue (ft)	106	84	88	77	81	66
Link Distance (ft)	1009	1151	864	864	2234	1855
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	274	877	273	367	515	250	293	172
Average Queue (ft)	79	336	79	165	247	143	128	27
95th Queue (ft)	231	804	180	302	478	271	249	105
Link Distance (ft)		1428		1010	527		1446	
Upstream Blk Time (%)					5			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)	175		200			150		175
Storage Blk Time (%)		28	0	6	31	2	8	
Queuing Penalty (veh)		19	1	9	85	9	2	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	115	65	88	39	92
Average Queue (ft)	57	29	43	16	46
95th Queue (ft)	92	54	72	41	73
Link Distance (ft)	1395	1017	1431		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	R
Maximum Queue (ft)	58	67	15	9	27	7
Average Queue (ft)	24	35	1	0	5	0
95th Queue (ft)	47	58	9	6	22	4
Link Distance (ft)	1855	792		1693		
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		225	625
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	78	68	67	50
Average Queue (ft)	3	5	24	17
95th Queue (ft)	28	33	56	45
Link Distance (ft)	1010	1009	479	782
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 161

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	227	332	305	664	675	679	249	369	359
Average Queue (ft)	115	195	196	589	581	463	135	203	156
95th Queue (ft)	196	292	280	749	768	907	285	322	295
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				27	31	35			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		7	6				2	21	
Queuing Penalty (veh)		21	19				7	66	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	338	110	123	243	358	347	480	448
Average Queue (ft)	174	51	50	88	165	83	304	236
95th Queue (ft)	289	97	99	196	291	283	502	434
Link Distance (ft)	1693	637		864	864		938	938
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	2		0	12	
Queuing Penalty (veh)			0	2		0	7	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	WB	B29	B29	NB	SB
Directions Served	LTR	LTR	T		LTR	LTR
Maximum Queue (ft)	221	91	267	140	64	108
Average Queue (ft)	34	6	18	5	19	43
95th Queue (ft)	126	42	133	73	49	80
Link Distance (ft)	1009	1151	864	864	2234	1855
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	132	317	219	320	242	184	702	255
Average Queue (ft)	27	174	54	130	96	77	352	84
95th Queue (ft)	85	280	129	267	187	138	774	265
Link Distance (ft)		1428		1010	539		1446	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	175		200			150		175
Storage Blk Time (%)		8	0	3	4	1	45	
Queuing Penalty (veh)		3	0	4	7	1	17	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	121	68	110	63	114
Average Queue (ft)	61	35	55	23	59
95th Queue (ft)	96	58	88	50	95
Link Distance (ft)	1395	1017	1431		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			1	0	

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	64	102	21	8	42	10	4
Average Queue (ft)	29	47	1	0	9	0	0
95th Queue (ft)	54	82	11	6	32	6	2
Link Distance (ft)	1855	792		1693		1431	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200		225		625
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	71	146	48	50
Average Queue (ft)	7	17	18	20
95th Queue (ft)	40	81	45	48
Link Distance (ft)	1010	1009	479	782
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 155

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	152	219	210	566	546	402	245	297	220
Average Queue (ft)	64	99	105	338	292	128	119	182	106
95th Queue (ft)	127	174	174	535	509	368	231	262	185
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				1	2	2			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		0	0				1	14	
Queuing Penalty (veh)		0	0				2	35	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	246	112	139	201	288	287	440	387
Average Queue (ft)	114	42	45	64	137	36	159	112
95th Queue (ft)	202	86	94	161	249	138	359	288
Link Distance (ft)	1693	637		864	864		938	938
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	1		0	5	
Queuing Penalty (veh)			0	1		0	3	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	WB	B29	B29	NB	SB
Directions Served	LTR	LTR	T		LTR	LTR
Maximum Queue (ft)	342	393	236	34	978	248
Average Queue (ft)	71	94	13	2	853	84
95th Queue (ft)	237	282	129	26	1143	232
Link Distance (ft)	1012	1151	864	864	964	1855
Upstream Blk Time (%)					43	
Queuing Penalty (veh)					98	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	275	1082	267	353	591	250	308	172
Average Queue (ft)	116	531	97	175	295	162	134	24
95th Queue (ft)	300	1132	187	299	604	294	249	94
Link Distance (ft)		1428		1010	568		1446	
Upstream Blk Time (%)		1			15			
Queuing Penalty (veh)		0			0			
Storage Bay Dist (ft)	175		200			150		175
Storage Blk Time (%)		45	0	5	36	3	9	
Queuing Penalty (veh)		29	3	11	109	11	3	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	118	60	88	43	103
Average Queue (ft)	57	27	46	16	49
95th Queue (ft)	93	51	72	41	82
Link Distance (ft)	1395	1017	1431		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			1	0	
Queuing Penalty (veh)			0	0	

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	R
Maximum Queue (ft)	77	77	17	10	38	7
Average Queue (ft)	29	36	1	0	5	0
95th Queue (ft)	54	62	9	7	24	4
Link Distance (ft)	1855	792		1693		
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		225	625
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	92	89	85	64
Average Queue (ft)	7	6	37	17
95th Queue (ft)	43	46	71	49
Link Distance (ft)	1010	1012	1093	782
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Perry Road & East-West Collector/Site Driveway 1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	479	86	270	35
Average Queue (ft)	206	21	104	3
95th Queue (ft)	520	63	300	17
Link Distance (ft)	552	865	300	964
Upstream Blk Time (%)	8		13	
Queuing Penalty (veh)	8		14	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Site Driveway 2 & East-West Collector

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	40	21	107
Average Queue (ft)	7	2	38
95th Queue (ft)	48	13	103
Link Distance (ft)	659	552	594
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Site Driveway 3/Shackleton Road & East-West Collector

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	2	6	58	27
Average Queue (ft)	0	0	30	8
95th Queue (ft)	3	5	49	28
Link Distance (ft)	550	659	701	1093
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Perry Road & Site Driveway 4

Movement	EB	NB
Directions Served	R	T
Maximum Queue (ft)	25	175
Average Queue (ft)	4	27
95th Queue (ft)	20	144
Link Distance (ft)	418	327
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Perry Road & Site Driveway 5

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	65	5
Average Queue (ft)	33	0
95th Queue (ft)	53	6
Link Distance (ft)	533	808
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 328

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	274	344	304	676	679	679	249	371	328
Average Queue (ft)	127	199	192	620	622	568	140	208	163
95th Queue (ft)	226	299	281	737	755	903	291	337	294
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				33	41	49			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		7	7				2	22	
Queuing Penalty (veh)		22	20				8	69	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	288	118	137	258	356	349	485	450
Average Queue (ft)	162	49	55	105	182	80	298	229
95th Queue (ft)	257	94	106	222	307	275	500	439
Link Distance (ft)	1693	637		864	864		938	938
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	2		0	11	
Queuing Penalty (veh)			0	3		0	7	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	WB	B30	B29	B29	NB	SB
Directions Served	LTR	LTR	T	T		LTR	LTR
Maximum Queue (ft)	516	704	73	252	60	970	631
Average Queue (ft)	71	139	6	17	2	707	263
95th Queue (ft)	308	486	100	123	42	1210	666
Link Distance (ft)	1012	1151	671	864	864	964	1855
Upstream Blk Time (%)		1				29	
Queuing Penalty (veh)		8				49	
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	213	410	209	324	229	192	848	275
Average Queue (ft)	36	214	69	120	93	94	483	111
95th Queue (ft)	123	345	147	245	177	167	940	313
Link Distance (ft)		1428		1010	563		1446	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	175		200			150		175
Storage Blk Time (%)		15		2	3	1	69	
Queuing Penalty (veh)		6		3	6	2	27	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	134	75	110	56	135
Average Queue (ft)	62	34	56	23	63
95th Queue (ft)	102	61	90	50	102
Link Distance (ft)	1395	1017	1431		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			1	0	

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	66	109	30	13	32	12	5
Average Queue (ft)	32	52	3	1	10	0	0
95th Queue (ft)	58	88	16	11	31	7	3
Link Distance (ft)	1855	792		1693		1431	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200		225		625
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	136	294	68	69
Average Queue (ft)	13	32	25	21
95th Queue (ft)	72	156	56	52
Link Distance (ft)	1010	1012	1093	782
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Perry Road & East-West Collector/Site Driveway 1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	307	120	151	12
Average Queue (ft)	118	38	43	0
95th Queue (ft)	356	129	182	6
Link Distance (ft)	552	865	300	964
Upstream Blk Time (%)	4		3	
Queuing Penalty (veh)	3		2	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Site Driveway 2 & East-West Collector

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	12	28	96
Average Queue (ft)	2	1	41
95th Queue (ft)	20	11	143
Link Distance (ft)	659	552	594
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Site Driveway 3/Shackleton Road & East-West Collector

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	12	53	27
Average Queue (ft)	1	23	13
95th Queue (ft)	8	47	34
Link Distance (ft)	659	701	1093
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Perry Road & Site Driveway 4

Movement	EB	NB
Directions Served	R	T
Maximum Queue (ft)	27	30
Average Queue (ft)	3	3
95th Queue (ft)	18	35
Link Distance (ft)	418	327
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Perry Road & Site Driveway 5

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	9
Average Queue (ft)	27	0
95th Queue (ft)	50	5
Link Distance (ft)	533	808
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 235

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	207	241	233	618	588	528	249	326	247
Average Queue (ft)	83	129	134	405	362	188	163	214	136
95th Queue (ft)	163	213	212	634	615	546	261	292	222
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)				5	6	7			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		1	0				2	22	
Queuing Penalty (veh)		2	1				5	54	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	241	114	130	213	285	298	533	508
Average Queue (ft)	118	44	49	50	120	46	188	142
95th Queue (ft)	205	93	107	147	234	162	419	360
Link Distance (ft)	1687	637		864	864		938	938
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			1	0		0	6	
Queuing Penalty (veh)			2	1		0	4	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	EB	WB	WB	B29	B29	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T		L	TR	L	TR
Maximum Queue (ft)	148	544	200	616	217	75	194	344	38	98
Average Queue (ft)	46	269	70	271	17	3	96	114	5	33
95th Queue (ft)	123	487	174	542	127	54	180	244	24	74
Link Distance (ft)		1006		1144	864	864		957		1850
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	50		100				100		100	
Storage Blk Time (%)	6	42	1	28			13	9		0
Queuing Penalty (veh)	42	20	9	19			21	11		0

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	269	1059	288	600	564	250	293	89
Average Queue (ft)	117	489	139	212	270	155	127	21
95th Queue (ft)	276	1096	283	562	542	287	243	75
Link Distance (ft)		1428		1010	568		1446	
Upstream Blk Time (%)		2		1	8			
Queuing Penalty (veh)		0		5	0			
Storage Bay Dist (ft)	175		200			150		175
Storage Blk Time (%)	5	41	12	7	32	5	6	
Queuing Penalty (veh)	23	27	68	15	100	19	2	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	115	63	101	40	98
Average Queue (ft)	60	28	48	16	51
95th Queue (ft)	93	52	79	41	81
Link Distance (ft)	1395	1017	1425		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			1		
Queuing Penalty (veh)			0		

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	90	78	21	2	34	7	7
Average Queue (ft)	35	37	1	0	6	0	0
95th Queue (ft)	68	63	10	2	26	5	4
Link Distance (ft)	1850	792		1687		1425	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200		225		625
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	102	207	84	55
Average Queue (ft)	5	19	37	17
95th Queue (ft)	47	181	77	47
Link Distance (ft)	1010	1006	1093	782
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Perry Road & East-West Collector/Site Driveway 1

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	R
Maximum Queue (ft)	78	28	4	40	10
Average Queue (ft)	37	11	0	4	0
95th Queue (ft)	63	31	4	23	10
Link Distance (ft)	534	848	297	957	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					50
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Intersection: 10: Site Driveway 2 & East-West Collector

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	18	50
Average Queue (ft)	1	28
95th Queue (ft)	10	49
Link Distance (ft)	534	594
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Site Driveway 3/Shackleton Road & East-West Collector

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	9	62	27
Average Queue (ft)	0	31	9
95th Queue (ft)	5	53	29
Link Distance (ft)	659	701	1093
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Perry Road & Site Driveway 4

Movement	EB
Directions Served	R
Maximum Queue (ft)	27
Average Queue (ft)	4
95th Queue (ft)	19
Link Distance (ft)	398
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: Perry Road & Site Driveway 5

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	63	4
Average Queue (ft)	33	0
95th Queue (ft)	53	3
Link Distance (ft)	513	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 449

Intersection: 1: NC 55 & Apex Peakway

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	UL	L	T	T	T	TR
Maximum Queue (ft)	255	334	313	519	481	367	250	447	418
Average Queue (ft)	118	186	188	341	300	106	189	271	231
95th Queue (ft)	205	288	282	466	432	272	300	396	370
Link Distance (ft)	938	938		643	643	643		658	658
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)			225				150		
Storage Blk Time (%)		3	3				9	33	
Queuing Penalty (veh)		10	8				28	105	

Intersection: 2: Apex Peakway & S Hughes Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	T	TR	UL	T	TR
Maximum Queue (ft)	331	137	128	257	327	196	332	294
Average Queue (ft)	160	51	57	102	181	42	166	131
95th Queue (ft)	275	104	100	215	293	115	317	275
Link Distance (ft)	1687	637		864	864		938	938
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			125			250		
Storage Blk Time (%)			0	2		0	4	
Queuing Penalty (veh)			1	2		0	3	

Intersection: 3: Perry Road & Apex Peakway

Movement	EB	EB	WB	WB	B29	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T	L	TR	L	TR
Maximum Queue (ft)	149	915	189	532	63	165	191	63	120
Average Queue (ft)	32	431	67	198	3	66	64	19	50
95th Queue (ft)	107	846	152	430	35	132	136	50	97
Link Distance (ft)		1006		1144	864		957		1850
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	50		100			100		100	
Storage Blk Time (%)	2	40	2	20		7	4		1
Queuing Penalty (veh)	16	15	13	15		8	4		0

Intersection: 4: Tingen Road & Apex Peakway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	273	434	235	319	246	218	920	275
Average Queue (ft)	41	236	76	135	108	99	521	117
95th Queue (ft)	152	391	151	259	201	176	975	320
Link Distance (ft)		1428		1010	563		1446	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	175		200			150		175
Storage Blk Time (%)		19		3	4	3	68	
Queuing Penalty (veh)		8		4	10	4	27	

Intersection: 5: S Hughes Street & James Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	115	78	135	61	138
Average Queue (ft)	63	35	57	23	65
95th Queue (ft)	98	62	100	49	108
Link Distance (ft)	1395	1017	1425		825
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			3	0	
Queuing Penalty (veh)			1	0	

Intersection: 6: S Hughes Street & Perry Road

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	TR	L	T	R
Maximum Queue (ft)	80	108	24	22	49	2	7
Average Queue (ft)	35	50	2	1	10	0	0
95th Queue (ft)	65	88	14	19	35	3	3
Link Distance (ft)	1850	792		1687		1425	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200		225		625
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: Shackleton Road & Apex Peakway

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	193	262	74	60
Average Queue (ft)	16	37	27	21
95th Queue (ft)	103	150	61	52
Link Distance (ft)	1010	1006	1093	782
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Perry Road & East-West Collector/Site Driveway 1

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	R
Maximum Queue (ft)	64	48	15	11	15
Average Queue (ft)	32	17	1	1	1
95th Queue (ft)	52	39	8	8	11
Link Distance (ft)	534	848	297	957	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					50
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 10: Site Driveway 2 & East-West Collector

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	24	54
Average Queue (ft)	1	28
95th Queue (ft)	10	50
Link Distance (ft)	534	594
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Site Driveway 3/Shackleton Road & East-West Collector

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	17	54	27
Average Queue (ft)	1	25	11
95th Queue (ft)	10	48	33
Link Distance (ft)	659	701	1093
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Perry Road & Site Driveway 4

Movement	EB	SB
Directions Served	R	TR
Maximum Queue (ft)	27	3
Average Queue (ft)	3	0
95th Queue (ft)	16	3
Link Distance (ft)	398	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Perry Road & Site Driveway 5

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	55	6
Average Queue (ft)	27	0
95th Queue (ft)	47	4
Link Distance (ft)	513	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 282

Approved Development Data

Traffic Impact Analysis for

Broadstone Hotel

Apex, North Carolina

Prepared for:

Angel Management, Inc
Raleigh, North Carolina

Prepared by:

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

July 2024

016730000

ANGEL MANAGEMENT

Concept plan is included for the Traffic Impact Analysis (TIA) only and it not intended for review and approval nor as a condition of any zonings, site plans, or construction documents.

BROADSTONE HOTEL & RETAIL
APEX, NORTH CAROLINA
SITE PLAN • 02-05-2024

ELEVATE architecture studio

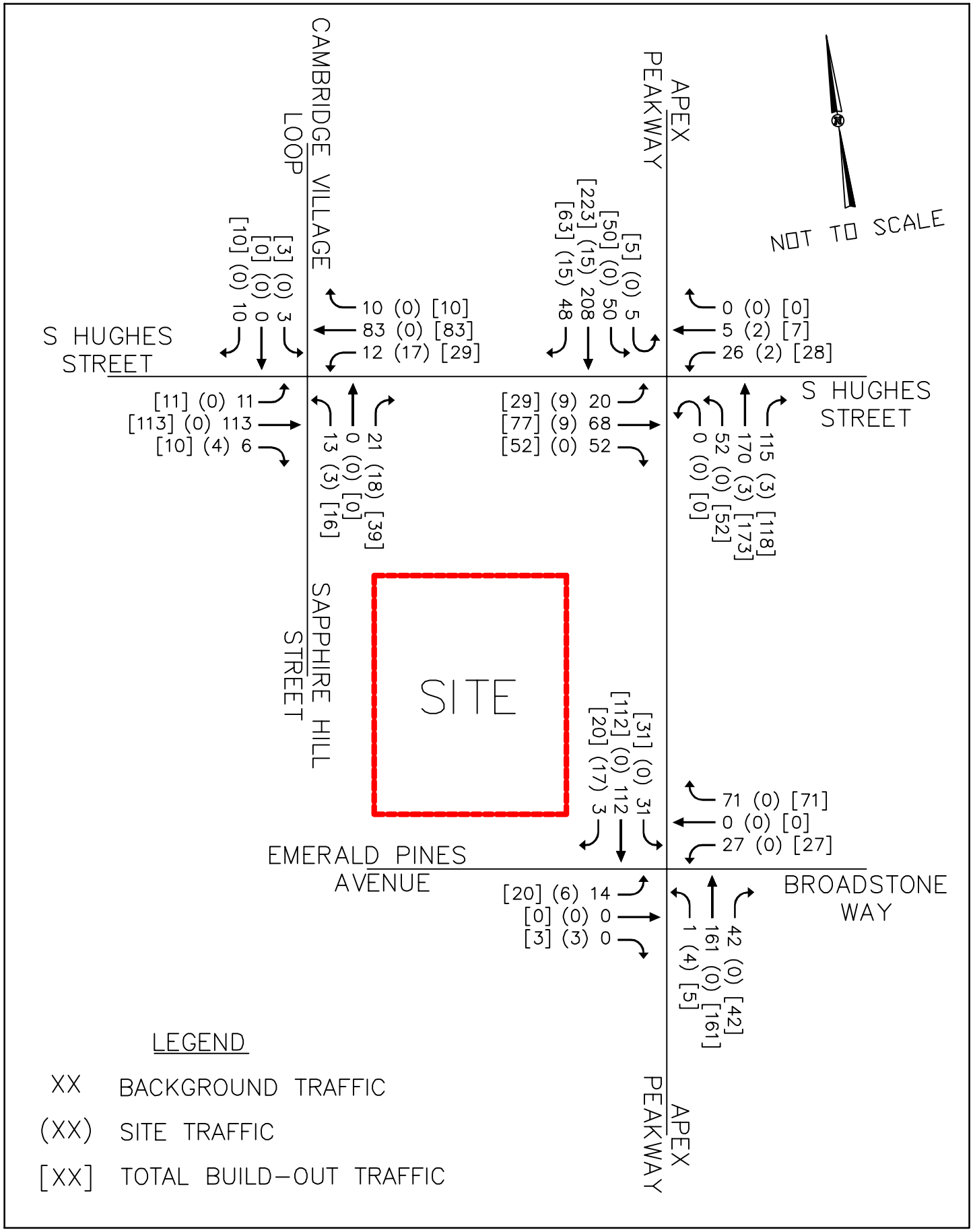
FIGURE 2.2

SITE PLAN

BROADSTONE HOTEL DEVELOPMENT
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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



Kimley»Horn	BROADSTONE HOTEL DEVELOPMENT APEX, NC TRAFFIC IMPACT ANALYSIS	PROJECTED (2026) BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES	FIGURE 5.3

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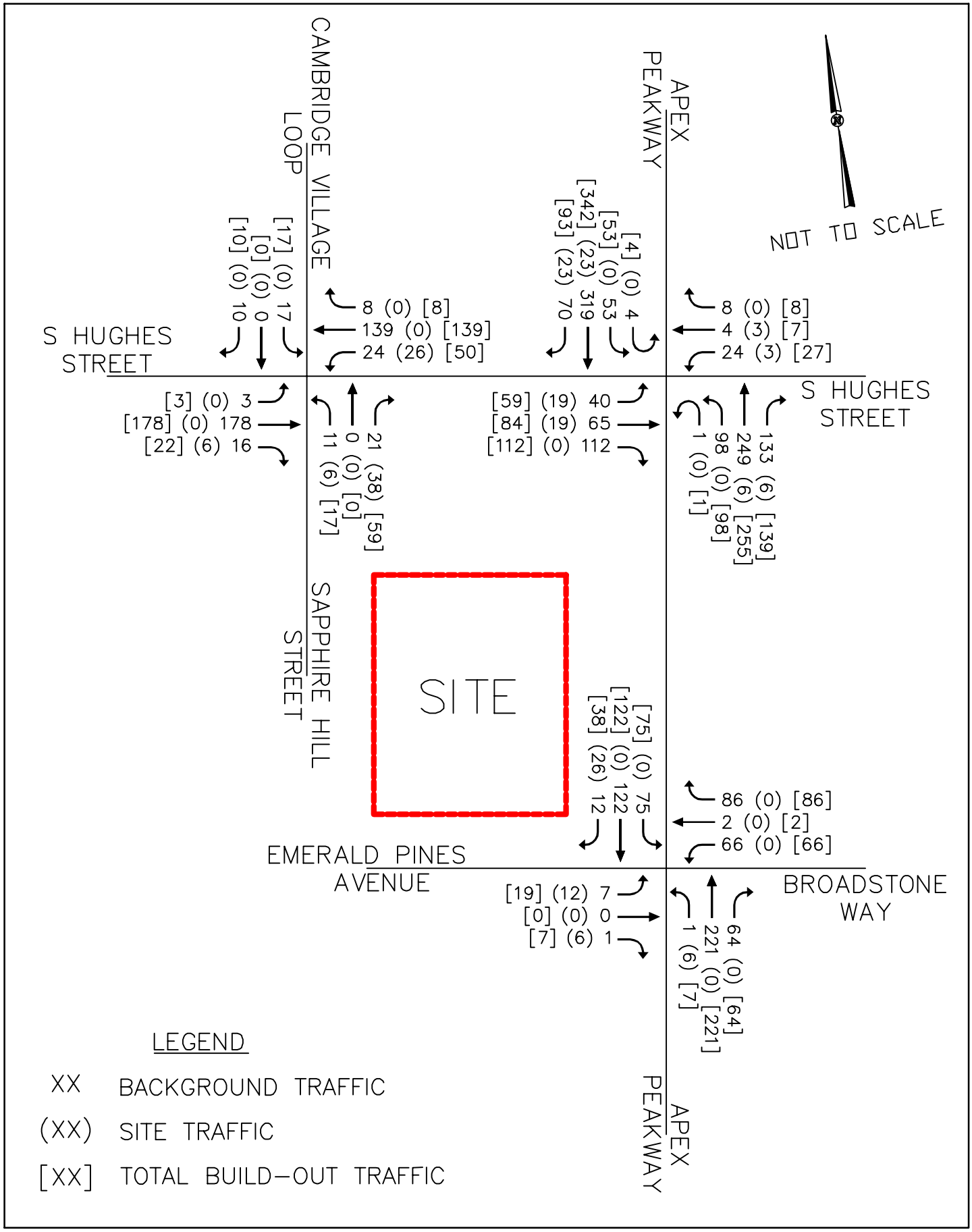

Kimley»Horn	BROADSTONE HOTEL DEVELOPMENT APEX, NC TRAFFIC IMPACT ANALYSIS	PROJECTED (2026) BUILD-OUT PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 5.4

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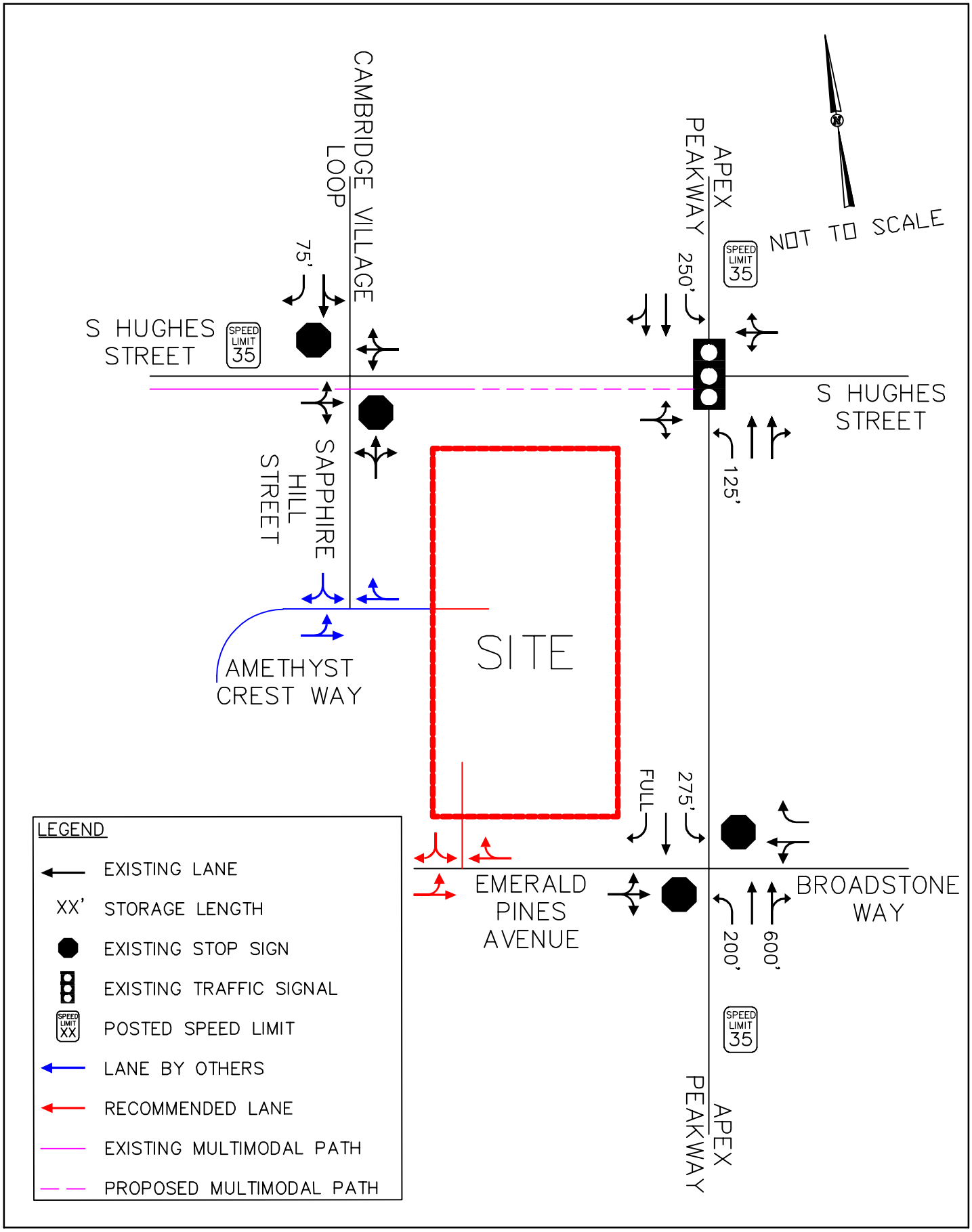

Kimley»Horn	BROADSTONE HOTEL DEVELOPMENT APEX, NC TRAFFIC IMPACT ANALYSIS	RECOMMENDED ROAD LANEAGE	FIGURE ES-1

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TRAFFIC IMPACT ANALYSIS

Broadstone Retail

3111 Apex Peakway

Apex, North Carolina

Prepared For:

S & S Contracting of N. C., Inc.
393 S. Swing Road
High Point, NC 27409

Prepared by:

MDG
ENGINEERING EXCELLENCE

Mercer Design Group, PC
PO Box 1516 Weaverville, NC
p.828.674.0229 f.828.645.7714
NC Licensure No. C-2383

DRAFT

12 April 2024

Note: This is a DRAFT document. There may be minor adjustments to grammar and spelling, etc., that will be made prior to the final sealing of the document. These edits are not expected to substantially change the opinions and conclusions of the report.

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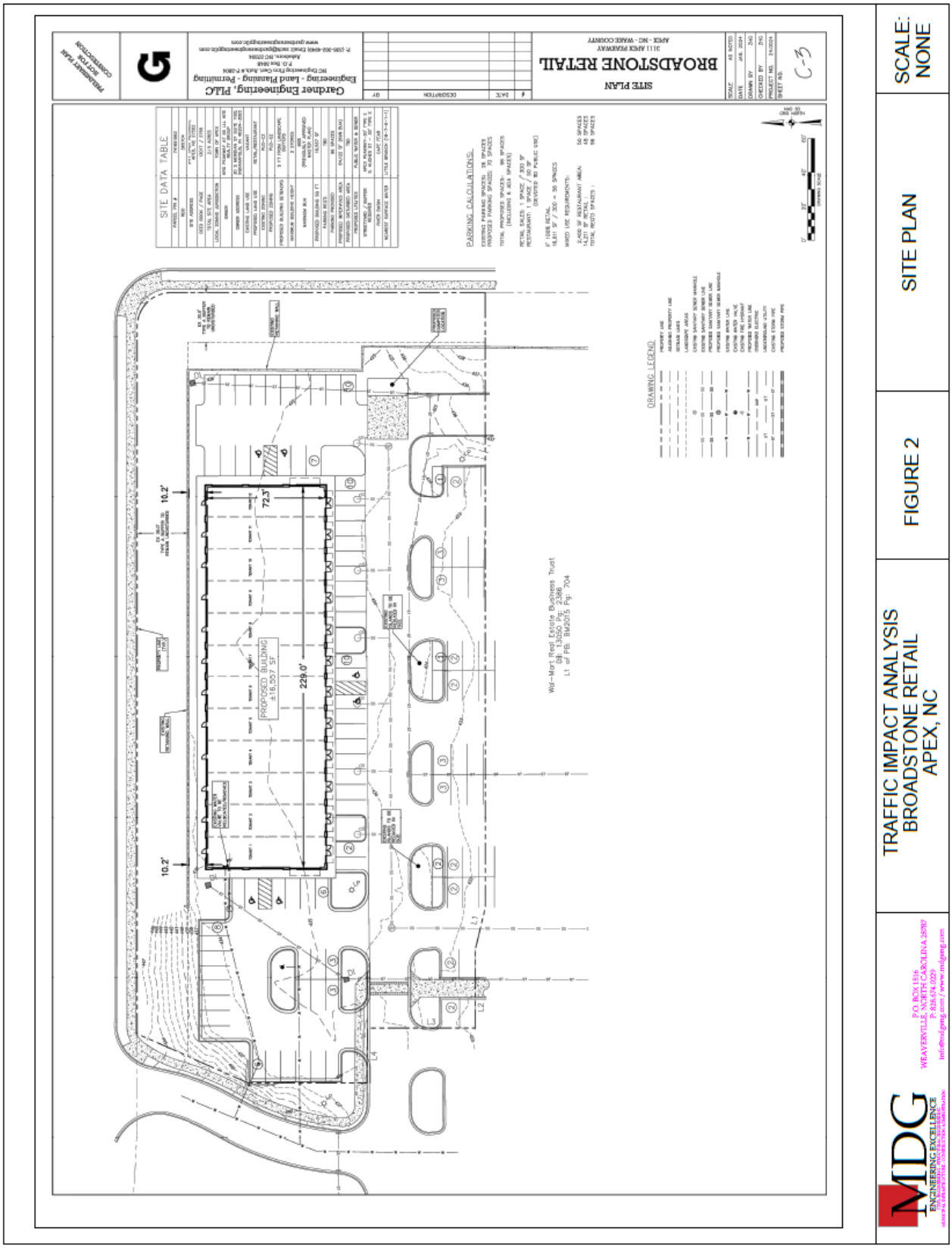
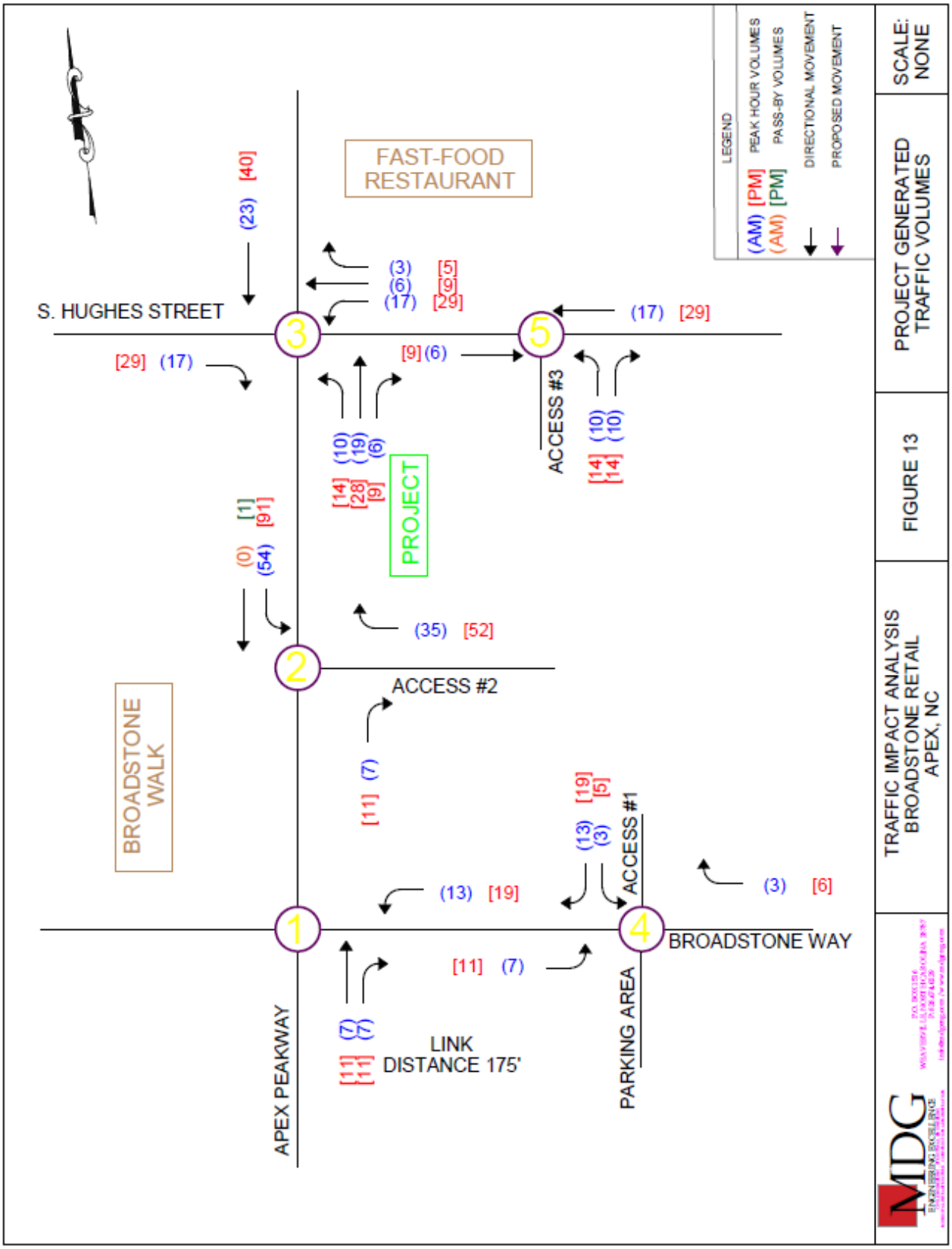
Figure 2 – Site Plan



Mercer Design Group, PC
C-2383
PO Box 1516 Weaverville, NC 28787
p.828.645.7088

Figure 13 – Project Generated Traffic Volumes



MERCER DESIGN GROUP, PC
C-2383
PO BOX 1516 WEAVERVILLE, NC 28787
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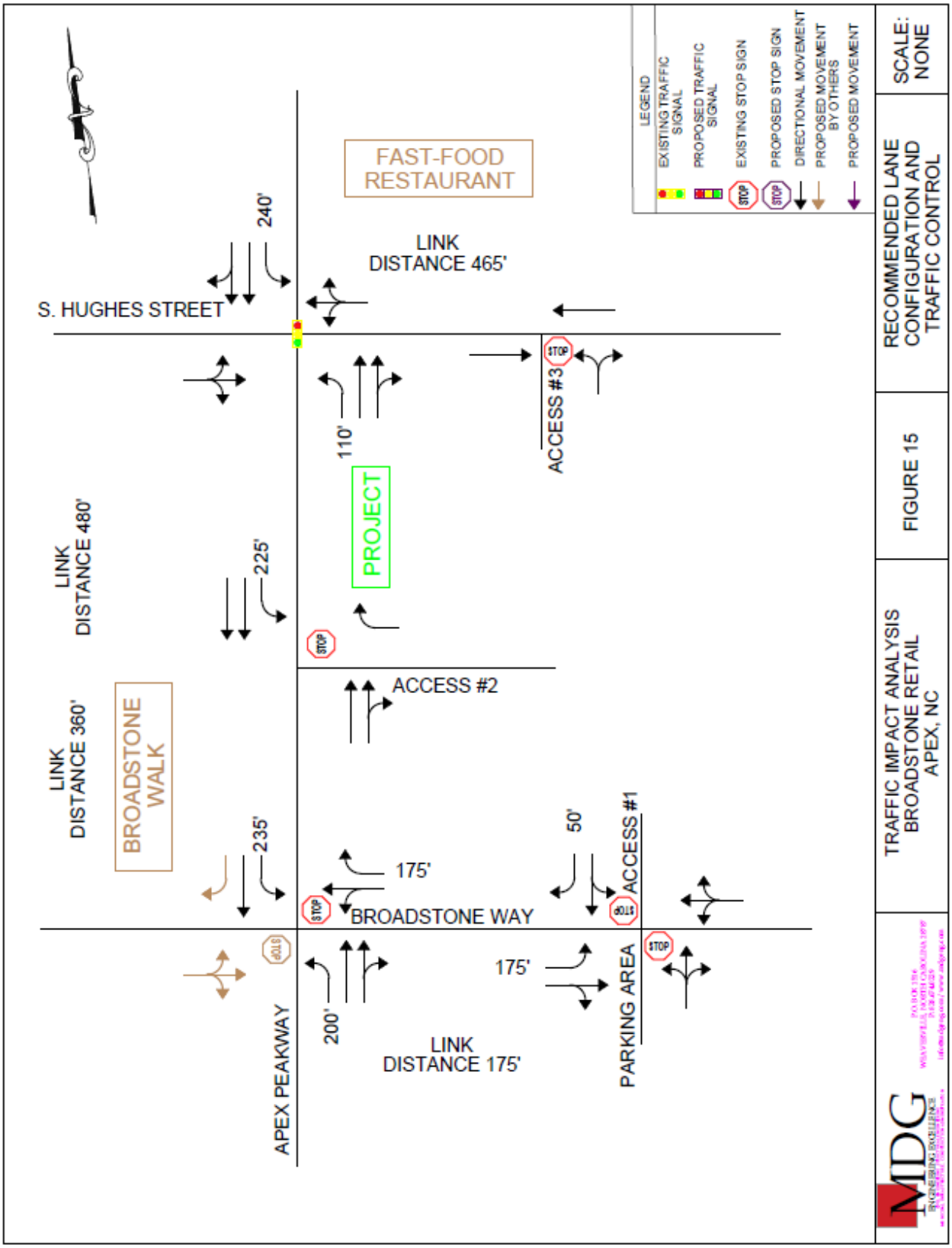
Figure 15 – Recommended Lane Configuration and Traffic Control



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TRAFFIC IMPACT ANALYSIS

Fast-Food Restaurant TIA

Apex, North Carolina

PREPARED FOR

Lillie Childers
Concord Properties, Inc.
1340 Harding Place
Charlotte, NC 28204
704.405.9400

PREPARED BY

VHB Engineering NC, P.C. (C-3075)
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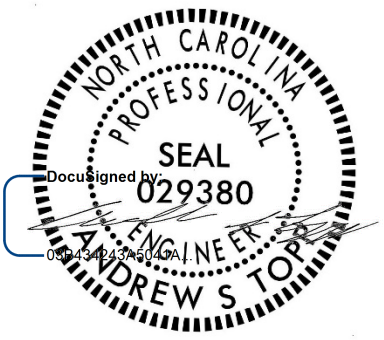
1/10/2023



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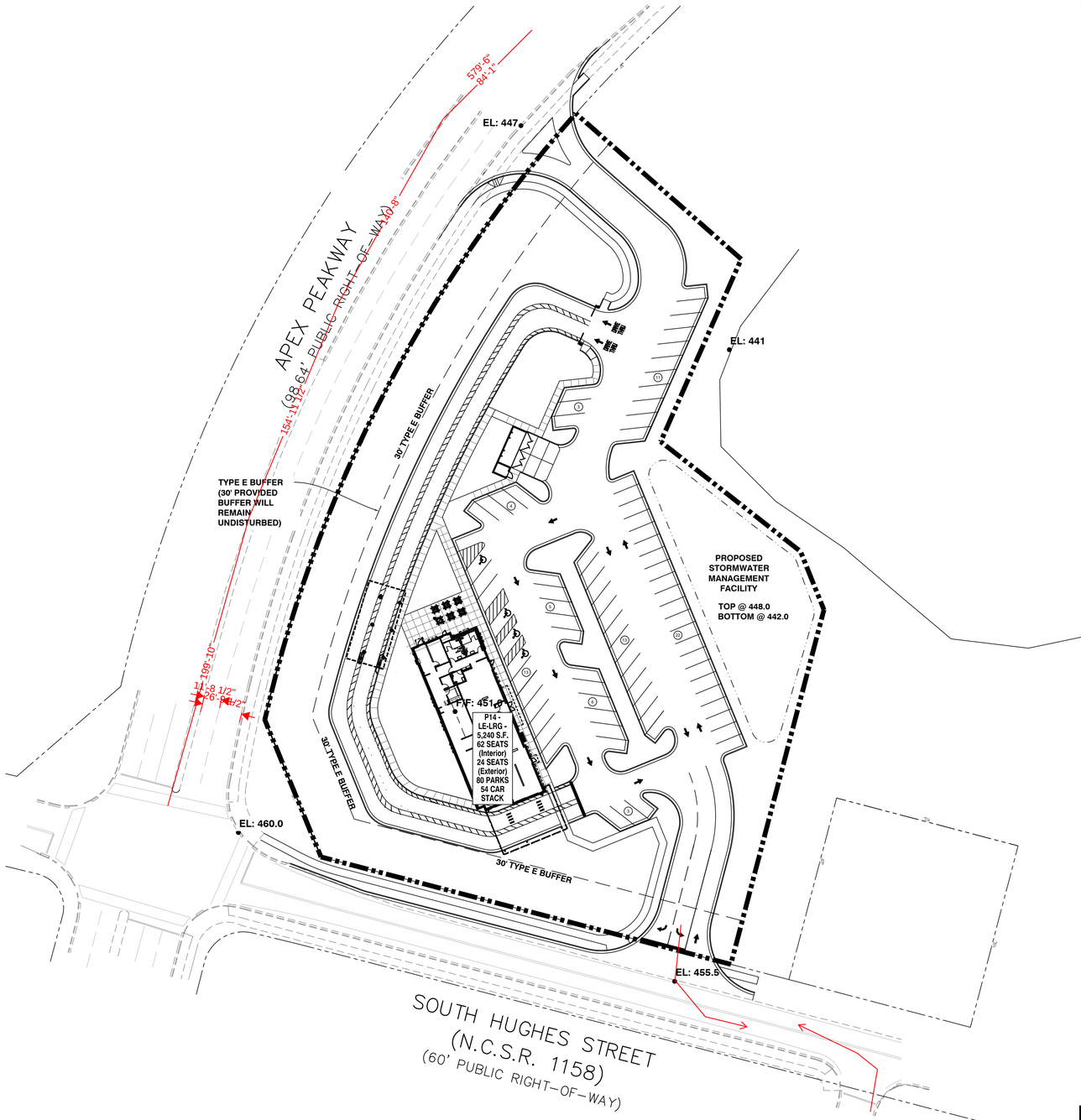
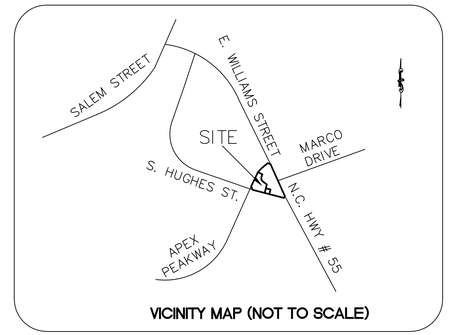




VICINITY MAP (NOT TO SCALE)

SITE DATA

JURISDICTION:	APEX, NC
ZONING:	PUD
PARCEL NUMBER:	0741665093
LOT SIZE:	3.0 Acres
PROPOSED BUILDING SIZE:	5240 SF (TOTAL)
PARKING REQUIRED:	1 PER 50 SF OF PUBLIC USE FLOOR SPACE WITH 2800 SF OF PUBLIC SPACE = 56 TOTAL SPACES REQUIRED
PARKING PROVIDED:	80 SPACES (3 HC)
BUFFERS:	ROAD FRONTAGE - TYPE E 30' UNDISTURBED OR 50' WITH LAND DISTURBANCE

N

Date: 12-20-22
Location: Apex, NC
Scale: 1" = 40' (24x36)

Chick Fil A
CONCEPT PLAN
Apex, NC

South Hughes & Apex Peakway
Apex, North Carolina

CSS
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

LEGEND	
—	Existing Roadway
----	Future Roadway
STOP	Existing Stop-Controlled Approach
STOP	Proposed Stop-Controlled Approach
	Existing Signalized Intersection
←	Turning Movement
XX	AM Peak Hour Turning Movement
(XX)	PM Peak Hour Turning Movement

N

not to scale

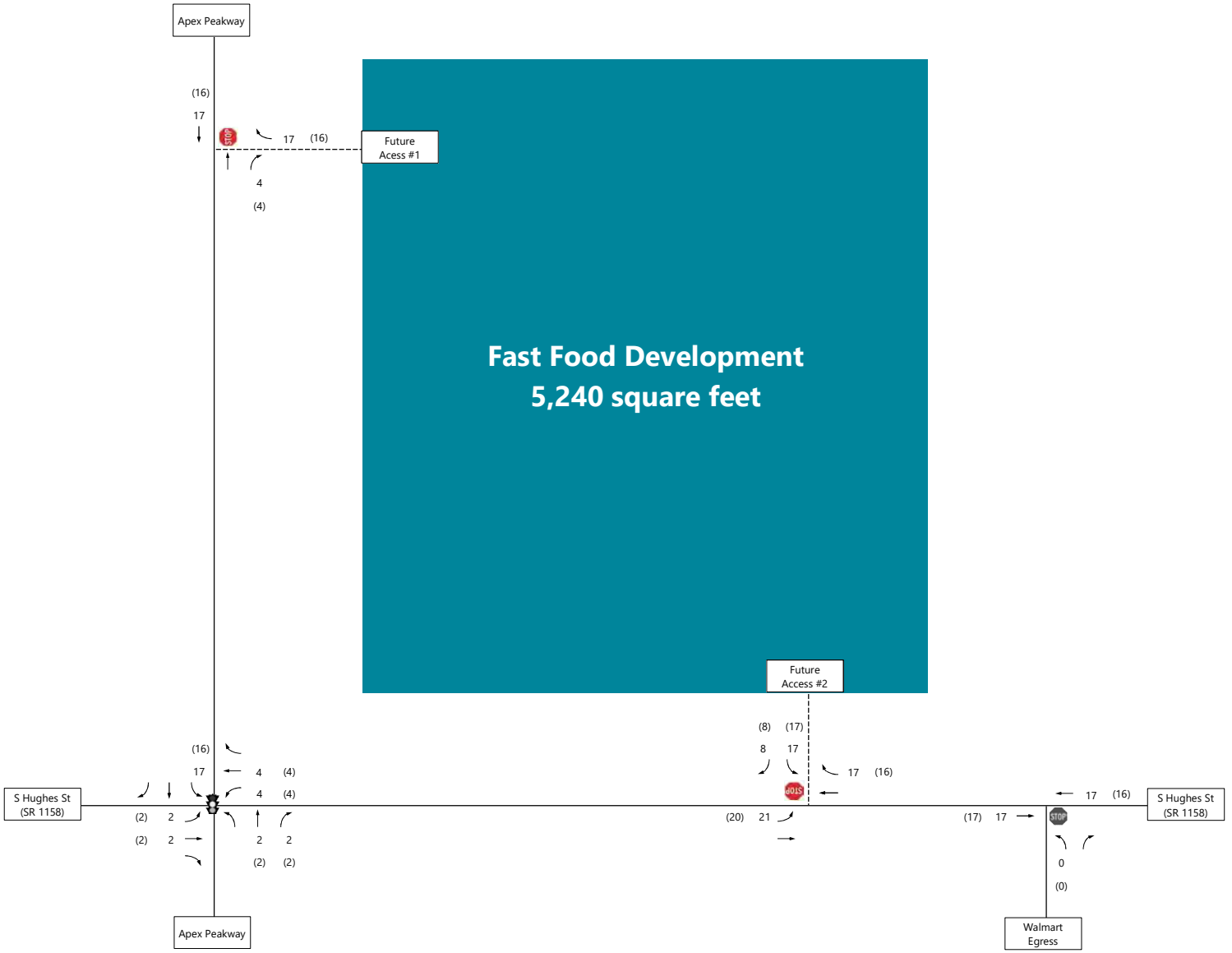


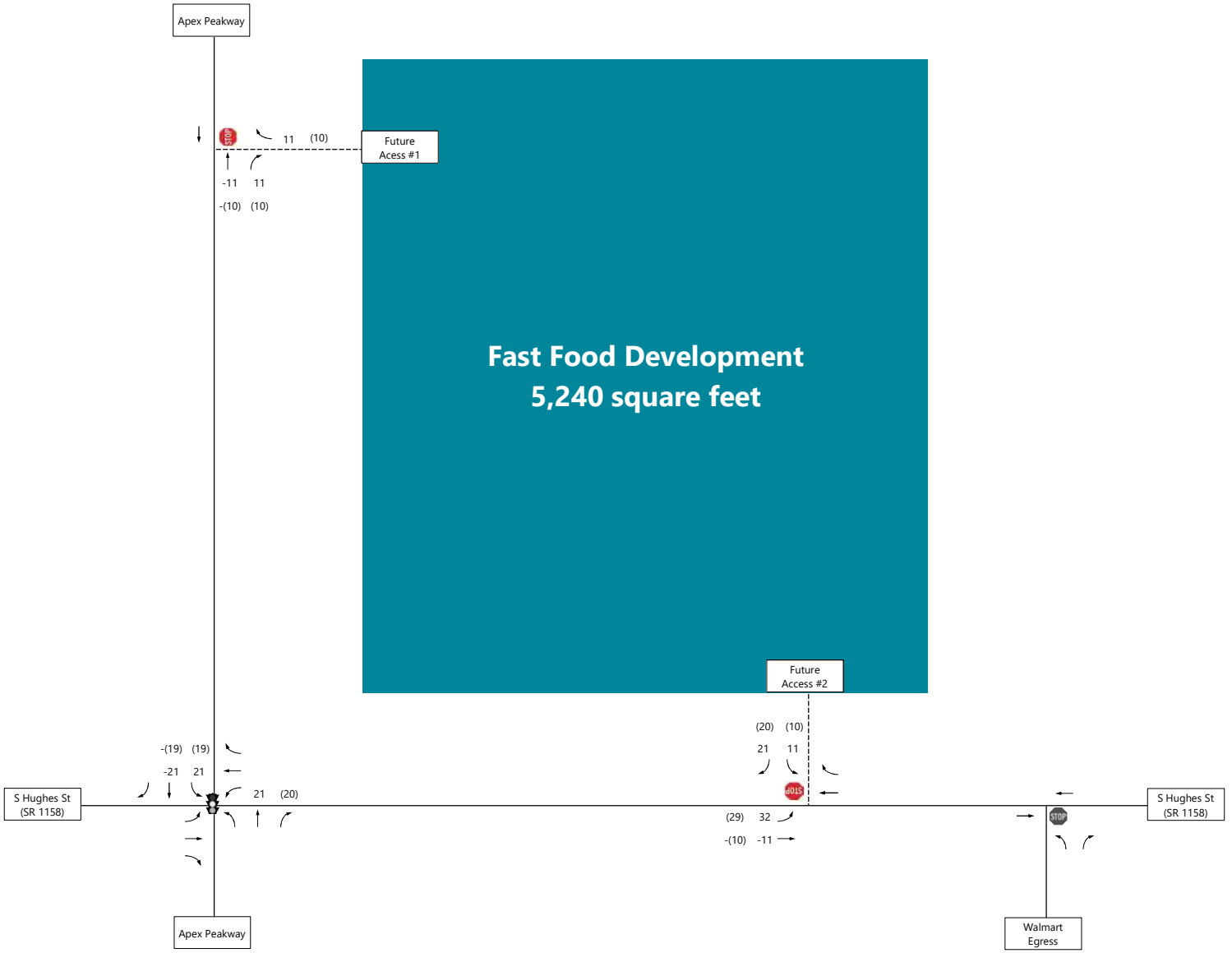
Figure 9
Non-Pass-By Peak Hour Site Generated Trips

Fast-Food Restaurant TIA
Apex, NC

LEGEND	
—	Existing Roadway
----	Future Roadway
STOP	Existing Stop-Controlled Approach
STOP	Proposed Stop-Controlled Approach
	Existing Signalized Intersection
←	Turning Movement
XX	AM Peak Hour Turning Movement
(XX)	PM Peak Hour Turning Movement

N

not to scale



vhb

Figure 10
Pass-By Peak Hour Site Generated Trips

Fast-Food Restaurant TIA
Apex, NC

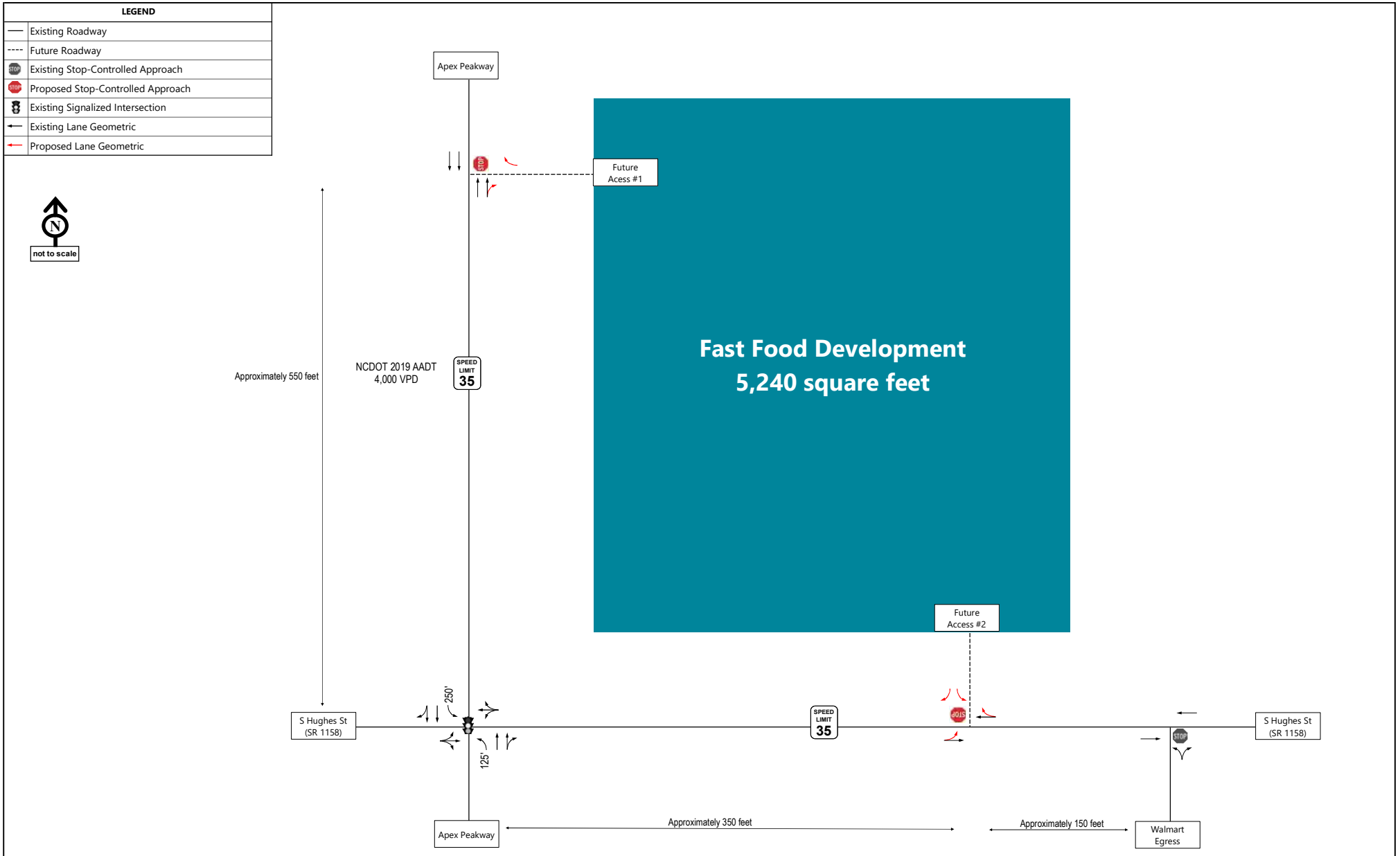


Figure 14
Build (2024) Lane Geometrics and Traffic Control

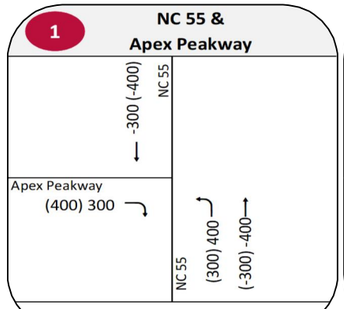
Fast-Food Restaurant TIA
Apex, NC

Figure 5.3 - Diverted Apex Peakway Connector Traffic

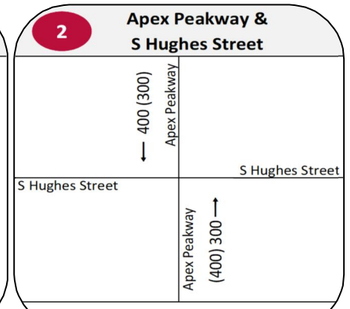
LEGEND

- # — *Intersection ID*
- *Apex Peakway Connector*
- *AM (PM) Peak Hour Volumes*

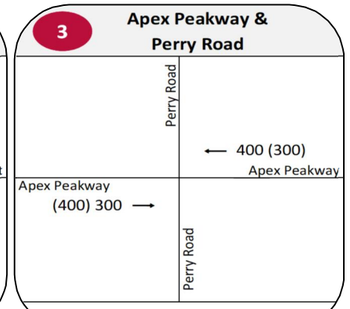
1 NC 55 & Apex Peakway



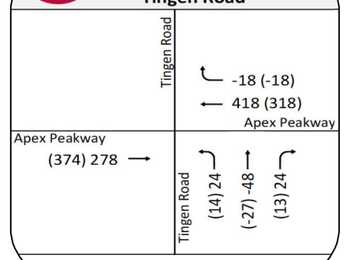
2 Apex Peakway & S Hughes Street



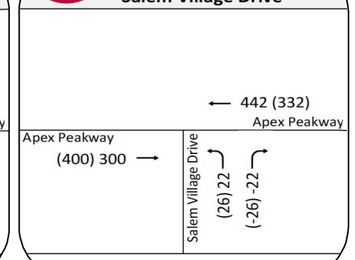
3 Apex Peakway & Perry Road



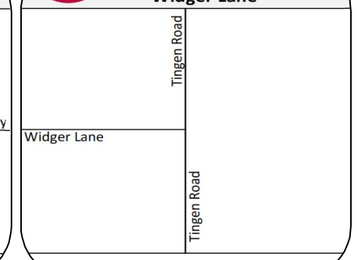
4 Apex Peakway & Tingen Road



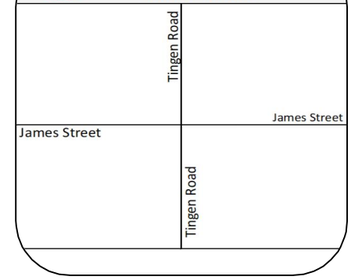
5 Apex Peakway & Salem Village Drive



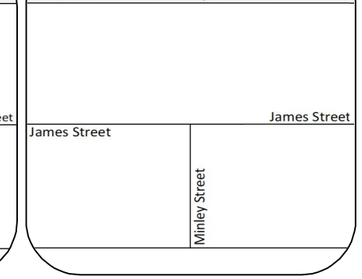
6 Tingen Road & Widger Lane



7 Tingen Road & James Street



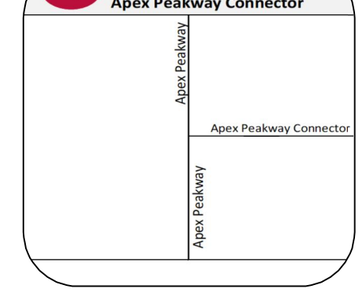
8 James Street & Minley Street



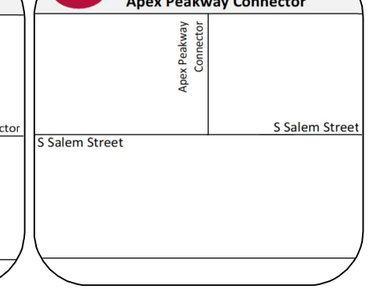
9 Apex Peakway & S Salem Street

This intersection is not analyzed under future traffic conditions since it will be removed due to the Apex Peakway Connector project.

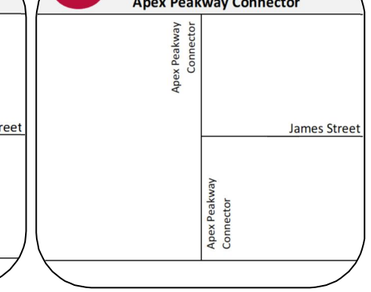
10 Apex Peakway & Apex Peakway Connector



11 S Salem Street & Apex Peakway Connector



12 James Street & Apex Peakway Connector

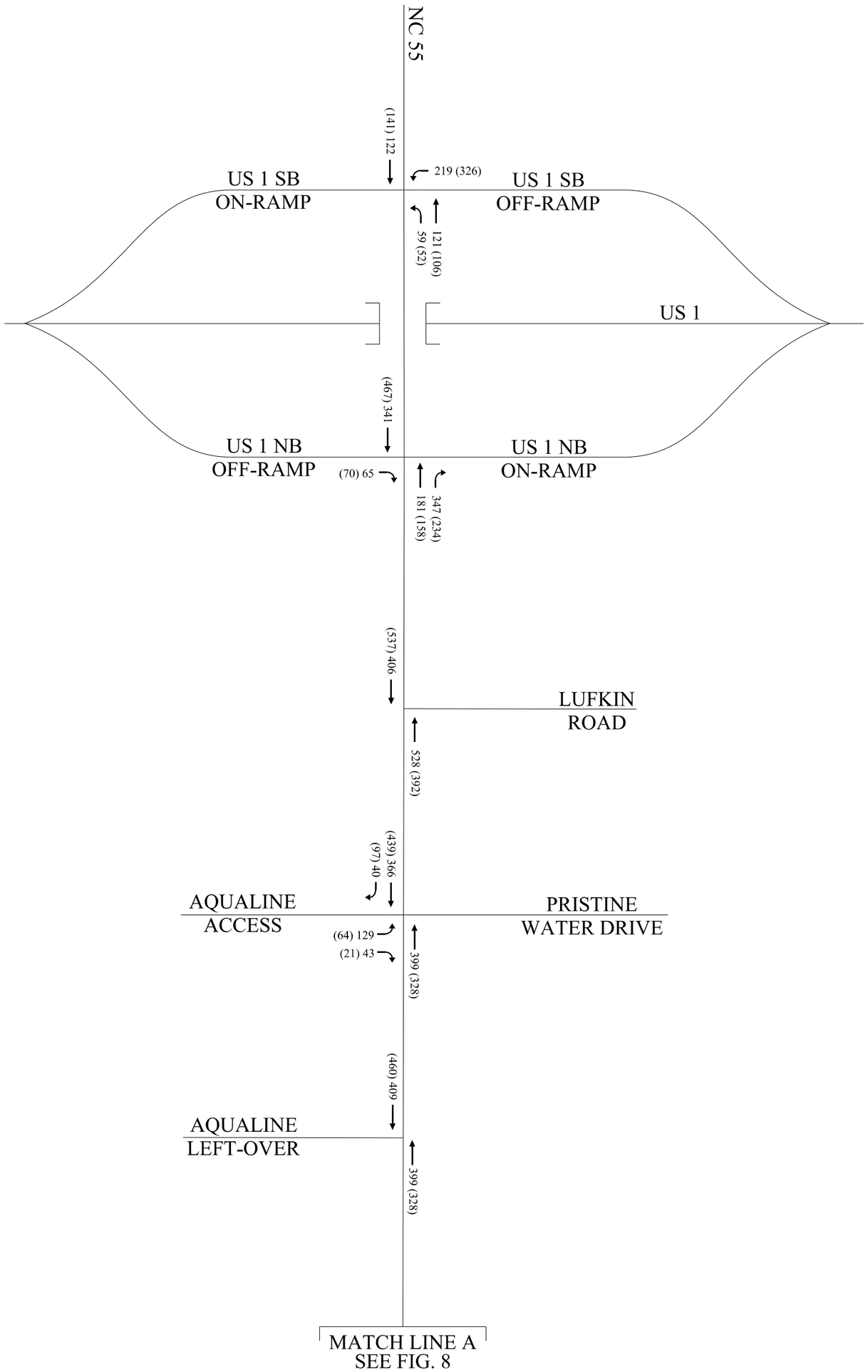


LEGEND

XX AM TOTAL PROJECT TRIPS (PRIM. + PASS-BY + INT. CAPT.)

(XX) PM TOTAL PROJECT TRIPS (PRIM. + PASS-BY + INT. CAPT.)

NOT TO SCALE

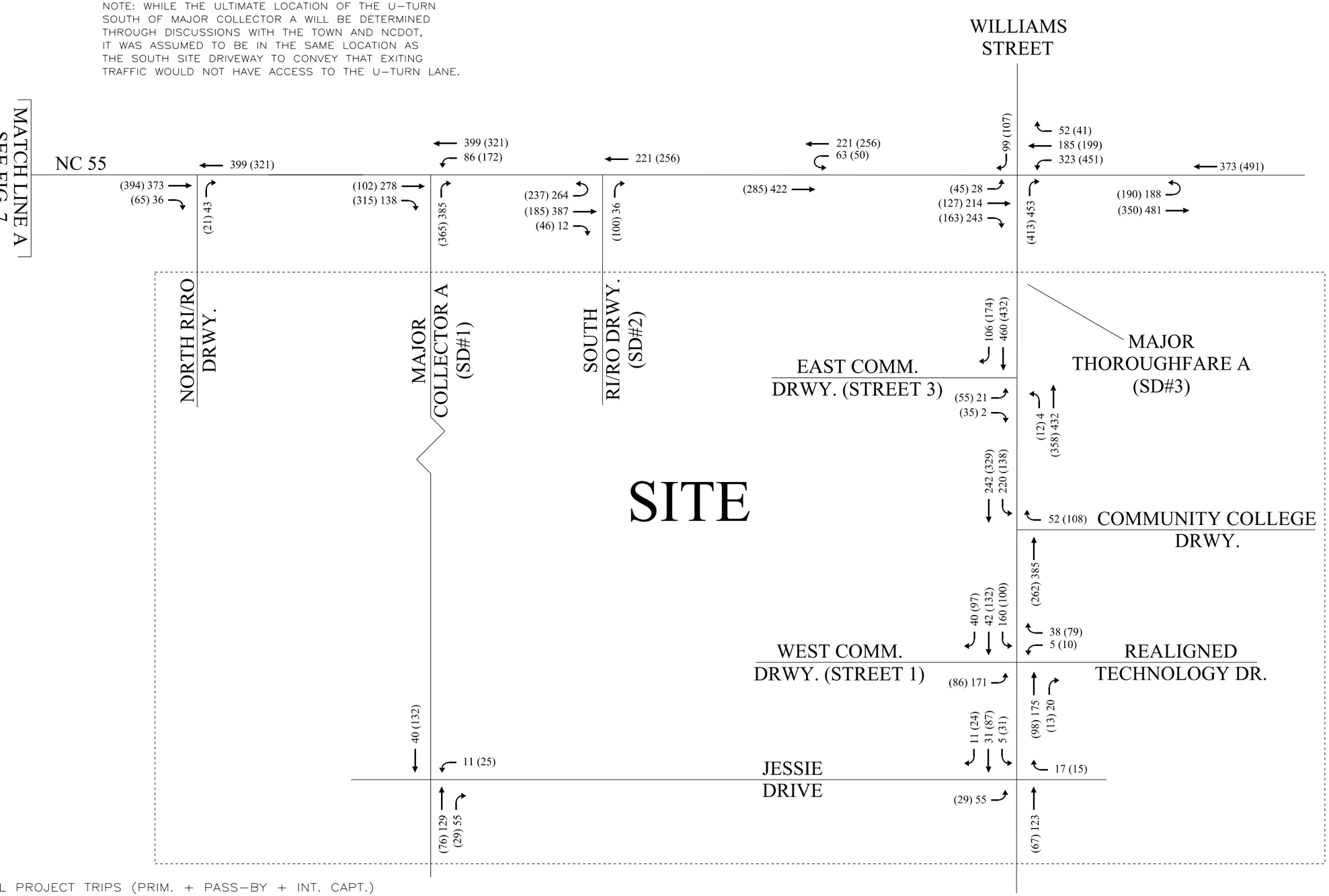


Kimley»Horn	VERIDEA PHASE 1 APEX, NC TRAFFIC IMPACT ANALYSIS	PROJECT TRIPS (STUDY AREA NORTH)	FIGURE 7

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

NOT TO SCALE

NOTE: WHILE THE ULTIMATE LOCATION OF THE U-TURN SOUTH OF MAJOR COLLECTOR A WILL BE DETERMINED THROUGH DISCUSSIONS WITH THE TOWN AND NCDOT, IT WAS ASSUMED TO BE IN THE SAME LOCATION AS THE SOUTH SITE DRIVEWAY TO CONVEY THAT EXITING TRAFFIC WOULD NOT HAVE ACCESS TO THE U-TURN LANE.



LEGEND

XX AM TOTAL PROJECT TRIPS (PRIM. + PASS-BY + INT. CAPT.)
(XX) PM TOTAL PROJECT TRIPS (PRIM. + PASS-BY + INT. CAPT.)

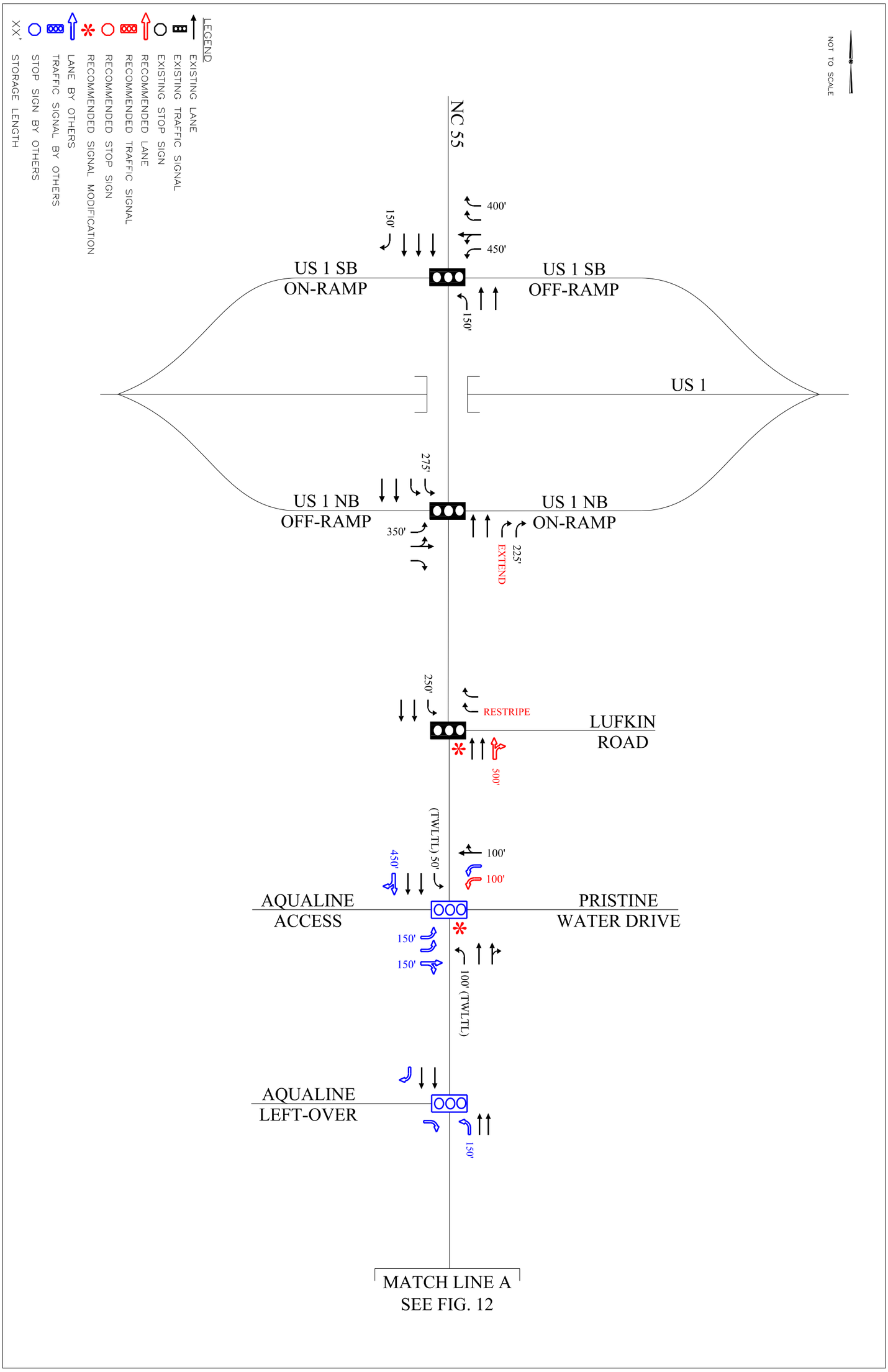
FIGURE 8

PROJECT TRIPS
(STUDY AREA SOUTH)

VERIDEA PHASE 1
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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

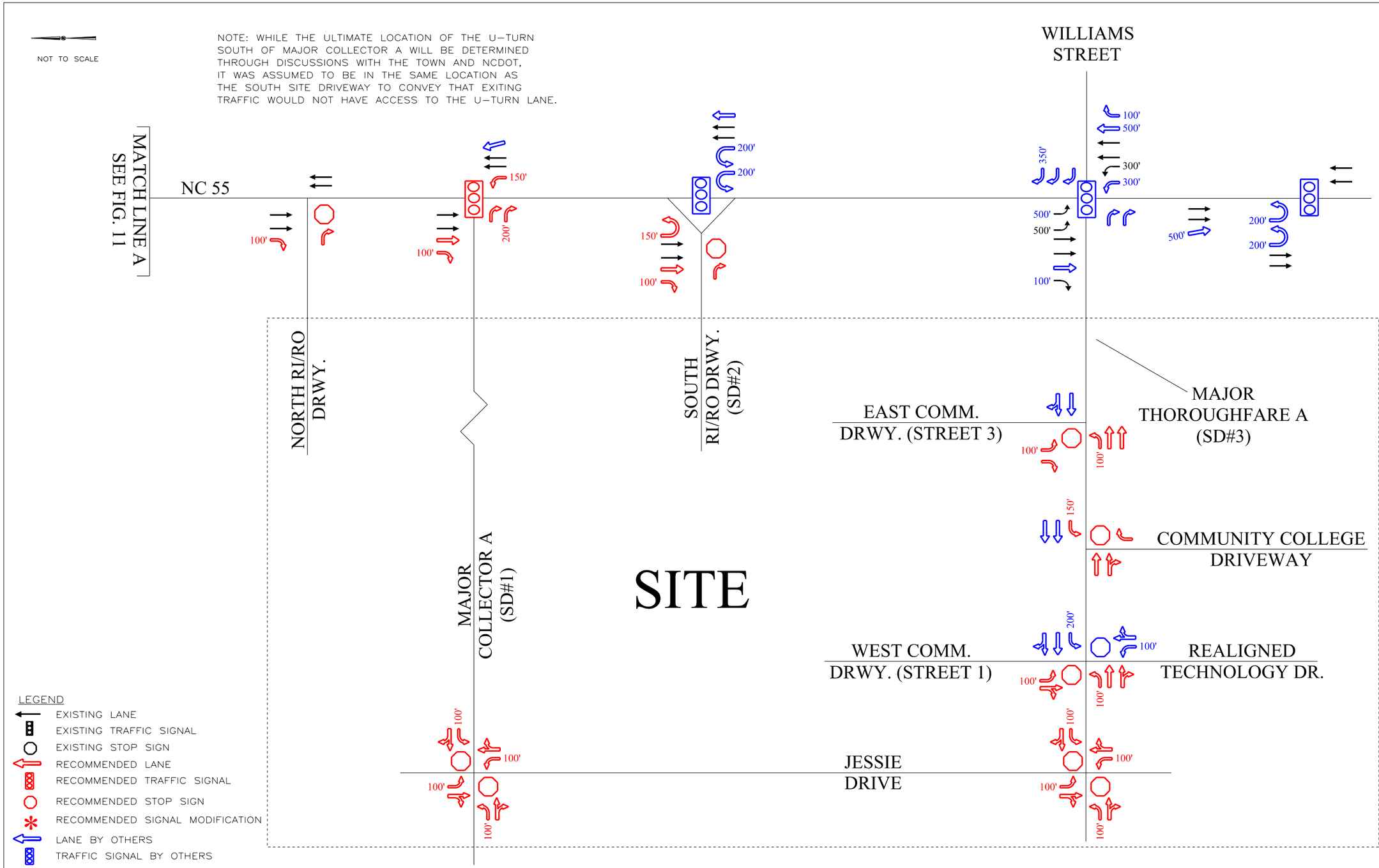


Kimley»Horn	VERIDEA PHASE 1 APEX, NC TRAFFIC IMPACT ANALYSIS	COMMITTED AND RECOMMENDED ROADWAY LANEAGE (STUDY AREA NORTH)	FIGURE 11

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

NOT TO SCALE

NOTE: WHILE THE ULTIMATE LOCATION OF THE U-TURN SOUTH OF MAJOR COLLECTOR A WILL BE DETERMINED THROUGH DISCUSSIONS WITH THE TOWN AND NCDOT, IT WAS ASSUMED TO BE IN THE SAME LOCATION AS THE SOUTH SITE DRIVEWAY TO CONVEY THAT EXITING TRAFFIC WOULD NOT HAVE ACCESS TO THE U-TURN LANE.



LEGEND

- EXISTING LANE
- EXISTING TRAFFIC SIGNAL
- EXISTING STOP SIGN
- RECOMMENDED LANE
- RECOMMENDED TRAFFIC SIGNAL
- RECOMMENDED STOP SIGN
- RECOMMENDED SIGNAL MODIFICATION
- LANE BY OTHERS
- TRAFFIC SIGNAL BY OTHERS
- STOP SIGN BY OTHERS
- XX' STORAGE LENGTH

FIGURE 12

COMMITTED AND RECOMMENDED ROADWAY LANEAGE (STUDY AREA SOUTH)

VERIDEA PHASE 1
APEX, NC
TRAFFIC IMPACT ANALYSIS

Kimley»Horn

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

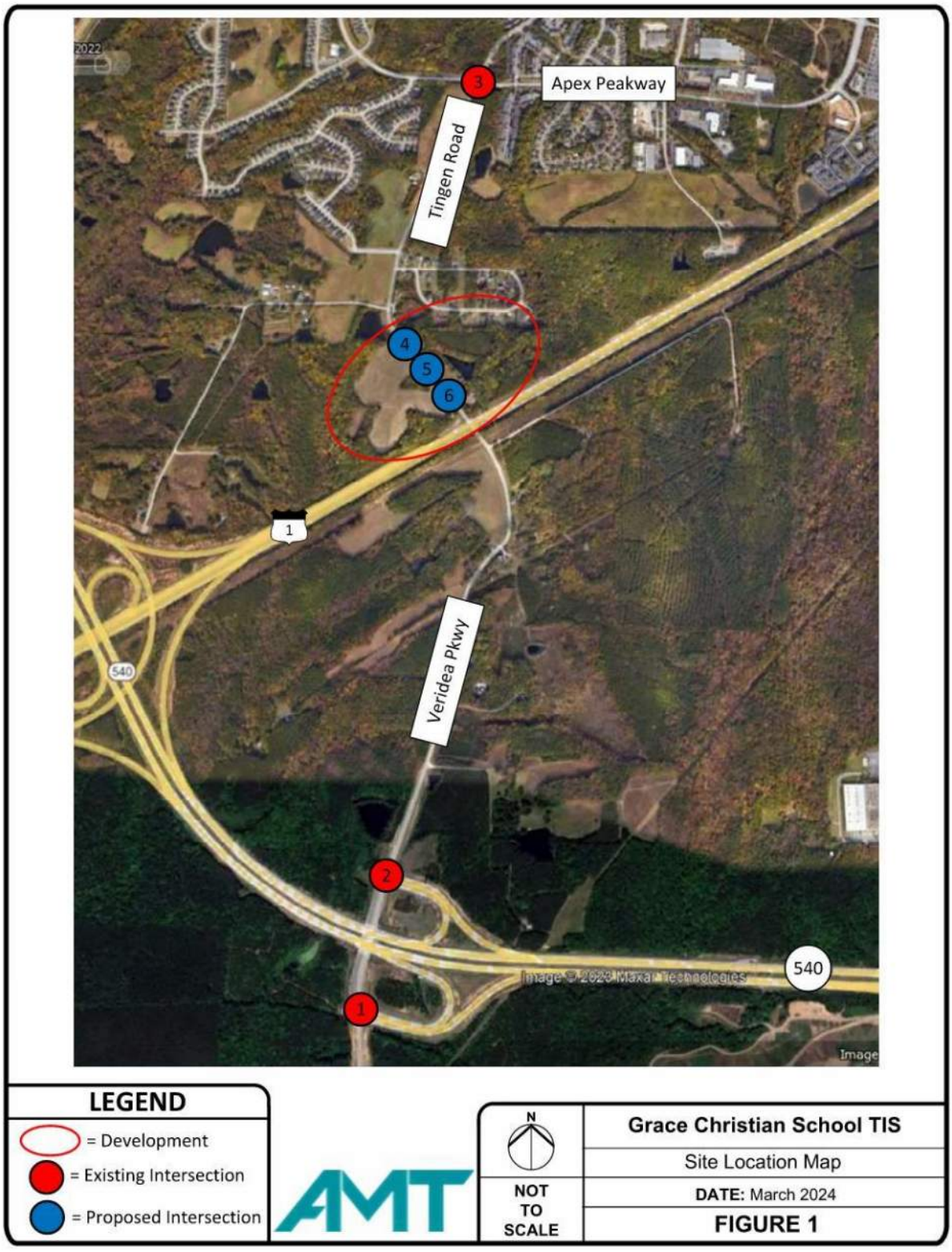
Grace Christian School Traffic Impact Analysis
Town of Apex, Wake County, NC

AMT Project File 23-0284.002 | February 7, 2025

A. MORTON THOMAS AND ASSOCIATES, INC.

PREPARED BY:
Caleb Glaser, PE, PTOE, RSP1
A. Morton Thomas and Associates, Inc.
900 Ridgefield Drive, Suite 325
Raleigh, NC 27609
(919) 855-9989

NC License No: 057216


Apex Peakway
Tingen Road
Veridea Pkwy
1
2
3
4
5
6
540
LEGEND
= Development
= Existing Intersection
= Proposed Intersection
N
NOT TO SCALE
Grace Christian School TIS
Site Location Map
DATE: March 2024
FIGURE 1

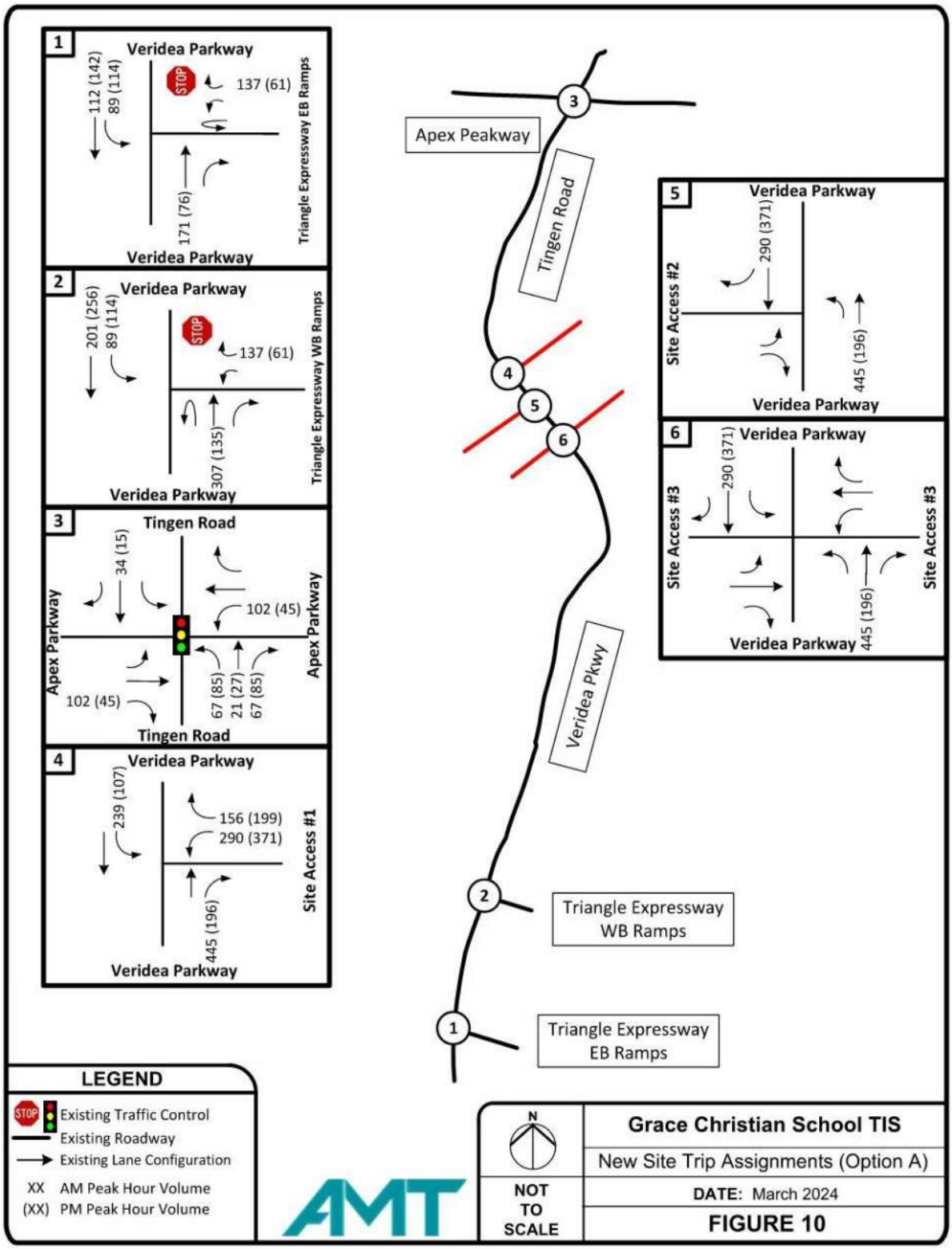
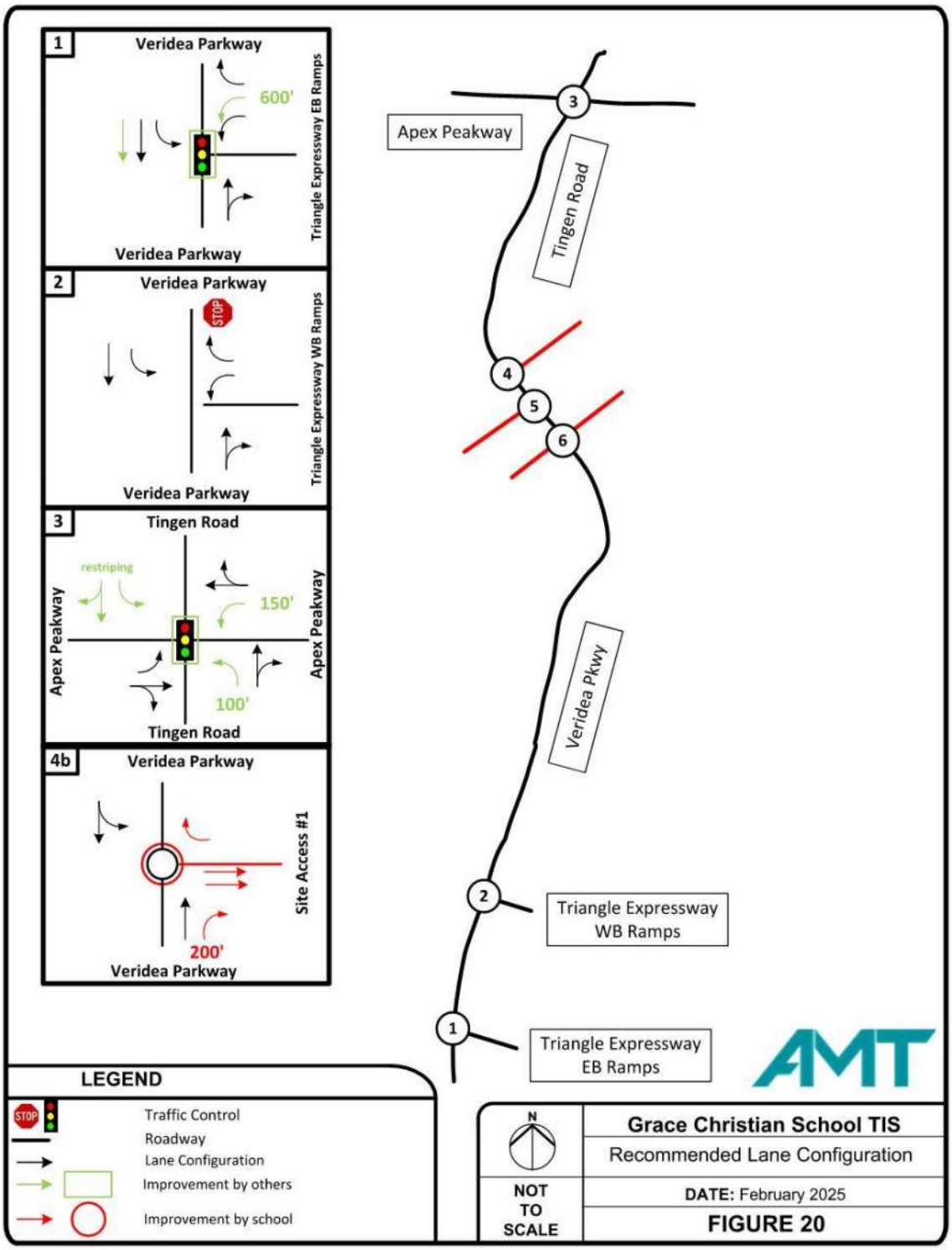

1
Veridea Parkway
112 (142)
89 (114)
137 (61)
171 (76)
Triangle Expressway EB Ramps
Veridea Parkway
2
Veridea Parkway
201 (256)
89 (114)
137 (61)
307 (135)
Triangle Expressway WB Ramps
Veridea Parkway
3
Tingen Road
34 (15)
102 (45)
Apex Parkway
Apex Parkway
102 (45)
67 (85)
21 (27)
67 (85)
Tingen Road
4
Veridea Parkway
239 (107)
156 (199)
290 (371)
445 (196)
Site Access #1
Veridea Parkway
Apex Peakway
Tingen Road
Veridea Pkwy
Triangle Expressway WB Ramps
Triangle Expressway EB Ramps
5
Veridea Parkway
290 (371)
Site Access #2
445 (196)
Veridea Parkway
6
Veridea Parkway
290 (371)
Site Access #3
Site Access #3
445 (196)
Veridea Parkway
LEGEND
Existing Traffic Control
Existing Roadway
Existing Lane Configuration
XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
N
NOT TO SCALE
Grace Christian School TIS
New Site Trip Assignments (Option A)
DATE: March 2024
FIGURE 10

Figure 20 shows the recommended lane configurations for the study intersections.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

October 6, 2025

Hopson Gateway

Traffic Impact Analysis Review Report

Congestion Management Section

TIA Project: SC-2024-217R1
Division: 5
County: Wake

Clarence B. Bunting, P.E. Regional Engineer
Trevor S. Darnell, Project Design Engineer

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
TRANSPORTATION MOBILITY & SAFETY DIVISION
TRAFFIC MANAGEMENT UNIT
1561 MAIL SERVICE CENTER
RALEIGH, NC 27699-1561

Telephone: (919) 814-5000
Fax: (919) 771-2745
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
750 N. GREENFIELD PARKWAY
GARNER, NC 27529

Hopson Gateway

SC-2024-217R1	Apex	Wake County

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

Date Initially Received by CMS	08/08/25	Date of Site Plan	11/01/24
Date of Complete Information	08/08/25	Date of Sealed TIA	08/08/25

Proposed Development

The TIA assumes the development is completed by 2028 and consists of the following:

Land Use	Land Use Code	Size
Warehousing	150	120,000 sq.ft.
Yard Waste Transfer Station and Drop off Convenience Center (Proposed)	-	13.5 acres
Business Park	770	25,000 sq.ft.
Single-Family Detached Housing	210	50 d.u.
Single-Family Attached Housing	215	170 d.u.
Multifamily Housing (Mid-Rise)	221	200 d.u.

Trip Generation - Unadjusted Volumes During a Typical Weekday			
	IN	**OUT**	**TOTAL**
AM Peak Hour	142	253	395
PM Peak Hour	211	187	398
Daily Trips			5,162

General Reference

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

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

Site Plan

The TIA was submitted with a conceptual site plan. Further analysis and / or different recommendations may be needed pending review of a detailed site plan.

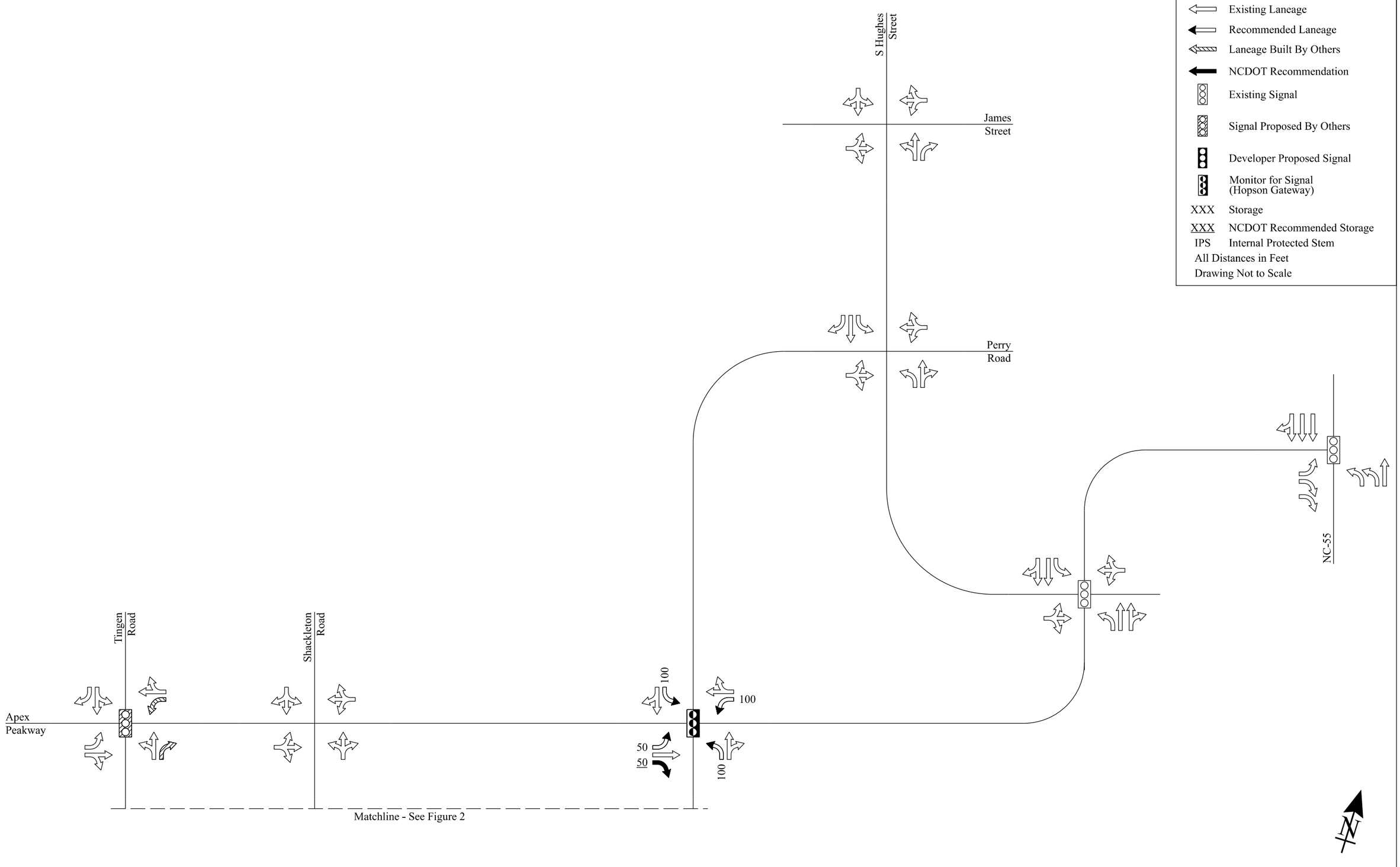
Improvements By Others

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

Signalization

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

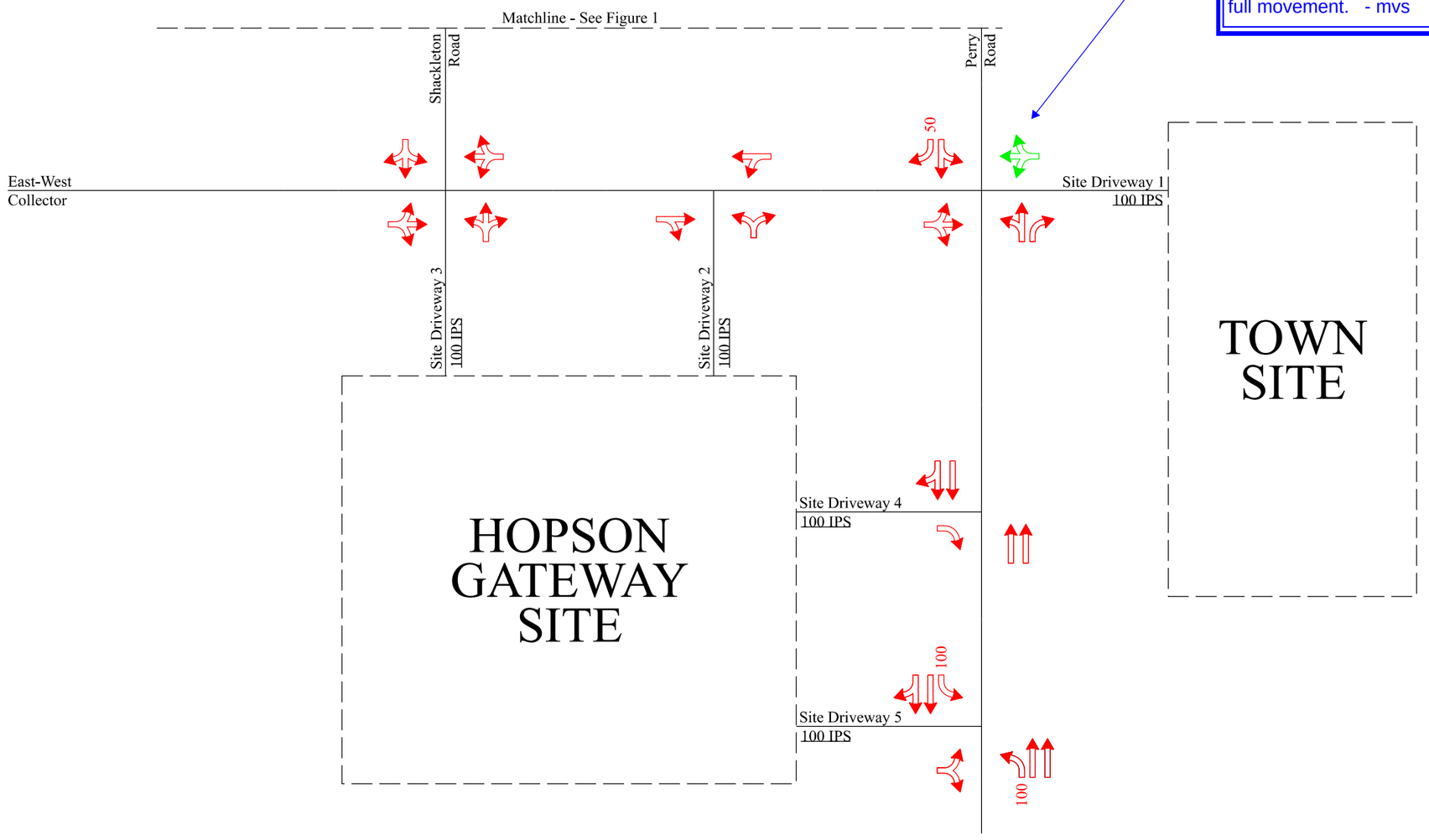
Figure 1



Hopson Gateway Development
SC-2024-217R1

- Existing Laneage
- Recommended Laneage
- Laneage Built By Others
- NCDOT Recommendation
- Existing Signal
- Signal Proposed By Others
- Developer Proposed Signal
- Monitor for Signal (Hopson Gateway)
- XXX Storage
- XXX NCDOT Recommended Storage
- IPS Internal Protected Stem
- All Distances in Feet
- Drawing Not to Scale

Figure 2



District Note:

The East-West Collector/Site Driveway 1 intersection must be located at least 600' from the nearest full movement driveway/intersection in order to be considered full movement. - mvs

Hopson Gateway Development
SC-2024-217R1

- Existing Laneage
- Recommended Laneage
- Recommended Laneage (Town)
- Laneage Built By Others
- NCDOT Recommendation
- NCDOT Recommendation (Town)
- Existing Signal
- Signal Proposed By Others
- Developer Proposed Signal
- XXX Storage
- XXX NCDOT Recommended Storage
- IPS Internal Protected Stem
- All Distances in Feet
- Drawing Not to Scale

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONDITIONAL ZONING #24CZ20
Hopson Gateway PUD & Town of Apex LI-CZ

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 and Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

	Hopson Gateway Request	Town of Apex Request
Applicant	ACRE Manager, LLC	Town of Apex
Authorized Agent	Matthew Carpenter, Parker Poe	Matt Wetherell, Town of Apex
Property Addresses	0 Tingen Road (portion of) & 1341 Perry Road (portion of)	0 Tingen Road (portion of), 1341 Perry Road (portion of), & 0 Perry Road
Acreage	± 58.54 acres	± 39.62 acres
Property Identification Numbers (PINs)	0741331566 (portion of), 0741326706 (portion of)	0741331566 (portion of), 0741326706 (portion of), 0741427922
Current 2045 Land Use Map Designations	Office Employment & Office Employment & Industrial Employment	Office Employment & Industrial Employment
If rezoned as proposed, the 2045 Land Use Map Designation will change to	Medium/High Density Residential & Commercial Services	Office Employment & Industrial Employment
Existing Zoning of Properties	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)
Proposed Zoning of Properties	Planned Unit Development-Conditional Zoning (PUD-CZ)	Light Industrial-Conditional Zoning (LI-CZ)

Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Separate comments must be provided for the two public hearings by the deadlines specified below.

Planning Board Public Hearing Date and Time: November 10, 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.

Town Council Public Hearing Date and Time: November 13, 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.

Published Dates: October 24 – November 13, 2025

Vicinity Map:

Property owners, tenants, and neighborhood associations within 500 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/49033.

Dianne F. Khin, AICP
Planning Director

Published Dates: October 24 – November 13, 2025

TOWN OF APEX
PO BOX 250
APEX, NORTH CAROLINA 27502
TELÉFONO 919-249-3426

NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS

ORDENAMIENTO TERRITORIAL CONDICIONAL #24CZ20
Hopson Gateway PUD & Town of Apex LI-CZ
(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 y el Consejo Municipal del Ayuntamiento de Apex. El propósito de estas audiencias es considerar lo siguiente:

	Hopson Gateway Request	**Town of Apex Request**
Solicitante	ACRE Manager, LLC	Town of Apex
Agente autorizado	Matthew Carpenter, Parker Poe	Matt Wetherell, Town of Apex
Dirección de las propiedades	0 Tingen Road (portion of) & 1341 Perry Road (portion of)	0 Tingen Road (portion of), 1341 Perry Road (portion of), & 0 Perry Road
Superficie	± 58.54 acres	± 39.62 acres
Números de identificación de las propiedades	0741331566 (portion of), 0741326706 (portion of)	0741331566 (portion of), 0741326706 (portion of), 0741427922
Designación actual en el Mapa de Uso Territorial para 2045	Office Employment & Office Employment & Industrial Employment	Office Employment & Industrial Employment
Si se aprueba el cambio de zonificación como se propone, el Mapa de Uso Territorial para el 2045 cambiará a	Medium/High Density Residential & Commercial Services	Office Employment & Industrial Employment
Ordenamiento territorial existente de las propiedades	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)	Residential Agricultural (RA) & Light Industrial Conditional-Zoning (LI-CZ #24CZ08)
Ordenamiento territorial propuesto para las propiedades	Planned Unit Development-Conditional Zoning (PUD-CZ)	Light Industrial-Conditional Zoning (LI-CZ)

Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

Los comentarios para cada una de las dos audiencias públicas deben presentarse por separado en los plazos especificados a continuación.

Fecha y hora de la audiencia pública de la Junta de Planificación: 10 de noviembre 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.

Fecha y hora de la audiencia pública del Consejo Municipal: 13 de noviembre de 2025 6:00 PM

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 oficina del Secretario Municipal (73 Hunter Street o por correo USPS a P.O. Box 250, Apex, NC 27502), al menos dos días hábiles antes de la votación del Consejo Municipal. Debe proporcionar su nombre y dirección para que conste en el registro. Las declaraciones escritas se entregarán al Consejo Municipal antes de la votación. No olvide incluir el nombre de la audiencia pública en el asunto.

Fechas de publicación: 24 de octubre - 13 de noviembre 2025

Mapa de las inmediaciones:

Los propietarios, inquilinos y asociaciones de vecinos en un radio de 500 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/49033.

Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 24 de octubre - 13 de noviembre 2025

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TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONDITIONAL ZONING #24CZ20
Hopson Gateway PUD & Town of Apex LI-CZ

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 and Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

	Hopson Gateway Request	Town of Apex Request
Applicant	ACRE Manager, LLC	Town of Apex
Authorized Agent	Matthew Carpenter, Parker Poe	Matt Wetherell, Town of Apex
Property Addresses	0 Tingen Road (portion of) & 1341 Perry Road (portion of)	0 Tingen Road (portion of), 1341 Perry Road (portion of), & 0 Perry Road
Acreage	± 58.54 acres	± 39.62 acres
Property Identification Numbers (PINs)	0741331566 (portion of), 0741326706 (portion of)	0741331566 (portion of), 0741326706 (portion of), 0741427922
Current 2045 Land Use Map Designations	Office Employment & Office Employment & Industrial Employment	Office Employment & Industrial Employment
If rezoned as proposed, the 2045 Land Use Map Designation will change to	Medium/High Density Residential & Commercial Services	Office Employment & Industrial Employment
Existing Zoning of Properties	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)
Proposed Zoning of Properties	Planned Unit Development-Conditional Zoning (PUD-CZ)	Light Industrial-Conditional Zoning (LI-CZ)

Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Separate comments must be provided for the two public hearings by the deadlines specified below.

Planning Board Public Hearing Date and Time: November 10, 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.

Town Council Public Hearing Date and Time: November 13, 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.

Published Dates: October 24 – November 13, 2025

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Vicinity Map:

Property owners, tenants, and neighborhood associations within 500 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/49033.

Dianne F. Khin, AICP
Planning Director

Published Dates: October 24 – November 13, 2025

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NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS
ORDENAMIENTO TERRITORIAL CONDICIONAL #24CZ20
Hopson Gateway PUD & Town of Apex LI-CZ
(Desarrollo de Unidad Planificada)

TOWN OF APEX
PO BOX 250
APEX, NORTH CAROLINA 27502
TELÉFONO 919-249-3426

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 y el Consejo Municipal del Ayuntamiento de Apex. El propósito de estas audiencias es considerar lo siguiente:

	Hopson Gateway Request	Town of Apex Request
Solicitante	ACRE Manager, LLC	Town of Apex
Agente autorizado	Matthew Carpenter, Parker Poe	Matt Wetherell, Town of Apex
Dirección de las propiedades	0 Tingen Road (portion of) & 1341 Perry Road (portion of)	0 Tingen Road (portion of), 1341 Perry Road (portion of), & 0 Perry Road
Superficie	± 58.54 acres	± 39.62 acres
Números de identificación de las propiedades	0741331566 (portion of), 0741326706 (portion of)	0741331566 (portion of), 0741326706 (portion of), 0741427922
Designación actual en el Mapa de Uso Territorial para 2045	Office Employment & Office Employment & Industrial Employment	Office Employment & Industrial Employment
Si se aprueba el cambio de zonificación como se propone, el Mapa de Uso Territorial para el 2045 cambiará a	Medium/High Density Residential & Commercial Services	Office Employment & Industrial Employment
Ordenamiento territorial existente de las propiedades	Residential Agricultural (RA) & Light Industrial-Conditional Zoning (LI-CZ #24CZ08)	Residential Agricultural (RA) & Light Industrial Conditional-Zoning (LI-CZ #24CZ08)
Ordenamiento territorial propuesto para las propiedades	Planned Unit Development-Conditional Zoning (PUD-CZ)	Light Industrial-Conditional Zoning (LI-CZ)

Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

Los comentarios para cada una de las dos audiencias públicas deben presentarse por separado en los plazos especificados a continuación.

Fecha y hora de la audiencia pública de la Junta de Planificación: 10 de noviembre 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.

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Fecha y hora de la audiencia pública del Consejo Municipal: 13 de noviembre de 2025 6:00 PM

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Fechas de publicación: 24 de octubre - 13 de noviembre 2025

Search 11:42 AM 10/24/2025

Mapa de las inmediaciones:

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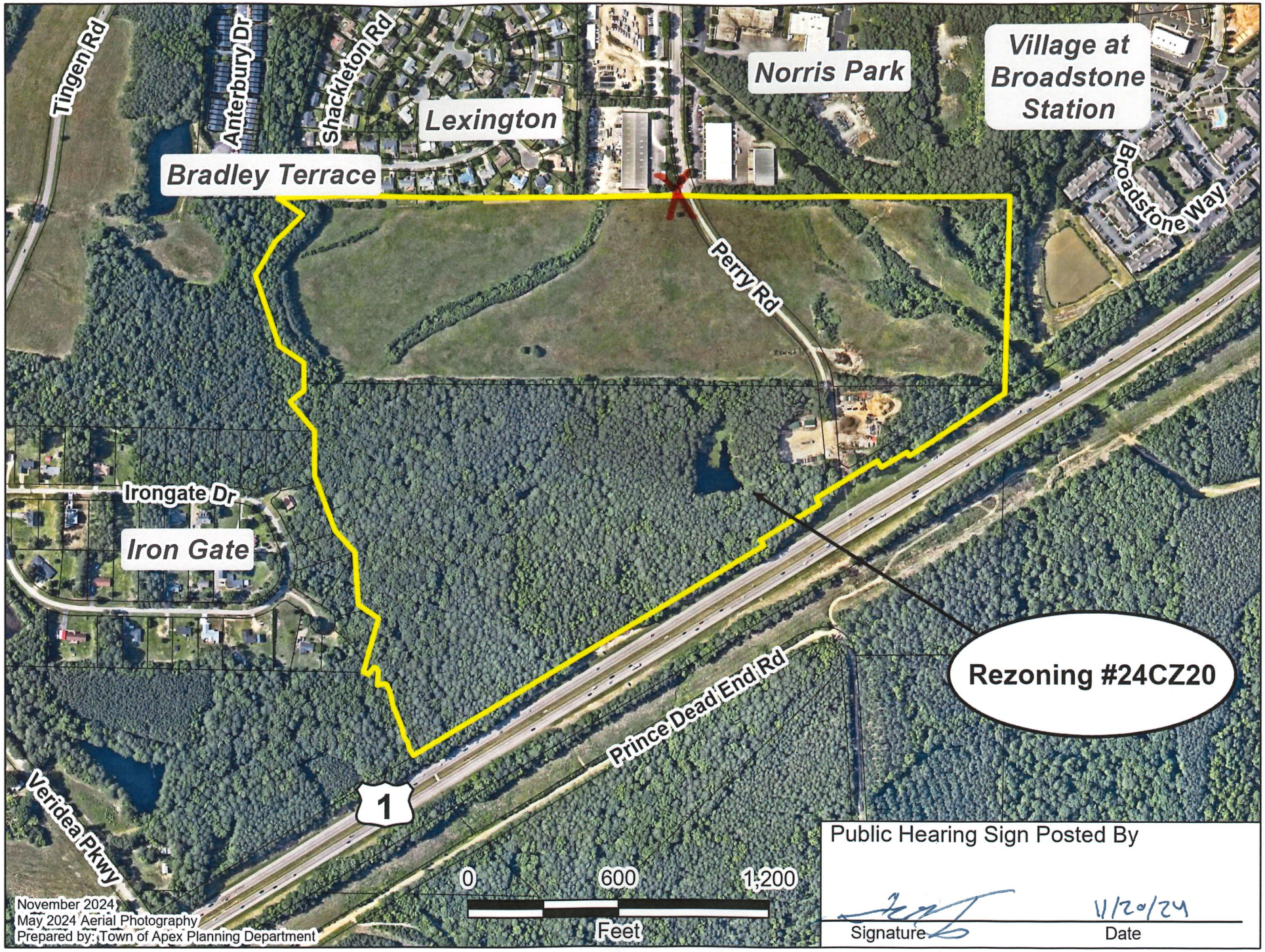
Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 24 de octubre - 13 de noviembre 2025



Public Hearing Sign Posted By

Signature

11/20/24

Date

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

AFFIDAVIT CERTIFYING
Public Notification – Written (Mailed) Notice
Town of Apex Unified Development Ordinance Section 2.2.11

Project Name:	Conditional Zoning #24CZ20 Hopson Gateway PUD and Town of Apex LI-CZ
Project Location:	0 Tingen Road, 1341 Perry Road, and 0 Perry Road
Applicant or Authorized Agent:	Matthew Carpenter (Hopson Gateway) & Matt Wetherell (Town of Apex)
Firm:	Parker Poe (Hopson Gateway) & Town of Apex (Town of Apex)
Planning Board Public Hearing Date:	November 10, 2025
Town Council Public Hearing Date:	November 13, 2025
Project Planner:	June Cowles

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 October 24, 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 500' 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 500' of the land subject to notification.

10/27/2025
Date

Planning Director

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Jeri Chastain Pederson, a Notary Public for the above State and County, this the 27 day of October, 2025.

JERI CHASTAIN PEDERSON
My Commission Expires
NOTARY PUBLIC
March 19, 2029
WAKE COUNTY, NC

Notary Public

My Commission Expires: 03/19/2029

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: December 1, 2024
- Name of development: 24CZ20 Hopson Gateway PUD
- Address of rezoning: 0 Tingen Rd (frontage on Perry Rd) – portion of PINs 0741331566 & 0741326706
- Total number of proposed residential units: 220
- Type(s) of residential units proposed: Single-family detached, townhomes, apartments

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 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