



Planning and Zoning Commission Public Hearing

Holly Springs Public Safety Building, Council Chambers
3235 Holly Springs Pkwy, Holly Springs, GA 30115
Thursday, July 24, 2025 | 7:00 PM

Chris Adams | Adrian Dekker - Chair | Mike Grayeski - Vice Chair | Eric Huminski | Andy Norris

AGENDA

I. CALL TO ORDER

II. PUBLIC HEARING RULES

III. OLD BUSINESS/PUBLIC HEARING

IV. NEW BUSINESS/PUBLIC HEARING

- A. **A-01-2025**, applicant, Garrard Development, Inc., requests annexation of 20.11 +/- acres located off of Lower Union Hill Road, Cherokee County, GA, tax parcel 158 of tax plat 15N26.
- B. **MA-03-2025**, applicant, Garrard Development, Inc., requests rezoning of 20.11 +/- acres located off of Lower Union Hill Road, Holly Springs, GA, tax parcel 158 of tax plat 15N26, from NC, Neighborhood Commercial (County), and AG, Agricultural (County), to TND, Traditional Neighborhood Development (City), and MXD, Mixed Use (City).

V. REPORTS/COMMENTS

VI. ADJOURNMENT

ITEM REPORT

AGENDA ITEM NUMBER: IV.A.



FROM: Nancy Moon, Community Development Director

MEETING DATE: July 24, 2025

AGENDA ITEM: A-01-2025, applicant, Garrard Development, Inc., requests annexation of 20.11 +/- acres located off of Lower Union Hill Road, Cherokee County, GA, tax parcel 158 of tax plat 15N26.

EXECUTIVE SUMMARY:

Applicant, Parks Huff, representing Garrard Development, requests annexation of 20.11 +/- acres located off of Lower Union Hill Road, Cherokee County, GA, tax parcel 158 of tax plat 15N26. The property is currently zoned NC, Neighborhood Commercial and AG, Agricultural. The applicant is proposing to develop the property as a mixed-use development consisting of medical office, retail, and residential uses. The proposed zoning is TND, Traditional Neighborhood Development and MXD, Mixed Use.

In 2022, the City and County adopted a growth boundary agreement, identifying areas on the boundary of the existing city limits which may be annexed subject to following the state annexation process. The agreement provides procedures for property within the growth boundary, as well as procedures for property located outside the growth boundary. This property is located outside the area identified in the growth boundary agreement. Section 5. GB (Growth Boundary) Protocols and Section 5. d. City - Outside GB states as follows:

GB Protocols. It is understood that the County and City will continue to face a balancing act between private property rights and the County and City authority to guide development for the common good of the community. The County and City desire to work together to honor the GB during the term of this agreement and therefore agree to the following:

d. City — Outside GB. If a proposed development project is submitted by an Owner to the City for consideration on property located outside, but on property abutting the GB and/or otherwise contiguous to the municipal boundary, the City will encourage the Owner to first contact the County for consideration. If the Owner refuses to meet with the County, the City will document this decision and disclose it to the County in accordance with Section 6

(Memorandum of Understanding). If the owner meets with the County, but after doing so desires to work with the City, the City will contact the County for written input and analysis, if any, regarding the proposed development project in accordance with the provisions in (4)(b)(Memorandum of Understanding).

As required, the applicant was encouraged to meet with the County concerning this development. The applicant followed this request and did meet with the County on March 20, 2025. After discussion with the County and not receiving support for the project, the applicant chose to file the application with the city to annex and rezone. A letter was received, dated April 2, 2025, notifying City staff of this decision (see attachments for letter from the applicant and email correspondence from the County to the applicant). Upon receipt of this letter, the County was notified as provided for in the communication requirements of the Memorandum of Understanding for the Growth Boundary Agreement. City staff, County staff, and the applicant met on April 17, 2025, and May 1, 2025, to discuss the project. In addition, City and County staff met on June 2, 2025, to discuss this case. The County staff requested or stated the following:

- 1) Reduce density to 65-75 units.
- 2) Detached housing should be on the northern perimeter with the attached housing towards the center of the property.
- 3) Entrances located closest to the intersection of East Cherokee and Lower Union Hill will be right-in/right-out due to the distance from the intersection.
- 4) Consider moving the commercial to front on East Cherokee.
- 5) If commercial development is moved to front on East Cherokee, attached housing may take the place along Lower Union Hill with appropriate landscaped screening.

Cherokee County

Cherokee County heard this case at its June 3, 2025, meeting. They voted unanimously (3-0) to object to the annexation in accordance with state law. Via a letter sent by email, dated June 10, 2025, the county notified the City, as well as the Georgia Department of Community Affairs (DCA), of the objection, citing the following: material increase in burden on the County related to the proposed change in zoning, increased residential density, and infrastructure demands related to the proposed change in zoning. A copy of the letter is attached. On June 13, via email, a notice (copy attached) was received from DCA stating that the "petition for annexation arbitration was deemed incomplete by the department per the statute and rules," and therefore, DCA declined to appoint an arbitration panel. A number of County residents sent their objections via email. I have attached those comments to the rezoning case packet.

FISCAL IMPACT:

N/A

ATTACHMENTS:

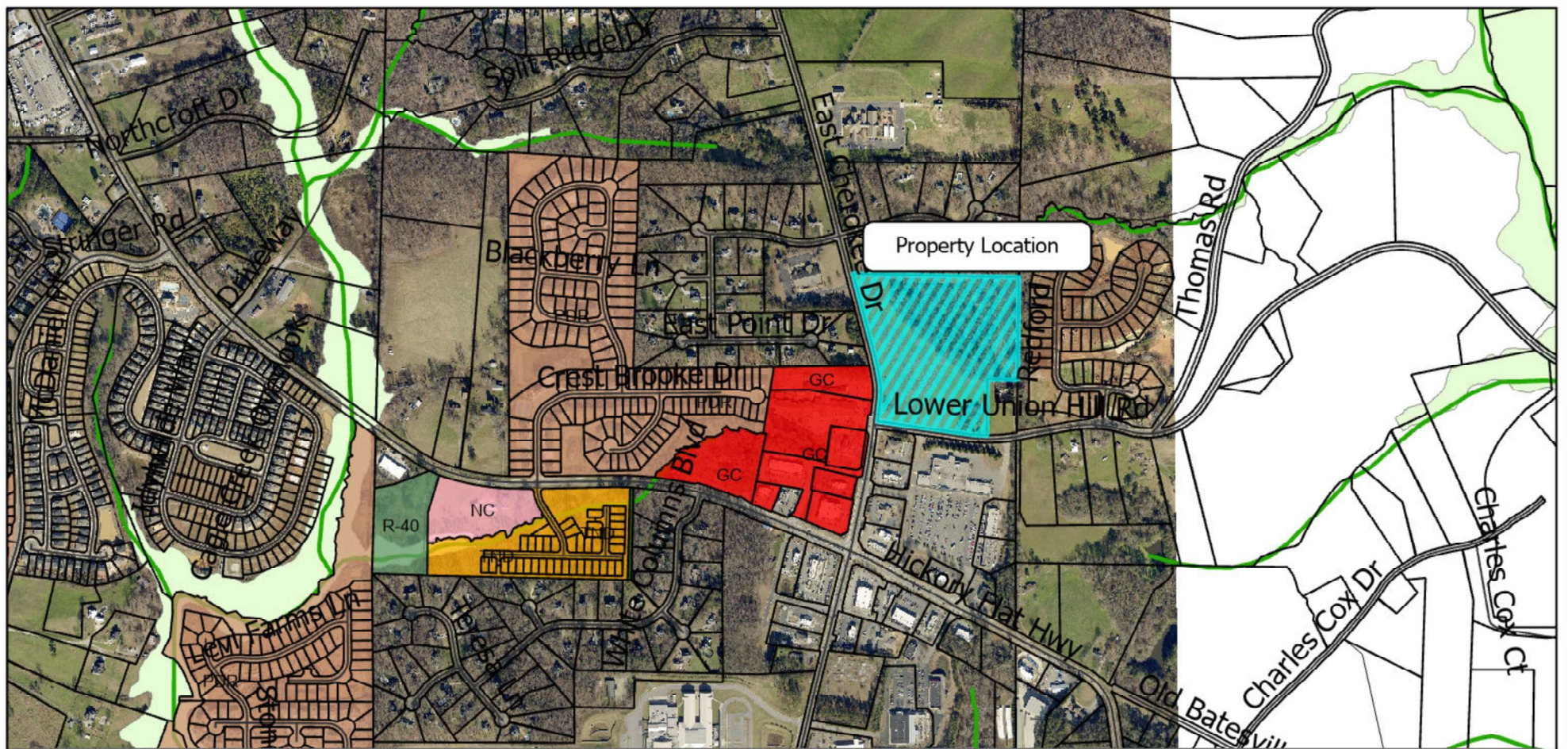
1. Location Map
2. Survey
3. Site Plan
4. Revised Site Plan
5. Application
6. Applicant Decision Letter to File in City
7. Cherokee County Staff Analysis
8. Cherokee County Objection

RECOMMENDATION:

The staff recommendation is approval of the annexation request.

CONCURRENCES:

City Manager



A-01-2025 MA-03-2025 Location Map

—+— Railroad

□ Parcels_2025

— Streets_2025

Zoning 2025

ZONING

AG- Agricultural

R-80- Estate Residential

R-40- Single Family
Residential Estate

R-20- Single Family
Residential

RD-20- Single Family and
Duplex

RD-3- Single Family
Residential

PUD- Planned Unit
Development

TND- Traditional
Neighborhood
Development

PDR- Planned
Development Residential

HDMFR- High Density
Multi-Family Residential

GC- General Commercial

NC- Neighborhood
Commercial

OI- Office Institutional

GV- Governmental

LI- Light Industrial

MXD- Mixed Use Overlay









City of Holly Springs, Georgia

Petition for Annexation

100% Method

Please completed one petition per parcel; duplicate this form as needed. Please print or type.

APPLICANT INFORMATION

Date: April, 3, 2025

Applicant's Name: Parks Huff

Corporation Name: Sams, Larkin & Huff, LLP

Mailing Address: 376 Powder Springs Street, Suite 100, Marietta, GA 30064

Phone: 770-884-4819

Email: phuff@samslarkinhuff.com

PROPERTY OWNER INFORMATION

Property Owner(s): Estate of Pete and Ovalene Cagle

Mailing Address: 7208 Vaughn Road, Canton, GA 30115

Phone: _____

Email: _____

PROPERTY INFORMATION

Tax Map #: 15N26 Parcel #: 158

Land Lot(s)/District: LL 252 & 253, 15th District, 2nd Section

Physical Address: 301 Lower Union Hill Road, Canton, GA 30115

Property Location Description: NE Corner of E. Cherokee Drive & Lower Union Hill Rd.

Current Zoning: NC & AG

(Attach additional sheets, if necessary)

Has an application for rezoning, special use, or variance been applied for in the County within the past five (5) years? yes If “yes,” please provide complete explanation and details in the space below:

On January 24, 2023 a petition to rezone 7.94 acres of the parcel from AG to GC was filed.

On September 5, 2023 the BOC approved a NC zoning of the 7.94 acres with the

following conditions: 1) The balance 12.17 acres be deed restricted to residential uses only,

and 2) All structures built on the NC property be outside the cell tower fall radius.

On September 19, 2024 the BOC approved a zoning resolution to remove condition

#1 that the balance of the 12.17 acres be deed restricted to residential uses.

(attach additional sheets, if necessary)

Describe the proposed development for the property in question should the annexation be approved, including the appropriate City zoning classification desired. (NOTE: Any annexation request requiring a rezoning in the City will need to be made on the appropriate rezoning request forms for the City of Holly Springs. This annexation petition does not complete the requirements for making a rezoning request).

The project is a proposed mixed-use mini village combining interconnected medical office, retail, and residential uses with upscale architectural consistency, parks, ponds, and outdoor dining centered around a roundabout feature. Residents, can shop, dine, and receive medical treatment all onsite and within walking distance without ever leaving the property. The applicant is seeking a TND designation with

a MXD mixed use overlay.

(attach additional sheets, if necessary)

SUBMITTAL CHECKLIST

The following exhibits must be attached to this Annexation Petition:

- D A copy of the most recent warranty deed or equivalent conveyance of ownership for the property to be annexed;
- D A copy of the Cherokee County Tax Plat, illustrating the property to be annexed;
- D Complete the Applicant & Property Owner(s) Signature Sections, following page;
- D Any additional information requested by City Officials.

APPLICANT & PROPERTY OWNERS SIGNATURE SECTION

GARRARD Development
Applicant Name (Please Print)

Jim Garrard
Corporation Name (Please Print)

[Signature]
Applicant Signature

Title (Please Print)

4-3-25
Date

ALL PROPERTY OWNERS (GRANTEES) MUST SIGN BELOW AS INCLUDED ON THE ATTACHED DEED OR CONVEYANCE.

Jeffrey Carnes, Co-Executrice
Property Owner Name (Please Print)

[Signature]
Property Owner Signature

3-27-25
Date

Elsie Haley, Co-Executrice
Property Owner Name (Please Print)

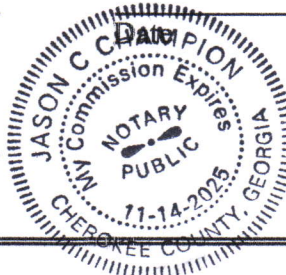
[Signature]
Property Owner Signature

3-27-2025
Date

Property Owner Name (Please Print)

Property Owner Signature

[Signature]
Notary (form must be notarized)



Received by: Nancy Moon
City of Holly Springs, Georgia

Date: 04/25/2025

15N26158

LOWER UNION HILL RD

CAGLE OVALENE,
C/O JEFFREY CARNES,
7208 VAUGHN RD.,
CANTON, GA, 30115

Total Market Value

PENDING

No Photo Available



KEY INFORMATION

Parcel #	15N26158
Account #	446124
Owner Name	CAGLE OVALENE
Neighborhood	13000
Land Size	20.30
Legal Description	LL 253; 15TH D PB 37 PG 70
Tax District	01 - County Unincorporated



April 2, 2025

Ms. Nancy Moon
Community Development Director
City of Holly Springs
P.O. Box 30142
Holly Springs, GA 30142

Re: 20.11 Acre Tract – 15N26 158
Proposed Mixed-Use Village

Dear Ms. Moon:

On March 20, 2025 we met with Thomas Trawick, the Zoning Manager in the Planning and Zoning Department for Cherokee County, to discuss the development of the above referenced parcel as a mixed-use community village comprised of residential, medical, retail, and dining uses. At the meeting we presented the enclosed site plan rendering depicting the details of the proposed development.

At the meeting Mr. Trawick shared the history of the site as to prior rezoning attempts and basically explained that due to the political climate of the district commissioner, the County would not be interested in supporting this development. He provided the attached follow up email to that effect.

We believe, and Mr. Trawick even indicated, that our use is in keeping with the area and provides an ideal transition between the residential neighborhoods and the General Commercial area node adjacent to the site on the other sides of both Lower Union Hill Road and East Cherokee Drive. Further it is in keeping with the Future Land Use Map for Cherokee County indicating this specific parcel as part of the "Village Community" designation. A copy of the map is attached for your reference.

Based on the City of Holly Springs' proactive development climate for quality walkable live-work communities, we would like to request annexation into the City. We feel the rustic character and architectural style are in keeping with the community and uniquely qualify this proposed use to be well suited in the City as a valuable asset and service to the community.

Please accept this letter and application as a formal request for annexation.

Sincerely,

A handwritten signature in blue ink that reads 'Jim Garrard' in a cursive script.

Jim Garrard
Garrard Development

From: [Thomas E. Trawick](#)
To: [Jim Garrard](#)
Subject: Hickory Flat Corner Tract - 15N26 158
Date: Friday, March 21, 2025 5:09:39 PM
Attachments: [image001.png](#)
[Resolution 2023-R-089, Amending Resolution 2023-R-081 for Ovalene Cagle Case #23-07-015, September 19, 2023.pdf](#)

Mr. Garrard.

Per our conversation from the other day, I do not foresee this property being zoned for townhomes at this time. I base this on the previous zoning action of the property, see attached, and the surrounding land uses/districts.

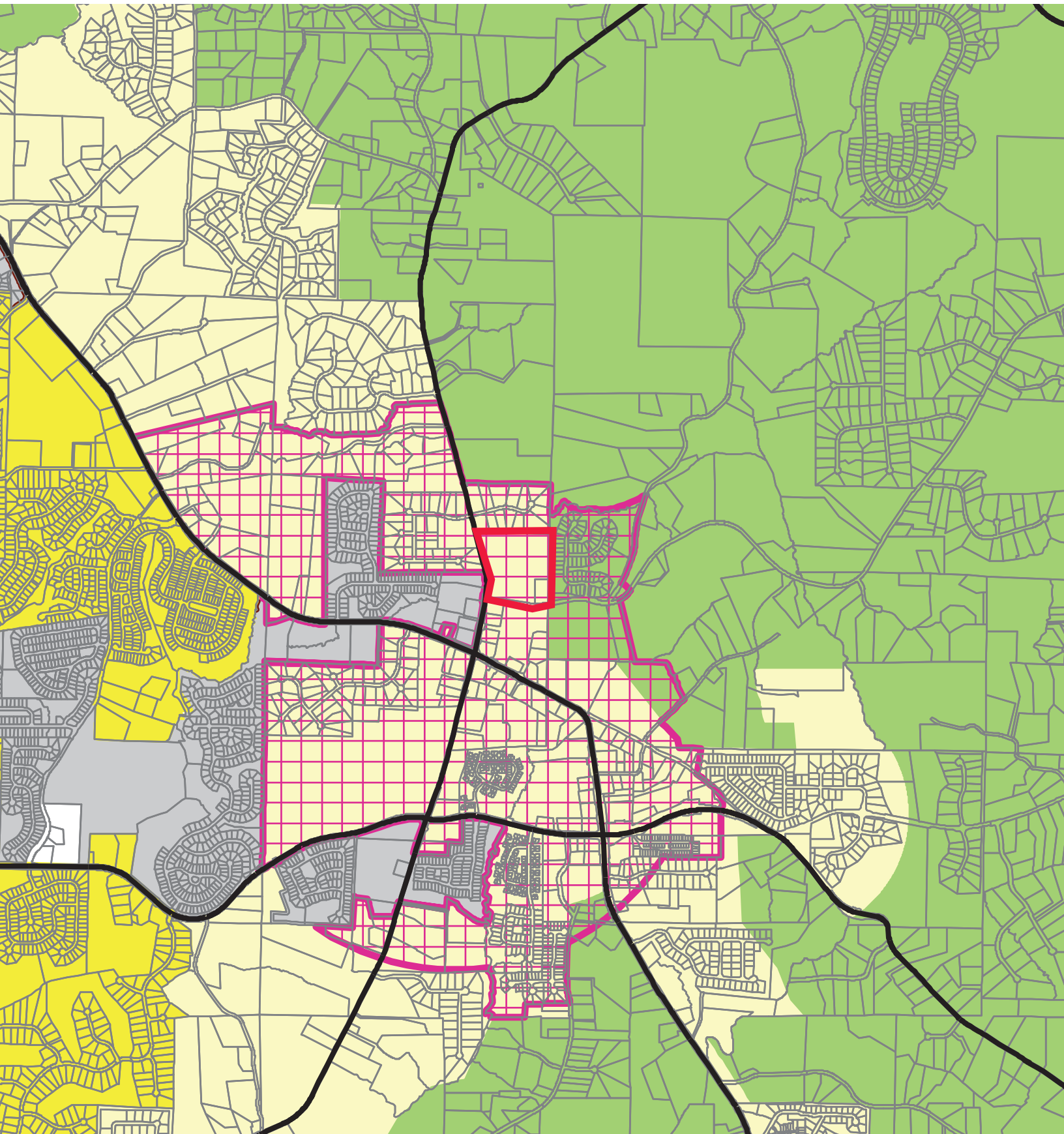
Should you have any additional questions, please let me know.

Thanks,



Thomas Trawick, AICP
Zoning Manager
Planning and Zoning
678-493-6108
tetrawick@cherokeecountyga.gov

CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential, proprietary, and/or privileged information protected by law. If you are not the intended recipient, you may not use, copy, or distribute this e-mail message or its attachments. If you believe you have received this e-mail message in error, please contact the sender by reply e-mail and telephone immediately and destroy all copies of the original message.



Cherokee County Future Development Map

Legend

-  Parcels
-  Cities Outside of Plan

Character Area

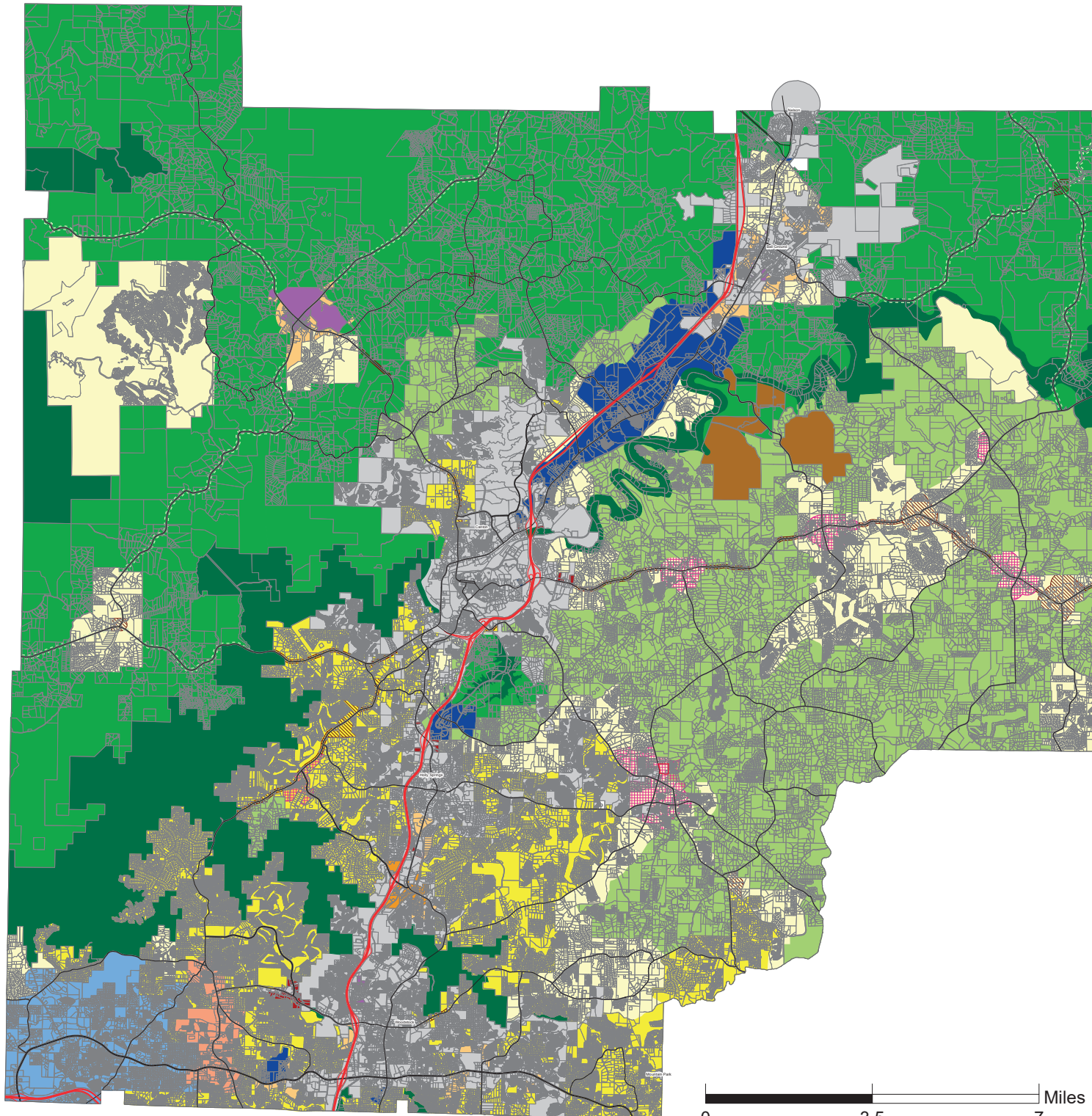
-  Natural Preserve
-  Rural Places
-  Country Estates
-  Suburban Growth
-  Suburban Living
-  Neighborhood Living
-  Workplace Center
-  Regional Center
-  Urban Core
-  Utilities
-  Bells Ferry LCI
-  SW Cherokee
-  Wild Cat
-  Community Village ←
-  Scenic Corridor
-  Corridor and Nodes



Adopted Date:
August 15, 2023

Produced by:
Cherokee County Planning and Zoning

*This Map Has Been Compiled From
The Most Up To Date And Reliable
Sources Available. Cherokee County
Assumes No Responsibility For Errors
Or Omissions Contained Within This Map.
No Warranties or Representations Are
Expressed Or Implied In Fact Or In Law.*





Community Village

Description

Community Villages are nodes on top of existing Character Areas. These nodes are typically located at the convergence of major transportation corridors and allow for large buildings and intensive uses. Businesses within these nodes offer a wide variety of goods and services, including both convenience goods for neighborhood residents and shopping goods for a larger market area. Large plazas provide a pedestrian friendly environment for residents, many of whom may walk or easily drive from their home to the village center, thanks to street/sidewalk connectivity.

Intent

Community Villages are envisioned as places where a compatible mixture of higher-intensity uses are located, including a variety of housing options, small offices, retail shops, services, and well-placed parks/plazas that create a small, interconnected community. At the center of the node, there is a core area containing the more intensive, primary land uses. Moving outward from the core, the land uses are a mixture of less intense retail, office and some residential. At the edge of the Community Village, the land uses are generally residential but with streets leading back to the core area.

Strategies

- No individual store or building larger than 80,000 square foot, with a maximum height of 3 stories
- Design centers to be pedestrian-oriented and break up large parking areas with landscaping and open spaces.
- Zoning districts could include CP, NC, and GC.

Summary Chart

Intensity	Residential Density - 200% of Character Area
Future Development	Primary Land Uses Grocery stores, drugstores, restaurants & shops Personal services—dry cleaners, auto repair shops Professional services—doctors, lawyer offices Secondary Land Uses Local institutions—churches, schools Residential housing/senior housing
Infrastructure	Located along major arterial roads or highways Sidewalks connect into surrounding neighborhoods Public water is available Sewer may be available depending on location
Greenspace	Major civic spaces--park or green, ball fields and courts for active recreation

Where in the County can this be found?

The dark pink color below represents all the Community Village space in the County. These areas are found at the convergence of major roads and intersections that need moderate-level commercial development.



Per O.C.G.A. § 36-36-113 (set forth in full at the end of this document for your ease of reference), a land use objection can be made by majority vote of the Board of Commissioners in the event of a material increase in burden upon the County which is quantifiable and otherwise meets the requirements of the statute. In order for a land use objection to be considered timely, it must be completed in time for the BOC to vote upon it in open session and served upon the annexing municipality within 45 days of receipt of notice of annexation via statutory overnight delivery or certified mail, return receipt requested

City	Holly Springs
Case Number A-01-2025	Applicant Sams, Larkin & Huff, LLP
Receipt of Annexation Notice Date	04/28/2025
Planning Commission Public Hearing	06/12/2025
45-day period to object expires on	06/11/2025
City Council Review & Decision	07/07/2025

Staff is requested to review the application for annexation and provide a response to the following questions.

	Yes	No
Is the property to be annexed contiguous to city jurisdictional boundary?	X	
Future Development Map designation	Community Village and Suburban Growth	
Surrounding / Contiguous City Future Development Map	Parkway Corridor	
Surrounding County Future Development Map	Community Village, Suburban Growth and County Estates	
Does this annexation create an "island" of unincorporated land?		X

1) If the application is granted will there be a material increase in burden upon the County directly related to:	Yes	No
a) the proposed change in zoning or land use?	X	
b) the proposed increase in density?	X	
c) infrastructure demands related to the proposed change in zoning or land use?	X	

	Yes	No
2) Will delivery of services be affected by the annexation?	X	
If the answer to (2) is yes, is the affect on delivery of services directly related to		
a) the proposed change in zoning or land use?	X	
b) the proposed increase in density?	X	
c) infrastructure demands related to the proposed change in zoning or land use?	X	
Note: Delivery of services may not be a basis for a valid objection but may be used in support of a valid objection if directly related to one or more of the subjects enumerated in items (a), (b), and/or (c) of Section 1 above.		

	Yes	No
3) If there is a material increase in burden caused by items (a), (b), and/or (c) of Section 1 above, can your department provide evidence of any financial impact?	X	
If the answer to (3) is yes, please provide the evidence		
County plans for the provision of services are based on the primary and secondary land uses identified for this area in the Comprehensive Plan. While the Community Village Character Area is designated for this property, the primary land use is commercial and residential is a secondary land use. Additionally, the 92 proposed residential units have an overall density of 4.5 units per acre. The proposed development will cause additional costs to existing and future infrastructure.		

	Yes	No
4) Does the proposed change in zoning or land use result in a substantial change in the intensity of the allowable use of the property or a change to a significantly different allowable use?		X
If the answer to (4) is no, does the proposed change in zoning or land use result in:		
a) a use which significantly increases the net cost of infrastructure?	X	
b) a use which significantly diminishes the value or useful life of a capital outlay project, as such term is defined in O.C.G.A. 48-8-110, which is furnished by the county to the area to be annexed?	X	
If the answer to 4(a) or 4(b) is yes, then:	Yes	No

c) Does the proposed change in zoning or land use differ substantially from the existing uses suggested for the property by the county's comprehensive land use plan?	X
d) Does the proposed change in zoning or land use differ substantially from the existing uses permitted for the property pursuant to the county's zoning ordinance or its land use ordinances?	X

Comments: This annexation consists of one 20.11 +/- acre parcel that is outside of the growth boundary. The applicant requests that the property be rezoned from AG (General Agriculture) to TND (Traditional Neighborhood Development) and MXD (Mixed Use Overlay). The applicant indicates that water and sewer will be provided by the Cherokee County Water and Sewerage Authority (CCWSA).

Planning and Zoning

1. This type of development is not supported by the 2023 Cherokee County Comprehensive Plan. The Community Village Character Area allows commercial as a primary land use and residential as a secondary use, but the property is also characterized as Suburban Growth, which encourages residential development as the primary use. This combination of Suburban Growth and Community Village together indicates the importance of residential as a primary use.
2. The 92 proposed residential units will result in an overall density of 4.5 units per acre which is twice as high as the proposed Suburban Growth residential density of 2 dwelling units per acre.
3. The County is concerned that the proposed development is inconsistent with the community's vision for Hickory Flat based on collaborative planning efforts with the city and the drafted Hickory Flat Area Plan.
4. The properties to the east are characterized as Country Estates. The proposed development does not allow for an appropriate transition to the suggested residential density of 0.5 dwelling units per acre for County Estates properties.
5. The proposed paved trail connection to the Courtyards at Hickory Flat cannot cross the undisturbed buffer around the perimeter of the Courtyards at Hickory Flat because the neighborhood is an R-20 residential conservation subdivision. Property owner permissions and a variance would be required to make that connection feasible.
6. The exterior buffer requirement for the northern R-40 residential subdivision Hickory Meadows is 35 ft minimum.
7. All structures built on the NC (Neighborhood Commercial) zoned property must be outside of the fall radius of the cell tower.

Transportation

1. The two entrances nearest the intersection of East Cherokee and Lower Union Hill will be designed to be right in and right out because they are within functional limits of the intersection.
2. Cherokee County will permit all the road access entrances after reviewing the submitted plans.

3. The centrally located roundabout appears to be a single-lane and lacks dimensions.
4. A traffic analysis will be conducted to determine the increased daily vehicle trip to understand potential impact to infrastructure.
5. The driveway entrance including a right-turn deceleration lane will be permitted by Cherokee County.
6. The road passing through the parcel with the cell tower may not be feasible and does not provide access to the commercial portion of the parcel. Additionally, an access easement required with the property owner is needed.
7. The applicant must install curb, gutter, and sidewalks along East Cherokee Drive and Lower Union Hill Road.
8. Parking for the amenity area and the mail kiosk are not detailed on the site plan.
9. Another entrance is suggested near the commercial development to provide additional access and improve connectivity.

Fire Marshal

1. The street width shall be a minimum of 20 ft wide across the whole development for fire department access and alleys must be named.
2. If the residential structure height is more than 30 ft, the access roadway to that structure shall be a minimum of 26 ft wide.
3. The Auto TURN routing for the fire truck shall be conducted to confirm the radius of the fire truck at the roundabout and the additional roadways.
4. A water flow test shall be conducted to ensure that an adequate water supply for the development is available.
5. Any future development of the property should be designed and built to meet minimum state fire codes.

O.C.G.A. § 36-36-113. Reasons for objection to annexation

(a) The county governing authority may by majority vote object to the annexation because of a material increase in burden upon the county directly related to any one or more of the following:

- (1) The proposed change in zoning or land use;
- (2) Proposed increase in density; and
- (3) Infrastructure demands related to the proposed change in zoning or land use.

(b) Delivery of services may not be a basis for a valid objection but may be used in support of a valid objection if directly related to one or more of the subjects enumerated in paragraphs (1), (2), and (3) of subsection (a) of this Code section.

(c) The objection provided for in subsection (a) of this Code section shall document the nature of the objection specifically providing evidence of any financial impact forming the basis of the objection and shall be delivered to the municipal governing authority by certified mail or statutory overnight delivery to be received not later than the end of the thirtieth calendar day following receipt of the notice provided for in [Code Section 36-36-111](#).

(d) In order for an objection pursuant to this Code section to be valid, the proposed change in zoning or land use must:

(1) Result in:

(A) A substantial change in the intensity of the allowable use of the property or a change to a significantly different allowable use; or

(B) A use which significantly increases the net cost of infrastructure or significantly diminishes the value or useful life of a capital outlay project, as such term is defined in [Code Section 48-8-110](#), which is furnished by the county to the area to be annexed; and

(2) Differ substantially from the existing uses suggested for the property by the county's comprehensive land use plan or permitted for the property pursuant to the county's zoning ordinance or its land use ordinances.



JARRARD & DAVIS, LLP

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CUMMING, GEORGIA 30040

ANGELA E. DAVIS
PARTNER
ADAVIS@JARRARD-DAVIS.COM

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FAX: 678-455-7149
WWW.JARRARD-DAVIS.COM

June 10, 2025

**VIA STATUTORY OVERNIGHT DELIVERY
AND VIA EMAIL**

Honorable Ryan Shirley(rshirley@hollyspringsga.us)
Mayor, City of Holly Springs
3237 Holly Springs
Holly Springs, GA 30115

Robert M. Dyer (bobby@drallaw.com)
Dyer Rusbridge Argo, P.C.
687 Marietta Highway
Canton, Georgia 30114

Robert H. Logan, CPA (rlogan@hollyspringsga.us)
City Manager, City of Holly Springs
3237 Holly Springs
Holly Springs, GA 30115

Re: Annexation of Property Located at Parcel #15N26 158 ("Property") by Parks Huff
consisting of approximately ± 20.11

Mayor Shirley, Mr. Logan, and Mr. Dyer:

This office and the undersigned represent Cherokee County, Georgia ("County"). The County is in receipt of the letter from Mr. Logan, dated April 28, 2025, which it received via email on April 28, 2025 at 5:08 PM, providing notice of the above-referenced proposed annexation. The Cherokee County Board of Commissioners considered this matter at its regular meeting on June 4, 2025. At the outset, the County notes that the area to be annexed is outside the heavily negotiated and agreed upon growth boundary between the City and the County. The growth boundary agreement is a result of the City and County working together to identify the best party to serve the area and the most appropriate land use regulations to govern such provision of service. Cherokee County urges the City to respect and honor its agreement and reject this annexation.

Looking beyond compliance with the growth boundary agreement, please accept this correspondence as notice, pursuant to O.C.G.A. § 36-36-113, that the Board of Commissioners – by way of unanimous vote – hereby *objects* to the above-referenced annexation due to the material increase in burden on the County related to the proposed change in zoning, increased residential density, and infrastructure demands related to the proposed change in zoning. See O.C.G.A. § 36-36-113(a).

A county government may object to a proposed annexation due to a material increase in burden on the county related to, (1) the proposed change in zoning or land use; (2) proposed

increase in density; or (3) infrastructure demands related to the proposed change in zoning or land use. In order for an annexation objection to be valid, the proposed annexation must:

- (1) Result in:
 - A. A substantial change in the intensity of the allowable use of the property or a change to a significantly different allowable use; or
 - B. A use which significantly increases the net cost of infrastructure or significantly diminishes the value or useful life of a capital outlay project, as such term is defined in [O.C.G.A. §] 48-8-110, which is furnished by the county to the area to be annexed; and
- (2) Authorize or result in a land use that differs substantially from the existing uses suggested for the property by the county's comprehensive land use plan or permitted for the property pursuant to the county's zoning ordinance or its land use ordinances.

O.C.G.A. § 36-36-113(d). Each of these statutory elements will be addressed in turn.

I. The Proposed Change in Zoning and Land Use Results in a Substantial Change in the Intensity of the Allowable Use of the Property and a Change to a Significantly Different Allowable Use.

Pursuant to O.C.G.A. § 36-36-113(d)(1)(A), the County objects to the proposed annexation because the proposed change in zoning from AG-General Agricultural District and NC-Neighborhood Commercial District under County standards to TND-Traditional Neighborhood Development with an MXD-Mixed-Use Development District overlay under the City's standards results in a substantial change in the allowed intensity of the residential use of the Property. In this case, 12.17 acres of the Property are currently designated to the AG zoning district. In the proposed development after annexation and rezoning, these same 12.17 acres are proposed for development with 92 townhouses under the City's TND classification. Although residential use is contemplated for the Property by the County's existing AG classification, the proposed rezoning to TND according to City standards will result in an allowable intensity significantly in excess of County standards. Specifically, as set forth in Table 7.01 of the City's Zoning Code, the maximum attached residential density for TND zoned properties is 8 units per acre. Under the proposed plan, the development will include 92 townhomes on the residential portion of the Property, for a density of 7.67 units per acre. Both of these amounts far exceed the .5 units per acre (6 residential units) permitted under the County's existing AG zoning. Accordingly, the proposed change in zoning from AG and NC to TND with an MXD overlay will result in a substantial increase in the intensity of the allowed use of the Property, and the County objects on that basis.

Additionally, consistent with O.C.G.A. § 36-36-113(d)(1)(A), the County objects to the proposed annexation because the proposed change in zoning from AG and NC under County standards to TND with a MXD overlay under the City's standards results in a significantly different allowable use of the Property. The annexation notice indicates that the Property would be used for a mixed-use mini village. As currently zoned, such a use is not permitted by right on the entirety of the Property under the County's Zoning Ordinance, relevant portions of which are attached as

Exhibit “1.” In particular, the county’s AG district (which applies to 12.17 acres of the Property) does not permit the types of office, retail, and restaurant uses proposed in the Application. Thus, the intended use of the Subject Property is not permitted under the current zoning designation for the majority of the subject property. Furthermore, the attached housing proposed in the Annexation Notice is not a permitted use in either the AG or NC districts. As such, the proposed annexation (and accompanying rezoning) results in a significantly different allowable range of uses of the Property than is contemplated by County standards, and the County objects on that basis as well.

II. The Annexation Will Result in a Material Increase in Burden on the County in the Form of Significantly Increased Costs of Infrastructure and Significant Diminution of Value and Useful Life of Capital Outlay Projects

Pursuant to O.C.G.A. § 36-36-113(d)(1)(B), the County objections to the proposed annexation because the application will result in a material increase in burden on the county in the form of significantly increased costs of infrastructure and significant diminution of value and useful life of capital outlay projects. This increased burden is reflected in the loss of impact fees for multiple infrastructure and maintenance systems, as well as an increased burden on transportation infrastructure

First, the County will be unable to collect impact fees to mitigate the increased density and corresponding infrastructure and maintenance demands brought about by the development proposed on the Property. Although the County would be able to collect impact fees pursuant to its impact fee ordinance (relevant portions of which are attached as Exhibit “2”) if the proposed development remained in the County, upon annexation, the County would receive no impact fees. Despite the annexation, however, the County will continue to provide infrastructure and services, such as roads, libraries, and parks, for the owners, residents and customers of the Property. Accordingly, the County will bear the expense of the proposed development without any funds to mitigate the degradation of the County roadways or increased burden on services provided. If the property remained in the County, the impact fees owed to the County would total \$368,891.65. The County’s inability to collect these impact fees, despite continuing to provide services necessitated by the development of the Property, will materially burden Cherokee County.

Second, the impact of the proposed development on transportation infrastructure in the area of annexation will considerably burden the County. The County has already invested over \$7.6 million on two transportation projects within a quarter mile of the Property, and a third project, which is currently under construction less than a mile away, will cost over \$8.2 million. Additionally, a fourth improvement project in the vicinity is planned that will cost approximately \$11.6 million. The proposed development will meaningfully shorten the lifespan of these projects as well as existing transportation infrastructure, and will impact the County’s Comprehensive Transportation Plan. The increased residential density proposed in the application would result in approximately 600 additional daily trips due to the proposed development, representing a 3% increase in traffic on East Cherokee Drive and 6% increase on Lower Union Hill Road. This will reduce the effective life of the existing and planned improvements and result in an increase cost of \$1.233 million over the lifetime of the projects. Those road improvements were deemed necessary upon the existing traffic demands and future development plans as reflected in the County’s Future

Land Use Map and Comprehensive Plan – and does not account for the substantial increase in density and intensity of the proposed development.

Finally, the development proposed in the application will result in increased use of County parks, necessitating higher maintenance and requiring expedited replacement of amenities. At a minimum, the increased density resulting from the proposed development will result in \$1,814 of additional annual maintenance costs.

Additional documentation further elaborating on the above-referenced financial impact calculations will be provided at the arbitration hearing should the City insist on going forward with this annexation.

III. The Proposed Annexation Authorizes and Results in Land Uses that Differ Substantially from the Existing Uses Suggested for the Property by the County's Comprehensive Land Use Plan or Permitted for the Property Pursuant to the County's Zoning Ordinance.

Pursuant to O.C.G.A. § 36-36-113(d)(2), the County objects to the annexation because the application proposes a density that is inconsistent with the County's Zoning Ordinance and its Comprehensive Plan. As discussed above, the County's Zoning Ordinance permits a residential density of .5 units per acre, or 6 total units in the AG zoning district in which the Property is located. The County's Comprehensive Plan, relevant portions of which are attached as Exhibit "3," notes that the Property is located within the Suburban Growth Character Area and Community Village Node. The Suburban Growth Character Area specifies that residential density should not exceed 1.0 unit per acre. The Community Village Node overlay permits residential density up to 200% of the underlying character area. As a result, the maximum residential density per acre contemplated for the Property under the Comprehensive Plan is 2 units per acre. The TND zoning proposed in the application permits an intensity of 8 units per acre, with the annexation application seeking 92 dwelling units, or 7.67 units per acre. As such, the application proposes a density far in excess of what is permitted under the Zoning Ordinance or suggested by the Comprehensive Plan.

Importantly, the Community Village Node further notes that the primary land use focuses on service-related uses and that residential use is a secondary land use. Moreover, the proposed townhomes are unprecedented in the immediate vicinity of the property as it has been well-established in the county's future land use plan that attached housing is not permitted anywhere in the Hickory Flat Community where this Property is located. Notable examples of the lower density residential use include the Courtyards of Hickory Flat subdivision to the east of the Property, with a density of 1.18 units per acre and the Hickory Meadows subdivision to the north of the Property, with a density of .71 units per acre. Towards the center of the Community Village node, there is a core area containing the more intensive, primary land uses and moving outward from the core, the land uses are a mixture of less intense retail, office and residential. The proposed density of 7.67 units per acre with attached product in the City, does not provide an appropriate step down in land use intensity from the site to adjoining/existing neighborhoods. For this additional reason, the proposed development differs substantially from the county Comprehensive Land Use Plan.

Please do not hesitate to contact me with any questions regarding this matter. The County remains hopeful that the City will honor the growth boundary agreement between the parties and otherwise acknowledge the unfair material burden and negative financial impacts that would be imposed upon the County by this annexation and proposed development and reject the annexation. Please let us know of the City's intentions.

Sincerely,

JARRARD & DAVIS, LLP

/s/ Angela E. Davis

Angela E. Davis

cc: Georgia Department of Community Affairs (planning@dca.ga.gov and
via overnight delivery)
Board of Commissioners (via email)
Mr. Geoff Morton, County Manager (via email)
Parks Huff, Esq. (via email)

ITEM REPORT

AGENDA ITEM NUMBER: IV.B.



FROM: Nancy Moon, Community Development Director

MEETING DATE: July 24, 2025

AGENDA ITEM: MA-03-2025, applicant, Garrard Development, Inc., requests rezoning of 20.11 +/- acres located off of Lower Union Hill Road, Holly Springs, GA, tax parcel 158 of tax plat 15N26, from NC, Neighborhood Commercial (County), and AG, Agricultural (County), to TND, Traditional Neighborhood Development (City), and MXD, Mixed Use (City).

EXECUTIVE SUMMARY:

The applicant, Garrard Development, Inc., requests rezoning of 20.11 +/- acres located off of Lower Union Hill Road, Holly Springs, GA, tax parcel 158 of tax plat 15N26. The property is currently zoned NC, Neighborhood Commercial and AG, Agricultural. The applicant is proposing to develop the property as a mixed-use development consisting of medical office, retail, and residential uses. The office/retail uses are projected to occupy 60,000 square feet of space, while the residential component will consist of 92 townhomes with an overall proposed density for the project of 4.57 units per acre. The proposed zoning is TND, Traditional Neighborhood Development and MXD, Mixed Use. The proposed site plan and elevations are attached.

The northern property line of the property is adjacent to property zoned R-40 in the county. The required buffer is 40 feet. The applicant is requesting a reduction to a 20 ft. landscaped buffer. The eastern property line is adjacent to property zoned R-20 in the county. The required buffer for this property is 30 feet. The applicant is showing a 20 ft. landscaped buffer. However, in reality, the buffer is much greater as there is a detention pond, stream, stream buffer, walking trail and additional landscaping between the structures and the property line.

In 2022, the City and County adopted a growth boundary agreement, identifying areas on the boundary of the existing city limits which may be annexed subject to following the state annexation process. The agreement provides procedures for property within the growth boundary, as well as procedures for property located outside the growth boundary. This property is located outside the area identified in the growth boundary agreement. Section 5. GB (Growth Boundary) Protocols and Section 5. d. City - Outside GB states as follows:

GB Protocols. It is understood that the County and City will continue to face a balancing act between private property rights and the County and City authority to guide development for the common good of the community. The County and City desire to work together to honor the GB during the term of this agreement and therefore agree to the following:

d. City — Outside GB. If a proposed development project is submitted by an Owner to the City for consideration on property located outside, but on property abutting the GB and/or otherwise contiguous to the municipal boundary, the City will encourage the Owner to first contact the County for consideration. If the Owner refuses to meet with the County, the City will document this decision and disclose it to the County in accordance with Section 6 (Memorandum of Understanding). If the owner meets with the County, but after doing so desires to work with the City, the City will contact the County for written input and analysis, if any, regarding the proposed development project in accordance with the provisions in (4)(b).

As required, the applicant was encouraged to meet with the County concerning this development. The applicant followed this request and did meet with the County on March 20, 2025. After discussion with the County and not receiving support for the project, the applicant chose to file the application with the city to annex and rezone. A letter was received, dated April 2, 2025, notifying City staff of this decision (see attachments for letter from the applicant and email correspondence from the County to the applicant). Upon receipt of this letter, the County was notified as provided for in the communication requirements of the Memorandum of Understanding for the Growth Boundary Agreement. City staff, County staff, and the applicant met on April 17, 2025, and May 1, 2025, to discuss the project. In addition, City and County staff met on June 2, 2025, to discuss this case. The County staff requested or stated the following:

- 1) Reduce density to 65-75 units.
- 2) Detached housing should be on the northern perimeter with the attached housing towards the center of the property.
- 3) Entrances located closest to the intersection of East Cherokee and Lower Union Hill will be right-in/right-out due to the distance from the intersection.
- 4) Consider moving the commercial to front on East Cherokee.
- 5) If commercial development is moved to front on East Cherokee, attached housing may take the place along Lower Union Hill with appropriate landscaped screening.

Cherokee County

Cherokee County heard this case at its June 3, 2025, meeting. They voted unanimously (3-0) to object to the annexation in accordance with state law. Via a letter sent by email, dated June 10, 2025, the county notified the City, as well as the Georgia Department of Community Affairs (DCA), of the objection, citing the following: material increase in burden on the County related to the proposed change in zoning, increased residential density, and infrastructure demands related to the proposed change in zoning. A copy of the letter is attached. On June 13, via email, a notice (copy attached) was received from DCA stating that the "petition for annexation arbitration was deemed incomplete by the department per

the statute and rules," and therefore, DCA declined to appoint an arbitration panel.

Cherokee County staff comments are included in this packet, as well. A number of County residents sent their objections via email. I have included those comments, as well as an email in support of the project to this packet. Opponents' major complaints included increased traffic, density of the project was too high, and development did not fit in with the character of the area. The proponent for this project requested three items to be considered: 1) Delete the pathway between the proposed townhome subdivision and the current Courtyards at Hickory Flat subdivision, 2) Relocate the swimming pool to near the entrance of East Cherokee Drive to help reduce noise at the backyards of Courtyards at Hickory Flat homeowners, and 3) Consider reducing the total number of townhomes from 92. The proposed revised site plan eliminated the pathway between the two subdivisions, relocated the swimming pool and clubhouse closer to the center of the property, and identified the buffer areas.

FISCAL IMPACT:

N/A

ATTACHMENTS:

1. Staff Analysis
2. Location Map
3. Survey
4. Revised Site Plan
5. Original Site Plan
6. Elevations
7. Application
8. Public Information Meeting Report
9. CCSD Impact Report
10. Cherokee County Staff Analysis
11. Emails from Area Residents
12. Traffic Study

RECOMMENDATION:

The staff recommendation is approval of the request to rezone the property to TND, Traditional Neighborhood Development and MXD, Mixed Use with the following stipulations:

1. A master association shall be formed which shall include all component parts of the project. The master association shall be responsible for the oversight, upkeep, and maintenance of the entrance areas, signage, private infrastructure, detention areas, mail kiosk, amenity areas, common areas, open space areas, other common recreational areas, and all landscaping and plantings contained within the community.
2. The master association to be formed hereunder shall have architectural design

- regulations which shall control and coordinate all principal and accessory buildings within the project, as well as items such as project entrance signage, signage for individual units, signage within amenity areas, common areas, open space areas, other common recreational areas and the like to protect and maintain the quality and integrity of the development. The yard areas around each unit shall be fully sodded/landscaped and maintained by the mandatory homeowners' association.
3. All restrictive covenants and association documents shall be submitted for review by the Community Development Director prior to final plat approval.
 4. The property shall consist of fee-simple for-sale single-family attached and detached homes. The northern perimeter of the property adjacent to the R-40 subdivision shall be developed with single-family detached homes. The Declaration of Restrictive Covenants shall restrict the number of units which can be leased at any one time to no more than ten percent.
 5. Density shall be limited to a maximum gross density of 4.57 units per acre, or a maximum of 92 fee-simple single-family detached and attached residential dwelling units.
 6. A 20 ft. landscaped buffer along the north and east property lines shall be required with vegetative material and screening subject to approval of the City Arborist and the Community Development Director. An opaque privacy fence, 8 feet in height, shall be required along the northern property line adjacent to the following tax parcels: 15N26 169, 15N26 170, 15N26 171, 15N26 172, and 15N26, 172.
 7. The architectural style shall be comparable to the elevations as submitted with the application and attached as Exhibit B with the exterior facade consisting of brick, stone, stacked stone, cedar shake type and/or Hardi-plank and combinations thereof, one of which must be brick or stone, and shall follow the design guidelines as outlined in the Holly Springs Zoning Ordinance, Article 19, Design Guidelines for Model Zoning Districts.
 8. Gutters shall blend with the architectural style of the buildings, consistent with the master covenants as established by the master association.
 9. Garage doors shall be setback a minimum of 20 feet from the back of sidewalks.
 10. Signage at the entrance point shall be ground based, monument style, in compliance with Article 10, Signs and Outdoor Advertising, and shall complement the high quality, architectural vision and style of the proposed homes. The entrance areas shall be professionally designed, landscaped and maintained.
 11. Lighting shall be environmentally sensitive, with developer making every effort to ensure that lighting is as unobtrusive as possible, utilizing fully-shielded LED lamps in compliance with the International Dark Sky Association, or equivalent organization.
 12. Owner/developer shall coordinate with the Community Development Director and the City Arborist regarding open space, recreation areas, and landscaping.
 13. Entrance design and improvements to East Cherokee Drive and Lower Union Hill shall be provided as per the determination and recommendation of the County Engineer.
 14. Sidewalks, decorative streetlamps, and curb and gutter shall be installed along the road frontage of East Cherokee Drive, Lower Union Hill Road, as well as the interior streets, as applicable, and shall conform to the design of the Holly Springs LCI Project 0008961, Pedestrian Improvements, as well as, the requirements of the Holly Springs Parkway District, as stated in Article 19, Design Guidelines for Model Zoning District.

15. All construction and employee vehicles and equipment shall be parked, and otherwise located, on the property during the development of infrastructure and construction of structures and shall not be parked on or along East Cherokee Drive or Lower Union Hill Road. There will be no stacking of vehicles along any roadway waiting for entry onto the property.
16. The commercial component shall be compliant with Article 7: Planned Development Districts and Article 20: Mixed Use Districts of the Holly Springs Zoning Ordinance.

CONCURRENCES:

City Manager

Staff Analysis

A. Existing Land Use and Zoning Classification of Nearby Property

ADJACENT ZONING		ADJACENT DEVELOPMENT	
NORTH:	R-40 (County)	NORTH:	SFR
SOUTH:	GC (County)	SOUTH:	Retail/Office
EAST:	R-20/AG (County)	EAST:	SFR/Cell Tower
WEST:	R-40 (County) GC(City)	WEST:	SFR Assisted Living/Office/Retail

B. Zoning Proposal Review Standards; Study Required for Amendment

1. Whether the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby property?

Surrounding development in the area includes single-family residential, assisted living center, retail and office uses. The proposed development, consisting of 92 townhomes may contain more density that what is immediately adjacent; however, it does provide a step down in intensity from the nearby existing commercial properties.

2. Whether the zoning proposal will adversely affect the existing use or usability of adjacent or nearby property?

The development of this property should not cause a substantial adverse effect on adjacent or nearby properties with regards to existing uses or usability. Buffers are planned to help screen development from the adjacent residential properties.

3. Whether the property to be affected by the zoning proposal has a reasonable economic use as currently zoned?

The property, as currently zoned, would be allowed to develop with those uses associated within the AG, Agricultural zoning district and NC, Neighborhood Commercial zoning district, i.e. farming or retail/office uses.

4. Whether the zoning proposal will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, public safety, or schools?

This request will generate additional traffic and use of utilities; however, the development will follow all design regulations. As there are only 92 units, the application submittal is not required to include a traffic study. Per the County, the two proposed entrances closest to the intersection of East Cherokee Drive and Lower Union Hill will only be permitted to be right-in/right-out. Other items addressed by the county include a deceleration lane and items related to general engineering items handled at site plan review and approval. The Cherokee County School District (CCSD) has indicated an impact of 67 students with an additional capacity cost of \$90,955 or

\$988 per unit. The three schools impacted by this development are Hickory Flat Elementary School (86% capacity), Dean Rusk Middle School (93% capacity), and Sequoyah High School (87% capacity). See the attached report from CCSD.

5. Whether the zoning proposal is in conformity with the policy and intent of the adopted Future Development Map (FDM) and Future Land Use Map (FLUM)?

This property was not included in the most recent version of the comprehensive plan. Adjacent properties include Neighborhood Center which includes both residential and nonresidential development. The previous version of comprehensive plan classified the future development as Parkway Corridor which included commercial development.

Cherokee County identifies this property for future development as Community Village and Suburban Growth. Per the County:

Community Villages are nodes on top of existing Character Areas. These nodes are typically located at the convergence of major transportation corridors and allow for large buildings and intensive uses. Businesses within these nodes offer a wide variety of goods and services, including both convenience goods for neighborhood residents and shopping goods for a larger market area. Large plazas provide a pedestrian friendly environment for residents, many of whom may walk or easily drive from their home to the village center, thanks to street/sidewalk connectivity. Community Villages are envisioned as places where a compatible mixture of higher-intensity uses are located, including a variety of housing options, small offices, retail shops, services, and well-placed parks/plazas that create a small, interconnected community. At the center of the node, there is a core area containing the more intensive, primary land uses. Moving outward from the core, the land uses are a mixture of less intense retail, office and some residential. At the edge of the Community Village, the land uses are generally residential but with streets leading back to the core area.

Suburban Growth areas have limited existing development but occur where growth pressure is the greatest due to adjacency with current or proposed community infrastructure (such as sewer and water, and transportation). This is an area in transition from rural types of development to suburban ones, often characterized by pockets of development interspersed among a rural landscape. More specifically, these areas mostly consist of single-family detached homes situated on lots ranging in size with shallower setbacks than in Rural Places and agriculturally-dominated land. Suburban Growth is intended to preserve the primarily residential nature of these areas while promoting new, low-density residential communities that foster a sense of community and provide mobility, recreation, and open space. To obtain this it is significant to channel growth pressures to areas that are suitable in terms of land use patterns and infrastructure investment to create more

sustainable communities. Hence, there is a need to ensure new development is compatible and located where existing infrastructure (i.e. roads, schools, water/sewer, etc.) is available.

A large portion of the surrounding development includes grocery stores, fast food, banks, assisted living and retail uses. Stepping down to office and sit-down restaurant reduces the intensity of the commercial development. Surrounding residential development consists of an R-20 conservation subdivision with slightly less than quarter-acre lots and two R-40 subdivisions with lots ranging from just under an acre to 2.25 acre lots.

6. Whether the zoning proposal is in conformity with the policies, objectives, and vision set forth by the Community Agenda (Comprehensive Plan) and other adopted policy documents?

The proposed development, consisting of single-family detached residential homes, is in compliance with the vision and objectives of the Community Agenda, primarily as follows:

- a) **Residential Uses. Use the character areas and the Future Development Map (FDM) to guide residential growth, steering appropriate densities to suitable locations. (9.1, #3)**
- b) **Traditional Neighborhood Development. Promote traditional neighborhood and mixed-use developments in appropriate areas, which could include commercial, multi-family, and single-family sections within the same project area. (9.1, #4)**
- c) **Annexation. Consider municipal boundary expansion opportunities as unincorporated property owners petition for annexation. (9.1, #9)**
- d) **Architectural Requirements. Utilize the adopted architectural requirements for the various character areas of the city, seeking to refine and enhance these requirements, as needed. Consistently enforce architectural regulations to promote a uniform and harmonious quality of development within respective character areas. (9.1, #11)**
- e) **Land Use Decisions. Use the Future Development Map (FDM) as a guide when making land use decisions (map amendment requests) and reviewing other development proposals. (9.1, #22)**
- f) **Housing Options. Promote an adequate range of safe, affordable, inclusive, and resource efficient housing in the community. This may be achieved by encouraging development of a variety of housing types, sizes, costs, and densities in each neighborhood; promoting programs to provide housing for residents of all socio-economic backgrounds, including affordable mortgage finance options; instituting programs to address homelessness issues in the community; or coordinating with local economic development programs to ensure availability of adequate workforce housing in the community. (9.2, #1)**

7. Whether an impact is expected on the environment, including, but not limited to, drainage, soil erosion, and sedimentation, flooding, air quality, and water quality and quantity?

The development of the property will be held to the environmental development standards for all local, state, and federal requirements. Engineering design and approval will meet all standards.

8. Whether there are other existing or changing conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the zoning proposal?

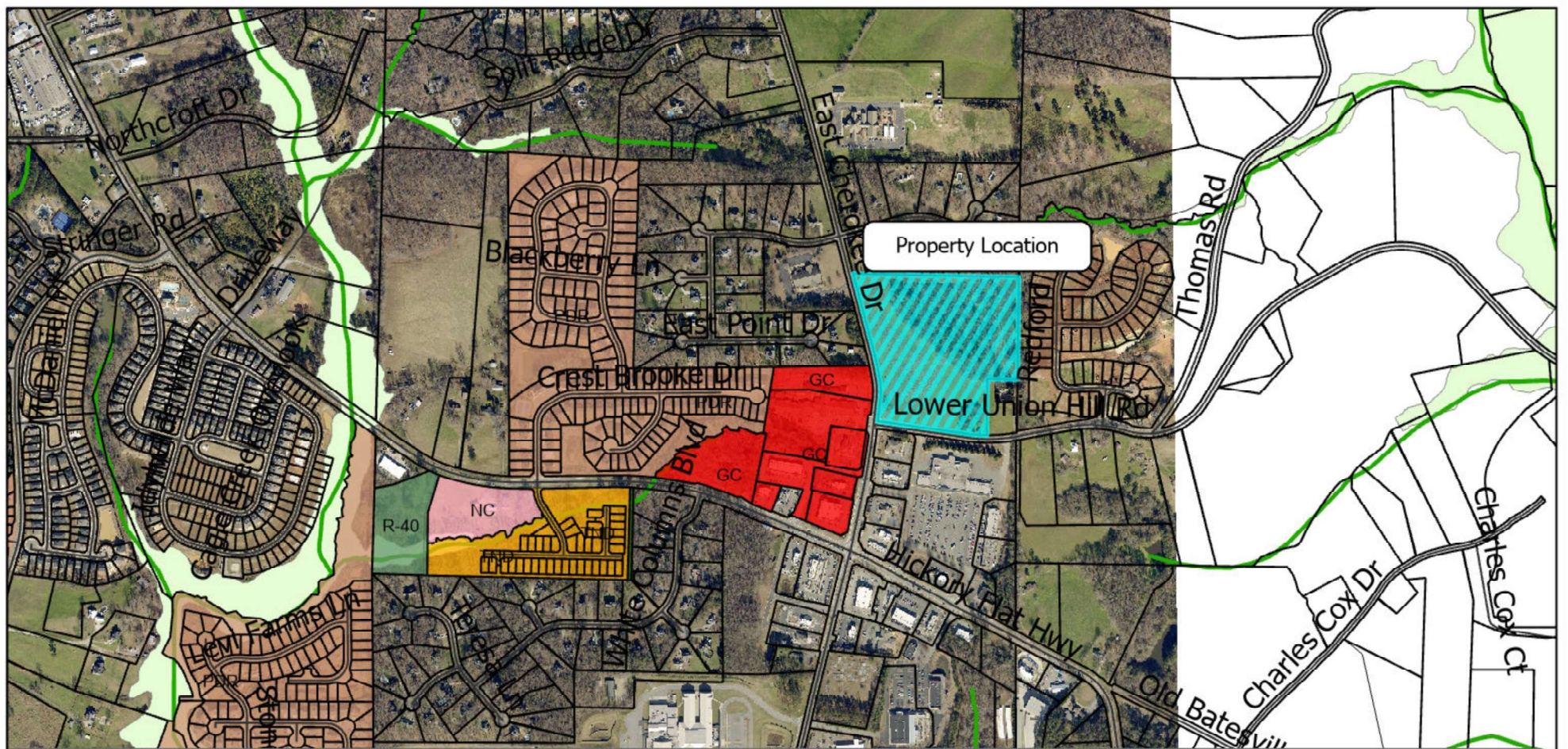
The proposed project will develop a mixed-use community providing transitional intensity from the heavier commercial uses to low density residential lots in an area that is experiencing growth both residentially and commercially.

C. Public Information Meeting

The applicant conducted a public information meeting on May 21, 2025. Approximately 130 attended the meeting and voiced their concerns to include dislike of the annexation, increased traffic issues, density, and the development did not align with the character of the area. The applicant also met with the adjacent neighborhood to the east who voiced specific concerns that an adequate buffer was provided, the pool was relocated away from their subdivision, and the connection through the buffer was eliminated.

D. Comments from Area Residents

A number of emails from area residents were received which echo the concerns of the public information meeting. These emails are attached. One positive email was received from the adjacent subdivision requesting all items addressed above in Section C.



A-01-2025 MA-03-2025 Location Map

—+— Railroad

□ Parcels_2025

— Streets_2025

Zoning 2025

ZONING

AG- Agricultural

R-80- Estate Residential

R-40- Single Family
Residential Estate

R-20- Single Family
Residential

RD-20- Single Family and
Duplex

RD-3- Single Family
Residential

PUD- Planned Unit
Development

TND- Traditional
Neighborhood
Development

PDR- Planned
Development Residential

HDMFR- High Density
Multi-Family Residential

GC- General Commercial

NC- Neighborhood
Commercial

OI- Office Institutional

GV- Governmental

LI- Light Industrial

MXD- Mixed Use Overlay













MAP AMENDMENT (REZONING) AND CONDITIONAL USE PERMIT APPLICATION

For Application Procedures, See p. 7

APPLICATION MA- 03-2025

APPLICATION CUP- _____

HEARING DATE _____

DATE OF APPLICATION _____

APPLICANT Garrard Development, Inc.

OWNER Estate of Pete Cagle and Ovalene Cagle
(If other than applicant) _____

ADDRESS 343 Dahlonega Street, Suite A

ADDRESS 7208 Vaughn Road
Canton, Georgia

ZIP CODE 30040 PHONE 770-888-9298

ZIP CODE 30115 PHONE [REDACTED]

EMAIL jimg@garrarddevelopment.com

EMAIL [REDACTED]

SIGNATURE [Signature]

SIGNATURE [Signature]

APPLICANT OR REPRESENTATIVE MUST ATTEND MEETING OR APPLICATION WILL NOT BE CONSIDERED

PRESENT ZONING DISTRICT(S) NC & AG

REQUESTED ZONING DISTRICT TND w/ MXD Overlay

REQUESTED CONDITIONAL USE(S) _____

PROPERTY LOCATION/ADDRESS 301 Lower Union Hill Rd, Canton, Georgia 30115

MAP NUMBER 15N26 PARCEL NUMBER(S) 158

LAND LOT(S) 252 & 253 DISTRICT(S) 15th SECTION(S) 2nd

ACREAGE 20.11 SEWAGE DISPOSAL TYPE Sewer UTILITIES AVAILABLE Yes

DESCRIPTION OF PROPOSED DEVELOPMENT AND/OR CONDITIONAL USE REQUEST: _____

The project is a proposed mixed-use mini village combining interconnected medical office, retail, dining, and residential uses with upscale architectural consistency, pocket parks, ponds, and outdoor dining centered around a roundabout feature. Residents can shop, dine, and receive medical treatment all onsite and within walking distance without ever leaving the property. The applicant is seeking a TND designation with a MXD mixed use overlay.

(COMPLETE ON ATTACHED PAPER IF NECESSARY)

The following information must be provided with completed application:

☒ WARRANTY DEED

☒ TAX DOCUMENTATION

☒ SURVEY PLAT BY REGISTERED SURVEYOR

☒ 1 LARGE COPY (22" x 34") OF SITE DEVELOPMENT PLAN BY REGISTERED SURVEYOR 1 PDF

COPY OF SITE DEVELOPMENT PLAN BY REGISTERED SURVEYOR

☒ CAMPAIGN CONTRIBUTION DISCLOSURE STATEMENT (ATTACHMENT A)

☐ ATTACHMENT B (CONDITIONAL USE PERMIT REQUESTS ONLY)

☒ WATER/SEWER AVAILABILITY LETTER FROM CCWSA (CHEROKEE COUNTY WATER AND SEWERAGE AUTHORITY)

(APPLICANT DO NOT WRITE BELOW THIS LINE)

PLANNING COMMISSION RECOMMENDATION:

APPROVED _____ STIPULATIONS _____

DISAPPROVED _____

CITY COUNCIL DECISION:

APPROVED _____ STIPULATIONS _____

DISAPPROVED _____

FILING FEES _____ RECEIPT# _____ CHECK# _____

Application Information

Please print or type answers, using additional paper or a separate sheet of paper, if necessary.

(1) Whether the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby property? See attached responses

(2) Whether the zoning proposal will adversely affect the existing use or usability of adjacent or nearby property? See attached responses

(3) Whether the property to be affected by the zoning proposal has a reasonable economic use as currently zoned? See attached responses

(4) Whether the zoning proposal will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, public safety, or schools?
See attached responses

(5) Whether the zoning proposal is in conformity with the policy and intent of the adopted Future Development Map (FDM) and Future Land Use Map (FLUM)? See attached responses

(6) Whether the zoning proposal is in conformity with the policies, objectives, and vision set forth by the Community Agenda (Comprehensive Plan) and other adopted policy documents?
See attached responses

(7) Whether an impact is expected on the environment, including, but not limited to, drainage, soil erosion, and sedimentation, flooding, air quality, and water quality and quantity?
See attached responses

(8) Whether there are other existing or changing conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the zoning proposal? See attached responses

Complete the following section, if applicable.

Residential

Minimum house size: TBD sq. ft.

Exterior façade: Proposed elevation provided

Maximum number of units: 92 units

Anticipated start date: 2025

Anticipated completion date: 2027

Commercial

Number of buildings: 3

Maximum square footage: 60K sq. ft.

Number of stories: 2

Total number of employees: 60~80

Exterior façade: Proposed elevation provided

Anticipated start date: 2025

Anticipated completion date: 2027

Rezoning Application Information (Responses)

- (1) Whether the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby property?**
- (2) Whether the zoning proposal will adversely affect the existing use or usability of adjacent or nearby property?**

Yes, the proposed mixed-use development is an ideal transition property between the subdivision neighborhoods and the heavy commercial off Hickory Flat Hwy and E Cherokee Drive. The residential townhomes are situated adjacent to the residentially zoned properties. Amenities and a naturally preserved area give an additional buffer for the residential neighbors. Within the property, the medical office building, retail shops, and seated indoor/outdoor dining are a less intense and neighborhood friendly light commercial use that buffers the onsite residential from the heavier General Commercial retail to the south and west of the property.

South

To the south is a large Publix anchored commercial shopping center with four flanking multi-tenant retail buildings, a dentist office, Bojangles, Wells Fargo, and a Shell gas station C-store.

West

To the west is the Retreat at Canton, a senior assisted living and memory care facility, a church, and two lots of an R-40 subdivision that backs up to E. Cherokee Drive.

East

The neighborhood to the east of the site, the Courtyards at Hickory Flat, is a new 55+ active adult subdivision zoned R-20 with 65 lots ranging in size from .23~.28 acres per lot with home values ranging from the mid \$500K to low \$600K.

North

The neighborhood to the north of the site, Hickory Meadows, is a thirty-year old fourteen (14) home neighborhood zoned R-40 and built in the 1990s with home values ranging from \$420K~\$580K.

- (3) Whether the property to be affected by the zoning proposal has a reasonable economic use as currently zoned.**

No, the 12.17 acre portion of the property is currently zoned agriculture (AG) and does not have a reasonable economic use. The 7.94 portion that is currently zoned neighborhood commercial (NC) does have a reasonable economic use but requires a rezoning to TND with a MXD overlay for the entire 21.11 acres to be an interconnected mixed-use development with shared infrastructure with the residential portion.

(4) Whether the zoning proposal will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, public safety, or schools?

Due to the cost of the development's infrastructure, streetscapes, landscaping, streetlights, and a consistent elevated architectural style among the uses, the starting price point for the Townhomes is estimated to be between \$550K~\$650K. The homeowners will likely be empty nesters or seniors who prefer to downsize to a nice community within walking distance of restaurants, shops, and medical care. The impact on schools, existing streets, and transportation facilities will be minimal compared to other developments that don't have medical and retail services onsite which reduce the typical number of trips. In addition, being it is a mini mixed-use development on 20 acres with only 92 residences, 30K sf of medical, 20K sf of retail, and 7K sf of office, it will not have a negative impact like large neighborhoods or large commercial developments typically do. The existing utilities that will serve the development have been verified with the different providers and confirmed that excess capacity exists and is available to serve the development and no new infrastructure improvements would be required.

(5) Whether the zoning proposal is in conformity with the policy and intent of the adopted Future Development Map (FDM) and Future Land Use Map (FLUM)?

Per Cherokee County's future land use plan this specific site is given two specific designations, "Community Village" and "Suburban Growth". The mixed-use mini village of residential townhomes, medical office, retail, and dining all carefully planned and designed in such a way to foster a cohesive live-work-play community captures the essence of the intended growth character.

(6) Whether the zoning proposal is in conformity with the policies, objectives, and vision set forth by the Community Agenda (Comprehensive Plan) and other adopted policy documents?

The City of Holly Springs Comprehensive Plan designation of Traditional Neighborhood (TND) specifically defines one of the character areas as "...newly created communities designed under a neotraditional or mixed-use framework." Townhomes are a permitted primary residential use, and neighborhood-serving commercial and professional office such as retail shops, dining, and medical offices are appropriate for a compact, pedestrian friendly village center. Residential density uses of up to eight units per acre, pedestrian connectivity with sidewalks and paths, enhanced landscaping, plazas, pocket parks, and natural areas, all serviced by public water and sewer are parts of the Traditional Neighborhood (TND) designation. The proposed development encompasses nearly all of the aspects of the Traditional Neighborhood Mixed-Use component as defined in the City of Holly Springs Comprehensive Plan.

(7) Whether an impact is expected on the environment, including, but not limited to, drainage, soil erosion, and sedimentation, flooding, air quality, and water quality and quantity?

All best management practices (BMP)s will be employed to prevent any potential environmental impact. Post development stormwater flows will not exceed the existing pre-developed flow levels per the proposed stormwater management system. Several pond water features throughout the development will also serve as first flush water quality ponds planted with specialized aquatic plantings to filter stormwater prior to conveyance to the master stormwater pond. The proposed development will also preserve an existing stream and all required buffers as a natural area. Walking trails and a pedestrian wooden bridge stream crossing are also planned for this area for residents to enjoy nature.

(8) Whether there are other existing or changing conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of zoning proposal?

There has been increased commercial development activity along Hickory Flat Hwy and the stretch of E Cherokee to the subject property, including intense retail, quick serve restaurants, gas stations, banking etc. This proposed development will serve as a lower intensity use buffer, and a natural transitioning use between the general commercial area of Hickory Flat Hwy/E Cherokee and the neighborhoods further north on E Cherokee and east along Lower Union Hill

Cherokee County Water & Sewerage Authority

January 22, 2025

RE: Water & Sewerage Availability (Tax Map 15N26, Parcel 15B)

To Whom It May Concern:

Please be advised that Cherokee County Water & Sewerage Authority presently has a 24" DIP water main on the West side of East Cherokee Drive West of the subject property. Also, there is an 8" DIP water main on the South side of Lower Union Hill Road South of the subject property.

Sewer is available both to the Southwest and Northeast of subject property. The acquisitions of easements to manholes or lift stations will be the responsibility of the developer.

A private sewer lift station is acceptable to be connected to an Authority approved public sewer gravity system. This system would service the residential portion only.

The capacity for Rose Creek Wastewater Treatment Facility is 6.0 MGD and the Authority is presently treating 3.5 MGD. The Fitzgerald Creek Treatment Facility is 11.5 MGD and the Authority is presently treating 5.0 MGD.

There is presently no moratorium for water or sewer connections on the Authority System. Sewer connections are available on first pay, first serve basis. However, plans for any development must be submitted and approved by the Authority prior to any water or sewer connection application being accepted for processing. Also, existing infrastructure, size and location, must be verified by developer/engineer/contractor prior to submittal to Cherokee County Water and Sewerage Authority.

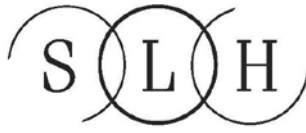
If you have any questions, please don't hesitate to call me.

Sincerely,



Bradley M. Payne
Construction Office Supervisor

CC: Garry Hensley
Jody Henson
Keith Allen
Jeff Hooper



GARVIS L. SAMS, JR.
(1952-2025)

JOEL L. LARKIN

PARKS F. HUFF

SAMS, LARKIN & HUFF

A LIMITED LIABILITY PARTNERSHIP
SUITE 100

376 POWDER SPRINGS STREET
MARIETTA, GEORGIA 30064-3448

770•422•7016

TELEPHONE

770•426•6583

FACSIMILE

May 29, 2025

VIA E-MAIL

Ms. Nancy Moon, Community Development Director
City of Holly Springs
3237 Holly Springs Pkwy.
Holly Springs, GA 30115

Re: Application of Garrard Development, Inc. for Annexation and Rezoning of 20.11± acres of real property located in Cherokee County, Georgia; Tax Map 15N26 158, Land Lots 252 & 253, 15th District, 2nd Section. Case Nos. A-01-2025 and MA-03-2025

Dear Nancy:

The Applicant, Garrard Development Inc., conducted a Public Input Meeting on Tuesday May 21, 2025 at 6:30 pm at the Hickory Flat Library Community Room. Notice letters (including the site plan) were mailed to all property owners within 1,000 feet of the subject property per the mailing list pulled from Cherokee County GIS. A stamped Certificate of Mailing dated May 9, 2025 is attached as well as a copy of the notice letter and its enclosure.

One of the attendees estimated approximately 130 people were at the meeting. The sign-in sheets as well as Comment Cards are attached. In addition to the site plan, the Applicant presented renderings of the proposed residential, retail and office buildings. Additionally, the Applicant presented the Cherokee County Zoning Map, Future Development Map as well as the City of Holly Springs Zoning Map and Future Development Map.

Prior to the meeting, the Applicant met with the HOA board of the adjacent neighborhood the east, the Courtyards at Hickory Flat. The Board discussed their concerns about the sidewalk connecting the project with the Courtyards community. The applicant included this connection only if the neighborhood wanted it and since they didn't not the applicant will agree to no direct pedestrian or other connection to the two communities. The neighborhood also wanted assurances that there would be a meaningful buffer between the two communities which the applicant agreed too. The last item discussed was relocating the pool interior to the project or otherwise create a sound barrier to limit negative impact created by the pool activity. The meeting was positive with the HOA and they generally seemed supportive of this true mixed-used proposal as positive for the area.

The community input meeting on May 21 was attended by approximately 130 county residents from the Hickory Flat area. The number one objection was to the annexation into the city of Holly Springs. They noted that the commercial component was consistent with the current

SAMS, LARKIN & HUFF

A LIMITED LIABILITY PARTNERSHIP

VIA EMAIL

Ms. Nancy Moon
Community Development Director
Holly Springs
June 2, 2025
Page 2

county NC zoning, but wanted the residential to remain AG. They were told that the applicant complied with the procedures outlined in the Growth Boundary Agreement. The meetings with the county staff included comments that the mixed-use proposal was generally consistent Community Village land use designation in the county's Future Development Map. After meeting with both the city and county, the applicant decided to seek annexation into the city because the city's zoning ordinance had a better mixed-use category that would create a better mixed-use development that was consistent with the county's land use plan. The attendees did not believe Holly Springs would be a good steward of the project and wanted it to not be annexed. They specifically said they didn't want another chicken finger restaurant, which is not part of the mixed-use proposal. They also thought the project would cause traffic problems not recognizing the fact the property sits behind a Publix Shopping center and that the residential component would produce significantly less traffic than solely developing the property commercially. The meeting ended with a long-time Hickory Flat property owner defending the need of the legacy owners like the Cagle's to be able to sell their land for a reasonable use. She said her opinion may not be popular but that her family annexed their property into Holly Springs years ago because the county wasn't being reasonable. Although the attendees were almost universal in their objection to the annexation or the mixed-use proposal, the meeting included good dialogue and everyone had a chance to respectfully share their views.

Please contact me at your earliest convenience should you have any questions regarding the meeting.

Sincerely,

SAMS, LARKIN & HUFF, LLP

Parks F. Huff
Attorney for the Applicant
phuff@samslarkinhuff.com

PFH/jcc
Attachments

SIGN-IN SHEET

Applicant: Garrard Development, Inc.
Community Information and Input Meeting
May 21, 2025
Location: Hickory Flat Library

NAME	MAILING ADDRESS	PHONE #	E-MAIL
Dave Knappenberger	300 Field Crest St. Canton Ga	74753127	
CHRIS SZCZOTKA	225 Kingsley Way 30128		
Donna West	950 Thomas Rd	954-494-9599	
Jennae Clifton	235 Kingsley Way		
TRICIA HARMON & Rox Taylor	150 Cherokee Hill	CANTON, GA 30115	
Candace Carroll	350 Lower Union Hill Rd	770 364 8023	
Marg Hardman	950 Thomas Rd	Canton, Ga	
Paul Ruder	309 McQueen Way	CANTON GA 678-414-1214	
CHRIS BENNETT	460 GARYFIELD Dr. CANTON, GA 30115	678-520-8941	
J H	Courtyard Hickory Flat		
Lori Hohl	7935 Union Hill Rd	404 625-0391	
Andrew Hohl	7935 Union Hill Rd	404 372-8879	
Karen Kirkpatrick	134 Turners Ct Canton	470-214-1021	
Jim Parker	122 Seabiscuit Way 30115	770-265-7293	
Tom Cox	124 Northampton Drive 30115	470 695 5724	

SIGN-IN SHEET

Applicant: Garrard Development, Inc.
Community Information and Input Meeting
May 21, 2025
Location: Hickory Flat Library

NAME	MAILING ADDRESS	PHONE #	E-MAIL
Ray Alexander	302 Field Crest ST. Canton GA 30115	404-539-7419	
LISA Cuomo	1026 Sugar Pike Way Canton GA 30115	678-762-0001	
Mike Cuomo	1026 Sugar Pike Way Canton, GA 30115	678-762-0001	
Jahb Witzig	418 Harbor Creek Drive Canton, GA 30115	678-388-4413	
Lisa Happe	609 TAMMADIE LANE CANTON 30115	404.702.7491	
Honey Burfield	Cherokee County		
Richard Jordan	Old Country Place	7.335-1814	
Helena & Kaj Savenius			
Jodie Davis	977 Bailey Rd	65707737	
Charles M. Burch	181 Redford Lane		
Charles Hunt			
Laura Hamenon	3156 E Cherokee Tr.	770-345-8646	
Mervin Hamenon	3156 E Cherokee Tr.	770-345-8646	
Robin Daugherty	414 Pine Log Ct	678-699-5236	
Jason Bengtson	109 Township Way	770-295-9125	

SIGN-IN SHEET

Applicant: Garrard Development, Inc.
Community Information and Input Meeting
May 21, 2025
Location: Hickory Flat Library

NAME	MAILING ADDRESS	PHONE #	E-MAIL
Bob Crenshaw	123 Redford Ln, Canton	770-366-0945	
Marilyn Johner	320 Mc Queen Way, Canton	678-445-0227	
Edward Johnson	320 Mc Queen Way, Canton	678-445-0227	
JAMES FREEMAN	104 TOWNSHIP WAY CANTON	404-408-7432	
Jim Alvino	116 Redford Lane Canton	516-510-8776	
Dolores Duval	104 Old Hickory, Ct.	404-403-8986	
JoAnn Alvino	116 Redford Ln. Canton	770-312-4514	
Jerry HANLEY & RITA MCGEE	3020 QUARLES DR.	404-969-8115	
Debbie Lochner	145 Redford Lane Canton	404-375-9863	
Bob Sykes	197 Redford Ln, Canton, 30115	770-841-5795	
Nancy Sykes	197 Redford Ln, Canton 30115	770-841-5781	
LOKANE & BILL SULLIVAN	1000 LIBERTY GROVE 30004	770-846-3120	
Ann + Tammy LaDe	486 TAMARACIL TRAIL, 30115	678/409-4662	
Ali John	165 REDFORDS LANE	901-484-9137	
Larry Spickman	736 Still Branch Dr	404-641-2904	

SIGN-IN SHEET

Applicant: Garrard Development, Inc.
Community Information and Input Meeting
May 21, 2025
Location: Hickory Flat Library

NAME	MAILING ADDRESS	PHONE #	E-MAIL
Cheryl Brown	157 Redford Lane Canton	404-509-1317	
Richard Thornton	127 Redford Lane Canton	770-993-3477	
Dana Thornton	127 Redford Lane Canton	770-993-3477	
Susan Gilchrist	1028 Sugar Pike Way Canton 30115	951-522-0402	
Nancy Eramian	359 Cherokee Station Cir, Woodstock	678-447-9802	
Tom & Libby Nanney	102 Steplesara Dr	770-597-7854	
Libby Nanney	102 Steplesara Dr	404-314-5926	
APRIL KIDWICKS	113 Township Hwy Canton	4-444-5438	
TED FOSTER	408 East Point Drive	7-461-005 ✓	
CYNTHIA FOSTER	408 E Point Dr	770-479-0706	
Michele Hobbs	405 E Point Drive Canton	(404) 295-6435	
Xvonne Cartledge	410 E. Point Dr. Canton	770 365-9882	
Terry Cartledge	410 E Point Dr Canton	470 560-4117	
Janet Wilson	309 Apache Dr. Canton	404-431-4506	

SIGN-IN SHEET

Applicant: Garrard Development, Inc.
Community Information and Input Meeting
May 21, 2025
Location: Hickory Flat Library

NAME	MAILING ADDRESS	PHONE #	E-MAIL
Peter & Gretchen Larson	Canton		
HUGH PALMER			
RAY Hoffman	177 REDFORD LN Canton		
Dolores Hoffman	"		
Kathy Seamen	132 Redford Ln Canton		
Hilda Balys	173 Redford Lane, Canton		
Ashley Yavari	7171 Union Hill Rd Canton		
Janet Murray	341 McQueen Way Canton		
Steve Murray			
Nancy Adams	140 Orchard Dr. Canton		
Graciele Wenzel	180 Redford LN Canton		
Rebecca Massey	193 Redford LN Canton		
Jana & Nick Bravo	300 McQueen Way Canton 30115	770-500-7922	
Russell & Lynn Hudson	400 Lower Hill Rd 30115	770-371- ↓	
JEFF Cain	571 Dry Pond Ln 30014	(4) 290.8742	

SIGN-IN SHEET

Applicant: Garrard Development, Inc.
Community Information and Input Meeting
May 21, 2025
Location: Hickory Flat Library

NAME	MAILING ADDRESS	PHONE #	E-MAIL
Summer Owens	1016 Lower Union Hill Rd		
MARILYN MILLER	185 Redford Ln, Canton	404.2459485	
Karen White	149 Redford Lane Canton, 30115	770.361-5823	
NOREE KENDLE	332 McQueen Way Canton 30115		
KAREN FREEDMAN	344 McQueen Way	727.510.0771	
Mary Schumacher	340 McQueen Way	615.218.4335	
LAWRENCE PECKS	110 TOWNSHIP WAY	770-345-1184	
James Dvorak		470-531-5467	
Mike Cuomo		678-350-1909	
LARA COOLEY	425 Wood Branch St. Woodstock 30188	678.491.7323	
Mary Ann Laughlin	3040 Charles Dr. Canton	404-786-1937	
Judy Holbert	3050 Charles Dr Canton	770-851-7060	
John Carlton	411 East Point DR	770.720.8701	
TOM BOYLE	172 Wheaton Dr Woodstock, Ga 30188	678.814.5072	
Stephen McGill	408 Avery St Canton 30115	404.483.6277	



Date: 5/21/25
Name: RITA MCGEE & JERRY HANLEY
Address: 3020 QUARLES DR CANTON 30115
Phone: 404-969-8146
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: THIS CANNOT HAPPEN!
BUILD 1 STORY homes for adults

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/2025
Name: John Carlton
Address: 411 West Point Dr.
Phone: 770 728 8701
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Reduce the security



Date: 5/21/24
Name: Lara Cooley (Lara & Chuck)
Address: 425 Wood Branch St. Woodstock 30188
Phone: 678-491-7323
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

Do not rezone
Do not annex / Holly Springs is a virus in Hickory
Let Red Barn build 1-2 acre homes
Flat

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail ^{e-mail}

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

- Microphone needed
- Find a way to answer all questions



Date: 5-21-25
Name: RAY HOFFMAN
Address: 177 REDFORD LN
Phone: 770 365-1404
Email: [REDACTED]

Do you support the project?

☐ For ☐ Against ☒ With Conditions ☐ Uncommitted

Comments: MORE RETAIL, LESS DENSE HOUSING. NO SIDEWALK
DIRECTLY INTO HFC COURTYARD BUT A SIDEWALK
ON LOWER UNION TO CONNECT THE 2 AREAS.
ENSURE TREE BOUNDARY STAYS AND IS AT
LEAST 75'. INCREASE BUFFER BETWEEN ~~THE~~ HFC AREA
Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5-21-25
Name: Dolores Hoffman
Address: 177 Redford Lane
Phone: 678-231-0121
Email: [REDACTED]

Do you support the project?

☐ For ☐ Against ☒ With Conditions ☐ Uncommitted

Comments:

Too high density for the area. Approximately 180 cars
trying to get on East Cherokee is way too many.

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: Russell & Lynn Hudson
Address: 400 Lower Union Hill Road
Phone: 770-371-9604
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: _____

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5-21-25
Name: Judy Holbert
Address: 3050 Quarles Dr Canton, Ga 30115
Phone: 770-851-7660
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted Maybe

Comments:

Our house backs up to this property -
I'm against so many town houses + their
height. Traffic is so hard now to get
out onto East Cherokee. This will make
it so much more dangerous

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5-21-25
Name: Mary Ann Laughlin
Address: 3040 Quarles Dr. Canton
Phone: 404-786-1937
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: JH
Address: Courtyard @ Hickory Flat
Phone: _____
Email: _____

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Too much traffic already
excess Noise

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: LAURA DAMERON
Address: 3156 E CHELKEE DR, NANTON 3015
Phone: 770-345-8146
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: _____

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

TOO MUCH CONGESTION @ THIS INTERSECTION



Date: 5/21/2025
Name: Hilda Balyo
Address: 173 Redford Lane, Canton, GA 30115
Phone: 770-853-7742
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Too many homes, etc., on a small piece of land.
I prefer single family homes or 55+. We already have
lots of building going on. I think they are already
over building now- I've heard we do not want
to be part of Holly Springs. We want to stay part of
Cherokee County. Townhomes will de-value my brand
new home!!

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Will we have to pay Cherokee County property tax
and City of Holly Springs property taxes?

No Town Homes
No Holly Springs



Date: 5/21/25
Name: Manfred & Kathy Seamen
Address: 132 Redford Lane, Canton, GA 30115
Phone: 678-910-6081
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: We moved to Hickory Flat 2 1/2 years ago. We want to live in Hickory Flat, NOT Holly Springs. Holly Springs is a speed trap full of apartments, townhomes & storage units. Now you want to put that next door to us NO! Friends of ours just sold their place in River Park & moved because of the traffic & mess in Holly Springs.
Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☒ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

NO to 92 townhomes
NO to Holly Springs



Date: 5/21/2025
Name: Karen White
Address: 149 Redford Lane Canton 30115
Phone: (770) 361-5823
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: This situation is very troubling - putting a HIGH DENSITY development behind my home is not acceptable. Our area is already congested. Town homes have no business being put next to a Senior subdivision. 92 townhomes on 12 acres is ridiculous! Wall to wall people! We do not need more restaurants, liquor stores, drycleaners, carwashes, etc. in a mixed use development which includes townhomes.
Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No yes - but I've seen nothing in writing.

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Have a microphone and we needed more space - Many attendees - too many for the Community room.



Date: 5/21/25
Name: CHRIS BENNETT
Address: 460 GREYFIELD DR. CANTON, GA 30115
Phone: 678-520-8941
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: _____

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: MICHAEL D CUOMO
Address: 1026 SUGAR PIKE WAY CANTON 30115
Phone: 678 350 1909
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: _____

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ ~~NOT~~ ENTIRELY

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: LISA CUOMO
Address: 1026 Sugar Pike Way Canton, GA
Phone: 678-762-0001 30115
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

Leave Hickory Flat alone
Holly Springs!

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☒ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

some

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

some

Please share your suggestions on improving the way these meetings are conducted:



Date: 5-21-2025
Name: Rebecca Massey
Address: 193 Redford LN Canton
Phone: 352-262-3352
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Proposed cut thru road thru Courtland H.F.
is not practical - way too many condos/townhomes!

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: G. HONZIK
Address: 180 REDFORD LN
Phone: _____
Email: _____

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: NO connecting path to CHF subdivider.

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

TOO MANY CONDOS !!
POOL & RETENTION POND should be
placed abutting Cherokee Rd.



Date: 5/21/2025
Name: Steve Murray
Address: 341 McQueen Way, Canton, GA 30115
Phone: (770) 377-8441
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: EXPECTED TRAFFIC, DON'T WANT TOWN HOMES, RESOURCES OK
DECLINED BY COUNTY. DON'T KNOW IF HOLLY SPRINGS CAN
BE TRUSTED

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

HAVE A MICROPHONE, NEED ORAL



Date: 5/21/2025
Name: Tanet Murray
Address: 341 McQueen Way Canton, GA, 30115
Phone: (706) 466-1366
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: I don't like the idea that the townhomes
could be rented. We need the commercial; we
don't need the townhomes. We need
wider roads. Too much traffic!

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Microphone needed!



Date: 5-21-25
Name: Ashley Kavar
Address: 7171 Union Hill Rd
Phone: 443-996-3026
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Keep property in Cherokee County &
Keep it Rural!!!!
No High Density

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Use Microphone
Tell people to turn their cell phones on vibrate!!!!



Date: 5.21.25
Name: HAROLD THANNISCH
Address: 445 CHEROKEE HILL, CANTON, GA 30115
Phone: 404.558.8720
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

There is too much traffic already.
The county has not improved the roads.
The rural nature & environment will
be compromised substantially. Holly Springs is
on a tax revenue tax grab!

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

microphone



Date: 5/21/2025
Name: JAMES + TAMMY LADGE
Address: 486 TAMARACK TRAIL, CANTON 30115
Phone: 678/409-4662
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: 92 TOWN HOMES DO NOT FIT AT ALL THE
CHARACTER OF THIS COMMUNITY, PLUS ADD ALMOST
AN ADDITIONAL 200 CARS TO AN ALREADY OVER-CONGESTED
INTERSECTION (HWY 140 & E. CHEROKEE). THE COUNTY JUST
APPROVED ANOTHER COMMERCIAL DEVELOPMENT 300 YARDS AWAY.
Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☒ Signs ☐ Word of Mouth ☐ Direct Mail

WE DO NOT NEED
MORE!

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

HOLLY SPRINGS IS AN ANNEXATION CANDIDATE THAT
NEEDS TO BE STOPPED!



Date: May 21, 2025
Name: Mary Schumacher
Address: 340 McQueen Way
Phone: 615 218 4335
Email: _____

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Q on all

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: KAREN FREEDMAN
Address: 344 McQUEEN WAY
Phone: 727 510 0771
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: WILL BRING TOO MUCH TRAFFIC
NOISE, CRIME.

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 4.21.25
Name: MARILYN MILLER
Address: 185 REDFORD LANE, Canton 30115
Phone: _____
Email: _____

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: too many townhomes, needs lower density -

(no) walkway to Courtyards at Hickory Flat
10% max rental allowed

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5-21-25
Name: Thomas Cox
Address: 124 Northampton Drive
Phone: 470.695.5774
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: highly inappropriate for the area.
Do not want Holly Springs to encroach
any closer to my home/community
than they already have.

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Don't do it



Date: 5-21-25
Name: Jim Parker
Address: 122 Seabiscuit Way Canton 30115
Phone: 770-265-7293
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: NO MIXED USE
All Residential only - SF NOT Town Homes

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Better control of questions - repeat question



Date: 5-21-25
Name: Karen Kirkpatrick
Address: 134 Turner's Ct. Canton 30115
Phone: 470 214 1021
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Keep the land use plan as is. Do not
try to override the plan (county plan). No
high density, no commercial outside the
county plan!

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Abide by the county land use plan. Do not
attempt to build commercial/high density in this
neighborhood, encroaching on residential, low density area.



Date: Wed. May 21, 2025
Name: Jean Benggren
Address: 109 Township Way Canton, GA 30115
Phone: 770-295-9129
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

I am vehemently against high density building in this area as well as the continued spread of Holly Springs into areas that make no sense using precarious manipulation of annexation laws.

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☒ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Stop trying to push high density bldg via Holly Springs manipulation of annexation laws



Date: 5/21/25
Name: Ferry + Yvonne Cartledge
Address: 410 East Point Dr., Canton, GA 30115
Phone: 770.365-9882
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Devaluing my property
too many entrance & exits on E. Cherokee
Drive

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No Some

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

larger space



Date: 5/21/25
Name: Rob & Michele Holbrook
Address: 405 East Point Drive Canton, Ga 30115
Phone: (678) 409-3794 & (404) 295-6435
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: TRAFFIC

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☒ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

More room



126⁺ present
at meeting
as of 6:45

Date: 5/21
Name: Robin Daugherty
Address: 414 Pine Log Ct Cartersville GA 30115
Phone: 6786995236
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: This is ridiculous - HS should NOT
be able to annex this property - this should
not be dense should be used according
to Land Use & buffering into residential.

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 05-21-25
Name: Cheryl Brown
Address: 157 Redford Lane Canton, Ga. 30115
Phone: 404-509-1317
Email: _____

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Too much traffic now.

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 05-21-25
Name: Richard Thornton
Address: 127 Redford Lane Canton, Ga. 30115
Phone: 770-993-3477
Email: _____

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: We have enough traffic!

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: Libby Nannee
Address: 102 Stephens farm DR Canton ga 30115
Phone: 404-314-5926
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments:

Holly Springs needs to be Stopped!

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

y



Date: 5-21-2025
Name: Tom Nanner
Address: 102 Stephens Farm Dr. Canton 30115
Phone: 770-597-7854
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Too Dense — should be residential
with no commercial and no town homes

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☒ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/2025
Name: TSA Foster
Address: 408 East Point Drive
Phone: 770 401-0058
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Follow the Land Use Plan
Why are we having 2028 zoning

Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☒ Newspaper ☒ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☐ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/25
Name: CYNTHIA FOSTER
Address: 408 E POINT DR CARRON
Phone: 770-479-0706
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: NO HIGH DENSITY STICK
TO THE PLAN
HOLLY SPRINGS STAY OUT
Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☒ Social Media ☒ Newspaper ☒ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

HAND OUT PAPERS @ DOOR



Date: 5/21/25
Name: Nancy Framian
Address: 359 Cherokee Station Cir, Woodstock 30188
Phone: 678-449-9802
Email: [REDACTED]

Do you support

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: Cherokee County should deny Holly Springs plan to annex property for retail residential development because of traffic, high density housing, need for higher tax monies to provide more schools, police, fire, etc. services
Use back of this form for additional comments, if necessary

How did you hear about this meeting?

☐ Social Media ☐ Newspaper ☐ Signs ☒ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☒ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:



Date: 5/21/2025
Name: Susan C. Gilchrist
Address: 1028 Sugar Pike Way 30115
Phone: 951-522-0402
Email: [REDACTED]

Do you support the project?

☐ For ☒ Against ☐ With Conditions ☐ Uncommitted

Comments: This meeting should never have been called. Holly Springs could have told the owner/developer that the property is outside the sphere of influence of Holly Springs as agreed to by the Cherokee BO Commissioners
Use back of this form for additional comments, if necessary

How did you hear about this meeting?

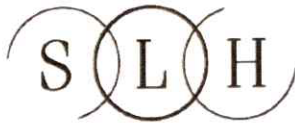
☒ Social Media ☐ Newspaper ☐ Signs ☐ Word of Mouth ☐ Direct Mail

Were your questions answered by the applicant? ☐ Yes ☐ No

Do you understand the proposal after attending this meeting? ☒ Yes ☐ No

Please share your suggestions on improving the way these meetings are conducted:

Growth Boundary Agreement must be honored by Holly Springs. No further comment needed.



GARVIS L. SAMS, JR.
(1952-2025)
JOEL L. LARKIN
PARKS F. HUFF

SAMS, LARKIN & HUFF
A LIMITED LIABILITY PARTNERSHIP
SUITE 100
376 POWDER SPRINGS STREET
MARIETTA, GEORGIA 30064-3448

770•422•7016
TELEPHONE
770•426•6583
FACSIMILE

May 9, 2025

TO: NEARBY PROPERTY OWNERS

Re: Application of Garrard Development, Inc. for Annexation and Rezoning of 20.11± acres of real property located in Cherokee County, Georgia; Tax Map 15N26 158, Land Lots 252 & 253, 15th District, 2nd Section.

Garrard Development, Inc. proposes a mixed use development consisting of: 20,400 square feet of retail space; 37,000 square feet of office space; and 92 (ninety-two) townhomes, as depicted on the attached proposed site plan. The property is currently zoned NC (Neighborhood Commercial) and AG (Agricultural) in Cherokee County and is located at 301 Lower Union Hill Road. Garrard Development proposes to annex the property into the City of Holly Springs and rezone the entire property to TND (Traditional Neighborhood Development) with a Mixed Use Overlay District.

The City of Holly Springs Public Hearing process includes inviting area residents to a Public Participation Meeting to learn more about the proposal. This is an informal meeting that will allow the Applicant to tell you about the proposal. You are receiving this notice because you own property close to the proposed project. The meeting will be held on **Wednesday, May 21, 2025 beginning at 6:30 p.m.** at the Hickory Flat Public Library Community Room located at 2740 East Cherokee Drive, Canton, GA 30115.

If you are unable to attend the public participation meeting and would like additional information, please contact me at your earliest convenience either via phone or email.

Sincerely,

SAMS, LARKIN & HUFF, LLP

Parks F. Huff
Attorney for the Applicant
phuff@samslarkinhuff.com

PFH/jcc
Enclosure



Rezoning Case Impact Report

Jurisdiction		Rezoning Case Number		Applicant Name	
City of Holly Springs		MA-03-2025		Garrard Development, Inc.	
Acreage	Number Of Lots	Housing Type		Current Zoning	Proposed Zoning
20.11	92	Single-Family Residential		NC&AG	TND
Estimated Student Impact ⁽¹⁾		Additional Capacity Needed		Additional Capacity Cost ⁽²⁾	Annual Student Cost ⁽³⁾
67	Students	3	Classroom(s)	\$90,955	\$579,890
Planning Commission Meeting Date		County Commission/City Council Meeting Date		Map & Parcel Number(s)	
				15N26-158	
Property Description					
Northeast intersection of East Cherokee Drive and Lower Union Hill Road					

Affected Schools Capacity Information

Elementary School	ES Enrollment	ES Capacity	% Capacity
Hickory Flat ES	861	1,006	86%
Middle School	MS Enrollment	MS Capacity	% Capacity
Dean Rusk MS	1,530	1,643	93%
High School	HS Enrollment	HS Capacity	% Capacity
Sequoyah HS	2,061	2,375	87%

All Enrollment and Capacities are based on the last published Cherokee County Inventory of School Housing (CCISH) Numbers.

It is the position of CCSD that all developers should attempt to mitigate as much of the impact of their proposed development as possible. In every such case, the district designates a minimum contribution expected to help provide adequate facilities for the school-age children who will occupy the residences in the development.

Please recommend to all Residential Zoning applicants to contact Mitch Hamilton at 770-721-8429 to discuss mitigation of their subdivision before appearing before the Zoning Board. If the applicant cannot meet during that time, we request that the Zoning Board put a condition on the zoning so they must meet with Mr. Hamilton before the City Council/County Commission Meeting.

The estimated cost for building an elementary school is 40 to 45 million dollars, middle school is 65 to 70 million dollars, and the cost of building a high school is 100+ million dollars.

(1) - All increases in student enrollment should be considered cumulative. All recent cases will impact the affected Schools. The School District may have to transport the students of any given development to an alternate district due to over-enrollment.

(2) - Additional Capacity Calculations are based on adding Mobile Units to existing campus facilities at the following rate: 1 Mobile Unit = 2 Classrooms with a cost of \$60,000/Mobile Unit

(3) - Annual Cost is calculated using the General Fund Operating Expenditure cost per pupil of \$8,694.

Per O.C.G.A. § 36-36-113 (set forth in full at the end of this document for your ease of reference), a land use objection can be made by majority vote of the Board of Commissioners in the event of a material increase in burden upon the County which is quantifiable and otherwise meets the requirements of the statute. In order for a land use objection to be considered timely, it must be completed in time for the BOC to vote upon it in open session and served upon the annexing municipality within 45 days of receipt of notice of annexation via statutory overnight delivery or certified mail, return receipt requested

City	Holly Springs		
Case Number	A-01-2025	Applicant	Sams, Larkin & Huff, LLP
Receipt of Annexation Notice Date			04/28/2025
Planning Commission Public Hearing			06/12/2025
45-day period to object expires on			06/11/2025
City Council Review & Decision			07/07/2025

Staff is requested to review the application for annexation and provide a response to the following questions.

	Yes	No
Is the property to be annexed contiguous to city jurisdictional boundary?	X	
Future Development Map designation	Community Village and Suburban Growth	
Surrounding / Contiguous City Future Development Map	Parkway Corridor	
Surrounding County Future Development Map	Community Village, Suburban Growth and County Estates	
Does this annexation create an "island" of unincorporated land?		X

1) If the application is granted will there be a material increase in burden upon the County directly related to:		
	Yes	No
a) the proposed change in zoning or land use?	X	
b) the proposed increase in density?	X	
c) infrastructure demands related to the proposed change in zoning or land use?	X	

	Yes	No
2) Will delivery of services be affected by the annexation?	X	
If the answer to (2) is yes, is the affect on delivery of services directly related to		
a) the proposed change in zoning or land use?	X	
b) the proposed increase in density?	X	
c) infrastructure demands related to the proposed change in zoning or land use?	X	
Note: Delivery of services may not be a basis for a valid objection but may be used in support of a valid objection if directly related to one or more of the subjects enumerated in items (a), (b), and/or (c) of Section 1 above.		

	Yes	No
3) If there is a material increase in burden caused by items (a), (b), and/or (c) of Section 1 above, can your department provide evidence of any financial impact?	X	
If the answer to (3) is yes, please provide the evidence		
County plans for the provision of services are based on the primary and secondary land uses identified for this area in the Comprehensive Plan. While the Community Village Character Area is designated for this property, the primary land use is commercial and residential is a secondary land use. Additionally, the 92 proposed residential units have an overall density of 4.5 units per acre. The proposed development will cause additional costs to existing and future infrastructure.		

	Yes	No
4) Does the proposed change in zoning or land use result in a substantial change in the intensity of the allowable use of the property or a change to a significantly different allowable use?		X
If the answer to (4) is no, does the proposed change in zoning or land use result in:		
a) a use which significantly increases the net cost of infrastructure?	X	
b) a use which significantly diminishes the value or useful life of a capital outlay project, as such term is defined in O.C.G.A. 48-8-110, which is furnished by the county to the area to be annexed?	X	
If the answer to 4(a) or 4(b) is yes, then:	Yes	No

c) Does the proposed change in zoning or land use differ substantially from the existing uses suggested for the property by the county's comprehensive land use plan?	X
d) Does the proposed change in zoning or land use differ substantially from the existing uses permitted for the property pursuant to the county's zoning ordinance or its land use ordinances?	X

Comments: This annexation consists of one 20.11 +/- acre parcel that is outside of the growth boundary. The applicant requests that the property be rezoned from AG (General Agriculture) to TND (Traditional Neighborhood Development) and MXD (Mixed Use Overlay). The applicant indicates that water and sewer will be provided by the Cherokee County Water and Sewerage Authority (CCWSA).

Planning and Zoning

1. This type of development is not supported by the 2023 Cherokee County Comprehensive Plan. The Community Village Character Area allows commercial as a primary land use and residential as a secondary use, but the property is also characterized as Suburban Growth, which encourages residential development as the primary use. This combination of Suburban Growth and Community Village together indicates the importance of residential as a primary use.
2. The 92 proposed residential units will result in an overall density of 4.5 units per acre which is twice as high as the proposed Suburban Growth residential density of 2 dwelling units per acre.
3. The County is concerned that the proposed development is inconsistent with the community's vision for Hickory Flat based on collaborative planning efforts with the city and the drafted Hickory Flat Area Plan.
4. The properties to the east are characterized as Country Estates. The proposed development does not allow for an appropriate transition to the suggested residential density of 0.5 dwelling units per acre for County Estates properties.
5. The proposed paved trail connection to the Courtyards at Hickory Flat cannot cross the undisturbed buffer around the perimeter of the Courtyards at Hickory Flat because the neighborhood is an R-20 residential conservation subdivision. Property owner permissions and a variance would be required to make that connection feasible.
6. The exterior buffer requirement for the northern R-40 residential subdivision Hickory Meadows is 35 ft minimum.
7. All structures built on the NC (Neighborhood Commercial) zoned property must be outside of the fall radius of the cell tower.

Transportation

1. The two entrances nearest the intersection of East Cherokee and Lower Union Hill will be designed to be right in and right out because they are within functional limits of the intersection.
2. Cherokee County will permit all the road access entrances after reviewing the submitted plans.

3. The centrally located roundabout appears to be a single-lane and lacks dimensions.
4. A traffic analysis will be conducted to determine the increased daily vehicle trip to understand potential impact to infrastructure.
5. The driveway entrance including a right-turn deceleration lane will be permitted by Cherokee County.
6. The road passing through the parcel with the cell tower may not be feasible and does not provide access to the commercial portion of the parcel. Additionally, an access easement required with the property owner is needed.
7. The applicant must install curb, gutter, and sidewalks along East Cherokee Drive and Lower Union Hill Road.
8. Parking for the amenity area and the mail kiosk are not detailed on the site plan.
9. Another entrance is suggested near the commercial development to provide additional access and improve connectivity.

Fire Marshal

1. The street width shall be a minimum of 20 ft wide across the whole development for fire department access and alleys must be named.
2. If the residential structure height is more than 30 ft, the access roadway to that structure shall be a minimum of 26 ft wide.
3. The Auto TURN routing for the fire truck shall be conducted to confirm the radius of the fire truck at the roundabout and the additional roadways.
4. A water flow test shall be conducted to ensure that an adequate water supply for the development is available.
5. Any future development of the property should be designed and built to meet minimum state fire codes.

O.C.G.A. § 36-36-113. Reasons for objection to annexation

(a) The county governing authority may by majority vote object to the annexation because of a material increase in burden upon the county directly related to any one or more of the following:

- (1) The proposed change in zoning or land use;
- (2) Proposed increase in density; and
- (3) Infrastructure demands related to the proposed change in zoning or land use.

(b) Delivery of services may not be a basis for a valid objection but may be used in support of a valid objection if directly related to one or more of the subjects enumerated in paragraphs (1), (2), and (3) of subsection (a) of this Code section.

(c) The objection provided for in subsection (a) of this Code section shall document the nature of the objection specifically providing evidence of any financial impact forming the basis of the objection and shall be delivered to the municipal governing authority by certified mail or statutory overnight delivery to be received not later than the end of the thirtieth calendar day following receipt of the notice provided for in [Code Section 36-36-111](#).

(d) In order for an objection pursuant to this Code section to be valid, the proposed change in zoning or land use must:

(1) Result in:

(A) A substantial change in the intensity of the allowable use of the property or a change to a significantly different allowable use; or

(B) A use which significantly increases the net cost of infrastructure or significantly diminishes the value or useful life of a capital outlay project, as such term is defined in [Code Section 48-8-110](#), which is furnished by the county to the area to be annexed; and

(2) Differ substantially from the existing uses suggested for the property by the county's comprehensive land use plan or permitted for the property pursuant to the county's zoning ordinance or its land use ordinances.

From: [Albert Fenstermacher](#)
To: [Nancy Moon](#)
Subject: case# A-01-2025 and rezoning case# MA-03-2025.
Date: Monday, May 26, 2025 10:51:23 AM

Hello:

Please forward this to your Holly Springs board of commissioners about this property. Please vote no! We do not need any more commercial space in Hickory Flats. We have another strip mall already approved on Highway 140 across from Kroger so we do not need any more commercial development or high density housing.

Thank you.

--

Al and Nancy Fenstermacher 310 Carmichael Circle Canton, GA 30115

--

This email has been checked for viruses by Avast antivirus software.

<https://link.edgепilot.com/s/e7dcd91d/38kRg8WEq0qA0FQik-Ql4w?u=http://www.avast.com/>

Links contained in this email have been replaced. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

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From: [Ashley C](#)
To: [Nancy Moon](#); [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#)
Subject: Annexation Case# A-01-2025 and Rezoning Case# MA-03-2025.
Date: Thursday, May 29, 2025 1:48:04 PM

Hello, my name is Ashley Yavari and I live at 7171 Union Hill Rd. I was at the community meeting at Hickory flat library last week. I am adamantly opposed to this zoning request and the building of this development as it is proposed. There are many reasons why this development is not a good fit for our area. I am asking that you deny this rezoning request. A heavy majority of the residents in this immediate vicinity are opposed to this. We do not want Hickory flat becoming like Holly Springs. We do not want congested roads, overcrowded schools, and more commercial retail. The residents in our area would like to keep the natural beauty of our surroundings. Thank you.

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From: [Chris Terrell](#)
To: [Nancy Moon](#)
Subject: annexation case# A-01-2025 and rezoning case# MA-03-2025.
Date: Thursday, May 29, 2025 8:21:47 AM

Hi Nancy,

I hope you are doing well. Please pass this on to the Commission members.

I have concerns about the rezoning and annexation and how it threatens the small-town character of our community and undermines planning agreements designed to manage growth responsibly.

We need more green space and larger parcels to balance growth and create value for the community.

Roads and services are still lacking structure to support this type of large population growth. Public open space and lack of parks is a concern as well as infrastructure. Public green space is very small % of land vs the population growth in area of Hickory Flat. This will diminish value of the area if the green space and infrastructure cannot support the population.

Please help keep the agreement to help moderate growth so it balances with infrastructure by not approving of this.

Thank you,

Christopher D. Terrell
301 Upper Mill Creek Ln
Canton GA 30115

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From: [Bob Crenshaw](#)
To: [Nancy Moon](#)
Cc: [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#)
Subject: Annexation Case # A-01-2025 Rezoning Case # MA-03-2025
Date: Tuesday, May 27, 2025 1:53:59 PM

Hello Ms. Moon,

I am writing in SUPPORT of the annexation and rezoning of the 20.5 acres at the corner of Lower Union Hill Road and East Cherokee Drive currently in unincorporated Cherokee County. However, with my support, I am requesting the the developer consider implementing the following:

1. Delete the pathway between the proposed townhome subdivision and the current Courtyards at Hickory Flat subdivision.
2. Relocate the swimming pool to near the entrance of East Cherokee Drive to help reduce noise at the backyards of Courtyards at Hickory Flat homeowners.
3. Consider reducing the total number of townhomes from 92.

Could you please forward my email to commission members if possible.

My wife and I have been residents of Hickory Flat for 35 years, have owned businesses in Hickory Flat and Holly Springs, and welcome PLANNED growth. I attended the public information meeting and was bothered by the number of "residents" that complained and not likely live no where near the proposed development. Complaints about increased traffic are silly as the addition of any number of cars will not drastically change the already congested intersection at East Cherokee Drive and Hickory Flat Hwy (140). I am hopeful that better timing and intersection improvements may help with the morning and evening traffic, but realistically, the addition of even a hundred cars at rush hour only will increase wait time at that intersection for a minute or two. We welcome the addition of additional dining, small retail, and medical facilities in the area.

My name is Bob Crenshaw and I live at 123 Redford Lane, Canton (Courtyards at Hickory Flat Subdivision).

My email address is [REDACTED]

My cell phone is [REDACTED]

Thank you,

Bob Crenshaw

Sent from my iPad

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From: [Hilda Balyo](#)
To: [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#); [Nancy Moon](#)
Cc: rbweatherby@cherokeecountyga.gov
Subject: Annexation Case # A-01-2025 and Rezoning Case # MA-03-2025
Date: Wednesday, May 28, 2025 6:46:56 PM

Application of Garrard Development, Inc., for Annexation and Rezoning of 20.11# acres of real property located in Cherokee County, Georgia; Tax Map 15N26 158, Land Lots 252 & 253, 15th District, 2nd Section.

Dear Holly Springs Council,

I am **TOTALLY AGAINST** the rezoning and annexing of any additional land in Hickory Flat to Holy Springs, especially to build townhouses, apartments, etc. This will open the floodgates to additional building/crowding, etc., of this beautiful area.

I could have moved anywhere, but I chose Hickory Flat because it is so beautiful with the rolling hills, trees, horse/cow/goat farms, and I feel safe. This terrible project they are trying to build on this small piece of land on the corner of Lower Union and East Cherokee Roads is totally out of place.

The current plan is to build 92 townhomes on 12 acres along with commercial buildings, etc., in front of these multi-family homes on eight acres — **they need to annex the 12 acres to built 92 townhomes**. Wow!!! That is entirely too dense for this small area — and if one complex like this is added, there will be more coming! The two parcels of annex land backs up to single family homes with single family residential across the street, a church on one side and my neighborhood (55+ stand-alone homes), Courtyards at Hickory Flat, on the other side.

Think about what the traffic alone will be with 92 townhomes added to this area on East Cherokee Road along with ALL the other construction (on the corner of East Cherokee and Hickory Roads)! Also, think about the schools! The roads in this part of Cherokee County will have to be widened, therefore, more expenses to the County to add additional lanes.

Traffic is already a huge headache for the residents here. Probably additional fire houses, emergency responders and police will also need to be added — more expenses for the County.

The buyers and developers asking for approval of this property do not live in this area, so they do not care about the residents or what is happening to this part of Cherokee County, but the taxpayers and I might add **VOTERS do care!**

I say **NO TOWNHOMES or APARTMENTS** in Hickory Flat, especially not squeezed on this small piece of land surrounded by single family homes. Single family homes are a great alternative option, but NOT 92 townhomes. Sounds to me like someone is trying to be extremely greedy. This will destroy this beautiful area. These types of housing (townhomes and/or apartments) needs to be located much closer to expressways with multi-lane streets already built for all the additional cars, etc., but **NOT next to cows, horses, and goat farms and single family homes**.

I believe the building needs to STOP in this area until we see if any additional building is truly needed at this time. Over building **devalues** all our homes and over crowds our streets and schools. We definitely do not want empty buildings, shops, etc., nor empty homes where prices will have to be lowered to sale. What also will happen is Leasing Corporations will buy and rent out these townhouses at the Hickory Farm homeowners' expense. We do not need

rental homes and that is exactly what will happen to these proposed townhomes. Then we, the residents in Hickory Flat, will be left with people who have no true investment into their homes, this community, etc., and which will devalue everything!

I **ask** you and all the Holy Spring Council members and Cherokee County Commissioners to **vote NO**. Please do not allow someone else's **greed** to destroy this community!

Hilda Balyo
173 Redford Lane
Canton, GA 30115



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From: [Jodie Davis](#)
To: [Nancy Moon](#)
Cc: [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#)
Subject: annexation case# A-01-2025 and rezoning case# MA-03-2025.
Date: Thursday, May 29, 2025 11:15:37 AM

Dear Ms. Moon,

Please distribute this to the Commission Members.

It never occurred to me when I bought my farm in Hickory Flat, Cherokee County that some entity other than the county could have final say about what goes on on the land next door to me. In fact, I did my homework before submitting an offer. I researched the current and future Land Use Maps and determined I was making a great choice.

I am simply flummoxed as to why I have zero representation when land in my county, close to me, is being rezoned for high density development outside of our Land Use Plan, and my commissioners that I elected have zero say.

What happened to representation by one's elected officials?

Jodie Davis
977 Bailey Road Woodstock

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From: [Laura Dameron](#)
To: [Nancy Moon](#)
Subject: Annexation case# A-01-2025 and rezoning case# MA-03-2025.
Date: Thursday, May 29, 2025 1:54:57 PM

Good afternoon! I am writing in hopes that you will pass my email and concerns onto the Holly Springs Planning and Zoning Commission members.

I am vehemently opposed to the proposal to have the land at Lower Union Hill and E Cherokee annexed by the City of Holly Springs, and to move forward with the existing proposal to develop this land. Light commercial and 90 townhomes would be a disaster for this intersection and would infringe upon the character of this area. I have owned land and operated a business across from this parcel for 13 years, and have seen what the continued commercial development of the Hickory Flat area has done to the attributes of our neighborhood. I understand that this land will be developed at some point, but hope that there is a better solution out there that will better reflect the rural, small town feel of Hickory Flat.

There are plenty of other land parcels that would be better suited to such dense housing and that are located on larger roads. In speaking with the developer at the information meeting the other night - it seems there are no plans to widen or improve the current intersection where this proposed development is located. I can tell you that traffic in this area is already a nightmare, and adding more cars and more ingress/egress areas would only contribute to increased traffic and frustration.

Please vote against this type of high-density development on this particular parcel of land. It does not fit with the personality of the area, and will only cause increased traffic issues for an already congested and overdeveloped area.

Sincerely,

Laura Dameron, DMD
Dameron Family Dentistry
3156 E Cherokee Drive
Canton, GA 30115

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From: [Matt Mills](#)
To: [Nancy Moon](#); [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#)
Cc: [Preserve Hickory Flat](#); [Preserve Cherokee](#); [Harry B. Johnston](#); [Richard B. Weatherby](#)
Subject: Holly Springs annexation #A-01-2025 / #MA-03-2025.
Date: Tuesday, May 27, 2025 9:48:44 PM

Dear Planning & Zoning Commission and City Council Members,

[Nancy Moon - please forward this email to P&Z Commission members...]

I am writing to respectfully urge you to deny the rezoning and annexation request #A-01-2025 / #MA-03-2025.

First and foremost, I ask that Holly Springs honor the existing Boundary Agreement with Cherokee County. If, for any reason, the city finds it necessary to proceed despite this agreement, I implore you to at least demonstrate respect for the residents of Cherokee County by adhering to the county's established Land Use Plan.

The proposal for 92 townhomes in the Hickory Flat area is clearly inconsistent with this Land Use Plan. Townhome development along East Cherokee Drive, particularly north of GA-140, sets an unsustainable precedent in a community already burdened by increasing traffic—a challenge that will only worsen with several other dense residential projects of Holly Springs just underway.

Furthermore, it is not the role of government to rezone land simply to maximize private profit—especially when the intent of the landowner is not to enhance the property for personal or community benefit, but merely to divest it. This kind of rezoning undermines long-term planning and the public trust.

I urge you to act with foresight and integrity. This proposal is not in line with our community's vision or planning principles. Please reject this request and uphold both the Land Use Plan and the Boundary Agreement.

Sincerely,

Matt Mills

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From: [Nancy Sykes](#)
To: [Nancy Moon](#)
Cc: [Robert Sykes](#); [Nancy Sykes](#)
Subject: Annexation Case#A-01-2025 and Rezoning Case# MA-03-2025
Date: Wednesday, May 28, 2025 5:47:23 PM

Good afternoon. We live at Courtyards at Hickory Flat, 55 + community, and directly to the west of us is this mixed use proposal with commercial and 92 townhomes! This will greatly negatively impact not only us but the entire surrounding area.

As seen by the number of people (approximately 150) that were at the zoning meeting on May 21, 2025, most of the folks that were there were very much against this annexation and proposed development for the following reasons:

1. The surrounding roads will not support the increased traffic, and it will take many years for the county to upgrade the roads.
2. The addition of 92 townhomes (almost 200 extra car increase traffic), and a clubhouse with a pool right next to homes in our subdivision (with some trees in between) is not supported by anyone in the surrounding area. Seven of the proposed townhomes might be able to look directly into our neighbors yards). Just a terrible configuration and proposal.
3. The proposed development does not conform with the surrounding single family developments and will negatively affect the homevalues of the surrounding neighborhoods.
4. The proposed commercial is not needed. Hickory Flat area has enough existing and proposed commercial properties, some are currently vacant.

MS. Moon, please distribute this message to the Commission members.

Thank you
Nancy and Robert Sykes
197 Redford Lane
Canton, GA 30115

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receive email from them.

From: [Sarah DiFiore](#)
To: [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#); [Nancy Moon](#)
Subject: Annexation Case# A-01-2025 and Rezoning Case# MA-03-2025.
Date: Thursday, May 29, 2025 10:28:35 AM

Dear council and commission,

This property lies outside the growth boundary that was agreed upon in 2022. This type of residential development is the first of its kind in the area and will set a precedent for future rezoning applications. The property was rezoned as a mixed development property in 2023 with the front portion zoned as NC and the residential portion remaining AG. This would blend with the adjoining properties that are already developed. This development plan does not follow the current or future Land Use Plan.

So many beautiful farms and pastures that make our community special have been ruined. Forests clear cut for sardine packed neighborhoods. Please stop raping the land and destroying our peaceful community for a few extra dollars in your pocket.

Sarah DiFiore

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From: [Steve McCall](#)
To: [Nancy Moon](#); [Michael Zenchuk](#); kwhitaker@hoolyspringsga.us; [Jeff Wilbur](#); [Dee Phillips](#)
Subject: annexation case# A-01-2025 and rezoning case# MA-03-2025.
Date: Monday, May 26, 2025 9:21:37 AM
Attachments: [Greenbalance.mp3](#)

Hello,

This email is to state that I am against this development! While the landowner has the right to sell this development will only cause issues for the Hickory Flat community at this time. As this development is planned right now it's my opinion that this will fail! The zoning and annexation should not take place! Townhouses do not fit in this part of rural Cherokee! One can go 3 miles in either direction and find a house for what they want to sell a 3 story townhouse.

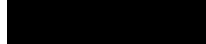
I've lived in Cherokee County for over 30 years. My mom was a teacher at Dean Rusk & Sequoyah high school. We have watched rural Cherokee disappear w/ more cars and houses packed in like sardines. We can all agree that Cherokee County is a great place to live but it's time we find a balance!

Also Holly Springs, we don't need anymore fried chicken places in Hickory Flat!!!!!!
Attached is an audio I wrote about the balance needed in Cherokee County.

Kind Regards,
Stephen McCall

--

Stephen McCall



McCall Appraisers, Inc.

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From: [Tom Beicher](#)
To: [Nancy Moon](#)
Cc: [Preserve Hickory Flat](#)
Subject: case# A-01-2025 and rezoning case# MA-03-2025.
Date: Sunday, May 25, 2025 5:04:46 PM

This proposal is in direct conflict with the boundary agreement currently in place between Cherokee County and the City of Holly Springs, which is valid through late 2028. Any annexation at this time would be a violation of that agreement and undermines coordinated land use planning efforts between the County and the City.

The subject property was previously rezoned in 2023 from Agricultural to split zoning (Neighborhood Commercial and Agricultural), reflecting a reasonable and balanced land use approach. The front portion of the parcel was appropriately designated as Neighborhood Commercial (NC), with a transition to Agricultural (AG) zoning for the remainder, requiring minimum two-acre lots.

The current proposal seeks to drastically alter the land use once again, proposing a mixed-use development including general commercial zoning, a two-story office complex, and 92 townhomes. Such an intense and high-density development is inconsistent with the established zoning, the Future Development Map, and the Comprehensive Land Use Plan available via the Cherokee County GIS Portal.

Thank you

Tom Beicher

107 Manor Ridge Drive

Woodstock, GA, 30188

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From: [Tracy SACKELLARES](#)
To: [Nancy Moon](#); [Michael Zenchuk](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Kevin Moore](#)
Cc: [Harry B. Johnston](#)
Subject: annexation case# A-01-2025 and rezoning case# MA-03-2025.
Date: Sunday, May 25, 2025 7:30:09 PM

I do not live in Holly Springs and do not want to live in Holly Springs or for the city to annex any more land in Hickory Flat. If Holly Springs was more responsible with their zoning, perhaps I would be more amenable to annexation. Holly Springs is ruining the very thing that makes Cherokee County a wonderful place to live including trees and space.

Respect the county's established agreement with Holly Springs and stop pursuing the annexation and rezoning of the 20.5 acre parcel at the corner of E. Cherokee Rd. and Lower Union Hill Road.

Thank you,
Tracy Sackellares
Mitchell Farms community
Cherokee County

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From: [Joy Redwine](#)
To: [Nancy Moon](#)
Subject: Annexations
Date: Sunday, June 8, 2025 2:32:55 PM

Ms. Moon, I am contacting you along with several other Holly Springs representatives and Council reps. Rezonings and annexations into Hickory Flat are out of control and have been for too long. Holly Springs has a bad reputation in Cherokee County and has many citizens learning to hate Holly Springs. I have lived in Hickory Flat for over 40 years and have seen Holly springs act in untrustworthy ways. Even if this is not in your realm of operations, please have some conversations with those that are involved. This needs to stop!

A very concerned resident of Hickory Flat,

Joy Redwine

Sent from my iPhone

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From: [Al & Judy Clary](#)
To: [Nancy Moon](#)
Subject: Comments on A-01-2025 and MA-03-2025
Date: Wednesday, June 11, 2025 12:29:53 PM
Attachments: [image002.png](#)
[TND-MXD Development On Lower Union Hill Road.pdf](#)

This note is being sent to Ms. Nancy Moon along with a Request that it be forwarded to the members of Holly Springs Planning Commission prior to tomorrow's meeting. If possible, I would like for this e-mail and its attachment to be included in the agenda packet, although I know that an agenda packet has been previously posted last week.

Hello Ms. Moon and Members of the Holly Springs Planning Commission,

My name is Al Clary and I live at 208 Autumn Glen Trail in Autumn Glen Subdivision, which is at the southern end of the Hickory Flat Community Village Character Area.

Like many of my neighbors, I am opposed to the high density residential/mixed use project A-01-2025 and MA-03-2025, which you will likely vote on at your meeting tomorrow Thursday June 12, 2025.

I will be brief and just let the numbers speak for themselves.

Below is a table of the recent projects with a residential component that have been brought before both the County and the City of Holly Springs and that are either inside or touching the Hickory Flat Community Village Character Area. I have listed the projects in descending order of residential density. The attached map shows how all of these projects are situated with respect to the Hickory Flat Community Village Character Area.

It is clear that Holly Springs is willing to entertain projects with densities greatly exceeding 3 units per acre in an area that by the land use plan is supposed to be reserved for Suburban Growth. We oppose densities over 3 units per acre.

The Hayloft Project approved in 2023 is an exception. It is being built on land that was previously annexed in 2007 and zoned GC and became part of a 20+ acre Mixed Use Development. That will be the only rental property in Hickory Flat and, because it will have multi-story rental units, it will have a high density. That project will have at least 3 separate components consisting of a 3-story office building, a large storage building and rental homes, but I have only listed the density of the residential component, which consists of multi-level rental 55+ homes, which will be built and managed by One Street. That project does not set a precedent for the density proposed in the current Garrard Development project, because the Garrard project is not on land that was already zoned GC.

Recent Residential Projects in the Hickory Flat Area (Since 2016)						
Listed in Order of Decreasing Density						
Holly Springs Projects are Shown in Yellow						
No.	Units	Acres	U/A	County/City	Zoning	Project Name
1	115	12.5	9.2	Holly Springs	MXD	55+ Rentals/Hayloft Cottages
2	92	15.2	6.1	Holly Springs	TND	Proposed Development
3	82	21.6	3.8	County	RA*	Orchards of Cherokee
4	160	53.8	3.0	Holly Springs	PDR	Crest Brooke
5	94	32.2	2.9	Holly Springs	PDR	Oakhaven
6	85	30.8	2.8	Holly Springs	PDR	Woodhaven Court
7	236	99.4	2.4	Holly Springs	PDR	Edgewater
8	64	36.7	1.7	County	R-20C	Courtyards at Hickory Flat
9	39	24.0	1.6	Holly Springs	TND	Enclave at Edgewater
*RA Means Residential Attached in pairs or in quads. This project is located next to the Library and Good Will Center and backs up to the Kroger inside the <u>Multi-Use Triangle</u> formed by State Hwy 140, Hickory Road, and East Cherokee Drive.						

Thank You,

Al Clary 423-914-4234, almcb70@gmail.com



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Recommended Density < 1 unit/acre

Proposed Garrard Development

Recommended Character is Suburban Growth

Suburban Growth

Description

Suburban Growth areas have limited existing development but occur where growth pressure is the greatest due to adjacency with current or proposed community infrastructure (such as sewer and water, and transportation). This is an area in transition from rural types of development to suburban ones, often characterized by pockets of development interspersed among a rural landscape. More specifically, these areas mostly consist of single-family detached homes situated on lots ranging in size with shallower setbacks than in Rural Places and agriculturally-dominated land.

Intent

Suburban Growth is intended to preserve the primarily residential nature of these areas while promoting new, low-density residential communities that foster a sense of community and provide mobility, recreation, and open space. To obtain this it is significant to channel growth pressures to areas that are suitable in terms of land use patterns and infrastructure investment to create more sustainable communities. Hence, there is a need to ensure new development is compatible and located where existing infrastructure (i.e. roads, schools, water/sewer, etc.) is available.

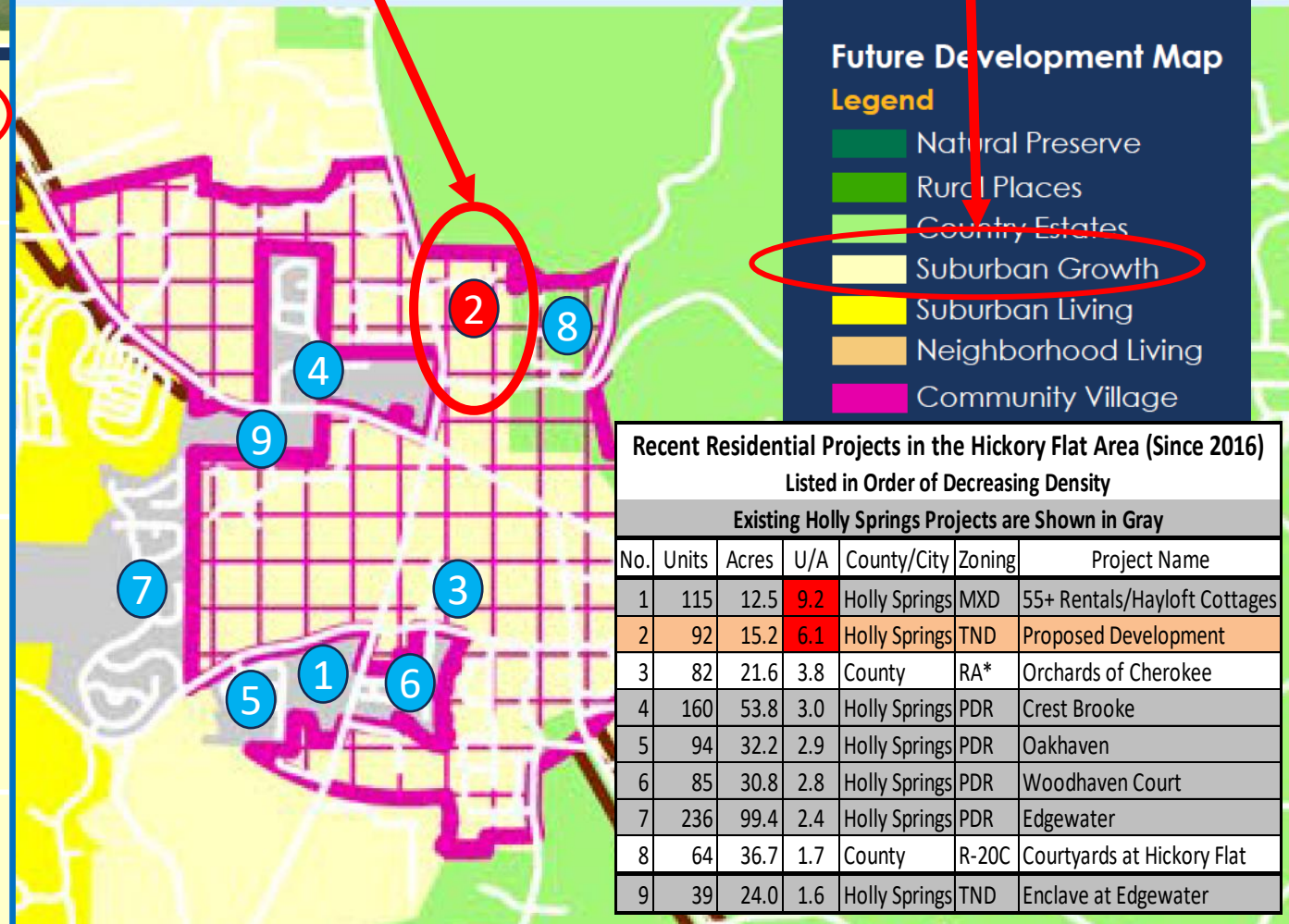
Strategies

- Create neighborhood focal points by locating schools, community centers, libraries, health facilities, and other services at suitable locations near residential communities.
- Provide suitable, efficient connections and infrastructure to nearby services and land uses for ease of access and quality of life.
- Encourage innovative development that integrates greenspace within its design such as conservation subdivisions, and master-planned and traditional low-density communities in appropriate locations.
- Zoning districts could include R-80, R-60 and R-40.

51 Cherokee County Comprehensive Plan

Summary Chart

Intensity	Residential Density - 0.5 - 1.0 units per acre
Future Development	Primary Land Uses Single-family detached housing Conservation subdivisions Secondary Land Uses Semi-public & institutional uses
Infrastructure	Roads have a combination of swales & curb/gutter Public water is available Sewer may be available or planned for the future
Greenspace	Open space & conservation areas in neighborhoods Public parks & greenspaces



Note: Gray Areas are All Existing Holly Springs Properties

From: [Rick Corrao](#)
To: [Nancy Moon](#); [Michael Zenchuk](#); [Kevin Moore](#); [Kyle Whitaker](#); [Jeff Wilbur](#); [Dee Phillips](#)
Subject: Annexation Case# A-01-2025 and Rezoning Case# MA-03-2025.
Date: Friday, June 6, 2025 10:59:37 AM

Dear Ms Moon, Holly Springs Planning & Zoning Commission and Holly Springs City Council Members,

I am writing to express my opposition to the annexation and rezoning of the property on the corner of Lower Union Hill Rd and East Cherokee Dr. In 2023 this property was rezoned as a mixed development property with part of it zoned for NC and the residential portion zoned as AG (minimum 2 acre lots). That zoning is more in line with neighboring properties and limits the impact of growth in the area of Hickory Flat, which has become increasingly congested. Further, the plan for rezoning does not comply with the Land Use Plan for Cherokee County. So my question is, if we're not going to respect the Land Use Plan, what was the purpose of spending hours and thousands of dollars to create it?

I'm not familiar with how annexation works or what rules, if any, need to be followed. But it seems to me that this area is far away from the City of Holly Springs and should not be under its control. It is my understanding that there was some agreement between the City and the County, and this area lies outside that agreed-to boundary. It appears to me an unnecessary and excessive land grab that will only cause more traffic and congestion in our area, but not in Holly Springs.

I can tell you a little bit about congestion. I grew up in Long Island which years ago was mostly farmland and open spaces, not unlike Cherokee County about 10 years ago. Over the years more and more families moved out from New York City to the island until it became a traffic nightmare. Just last week I went back to visit and now you practically can't go 1000 ft without coming to a traffic light. It takes what seems like forever to go just a few miles. And you need to absolutely stay off the main highways between the hours of 3pm and 7 pm, the heavy rush hours. I moved to Cherokee County in 2014 for the main purpose of getting away from the congestion. We had been frequent visitors to Cherokee since 1999 because my parents and brother lived in Woodstock. I knew back then that this was the place where I eventually wanted to live. But over the past 11 years I have seen the growth going out of control, and it's heartbreaking! I've done my best to help oppose developers who want to erect high-density communities in Cherokee, but it's somewhat of a losing battle. Some may call it "progress" but it doesn't feel like progress to the folks who live here. It feels like we are being squeezed out of the community we love.

I respectfully request that the Holly Springs Planning & Zoning Commission and City Council deny the rezoning request and the annexation of this property. Thank you very much for your time and your consideration.

Sincerely,

Richard Corrao
Canton, GA

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**TRAFFIC IMPACT STUDY
FOR
REZONING PROPOSED MIXED-USE DEVELOPMENT AT
3254-3460 EAST CHEROKEE DRIVE**

CHEROKEE COUNTY, GEORGIA



Prepared for:

***Sams, Larkin & Huff, LLP
376 Powder Springs Street, Suite 100
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Prepared By:



A&R Engineering Inc.

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www.areng.com

July 09, 2025
A & R Project # 25-129

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1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed mixed-use development will be located at northeast corner of the intersection of East Cherokee Drive at Lower Union Hill Road in Cherokee County, Georgia. The traffic analysis evaluates the current operations and the future conditions with the traffic generated by the development. The proposed development will consist of:

- Single-Family Attached Housing: 92 units
- Strip Retail Plaza (<40K): 20,800 sf
- General Office Building: 37,000 sf



The development proposes access at the following locations on East Cherokee Drive and Lower Union Hill Road:

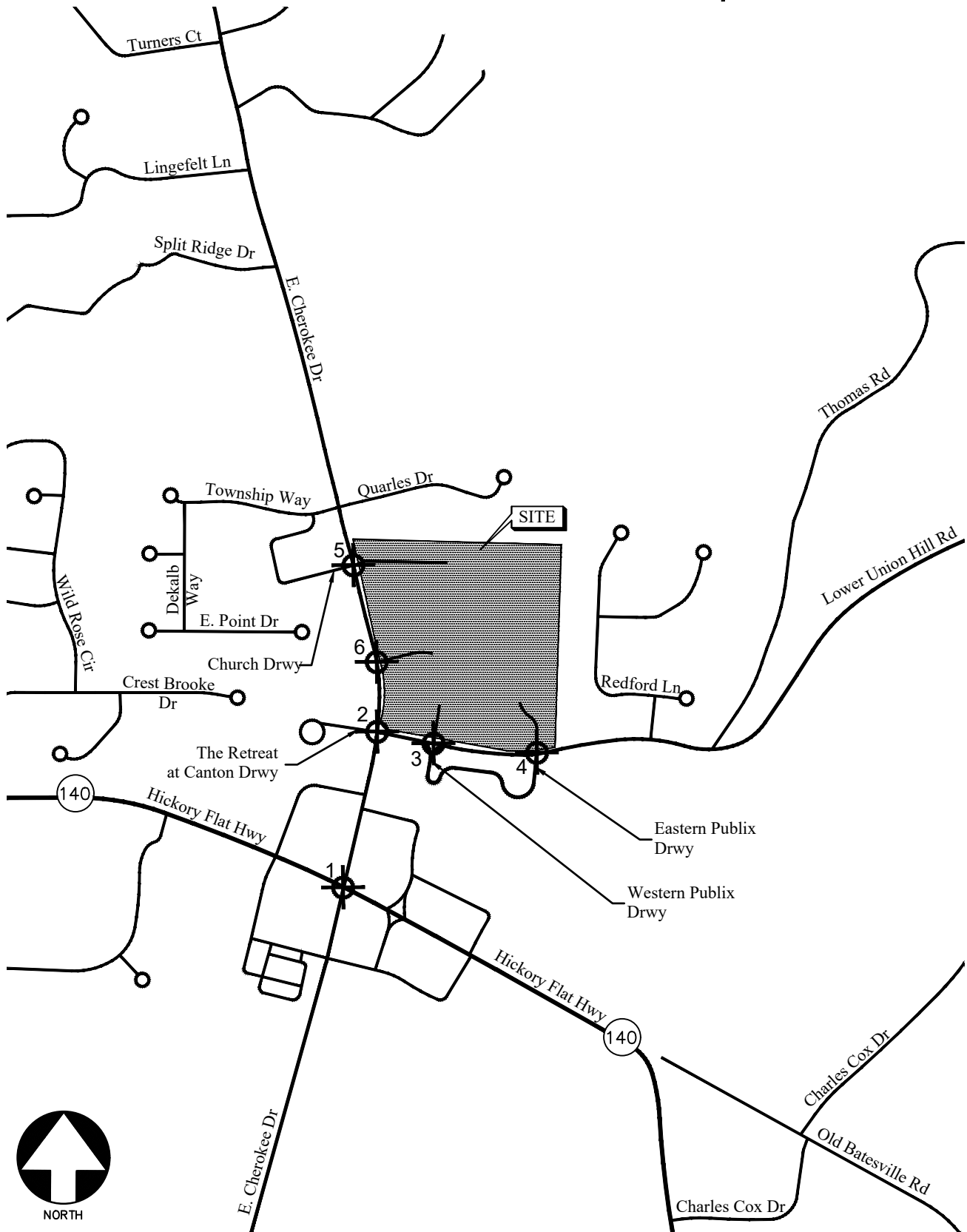
- Site Driveway 1: Full-access driveway on East Cherokee Drive aligned with The Church of Jesus Christ of Latter-day Saints Driveway
- Site Driveway 2: Full-access driveway on East Cherokee Drive
- Site Driveway 3: Full-access driveway on Lower Union Hill Road aligned with Western Publix Driveway
- Site Driveway 4: Full-access driveway on Lower Union Hill Road aligned with Eastern Publix Driveway

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

1. East Cherokee Drive @ SR 140 (Hickory Flat Highway)
2. East Cherokee Drive @ Lower Union Hill Road/ The Retreat at Canton Driveway
3. Lower Union Hill Road @ Western Publix Driveway
4. Lower Union Hill Road @ Eastern Publix Driveway
5. East Cherokee Drive @ The Church of Jesus Christ of Latter-day Saints Driveway

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network is shown in Figure 1.

Study Intersection



LOCATION MAP

FIGURE 1
A&R Engineering Inc.

2.0 EXISTING FACILITIES / CONDITIONS

2.1 Roadway Facilities

The following is a brief description of each of the roadway facilities located in proximity to the site:

2.1.1 East Cherokee Drive

East Cherokee Drive is a north-south, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID: 057-0169) indicate that the daily traffic volume on East Cherokee Drive in 2023 was 9,800 vehicles per day northwest of Lower Union Hill Road. GDOT classifies East Cherokee Drive as an urban major collector roadway.

2.1.2 Lower Union Hill Road

Lower Union Hill Road is an east-west, two-lane, undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. GDOT traffic counts (Station ID: 057-8151) indicate that the daily traffic volume on Lower Union Hill Road in 2023 was 4,820 vehicles per day northwest of Cherokee Hill. GDOT classifies Lower Union Hill Road as an urban local roadway.

2.1.3 SR 140 (Hickory Flat Highway)

SR 140 (Hickory Flat Highway) is an east-west, two-lane, undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. GDOT traffic counts (Station ID: 057-0110) indicate that the daily traffic volume on SR 140 (Hickory Flat Highway) in 2023 was 17,800 vehicles per day southeast of East Cherokee Drive. GDOT classifies SR 140 (Hickory Flat Highway) as an urban minor arterial roadway.

3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board's Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level-of-service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designed as "F" regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from "A" through "F". Level-of-service "A" indicates excellent operations with little delay to motorists, while level-of-service "F" exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 — LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6th edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersections.

TABLE 2 — LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle)*	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6th edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

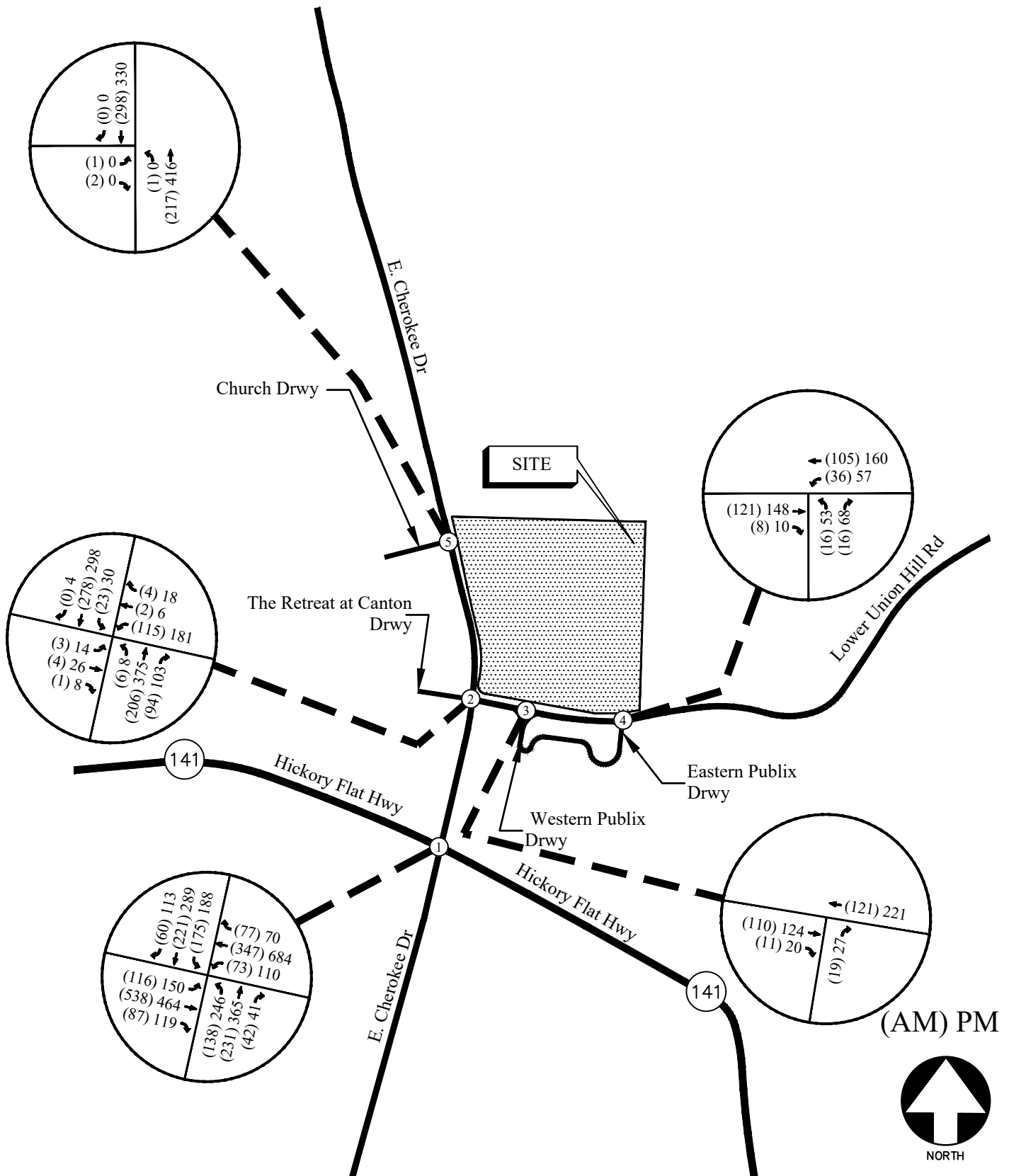
4.0 EXISTING 2025 TRAFFIC ANALYSIS

4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

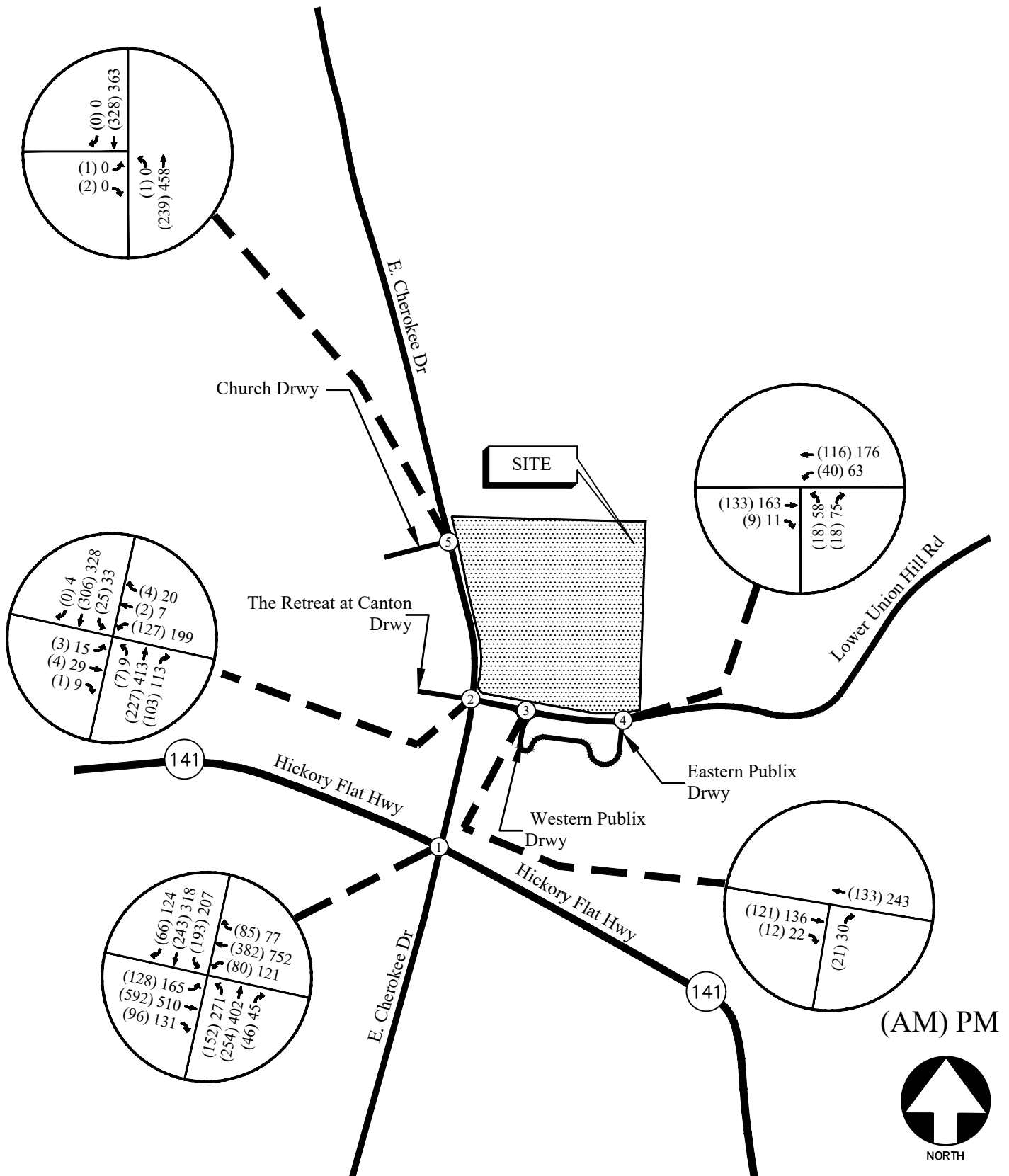
1. East Cherokee Drive @ SR 140 (Hickory Flat Highway)
2. East Cherokee Drive @ Lower Union Hill Road/ The Retreat at Canton Driveway
3. Lower Union Hill Road @ Western Publix Driveway
4. Lower Union Hill Road @ Eastern Publix Driveway
5. East Cherokee Drive @ The Church of Jesus Christ of Latter-day Saints Driveway

Turning movement counts were collected on Wednesday, July 2, 2025. All turning movement counts were recorded during the AM and PM peak hours between 7:00 am to 9:00 am and 4:00 pm to 6:00 pm, respectively. The four consecutive 15-minute interval volumes that produced the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic volumes were increased by 10% to account for the fact that schools were not in session when the data was collected. These adjusted volumes are shown in Figure 3 and were used in the existing traffic operations analysis. The existing traffic control and lane geometry for the study intersections are shown in Figure 4.



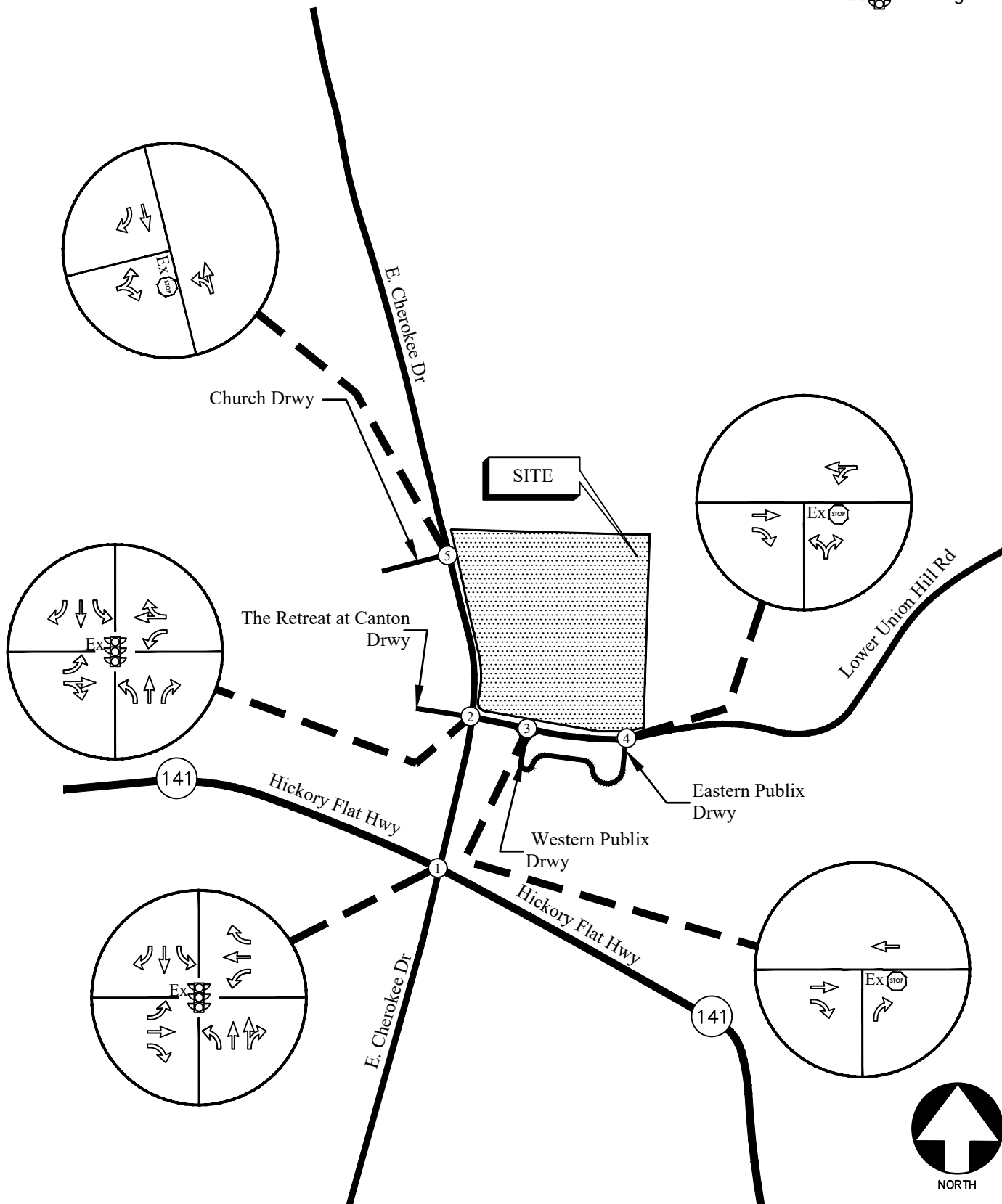
EXISTING WEEKDAY PEAK-HOUR VOLUMES
(WITHOUT SCHOOL TRAFFIC)

FIGURE 2
A&R Engineering Inc.



LEGEND

- Ex  Existing Signed Approach
-  Existing Lane Geometry
- Ex  Existing Traffic Signal



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 4
A&R Engineering Inc.

4.2 Existing Traffic Operations

Existing 2025 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

TABLE 3 — EXISTING INTERSECTION OPERATIONS				
Intersection		Traffic Control	LOS (Delay)	
			AM Peak Hour	PM Peak Hour
1	<u>East Cherokee Drive @ SR 141 (Hickory Flat Highway)</u>	Signalized	<u>C (32.6)</u>	<u>D (48.0)</u>
	-Eastbound Approach		B (19.5)	C (33.4)
	-Westbound Approach		B (17.2)	D (51.4)
	-Northbound Approach		D (48.2)	D (54.3)
	-Southbound Approach		E (56.5)	D (54.3)
2	<u>East Cherokee Drive @ Lower Union Hill Road</u>	Signalized	<u>B (11.9)</u>	<u>C (27.3)</u>
	--Eastbound Approach		E (59.2)	E (58.5)
	-Westbound Approach		D (51.8)	D (51.6)
	-Northbound Approach		A (0.4)	C (25.9)
	-Southbound Approach		A (6.6)	A (9.7)
3	<u>Lower Union Hill Road @ Western Publix Drwy (RIRO)</u>	Stop Controlled on NB Approach	A (9.1)	A (9.1)
4	<u>Lower Union Hill Road @ Eastern Publix Driveway</u>	Stop Controlled on NB Approach	A (7.6)	A (7.7)
	-Westbound Left		B (10.4)	B (11.9)
5	<u>East Cherokee Drive @ Church Driveway</u>	Stop Controlled on EB Approach	B (11.1)	C (16.8)
	-Eastbound Approach		A (8.0)	A (8.1)

The results of the existing traffic operations analysis indicate that the signalized study intersections (Intersections 1 and 2) are operating at an overall level of service “D” or better in both the AM and PM peak hours. The stop-controlled approaches at all the unsignalized study intersections are operating at a level of service “C” or better in both the AM and PM peak hours.

5.0 PROPOSED DEVELOPMENT

The proposed mixed-use development will be located at northeast corner of the intersection of East Cherokee Drive at Lower Union Hill Road in Cherokee County, Georgia. The development will consist of:

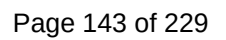
- Single-Family Attached Housing: 92 units
- Strip Retail Plaza (<40K): 20,800 sf
- General Office Building: 37,000 sf



The development proposes access at the following locations on East Cherokee Drive and Lower Union Hill Road:

- Site Driveway 1: Full-access driveway on East Cherokee Drive aligned with The Church of Jesus Christ of Latter-day Saints Driveway
- Site Driveway 2: Full-access driveway on East Cherokee Drive
- Site Driveway 3: Full-access driveway on Lower Union Hill Road aligned with Western Publix Driveway
- Site Driveway 4: Full-access driveway on Lower Union Hill Road aligned with Eastern Publix Driveway

A site plan is shown in Figure 5.



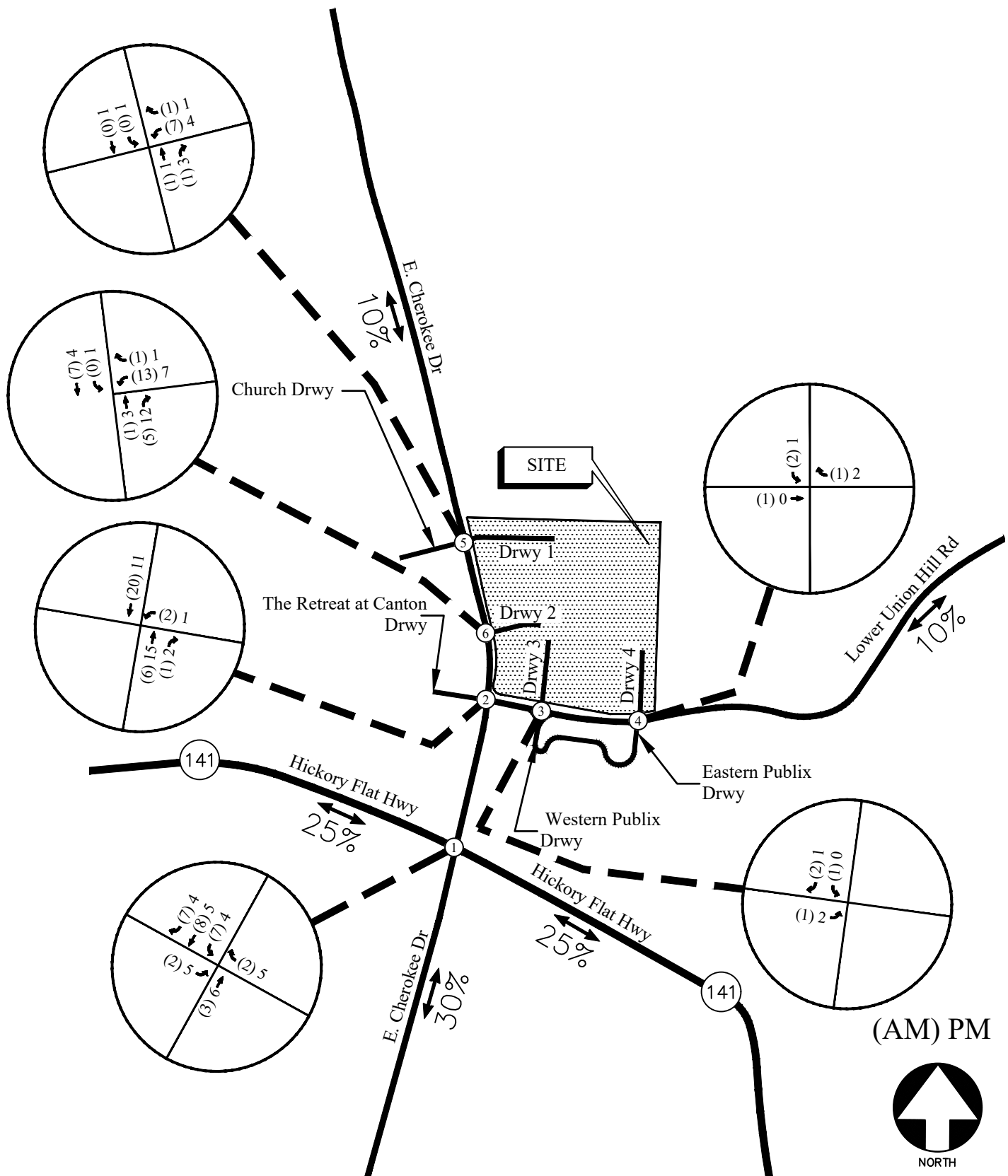
5.1 Trip Generation

Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Uses: *215-Single-Family Attached Housing, 710-General Office Building, 822-Strip Retail Plaza(<40k)*. The calculated total trip generation for the proposed development is shown in Table 4.

TABLE 4 — TRIP GENERATION								
Land Use	Size	AM Peak Hour			PM Peak Hour			24-Hr
		Enter	Exit	Total	Enter	Exit	Total	2-Way
ITE 215 – Single-Family Attached Housing	92 Units	11	31	42	30	21	51	651
Mixed-use reduction		-2	-3	-5	-9	-6	-15	-116
ITE 710 – General Office Building	37,000 sf	63	8	71	12	61	73	489
Mixed-use reduction		-1	-1	-2	-2	-2	-4	-44
ITE 822 – Strip Retail Plaza (<40k)	20,800 sf	28	19	47	65	66	131	1,107
Mixed-use reduction		-4	-3	-7	-7	-10	-17	-150
Total Trips without Reductions		102	58	160	107	148	255	2,247
Total Trips with Reductions		95	51	146	89	130	219	1,937

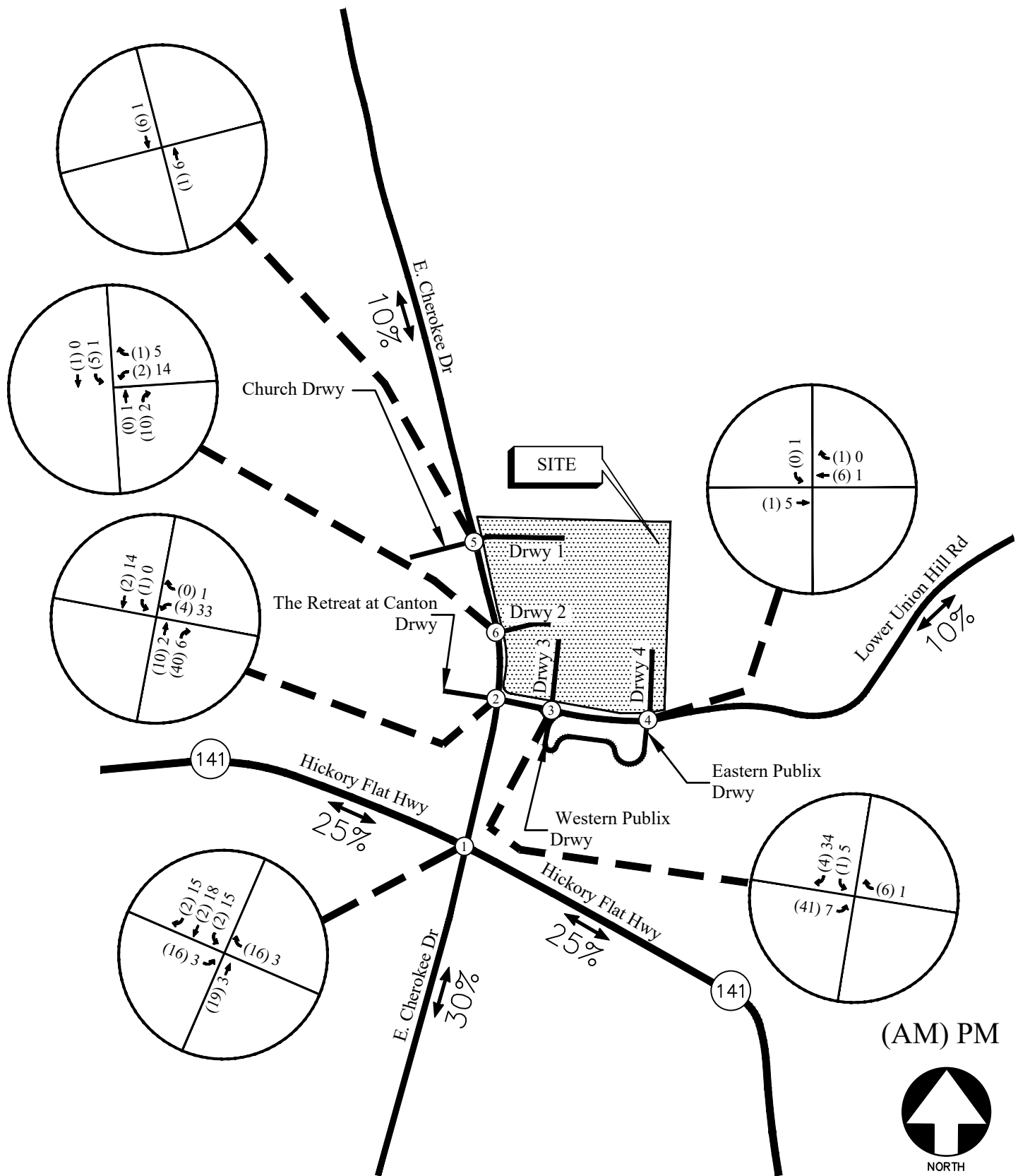
5.2 Trip Distribution

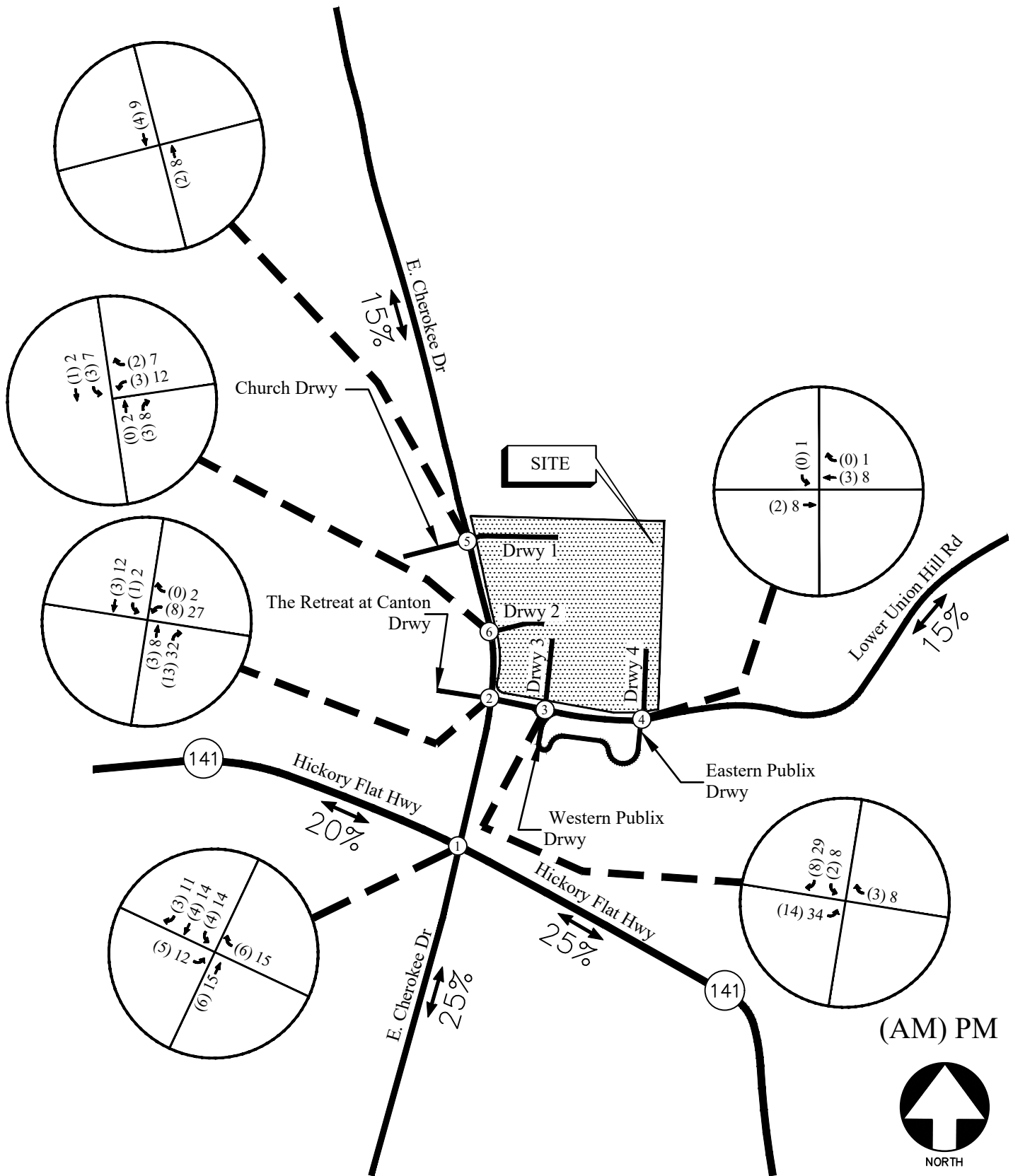
The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on the locations of employment centers, retail shopping and schools, and the major routes of travel. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM and PM peak hour new traffic generated by the site for residential, office and retail are shown in Figure 6A, 6B and 6C, respectively.



TRIP DISTRIBUTION AND NEW SITE-GENERATED
WEEKDAY PEAK HOUR VOLUMES (RESIDENTIAL)

FIGURE 6A
A&R Engineering Inc.





TRIP DISTRIBUTION AND NEW SITE-GENERATED
WEEKDAY PEAK HOUR VOLUMES (RETAIL)

FIGURE 6C
A&R Engineering Inc.

6.0 FUTURE 2027 TRAFFIC ANALYSIS

The future 2027 traffic operations are analyzed for the “Build” and “No-Build” conditions.

6.1 Future “No-Build” Conditions

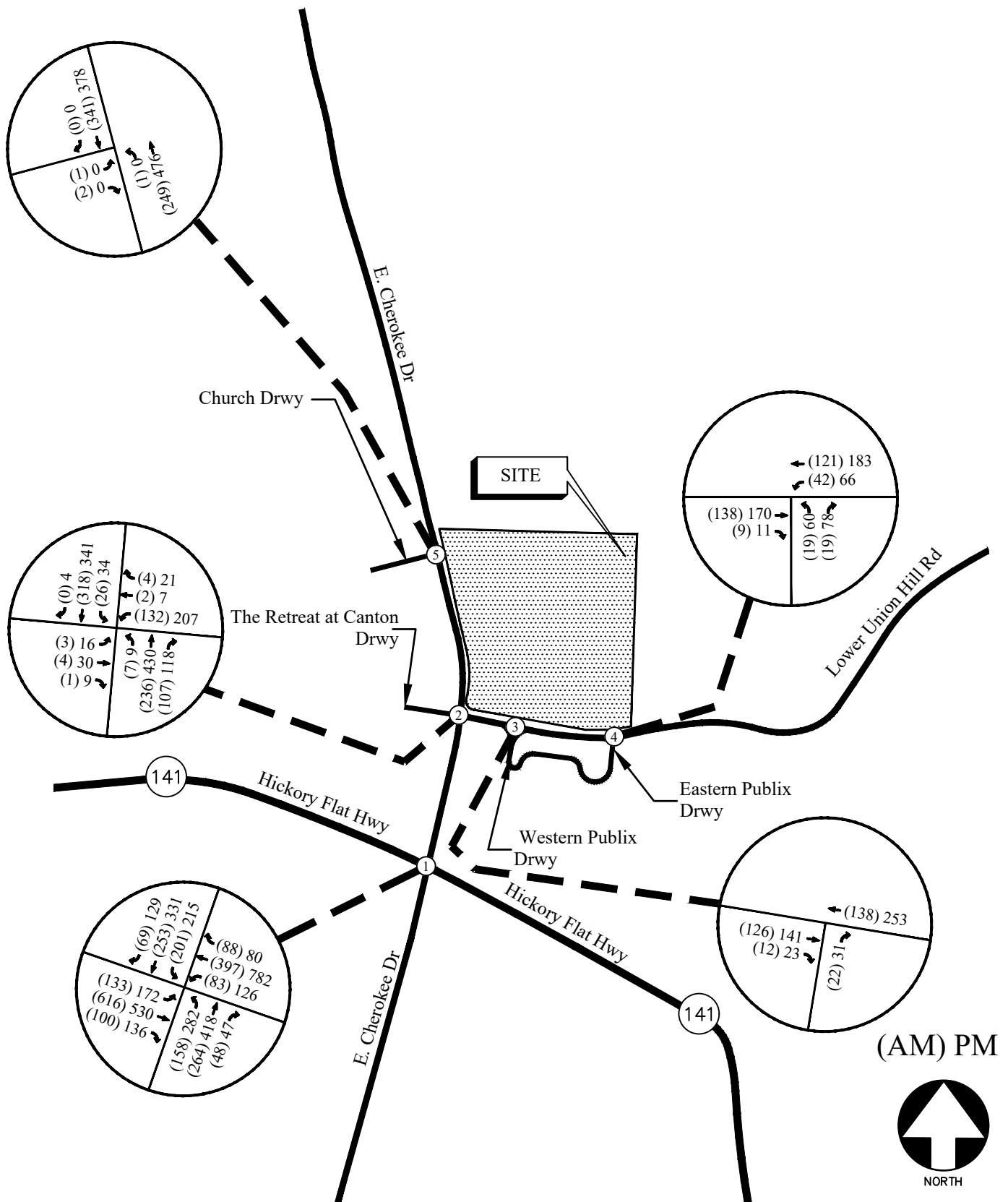
The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes (adjusted for school traffic) (Figure 3) plus increases for annual growth of traffic.

6.1.1 Annual Traffic Growth

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last five years (2018-2019 & 2021-2023) revealed a 2% traffic volume increase in the area. This growth factor was applied to the existing traffic volumes to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future “No-Build” volumes on the roadway are shown in Figure 7.

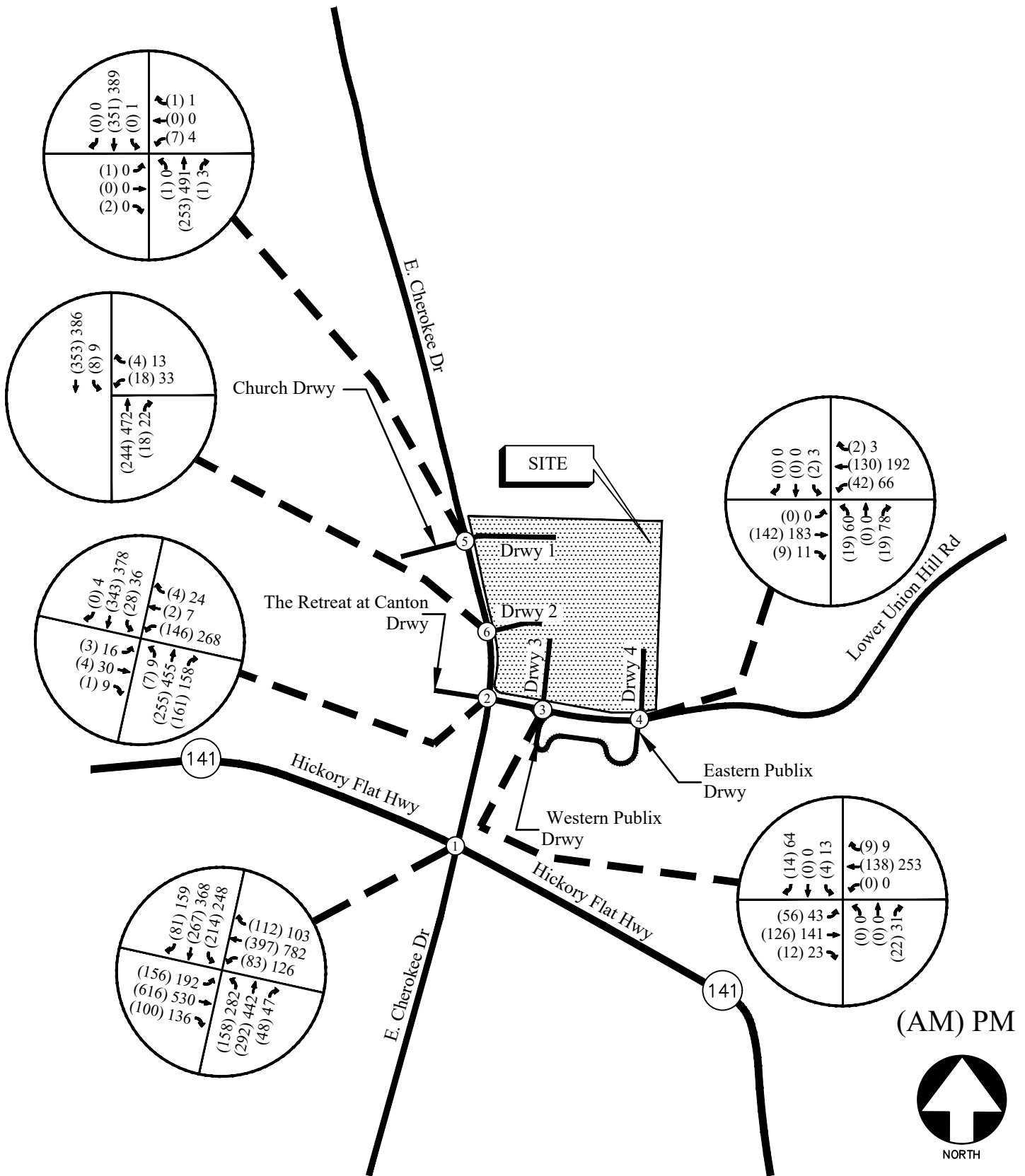
6.2 Future “Build” Conditions

The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus the traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 6A, 6B and 6C) were added to base traffic volumes (Figure 7) to calculate the future traffic volumes after the construction of the mixed-use development. These total future “Build” traffic volumes are shown in Figure 8.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 7
A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 8
A&R Engineering Inc.

6.3 Auxiliary Lane Analysis

Included below are analyses for left and right turn lanes for the site driveway per GDOT standards. The analyses below are based off the trip distribution included in section 5.2. According to the estimated trip generation, the total 24-hour two-way volume entering and exiting the site is 1,937 vehicles.

6.3.1 Left Turn Lane Analysis

For two-lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 35 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 200 vehicles per day. For two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 45 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 250 vehicles per day. The projected left-turn volumes per day for the site driveway are included in Table 5.

TABLE 5 — GDOT REQUIREMENTS FOR LEFT TURN LANES					
Intersection	Left turn traffic (% total entering)	Left-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants met?
East Cherokee Drive @ Site Driveway 1/ Church Driveway	5% Residential Trips	13	35 mph / 2-Lane / > 6,000	200	No
East Cherokee Drive @ Site Driveway 2	5% Residential Trips + 8% Office Trips + 12% Retail Trips	88	35 mph / 2-Lane / > 6,000	200	No
Lower Union Hill Rd @ Site Driveway 3/ Western Publix Driveway	8% Residential Trips + 65.5% Office Trips + 59% Retail Trips	449	45 mph / 2-Lane / < 6,000	250	Yes
Lower Union Hill Road @ Site Driveway 4/ Eastern Publix Driveway	-	0	45 mph / 2-Lane / < 6,000	250	No

Based on GDOT standards, a left turn lane is warranted at the proposed site driveway 3 on Lower Union Hill Road.

6.3.2 Deceleration Turn Lane Analysis

For two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 35 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 100 vehicles per day. For two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 45 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 150 vehicles per day. The projected right-turn volumes per day for the site driveway is included in Table 6.

TABLE 6 — GDOT REQUIREMENTS FOR DECELERATION LANES					
Intersection	Right-turn traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/day)	Warrants met?
East Cherokee Drive @ Site Driveway 1/ Church Driveway	16% Residential Trips	43	35 mph / 2-Lane / > 6,000	100	No
East Cherokee Drive @ Site Driveway 2	56% Residential Trips + 16% Office Trips + 14% Retail Trips	253	35 mph / 2-Lane / > 6,000	100	Yes
Lower Union Hill Road @ Site Driveway 3/ Western Publix Driveway	1% Residential Trips + 9% Office Trips + 13.5% Retail Trips	88	45 mph / 2-Lane / < 6,000	150	No
Lower Union Hill Road @ Site Driveway 4/ Eastern Publix Driveway	9% Residential Trips + 1% Office Trips + 1.5% Retail Trips	33	45 mph / 2-Lane / < 6,000	150	No

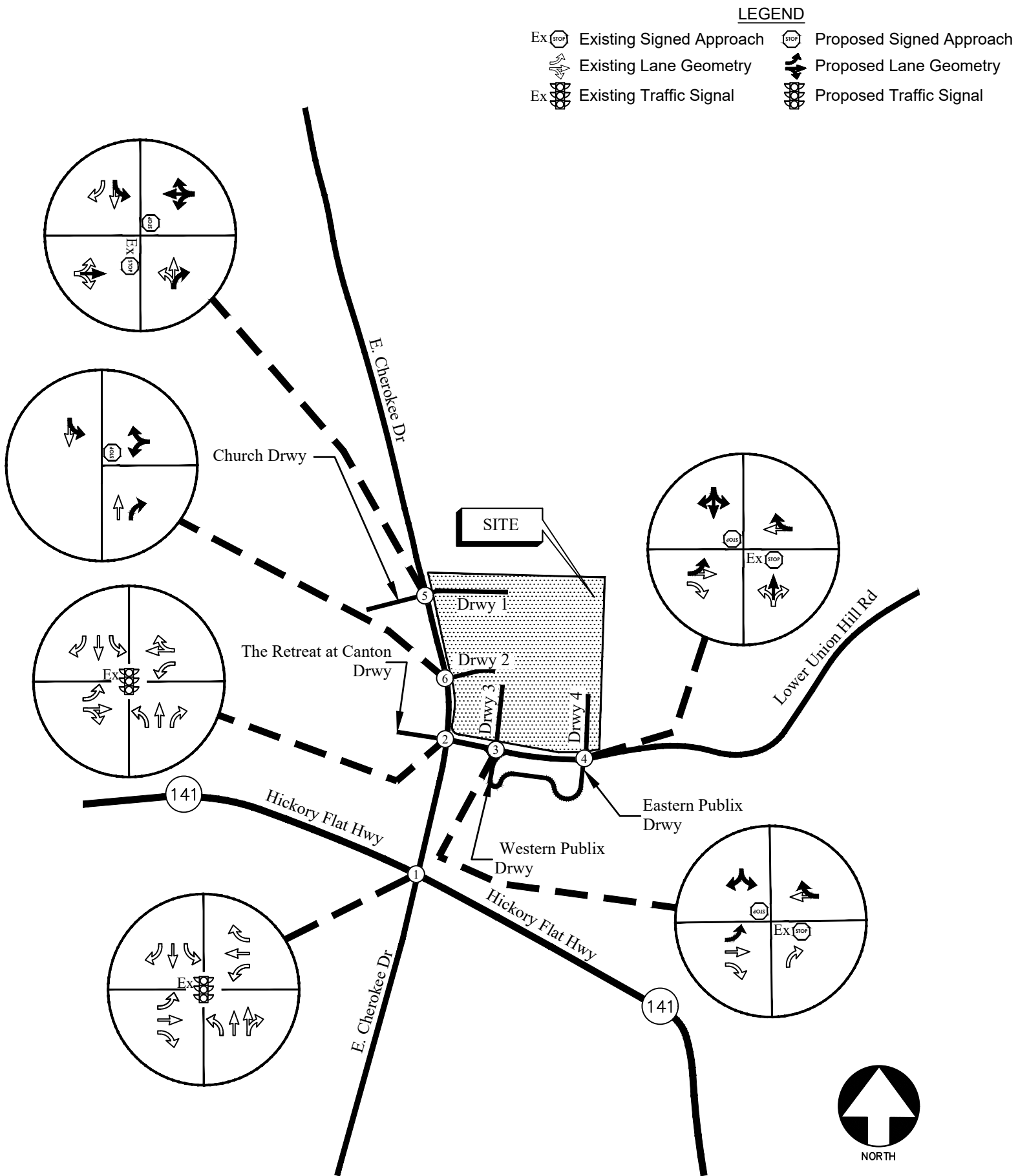
Based on GDOT standards, a right turn lane is warranted at the proposed site driveway 2 on East Cherokee Drive.

6.4 Future Traffic Operations

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figures 7 and 8, respectively. The results of the future traffic operations analysis are shown below in Table 7. Recommendations for future traffic control and lane geometry are shown in Figure 9.

TABLE 7 — FUTURE INTERSECTION OPERATIONS					
Intersection		LOS (Delay)			
		NO-BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	<u>East Cherokee Drive @ SR 141 (Hickory Flat Highway)</u>	<u>C (33.4)</u>	<u>E (55.2)</u>	<u>C (34.5)</u>	<u>E (62.8)</u>
	-Eastbound Approach	C (20.6)	D (35.7)	C (21.2)	D (45.2)
	-Westbound Approach	B (18.1)	E (58.7)	B (19.2)	E (76.6)
	-Northbound Approach	D (48.4)	E (72.4)	D (47.9)	E (70.5)
	-Southbound Approach	E (57.3)	E (55.3)	E (59.1)	E (56.4)
2	<u>East Cherokee Drive @ Lower Union Hill Road</u>	<u>B (12.0)</u>	<u>C (28.3)</u>	<u>B (12.5)</u>	<u>C (32.0)</u>
	--Eastbound Approach	E (59.2)	E (58.5)	E (59.2)	E (58.4)
	-Westbound Approach	D (51.7)	D (57.7)	D (51.3)	E (63.8)
	-Northbound Approach	A (0.4)	C (25.8)	A (2.4)	C (28.3)
	-Southbound Approach	A (6.8)	A (9.4)	A (7.3)	B (11.3)
3	<u>Lower Union Hill Road @ Site Driveway 3/ Western Publix Driveway (RIRO)</u>				
	-Eastbound Left	-	-	A (7.7)	A (7.9)
	-Northbound Approach	A (9.2)	A (9.2)	A (9.2)	A (9.2)
	-Southbound Approach	-	-	B (10.1)	B (11.0)
4	<u>Lower Union Hill Road @ Site Driveway 4/ Eastern Publix Driveway</u>				
	-Eastbound Left	-	-	A (7.5)	A (7.6)
	-Westbound Left	A (7.7)	A (7.7)	A (7.7)	A (7.8)
	-Northbound Approach	B (10.5)	B (12.1)	B (10.9)	B (12.9)
	-Southbound Approach	-	-	B (12.2)	B (14.9)
5	<u>East Cherokee Drive @ Site Driveway 1/ Church Drwy</u>				
	-Eastbound Approach	B (11.2)	C (17.3)	B (11.7)	C (20.7)
	-Westbound Approach	-	-	B (14.0)	C (19.1)
	-Northbound Left	A (8.0)	A (8.2)	A (8.0)	A (8.2)
	-Southbound Left	-	-	A (7.8)	A (8.5)
6	<u>East Cherokee Drive @ Site Driveway 2</u>				
	-Westbound Approach	-	-	B (13.3)	B (17.9)
	-Southbound Left			A (7.8)	A (8.5)

The results of both the “No-Build” and “Build” traffic operations analyses indicate that the signalized study intersection of East Cherokee Drive and SR 141 (Hickory Flat Hwy) will be operating at LOS “E” in the PM peak hour. The signalized intersection of East Cherokee Drive and Lower Union Hill Road and all stop-controlled approaches at all the unsignalized study intersections will continue to operate at a level of service “C” or better in both the AM and PM peak hours as in existing conditions.



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 9
A&R Engineering Inc.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed mixed-use development will be located at northeast corner of the intersection of East Cherokee Drive at Lower Union Hill Road in Cherokee County, Georgia. The proposed development will consist of:

- Single-Family Attached Housing: 92 units
- Strip Retail Plaza (<40K): 20,800 sf
- General Office Building: 37,000 sf

The development proposes access at the following locations on East Cherokee Drive and Lower Union Hill Road:

- Site Driveway 1: Full-access driveway on East Cherokee Drive aligned with The Church of Jesus Christ of Latter-day Saints Driveway
- Site Driveway 2: Full-access driveway on East Cherokee Drive
- Site Driveway 3: Full-access driveway on Lower Union Hill Road aligned with Western Publix Driveway
- Site Driveway 4: Full-access driveway on Lower Union Hill Road aligned with Eastern Publix Driveway.

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

1. East Cherokee Drive @ SR 140 (Hickory Flat Highway)
2. East Cherokee Drive @ Lower Union Hill Road/ The Retreat at Canton Driveway
3. Lower Union Hill Road @ Site Driveway 3/ Western Publix Driveway
4. Lower Union Hill Road @ Site Driveway 4/ Eastern Publix Driveway
5. East Cherokee Drive @ Site Driveway 1/ The Church of Jesus Christ of Latter-day Saints Driveway
6. East Cherokee Drive @ Site Driveway 2

The analysis included the evaluation of future operations for “No-Build” and “Build” conditions, both of which account for increases due to the annual growth of through traffic. The results of both the “No-Build” and “Build” traffic operations analyses indicate that the signalized study intersection of East Cherokee Drive and SR 141 (Hickory Flat Hwy) will be operating at LOS “E” in the PM peak hour. The signalized intersection of East Cherokee Drive and Lower Union Hill Road and all stop-controlled approaches at all the unsignalized study intersections will continue to operate at a level of service “C” or better in both the AM and PM peak hours as in existing conditions. Based on the analysis, the proposed development will have a minimal impact on traffic operations in the study network.

7.1 Recommendations for Site Access Configuration

The following access configuration is recommended for the site driveway intersection.

- Site Driveway – 1: Full-access driveway on East Cherokee Drive, aligned with The Church of Jesus Christ of Latter-day Saints Driveway
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway approach and The Church of Jesus Christ of Latter-day Saints Driveway with East Cherokee Drive remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway – 2: Full-access driveway on East Cherokee Drive
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway approach with East Cherokee Drive remaining free flow.
 - A deceleration lane for entering traffic.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway – 3: Full-access driveway on Lower Union Hill Road, aligned with the Western Publix Driveway
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway approach and Western Publix Driveway with Lower Union Hill Road remaining free flow.
 - A left-turn lane for entering traffic.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway – 4: Full-access driveway on Lower Union Hill Road, aligned with the Eastern Publix Driveway
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway approach and Eastern Publix Driveway with Lower Union Hill Road remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

Appendix

Existing Intersection Traffic Counts	
Linear Regression of Daily Traffic.....	
Existing Intersection Analysis.....	
Future “No-Build” Intersection Analysis	
Future “Build” Intersection Analysis.....	
Traffic Volume Worksheets	

EXISTING INTERSECTION TRAFFIC COUNTS

A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Lower Union Hill Rd @ Publix Eastern
Drwy
7-9am | 4-6pm

File Name : 20250232
Site Code : 20250232
Start Date : 07-02-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

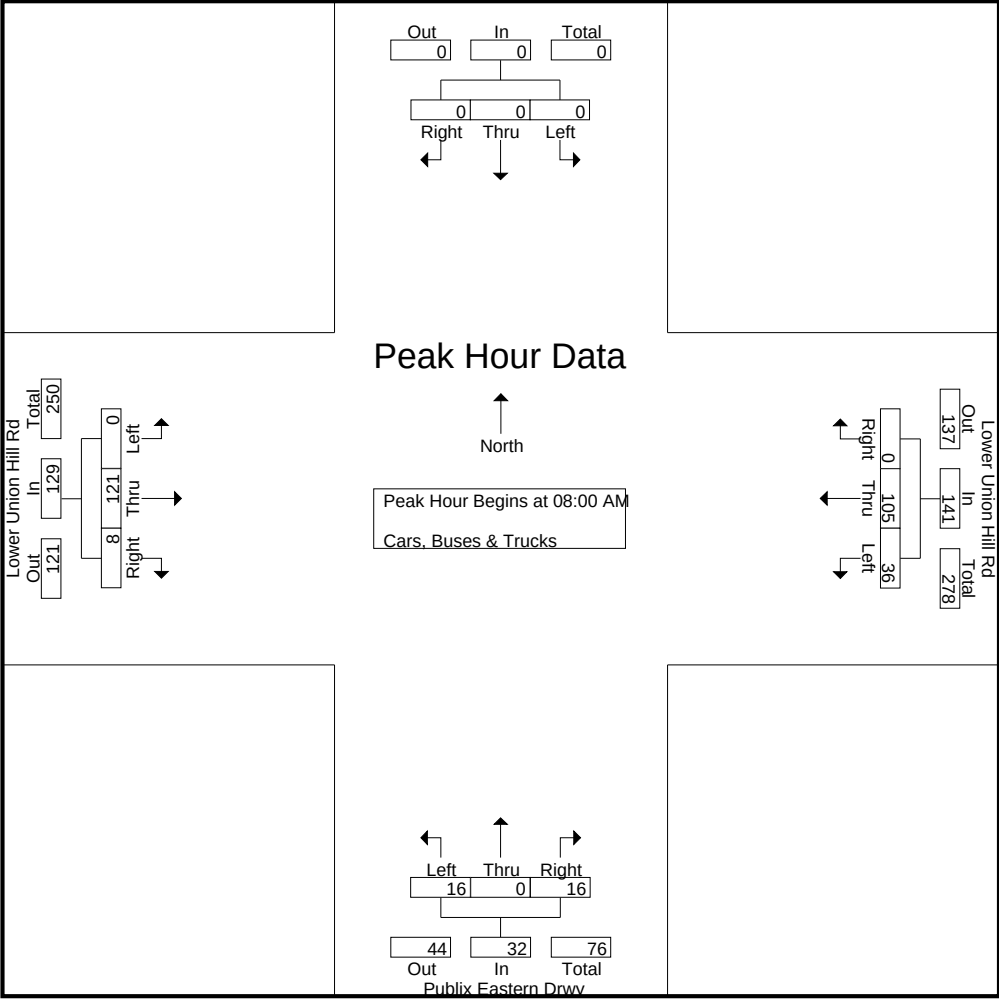
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Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	1	1	0	0	0	0	0	22	0	22	2	24	0	26	49
07:15 AM	1	0	11	12	0	0	0	0	0	21	0	21	2	21	0	23	56
07:30 AM	0	0	0	0	0	0	0	0	0	20	2	22	5	20	0	25	47
07:45 AM	0	0	0	0	0	0	0	0	0	31	0	31	3	35	0	38	69
Total	1	0	12	13	0	0	0	0	0	94	2	96	12	100	0	112	221
08:00 AM	6	0	5	11	0	0	0	0	0	36	2	38	12	15	0	27	76
08:15 AM	0	0	4	4	0	0	0	0	0	20	3	23	4	38	0	42	69
08:30 AM	4	0	3	7	0	0	0	0	0	27	0	27	12	22	0	34	68
08:45 AM	6	0	4	10	0	0	0	0	0	38	3	41	8	30	0	38	89
Total	16	0	16	32	0	0	0	0	0	121	8	129	36	105	0	141	302
*** BREAK ***																	
04:00 PM	15	0	20	35	0	0	0	0	0	32	4	36	9	36	0	45	116
04:15 PM	5	0	8	13	0	0	0	0	0	45	3	48	8	39	0	47	108
04:30 PM	8	0	11	19	0	0	0	0	0	29	7	36	11	48	0	59	114
04:45 PM	13	0	16	29	0	0	0	0	0	43	4	47	12	41	0	53	129
Total	41	0	55	96	0	0	0	0	0	149	18	167	40	164	0	204	467
05:00 PM	12	0	17	29	0	0	0	0	0	24	3	27	15	45	0	60	116
05:15 PM	15	0	15	30	0	0	0	0	0	40	1	41	21	39	0	60	131
05:30 PM	13	0	20	33	0	0	0	0	0	41	2	43	9	35	0	44	120
05:45 PM	14	0	16	30	0	0	0	0	0	35	3	38	7	33	0	40	108
Total	54	0	68	122	0	0	0	0	0	140	9	149	52	152	0	204	475
Grand Total	112	0	151	263	0	0	0	0	0	504	37	541	140	521	0	661	1465
Apprch %	42.6	0	57.4		0	0	0		0	93.2	6.8		21.2	78.8	0		
Total %	7.6	0	10.3	18	0	0	0	0	0	34.4	2.5	36.9	9.6	35.6	0	45.1	

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Marietta, GA 30067

TMC Data
Lower Union Hill Rd @ Publix Eastern
Drwy
7-9am | 4-6pm

File Name : 20250232
Site Code : 20250232
Start Date : 07-02-2025
Page No : 2

	Publix Eastern Drwy Northbound				Southbound				Lower Union Hill Rd Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	6	0	5	11	0	0	0	0	0	36	2	38	12	15	0	27	76
08:15 AM	0	0	4	4	0	0	0	0	0	20	3	23	4	38	0	42	69
08:30 AM	4	0	3	7	0	0	0	0	0	27	0	27	12	22	0	34	68
08:45 AM	6	0	4	10	0	0	0	0	0	38	3	41	8	30	0	38	89
Total Volume	16	0	16	32	0	0	0	0	0	121	8	129	36	105	0	141	302
% App. Total	50	0	50		0	0	0		0	93.8	6.2		25.5	74.5	0		
PHF	.667	.000	.800	.727	.000	.000	.000	.000	.000	.796	.667	.787	.750	.691	.000	.839	.848

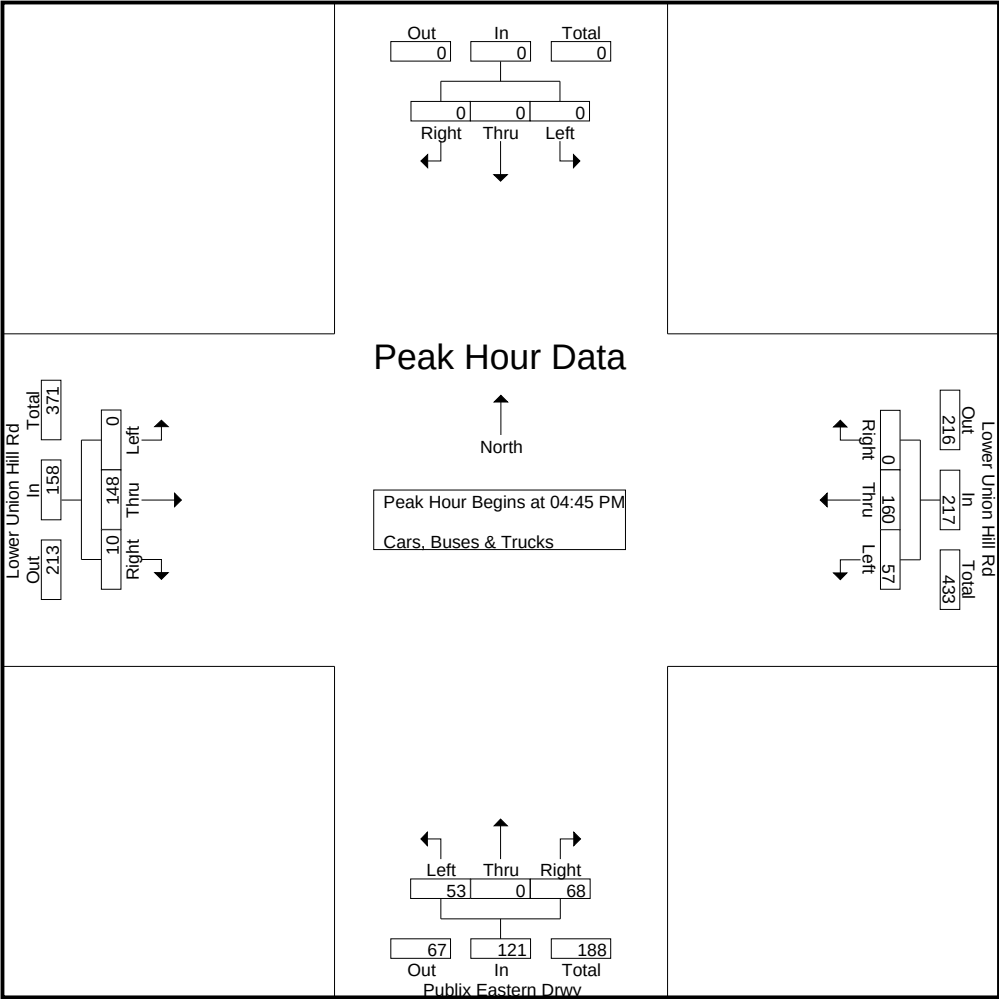


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TMC Data
Lower Union Hill Rd @ Publix Eastern
Drwy
7-9am | 4-6pm

File Name : 20250232
Site Code : 20250232
Start Date : 07-02-2025
Page No : 3

	Publix Eastern Drwy Northbound				Southbound				Lower Union Hill Rd Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	13	0	16	29	0	0	0	0	0	43	4	47	12	41	0	53	129
05:00 PM	12	0	17	29	0	0	0	0	0	24	3	27	15	45	0	60	116
05:15 PM	15	0	15	30	0	0	0	0	0	40	1	41	21	39	0	60	131
05:30 PM	13	0	20	33	0	0	0	0	0	41	2	43	9	35	0	44	120
Total Volume	53	0	68	121	0	0	0	0	0	148	10	158	57	160	0	217	496
% App. Total	43.8	0	56.2		0	0	0		0	93.7	6.3		26.3	73.7	0		
PHF	.883	.000	.850	.917	.000	.000	.000	.000	.000	.860	.625	.840	.679	.889	.000	.904	.947



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TMC Data
Lower Union Hill Rd @ Publix Western
RIRO Drwy
7-9am | 4-6pm

File Name : 20250231
Site Code : 20250231
Start Date : 07-02-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

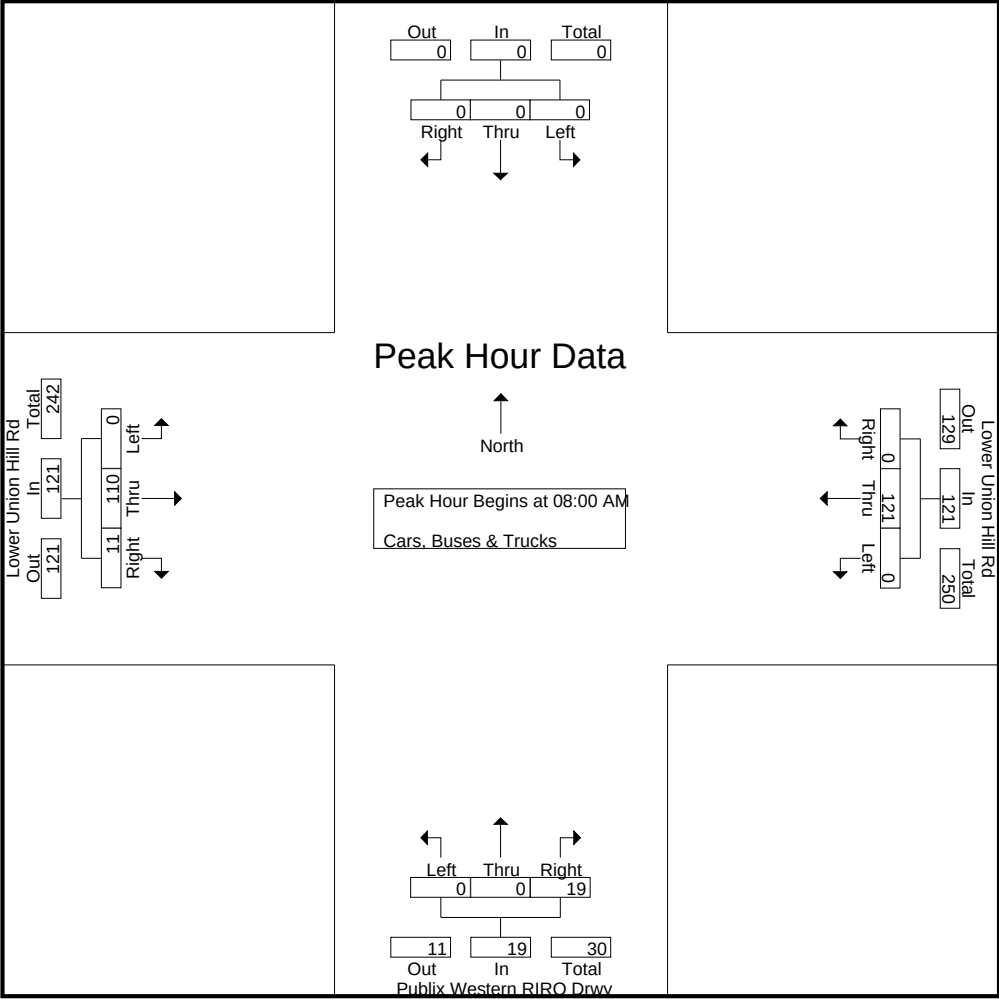
	Publix Western RIRO Drwy Northbound				Southbound				Lower Union Hill Rd Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	1	1	0	0	0	0	0	21	4	25	0	24	0	24	50
07:15 AM	0	0	1	1	0	0	0	0	0	20	1	21	0	22	0	22	44
07:30 AM	0	0	1	1	0	0	0	0	0	21	8	29	0	20	0	20	50
07:45 AM	0	0	4	4	0	0	0	0	0	27	2	29	0	35	0	35	68
Total	0	0	7	7	0	0	0	0	0	89	15	104	0	101	0	101	212
08:00 AM	0	0	4	4	0	0	0	0	0	34	1	35	0	21	0	21	60
08:15 AM	0	0	2	2	0	0	0	0	0	21	6	27	0	38	0	38	67
08:30 AM	0	0	6	6	0	0	0	0	0	21	1	22	0	26	0	26	54
08:45 AM	0	0	7	7	0	0	0	0	0	34	3	37	0	36	0	36	80
Total	0	0	19	19	0	0	0	0	0	110	11	121	0	121	0	121	261
*** BREAK ***																	
04:00 PM	0	0	5	5	0	0	0	0	0	31	7	38	0	51	0	51	94
04:15 PM	0	0	4	4	0	0	0	0	0	44	1	45	0	44	0	44	93
04:30 PM	0	0	5	5	0	0	0	0	0	31	5	36	0	56	0	56	97
04:45 PM	0	0	9	9	0	0	0	0	0	38	2	40	0	54	0	54	103
Total	0	0	23	23	0	0	0	0	0	144	15	159	0	205	0	205	387
05:00 PM	0	0	5	5	0	0	0	0	0	22	8	30	0	57	0	57	92
05:15 PM	0	0	8	8	0	0	0	0	0	33	5	38	0	54	0	54	100
05:30 PM	0	0	4	4	0	0	0	0	0	39	3	42	0	48	0	48	94
05:45 PM	0	0	4	4	0	0	0	0	0	34	2	36	0	47	0	47	87
Total	0	0	21	21	0	0	0	0	0	128	18	146	0	206	0	206	373
Grand Total	0	0	70	70	0	0	0	0	0	471	59	530	0	633	0	633	1233
Apprch %	0	0	100		0	0	0		0	88.9	11.1		0	100	0		
Total %	0	0	5.7	5.7	0	0	0	0	0	38.2	4.8	43	0	51.3	0	51.3	

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2160 Kingston Court Suite 'O'
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TMC Data
Lower Union Hill Rd @ Publix Western
RIRO Drwy
7-9am | 4-6pm

File Name : 20250231
Site Code : 20250231
Start Date : 07-02-2025
Page No : 2

	Publix Western RIRO Drwy Northbound				Southbound				Lower Union Hill Rd Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	4	4	0	0	0	0	0	34	1	35	0	21	0	21	60
08:15 AM	0	0	2	2	0	0	0	0	0	21	6	27	0	38	0	38	67
08:30 AM	0	0	6	6	0	0	0	0	0	21	1	22	0	26	0	26	54
08:45 AM	0	0	7	7	0	0	0	0	0	34	3	37	0	36	0	36	80
Total Volume	0	0	19	19	0	0	0	0	0	110	11	121	0	121	0	121	261
% App. Total	0	0	100		0	0	0		0	90.9	9.1		0	100	0		
PHF	.000	.000	.679	.679	.000	.000	.000	.000	.000	.809	.458	.818	.000	.796	.000	.796	.816

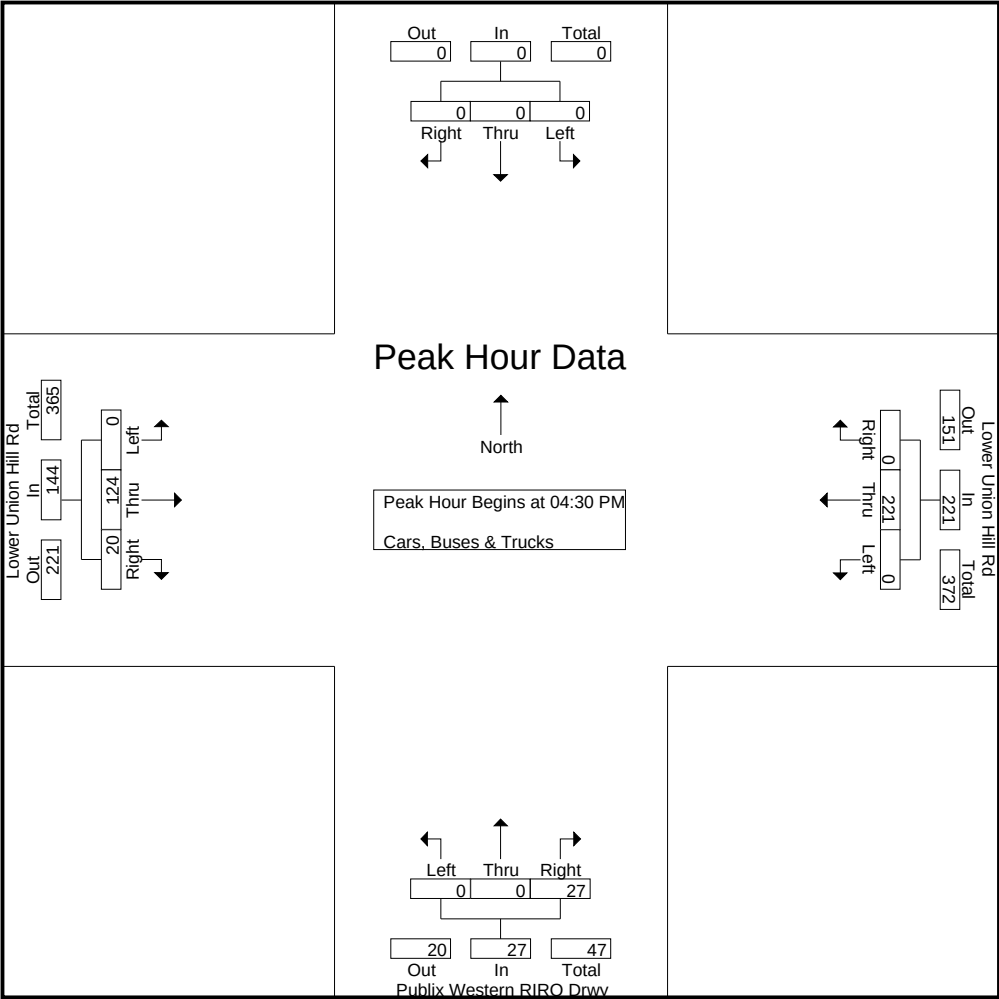


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TMC Data
Lower Union Hill Rd @ Publix Western
RIRO Drwy
7-9am | 4-6pm

File Name : 20250231
Site Code : 20250231
Start Date : 07-02-2025
Page No : 3

	Publix Western RIRO Drwy Northbound				Southbound				Lower Union Hill Rd Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	5	5	0	0	0	0	0	31	5	36	0	56	0	56	97
04:45 PM	0	0	9	9	0	0	0	0	0	38	2	40	0	54	0	54	103
05:00 PM	0	0	5	5	0	0	0	0	0	22	8	30	0	57	0	57	92
05:15 PM	0	0	8	8	0	0	0	0	0	33	5	38	0	54	0	54	100
Total Volume	0	0	27	27	0	0	0	0	0	124	20	144	0	221	0	221	392
% App. Total	0	0	100		0	0	0		0	86.1	13.9		0	100	0		
PHF	.000	.000	.750	.750	.000	.000	.000	.000	.000	.816	.625	.900	.000	.969	.000	.969	.951



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
E.Cherokee Dr @ Lower Union Hill Rd
7-9am | 4-6pm

File Name : 20250229
Site Code : 20250229
Start Date : 07-02-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

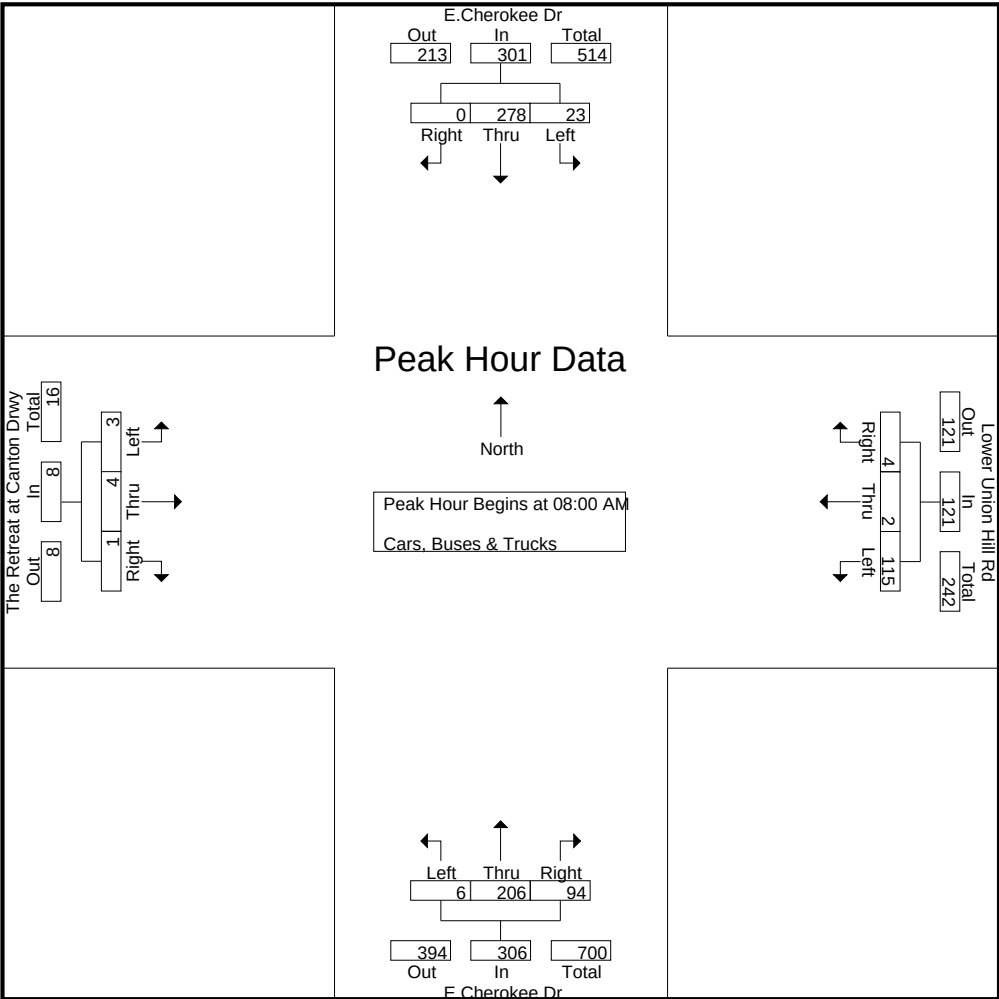
	E.Cherokee Dr Northbound				E.Cherokee Dr Southbound				The Retreat at Canton Drwy Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	23	21	47	3	40	0	43	1	1	4	6	23	0	1	24	120
07:15 AM	2	21	16	39	5	58	0	63	0	0	4	4	21	0	1	22	128
07:30 AM	1	44	23	68	6	55	0	61	0	0	1	1	20	0	0	20	150
07:45 AM	3	44	22	69	7	64	2	73	0	0	2	2	32	0	3	35	179
Total	9	132	82	223	21	217	2	240	1	1	11	13	96	0	5	101	577
08:00 AM	2	51	28	81	7	77	0	84	0	0	0	0	19	0	2	21	186
08:15 AM	2	51	19	72	5	65	0	70	1	3	0	4	38	0	0	38	184
08:30 AM	0	61	19	80	3	69	0	72	2	0	0	2	25	0	1	26	180
08:45 AM	2	43	28	73	8	67	0	75	0	1	1	2	33	2	1	36	186
Total	6	206	94	306	23	278	0	301	3	4	1	8	115	2	4	121	736
*** BREAK ***																	
04:00 PM	2	86	26	114	7	69	2	78	4	5	5	14	45	3	3	51	257
04:15 PM	3	97	28	128	13	85	0	98	4	4	1	9	39	0	5	44	279
04:30 PM	1	89	23	113	4	68	1	73	3	9	1	13	47	2	7	56	255
04:45 PM	2	103	26	131	6	76	1	83	3	8	1	12	50	1	3	54	280
Total	8	375	103	486	30	298	4	332	14	26	8	48	181	6	18	205	1071
05:00 PM	0	89	22	111	6	67	1	74	2	2	1	5	47	1	9	57	247
05:15 PM	3	80	28	111	7	90	1	98	3	3	1	7	51	1	2	54	270
05:30 PM	1	96	32	129	6	65	0	71	0	4	0	4	40	1	7	48	252
05:45 PM	2	97	28	127	6	81	1	88	6	2	0	8	43	0	4	47	270
Total	6	362	110	478	25	303	3	331	11	11	2	24	181	3	22	206	1039
Grand Total	29	1075	389	1493	99	1096	9	1204	29	42	22	93	573	11	49	633	3423
Apprch %	1.9	72	26.1		8.2	91	0.7		31.2	45.2	23.7		90.5	1.7	7.7		
Total %	0.8	31.4	11.4	43.6	2.9	32	0.3	35.2	0.8	1.2	0.6	2.7	16.7	0.3	1.4	18.5	

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TMC Data
E.Cherokee Dr @ Lower Union Hill Rd
7-9am | 4-6pm

File Name : 20250229
Site Code : 20250229
Start Date : 07-02-2025
Page No : 2

	E.Cherokee Dr Northbound				E.Cherokee Dr Southbound				The Retreat at Canton Drwy Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	51	28	81	7	77	0	84	0	0	0	0	19	0	2	21	186
08:15 AM	2	51	19	72	5	65	0	70	1	3	0	4	38	0	0	38	184
08:30 AM	0	61	19	80	3	69	0	72	2	0	0	2	25	0	1	26	180
08:45 AM	2	43	28	73	8	67	0	75	0	1	1	2	33	2	1	36	186
Total Volume	6	206	94	306	23	278	0	301	3	4	1	8	115	2	4	121	736
% App. Total	2	67.3	30.7		7.6	92.4	0		37.5	50	12.5		95	1.7	3.3		
PHF	.750	.844	.839	.944	.719	.903	.000	.896	.375	.333	.250	.500	.757	.250	.500	.796	.989

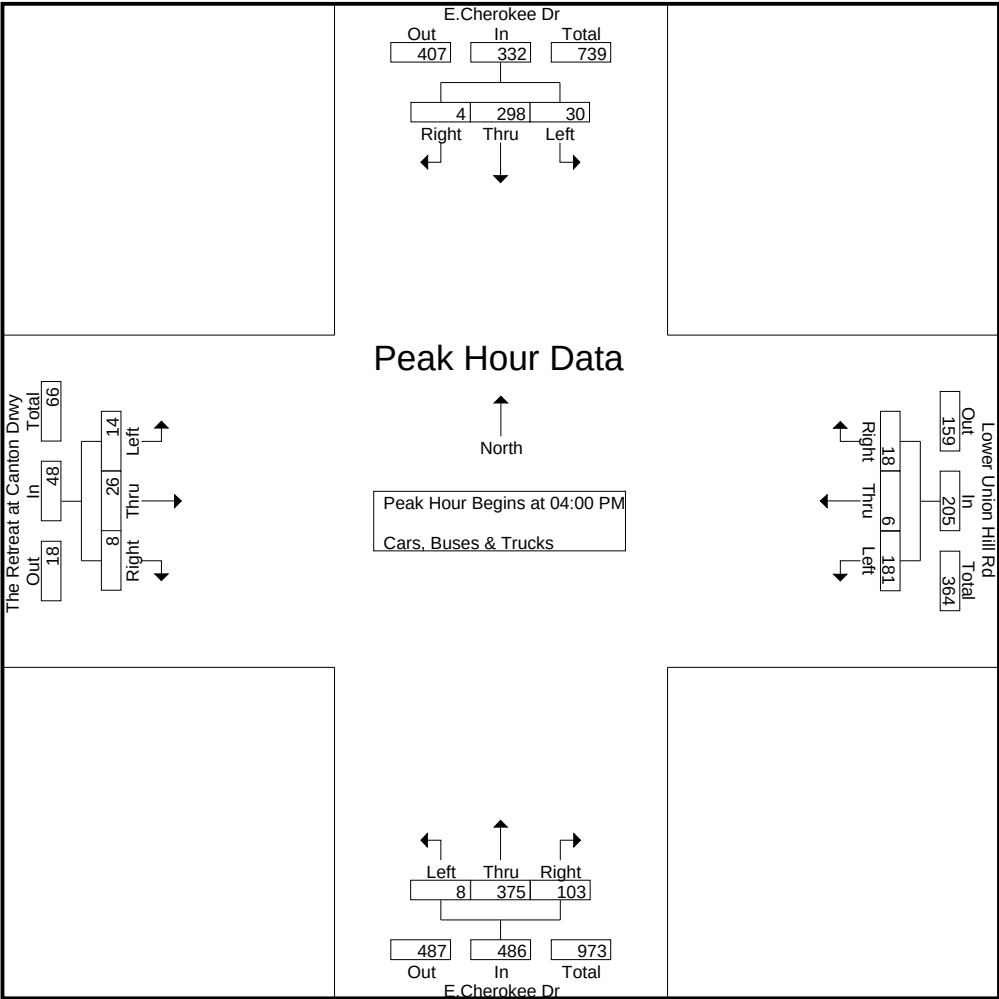


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TMC Data
E.Cherokee Dr @ Lower Union Hill Rd
7-9am | 4-6pm

File Name : 20250229
Site Code : 20250229
Start Date : 07-02-2025
Page No : 3

	E.Cherokee Dr Northbound				E.Cherokee Dr Southbound				The Retreat at Canton Drwy Eastbound				Lower Union Hill Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	86	26	114	7	69	2	78	4	5	5	14	45	3	3	51	257
04:15 PM	3	97	28	128	13	85	0	98	4	4	1	9	39	0	5	44	279
04:30 PM	1	89	23	113	4	68	1	73	3	9	1	13	47	2	7	56	255
04:45 PM	2	103	26	131	6	76	1	83	3	8	1	12	50	1	3	54	280
Total Volume	8	375	103	486	30	298	4	332	14	26	8	48	181	6	18	205	1071
% App. Total	1.6	77.2	21.2		9	89.8	1.2		29.2	54.2	16.7		88.3	2.9	8.8		
PHF	.667	.910	.920	.927	.577	.876	.500	.847	.875	.722	.400	.857	.905	.500	.643	.915	.956



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TMC Data
E. Cherokee Dr @ SR 140 (Hickory Flat
Hwy)
7-9 am | 4-6 pm

File Name : 20250228
Site Code : 20250228
Start Date : 07-02-2025
Page No : 1

Groups Printed- Car, Buses & Trucks

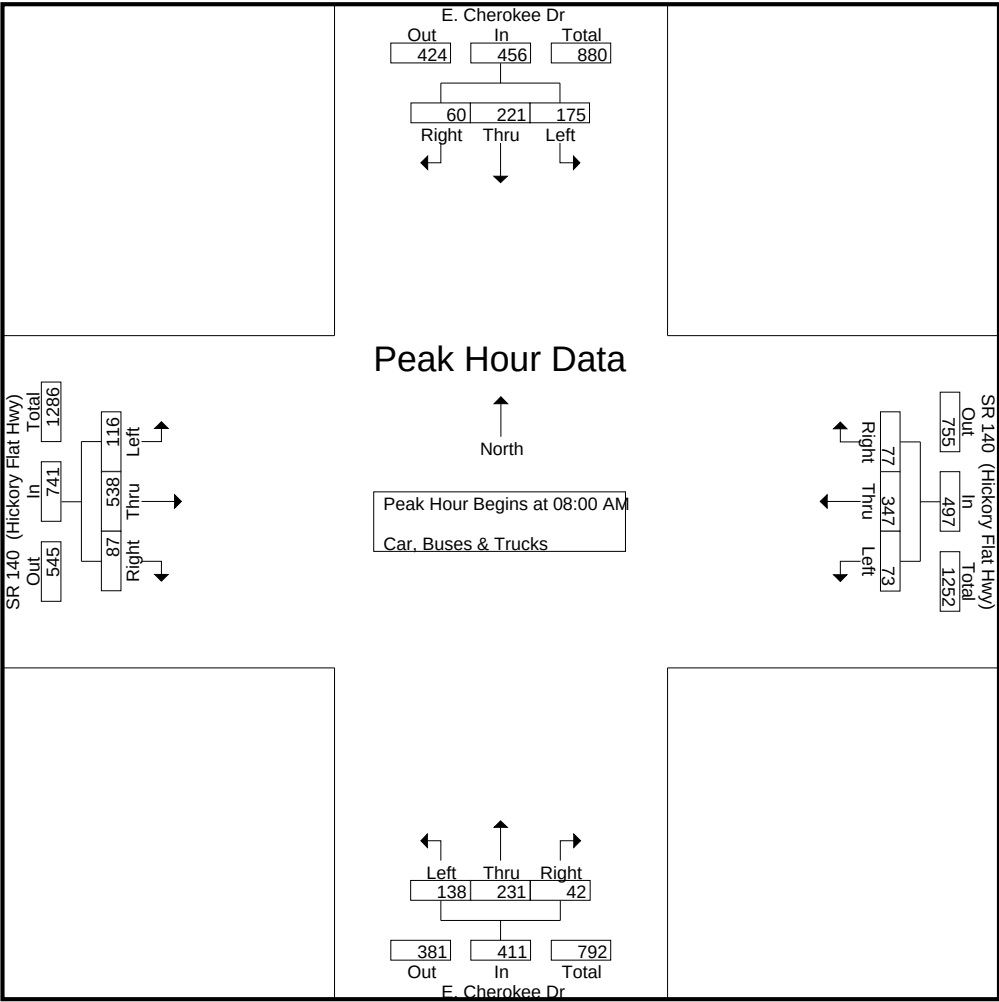
	E. Cherokee Dr Northbound				E. Cherokee Dr Southbound				SR 140 (Hickory Flat Hwy) Eastbound				SR 140 (Hickory Flat Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	17	30	7	54	23	41	13	77	17	114	20	151	14	74	6	94	376
07:15 AM	34	23	12	69	25	44	7	76	23	137	13	173	6	74	7	87	405
07:30 AM	36	47	16	99	28	46	13	87	30	132	21	183	14	79	15	108	477
07:45 AM	24	49	7	80	33	53	8	94	24	156	22	202	16	109	25	150	526
Total	111	149	42	302	109	184	41	334	94	539	76	709	50	336	53	439	1784
08:00 AM	36	59	11	106	37	63	14	114	24	128	22	174	17	70	19	106	500
08:15 AM	41	50	11	102	47	51	15	113	27	132	23	182	19	87	22	128	525
08:30 AM	35	63	8	106	50	50	17	117	30	125	23	178	17	95	23	135	536
08:45 AM	26	59	12	97	41	57	14	112	35	153	19	207	20	95	13	128	544
Total	138	231	42	411	175	221	60	456	116	538	87	741	73	347	77	497	2105
*** BREAK ***																	
04:00 PM	70	95	6	171	57	63	18	138	26	131	29	186	21	174	21	216	711
04:15 PM	51	97	6	154	62	67	21	150	41	132	44	217	25	152	32	209	730
04:30 PM	48	92	6	146	45	60	27	132	38	134	25	197	29	148	22	199	674
04:45 PM	53	97	12	162	46	68	28	142	34	117	24	175	27	154	24	205	684
Total	222	381	30	633	210	258	94	562	139	514	122	775	102	628	99	829	2799
05:00 PM	69	90	9	168	35	74	32	141	41	128	30	199	23	179	19	221	729
05:15 PM	66	82	11	159	59	71	30	160	37	107	30	174	27	186	9	222	715
05:30 PM	58	96	9	163	48	76	23	147	38	112	35	185	33	165	18	216	711
05:45 PM	56	87	12	155	48	76	13	137	21	129	34	184	24	144	27	195	671
Total	249	355	41	645	190	297	98	585	137	476	129	742	107	674	73	854	2826
Grand Total	720	1116	155	1991	684	960	293	1937	486	2067	414	2967	332	1985	302	2619	9514
Apprch %	36.2	56.1	7.8		35.3	49.6	15.1		16.4	69.7	14		12.7	75.8	11.5		
Total %	7.6	11.7	1.6	20.9	7.2	10.1	3.1	20.4	5.1	21.7	4.4	31.2	3.5	20.9	3.2	27.5	

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TMC Data
E. Cherokee Dr @ SR 140 (Hickory Flat
Hwy)
7-9 am | 4-6 pm

File Name : 20250228
Site Code : 20250228
Start Date : 07-02-2025
Page No : 2

	E. Cherokee Dr Northbound				E. Cherokee Dr Southbound				SR 140 (Hickory Flat Hwy) Eastbound				SR 140 (Hickory Flat Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	36	59	11	106	37	63	14	114	24	128	22	174	17	70	19	106	500
08:15 AM	41	50	11	102	47	51	15	113	27	132	23	182	19	87	22	128	525
08:30 AM	35	63	8	106	50	50	17	117	30	125	23	178	17	95	23	135	536
08:45 AM	26	59	12	97	41	57	14	112	35	153	19	207	20	95	13	128	544
Total Volume	138	231	42	411	175	221	60	456	116	538	87	741	73	347	77	497	2105
% App. Total	33.6	56.2	10.2		38.4	48.5	13.2		15.7	72.6	11.7		14.7	69.8	15.5		
PHF	.841	.917	.875	.969	.875	.877	.882	.974	.829	.879	.946	.895	.913	.913	.837	.920	.967

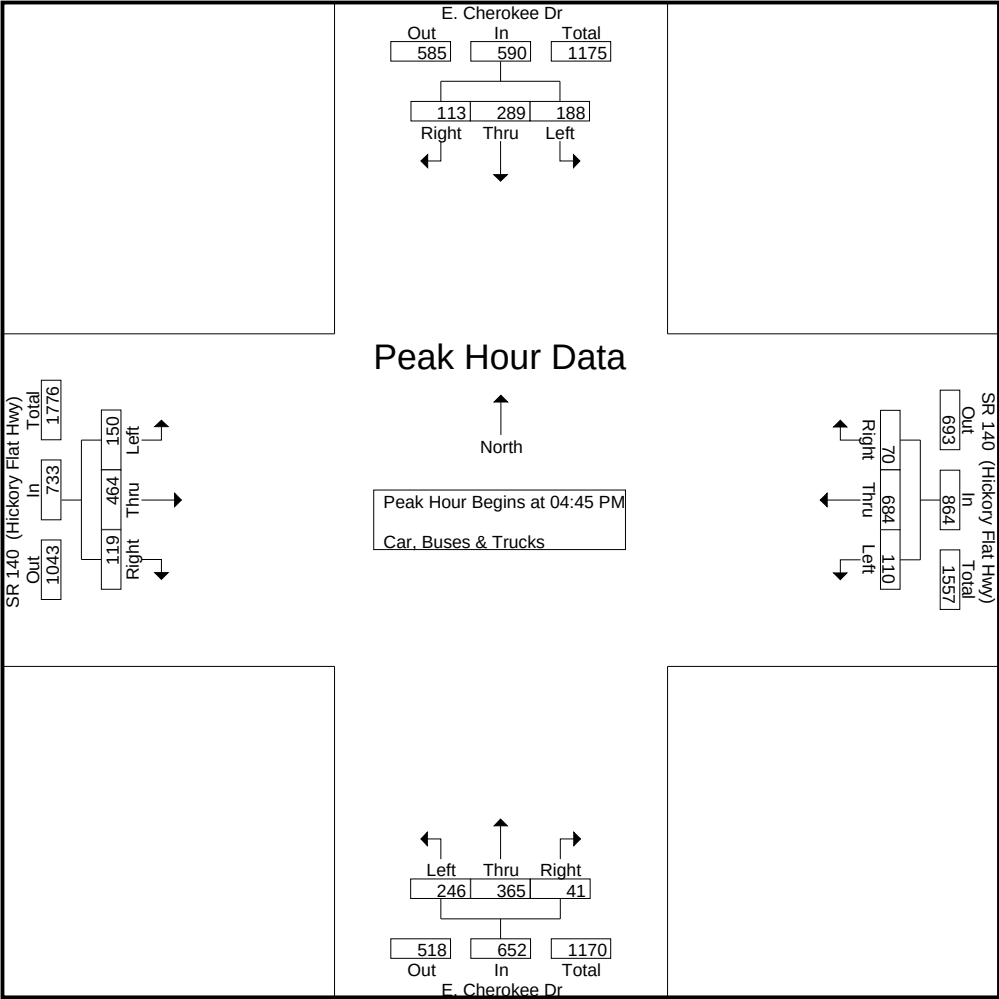


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TMC Data
E. Cherokee Dr @ SR 140 (Hickory Flat Hwy)
7-9 am | 4-6 pm

File Name : 20250228
Site Code : 20250228
Start Date : 07-02-2025
Page No : 3

	E. Cherokee Dr Northbound				E. Cherokee Dr Southbound				SR 140 (Hickory Flat Hwy) Eastbound				SR 140 (Hickory Flat Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	53	97	12	162	46	68	28	142	34	117	24	175	27	154	24	205	684
05:00 PM	69	90	9	168	35	74	32	141	41	128	30	199	23	179	19	221	729
05:15 PM	66	82	11	159	59	71	30	160	37	107	30	174	27	186	9	222	715
05:30 PM	58	96	9	163	48	76	23	147	38	112	35	185	33	165	18	216	711
Total Volume	246	365	41	652	188	289	113	590	150	464	119	733	110	684	70	864	2839
% App. Total	37.7	56	6.3		31.9	49	19.2		20.5	63.3	16.2		12.7	79.2	8.1		
PHF	.891	.941	.854	.970	.797	.951	.883	.922	.915	.906	.850	.921	.833	.919	.729	.973	.974



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TMC Data
E. Cherokee Drive @ The Church of Jesus
Christ of Latter Day Saints
7-9am | 4-6pm

File Name : 20250230
Site Code : 20250230
Start Date : 07-02-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

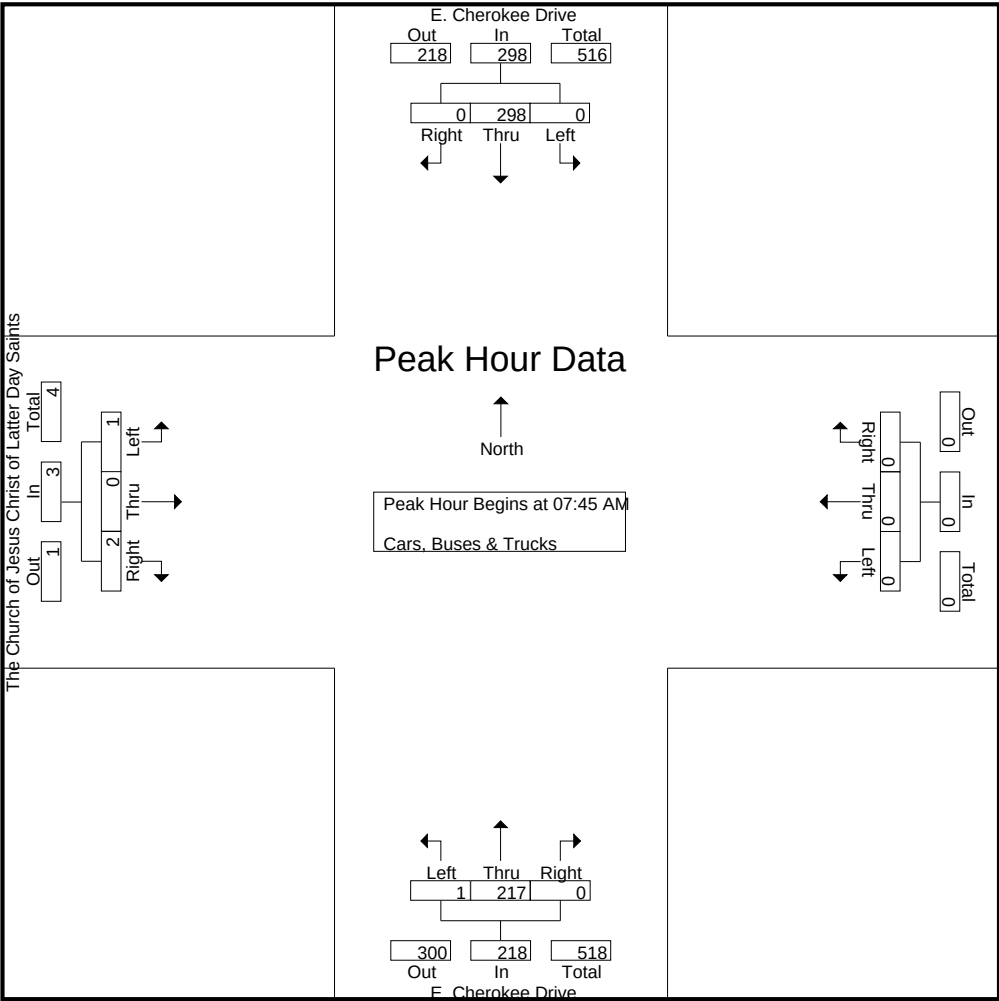
	E. Cherokee Drive Northbound				E. Cherokee Drive Southbound				The Church of Jesus Christ of Latter Day Saints Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	25	0	25	0	43	0	43	0	0	0	0	0	0	0	0	68
07:15 AM	0	22	0	22	0	63	0	63	0	0	0	0	0	0	0	0	85
07:30 AM	0	44	0	44	0	61	0	61	0	0	0	0	0	0	0	0	105
07:45 AM	0	47	0	47	0	74	0	74	1	0	0	1	0	0	0	0	122
Total	0	138	0	138	0	241	0	241	1	0	0	1	0	0	0	0	380
08:00 AM	0	54	0	54	0	84	0	84	0	0	0	0	0	0	0	0	138
08:15 AM	0	53	0	53	0	70	0	70	0	0	0	0	0	0	0	0	123
08:30 AM	1	63	0	64	0	70	0	70	0	0	2	2	0	0	0	0	136
08:45 AM	0	44	0	44	0	76	0	76	0	0	0	0	0	0	0	0	120
Total	1	214	0	215	0	300	0	300	0	0	2	2	0	0	0	0	517
*** BREAK ***																	
04:00 PM	0	93	0	93	0	79	1	80	0	0	0	0	0	0	0	0	173
04:15 PM	0	106	0	106	0	98	0	98	0	0	0	0	0	0	0	0	204
04:30 PM	0	100	0	100	0	74	0	74	0	0	0	0	0	0	0	0	174
04:45 PM	0	109	0	109	0	83	0	83	0	0	0	0	0	0	0	0	192
Total	0	408	0	408	0	334	1	335	0	0	0	0	0	0	0	0	743
05:00 PM	0	101	0	101	0	75	0	75	0	0	0	0	0	0	0	0	176
05:15 PM	0	85	0	85	0	99	0	99	0	0	0	0	0	0	0	0	184
05:30 PM	0	103	0	103	0	71	0	71	0	0	0	0	0	0	0	0	174
05:45 PM	0	107	0	107	0	88	0	88	0	0	0	0	0	0	0	0	195
Total	0	396	0	396	0	333	0	333	0	0	0	0	0	0	0	0	729
Grand Total	1	1156	0	1157	0	1208	1	1209	1	0	2	3	0	0	0	0	2369
Apprch %	0.1	99.9	0		0	99.9	0.1		33.3	0	66.7		0	0	0		
Total %	0	48.8	0	48.8	0	51	0	51	0	0	0.1	0.1	0	0	0	0	

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TMC Data
E. Cherokee Drive @ The Church of Jesus
Christ of Latter Day Saints
7-9am | 4-6pm

File Name : 20250230
Site Code : 20250230
Start Date : 07-02-2025
Page No : 2

	E. Cherokee Drive Northbound				E. Cherokee Drive Southbound				The Church of Jesus Christ of Latter Day Saints Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	47	0	47	0	74	0	74	1	0	0	1	0	0	0	0	122
08:00 AM	0	54	0	54	0	84	0	84	0	0	0	0	0	0	0	0	138
08:15 AM	0	53	0	53	0	70	0	70	0	0	0	0	0	0	0	0	123
08:30 AM	1	63	0	64	0	70	0	70	0	0	2	2	0	0	0	0	136
Total Volume	1	217	0	218	0	298	0	298	1	0	2	3	0	0	0	0	519
% App. Total	0.5	99.5	0		0	100	0		33.3	0	66.7		0	0	0		
PHF	.250	.861	.000	.852	.000	.887	.000	.887	.250	.000	.250	.375	.000	.000	.000	.000	.940

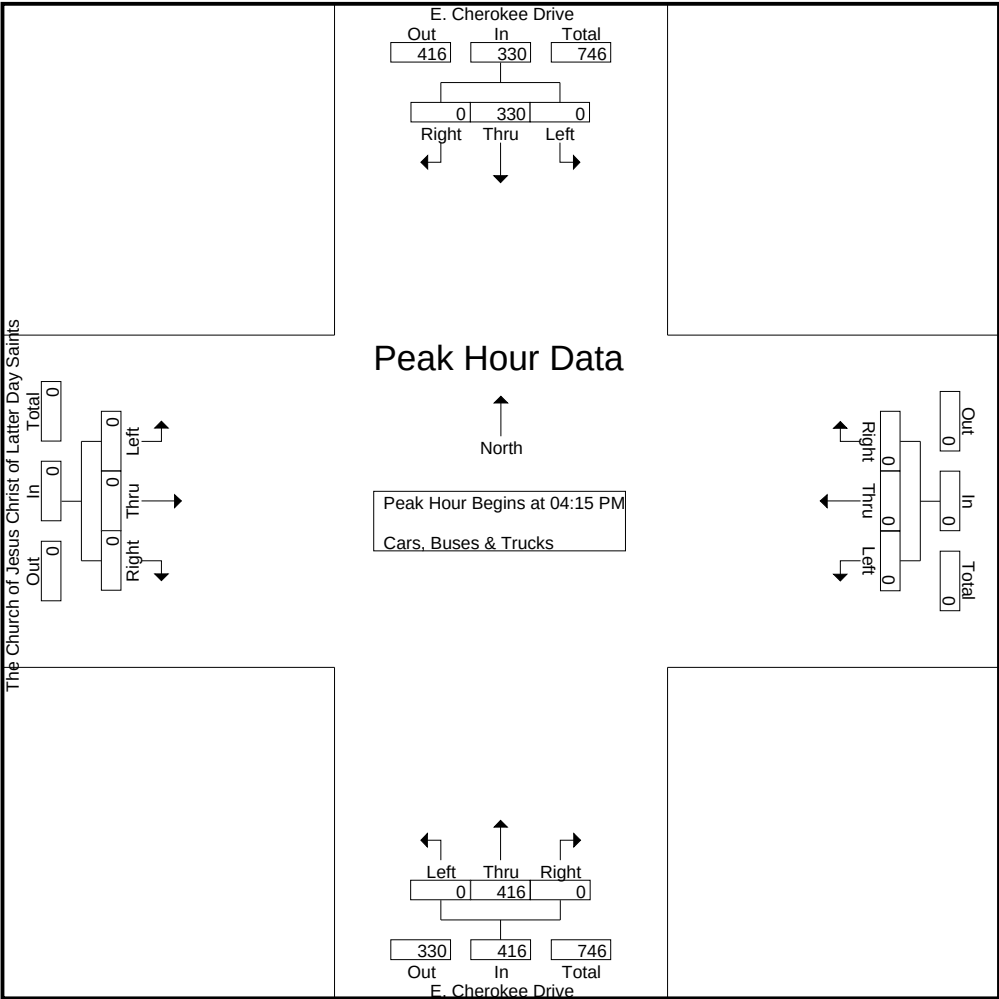


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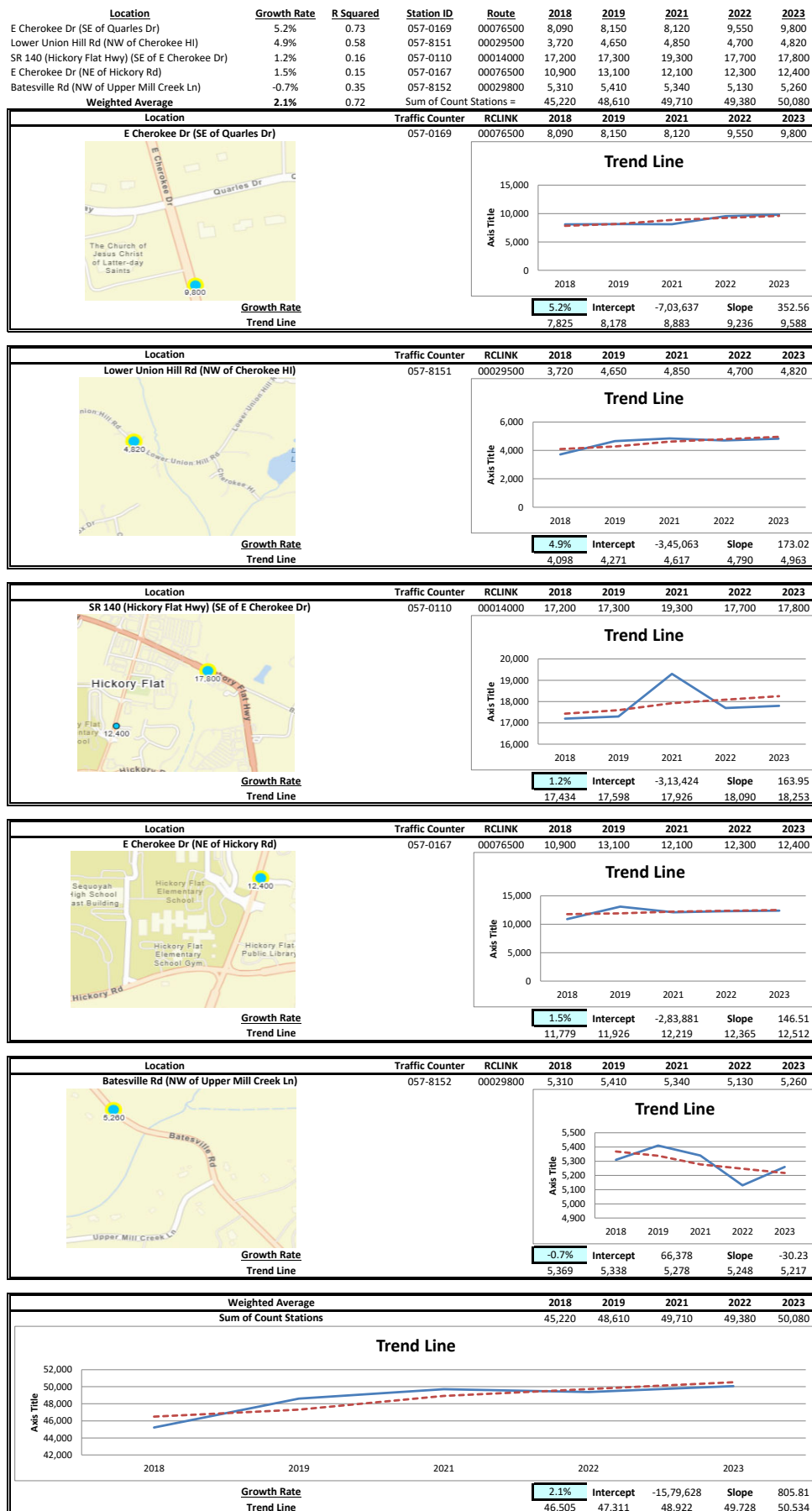
TMC Data
E. Cherokee Drive @ The Church of Jesus
Christ of Latter Day Saints
7-9am | 4-6pm

File Name : 20250230
Site Code : 20250230
Start Date : 07-02-2025
Page No : 3

	E. Cherokee Drive Northbound				E. Cherokee Drive Southbound				The Church of Jesus Christ of Latter Day Saints Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	106	0	106	0	98	0	98	0	0	0	0	0	0	0	0	204
04:30 PM	0	100	0	100	0	74	0	74	0	0	0	0	0	0	0	0	174
04:45 PM	0	109	0	109	0	83	0	83	0	0	0	0	0	0	0	0	192
05:00 PM	0	101	0	101	0	75	0	75	0	0	0	0	0	0	0	0	176
Total Volume	0	416	0	416	0	330	0	330	0	0	0	0	0	0	0	0	746
% App. Total	0	100	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.954	.000	.954	.000	.842	.000	.842	.000	.000	.000	.000	.000	.000	.000	.000	.914



LINEAR REGRESSION OF DAILY TRAFFIC



EXISTING INTERSECTION ANALYSIS

Timings
1: E Cherokee Dr & SR 140

1a.Existing 2025 AM
07/10/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	128	592	96	80	382	85	152	254	193	243	66
Future Volume (vph)	128	592	96	80	382	85	152	254	193	243	66
Lane Group Flow (vph)	132	610	99	82	394	88	157	309	199	251	68
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	5	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	39.5	39.5	15.0	39.5	39.5	15.0	37.5	15.0	37.5	37.5
Total Split (s)	15.0	52.0	52.0	15.0	52.0	52.0	15.0	38.0	15.0	38.0	38.0
Total Split (%)	12.5%	43.3%	43.3%	12.5%	43.3%	43.3%	12.5%	31.7%	12.5%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.26	0.65	0.11	0.23	0.45	0.11	0.64	0.49	0.68	0.76	0.17
Control Delay	12.9	28.5	2.5	13.3	25.0	1.9	43.2	43.4	42.9	58.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	28.5	2.5	13.3	25.0	1.9	43.2	43.4	42.9	58.0	5.2
Queue Length 50th (ft)	42	350	0	25	199	0	92	107	101	191	0
Queue Length 95th (ft)	82	571	22	55	336	16	137	142	169	285	m16
Internal Link Dist (ft)		436			389			454		794	
Turn Bay Length (ft)	225		241	237		165	155		320		330
Base Capacity (vph)	515	937	864	374	872	813	248	926	294	490	518
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.65	0.11	0.22	0.45	0.11	0.63	0.33	0.68	0.51	0.13

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: E Cherokee Dr & SR 140



HCM 6th Signalized Intersection Summary

1: E Cherokee Dr & SR 140

1a.Existing 2025 AM

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	592	96	80	382	85	152	254	46	193	243	66
Future Volume (veh/h)	128	592	96	80	382	85	152	254	46	193	243	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	132	610	99	82	394	88	157	262	47	199	251	68
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	3	2	2	5	2	2	5	2
Cap, veh/h	515	999	854	361	978	835	226	471	83	283	292	254
Arrive On Green	0.05	0.54	0.54	0.04	0.53	0.53	0.08	0.16	0.16	0.03	0.05	0.05
Sat Flow, veh/h	1781	1856	1585	1781	1856	1585	1781	2946	521	1781	1826	1585
Grp Volume(v), veh/h	132	610	99	82	394	88	157	153	156	199	251	68
Grp Sat Flow(s),veh/h/ln	1781	1856	1585	1781	1856	1585	1781	1735	1732	1781	1826	1585
Q Serve(g_s), s	4.1	27.1	3.7	2.5	15.3	3.3	8.8	9.7	10.0	9.5	16.4	4.9
Cycle Q Clear(g_c), s	4.1	27.1	3.7	2.5	15.3	3.3	8.8	9.7	10.0	9.5	16.4	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	515	999	854	361	978	835	226	278	277	283	292	254
V/C Ratio(X)	0.26	0.61	0.12	0.23	0.40	0.11	0.69	0.55	0.56	0.70	0.86	0.27
Avail Cap(c_a), veh/h	566	999	854	432	978	835	226	470	469	283	495	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	12.7	19.0	13.6	15.0	17.0	14.2	39.4	46.4	46.5	43.4	55.5	50.1
Incr Delay (d2), s/veh	0.3	2.8	0.3	0.3	1.2	0.3	8.9	1.7	1.8	7.2	7.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	11.5	1.4	1.0	6.4	1.2	4.4	4.3	4.4	1.5	8.6	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	21.8	13.9	15.3	18.3	14.5	48.3	48.1	48.3	50.6	62.8	50.6
LnGrp LOS	B	C	B	B	B	B	D	D	D	D	E	D
Approach Vol, veh/h	841			564			466			518		
Approach Delay, s/veh	19.5			17.2			48.2			56.5		
Approach LOS	B			B			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	68.7	15.0	24.7	10.2	70.1	15.0	24.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	46.5	9.5	32.5	9.5	46.5	9.5	32.5				
Max Q Clear Time (g_c+I1), s	6.1	17.3	10.8	18.4	4.5	29.1	11.5	12.0				
Green Ext Time (p_c), s	0.1	3.9	0.0	0.8	0.1	5.4	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	32.6											
HCM 6th LOS	C											

Timings

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

1a.Existing 2025 AM

07/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	←	→	←	→	←	→	←	←	→
Traffic Volume (vph)	3	4	127	2	7	227	103	25	306
Future Volume (vph)	3	4	127	2	7	227	103	25	306
Lane Group Flow (vph)	3	5	128	6	7	229	104	25	309
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	1	6		5	2
Permitted Phases	4		8		6		6	2	
Detector Phase	4	4	3	8	1	6	6	5	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	32.5	32.5	15.0	31.5	15.0	29.5	29.5	15.0	29.5
Total Split (s)	33.0	33.0	19.0	52.0	17.0	51.0	51.0	17.0	51.0
Total Split (%)	27.5%	27.5%	15.8%	43.3%	14.2%	42.5%	42.5%	14.2%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.03	0.05	0.63	0.03	0.01	0.17	0.09	0.03	0.22
Control Delay	54.7	50.8	62.8	29.7	2.3	4.3	1.1	4.1	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	50.8	62.8	29.7	2.3	4.3	1.1	4.1	5.9
Queue Length 50th (ft)	2	3	96	1	0	19	0	3	48
Queue Length 95th (ft)	13	17	144	13	m2	164	34	14	161
Internal Link Dist (ft)		166		246		794			842
Turn Bay Length (ft)			230		175			241	
Base Capacity (vph)	426	414	221	651	904	1318	1186	935	1387
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.58	0.01	0.01	0.17	0.09	0.03	0.22

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

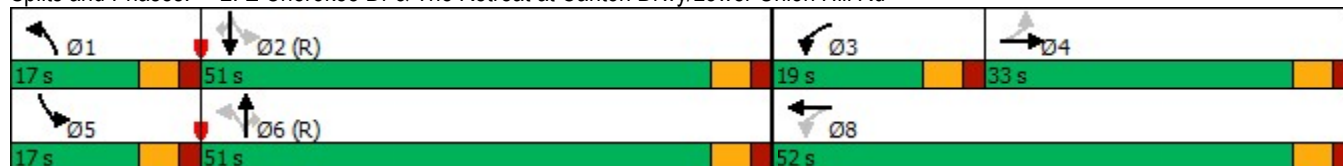
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd



HCM 6th Signalized Intersection Summary

1a.Existing 2025 AM

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	1	127	2	4	7	227	103	25	306	0
Future Volume (veh/h)	3	4	1	127	2	4	7	227	103	25	306	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	3	4	1	128	2	4	7	229	104	25	309	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	5	2	2	5	2
Cap, veh/h	86	27	7	233	83	166	766	1260	1094	825	1287	1118
Arrive On Green	0.02	0.02	0.02	0.08	0.15	0.15	0.02	1.00	1.00	0.02	0.71	0.00
Sat Flow, veh/h	1410	1444	361	1781	557	1113	1781	1826	1585	1781	1826	1585
Grp Volume(v), veh/h	3	0	5	128	0	6	7	229	104	25	309	0
Grp Sat Flow(s),veh/h/ln	1410	0	1805	1781	0	1670	1781	1826	1585	1781	1826	1585
Q Serve(g_s), s	0.3	0.0	0.3	8.2	0.0	0.4	0.1	0.0	0.0	0.5	7.2	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.3	8.2	0.0	0.4	0.1	0.0	0.0	0.5	7.2	0.0
Prop In Lane	1.00		0.20	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	86	0	34	233	0	248	766	1260	1094	825	1287	1118
V/C Ratio(X)	0.03	0.00	0.15	0.55	0.00	0.02	0.01	0.18	0.10	0.03	0.24	0.00
Avail Cap(c_a), veh/h	383	0	414	283	0	647	921	1260	1094	953	1287	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.94	0.94	0.94	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.9	0.0	57.9	50.1	0.0	43.6	5.5	0.0	0.0	5.0	6.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.0	2.0	0.0	0.0	0.0	0.3	0.2	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	3.7	0.0	0.2	0.0	0.1	0.0	0.2	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	0.0	59.9	52.2	0.0	43.7	5.5	0.3	0.2	5.0	6.7	0.0
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	8			134			340			334		
Approach Delay, s/veh	59.2			51.8			0.4			6.6		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	6.5	90.1	15.6	7.7	8.3	88.3	23.3					
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5					
Max Green Setting (Gmax), s	11.5	45.5	13.5	27.5	11.5	45.5	46.5					
Max Q Clear Time (g_c+I1), s	2.1	9.2	10.2	2.3	2.5	2.0	2.4					
Green Ext Time (p_c), s	0.0	2.6	0.1	0.0	0.0	2.7	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	11.9											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	121	12	0	133	0	21
Future Vol, veh/h	121	12	0	133	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	2	2	6	2	2
Mvmt Flow	148	15	0	162	0	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	148
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	899
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	899
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.1	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	WBT		
Capacity (veh/h)	899		-	-		
HCM Lane V/C Ratio	0.028		-	-		
HCM Control Delay (s)	9.1		-	-		
HCM Lane LOS	A		-	-		
HCM 95th %tile Q(veh)	0.1		-	-		

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	9	40	116	18	18
Future Vol, veh/h	133	9	40	116	18	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	2	2	6	2	2
Mvmt Flow	156	11	47	136	21	21
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	167	0	386	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1411	-	617	890
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1411	-	595	890
Mov Cap-2 Maneuver	-	-	-	-	595	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	779	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		10.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	713	-	-	1411	-	
HCM Lane V/C Ratio	0.059	-	-	0.033	-	
HCM Control Delay (s)	10.4	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2	1	239	328	0
Future Vol, veh/h	1	2	1	239	328	0
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	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	5	5	2
Mvmt Flow	1	2	1	254	349	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	605	349	349	0	-	0
Stage 1	349	-	-	-	-	-
Stage 2	256	-	-	-	-	-
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	461	694	1210	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	461	694	1210	-	-	-
Mov Cap-2 Maneuver	461	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.1	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1210	-	594	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	8	0	11.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Timings
1: E Cherokee Dr & SR 140

1b.Existing 2025 PM
07/10/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	510	131	121	752	77	271	402	207	318	124
Future Volume (vph)	165	510	131	121	752	77	271	402	207	318	124
Lane Group Flow (vph)	170	526	135	125	775	79	279	460	213	328	128
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	5	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	39.5	39.5	15.0	39.5	39.5	15.0	37.5	15.0	37.5	37.5
Total Split (s)	15.0	47.0	47.0	15.0	47.0	47.0	20.0	38.0	20.0	38.0	38.0
Total Split (%)	12.5%	39.2%	39.2%	12.5%	39.2%	39.2%	16.7%	31.7%	16.7%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.74	0.70	0.19	0.40	1.08	0.12	0.91	0.59	0.64	0.82	0.29
Control Delay	45.3	37.5	6.3	20.2	93.9	1.5	62.9	43.4	32.9	56.9	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	37.5	6.3	20.2	93.9	1.5	62.9	43.4	32.9	56.9	10.0
Queue Length 50th (ft)	74	339	5	48	~707	0	156	165	100	242	5
Queue Length 95th (ft)	#217	#545	49	92	#969	10	#267	206	m139	m321	m37
Internal Link Dist (ft)		436			389			454		794	
Turn Bay Length (ft)	225		241	237		165	155		320		330
Base Capacity (vph)	230	750	712	322	717	685	305	951	348	504	522
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.70	0.19	0.39	1.08	0.12	0.91	0.48	0.61	0.65	0.25

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

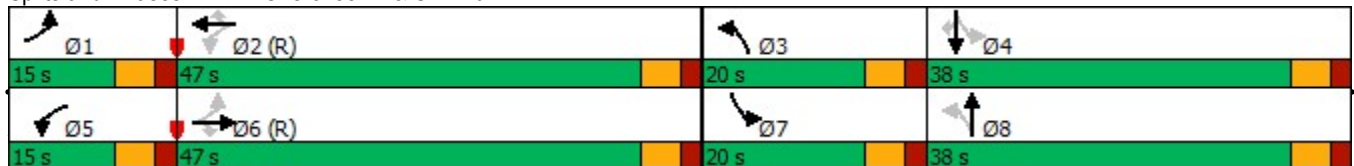
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: E Cherokee Dr & SR 140



HCM 6th Signalized Intersection Summary

1: E Cherokee Dr & SR 140

1b.Existing 2025 PM
07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	510	131	121	752	77	271	402	45	207	318	124
Future Volume (veh/h)	165	510	131	121	752	77	271	402	45	207	318	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	526	135	125	775	79	279	414	46	213	328	128
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	825	699	331	798	676	299	678	75	343	373	316
Arrive On Green	0.07	0.44	0.44	0.06	0.43	0.43	0.12	0.21	0.21	0.04	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3226	357	1781	1870	1585
Grp Volume(v), veh/h	170	526	135	125	775	79	279	227	233	213	328	128
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1806	1781	1870	1585
Q Serve(g_s), s	6.4	26.3	6.2	4.7	48.7	3.6	14.5	13.9	14.0	11.2	20.9	9.3
Cycle Q Clear(g_c), s	6.4	26.3	6.2	4.7	48.7	3.6	14.5	13.9	14.0	11.2	20.9	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	198	825	699	331	798	676	299	373	380	343	373	316
V/C Ratio(X)	0.86	0.64	0.19	0.38	0.97	0.12	0.93	0.61	0.61	0.62	0.88	0.40
Avail Cap(c_a), veh/h	214	825	699	373	798	676	299	481	489	362	507	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	27.6	26.1	20.5	20.3	33.7	20.8	35.8	42.9	43.0	36.1	54.6	49.2
Incr Delay (d2), s/veh	26.5	3.8	0.6	0.7	25.7	0.4	34.7	1.6	1.6	2.6	11.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	11.9	2.4	1.9	26.3	1.4	9.3	6.2	6.4	5.5	11.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	29.9	21.1	21.0	59.4	21.1	70.5	44.5	44.6	38.7	66.0	49.9
LnGrp LOS	D	C	C	C	E	C	E	D	D	D	E	D
Approach Vol, veh/h	831			979			739			669		
Approach Delay, s/veh	33.4			51.4			54.3			54.3		
Approach LOS	C			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	56.7	20.0	29.4	12.1	58.4	18.7	30.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	41.5	14.5	32.5	9.5	41.5	14.5	32.5				
Max Q Clear Time (g_c+I1), s	8.4	50.7	16.5	22.9	6.7	28.3	13.2	16.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.1	4.2	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay	48.0											
HCM 6th LOS	D											

Timings

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

1b.Existing 2025 PM

07/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←	→	←	→	←	→	←	←	→	←
Traffic Volume (vph)	15	29	199	7	9	413	113	33	328	4
Future Volume (vph)	15	29	199	7	9	413	113	33	328	4
Lane Group Flow (vph)	16	39	207	28	9	430	118	34	342	4
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	3	8	1	6		5	2	
Permitted Phases	4		8		6		6	2		2
Detector Phase	4	4	3	8	1	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	32.5	32.5	15.0	31.5	15.0	29.5	29.5	15.0	29.5	29.5
Total Split (s)	33.0	33.0	19.0	52.0	15.0	53.0	53.0	15.0	53.0	53.0
Total Split (%)	27.5%	27.5%	15.8%	43.3%	12.5%	44.2%	44.2%	12.5%	44.2%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.18	0.32	0.79	0.08	0.01	0.36	0.11	0.06	0.27	0.00
Control Delay	57.0	50.0	63.7	17.9	2.3	10.8	3.6	6.7	9.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	50.0	63.7	17.9	2.3	10.8	3.6	6.7	9.4	0.0
Queue Length 50th (ft)	12	23	143	4	1	251	29	8	92	0
Queue Length 95th (ft)	35	58	#221	28	m1	326	m63	19	195	0
Internal Link Dist (ft)		166		246		794			842	
Turn Bay Length (ft)			230		175			241		240
Base Capacity (vph)	315	418	266	653	759	1203	1066	645	1279	1125
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.09	0.78	0.04	0.01	0.36	0.11	0.05	0.27	0.00

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

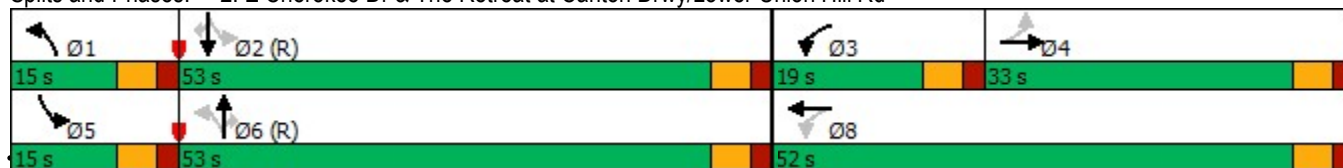
Control Type: Actuated-Coordinated

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: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd



A&R Engineering, Inc.

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA

Synchro 11 Light Report

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HCM 6th Signalized Intersection Summary
2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

1b.Existing 2025 PM
07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	29	9	199	7	20	9	413	113	33	328	4
Future Volume (veh/h)	15	29	9	199	7	20	9	413	113	33	328	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	30	9	207	7	21	9	430	118	34	342	4
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	65	19	296	85	254	666	1177	997	481	1209	1025
Arrive On Green	0.05	0.05	0.05	0.11	0.21	0.21	0.00	0.21	0.21	0.03	0.65	0.65
Sat Flow, veh/h	1382	1381	414	1781	412	1236	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	16	0	39	207	0	28	9	430	118	34	342	4
Grp Sat Flow(s),veh/h/ln	1382	0	1796	1781	0	1648	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.3	0.0	2.5	13.0	0.0	1.6	0.2	23.7	7.3	0.8	9.5	0.1
Cycle Q Clear(g_c), s	1.3	0.0	2.5	13.0	0.0	1.6	0.2	23.7	7.3	0.8	9.5	0.1
Prop In Lane	1.00		0.23	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	0	84	296	0	338	666	1177	997	481	1209	1025
V/C Ratio(X)	0.13	0.00	0.46	0.70	0.00	0.08	0.01	0.37	0.12	0.07	0.28	0.00
Avail Cap(c_a), veh/h	377	0	412	296	0	639	788	1177	997	572	1209	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	55.7	46.2	0.0	38.6	8.1	27.0	20.5	9.6	9.2	7.5
Incr Delay (d2), s/veh	0.5	0.0	3.9	7.2	0.0	0.1	0.0	0.7	0.2	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.3	6.2	0.0	0.7	0.1	12.1	2.8	0.3	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	0.0	59.6	53.4	0.0	38.7	8.1	27.7	20.7	9.7	9.8	7.5
LnGrp LOS	E	A	E	D	A	D	A	C	C	A	A	A
Approach Vol, veh/h	55			235			557			380		
Approach Delay, s/veh	58.5			51.6			25.9			9.7		
Approach LOS	E			D			C			A		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	6.8	83.1	19.0	11.1	8.9	81.0	30.1					
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5					
Max Green Setting (Gmax), s	9.5	47.5	13.5	27.5	9.5	47.5	46.5					
Max Q Clear Time (g_c+I1), s	2.2	11.5	15.0	4.5	2.8	25.7	3.6					
Green Ext Time (p_c), s	0.0	3.0	0.0	0.1	0.0	4.3	0.1					
Intersection Summary												
HCM 6th Ctrl Delay	27.3											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	136	22	0	243	0	30
Future Vol, veh/h	136	22	0	243	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	143	23	0	256	0	32
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	143
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	905
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	905
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.1	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	WBT		
Capacity (veh/h)	905		-	-		
HCM Lane V/C Ratio	0.035		-	-		
HCM Control Delay (s)	9.1		-	-		
HCM Lane LOS	A		-	-		
HCM 95th %tile Q(veh)	0.1		-	-		

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	163	11	63	176	58	75
Future Vol, veh/h	163	11	63	176	58	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	172	12	66	185	61	79

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	184
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1391
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1391
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	665	-	-	1391	-
HCM Lane V/C Ratio	0.211	-	-	0.048	-
HCM Control Delay (s)	11.9	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	1	458	363	0
Future Vol, veh/h	1	0	1	458	363	0
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	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	1	503	399	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	904	399	399	0	-	0
Stage 1	399	-	-	-	-	-
Stage 2	505	-	-	-	-	-
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	307	651	1160	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	307	651	1160	-	-	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.8	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1160	-	307	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	8.1	0	16.8	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

FUTURE “NO-BUILD” INTERSECTION ANALYSIS

Timings
1: E Cherokee Dr & SR 140

2a. No Build 2027 AM
07/10/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	133	616	100	83	397	88	158	264	201	253	69
Future Volume (vph)	133	616	100	83	397	88	158	264	201	253	69
Lane Group Flow (vph)	137	635	103	86	409	91	163	321	207	261	71
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	5	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	39.5	39.5	15.0	39.5	39.5	15.0	37.5	15.0	37.5	37.5
Total Split (s)	15.0	52.0	52.0	15.0	52.0	52.0	15.0	38.0	15.0	38.0	38.0
Total Split (%)	12.5%	43.3%	43.3%	12.5%	43.3%	43.3%	12.5%	31.7%	12.5%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.28	0.69	0.12	0.26	0.47	0.11	0.66	0.50	0.70	0.77	0.18
Control Delay	13.4	30.3	2.8	14.0	25.8	2.1	44.4	43.0	43.6	57.5	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	30.3	2.8	14.0	25.8	2.1	44.4	43.0	43.6	57.5	5.4
Queue Length 50th (ft)	44	377	0	27	211	0	95	111	103	195	0
Queue Length 95th (ft)	86	#656	25	58	350	17	140	146	176	295	m17
Internal Link Dist (ft)		436			389			454		794	
Turn Bay Length (ft)	225		241	237		165	155		320		330
Base Capacity (vph)	495	924	854	349	863	805	247	926	295	490	518
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.69	0.12	0.25	0.47	0.11	0.66	0.35	0.70	0.53	0.14

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

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: 1: E Cherokee Dr & SR 140



A&R Engineering, Inc.
25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA

Synchro 11 Light Report
Page 1

HCM 6th Signalized Intersection Summary
1: E Cherokee Dr & SR 140

2a. No Build 2027 AM
07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	616	100	83	397	88	158	264	48	201	253	69
Future Volume (veh/h)	133	616	100	83	397	88	158	264	48	201	253	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	137	635	103	86	409	91	163	272	49	207	261	71
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	3	2	2	5	2	2	5	2
Cap, veh/h	498	988	844	338	964	823	226	488	87	285	302	263
Arrive On Green	0.05	0.53	0.53	0.04	0.52	0.52	0.08	0.17	0.17	0.03	0.05	0.05
Sat Flow, veh/h	1781	1856	1585	1781	1856	1585	1781	2943	523	1781	1826	1585
Grp Volume(v), veh/h	137	635	103	86	409	91	163	159	162	207	261	71
Grp Sat Flow(s),veh/h/ln	1781	1856	1585	1781	1856	1585	1781	1735	1732	1781	1826	1585
Q Serve(g_s), s	4.3	29.2	3.9	2.7	16.3	3.5	9.1	10.1	10.3	9.5	17.0	5.2
Cycle Q Clear(g_c), s	4.3	29.2	3.9	2.7	16.3	3.5	9.1	10.1	10.3	9.5	17.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	498	988	844	338	964	823	226	287	287	285	302	263
V/C Ratio(X)	0.28	0.64	0.12	0.25	0.42	0.11	0.72	0.55	0.57	0.73	0.86	0.27
Avail Cap(c_a), veh/h	545	988	844	409	964	823	226	470	469	285	495	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	13.2	19.9	14.0	15.9	17.8	14.7	39.1	46.0	46.1	43.4	55.4	49.8
Incr Delay (d2), s/veh	0.3	3.2	0.3	0.4	1.4	0.3	10.7	1.7	1.7	8.4	8.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	12.5	1.4	1.0	6.9	1.3	4.6	4.4	4.6	1.9	9.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	23.1	14.3	16.3	19.1	15.0	49.8	47.6	47.8	51.8	63.4	50.3
LnGrp LOS	B	C	B	B	B	B	D	D	D	D	E	D
Approach Vol, veh/h	875			586			484			539		
Approach Delay, s/veh	20.6			18.1			48.4			57.3		
Approach LOS	C			B			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	67.8	15.0	25.4	10.2	69.4	15.0	25.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	46.5	9.5	32.5	9.5	46.5	9.5	32.5				
Max Q Clear Time (g_c+I1), s	6.3	18.3	11.1	19.0	4.7	31.2	11.5	12.3				
Green Ext Time (p_c), s	0.1	4.1	0.0	0.9	0.1	5.3	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay	33.4											
HCM 6th LOS	C											

Timings

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

2a. No Build 2027 AM

07/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	←	→	←	→	←	→	←	←	→
Traffic Volume (vph)	3	4	132	2	7	236	107	26	318
Future Volume (vph)	3	4	132	2	7	236	107	26	318
Lane Group Flow (vph)	3	5	133	6	7	238	108	26	321
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	1	6		5	2
Permitted Phases	4		8		6		6	2	
Detector Phase	4	4	3	8	1	6	6	5	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	32.5	32.5	15.0	31.5	15.0	29.5	29.5	15.0	29.5
Total Split (s)	33.0	33.0	19.0	52.0	16.0	51.0	51.0	17.0	52.0
Total Split (%)	27.5%	27.5%	15.8%	43.3%	13.3%	42.5%	42.5%	14.2%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.03	0.05	0.66	0.03	0.01	0.18	0.09	0.03	0.23
Control Delay	54.7	50.8	64.1	29.7	2.3	4.3	1.1	4.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	50.8	64.1	29.7	2.3	4.3	1.1	4.1	6.0
Queue Length 50th (ft)	2	3	100	1	0	19	0	3	50
Queue Length 95th (ft)	13	17	148	13	m2	168	35	14	168
Internal Link Dist (ft)		166		246		794			842
Turn Bay Length (ft)			230		175			241	
Base Capacity (vph)	426	414	221	651	883	1316	1185	926	1386
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.60	0.01	0.01	0.18	0.09	0.03	0.23

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

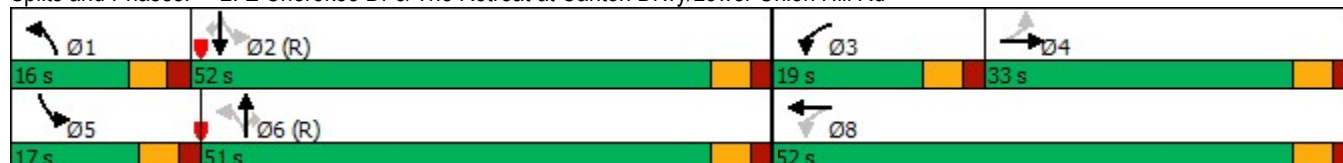
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd



HCM 6th Signalized Intersection Summary

2a. No Build 2027 AM

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	1	132	2	4	7	236	107	26	318	0
Future Volume (veh/h)	3	4	1	132	2	4	7	236	107	26	318	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	3	4	1	133	2	4	7	238	108	26	321	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	5	2	2	5	2
Cap, veh/h	86	27	7	237	84	169	752	1254	1089	814	1282	1113
Arrive On Green	0.02	0.02	0.02	0.09	0.15	0.15	0.02	1.00	1.00	0.02	0.70	0.00
Sat Flow, veh/h	1410	1444	361	1781	557	1113	1781	1826	1585	1781	1826	1585
Grp Volume(v), veh/h	3	0	5	133	0	6	7	238	108	26	321	0
Grp Sat Flow(s),veh/h/ln	1410	0	1805	1781	0	1670	1781	1826	1585	1781	1826	1585
Q Serve(g_s), s	0.3	0.0	0.3	8.5	0.0	0.4	0.1	0.0	0.0	0.5	7.6	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.3	8.5	0.0	0.4	0.1	0.0	0.0	0.5	7.6	0.0
Prop In Lane	1.00		0.20	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	86	0	34	237	0	253	752	1254	1089	814	1282	1113
V/C Ratio(X)	0.03	0.00	0.15	0.56	0.00	0.02	0.01	0.19	0.10	0.03	0.25	0.00
Avail Cap(c_a), veh/h	383	0	414	283	0	647	892	1254	1089	941	1282	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.9	0.0	57.9	50.0	0.0	43.4	5.7	0.0	0.0	5.1	6.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.0	2.1	0.0	0.0	0.0	0.3	0.2	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	3.8	0.0	0.2	0.0	0.1	0.1	0.2	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	0.0	59.9	52.0	0.0	43.4	5.7	0.3	0.2	5.1	6.9	0.0
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	8			139			353			347		
Approach Delay, s/veh	59.2			51.7			0.4			6.8		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	6.5	89.8	15.9	7.7	8.4	87.9	23.7					
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5					
Max Green Setting (Gmax), s	10.5	46.5	13.5	27.5	11.5	45.5	46.5					
Max Q Clear Time (g_c+I1), s	2.1	9.6	10.5	2.3	2.5	2.0	2.4					
Green Ext Time (p_c), s	0.0	2.7	0.1	0.0	0.0	2.8	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	12.0											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	126	12	0	138	0	22
Future Vol, veh/h	126	12	0	138	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	2	2	6	2	2
Mvmt Flow	154	15	0	168	0	27
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	154
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	892
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	892
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	WBT		
Capacity (veh/h)	892		-	-		
HCM Lane V/C Ratio	0.03		-	-		
HCM Control Delay (s)	9.2		-	-		
HCM Lane LOS	A		-	-		
HCM 95th %tile Q(veh)	0.1		-	-		

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	138	9	42	121	19	19
Future Vol, veh/h	138	9	42	121	19	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	2	2	6	2	2
Mvmt Flow	162	11	49	142	22	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	173	0	402	162
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	240	-
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	-	-	1404	-	604	883
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1404	-	581	883
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	770	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		10.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	701	-	-	1404	-	
HCM Lane V/C Ratio	0.064	-	-	0.035	-	
HCM Control Delay (s)	10.5	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2	1	249	341	0
Future Vol, veh/h	1	2	1	249	341	0
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	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	5	5	2
Mvmt Flow	1	2	1	265	363	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	630	363	363	0	-	0
Stage 1	363	-	-	-	-	-
Stage 2	267	-	-	-	-	-
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	446	682	1196	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	446	682	1196	-	-	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1196	-	580	-	-	
HCM Lane V/C Ratio	0.001	-	0.006	-	-	
HCM Control Delay (s)	8	0	11.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Timings
1: E Cherokee Dr & SR 140

2b. No Build 2027 PM
07/10/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	172	530	136	126	782	80	282	418	215	331	129
Future Volume (vph)	172	530	136	126	782	80	282	418	215	331	129
Lane Group Flow (vph)	177	546	140	130	806	82	291	479	222	341	133
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	5	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	39.5	39.5	15.0	39.5	39.5	15.0	37.5	15.0	37.5	37.5
Total Split (s)	15.0	49.0	49.0	15.0	49.0	49.0	18.0	38.0	18.0	38.0	38.0
Total Split (%)	12.5%	40.8%	40.8%	12.5%	40.8%	40.8%	15.0%	31.7%	15.0%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.76	0.71	0.19	0.42	1.10	0.12	1.07	0.61	0.72	0.83	0.29
Control Delay	47.7	36.9	6.1	19.7	98.5	1.7	104.4	43.9	38.5	56.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	36.9	6.1	19.7	98.5	1.7	104.4	43.9	38.5	56.9	9.6
Queue Length 50th (ft)	80	352	6	49	~754	0	~173	172	105	242	5
Queue Length 95th (ft)	#231	#533	49	92	#997	12	#325	215	m142	m321	m36
Internal Link Dist (ft)		436			389			454		794	
Turn Bay Length (ft)	225		241	237		165	155		320		330
Base Capacity (vph)	232	771	730	322	735	699	272	951	311	504	525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.71	0.19	0.40	1.10	0.12	1.07	0.50	0.71	0.68	0.25

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

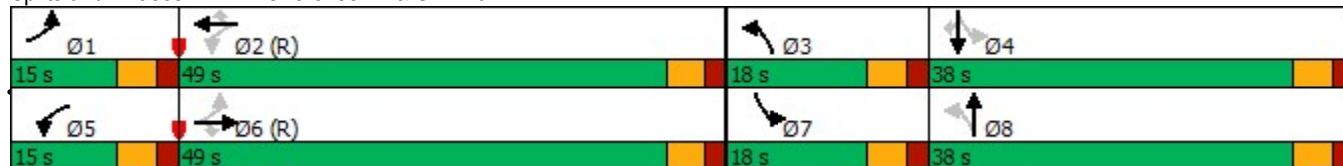
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: E Cherokee Dr & SR 140



HCM 6th Signalized Intersection Summary
1: E Cherokee Dr & SR 140

2b. No Build 2027 PM
07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	530	136	126	782	80	282	418	47	215	331	129
Future Volume (veh/h)	172	530	136	126	782	80	282	418	47	215	331	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	546	140	130	806	82	291	431	48	222	341	133
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	840	712	329	798	677	269	666	74	322	386	327
Arrive On Green	0.08	0.45	0.45	0.06	0.43	0.43	0.10	0.21	0.21	0.03	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3225	357	1781	1870	1585
Grp Volume(v), veh/h	177	546	140	130	806	82	291	236	243	222	341	133
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1806	1781	1870	1585
Q Serve(g_s), s	7.7	27.3	6.4	4.9	51.2	3.8	12.5	14.6	14.8	11.6	21.7	9.7
Cycle Q Clear(g_c), s	7.7	27.3	6.4	4.9	51.2	3.8	12.5	14.6	14.8	11.6	21.7	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	201	840	712	329	798	677	269	367	373	322	386	327
V/C Ratio(X)	0.88	0.65	0.20	0.39	1.01	0.12	1.08	0.64	0.65	0.69	0.88	0.41
Avail Cap(c_a), veh/h	201	840	712	369	798	677	269	481	489	322	507	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	33.0	25.7	20.0	20.3	34.4	20.8	38.5	43.6	43.6	36.4	54.5	48.9
Incr Delay (d2), s/veh	33.2	3.9	0.6	0.8	34.2	0.4	78.2	1.9	1.9	5.3	12.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	12.3	2.5	2.0	29.3	1.4	7.8	6.6	6.7	6.0	12.2	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	29.6	20.6	21.1	68.6	21.1	116.6	45.5	45.6	41.7	66.5	49.6
LnGrp LOS	E	C	C	C	F	C	F	D	D	D	E	D
Approach Vol, veh/h		863			1018			770			696	
Approach Delay, s/veh		35.7			58.7			72.4			55.3	
Approach LOS		D			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	56.7	18.0	30.3	12.3	59.4	18.0	30.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	43.5	12.5	32.5	9.5	43.5	12.5	32.5				
Max Q Clear Time (g_c+I1), s	9.7	53.2	14.5	23.7	6.9	29.3	13.6	16.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.1	4.6	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			55.2									
HCM 6th LOS			E									

Timings

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

2b. No Build 2027 PM

07/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←	→	←	→	←	→	←	←	→	←
Traffic Volume (vph)	16	30	207	7	9	430	118	34	341	4
Future Volume (vph)	16	30	207	7	9	430	118	34	341	4
Lane Group Flow (vph)	17	40	216	29	9	448	123	35	355	4
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	3	8	1	6		5	2	
Permitted Phases	4		8		6		6	2		2
Detector Phase	4	4	3	8	1	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	32.5	32.5	15.0	31.5	15.0	29.5	29.5	15.0	29.5	29.5
Total Split (s)	33.0	33.0	18.0	51.0	15.0	54.0	54.0	15.0	54.0	54.0
Total Split (%)	27.5%	27.5%	15.0%	42.5%	12.5%	45.0%	45.0%	12.5%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.19	0.32	0.86	0.09	0.01	0.37	0.11	0.06	0.27	0.00
Control Delay	57.2	50.2	73.7	18.0	2.3	10.8	3.6	6.4	9.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	50.2	73.7	18.0	2.3	10.8	3.6	6.4	9.1	0.0
Queue Length 50th (ft)	13	23	151	4	1	262	30	8	93	0
Queue Length 95th (ft)	37	59	#255	29	m1	337	m63	19	199	0
Internal Link Dist (ft)		166		246		794			842	
Turn Bay Length (ft)			230		175			241		240
Base Capacity (vph)	315	419	252	639	754	1214	1074	638	1291	1134
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.10	0.86	0.05	0.01	0.37	0.11	0.05	0.27	0.00

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

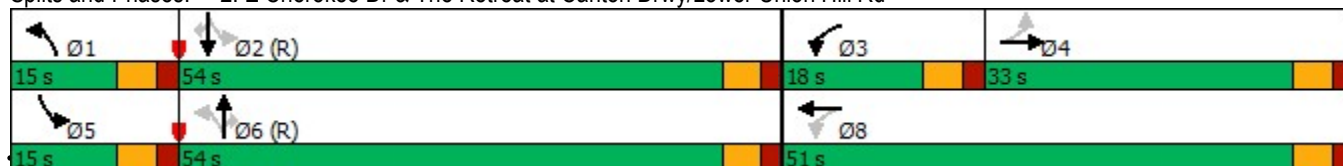
Control Type: Actuated-Coordinated

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: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd



A&R Engineering, Inc.

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA

Synchro 11 Light Report

Page 3

HCM 6th Signalized Intersection Summary

2b. No Build 2027 PM

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	30	9	207	7	21	9	430	118	34	341	4
Future Volume (veh/h)	16	30	9	207	7	21	9	430	118	34	341	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	31	9	216	7	22	9	448	123	35	355	4
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	66	19	280	78	246	666	1191	1009	474	1224	1037
Arrive On Green	0.05	0.05	0.05	0.10	0.20	0.20	0.00	0.21	0.21	0.03	0.65	0.65
Sat Flow, veh/h	1381	1393	404	1781	397	1248	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	17	0	40	216	0	29	9	448	123	35	355	4
Grp Sat Flow(s),veh/h/ln	1381	0	1798	1781	0	1646	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.4	0.0	2.6	12.5	0.0	1.7	0.2	24.7	7.5	0.8	9.7	0.1
Cycle Q Clear(g_c), s	1.4	0.0	2.6	12.5	0.0	1.7	0.2	24.7	7.5	0.8	9.7	0.1
Prop In Lane	1.00		0.22	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	0	85	280	0	324	666	1191	1009	474	1224	1037
V/C Ratio(X)	0.14	0.00	0.47	0.77	0.00	0.09	0.01	0.38	0.12	0.07	0.29	0.00
Avail Cap(c_a), veh/h	376	0	412	280	0	624	788	1191	1009	564	1224	1037
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	0.0	55.7	47.8	0.0	39.4	7.8	27.0	20.2	9.5	8.8	7.2
Incr Delay (d2), s/veh	0.5	0.0	4.0	12.3	0.0	0.1	0.0	0.7	0.2	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.3	6.9	0.0	0.7	0.1	12.6	3.0	0.3	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	0.0	59.7	60.1	0.0	39.5	7.8	27.7	20.4	9.6	9.4	7.2
LnGrp LOS	E	A	E	E	A	D	A	C	C	A	A	A
Approach Vol, veh/h	57			245			580			394		
Approach Delay, s/veh	58.5			57.7			25.8			9.4		
Approach LOS	E			E			C			A		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	6.8	84.0	18.0	11.2	8.9	81.9	29.2					
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5					
Max Green Setting (Gmax), s	9.5	48.5	12.5	27.5	9.5	48.5	45.5					
Max Q Clear Time (g_c+I1), s	2.2	11.7	14.5	4.6	2.8	26.7	3.7					
Green Ext Time (p_c), s	0.0	3.1	0.0	0.1	0.0	4.5	0.1					
Intersection Summary												
HCM 6th Ctrl Delay	28.3											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	141	23	0	253	0	31
Future Vol, veh/h	141	23	0	253	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	24	0	266	0	33
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	148
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	899
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	899
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1		EBT	WBT		
Capacity (veh/h)	899		-	-		
HCM Lane V/C Ratio	0.036		-	-		
HCM Control Delay (s)	9.2		-	-		
HCM Lane LOS	A		-	-		
HCM 95th %tile Q(veh)	0.1		-	-		

Intersection						
Int Delay, s/veh	3.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	170	11	66	183	60	78
Future Vol, veh/h	170	11	66	183	60	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	179	12	69	193	63	82
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	191	0	510	179
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	331	-
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	-	-	1383	-	523	864
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1383	-	494	864
Mov Cap-2 Maneuver	-	-	-	-	494	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	687	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.1		12.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	652	-	-	1383	-	
HCM Lane V/C Ratio	0.223	-	-	0.05	-	
HCM Control Delay (s)	12.1	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	1	476	378	0
Future Vol, veh/h	1	0	1	476	378	0
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	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	1	523	415	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	940	415	415	0	-	0
Stage 1	415	-	-	-	-	-
Stage 2	525	-	-	-	-	-
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	293	637	1144	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	293	637	1144	-	-	-
Mov Cap-2 Maneuver	293	-	-	-	-	-
Stage 1	665	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.3	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1144	-	293	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	8.2	0	17.3	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

FUTURE “BUILD” INTERSECTION ANALYSIS

Timings

1: E Cherokee Dr & SR 140

3a.Build 2027 AM

07/10/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	616	100	83	397	112	158	292	214	267	81
Future Volume (vph)	156	616	100	83	397	112	158	292	214	267	81
Lane Group Flow (vph)	161	635	103	86	409	115	163	350	221	275	84
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	5	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	39.5	39.5	15.0	39.5	39.5	15.0	37.5	15.0	37.5	37.5
Total Split (s)	15.0	52.0	52.0	15.0	52.0	52.0	15.0	38.0	15.0	38.0	38.0
Total Split (%)	12.5%	43.3%	43.3%	12.5%	43.3%	43.3%	12.5%	31.7%	12.5%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.34	0.70	0.12	0.27	0.49	0.15	0.67	0.52	0.76	0.78	0.21
Control Delay	14.4	31.4	2.9	14.6	26.8	4.0	43.8	43.3	48.7	58.8	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	31.4	2.9	14.6	26.8	4.0	43.8	43.3	48.7	58.8	6.4
Queue Length 50th (ft)	54	383	0	27	217	0	94	123	115	210	0
Queue Length 95th (ft)	102	#671	25	59	350	33	138	158	184	306	m22
Internal Link Dist (ft)		436			389			454		794	
Turn Bay Length (ft)	225		241	237		165	155		320		330
Base Capacity (vph)	483	909	843	339	842	789	246	926	291	490	518
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.70	0.12	0.25	0.49	0.15	0.66	0.38	0.76	0.56	0.16

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

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: 1: E Cherokee Dr & SR 140



A&R Engineering, Inc.

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA

Synchro 11 Light Report

Page 1

HCM 6th Signalized Intersection Summary

1: E Cherokee Dr & SR 140

3a.Build 2027 AM

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	616	100	83	397	112	158	292	48	214	267	81
Future Volume (veh/h)	156	616	100	83	397	112	158	292	48	214	267	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	161	635	103	86	409	115	163	301	49	221	275	84
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	3	2	2	5	2	2	5	2
Cap, veh/h	486	973	831	330	934	798	226	520	84	284	317	275
Arrive On Green	0.06	0.52	0.52	0.04	0.50	0.50	0.08	0.17	0.17	0.03	0.06	0.06
Sat Flow, veh/h	1781	1856	1585	1781	1856	1585	1781	2992	482	1781	1826	1585
Grp Volume(v), veh/h	161	635	103	86	409	115	163	173	177	221	275	84
Grp Sat Flow(s),veh/h/ln	1781	1856	1585	1781	1856	1585	1781	1735	1739	1781	1826	1585
Q Serve(g_s), s	5.2	29.7	4.0	2.8	16.8	4.7	9.0	11.0	11.2	9.5	17.9	6.1
Cycle Q Clear(g_c), s	5.2	29.7	4.0	2.8	16.8	4.7	9.0	11.0	11.2	9.5	17.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	486	973	831	330	934	798	226	301	302	284	317	275
V/C Ratio(X)	0.33	0.65	0.12	0.26	0.44	0.14	0.72	0.57	0.59	0.78	0.87	0.31
Avail Cap(c_a), veh/h	520	973	831	401	934	798	226	470	471	284	495	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	14.0	20.6	14.5	16.7	19.0	16.0	38.5	45.5	45.6	43.9	55.2	49.6
Incr Delay (d2), s/veh	0.4	3.4	0.3	0.4	1.5	0.4	10.7	1.7	1.8	12.1	9.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	12.8	1.5	1.1	7.2	1.7	4.6	4.8	5.0	2.7	9.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	24.0	14.8	17.1	20.5	16.3	49.2	47.2	47.4	56.0	64.3	50.2
LnGrp LOS	B	C	B	B	C	B	D	D	D	E	E	D
Approach Vol, veh/h		899			610			513			580	
Approach Delay, s/veh		21.2			19.2			47.9			59.1	
Approach LOS		C			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	65.9	15.0	26.3	10.2	68.4	15.0	26.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	46.5	9.5	32.5	9.5	46.5	9.5	32.5				
Max Q Clear Time (g_c+I1), s	7.2	18.8	11.0	19.9	4.8	31.7	11.5	13.2				
Green Ext Time (p_c), s	0.1	4.2	0.0	0.9	0.1	5.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									

Timings

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

3a.Build 2027 AM

07/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	←	→	←	→	←	→	←	←	→
Traffic Volume (vph)	3	4	146	2	7	255	161	28	343
Future Volume (vph)	3	4	146	2	7	255	161	28	343
Lane Group Flow (vph)	3	5	147	6	7	258	163	28	346
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	1	6		5	2
Permitted Phases	4		8		6		6	2	
Detector Phase	4	4	3	8	1	6	6	5	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	32.5	32.5	15.0	31.5	15.0	29.5	29.5	15.0	29.5
Total Split (s)	33.0	33.0	20.0	53.0	15.0	52.0	52.0	15.0	52.0
Total Split (%)	27.5%	27.5%	16.7%	44.2%	12.5%	43.3%	43.3%	12.5%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.03	0.05	0.68	0.03	0.01	0.20	0.14	0.03	0.25
Control Delay	54.7	50.8	64.2	29.0	2.1	4.7	1.3	4.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	50.8	64.2	29.0	2.1	4.7	1.3	4.3	6.5
Queue Length 50th (ft)	2	3	111	1	0	21	0	4	58
Queue Length 95th (ft)	13	17	160	13	m1	176	73	16	188
Internal Link Dist (ft)		135		246		794			324
Turn Bay Length (ft)			150		175			200	
Base Capacity (vph)	426	414	235	665	839	1301	1184	880	1372
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.63	0.01	0.01	0.20	0.14	0.03	0.25

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

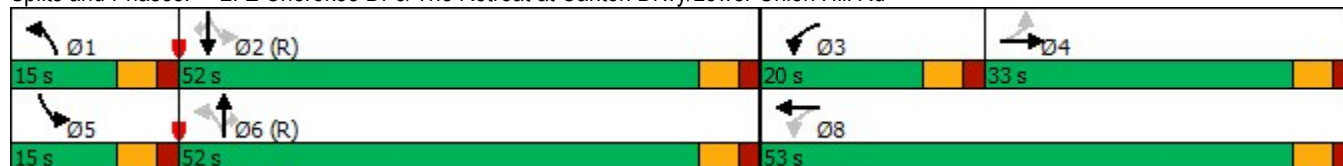
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd



HCM 6th Signalized Intersection Summary

3a.Build 2027 AM

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	1	146	2	4	7	255	161	28	343	0
Future Volume (veh/h)	3	4	1	146	2	4	7	255	161	28	343	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	3	4	1	147	2	4	7	258	163	28	346	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	5	2	2	5	2
Cap, veh/h	86	27	7	252	89	177	720	1238	1074	743	1268	1101
Arrive On Green	0.02	0.02	0.02	0.09	0.16	0.16	0.01	0.90	0.90	0.03	0.69	0.00
Sat Flow, veh/h	1410	1444	361	1781	557	1113	1781	1826	1585	1781	1826	1585
Grp Volume(v), veh/h	3	0	5	147	0	6	7	258	163	28	346	0
Grp Sat Flow(s),veh/h/ln	1410	0	1805	1781	0	1670	1781	1826	1585	1781	1826	1585
Q Serve(g_s), s	0.3	0.0	0.3	9.4	0.0	0.4	0.1	2.1	1.4	0.6	8.6	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.3	9.4	0.0	0.4	0.1	2.1	1.4	0.6	8.6	0.0
Prop In Lane	1.00		0.20	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	86	0	34	252	0	266	720	1238	1074	743	1268	1101
V/C Ratio(X)	0.03	0.00	0.15	0.58	0.00	0.02	0.01	0.21	0.15	0.04	0.27	0.00
Avail Cap(c_a), veh/h	383	0	414	298	0	661	846	1238	1074	839	1268	1101
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.92	0.92	0.92	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.9	0.0	57.9	49.5	0.0	42.6	6.1	2.0	2.0	5.4	6.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.0	2.2	0.0	0.0	0.0	0.4	0.3	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	4.2	0.0	0.1	0.1	0.7	0.5	0.2	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	0.0	59.9	51.6	0.0	42.6	6.1	2.4	2.2	5.4	7.4	0.0
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	8			153			428			374		
Approach Delay, s/veh	59.2			51.3			2.4			7.3		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	6.5	88.8	16.9	7.7	8.5	86.8	24.6					
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5					
Max Green Setting (Gmax), s	9.5	46.5	14.5	27.5	9.5	46.5	47.5					
Max Q Clear Time (g_c+I1), s	2.1	10.6	11.4	2.3	2.6	4.1	2.4					
Green Ext Time (p_c), s	0.0	3.0	0.1	0.0	0.0	3.5	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	12.5											
HCM 6th LOS	B											

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	126	12	0	138	9	0	0	22	4	0	14
Future Vol, veh/h	56	126	12	0	138	9	0	0	22	4	0	14
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	-	-	Free	-	-	None	-	-	Yield	-	-	None
Storage Length	50	-	100	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	68	154	15	0	168	11	0	0	27	5	0	17
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	-	-	-	0	-	-	154	464	464	174
Stage 1	-	-	-	-	-	-	-	-	-	174	174	-
Stage 2	-	-	-	-	-	-	-	-	-	290	290	-
Critical Hdwy	4.12	-	-	-	-	-	-	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	-	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1397	-	0	0	-	-	0	0	892	508	495	869
Stage 1	-	-	0	0	-	-	0	0	-	828	755	-
Stage 2	-	-	0	0	-	-	0	0	-	718	672	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1397	-	-	-	-	-	-	-	892	474	471	869
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	474	471	-
Stage 1	-	-	-	-	-	-	-	-	-	787	755	-
Stage 2	-	-	-	-	-	-	-	-	-	663	639	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0			9.2			10.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1						
Capacity (veh/h)	892	1397	-	-	-	733						
HCM Lane V/C Ratio	0.03	0.049	-	-	-	0.03						
HCM Control Delay (s)	9.2	7.7	-	-	-	10.1						
HCM Lane LOS	A	A	-	-	-	B						
HCM 95th %tile Q(veh)	0.1	0.2	-	-	-	0.1						

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	142	9	42	130	2	19	0	19	2	0	0
Future Vol, veh/h	1	142	9	42	130	2	19	0	19	2	0	0
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	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	1	167	11	49	153	2	22	0	22	2	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	178	0	0	421	422	167	438	432	154
Stage 1	-	-	-	-	-	-	169	169	-	252	252	-
Stage 2	-	-	-	-	-	-	252	253	-	186	180	-
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	1425	-	-	1398	-	-	543	523	877	529	516	892
Stage 1	-	-	-	-	-	-	833	759	-	752	698	-
Stage 2	-	-	-	-	-	-	752	698	-	816	750	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1425	-	-	1398	-	-	527	503	877	500	496	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	527	503	-	500	496	-
Stage 1	-	-	-	-	-	-	832	758	-	751	671	-
Stage 2	-	-	-	-	-	-	723	671	-	794	749	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.9			10.9			12.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	658	1425	-	-	1398	-	-	500				
HCM Lane V/C Ratio	0.068	0.001	-	-	0.035	-	-	0.005				
HCM Control Delay (s)	10.9	7.5	0	-	7.7	0	-	12.2				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0				

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Vol, veh/h	1	0	2	7	0	1	1	253	1	1	351	0
Future Vol, veh/h	1	0	2	7	0	1	1	253	1	1	351	0
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
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	5	2	2	5	2
Mvmt Flow	1	0	2	7	0	1	1	269	1	1	373	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	647	647	373	648	647	270	373	0	0	270	0	0
Stage 1	375	375	-	272	272	-	-	-	-	-	-	-
Stage 2	272	272	-	376	375	-	-	-	-	-	-	-
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	384	390	673	383	390	769	1185	-	-	1293	-	-
Stage 1	646	617	-	734	685	-	-	-	-	-	-	-
Stage 2	734	685	-	645	617	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	383	389	673	381	389	769	1185	-	-	1293	-	-
Mov Cap-2 Maneuver	383	389	-	381	389	-	-	-	-	-	-	-
Stage 1	645	616	-	733	684	-	-	-	-	-	-	-
Stage 2	732	684	-	642	616	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.7		14		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1185	-	-	537 407	1293	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006 0.021	0.001	-	-
HCM Control Delay (s)	8	0	-	11.7 14	7.8	0	-
HCM Lane LOS	A	A	-	B B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	4	244	18	8	353
Future Vol, veh/h	18	4	244	18	8	353
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	4	265	20	9	384
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	667	265	0	0	285	0
Stage 1	265	-	-	-	-	-
Stage 2	402	-	-	-	-	-
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	424	774	-	-	1277	-
Stage 1	779	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	420	774	-	-	1277	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.3	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	458	1277	-	
HCM Lane V/C Ratio	-	-	0.052	0.007	-	
HCM Control Delay (s)	-	-	13.3	7.8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Timings

1: E Cherokee Dr & SR 140

3b.Build 2027 PM

07/10/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	192	530	136	126	782	103	282	442	248	368	159
Future Volume (vph)	192	530	136	126	782	103	282	442	248	368	159
Lane Group Flow (vph)	198	546	140	130	806	106	291	504	256	379	164
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	5	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	39.5	39.5	15.0	39.5	39.5	15.0	37.5	15.0	37.5	37.5
Total Split (s)	15.0	49.0	49.0	15.0	49.0	49.0	18.0	38.0	18.0	38.0	38.0
Total Split (%)	12.5%	40.8%	40.8%	12.5%	40.8%	40.8%	15.0%	31.7%	15.0%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.84	0.75	0.20	0.45	1.17	0.16	1.09	0.61	0.80	0.87	0.32
Control Delay	57.4	39.8	6.2	21.7	128.7	3.7	108.5	42.8	43.4	59.9	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	39.8	6.2	21.7	128.7	3.7	108.5	42.8	43.4	59.9	8.6
Queue Length 50th (ft)	104	373	6	52	~760	0	~175	177	117	293	9
Queue Length 95th (ft)	#269	#559	49	92	#1002	28	#346	228	m154	m359	m33
Internal Link Dist (ft)		436			389			454		794	
Turn Bay Length (ft)	225		241	237		165	155		320		330
Base Capacity (vph)	237	732	706	296	686	666	268	927	319	490	548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.75	0.20	0.44	1.17	0.16	1.09	0.54	0.80	0.77	0.30

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

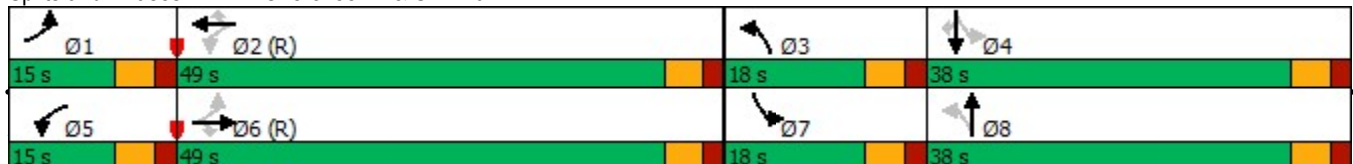
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: E Cherokee Dr & SR 140



HCM 6th Signalized Intersection Summary

1: E Cherokee Dr & SR 140

3b.Build 2027 PM

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	530	136	126	782	103	282	442	47	248	368	159
Future Volume (veh/h)	192	530	136	126	782	103	282	442	47	248	368	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1856	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	198	546	140	130	806	106	291	456	48	256	379	164
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	3	2	2	5	2	2	5	2
Cap, veh/h	201	785	670	302	747	638	267	731	77	336	421	366
Arrive On Green	0.08	0.42	0.42	0.06	0.40	0.40	0.10	0.23	0.23	0.03	0.08	0.08
Sat Flow, veh/h	1781	1856	1585	1781	1856	1585	1781	3169	332	1781	1826	1585
Grp Volume(v), veh/h	198	546	140	130	806	106	291	249	255	256	379	164
Grp Sat Flow(s),veh/h/ln	1781	1856	1585	1781	1856	1585	1781	1735	1766	1781	1826	1585
Q Serve(g_s), s	9.3	28.9	6.7	5.1	48.3	5.1	12.5	15.5	15.6	12.5	24.7	11.9
Cycle Q Clear(g_c), s	9.3	28.9	6.7	5.1	48.3	5.1	12.5	15.5	15.6	12.5	24.7	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	201	785	670	302	747	638	267	400	408	336	421	366
V/C Ratio(X)	0.98	0.70	0.21	0.43	1.08	0.17	1.09	0.62	0.63	0.76	0.90	0.45
Avail Cap(c_a), veh/h	201	785	670	339	747	638	267	470	478	336	495	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	34.9	28.3	21.9	22.3	35.8	23.0	36.3	41.4	41.5	35.4	54.0	48.1
Incr Delay (d2), s/veh	59.0	5.1	0.7	1.0	56.4	0.6	81.0	1.9	2.0	7.9	14.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	13.2	0.1	2.1	32.1	2.0	12.0	6.8	7.0	6.9	13.8	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.9	33.4	22.6	23.3	92.2	23.5	117.3	43.4	43.5	43.4	68.5	48.8
LnGrp LOS	F	C	C	C	F	C	F	D	D	D	E	D
Approach Vol, veh/h	884			1042			795			799		
Approach Delay, s/veh	45.2			76.6			70.5			56.4		
Approach LOS	D			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	53.8	18.0	33.2	12.6	56.3	18.0	33.2				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	43.5	12.5	32.5	9.5	43.5	12.5	32.5				
Max Q Clear Time (g_c+I1), s	11.3	50.3	14.5	26.7	7.1	30.9	14.5	17.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.1	4.3	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	62.8											
HCM 6th LOS	E											

Timings

3b.Build 2027 PM

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

07/10/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←	→	←	→	←	→	←	←	→	←
Traffic Volume (vph)	16	30	268	7	9	455	158	36	378	4
Future Volume (vph)	16	30	268	7	9	455	158	36	378	4
Lane Group Flow (vph)	17	40	279	32	9	474	165	38	394	4
Turn Type	Perm	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	3	8	1	6		5	2	
Permitted Phases	4		8		6		6	2		2
Detector Phase	4	4	3	8	1	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	32.5	32.5	15.0	31.5	15.0	29.5	29.5	15.0	29.5	29.5
Total Split (s)	34.0	34.0	21.0	55.0	15.0	50.0	50.0	15.0	50.0	50.0
Total Split (%)	28.3%	28.3%	17.5%	45.8%	12.5%	41.7%	41.7%	12.5%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.19	0.32	0.94	0.08	0.01	0.42	0.16	0.07	0.33	0.00
Control Delay	57.2	50.2	82.9	16.0	2.8	11.3	3.1	7.5	10.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	50.2	82.9	16.0	2.8	11.3	3.1	7.5	10.9	0.0
Queue Length 50th (ft)	13	23	197	4	0	271	32	9	117	0
Queue Length 95th (ft)	37	59	#278	30	m1	m343	m66	23	241	0
Internal Link Dist (ft)		135		246		794			324	
Turn Bay Length (ft)			150		175			200		240
Base Capacity (vph)	325	434	296	693	691	1132	1052	585	1209	1098
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.09	0.94	0.05	0.01	0.42	0.16	0.06	0.33	0.00

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

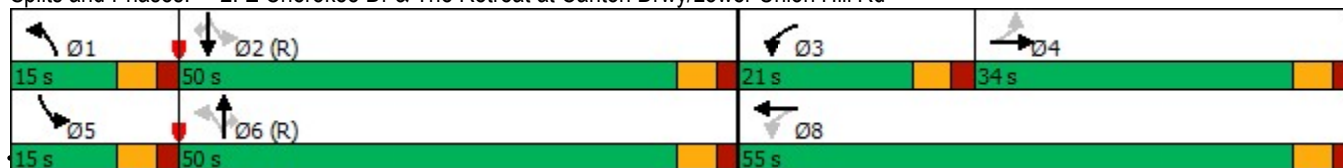
Control Type: Actuated-Coordinated

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: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd



A&R Engineering, Inc.

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA

Synchro 11 Light Report

Page 3

HCM 6th Signalized Intersection Summary

3b.Build 2027 PM

2: E Cherokee Dr & The Retreat at Canton Drwy/Lower Union Hill Rd

07/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	30	9	268	7	24	9	455	158	36	378	4
Future Volume (veh/h)	16	30	9	268	7	24	9	455	158	36	378	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1826	1870	1870	1826	1870
Adj Flow Rate, veh/h	17	31	9	279	7	25	9	474	165	38	394	4
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	5	2	2	5	2
Cap, veh/h	125	66	19	325	80	285	599	1114	967	416	1149	997
Arrive On Green	0.05	0.05	0.05	0.13	0.22	0.22	0.00	0.20	0.20	0.03	0.63	0.63
Sat Flow, veh/h	1377	1393	404	1781	359	1281	1781	1826	1585	1781	1826	1585
Grp Volume(v), veh/h	17	0	40	279	0	32	9	474	165	38	394	4
Grp Sat Flow(s),veh/h/ln	1377	0	1798	1781	0	1640	1781	1826	1585	1781	1826	1585
Q Serve(g_s), s	1.4	0.0	2.6	15.5	0.0	1.9	0.2	27.2	10.3	0.9	12.2	0.1
Cycle Q Clear(g_c), s	1.4	0.0	2.6	15.5	0.0	1.9	0.2	27.2	10.3	0.9	12.2	0.1
Prop In Lane	1.00		0.22	1.00		0.78	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	0	85	325	0	365	599	1114	967	416	1149	997
V/C Ratio(X)	0.14	0.00	0.47	0.86	0.00	0.09	0.02	0.43	0.17	0.09	0.34	0.00
Avail Cap(c_a), veh/h	387	0	427	325	0	676	721	1114	967	504	1149	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	55.7	47.1	0.0	37.0	9.1	29.5	22.8	11.2	10.5	8.3
Incr Delay (d2), s/veh	0.5	0.0	4.0	19.8	0.0	0.1	0.0	0.9	0.3	0.1	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.3	10.0	0.0	0.7	0.1	13.6	4.3	0.4	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	0.0	59.6	66.9	0.0	37.1	9.2	30.5	23.1	11.3	11.3	8.3
LnGrp LOS	E	A	E	E	A	D	A	C	C	B	B	A
Approach Vol, veh/h	57			311			648			436		
Approach Delay, s/veh	58.4			63.8			28.3			11.3		
Approach LOS	E			E			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	6.8	81.0	21.0	11.2	9.1	78.7	32.2					
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5					
Max Green Setting (Gmax), s	9.5	44.5	15.5	28.5	9.5	44.5	49.5					
Max Q Clear Time (g_c+I1), s	2.2	14.2	17.5	4.6	2.9	29.2	3.9					
Green Ext Time (p_c), s	0.0	3.4	0.0	0.1	0.0	4.4	0.1					
Intersection Summary												
HCM 6th Ctrl Delay	32.0											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	141	23	0	253	9	0	0	31	13	0	64
Future Vol, veh/h	43	141	23	0	253	9	0	0	31	13	0	64
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	-	-	Free	-	-	None	-	-	Yield	-	-	None
Storage Length	50	-	100	-	-	-	-	-	0	-	-	-
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	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	45	148	24	0	266	9	0	0	33	14	0	67

Major/Minor	Major1		Major2		Minor1		Minor2	
Conflicting Flow All	275	0	-	-	-	0	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	-	6.22	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.12
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.12
Follow-up Hdwy	2.218	-	-	-	-	-	3.318	3.518
Pot Cap-1 Maneuver	1288	-	0	0	-	-	0	899
Stage 1	-	-	0	0	-	-	0	735
Stage 2	-	-	0	0	-	-	0	765
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1288	-	-	-	-	-	-	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	446
Stage 1	-	-	-	-	-	-	-	709
Stage 2	-	-	-	-	-	-	-	711

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	0	9.2	11
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	899	1288	-	-	-	685
HCM Lane V/C Ratio	0.036	0.035	-	-	-	0.118
HCM Control Delay (s)	9.2	7.9	-	-	-	11
HCM Lane LOS	A	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-	0.4

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	183	11	66	192	3	60	0	78	3	0	0
Future Vol, veh/h	1	183	11	66	192	3	60	0	78	3	0	0
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	-	-	100	-	-	-	-	-	-	-	-	-
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	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	1	193	12	69	202	3	63	0	82	3	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	205	0	0	537	538	193	584	549	204
Stage 1	-	-	-	-	-	-	195	195	-	342	342	-
Stage 2	-	-	-	-	-	-	342	343	-	242	207	-
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	1366	-	-	1366	-	-	455	450	849	423	443	837
Stage 1	-	-	-	-	-	-	807	739	-	673	638	-
Stage 2	-	-	-	-	-	-	673	637	-	762	731	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1366	-	-	435	424	849	365	417	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	435	424	-	365	417	-
Stage 1	-	-	-	-	-	-	806	738	-	672	602	-
Stage 2	-	-	-	-	-	-	635	601	-	688	730	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2			12.9			14.9		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	601	1366	-	-	1366	-	-	365				
HCM Lane V/C Ratio	0.242	0.001	-	-	0.051	-	-	0.009				
HCM Control Delay (s)	12.9	7.6	0	-	7.8	0	-	14.9				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.9	0	-	-	0.2	-	-	0				

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Vol, veh/h	1	0	0	4	0	1	1	491	3	1	389	0
Future Vol, veh/h	1	0	0	4	0	1	1	491	3	1	389	0
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
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	2	5	2
Mvmt Flow	1	0	0	4	0	1	1	540	3	1	427	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	973	974	427	973	973	542	427	0	0	543	0	0
Stage 1	429	429	-	544	544	-	-	-	-	-	-	-
Stage 2	544	545	-	429	429	-	-	-	-	-	-	-
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	231	252	628	231	252	540	1132	-	-	1026	-	-
Stage 1	604	584	-	523	519	-	-	-	-	-	-	-
Stage 2	523	519	-	604	584	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	230	251	628	231	251	540	1132	-	-	1026	-	-
Mov Cap-2 Maneuver	230	251	-	231	251	-	-	-	-	-	-	-
Stage 1	603	583	-	522	518	-	-	-	-	-	-	-
Stage 2	521	518	-	603	583	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.7		19.1		0		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1132	-	-	230 261	1026	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005 0.021	0.001	-	-
HCM Control Delay (s)	8.2	0	-	20.7 19.1	8.5	0	-
HCM Lane LOS	A	A	-	C C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	13	472	22	9	386
Future Vol, veh/h	33	13	472	22	9	386
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	14	513	24	10	420
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	953	513	0	0	537	0
Stage 1	513	-	-	-	-	-
Stage 2	440	-	-	-	-	-
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	287	561	-	-	1031	-
Stage 1	601	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	283	561	-	-	1031	-
Mov Cap-2 Maneuver	283	-	-	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	17.9	0	0.2			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	329	1031	-	
HCM Lane V/C Ratio	-	-	0.152	0.009	-	
HCM Control Delay (s)	-	-	17.9	8.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0	-	

T R A F F I C V O L U M E W O R K S H E E T S

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA
Traffic Volumes

A&R Engineering
 July 2025

1.E Cherokee Drive @ SR 140

A.M. Peak Hour

Condition	East Cherokee Drive					East Cherokee Drive					SR 140 (Hickory Flat Highway) Eastbound					SR 140 (Hickory Flat Highway) Westbound				
	Northbound					Southbound					L					L				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2025 Traffic Counts:	138	231	42	411		175	221	60	456		116	538	87	741		73	347	77	497	
Existing 2025 Volumes Adjusted for School Traffic	152	254	46	452		193	243	66	502		128	592	96	816		80	382	85	547	
Growth Factor (%):	2	2	2			2	2	2			2	2	2			2	2	2		
No-Build 2027 Volumes:	158	264	48	470		201	253	69	523		133	616	100	849		83	397	88	568	
Total New Trips (Residential):	0	3	0	3		7	8	7	22		2	0	0	2		0	0	2	2	
Total New Trips (Office):	0	19	0	19		2	2	2	6		16	0	0	16		0	0	16	16	
Total New Trips (Retail):	0	6	0	6		4	4	3	11		5	0	0	5		0	0	6	6	
Future 2027 Traffic Volumes:	158	292	48	498		214	267	81	562		156	616	100	872		83	397	112	592	

P.M. Peak Hour

Condition	East Cherokee Drive					East Cherokee Drive					SR 140 (Hickory Flat Highway) Eastbound					SR 140 (Hickory Flat Highway) Westbound				
	Northbound					Southbound					L					L				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2025 Traffic Counts:	246	365	41	652		188	289	113	590		150	464	119	733		110	684	70	864	
Existing 2025 Volumes Adjusted for School Traffic	271	402	45	718		207	318	124	649		165	510	131	806		121	752	77	950	
Growth Factor (%):	2	2	2			2	2	2			2	2	2			2	2	2		
No-Build 2027 Volumes:	282	418	47	747		215	331	129	675		172	530	136	838		126	782	80	988	
Total New Trips (Residential):	0	6	0	6		4	5	4	13		5	0	0	5		0	0	5	5	
Total New Trips (Office):	0	3	0	3		15	18	15	48		3	0	0	3		0	0	3	3	
Total New Trips (Retail):	0	15	0	15		14	14	11	39		12	0	0	12		0	0	15	15	
Future 2027 Traffic Volumes:	282	442	47	771		248	368	159	775		192	530	136	858		126	782	103	1011	

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA

A&R Engineering
July 2025

2.E CherokeeDr@LowerUnionHillRd

A.M. Peak Hour

Condition	East Cherokee Drive					East Cherokee Drive					The Retreat at Canton Driveway					Lower Union Hill Road				
	Northbound					Southbound					Eastbound					Westbound				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2025 Traffic Counts:	6	206	94	306		23	278	0	301		3	4	1	8		115	2	4	121	
Existing 2025 Volumes Adjusted for School Traffic	7	227	103	337		25	306	0	331		3	4	1	8		127	2	4	133	
Growth Factor (%):	2	2	2			2	2	2			2	2	2			2	2	2		
No-Build 2027 Volumes:	7	236	107	350		26	318	0	344		3	4	1	8		132	2	4	138	
Total New Trips (Residential):	0	6	1	7		0	20	0	20		0	0	0	0		2	0	0	2	
Total New Trips (Office):	0	10	40	49		1	2	0	3		0	0	0	0		4	0	0	4	
Total New Trips (Retail):	0	3	13	16		1	3	0	4		0	0	0	0		8	0	0	8	
Future 2027 Traffic Volumes:	7	255	161	422		28	343	0	371		3	4	1	8		146	2	4	152	

P.M. Peak Hour

Condition	East Cherokee Drive					East Cherokee Drive					The Retreat at Canton Driveway					Lower Union Hill Road				
	Northbound					Southbound					Eastbound					Westbound				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2025 Traffic Counts:	8	375	103	486		30	298	4	332		14	26	8	48		181	6	18	205	
Existing 2025 Volumes Adjusted for School Traffic	9	413	113	535		33	328	4	365		15	29	9	53		199	7	20	226	
Growth Factor (%):	2	2	2			2	2	2			2	2	2			2	2	2		
No-Build 2027 Volumes:	9	430	118	557		34	341	4	379		16	30	9	55		207	7	21	235	
Total New Trips (Residential):	0	15	2	17		0	11	0	11		0	0	0	0		1	0	0	1	
Total New Trips (Office):	0	2	6	8		0	14	0	14		0	0	0	0		33	0	1	34	
Total New Trips (Retail):	0	8	32	40		2	12	0	14		0	0	0	0		27	0	2	29	
Future 2027 Traffic Volumes:	9	455	158	622		36	378	4	418		16	30	9	55		268	7	24	299	

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA
Traffic Volumes

A&R Engineering
 July 2025

3.Lower Rd@WPublixDrwy-Drwy 3

A.M. Peak Hour

Condition	Western Publix Driveway			Site Driveway 3			Lower Union Hill Road			Lower Union Hill Road		
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	0	19	19	0	0	0	0	0	110	11	121
Existing 2025 Volumes Adjusted for School Traffic:	0	0	21	21	0	0	0	0	0	121	12	133
Growth Factor (%):	2	2	2		2	2	2		2	2	2	
No-Build 2027 Volumes:	0	0	22	22	0	0	0	0	0	126	12	138
Total New Trips (Residential):	0	0	0	0	1	0	2	3	1	0	0	0
Total New Trips (Office):	0	0	0	0	1	0	4	5	41	0	0	6
Total New Trips (Retail):	0	0	0	0	2	0	8	10	14	0	0	3
Future 2027 Traffic Volumes:	0	0	22	22	4	0	14	18	56	126	12	194

P.M. Peak Hour

Condition	Western Publix Driveway			Site Driveway 3			Lower Union Hill Road			Lower Union Hill Road		
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	0	27	27	0	0	0	0	0	124	20	144
Existing 2025 Volumes Adjusted for School Traffic:	0	0	30	30	0	0	0	0	0	136	22	158
Growth Factor (%):	2	2	2		2	2	2		2	2	2	
No-Build 2027 Volumes:	0	0	31	31	0	0	0	0	0	141	23	164
Total New Trips (Residential):	0	0	0	0	0	0	1	1	2	0	0	0
Total New Trips (Office):	0	0	0	0	5	0	34	39	7	0	0	1
Total New Trips (Retail):	0	0	0	0	8	0	29	37	34	0	0	34
Future 2027 Traffic Volumes:	0	0	31	31	13	0	64	77	43	141	23	207

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA
Traffic Volumes

A&R Engineering
 July 2025

4.Lower Rd@EPublixDrwy-Drwy 4

A.M. Peak Hour

Condition	Eastern Publix Driveway			Site Driveway 4			Lower Union Hill Road			Lower Union Hill Road		
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	16	0	16	32	0	0	0	0	0	121	8	129
Existing 2025 Volumes Adjusted for School Traffic:	18	0	18	36	0	0	0	0	0	133	9	142
Growth Factor (%):	2	2	2		2	2	2		2	2	2	
No-Build 2027 Volumes:	19	0	19	38	0	0	0	0	0	138	9	147
Total New Trips (Residential):	0	0	0	0	2	0	0	2	0	1	0	1
Total New Trips (Office):	0	0	0	0	0	0	0	0	0	1	0	1
Total New Trips (Retail):	0	0	0	0	0	0	0	0	0	2	0	2
Future 2027 Traffic Volumes:	19	0	19	38	2	0	0	2	0	142	9	151

P.M. Peak Hour

Condition	Eastern Publix Driveway			Site Driveway 4			Lower Union Hill Road			Lower Union Hill Road		
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	53	0	68	121	0	0	0	0	0	148	10	158
Existing 2025 Volumes Adjusted for School Traffic:	58	0	75	133	0	0	0	0	0	163	11	174
Growth Factor (%):	2	2	2		2	2	2		2	2	2	
No-Build 2027 Volumes:	60	0	78	138	0	0	0	0	0	170	11	181
Total New Trips (Residential):	0	0	0	0	1	0	0	1	0	0	0	0
Total New Trips (Office):	0	0	0	0	1	0	0	1	0	5	0	5
Total New Trips (Retail):	0	0	0	0	1	0	0	1	0	8	0	8
Future 2027 Traffic Volumes:	60	0	78	138	3	0	0	3	0	183	11	194

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA
Traffic Volumes

A&R Engineering
 July 2025

5.ECherokeeDr@ChurchDrwy-Drwy 1

A.M. Peak Hour

Condition	East Cherokee Drive				East Cherokee Drive				The Church of Jesus Christ of Latter Day Saints Driveway				Site Driveway 1			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	1	217	0	218	0	298	0	298	1	0	2	3	0	0	0	0
Existing 2025 Volumes Adjusted for School Traffic	1	239	0	240	0	328	0	328	1	0	2	3	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2027 Volumes:	1	249	0	250	0	341	0	341	1	0	2	3	0	0	0	0
Total New Trips (Residential):	0	1	1	2	0	0	0	0	0	0	0	0	7	0	1	8
Total New Trips (Office):	0	1	0	1	0	6	0	6	0	0	0	0	0	0	0	0
Total New Trips (Retail):	0	2	0	2	0	4	0	4	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	1	253	1	255	0	351	0	351	1	0	2	3	7	0	1	8

P.M. Peak Hour

Condition	East Cherokee Drive				East Cherokee Drive				The Church of Jesus Christ of Latter Day Saints Driveway				Site Driveway 1			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	416	0	416	0	330	0	330	0	0	0	0	0	0	0	0
Existing 2025 Volumes Adjusted for School Traffic	0	458	0	458	0	363	0	363	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2027 Volumes:	0	476	0	476	0	378	0	378	0	0	0	0	0	0	0	0
Total New Trips (Residential):	0	1	3	4	1	1	0	2	0	0	0	0	4	0	1	5
Total New Trips (Office):	0	6	0	6	0	1	0	1	0	0	0	0	0	0	0	0
Total New Trips (Retail):	0	8	0	8	0	9	0	9	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	491	3	494	1	389	0	390	0	0	0	0	4	0	1	5

25-129 TIS for Rezoning of Property at 3254-3460 E Cherokee Drive- Cherokee County, GA
Traffic Volumes

A&R Engineering
 July 2025

6.E Cherokee Dr @ Drwy 2

A.M. Peak Hour

Condition	East Cherokee Drive				East Cherokee Drive				-				Site Driveway 2			
	Northbound		Southbound		Eastbound		Westbound		L		T		L		T	
Existing 2025 Traffic Counts:	0	213	0	213	0	301	0	301	0	0	0	0	0	0	0	0
Existing 2025 Volumes Adjusted for School Traffic:	0	234	0	234	0	331	0	331	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
No-Build 2027 Volumes:	0	243	0	243	0	344	0	344	0	0	0	0	0	0	0	0
Total New Trips (Residential):	0	1	5	6	0	7	0	7	0	0	0	0	13	0	1	14
Total New Trips (Office):	0	0	10	10	5	1	0	6	0	0	0	0	2	0	1	3
Total New Trips (Retail):	0	0	3	3	3	1	0	4	0	0	0	0	3	0	2	5
Future 2027 Traffic Volumes:	0	244	18	262	8	353	0	361	0	0	0	0	18	0	4	22

P.M. Peak Hour

Condition	East Cherokee Drive				East Cherokee Drive				-				Site Driveway 2			
	Northbound		Southbound		Eastbound		Westbound		L		T		L		T	
Existing 2025 Traffic Counts:	0	407	0	407	0	332	0	332	0	0	0	0	0	0	0	0
Existing 2025 Volumes Adjusted for School Traffic:	0	448	0	448	0	365	0	365	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
No-Build 2027 Volumes:	0	466	0	466	0	380	0	380	0	0	0	0	0	0	0	0
Total New Trips (Residential):	0	3	12	15	1	4	0	5	0	0	0	0	7	0	1	8
Total New Trips (Office):	0	1	2	3	1	0	0	1	0	0	0	0	14	0	5	19
Total New Trips (Retail):	0	2	8	10	7	2	0	9	0	0	0	0	12	0	7	19
Future 2027 Traffic Volumes:	0	472	22	494	9	386	0	395	0	0	0	0	33	0	13	46