



**DeKalb County Department of Planning & Sustainability**

330 Ponce De Leon Avenue, Suite 500  
 Decatur, GA 30030  
 (404) 371-2155 / plandev@dekalbcountyga.gov

Michael Thurmond  
 Chief Executive Officer

**Planning Commission Hearing Date: January 4, 2022**  
**Board of Commissioners Hearing Date: January 27, 2022**

**STAFF ANALYSIS**

**Case No.:** SLUP-21-1244886 **Agenda #:** D3

**Location/Address:** 3795 North Druid Hills Road, Decatur, GA 30033 **Commission District:** 02 **Super District:** 06

**Parcel ID:** 18-100-04-019

**Request:** Special Land Use Permit (SLUP) request to allow for a drive-through restaurant.

**Property Owner(s):** Midtown National Group, LP

**Applicant/Agent:** David Kirk, on behalf of Chick-Fil-A, Inc.

**Acreage:** 1.04 acres

**Existing Land Use:** Retail Commercial

**Surrounding Properties:** To the north of the subject property is North Druid Hills Road, to the south is North DeKalb Mall, west is commercial, and to the east is commercial.

**Adjacent Zoning:** North: R75, O-I South: C-1 East: C-1 West: C-1

**Comprehensive Plan:** Town Center (TC)

**Consistent    Inconsistent**

<b>Proposed Density:</b> N.A.	<b>Existing Density:</b> N.A.
<b>Proposed Square Ft.:</b> 2,800 Sq. Ft.	<b>Existing Units/Square Feet:</b> N.A.
<b>Proposed Lot Coverage:</b> 6.14%	<b>Existing Lot Coverage:</b> N.A.

## **Subject Property and Surrounding Area**

The subject property is a 1.04-acre site located on the south side of North Druid Hills Road bordering the north side of the North DeKalb Mall. An on-ramp to I-285 is located approximately 1,700 feet to the east of Lawrenceville Highway (Highway 78). The property is currently occupied by a vacant commercial retail establishment; formerly a Pier 1 Imports store. The adjoining and nearby land uses to the east, south, and west are commercial uses zoned C-1 and NS. The adjoining and nearby land uses to the north are mix of residential and commercial uses zoned R-75 and O-I. The commercial uses to the east of the subject property and fronting on North Druid Hills Road consist of four drive-through restaurants (Zaxby's, McDonalds, Chick-fil-A, and Checkers). Also, to the east of the subject property, uses include an existing dry-cleaners, auto repair shop, liquor store, gas station, and jeweler. There is also an existing 3-story commercial building that appears to have Class C office space with various existing businesses which include a store front church, hair salon, and a driving school. West of the subject property are two existing one story buildings home to Peachtree Spine Physicians as well as a pet hospital. South of the subject property is an undeveloped lot and North Dekalb Mall. It is important to note that the mall technically closed in 2020, however, there are a few stores, a U.S. Postal Service branch, and an AMC movie theatre still operating along the perimeter of the physical mall site. To the north of the subject property, is a mix of residential and commercial uses. The residential uses are mostly located in the North Druid Woods neighborhood. It is a modest neighborhood consisting of one store ranch style homes. Office residential uses along this portion of the corridor consist of a holistic health center, auto insurance office, a dry cleaner, travel agents office, massage therapist, and chiropractor. In recent months there have been discussions about the re-development of the nearby North Druid Hills mall site into a mixed-use development. Because malls such as North Druid Hills mall are typical of suburban areas, we do not expect that the development of a mixed-use product will create a highly dense and walkable urban landscape independent of cars, adequate parking, and wider roads.

## **Zoning History**

Based on DeKalb County records, it appears that the NS (Neighborhood Shopping) zoning of the property has not changed since adoption of the first zoning ordinance and map in 1956. The *DeKalb County 2035 Comprehensive Plan* designates the subject property's future land use as Town Center (TC).

## **Project Analysis**

The applicant is requesting to rezone the subject property from NS (Neighborhood Shopping) to C-1 (Local Commercial) for the purpose of constructing a drive-through restaurant. The applicant's request proposes the relocation of the Chick-fil-A restaurant from 3905 N. Druid Hills Road to the subject property. Based on the site plan provided by the applicant, the construction of the 2,800 square foot drive through restaurant will require the demolition of the vacant one-story building which was a furniture and home essentials retail establishment (Pier 1 Imports). The project will make use of the two existing connections to Birch Road and North Druid Hills Road. These connections will serve as both entrances and exits for customers. The North Druid Hills access will serve as a right-in/right-out only. The drive-through restaurant will consist of three drive-through lanes that merge into two lanes as they approach the drive through service area, which will permit servers to walk food out instead of using a drive-through window. The redeveloped site is proposed to accommodate vehicular stacking for 41 cars and include 29 parking spaces, of which, two will be designated for patrons with disabilities. The restaurant will also have outdoor seating for customers on the east side of the building. Additionally, the developer intends to install a variety of trees and shrubs around the site to beautify it and buffer some of the vehicular activity.

**COMPLIANCE WITH DISTRICT STANDARDS**

STANDARD	REQUIREMENT	PROPOSED	COMPLIANCE
MAX LOT COVERAGE	90%	69.3%	Yes
BUILDING MATERIALS	Brick, stone, stucco, architectural concrete, glass.	Mostly brick.	Yes.
FRONT BUILDING SETBACK	10ft min/60ft max	< 60ft.	YES
SIDE – CORNER LOT ON PUBLIC STREETS SETBACK	30ft.	< 30ft.	NO (variance needed)
SIDE INTERIOR BUILDING SETBACK	15 Feet	> 15ft.	Yes
REAR BUILDING SETBACK	20 Feet	> 20ft.	YES
HEIGHT	2 stories/35 feet	1 story/21 feet	Yes
PARKING	1:150sf (min)= 19 spaces 1:75sf (max) = 37 spaces	29 parking spaces	Yes
PARKING CONFIGURATION	Non-residential buildings in an Activity Center shall have no more than one (1) double row of parking within the front yard where there is no intervening building between parking and the street.	No parking is proposed in the front yard. All parking is on side and in back.	Yes

PARKING CONFIGURATION	Non-residential buildings in an Activity Center shall be allowed to locate parking along the side or rear or as on-street parking dedicated as right-of-way by the applicant for a land disturbance permit or building permit.	Parking is located to the side and rear of the building.	Yes
OPEN SPACE	10%	30.6%	Yes
SIDEWALKS AND STREETSCAPING	6-ft. sidewalk, 10-ft. landscape strip, street trees 40 ft. on center (N. Druid Hills Rd.)  6-ft. sidewalk, 6-ft. landscape strip, street trees 50 ft. on center (Birch Rd.)	10ft  Yes	No. However, adjustments may be made pending GDOT, County Public Works, or ZBA variances  Yes

**Impact Analysis**

**Section 27-7.4.6 of the DeKalb County Code states that the following criteria shall be applied in evaluating and deciding any application for a Special Land Use Permit.**

- A. Adequacy of the size of the site for the use contemplated and whether or not adequate land area is available for the proposed use including provision of all required yards, open space, off-street parking, and all other applicable requirements of the zoning district in which the use is proposed to be located.**

Located on 1.04 acres, adequate land area is available to operate a restaurant with a drive-through lane and comply with all required yards, open space, and off-street parking required within the C-1 (Local Commercial) Zoning District. However, there are transportation concerns stemming from future expansion of North Druid Hills Road. Road network studies are still in progress, so it is unknown what the road design will be and what the right-of-way width will be in the future. Nonetheless, the applicant has proposed to dedicate the necessary right-of-way to satisfy transportations comments in the short-term. The applicant has submitted an unofficial rendering of a widened right-of-way with the redevelopment (see *Future Roadway Improvement Concept Option*). Related to the future right-of-way width, the applicant proposes to situate the building closer to North Druid Hills Road to achieve activity center goals. However, the North Druid Hills Road side of the property is technically the corner side and not its front. Thus, the proposed building placement does not comply with 30-foot minimum setback. Additionally, the building placement may conflict with future road widening.

**B. Compatibility of the proposed use with adjacent properties and land uses and with other properties and land uses in the district.**

The proposed drive-through restaurant is consistent with the surrounding drive-through facilities in the area including a Zaxby's drive-through restaurant directly adjacent to the subject property, a McDonalds drive-through restaurant, and a Checkers drive-through restaurant. There is also a Chevron gas station and an auto repair shop nearby. All of these sites are east of the subject property along North Druid Hills Road. In addition, there are existing residential office uses to the northeast of the subject site comprising of a mixture of uses that include a dry cleaner, insurance agency, massage therapist, and travel agency.

**C. Additionally, it is important to note that since this proposal was last presented, North DeKalb Mall has been purchased with the intent to redevelop the site. As the core of this Town Center activity center, it is the desire of the community to see the site redeveloped in a manner consistent with *Comprehensive Plan* (60DUs/acre, 6-story maximum height, and a mixture of residential and nonresidential uses at the core). It is likely that any development constructed with the density and intensity envisioned in the *Comprehensive Plan* will have a significant impact on the subject property and the surrounding area. The development potential of the site is slated to be studied over the next few months. Consequently, a redevelopment plan has not been submitted to the Planning and Sustainability Department. Adequacy of public services, public facilities, and utilities to serve the proposed use.**

Given that the area along North Druid Hills Road is developed with various commercial uses, it appears that there are adequate public services and utilities for the proposed drive-through restaurant.

**D. Adequacy of the public street on which the use is proposed to be located and whether or not there is sufficient traffic-carrying capacity for the use proposed so as not to unduly increase traffic and create congestion in the area.**

North Druid Hills Road is a major arterial. The County Transportation Division is desirous of a westbound left turn lane on North Druid Hills Road at Burch Road. From observation, left turns at this intersection are challenging once eastbound traffic on N. Druid Hills Road builds. The applicant has provided a memo that affirms the need for the turning lane (see *CFA North Druid Hills Relo Traffic Memo*). A right in/right out ingress/egress is proposed, therefore, patrons approaching from the east will need that turn lane to more efficiently access the site from Birch Road. Major concerns for transportation staff are future roadway expansion that will be designed to alleviate congestion along the North Druid Hills Road corridor and how subject properties along the corridor may be impacted. The amount of land the county will need to obtain is currently unknown. Other transportation concerns are traffic conditions and access into and out of the site.

**E. Whether existing land uses located along access routes to the site will be adversely affected by the character of the vehicles or the volume of traffic generated by the proposed use.**

Given the surrounding drive-through businesses, it does not appear that the character of the vehicles will adversely impact existing land uses along access routes to the site. Staff performed a site visit on June 16, 2021 at 1:30pm and traffic congestion was observed in both directions on North Druid Hills Road. Additionally, it was observed that the carrying capacity for the dedicated right turn lane on North Druid Hills Road adjacent to the subject property and Zaxby's may not be sufficient to accommodate right out traffic from the subject property and the full access ingress/egress at Zaxby's during peak hours, which may present some vehicular conflicts. Concerns have been raised about access onto North Druid Hills Road from Druid Hills Court if this site is developed into a Chick-Fil-A. While this is a reasonable concern that may or may not be exacerbated by the redevelopment proposal, it is noteworthy to mention that residents in the community have multiple entrance and exit options. Those alternatives include Mistletoe Road, Laurel Hill Drive, Arbordale Drive, Harcourt Drive, and Willivee Drive.

**F. Adequacy of ingress and egress to the subject property and to all proposed buildings, structures, and uses thereon, with particular reference to pedestrian and automotive safety and convenience, traffic flow and control, and access in the event of fire or other emergency.**

Two points of access are proposed. One point of access is on North Druid Hills Road (right in/right out only) and the other point of access (full access) is on Birch Road. Emergency vehicles can access the site from either point of ingress/egress. In addition to the observations in Criterion E, Zaxby's secondary ingress/egress is onto an access easement to its south which directs traffic to Birch Road and Sweet Briar Road adjacent to the North DeKalb Mall.

According to the site plan, internal circulation is centered on a "horseshoe" pattern to access three canopied drive-through lanes that narrow to two lanes for food delivery and parking around the perimeter of the site. Assuming the bulk of sales are via drive-through service, the proposed circulation plan may create a few issues: 1. the 2 parking spaces for disabled patrons are away from the building and close to the right in/right out access point at North Druid Hills Road; 2. drive-thru patrons who have received their food will also depart near the handicapped spaces and as patrons enter from North Druid Hills; 3. given the proposed layout, reasonable signage may be necessary to ensure internal circulation flows as intended.

Given the popularity of the proposed establishment, it may be more efficient and may lessen potential conflicts, if the applicant considers, full access to/from Birch Road, and either a connection to the existing access easement to distribute traffic around the mall (where there are multiple controlled access intersections to North Druid Hills Road and Lawrenceville Highway) and/or install adequate signage to encourage drivers to take advantage of multiple ingress/egress points around the mall. It is currently unknown what the scope of work will consist of for the North Druid Hills Road improvements, however, when that scope is fully developed it could impact the site. Additionally, the applicant provided a crash data comparison (see *Crash Data Exhibit*) of the existing location and the subject property along with an intersection analysis (see *N Druid Hills and Birch Rd Intersection Analysis*) which indicates that the relocation of the Chick-Fil-A will place it at a location with fewer accidents and that the redevelopment will not significantly alter the level of service at the Birch Road/North Druid Hills Road intersection, respectively. The Transportation Division is still reviewing this analysis.

**G. Whether the proposed use will create adverse impacts upon any adjoining land use by reason of noise, smoke, odor, dust, or vibration generated by the proposed use.**

The proposed drive-through restaurant should not create significant adverse impacts upon any adjoining land use by reason of noise, smoke, odor, dust or vibration. Considering that the restaurant is already located along the corridor, its relocation may generate only marginal change compared to what exists presently.

**H. Whether the proposed use will create adverse impacts upon any adjoining land use by reason of the hours of operation of the proposed use.**

The hours of operation for the proposed drive-through lane should not create adverse impacts upon adjoining land uses. The proposed use will not be a 24-hour establishment. It will operate on standard Chick-Fil-A hours of operation which are Monday through Saturday 6am to 10pm.

**I. Whether the proposed use will create adverse impacts upon any adjoining land use by reason of the manner of operation of the proposed use.**

The manner of operation for the proposed drive-through restaurant could possibly impact the flow of traffic in an existing right turn lane that serves an existing Zaxby's drive-through restaurant, However the transition from dine-in at the current location to drive-thru (and walk-up) only at the proposed location will have limited impact on the adjoining land uses. See criteria E and F also.

**J. Whether the proposed use is otherwise consistent with the requirements of the zoning district classification in which the use is proposed to be located.**

The applicant currently has a companion rezoning application on the agenda to rezone the subject property from NS (Neighborhood Shopping) to C-1 (Local Commercial). As a preferred zoning district within the town center character area, it is implied that the C-1 zoning district and its collection of permissible principal and accessory uses are suitable; prohibited uses are not suitable; and that other uses are subject to special land use permit approval in order to evaluate the appropriateness of those uses based on impacts that may be unique depending on their settings. Drive-through restaurants are permitted uses within the C-1 zoning district with an approved Special Land Use Permit (SLUP). While the proposed site plan complies with most of the C-1 zoning requirements, the building location would be subject to variance approval from the Zoning Board of Appeals because it would be within the required 30-foot side corner setback.

**K. Whether the proposed use is consistent with the policies of the comprehensive plan.**

The site is located within a Town Center Character Area designated by the *DeKalb County 2035 Comprehensive Plan*. See criterion S also.

Although a drive-through establishment is not the ideal use for this activity center, mitigating factors may include that the establishment is relocating about one-quarter of a mile away from its existing location within the activity center, and it would be located along a major arterial road. Because the subject property is located on the perimeter of the TC activity center, consideration should be given to striking an appropriate balance based on current conditions and future objectives for parcels with direct access to North Druid Hills Road such as shared access, inter-parcel connectivity, and fewer curb cuts until a major catalyst for change occurs at the core to set the baseline for surrounding concurrency.

Furthermore, there have been other similar special land use permits that have been approved within activity centers. In November 2020, the Board of Commissioners approved SLUP 20-1244105 request for a drive-thru restaurant located at 2933 N. Druid Hills Road (Planning Commission voted to approve with conditions; Staff also recommended approval). In January 2021, the Board of Commissioners approved SLUP 21-1244417 request for a drive-thru restaurant located at 3033 North Druid Hills Road (Planning Commission voted to approve with conditions; Staff also recommended approval).

**L. Whether the proposed use provides for all required buffer zones and transitional buffer zones where required by the regulations of the zoning district in which the use is proposed to be located.**

The proposed site does not abut any residentially zoned properties. Therefore, buffer zones are not required.

**M. Whether there is adequate provision of refuse and service areas.**

Adequate refuse areas will be provided based on the submitted information by the applicant.

**N. Whether the length of time for which the special land use permit is granted should be limited in duration.**

There does not appear to be any compelling reasons for limiting the duration of the requested Special Land Use Permit.

**O. Whether the size, scale and massing of proposed buildings are appropriate in relation to the size of the subject property and in relation to the size, scale and massing of adjacent and nearby lots and buildings.**

The proposed one-story building would be compatible in size and massing with adjacent commercial buildings in the area.

**P. Whether the proposed use will adversely affect historic buildings, sites, districts, or archaeological resources.**

There are no known historic building, sites, districts or archeological resources in the immediate area that will be adversely affected by the proposed use.

**Q. Whether the proposed use satisfies the requirements contained within the supplemental regulations for such special land use permit.**

The proposed drive-through restaurant complies with most of the following supplemental regulations per Sec.27-4.2.23 of the DeKalb County Zoning Code:

- a. **Drive-through facilities shall not be located within sixty feet of a residentially zoned property.** *The nearest residential zoning is the R-75 zoning to the north approximately 90 feet away.*
- b. **No drive-through facility shall be located on property less than ten thousand square feet in area, unless part of a mixed-use development. Stacking spaces for queuing of cars shall be provided for the drive-through area as required in Article 6. All driveway entrances, including stacking lane entrances, must be at least fifty (50) feet from an intersection. The distance is measured along the street from the junction of the two street curb lines to the nearest edge of the entrance.** *The property is 45,302 square feet (1.04 acres) in size. Forty-one stacking spaces are provided. The nearest intersection is at North Druid Hills Road and Birch Road. The North Druid Hills Road entrance is located about 100 feet from the intersection and the Birch Road entrance is located about 130 feet from the intersection.*
- c. **Drive-through lanes and service windows serving drive-through lanes shall only be located to the side or rear of buildings.** *The proposed drive through lanes and one service door are located to the rear of the proposed building.*
- d. **Drive-through canopies and other structures, where present, shall be constructed from the same materials as the primary building and with a similar level of architectural quality and detailing.** *Per submitted plans, it appears that the canopies will be constructed with the same materials as the building.*



- e. **Speaker boxes shall be pointed away from any adjacent residential properties and shall require masonry sound attenuation walls with landscaping or other speaker volume mitigation measures. Speaker boxes shall not play music but shall only be used for communication for placing orders. Per the submitted plans, the speaker boxes will be positioned so that they are not interfering with residential uses.**
- f. **All lighting from drive-through facilities shall be shaded and screened so as to be directed away from any adjacent residential property. No lighting or photometric plan was submitted.**
- g. **Stacking spaces shall be provided for any use having a drive-through facility or areas having drop-off and pick-up areas in accordance with the following requirements. Stacking spaces shall be a minimum of ten (10) feet wide and twenty-five (25) feet long. Stacking spaces shall begin at the last service window for the drive-through lane (typically the "pick-up" window). Per the submitted preliminary site plan, the stacking spaces are 11.5' wide and meet the 25' minimum in length.**
- h. **All drive-through facilities with the exception of drive-through restaurants shall provide at least three stacking spaces for each window or drive-through service facility. Per the submitted preliminary site plan, there are 41 car stacking spaces provided.**
- i. The following standards shall apply to all stacking spaces and drive-through facilities:
  - i. **Drive-through lanes shall not impede on- and off-site traffic movements, shall not cross or pass through off-street parking areas, and shall not create unsafe conditions where crossed by pedestrian access to a public entrance of a building. The proposed drive-through lane, as currently designed, might cause internal circulation issues that could affect traffic both on-site and off-site. These circulation issues might also interfere with pedestrians going to and from the handicapped spaces.**
  - ii. **Drive-through lanes shall be separated by striping or curbing from off-street parking areas. Individual lanes shall be striped, marked, or otherwise distinctly delineated. Based on the submitted preliminary site plan, there appears to be striping and material delineation shown to separate lanes.**
  - iii. **All drive-through facilities shall include a bypass lane with a minimum width of ten (10) feet, by which traffic may navigate around the drive-through facility without traveling in the drive-through lane. The bypass lane may share space with a parking access aisle.**
  - iv. **Drive-through lanes must be set back five (5) feet from all lot lines and roadway right-of-way lines. The proposed drive-through lane is at least 15 feet away from all property lines and roadway right-of-way lines.**
  - v. **Owner and operator are responsible for daily litter clean-up to ensure the property remains free of trash, litter, and debris. The owner and operator shall be responsible for daily litter clean-up to ensure the property remains free of trash, litter, and debris.**
  - vi. **Drive-through restaurants shall not be located within five hundred (500) feet of an elementary, middle, or high school. The proposed drive-through restaurant is at least 1,000 feet from Laurel Ridge Elementary School.**
  - vii. **Drive-through restaurants located in activity centers require a special land use permit. In all other character areas, a special land use permit is required unless the facility can meet at least two of the following criteria: a. Facility is located within four hundred (400) feet of an intersection of a major arterial street and a major or minor arterial street, or within one**

**thousand (1,000) feet of an interstate highway interchange. b. Facility is accessible only through inter-parcel access or through a shared driveway. c. Facility is part of a major development as defined in Art. 8.1.16. The proposed drive-through restaurant is located within a Town Center activity center and is requesting a Special Land Use Permit.**

**R. Whether the proposed use will create a negative shadow impact on any adjoining lot or building as a result of the proposed building height.**

The proposed one-story drive-through restaurant will not create a negative shadow impact on any adjoining lot or building.

**S. Whether the proposed use would be consistent with the needs of the neighborhood or the community as a whole, be compatible with the neighborhood, and would not be in conflict with the overall objective of the comprehensive plan.**

The complexity of this proposal is a conflict of aspirational versus practical; future versus present. The subject property is located in the Town Center (TC) activity center future land use designation. The intent of the Town Center character area is “to promote the concentration of residential and commercial structures, which serve many communities in order to reduce automobile travel, promote walkability and increased transit usage. The areas consist of a focal point for several neighborhoods with a variety of activities such as general retail, commercial, professional office, higher-density housing, and appropriate public and open space uses that are easily accessible by pedestrians.” Associated planning principles that are envisioned in this activity center include: pedestrian-friendly design, mixed-use development, greater density of development, taller development, and parking at the rear of building among others. Therefore, the applicant proposes to situate the new building closer to the N. Druid Hills Road along with installation of parking and drive-thru facilities to the side and/or rear. However, it is important to note that the subject property sits on the outer edge of this TC activity center. Some of the preferred development standards apply more so at the core and taper off towards the outer edges. Additionally, since N. Druid Hills Road is a major arterial road, along this portion of the corridor, it may not be prudent to promote greater pedestrian activity directly along the corridor. Pedestrian facilities and gathering places may be more suitable internally between the properties along N. Druid Hills Road and the North DeKalb Mall site. While we desire a more pedestrian friendly environment overall for this activity center at its core, the parcels along North Druid Hills Road may be suitable for auto dependent uses.

Moreover, where you have an existing urban fabric that is dense and walkable is where high density land uses integrate best. In cases where there’s existing suburban and auto focused land uses, higher density projects may not integrate into the existing environment fully and yield the desired benefits. Because there is an existing suburban fabric the need for wider roads and more parking ties up much of the land and reduces pedestrian activity which makes high density land uses much more difficult to establish.

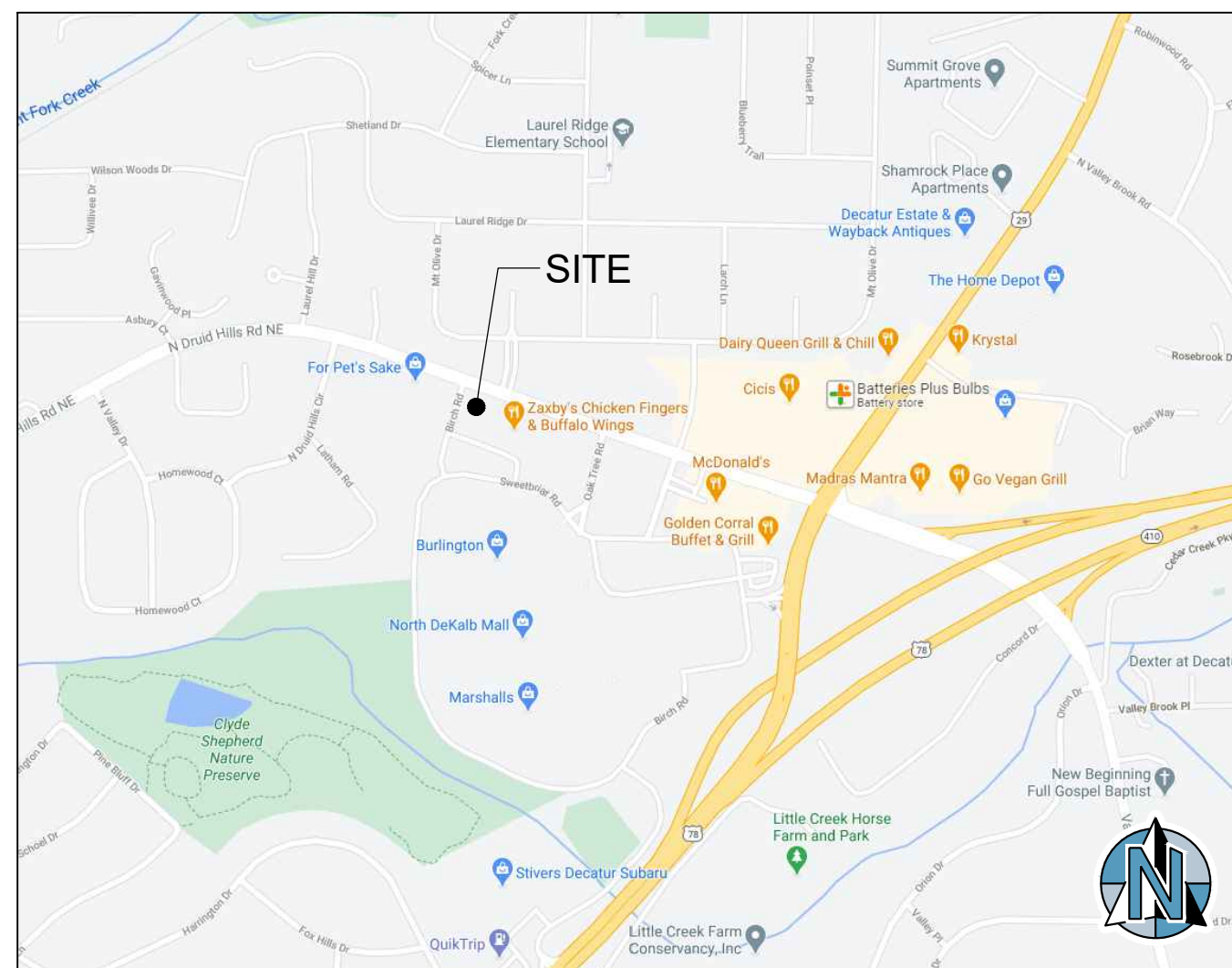
**If the Planning Commission recommends approval of this request, then the Department of Planning and Sustainability recommends the following conditions below:**

1. The subject property shall be developed in substantial conformity with the following site plans: "Preliminary Site Plan", prepared by Foresite Group, dated 11-17-2021 and with the building elevation prepared by Selser Schaefer Architects, dated 7-14-2021.
2. No exterior sound systems, outdoor speakers or sound amplification systems are permitted.
3. The Special Land Use Permit shall be issued to Midtown National Group, LP for a Chick-Fil-A drive-through restaurant only and shall not be transferrable for the purposes of establishing any other drive-through establishment.
4. The approval of this Special Land Use Permit application by the Board of Commissioners has no bearing on the requirements for other regulatory approvals under the authority of the Zoning Board of Appeals, or other entities whose decision should be based on the merits of the application under review by such entity.
5. Truck loading/delivery shall not impede internal circulation on-site.
6. The applicant shall install adequate internal signage. Illustrations and design specifications for internal signage must be provided to the Director of Planning & Sustainability prior to building permit approval.
7. If the restaurant partners with meal delivery service providers (e.g., Door Dash, Uber Eats, etc.), a portion of the excess parking spaces for passenger vehicles shall be designated for those meal delivery service providers.

**UPDATED PLANS**  
**SUBMITTED BY APPLICANT ON November**  
**17, 2021**

SITE DATA	
ZONING:	C-1 (LOCAL COMMERCIAL)
FUTURE LAND USE DESIGNATION:	TC (TOWN CENTER)
PARCEL IDENTIFICATION NUMBER:	181000419
TOTAL SITE AREA:	1.047 AC.
DISTURBED AREA:	1.1 AC.
IMPERVIOUS SURFACE AREA MAXIMUM (%):	0.942 AC. (90.0%)
IMPERVIOUS SURFACE AREA PROPOSED (%):	0.738 AC. (70.4%)
OPEN SPACE AREA REQUIRED (%):	0.105 AC. (10.0%)
OPEN SPACE AREA PROPOSED (%):	0.321 AC. (30.6%)
FLOOR AREA RATIO MAXIMUM:	20.00%
FLOOR AREA RATIO PROPOSED:	6.14%
BUILDING HEIGHT PROPOSED:	21' - 4"
BUILDING SETBACK - FRONT (BIRCH ROAD):	20 FT MIN. / 60 FT MAX.
SIDE (N. DRUID HILLS RD.):	30 FT
SIDE (INTERIOR):	30 FT
REAR:	20 FT
LANDSCAPE BUFFER - FRONT (BIRCH ROAD):	10 FT
SIDE (N. DRUID HILLS RD.):	5 FT
SIDE (INTERIOR):	5 FT
REAR:	5 FT
BUILDING FLOOR AREA:	2,800 S.F.
PARKING RATIO REQUIRED - MAX: 1 SPACE PER 75 S.F. MIN: 1 SPACE / 150 S.F. = 38 SPACES	19 SPACES
PARKING PROVIDED:	29 SPACES
ACCESSIBLE PARKING REQUIRED:	2 SPACES
ACCESSIBLE PARKING PROVIDED:	2 SPACES

- NOTES:
- THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.
  - THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBER FOR THIS AREA IS 13089C0067K, AND THE DATE OF SAID MAP IS AUGUST 15, 2019.
  - NO STREAMS EXIST ON THE PROPERTY.



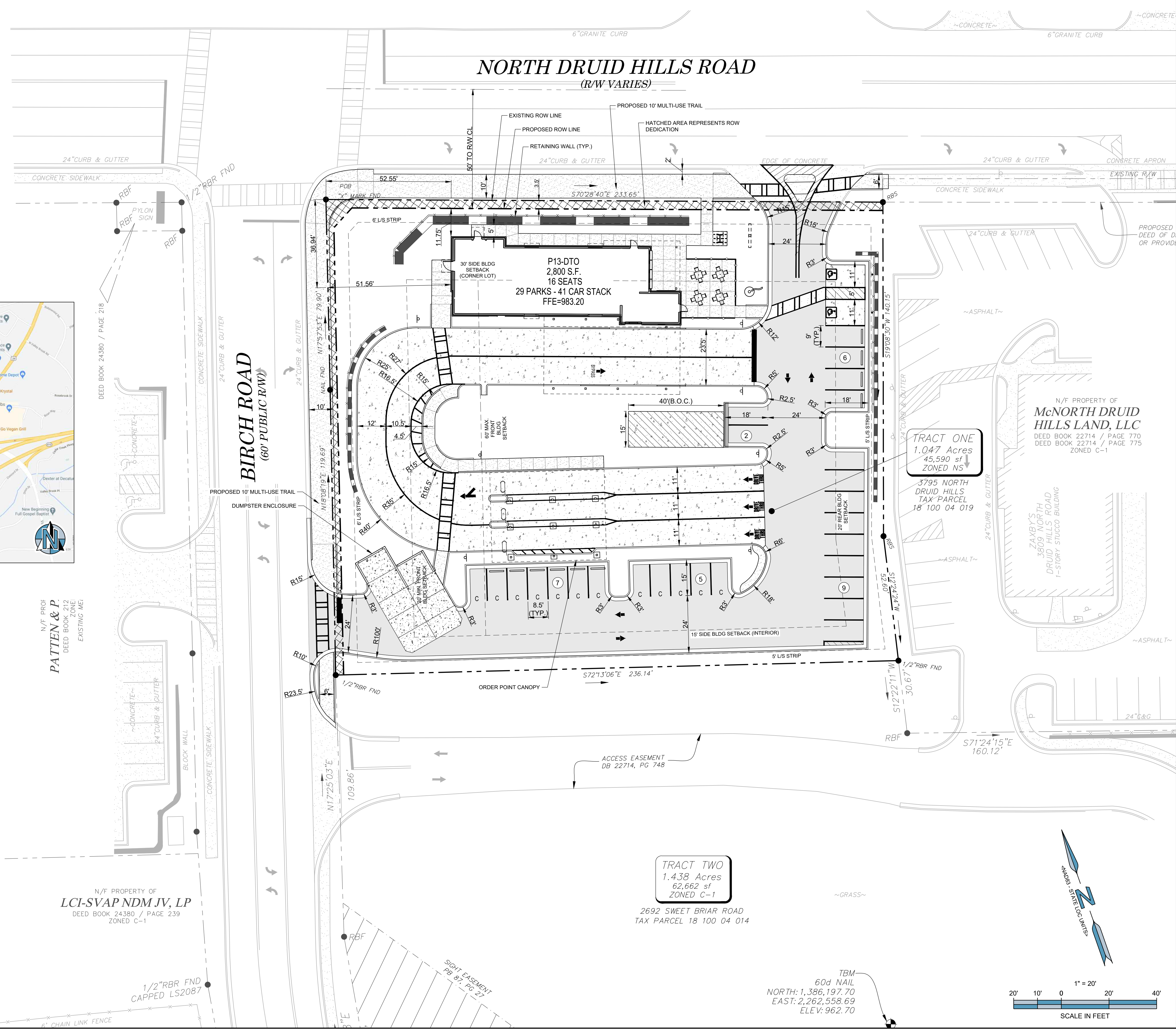
VICINITY MAP  
NOT TO SCALE

N/F PROP  
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DEED BOOK 212  
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N/F PROPERTY OF  
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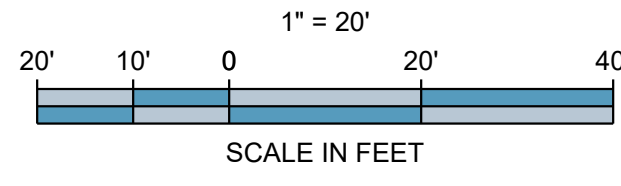


Know what's below.  
Call before you dig.



TRACT ONE  
1.047 Acres  
45,590 sf  
ZONED NS  
3795 NORTH DRUID HILLS RD.  
TAX PARCEL 18 100 04 019

TRACT TWO  
1.438 Acres  
62,662 sf  
ZONED C-1  
2692 SWEET BRIAR ROAD  
TAX PARCEL 18 100 04 014



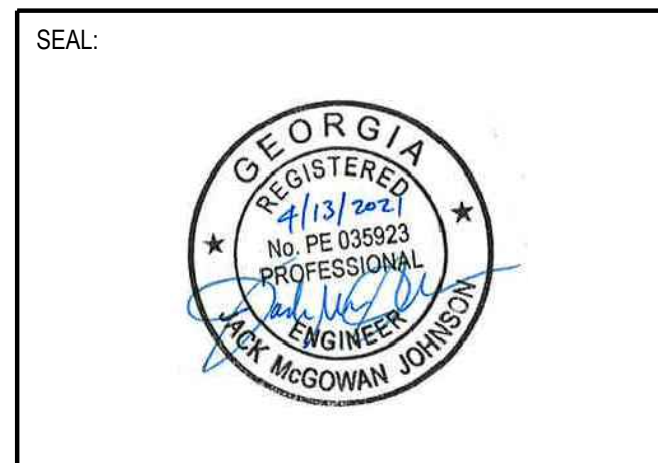
Chick-fil-A

5200 BUFFINGTON ROAD  
ATLANTA, GA 30349-2998

DEVELOPER:  
**CHICK-FIL-A, INC.**  
5200 BUFFINGTON ROAD  
ATLANTA, GA 30349-2998  
(404) 808-1145  
CONTACT: MR. JASON POCIASK

ENGINEER:  
**FORESITE group**  
Foresite Group, LLC. w | www.fg-inc.net  
3740 Davinci Ct. o | 770.368.1399  
Suite 100 f | 770.368.1944  
Peachtree Corners, GA 30092

PROJECT:  
3795 NORTH DRUID HILLS RD.  
DECATUR, GA 30033  
PARCEL #1810004019  
FSR #04846



REVISIONS	DATE
SITE NOTES	2021.04.29
CLIENT COMMENTS	2021.06.25
CLIENT COMMENTS	2021.07.13
CLIENT COMMENTS	2021.09.08
COUNTY COMMENTS	2021.10.21
COUNTY COMMENTS	2021.11.17

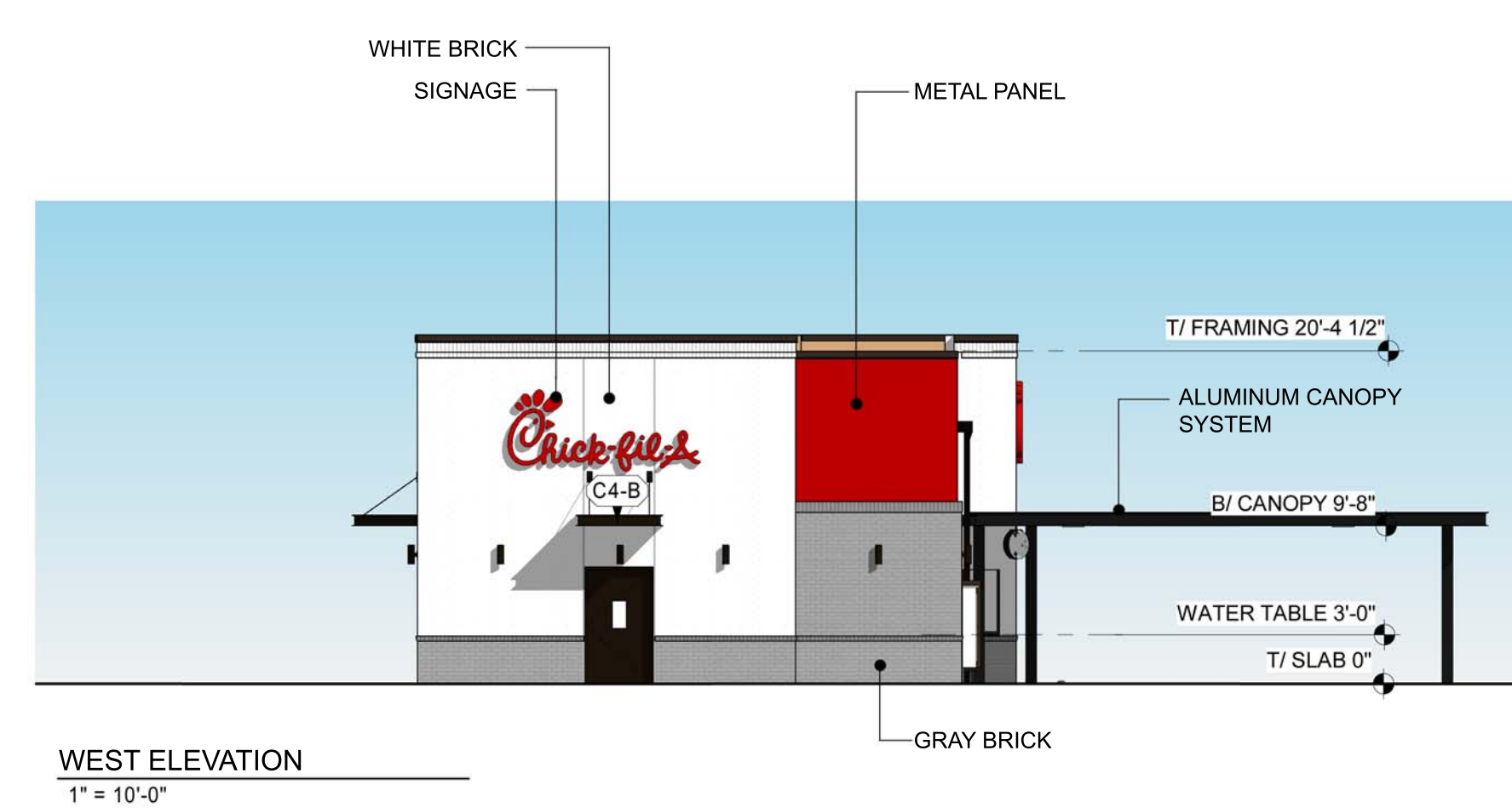
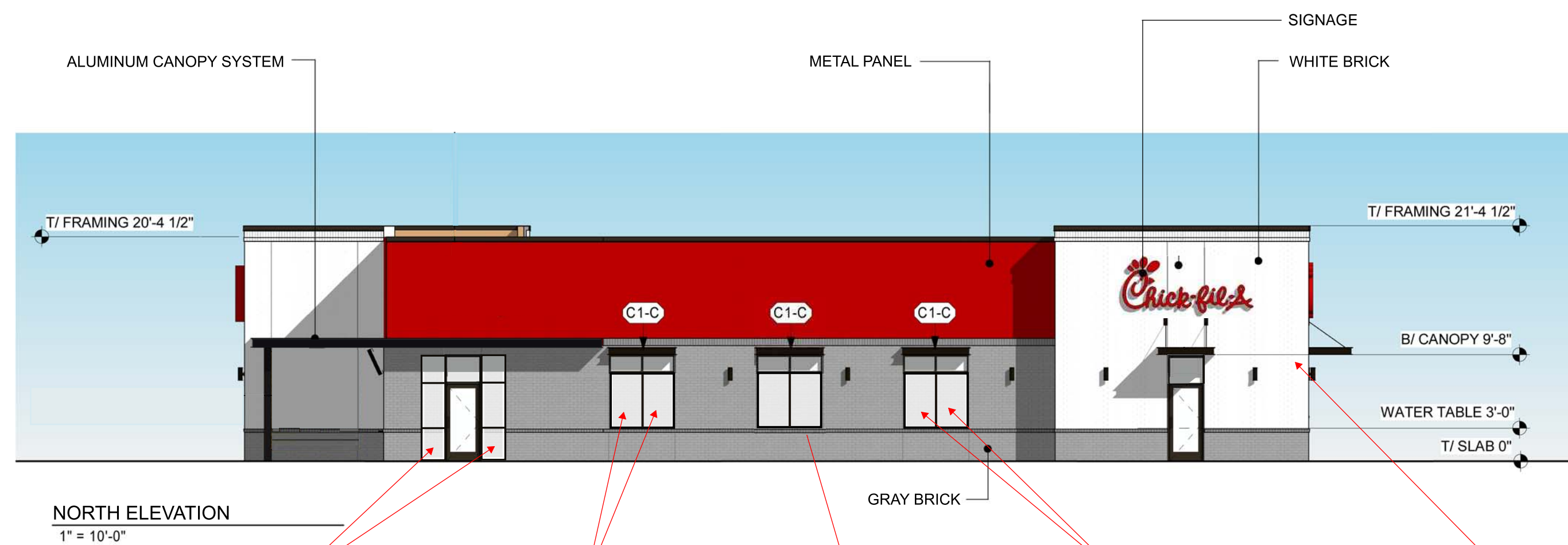
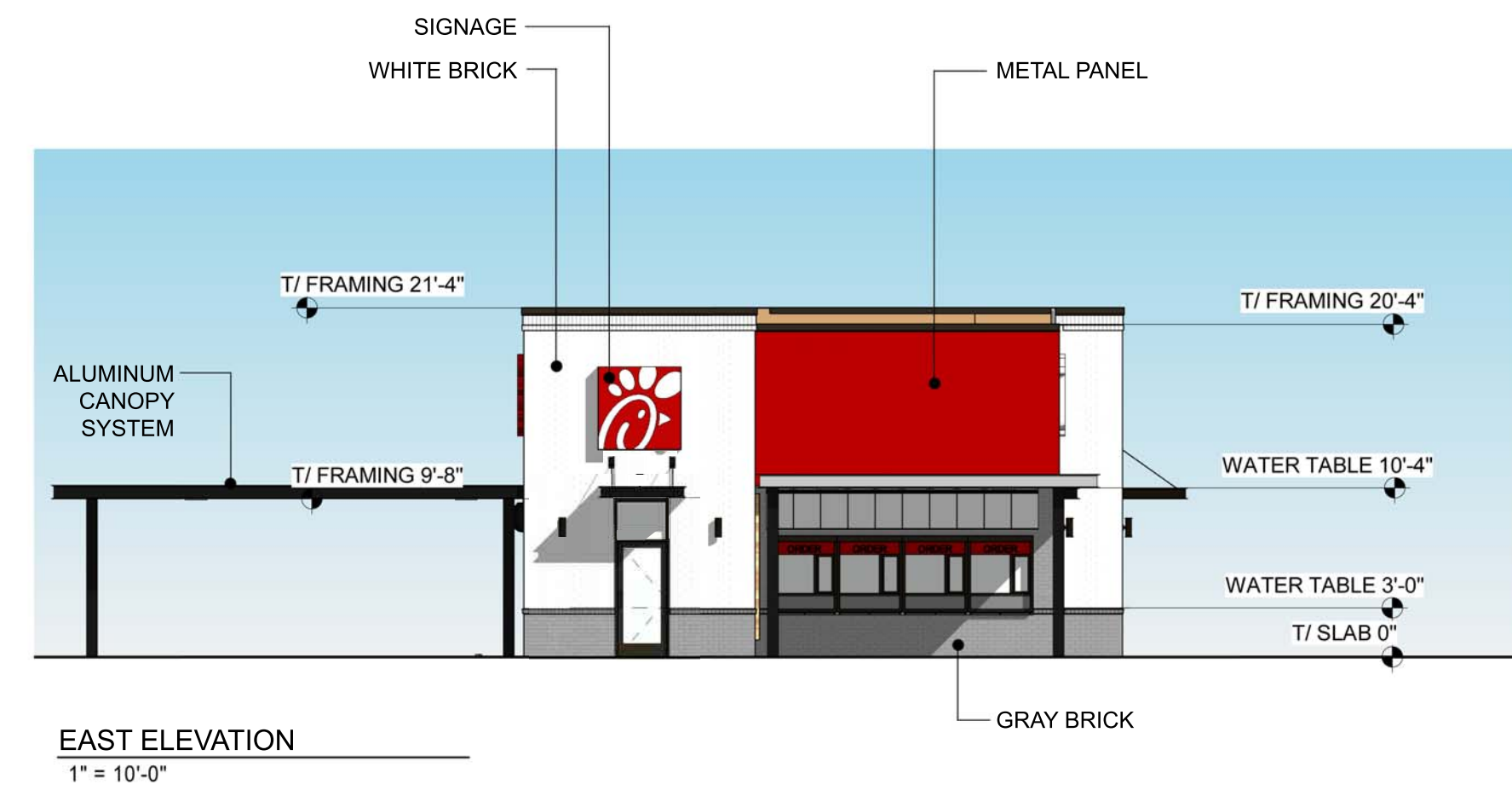
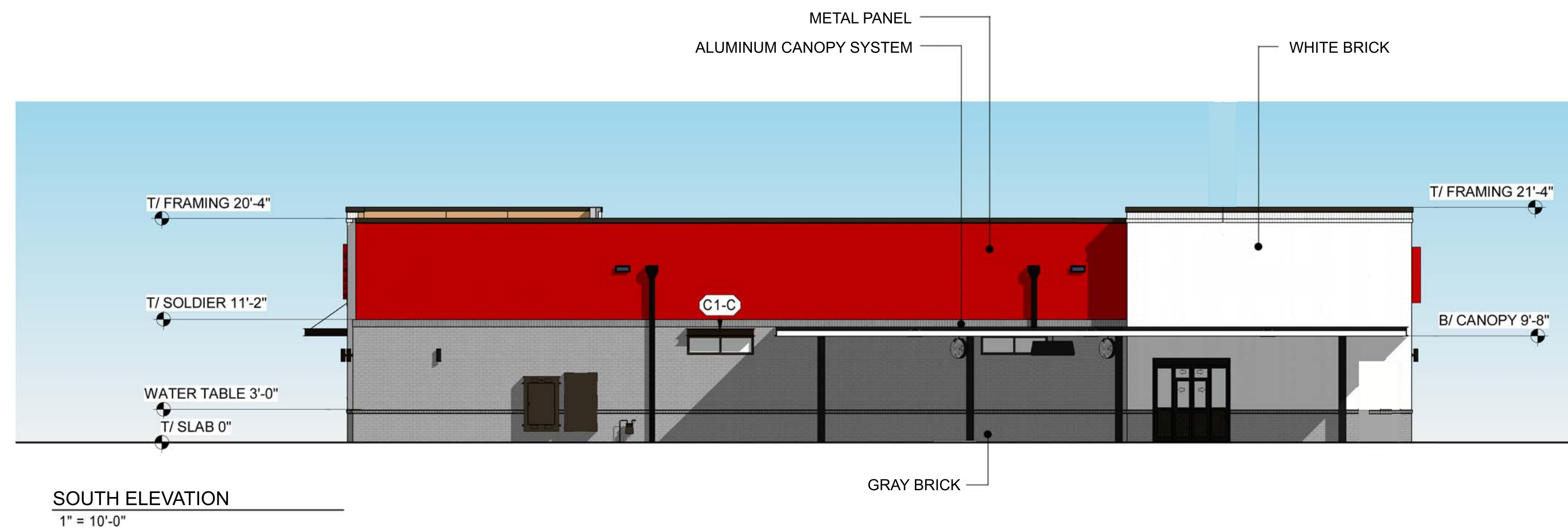
PROJECT MANAGER: JMJ  
DRAWING BY: JRH  
JURISDICTION: DEKALB COUNTY, GA  
DATE: 2021-04-12  
SCALE: 1" = 20'  
TITLE:

PRELIMINARY SITE PLAN

SHEET NUMBER:  
**C-2.0**

COMMENTS: NOT RELEASED FOR CONSTRUCTION

JOB/FILE NUMBER: 397.010



ADDED CLEAR TRANSOM WITH FROSTED SPANDREL GLAZING BELOW

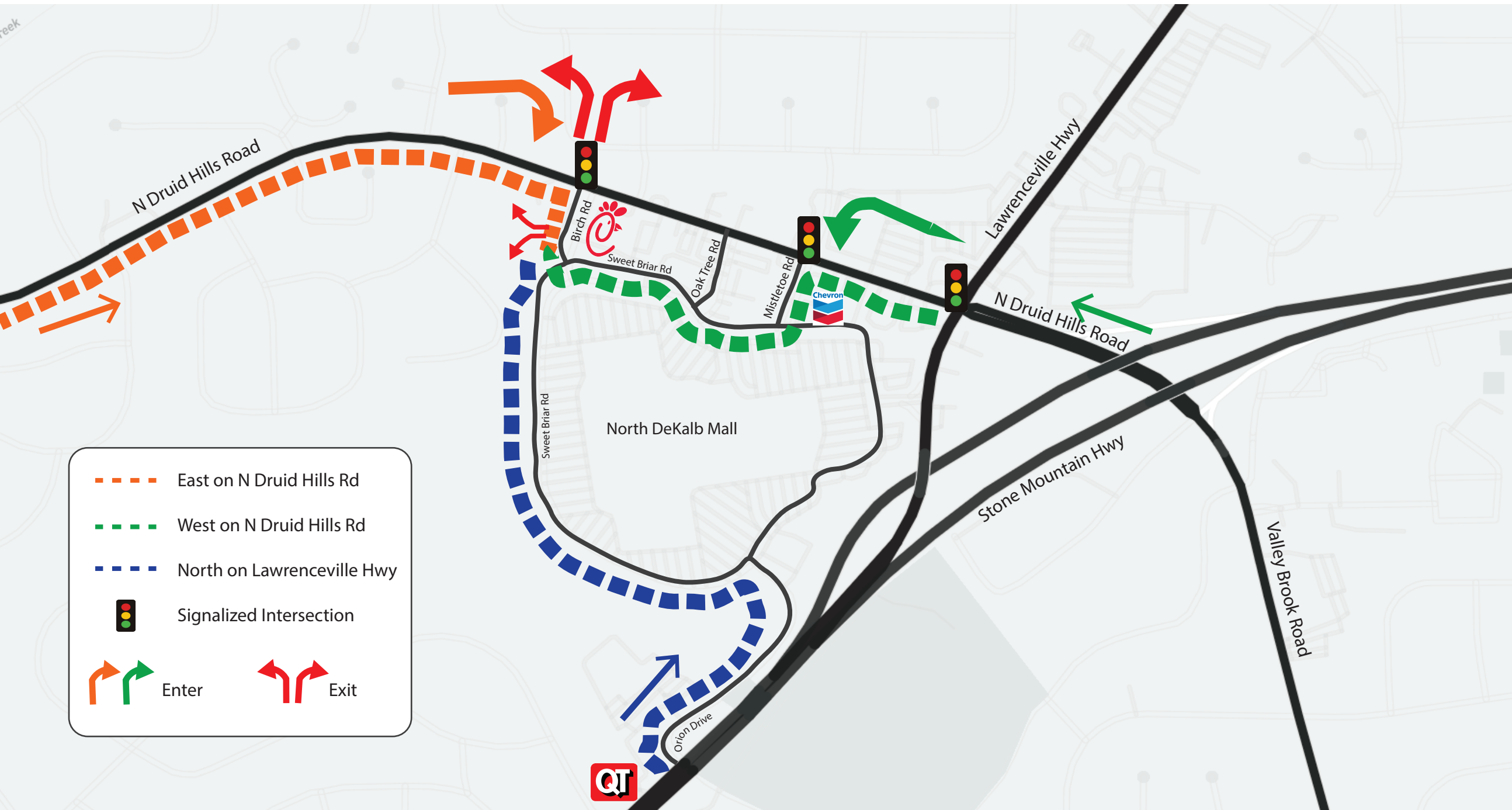
ADDED FROSTED SPANDREL GLAZING

ADDED NEW OPENING. CLEAR TRANSOM WITH SPANDREL GLAZING BELOW

ADDED FROSTED SPANDREL GLAZING

ADDED CLEAR SPANDREL GLAZING

# Best ways to Chick-fil-A®



DEPARTMENT OF PLANNING & SUSTAINABILITY

**SPECIAL LAND USE PERMIT APPLICATION**

Amendments will not be accepted after 5 working days after the filing date.

Date Received: \_\_\_\_\_ Application No.: \_\_\_\_\_

**APPLICANT NAME:** David Kirk, on behalf of Chick-fil-A, Inc.

Daytime Phone #: 404-885-3415 Fax #: N/A

Mailing Address: 600 Peachtree Street, Suite 3000, Atlanta, GA 30308

E-mail: David.Kirk@troutman.com

**OWNER NAME:** Midtown National Group LP (if  
more than one owner, attach contact information for each owner)

Daytime Phone #: N/A Fax #: N/A

Mailing Address: 9171 TOWNE CENTRE DR, STE 335, SAN DIEGO CA 92122

E-mail: N/A

**SUBJECT PROPERTY ADDRESS OR LOCATION:** 3795 DRUID HILLS RD N  
Decatur, DeKalb County, GA, 30033

District(s): Unknown Land Lot(s): 100 Block(s): Unknown Parcel(s): 18 100 04 019

Acreage or Square Feet: 1.04 Commission District(s): 2 and SD6 Existing Zoning: NS (C-1 Proposed)

Proposed Special Land Use (SLUP): Restaurant with Drive-through

I hereby authorize the staff of the Planning and Development Department to inspect the property that is the subject of this application.

Owner: \_\_\_\_\_ Agent:  **Signature of Applicant:** David C. Kirk  
(Check One)

**Printed Name of Applicant:** David C. Kirk

Notary Signature and Seal:  
Corinne M Caldwell





**David C. Kirk**  
david.kirk@troutman.com

May 5, 2021

**VIA U.S. CERTIFIED MAIL**

Address Line  
Address Line

**Re: DeKalb County Community Meeting #2**

Dear Neighbor:

I am writing to inform you of Chick-fil-A, Inc.'s ("Chick-fil-A") proposed Rezoning and Special Land Use Permit Applications (the "Applications") to be submitted to the DeKalb County Department of Planning & Sustainability to allow for the construction and operation of a new Chick-fil-A drive-through restaurant at 3795 North Druid Hills Road NE. This new restaurant will replace the older drive-through restaurant located nearby at 3905 North Druid Hills Road. The requested Rezoning Application seeks to rezone the property from Neighborhood Shopping ("NS") to Local Commercial ("C-1"). The Special Land Use Permit Application seeks approval of the associated drive-through facility. I am attaching for your review a copy of the Site Plan showing the proposed new restaurant and associated drive-through.

Chick-fil-A is holding a second Virtual Community Meeting via Zoom on **Thursday, May 20, 2021** at 5:30 P.M., at which time Chick-fil-A will share details of the proposal with attendees. To join the Virtual Community Meeting, please enter the web address below into your internet browser (with no spaces) and follow the prompts to join the meeting.

Web Address:

<https://troutman.zoom.us/j/92657834227?pwd=K1pGRWpKSk0xM1pBMldyKzdNREIKZz09>

Meeting ID: 926 5783 4227

Password: 425462

You may also join the Virtual Community Meeting by phone via the following number:

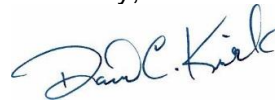
Number: 1-929-436-2866

Meeting ID: 926 5783 4227

Passcode: 425462

Should you have any questions about the Applications and proposed Chick-fil-A restaurant, please do not hesitate to give me a call at (404) 885-3415.

Sincerely,



David C. Kirk

**CHICK-FIL-A COMMUNITY MEETING SIGN-IN SHEET**

Wednesday, April 28, 2021 5:30 p.m.

Virtual Meeting Via Zoom

<b>NAME</b>	<b>ADDRESS</b>
Stacey Russell	<a href="mailto:EyeTravel737@gmail.com">EyeTravel737@gmail.com</a> (Mount Olive Drive)
Cedric Hudson	(County)

**David C. Kirk**  
david.kirk@troutman.com

April 29, 2021

**VIA FEDERAL EXPRESS AND EMAIL**

Mr. Andrew Baker, AICP  
Director  
DeKalb County Department of Planning & Sustainability  
330 West Ponce de Leon Avenue, Suites 100-500  
Decatur, Georgia 30030

**Re: Rezoning and Special Land Use Permit Application for 3795 North Druid Hills Road**

Dear Mr. Baker:

On behalf of Chick-fil-A, Inc. ("Chick-fil-A" or the "Applicant"), I am pleased to provide for review and consideration by DeKalb County this letter of intent and the accompanying application materials in support of the requested Rezoning of the above-referenced property (the "Subject Property") from its current classification Neighborhood Shopping (NS) to the Local Commercial (C-1) classification and Special Land Use Permit ("SLUP") to allow for a drive-through restaurant. If approved, the Rezoning and SLUP will allow for the redevelopment of the Subject Property, which currently contains a vacant retail storefront, into a new, custom-designed 2,800 square-foot Chick-fil-A restaurant with a drive-through facility, outdoor seating, pedestrian improvements, and enhanced landscaping. The proposed development will update the Subject Property into an attractive, modern restaurant in keeping with the demands of the current market, customer expectations and team member needs, and current County requirements.

Included with this letter of intent are the following materials:

- A. An Application to Amend the Official Zoning Map of DeKalb County;
- B. A Special Land Use Permit Application;
- C. A Site Plan;
- D. A Survey and Legal Description of the Subject Property;
- E. A Landscape Plan;

- F. Architectural Elevations and Renderings; and
- G. An impact analysis for the requested SLUP and justification for the proposed Rezoning (included within the body of this letter).

### **Summary of the Proposed Project**

As noted above, the Applicant seeks approvals necessary to redevelop the Subject Property, which now contains a vacant retail store (previously occupied by Pier 1 Imports) and associated street-fronting parking lot. On this property, Chick-fil-A proposes to construct and operate a new, custom-designed restaurant containing approximately 2,800 square feet of space. The restaurant will include a drive-through facility located in the rear of the property with 41 stacking spaces, 29 off-street parking spaces, outdoor seating, an improved streetscape, and enhanced landscaping. The Subject Property is currently zoned Neighborhood Shopping (NS), which does not permit drive-through restaurants. The Applicant requests the Subject Property to be rezoned from NS to Local Commercial (C-1) to allow for a drive-through restaurant. The proposed new restaurant will replace the older Chick-fil-A drive-through restaurant located nearby at 3905 North Druid Hills Road and is designed to better reflect the County's desired goals for design, traffic efficiency, and pedestrian accessibility.

### **Zoning Map Amendment Review and Approval Criteria**

Proposed zoning amendments are evaluated in light of the following standards.

**1. *Whether the zoning proposal is in conformity with the policy and intent of the Comprehensive Plan.***

Chick-fil-A's proposed redevelopment of the Subject Property is consistent with the County's Comprehensive Development Plan and Future Land Use Map, which designates the Subject Property as "Town Center." The Subject Property is currently occupied by a commercial retail use and will continue to be used commercially as a result of the proposed redevelopment. The Town Center character area specifically permits C-1 zoning classifications. The proposed building design, including its orientation to the street, enhanced streetscape improvements, and "walk-up" window will encourage pedestrian accessibility consistent with the Town Center goals.

**2. *Whether the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby properties.***

The Subject Property is directly adjacent to a Zaxby's drive-through restaurant and is located across the street from a physician's office and the North DeKalb Mall. The proposed restaurant is consistent with the adjacent and nearby commercial uses located along North Druid Hills Road and will replace the vacant retail storefront with a custom-designed restaurant. The Applicant respectfully submits the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby properties and will not only efficiently accommodate vehicular traffic but will also be more welcoming to pedestrians.

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

The Applicant respectfully submits the proposed redevelopment will substantially enhance the economic use of the property by replacing the existing vacant retail store into a new, custom-designed Chick-fil-A restaurant with a drive-through facility, outdoor seating, enhanced landscaping, and streetscape improvements.

**4. *Whether the zoning proposal will adversely affect the existing use or usability of adjacent or near-by properties.***

The proposed redevelopment will include a custom-designed, well-landscaped restaurant, and associated drive-through. The proposed redevelopment will have a positive effect on the surrounding neighborhood as it will encourage and accommodate pedestrian access.

**5. *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 Subject Property is currently occupied by a vacant retail storefront and associated street-fronting parking lot. The zoning proposal is intended to allow for the redevelopment of the Subject Property as a Chick-fil-A restaurant in a manner that better reflects the County's desired goals for design, traffic efficiency, and pedestrian accessibility. Chick-fil-A seeks to make a significant investment in this location and redevelop the existing site in a manner that it believes will benefit the surrounding community. The proposed drive-through will be located behind the new restaurant building and thus will be shielded from view along the public right-of-way. The proposed site improvements will result in more efficient, inviting, and safe pedestrian and traffic movement within the Subject Property and on nearby roadways and sidewalks.

**6. *Whether the zoning proposal will adversely affect historic buildings, sites, districts, or archaeological resources.***

The Applicant respectfully submits the zoning proposal will have no adverse effect on any historic or archaeological resources. The redevelopment will be designed consistent with County's design, transportation accessibility, and landscape goals and the Applicant believes the improvement of the Subject Property will have a positive impact on adjacent and nearby properties.

**7. *Whether the zoning proposal will result in a use which will or could cause excessive or burdensome use of existing streets, transportation facilities, utilities or schools.***

The zoning proposal will not cause an excessive or burdensome use of existing streets, transportation facilities, or utilities and will have no impact on school enrollment. The more pedestrian-oriented design of the site should encourage customers who live or work nearby to walk to the restaurant.

**Special Land Use Permit Review Criteria**

**1. *Adequacy of the size of the site for use contemplated and whether or not adequate land area is available for the proposed use including provision of all required yards, open space, off-street parking, and all other applicable requirements of the zoning district in which the use is proposed to be located.***

The Subject Property is just over one acre in size and is sufficient to accommodate the proposed restaurant, outdoor seating, drive-through facility, and necessary parking.

**2. *Compatibility of the proposed use with adjacent properties and land uses and with other properties and land uses in the district.***

The Subject Property is directly adjacent to a Zaxby's drive-through restaurant and is located across the street from a physician's office and the North DeKalb Mall. The proposed restaurant is consistent with the commercial uses located in this portion of the County and along North Druid Hills Road and will replace the vacant retail storefront with a custom-designed restaurant. The Applicant respectfully submits the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby properties and will not only efficiently accommodate vehicular traffic but will also be more welcoming to pedestrians

**3. *Adequacy of public services, public facilities, and utilities to serve the use contemplated.***

Existing public facilities and services are adequate to serve the proposed restaurant and drive-through facility.

**4. *Adequacy of the public street on which the use is proposed to be located and whether or not there is sufficient traffic-carrying capacity for the use proposed so as not to unduly increase traffic and create congestion in the area.***

There is sufficient traffic carrying capacity for the proposed restaurant use on North Druid Hills Road. The zoning proposal will allow for the redevelopment of the Subject Property in a manner that better reflects the County's desired goals for design, traffic efficiency, and pedestrian accessibility. The proposed drive-through will be located

behind the new restaurant building and thus will be shielded from view along the public right-of-way. The proposed site improvements will result in efficient, inviting, and safe pedestrian and traffic movement within the Subject Property and on nearby roadways and sidewalks.

**5. *Whether or not existing land uses located along access routes to the site will be adversely affected by the character of the vehicles or the volume of traffic generated by the proposed use.***

The Applicant submits the proposal will have no adverse effect on existing uses located on North Druid Hills Road. The proposed redevelopment should have no impact on the character or volume of vehicular traffic on North Druid Hills Road.

**6. *Ingress and egress to the subject property and to all proposed buildings, structures, and uses thereon, with particular references to pedestrian and automotive safety and convenience, traffic flow and control, and access in the event of fire or other emergency.***

Ingress and egress will be provided from North Druid Hills Road and Birch Road. The proposed site improvements will result in efficient, inviting, and safe pedestrian and traffic movement within the Subject Property and on nearby roadways and sidewalks.

**7. *Whether or not the proposed use will create adverse impacts upon any adjoining land use by reason of noise, smoke, odor, dust, or vibration generated by the proposed use.***

The proposed use will not create noise, smoke, odor, dust, or vibration.

**8. *Whether or not the proposed use will create adverse impacts upon any adjoining land use by reason of the hours of operation of the proposed use.***

The proposed restaurant use will be open Monday through Saturday from approximately 6:30 a.m. to 10:00 p.m. The proposed hours of operation are consistent with other commercial uses located along North Druid Hills Road and will have no negative impact on adjoining land uses.

**9. *Whether or not the proposed use will create adverse impacts upon any adjoining land use by reason of the manner of operation of the proposed use.***

The proposed use will be operated in a safe and efficient manner by a local Chick-fil-A operator and will have no adverse impact on adjoining property.

**10. *Whether or not the proposed plan is consistent with all of the requirements of the zoning district classification in which the use is proposed to be located.***

The proposed Chick-fil-A restaurant is designed to be consistent with the goals and site development standards of the proposed C-1 zoning district.



**11. Whether or not the proposed use is consistent with the policies of the Comprehensive Plan.**

Chick-fil-A's proposed redevelopment of the Subject Property is consistent with the County's Comprehensive Development Plan and Future Land Use Map, which designates the Subject Property as "Town Center." The Subject Property is currently occupied by a commercial retail use and will continue to be used commercially as a result of the proposed redevelopment. The Town Center character area specifically permits C-1 zoning classifications. The proposed building design, including its orientation to the street, enhanced streetscape improvements, and "walk-up" window will encourage pedestrian accessibility consistent with the Town Center goals.

**12. Whether or not the proposed plan provides for all required buffer zones and transitional buffer zones where required by the regulations of the district in which the use is proposed to be located.**

The proposed site design provides for all required setbacks and buffer zones.

**13. Whether or not there is adequate provision of refuse and service areas.**

As shown on the attached Site Plan, the proposed site design provides for adequate refuse and service areas.

**14. Whether the length of time for which the special land use permit is granted should be limited in duration.**

Given Chick-fil-A's significant proposed investment in the redevelopment of the Subject Property, Chick-fil-A requests the Special Land Use Permit be granted with no expiration.

**15. Whether or not the size, scale and massing of proposed buildings are appropriate in relation to the size of the subject property and in relation to the size, scale and massing of the adjacent and nearby lots and buildings.**

The proposed one-story 2,800 square foot restaurant is appropriate in scale and size relative to the Subject Property and relative to other nearby buildings, which are predominantly one-story in height.

**16. Whether the proposed plan will adversely affect historic buildings, sites, districts, or archaeological resources.**

The zoning proposal will have no adverse effect on any historic or archaeological resources.

**17. Whether the proposed use satisfies the requirements contained within the Supplemental Regulations for such special land use permit.**

The proposed restaurant and associated drive-through facility meets the standards provided in Section 4.2.23 of the County's Ordinance concerning drive-through facilities.

**18. Whether or not the proposed building as a result of its proposed height will create a negative shadow impact on any adjoining lot or building.**

The proposed one-story building will have no negative shadow impact on adjacent properties.

**19. Whether the proposed use would result in a disproportional proliferation of that or similar uses in the subject character area.**

Approval of the proposed redevelopment of the Subject Property will not result in a disproportional proliferation of restaurant or drive-through uses. The proposed restaurant will replace the existing Chick-fil-A drive-through restaurant located nearby at 3905 North Druid Hills Road.

**20. Whether the proposed use would be consistent with the needs of the neighborhood or of the community as a whole, be compatible with the neighborhood, and would not be in conflict with the overall objectives of the comprehensive plan.**

Consistent with the County's design goals, the objectives of the comprehensive plan, and the neighborhood and community character, the proposed new restaurant is designed to better reflect the County's desired goals for design, traffic efficiency, and pedestrian accessibility.

**Summary and Conclusion**

I believe this letter of intent, together with the accompanying application and supporting documents, provide all the information required by the County to review and evaluate this request. If there are other materials or information you believe would be helpful to your review of this request, please do not hesitate to contact me. I look forward to our continued cooperative efforts on this important matter.

Yours very truly,



David C. Kirk  
Attorney for Chick-fil-A

# EXHIBIT A

Chief Executive Officer  
Michael Thurmond

DEPARTMENT OF PLANNING & SUSTAINABILITY

Director  
Andrew A. Baker, AICP

**PRE-APPLICATION FORM**  
**REZONE, SPECIAL LAND USE PERMIT, MODIFICATION, AND LAND USE**  
**(Required prior to filing application: signed copy of this form must be submitted at filing)**

Applicant Name: David Kirk, on behalf of Chick-fil-A Phone: 404-885-3415 Email: David.Kirk@troutman.com

Property Address: 3795 North Druid Hills Road

Tax Parcel ID: 18 100 04 019 Comm. District(s): 2 Acreage: 1.04

Existing Use: Commercial (Retail) Proposed Use Commercial (Restaurant)

Supplemental Regs: \_\_\_\_\_ Overlay District: \_\_\_\_\_ DRI: \_\_\_\_\_

Rezoning: Yes  No \_\_\_\_\_

Existing Zoning: NS Proposed Zoning: C-1 Square Footage/Number of Units: 2,800 sf

Rezoning Request: Chick-fil-A requests to rezone the property from NS to C-1 to allow for development of a Chick-fil-A restaurant and drive-through. Chick-fil-A intends to also submit a Special Land Use Permit application to allow for the proposed drive-through facility.

Land Use Plan Amendment: Yes \_\_\_\_\_ No

Existing Land Use: TC Proposed Land Use: \_\_\_\_\_ Consistent  Inconsistent \_\_\_\_\_

Special Land Use Permit: Yes  No \_\_\_\_\_ Article Number(s) 27- Section 4.2.23

Special Land Use Request(s) Drive-through Facility

**Major Modification:**

Existing Case Number(s): \_\_\_\_\_

Condition(s) to be modified:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DEPARTMENT OF PLANNING & SUSTAINABILITY

**WHAT TO KNOW BEFORE YOU FILE YOUR APPLICATION**

Pre-submittal Community Meeting: \_\_\_\_\_ Review Calendar Dates:  PC:  BOC:   
 Letter of Intent:  Impact Analysis:  Owner Authorization(s):  Campaign Disclosure:   
 Zoning Conditions: \_\_\_\_\_ Community Council Meeting: \_\_\_\_\_ Public Notice, Signs: \_\_\_\_\_  
 Tree Survey, Conservation: \_\_\_\_\_ Land Disturbance Permit (LDP): \_\_\_\_\_ Sketch Plat: \_\_\_\_\_  
 Bldg. Permits: \_\_\_\_\_ Fire Inspection: \_\_\_\_\_ Business License: \_\_\_\_\_ State License: \_\_\_\_\_  
 Lighting Plan: \_\_\_\_\_ Tent Permit: \_\_\_\_\_ Submittal Format: NO STAPLES, NO BINDERS PLEASE

**Review of Site Plan**

Density: NA Density Bonuses: NA Mix of Uses: NA Open Space: NA Enhanced  
 Open Space: NA Setbacks: front  sides  side corner  rear  Lot Size:  
 \_\_\_\_\_ Frontage: \_\_\_\_\_ Street Widths: \_\_\_\_\_ Landscape Strips:  Buffers:   
 Parking Lot Landscaping: \_\_\_\_\_ Parking - Auto:  Parking - Bicycle: NA Screening:  
NA Streetscapes: \_\_\_\_\_ Sidewalks: \_\_\_\_\_ Fencing/Walls:  Bldg. Height:  Bldg.  
 Orientation:  Bldg. Separation: NA Bldg. Materials:  Roofs:  Fenestration: NA  
 Façade Design:  Garages: NA Pedestrian Plan: NA Perimeter Landscape Strip:   
 Possible Variances: retaining wall is 5' high @ highest point - no variance needed

Comments:

Applicant requested but did not receive Neighborhood Registry of complete list of contacts - will set up 200 community meetings before amendment date of May 6.

Planner: Melora Ferrman Date 4/28/21

Filing Fees

<b>REZONING:</b>	RE, RLG, R-100, R-85, R-75, R-60, MHP, RSM, MR-1	\$500.00
	RNC, MR-2, HR-1, HR-2, HR-3, MU-1, MU-2, MU-3, MU-4, MU-5	\$750.00
	OI, OD, OIT, NS, C1, C2, M, M2	\$750.00
<b>LAND USE MAP AMENDMENT</b>		\$500.00
<b>SPECIAL LAND USE PERMIT</b>		\$400.00

Chief Executive Officer  
Michael Thurmond

DEPARTMENT OF PLANNING & SUSTAINABILITY

Director  
Andrew A. Baker, AICP

REZONE APPLICATION AUTHORIZATION

Completion of this form is required if the individual making the request is not the owner of the property.

DATE: 4/26/2021

CHECK TYPE OF APPLICATION:

- ( ) LAND USE PLAN
- (x) REZONE
- ( ) MINOR MODIFICATION

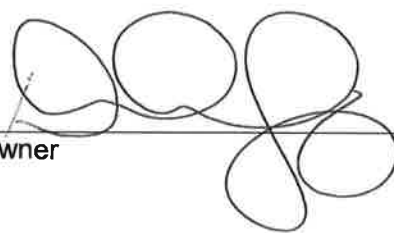
TO WHOM IT MAY CONCERN:

(1) (WE), Danon Young, on behalf of Midtown National Group LP  
**(Name of owner(s))**

being (owner)/(owners) of the property described below or attached hereby delegate authority to  
David C. Kirk, Troutman Pepper Hamilton Sanders LLP  
**(Name of Applicant or Agent Representing Owner)**

to file an application on (my) / (our) behalf.

~~Notary Public  
Notary Public  
Notary Public~~

  
Owner  
  
\_\_\_\_\_  
Owner  
  
\_\_\_\_\_  
Owner

*see attached Notary Acknowledgment*

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of San Diego )  
On April 26, 2021 before me, Giovanna Delia, Notary Public,  
Date Here Insert Name and Title of the Officer  
personally appeared Damon Young  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Giovanna Delia  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_  
Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_  
Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_  
 Corporate Officer — Title(s): \_\_\_\_\_  
 Partner —  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_  
 Corporate Officer — Title(s): \_\_\_\_\_  
 Partner —  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

# EXHIBIT B



DEPARTMENT OF PLANNING & SUSTAINABILITY

**SPECIAL LAND USE PERMIT APPLICATION AUTHORIZATION**

The property owner should complete this form or a similar, signed and notarized form if the individual who will file the application with the County is not the property owner.

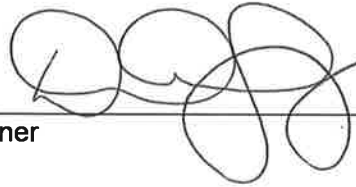
Date: 4/26/2021

TO WHOM IT MAY CONCERN:

(I) ~~(WE)~~, Daron Young, on behalf of Midtown National Group LP  
Name of Owner(s)

being (owner) (~~owners~~) of the subject property described below or attached hereby delegate authority to  
David C. Kirk, Troutman Pepper Hamilton Sanders LLP  
Name of Applicant or Agent

to file an application on (my) (our) behalf.



Notary Public

Owner

Notary Public

Owner

Notary Public

Owner

Notary Public

Owner

*see attached Notary Acknowledgment*

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of San Diego )  
On April 26, 2021 before me, Giovanna Delia, Notary Public,  
Date Here Insert Name and Title of the Officer  
personally appeared Daron Young  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Giovanna Delia  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_

Partner —  Limited  General

Individual  Attorney in Fact

Trustee  Guardian or Conservator

Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

# EXHIBIT C



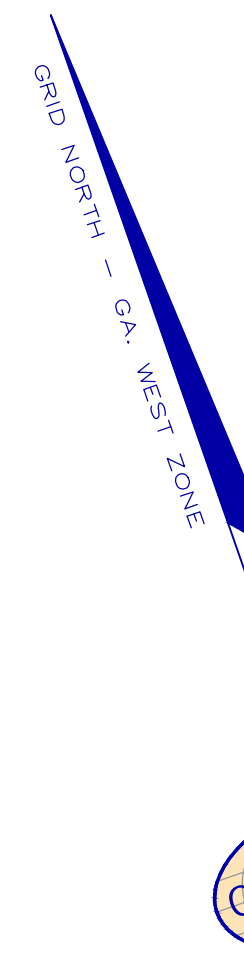
# EXHIBIT D

TRACT ONE PROPERTY DESCRIPTION

All that tract or parcel of land lying or being in Land Lot 100, 18th District, Dekalb County, Georgia, and being more particularly described as follows:

Beginning at an X mark found at the intersection of the Easterly right-of-way of Birch Road (60 foot right-of-way) with the Southerly right-of-way of North Druid Hills Road (100 foot right-of-way); thence along said right-of-way of North Druid Hills Road South 70 degrees 28 minutes 40 seconds East, a distance of 233.65 feet to a 5/8 inch rebar set; thence leaving said right-of-way South 19 degrees 08 minutes 30 seconds West, a distance of 140.15 feet to a 5/8 inch rebar set; thence South 12 degrees 24 minutes 24 seconds West, a distance of 52.60 feet to a 1/2 inch rebar found; thence North 72 degrees 13 minutes 06 seconds West, a distance of 236.14 feet to a 1/2 inch rebar found on the Easterly right-of-way of Birch Road; thence along said right-of-way North 18 degrees 08 minutes 19 seconds East, a distance of 119.69 feet to a nail found; thence North 17 degrees 57 minutes 53 seconds East, a distance of 79.90 feet to an X mark found, said point being the True Point of Beginning.

Said tract of land contains 1.047 Acres.



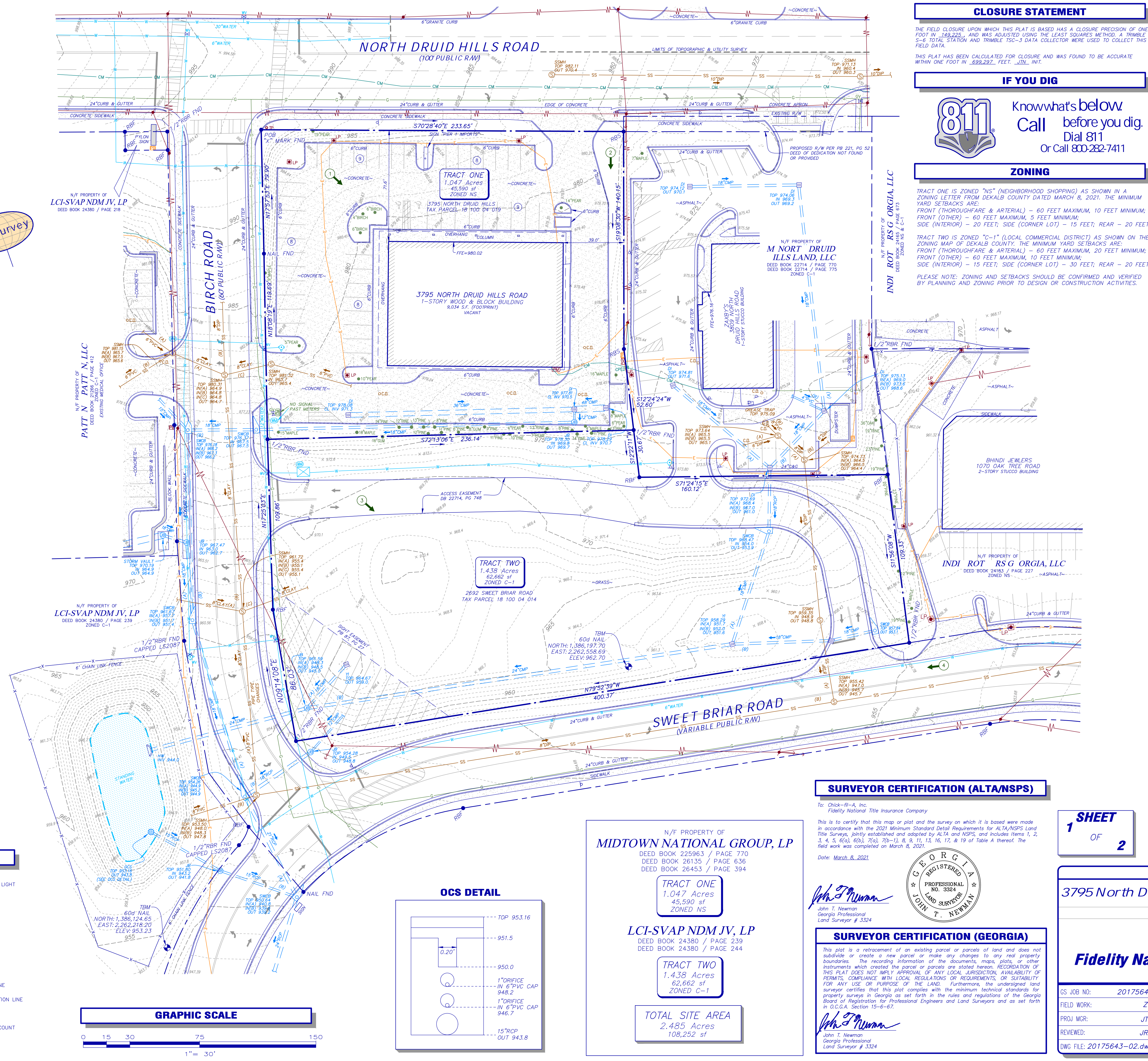
(CLERK OF COURT RECORDING INFORMATION)

### SITE PHOTOGRAPHS

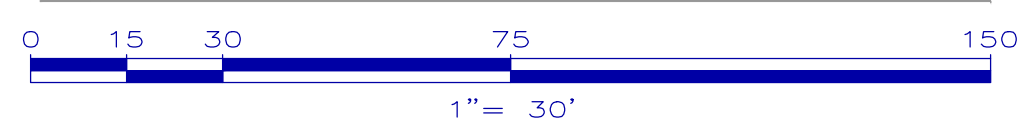


### LEGEND

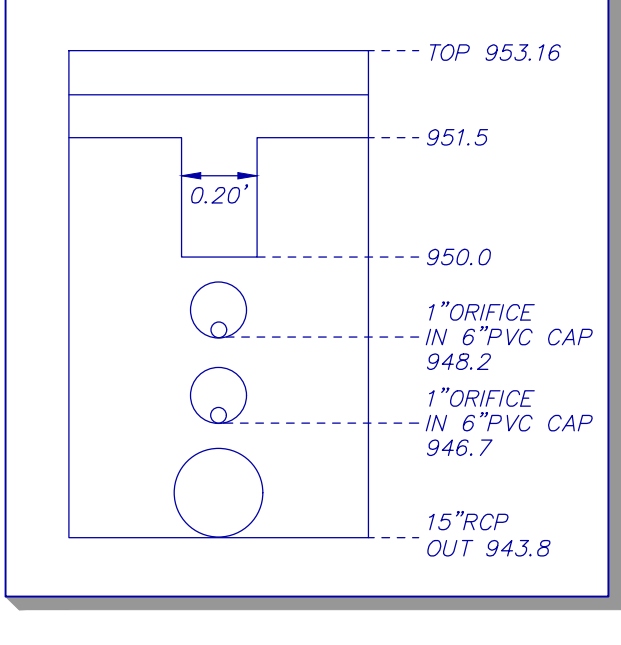
- |                                 |                                  |
|---------------------------------|----------------------------------|
| <b>STANDARD ABBREVIATIONS</b>   | <b>STANDARD SYMBOLS</b>          |
| AC AIR CONDITIONER              | ⊕ OVERHEAD TRAFFIC SIGNAL LIGHT  |
| BH BORE HOLE                    | ⊖ POWER POLE                     |
| BSL BUILDING SETBACK LINE       | — GUY WIRE                       |
| CI CURB INLET                   | ⊕ POWER LINE                     |
| CM CORRUGATED METAL PIPE        | ⊕ LIGHT POLE                     |
| CMP CONCRETE MONUMENT FND       | ⊕ ELECTRIC TRANSFORMER           |
| CO SANITARY CLEANOUT            | ⊕ WATER VAULT                    |
| CPED COMMUNICATION PEDESTAL     | ⊕ GAS VALVE                      |
| CTP CRIMPED TOP PIPE            | ⊕ GAS METER                      |
| DI DROP INLET                   | ⊕ WATER VALVE                    |
| DP DUCTILE IRON PIPE            | ⊕ WATER METER                    |
| DWBC DOUBLE WING CATCH BASIN    | ⊕ FIRE HYDRANT                   |
| FNC FENCE                       | — UNDERGROUND ELECTRIC LINE      |
| FM GAS METER                    | — UNDERGROUND GAS LINE           |
| FND FOUND                       | — UNDERGROUND COMMUNICATION LINE |
| GM GAS METER                    | — UNDERGROUND WATER LINE         |
| INV INVERT                      | ⊕ PHOTO POSITION INDICATOR       |
| JB JUNCTION BOX                 | ⊕ REGULAR PARKING SPACE COUNT    |
| MB MANHOLE                      | ⊕ HANDICAP PARKING SPACE         |
| OCS OUTLET CONTROL STRUCTURE    | ⊕ TREE POSITION INDICATOR        |
| OPC OPEN TOP PIPE               |                                  |
| PM POWER METER                  |                                  |
| POB POINT OF BEGINNING          |                                  |
| POC POINT OF COMMENCEMENT       |                                  |
| RCP REINFORCED CONCRETE PIPE    |                                  |
| RFB 5/8" RFB FND CAPPED LSF 621 |                                  |
| RFR IRON REINFORCING BAR        |                                  |
| RBS 5/8" RBS SET CAPPED LSF 621 |                                  |
| SS SANITARY SEWER               |                                  |
| SWBC SINGLE WING CATCH BASIN    |                                  |
| TRANS ELECTRIC TRANSFORMER      |                                  |



### GRAPHIC SCALE



### OCS DETAIL



N/F PROPERTY OF  
**MIDTOWN NATIONAL GROUP, LP**  
DEED BOOK 225963 / PAGE 770  
DEED BOOK 26135 / PAGE 636  
DEED BOOK 26453 / PAGE 394

**TRACT ONE**  
1.047 Acres  
45,590 sq ft  
ZONED NS

N/F PROPERTY OF  
**LCI-SVAP NDM JV, LP**  
DEED BOOK 24380 / PAGE 239  
DEED BOOK 24380 / PAGE 244

**TRACT TWO**  
1.438 Acres  
62,662 sq ft  
ZONED C-1

**TOTAL SITE AREA**  
2.485 Acres  
108,252 sq ft

### CLOSURE STATEMENT

THE FIELD CLOSURE UPON WHICH THIS PLAN IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 149,225, AND WAS ADJUSTED USING THE LEAST SQUARES METHOD. A TRIMBLE S-9 TOTAL STATION AND TRIMBLE TSC-3 DATA COLLECTOR WERE USED TO COLLECT THIS FIELD DATA.

THIS PLAN HAS BEEN CALCULATED FOR CLOSURE AND WAS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 699,297 FEET, 1/31" INT.

### IF YOU DIG



Know what's below.  
Call before you dig.  
Dial 811  
Or Call 800-282-7411

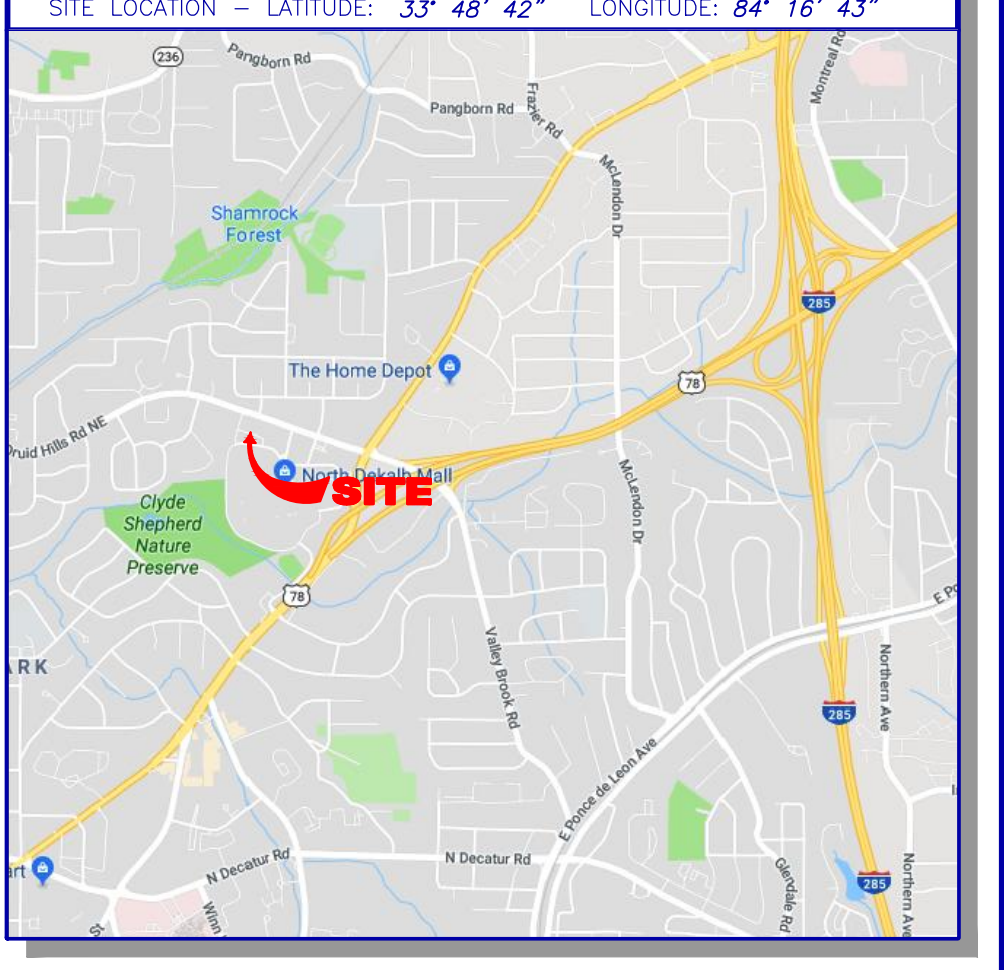
### ZONING

TRACT ONE IS ZONED "NS" (NEIGHBORHOOD SHOPPING) AS SHOWN IN A ZONING LETTER FROM DEKALB COUNTY DATED MARCH 8, 2021. THE MINIMUM YARD SETBACKS ARE:  
FRONT (THOROUGHFARE & ARTERIAL) - 60 FEET MAXIMUM, 10 FEET MINIMUM;  
FRONT (OTHER) - 60 FEET MAXIMUM, 5 FEET MINIMUM;  
SIDE (INTERIOR) - 20 FEET; SIDE (CORNER LOT) - 15 FEET; REAR - 20 FEET.

TRACT TWO IS ZONED "C-1" (LOCAL COMMERCIAL DISTRICT) AS SHOWN ON THE ZONING MAP OF DEKALB COUNTY; THE MINIMUM YARD SETBACKS ARE:  
FRONT (THOROUGHFARE & ARTERIAL) - 60 FEET MAXIMUM, 20 FEET MINIMUM;  
FRONT (OTHER) - 60 FEET MAXIMUM, 10 FEET MINIMUM;  
SIDE (INTERIOR) - 15 FEET; SIDE (CORNER LOT) - 30 FEET; REAR - 20 FEET.

PLEASE NOTE: ZONING AND SETBACKS SHOULD BE CONFIRMED AND VERIFIED BY PLANNING AND ZONING PRIORITY TO DESIGN OR CONSTRUCTION ACTIVITIES.

### VICINITY MAP



### GENERAL NOTES

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THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBER FOR THIS AREA IS 13089C0067K, AND THE DATE OF SAID MAP IS AUGUST 15, 2019. THIS DETERMINATION WAS MADE BY GRAPHICALLY DETERMINING THE POSITION OF THIS SITE ON SAID FIRM MAPS UNLESS OTHERWISE NOTED.

PLEASE NOTE: TREES 4-INCH DBH (DIAMETER AT BREAST HEIGHT) AND LARGER WERE LOCATED FOR THIS SURVEY.

RIGHT-OF-WAY LINES SHOWN ON THIS SURVEY THAT ARE NOT ACTUAL BOUNDARIES OF THE SUBJECT TRACT(S) ARE DEPICTED GRAPHICALLY AND ARE SHOWN APPROXIMATELY FOR INFORMATIONAL PURPOSES ONLY. SAID RIGHT-OF-WAY LINES SHOULD NOT BE UTILIZED FOR DESIGN PURPOSES.

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NO EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL WAS OBSERVED DURING THE TIME FIELD WORK WAS PERFORMED ON THE SUBJECT PARCEL.

ALL MATTERS SHOWN ON RECORDED PLATS PROVIDED TO THE SURVEYOR ARE SHOWN ON THE SURVEY.

AT THE DATE OF THIS SURVEY, THE SUBJECT PROPERTY HAD ACCESS TO AND FROM A DULY DEDICATED PUBLIC RIGHT-OF-WAY, NORTH DRUID HILLS ROAD AND BIRCH ROAD. THE SURVEYOR MAKES NO CERTIFICATION AS TO WHETHER OR NOT THESE ACCESS POINTS HAVE BEEN APPROVED OR PERMITTED BY JURISDICTIONAL AUTHORITIES.

THE SUBJECT PROPERTY IS CONTIGUOUS WITH ADJACENT RIGHT-OF-WAYS WITHOUT GAPS, GORES, OR OVERLAPS.

NO VISIBLE ABOVE-GROUND ENCROACHMENTS WERE OBSERVED AT THE DATE OF SURVEY.

ALTA CERTIFICATION TABLE "A" NOTES:  
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Item 17 - No evidence was observed indicating changes in street right of way lines either completed or proposed.

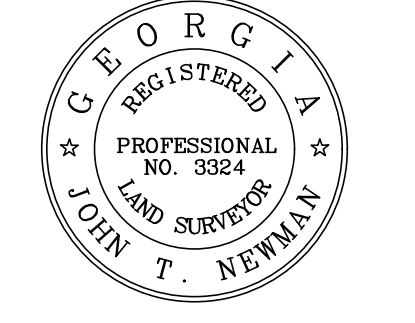
SURVEY REFERENCES  
1> ALTA/NSPS LAND TITLE SURVEY OF NORTH DEKALB MALL, PREPARED BY GEOSURVEY, LTD., DATED DECEMBER 15, 2021. (JOB NO. 20175643)

### SURVEYOR CERTIFICATION (ALTA/NSPS)

To: Chick-fil-A, Inc.  
Fidelity National Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 7(b-1), 8, 9, 11, 13, 16, 17, & 19 of Table A thereof. The field work was completed on March 8, 2021.

Date: March 8, 2021



### SURVEYOR CERTIFICATION (GEORGIA)

This plat is a retracement of an existing parcel or parcels of land and does not subdivide or create a new parcel or make any changes to any real property boundaries. The recording information of the documents, maps, plats, or other instruments which created the parcel or parcels are stated herein. RECORDATION OF THIS PLAT DOES NOT IMPLY APPROVAL OF ANY LOCAL JURISDICTION, AVAILABILITY OF PERMITS, COMPLIANCE WITH LOCAL REGULATIONS OR REQUIREMENTS, OR SUITABILITY FOR ANY USE OR PURPOSE OF THE LAND. Furthermore, the undersigned land surveyor certifies that this plat complies with the minimum technical standards for property surveys in Georgia as set forth in the rules and regulations of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in O.C.G.A. Section 15-6-67.

John T. Newman  
Georgia Professional Land Surveyor # 3324

**1 SHEET**  
OF  
**2**



Land Surveying • 3D Laser Scanning  
1660 Barnes Mill Road  
Marietta, Georgia 30062  
Phone: (770) 795-9900  
Fax: (770) 795-8880  
www.geosurvey.com  
EMAIL: info@geosurvey.com  
Certificate of Authorization #LSF-000621

ALTA/NSPS LAND TITLE SURVEY		3795 North Druid Hills Rd & 2692 Sweet Briar Rd	
FOR			
<b>Chick-fil-A, Inc.</b>			
<b>Fidelity National Title Insurance Company</b>			
ES JOB NO:	20175643	DRAWING SCALE:	1" = 30'
FIELD WORK:	ZM	CITY:	UNINCORPORATED
PROJ MGR:	JTN	COUNTY:	DEKALB
REVIEWED:	JRC	STATE:	GA
DWG FILE:	20175643-02.dwg	LAND LOT:	100
		DISTRICT:	18TH
SURVEY DATE:		03-08-2021	
REVISIONS (SEE GENERAL NOTES)		No. Date Description	
		1. 3-12-21 Add zoning letter	

**TITLE EXCEPTIONS**

THE FOLLOWING EXCEPTIONS ARE LISTED IN SCHEDULE B, SECTION 2, OF A COMMITMENT FOR TITLE INSURANCE, AS PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, INSURANCE NO. 2018199A, EFFECTIVE DATE OCTOBER 26, 2020.

13. Easements from T.C. Holms to Georgia Power Company as follows:  
a. Dated January 4, 1953, filed August 4, 1953, Recorded in Deed Book 985, Page 486, aforesaid records.  
b. Dated December 3, 1954, filed January 4, 1955, Recorded in Deed Book 1080, Page 398, aforesaid records.

**AFFECTS SITE - BLANKET EASEMENT WITH VAGUE DESCRIPTION - NOT PLOTTABLE**  
14. Right of Way Easement from Beech-Nut, Inc. to Georgia Power Company, dated July 28, 1969, filed August 6, 1969, Recorded in Deed Book 2445, Page 324, aforesaid records.

**AFFECTS SITE - BLANKET EASEMENT - NOT PLOTTABLE**  
15. Right of Way Easement from City Ice Delivery Company to Georgia Power Company, dated October 13, 1969, filed November 13, 1969, Recorded in Deed Book 2481, Page 139, aforesaid records.

**AFFECTS SITE - BLANKET EASEMENT - NOT PLOTTABLE**  
16. Right of Way Easement from Dobbs Houses, Division of Beech-Nut, Inc. to Georgia Power Company, dated September 20, 1969, filed November 13, 1969, Recorded in Deed Book 2481, Page 89, aforesaid records.

**AFFECTS 3809 NORTH DRUID HILLS ROAD - BLANKET EASEMENT - NOT PLOTTABLE**  
17. Right of Way Easement from Dobbs Houses, Inc. to Georgia Power Company, dated December 9, 1969, filed January 30, 1970, Recorded in Deed Book 2501, Page 365, aforesaid records.

**AFFECTS 3809 NORTH DRUID HILLS ROAD - BLANKET EASEMENT - NOT PLOTTABLE**  
18. Stormwater Detention Facility Inspection and Maintenance Agreement by and between Hendon Columbia, LLC and DeKalb County, Georgia, executed December 17, 2010, filed December 21, 2010, Recorded in Deed Book 22282, Page 388, aforesaid records.

**AFFECTS SURVEY TRACT TWO - BLANKET EASEMENTS & RESTRICTIONS - NOT PLOTTABLE**  
19. All matters affecting subject property as shown on the following plats, all aforesaid records:  
(A) Plat Book 24, Page 14 (Fee Simple);  
**NO EASEMENTS AFFECTING SITE DEPICTED ON DOCUMENT**  
(B) Plat Book 219, Page 113 (Easement Parcel 1);  
**NO EASEMENTS AFFECTING SITE DEPICTED ON DOCUMENT**  
(C) Plat Book 221, Page 52 (Easement Parcel 2);  
**NO EASEMENTS AFFECTING SITE DEPICTED ON DOCUMENT**  
As to Fee Parcel:  
20. Memorandum of Lease by and between Citizens and Southern Trust Company (Georgia), N.A., as Trustees, et al, Romar Joint Venture and Pier 1 Imports (U.S.), Inc., a Delaware corporation, dated May 7, 1990, filed June 18, \_\_\_\_\_ and recorded in Deed Book 6727, Page 256, aforesaid records.

**NOT A SURVEY MATTER**  
21. Easements as contained in that certain Right of Way Deed from O.S. Cofer to DeKalb County, Georgia, dated July 5, 1944, filed August 31, 1944 and recorded in Deed Book 606, Page 33, aforesaid records.

**AFFECT SITE - BLANKET EASEMENT FOR DRAINAGE - NOT PLOTTABLE**  
22. Easements as contained in that certain Right of Way Deed from Robert C. Crim to DeKalb County, a political subdivision of the State of Georgia, dated October \_\_\_\_\_, 1988, filed October 18, 1988 and recorded in Deed Book 6270, Page 79, aforesaid records.

**DOES NOT AFFECT SITE**  
As to Easement Parcel 2:  
23. Assignment and Assumption of Declaration of Easements, Covenants and Restrictions among Hendon Columbia, LLC, and LG-SVAP NDM JV, LP, a Delaware limited liability company, dated May 9, 2014, filed May 15, 2014 and recorded in Deed Book 24380, Page 247, aforesaid records, as it affects that certain Declaration of Easements, Covenants and Restrictions by Hendon Columbia, LLC, a Georgia limited liability company, dated October 31, 2011, filed November 7, 2011 and recorded in Deed Book 22714, Page 748, aforesaid records.

**AFFECTS SITE AS SHOWN**

(CLERK OF COURT RECORDING INFORMATION)

**UTILITY NOTE**

THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON LOCATION OF MARKINGS PROVIDED BY:

**SUBSURFACE UTILITY INVESTIGATIONS, LLC  
898 SWEET BRIAR TRAIL  
CONYERS, GEORGIA 30094  
(770) 557-4142**

SUBSURFACE UTILITY INVESTIGATIONS, LLC UTILIZED SEVERAL TECHNIQUES INCLUDING, BUT NOT LIMITED TO, ELECTROMAGNETIC, MAGNETIC LOCATION FOR FERROUS METALS, ACOUSTIC AND PASSIVE FREQUENCIES TO DESIGNATE AND MARK BURIED UTILITIES ON THE SURFACE WITH PAINT AND FLAGS COVERING THE ENTIRE AREA OF THE PROJECT.

THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED, UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED UTILIZING THIS TECHNIQUE MAY EXIST ON THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

INFORMATION REGARDING MATERIAL AND SIZE OF UTILITIES IS BASED ON RECORDS ACQUIRED FROM THE UTILITY OWNERS.

**PROPERTY DESCRIPTIONS**

**TRACT ONE PROPERTY DESCRIPTION**  
All that tract or parcel of land lying or being in Land Lot 100, 18th District, DeKalb County, Georgia, and being more particularly described as follows:

Beginning at an X mark found at the intersection of the Easterly right-of-way of Birch Road (60 foot right-of-way) with the Southerly right-of-way of North Druid Hills Road (100 foot right-of-way); thence along said right-of-way of North Druid Hills Road South 70 degrees 28 minutes 40 seconds East, a distance of 233.65 feet to a 5/8 inch rebar set; thence leaving said right-of-way South 19 degrees 08 minutes 30 seconds West, a distance of 140.15 feet to a 5/8 inch rebar set; thence South 12 degrees 24 minutes 24 seconds West, a distance of 52.60 feet to a 1/2 inch rebar found; thence South 12 degrees 22 minutes 11 seconds West, a distance of 30.67 feet to a 5/8 inch rebar found; thence South 71 degrees 24 minutes 15 seconds East, a distance of 160.12 feet to a 5/8 inch rebar found; thence South 11 degrees 56 minutes 08 seconds West, a distance of 109.33 feet to a 1/2 inch rebar found on the Northerly right-of-way of Sweet Briar Road (variable right-of-way); thence along said right-of-way North 79 degrees 52 minutes 39 seconds West, a distance of 400.37 feet to a 1/2 inch rebar found on the Easterly right-of-way of Birch Road; thence along said right-of-way North 09 degrees 14 minutes 08 seconds East, a distance of 86.03 feet to a 5/8 inch rebar found; thence North 17 degrees 25 minutes 03 seconds East, a distance of 109.86 feet to a 1/2 inch rebar found; thence North 18 degrees 08 minutes 19 seconds East, a distance of 119.69 feet to a nail found; thence North 17 degrees 57 minutes 53 seconds East, a distance of 79.90 feet to an X mark found, said point being the True Point of Beginning.

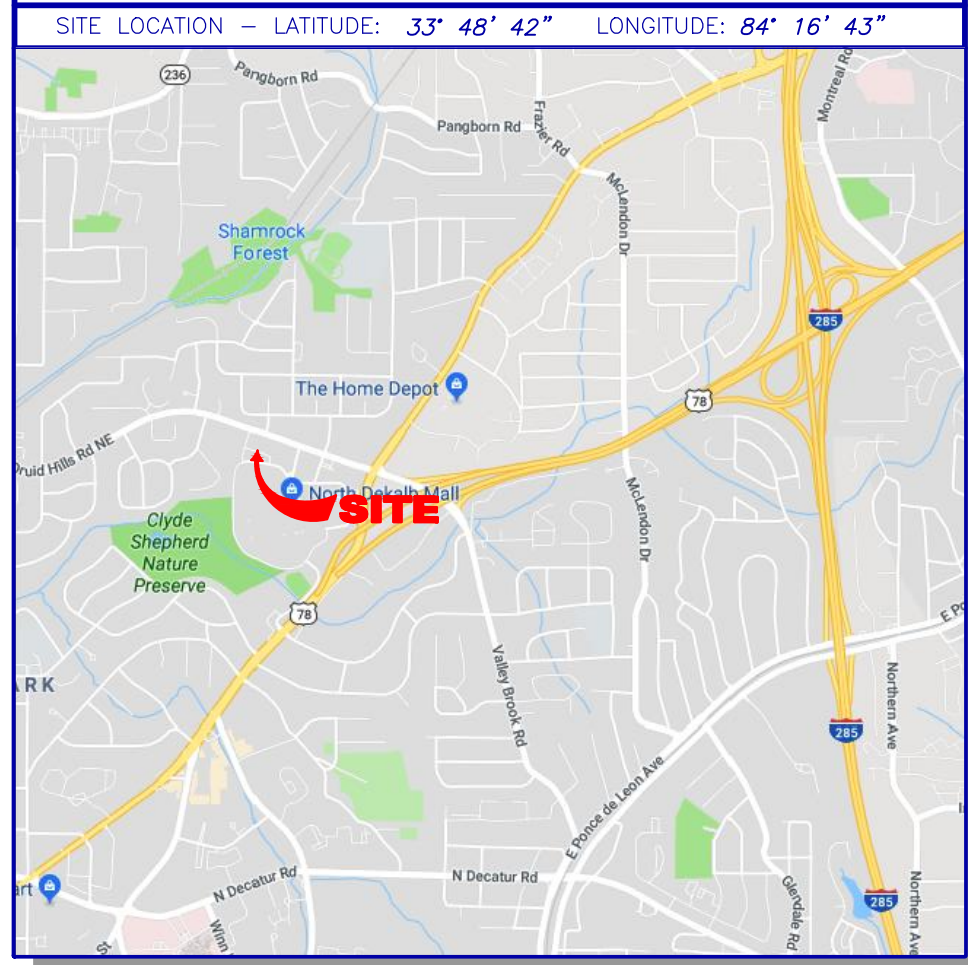
Said tract of land contains 2.485 Acres.

**TRACT TWO PROPERTY DESCRIPTION**  
All that tract or parcel of land lying or being in Land Lot 100, 18th District, DeKalb County, Georgia, and being more particularly described as follows:

Beginning at an X mark found at the intersection of the Easterly right-of-way of Birch Road (60 foot right-of-way) with the Southerly right-of-way of North Druid Hills Road (100 foot right-of-way); thence along said right-of-way of North Druid Hills Road South 70 degrees 28 minutes 40 seconds East, a distance of 233.65 feet to a 5/8 inch rebar set; thence leaving said right-of-way South 19 degrees 08 minutes 30 seconds West, a distance of 140.15 feet to a 5/8 inch rebar set; thence South 12 degrees 24 minutes 24 seconds West, a distance of 52.60 feet to a 1/2 inch rebar found; thence North 72 degrees 13 minutes 06 seconds West, a distance of 236.14 feet to a 1/2 inch rebar found on the Easterly right-of-way of Birch Road; thence along said right-of-way North 18 degrees 08 minutes 19 seconds East, a distance of 119.69 feet to a nail found; thence North 17 degrees 57 minutes 53 seconds East, a distance of 79.90 feet to an X mark found, said point being the True Point of Beginning.

Said tract of land contains 1.047 Acres.

**VICINITY MAP**



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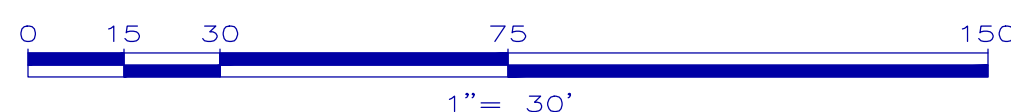
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**IF YOU DIG**



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Dial 811  
Or Call 800-282-7411

**GRAPHIC SCALE**



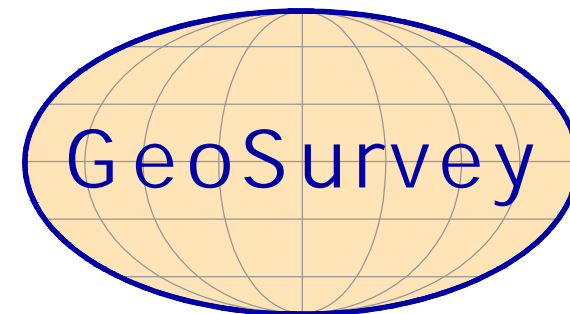
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**MIDTOWN NATIONAL GROUP, LP**  
DEED BOOK 225963 / PAGE 770  
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DEED BOOK 26453 / PAGE 394

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**LCI-SVAP NDM JV, LP**  
DEED BOOK 24380 / PAGE 239  
DEED BOOK 24380 / PAGE 244

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ZONED C-1

**TOTAL SITE AREA**  
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Land Surveying • 3D Laser Scanning

1660 Barnes Mill Road  
Marietta, Georgia 30062

Phone: (770) 795-9900  
Fax: (770) 795-8880

www.geosurvey.com  
EMAIL: info@geosurvey.com  
Certificate of Authorization #LSF-000621

**2 SHEET**  
OF  
**2**

ALTA/NSPS LAND TITLE SURVEY

**3795 North Druid Hills Rd & 2692 Sweet Briar Rd**

FOR

**Chick-fil-A, Inc.**

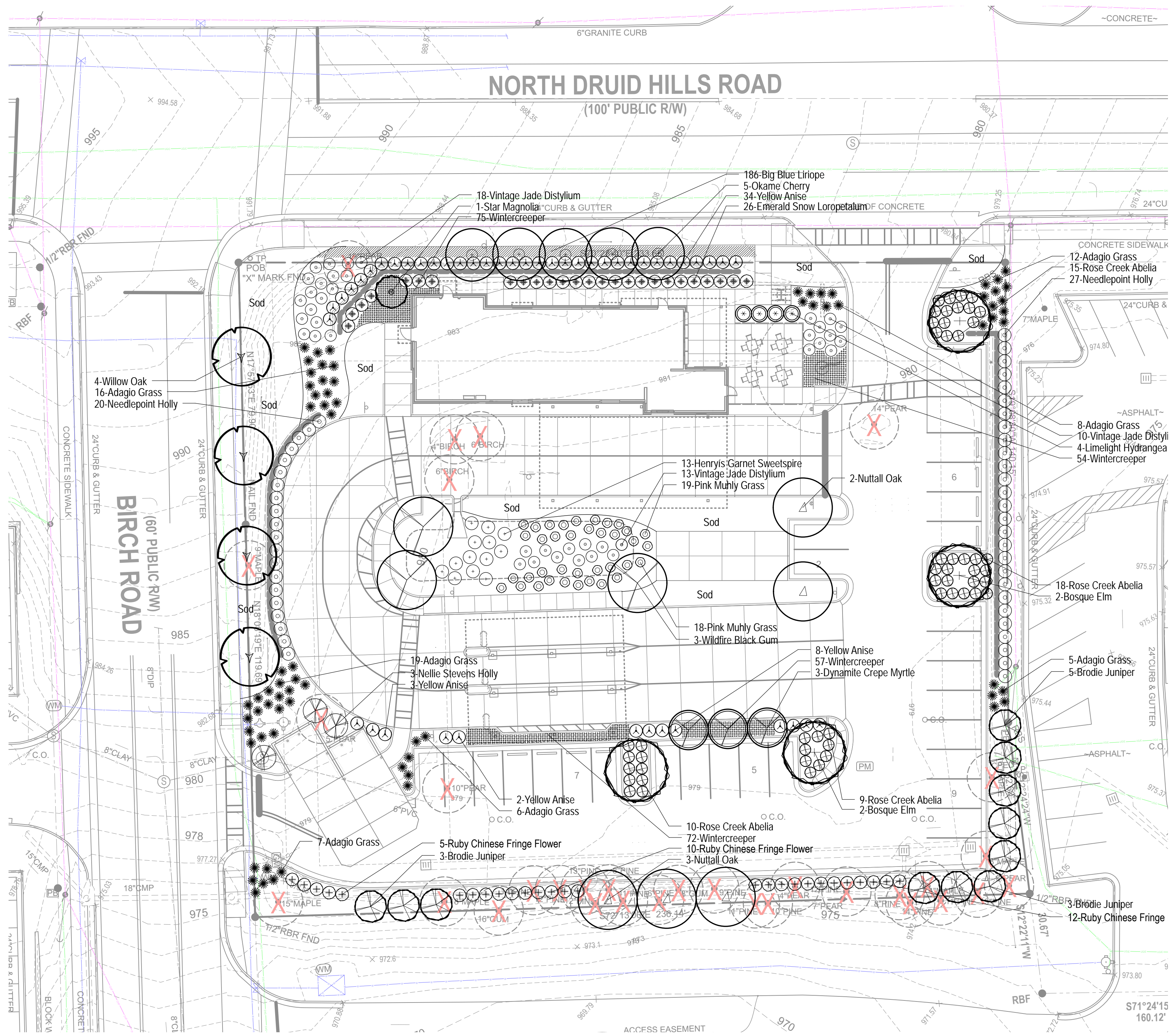
**Fidelity National Title Insurance Company**

GS JOB NO:	20175643	DRAWING SCALE:	1" = 30'	SURVEY DATE:	MARCH 2, 2021
FIELD WORK:	ZM	CITY:	UNINCORPORATED	REVISIONS (SEE GENERAL NOTES)	
PROJ MGR:	JTN	COUNTY:	DEKALB	STATE:	GA
REVIEWED:	JRC	LAND LOT:	100	No. Date Description	
DWG FILE:	20175643-02.dwg	DISTRICT:	18TH	1. 3-12-21	Add zoning letter





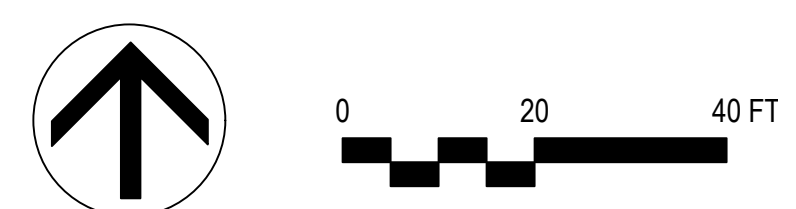
# EXHIBIT E



**PLANT LIST**

Qty	Botanical Name	Common Name	Scheduled Size	Remarks
<b>Trees</b>				
3	Ilex x Nellie R Stevens	Nellie Stevens Holly	5'-6" Hgt. B&B	
11	Juniperus virginiana 'Brodie'	Brodie Juniper	8'-10' Hgt.	
3	Lagerstroemia indica 'Whit II'	Dynamite Crepe Myrtle	7'-8' Hgt.	
1	Magnolia stellata	Star Magnolia	6'-8' Hgt.	
3	Nyssa sylvatica 'Wildfire'	Wildfire Black Gum	3" Cal; 10' Hgt.	B & B; single straight leader
5	Prunus 'Okame'	Okame Cherry	2" Cal; 10' Hgt. Minimum	
5	Quercus nuttallii	Nuttall Oak	3" Cal; 10' Hgt.	B & B; single straight leader
4	Quercus phellos	Willow Oak	3" Cal; 10' Hgt.	B & B; single straight leader
4	Ulmus parvifolia 'Bosque'	Bosque Elm	3" Cal; 10' Hgt.	B & B
<b>Shrubs</b>				
52	Abelia x chinensis 'Rose Creek'	Rose Creek Abella	3 Gal.	
41	Distylium 'Vintage Jade'	Vintage Jade Distylium	3 Gal.	
4	Hydrangea paniculata 'Limelight'	Limelight Hydrangea	3 Gal.	
47	Ilex cornuta 'Needlepoint'	Needlepoint Holly	3 Gal.	
47	Illicium parviflorum	Yellow Anise	3 Gal.	
13	Itea virginica 'Henry's Garnet'	Henry's Garnet Sweetspire	3 Gal.	
27	Loropetalum chinense 'Ruby'	Ruby Loropetalum	3 Gal. - 24"-36" Hgt.	
26	Loropetalum chinense 'Shang White'	Emerald Snow Loropetalum	3 Gal.	
73	Miscanthus sinensis 'Adagio'	Adagio Grass	3 Gal.	
37	Muhlenbergia capillaris	Pink Muhly Grass	3 Gal.	
<b>Groundcovers</b>				
258	Euonymus coloratus	Wintercreeper	1 Gal.	Plant 18" O.C.
186	Liriope muscari 'Big Blue'	Big Blue Liriope	1 Gal.	Plant 18" O.C.
<b>Other</b>				

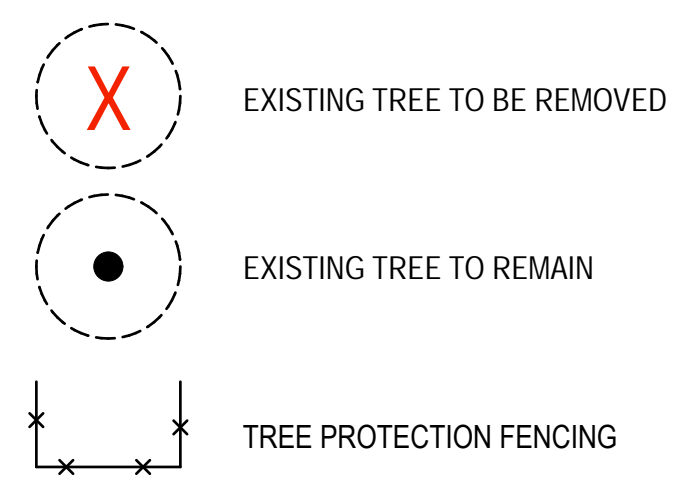
NOTE:  
This Landscape Plan is Preliminary in nature and is subject to change



**LANDSCAPE NOTES**

- SOUTHEAST**
- Landscape Contractor to read and understand the Landscape Specifications (sheet L-102) prior to finalizing bids. The Landscape Specifications shall be adhered to throughout the construction process.
  - Contractor is responsible for locating and protecting all underground utilities prior to digging.
  - Contractor is responsible for protecting existing trees from damage during construction.
  - All tree protection devices to be installed prior to the start of land disturbance, and maintained until final landscaping.
  - All tree protection areas to be protected from sedimentation.
  - All tree protection fencing to be inspected daily, and repaired or replaced as needed.
  - No parking, storage or other construction activities are to occur within tree protection areas.
  - All planting areas shall be cleaned of construction debris (ie. concrete, rock, rubble, building materials, etc) prior to adding and spreading of the topsoil.
  - General Contractor is responsible for adding a min of 4" clean friable topsoil in all planting beds and all grassed areas. Graded areas to be held down the appropriate elevation to account for topsoil depth. See Landscape Specifications for required topsoil characteristics.
  - In all parking lot islands, the General Contractor is responsible to remove all debris, fracture/loosen subgrade to a min. 24" depth. Add topsoil to a 6"-8" bermed height above island curbing; refer to landscape specifications and landscape Island detail.
  - Prior to beginning work, the Landscape Contractor shall inspect the subgrade, general site conditions, verify elevations, utility locations, irrigation, approve topsoil provided by the General Contractor and observe the site conditions under which the work is to be done. Notify the General Contractor of any unsatisfactory conditions, work shall not proceed until such conditions have been corrected and are acceptable to the Landscape Contractor.
  - Any deviations from the approved set of plans are to be approved by the Landscape Architect.
  - Landscaping shall be installed in conformance with ANSI Z60.1 the "American Standard for Nursery Stock" and the accepted standards of the American Association of Nurserymen.
  - Existing grass in proposed planting areas shall be killed and removed. Hand rake to remove all rocks and debris larger than 1 inch in diameter, prior to adding topsoil and planting shrubs.
  - Soil to be tested to determine fertilizer and lime requirements prior to laying sod.
  - Annual and perennial beds: add min. 4 inch layer of organic material and till to a min. depth of 12 inches. Mulch annual and perennial beds with 2-3 inch depth of mini nuggets.
  - All shrubs beds (existing and new) to be mulched with a min. 3 inch layer of mulch (double shredded hardwood mulch).
  - Planting holes to be dug a minimum of twice the width of the root ball, for both shrub and tree. Set plant material 2-3" above finish grade. Backfill planting pit with topsoil and native excavated soil.
  - Sod to be delivered fresh (Cut less than 24 hours prior to arriving on site), laid immediately, rolled, and watered thoroughly immediately after planting. Edge of sod at planting beds are to be "V" trenched; see Landscape Details.
  - Any existing grass disturbed during construction to be fully removed, regraded and replaced. All tire marks and indentations to be repaired.
  - Water thoroughly twice in first 24 hours and apply mulch immediately.
  - The Landscape Contractor shall guarantee all plants installed for one full year from date of acceptance by the owner. All plants shall be alive and at a vigorous rate of growth at the end of the guarantee period. The Landscape Contractor shall not be responsible for acts of God or vandalism. See Landscape Specifications for Warranty requirements/expectations.
  - Any plant that is determined dead, in an unhealthy, unsightly condition, lost its shape due to dead branches, or other symptoms of poor, non-vigorous growth, shall be replaced by the Landscape Contractor. See Landscape Specifications for warranty requirements/expectations.
  - Site to be 100% irrigated in all planting beds and grass area by an automatic underground Irrigation System. See Irrigation Plan L-200 for design. Irrigation as-built shall be provided to the Landscape Architect within 24 hours of irrigation install completion.
  - Stake all evergreen and deciduous trees as shown in the planting detail and as per the Landscape Specifications.
  - Remove stakes and guying from all trees after one year from planting.

**LEGEND**



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia 30349-2998



770.442.8171 tel  
770.442.1123 fax  
Manley Land Design, Inc.  
51 Old Canton Street  
Alpharetta, Georgia 30009  
manleylanddesign.com

**CHICK-FIL-A**  
**NORTH DRUID HILLS DTG**  
3795 North Druid Hills Road  
Decatur, GA 30033

**FSU# 4846**

NO.	DATE	DESCRIPTION

MLD PROJECT # 2021062  
PRINTED FOR  
DATE 4.9.21  
DRAWN BY MB

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET  
**Landscape Plan**

SHEET NUMBER  
**L-100**

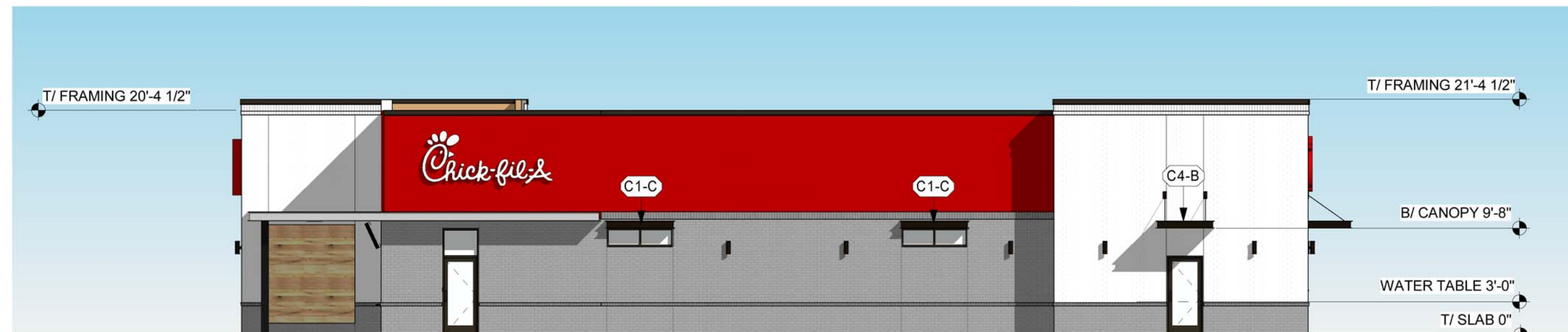
# EXHIBIT F



EXTERIOR ELEVATION  
1" = 10'-0"



EXTERIOR ELEVATION  
1" = 10'-0"



EXTERIOR ELEVATION  
1" = 10'-0"



EXTERIOR ELEVATION  
1" = 10'-0"



## Zoning Comments

N1 & N2 (Z-21-1244885 & SLUP-21-1244886) - North Druid Hills is classified as a major arterial. Required to add a left turn lane onto Birch. Drive on North Druid Hills limited to Right in/right out only. Please see chapter 5 of the zoning code and chapter 14-190 of the land development code for infrastructure requirements. Requires 10 foot landscape strip, bike lanes and 6 foot sidewalks or 10 foot multiuse path (preferred), street lighting on back of sidewalk. Right of way dedication of 50 feet from centerline or such that all public infrastructure is within county right of way, whichever greater. Birch Road is classified as a local street. Requires a 27.5 foot right of way dedication from the centerline or such that all public infrastructure is on county right of way. Due to the proximity of the mall, potential for redevelopment and connectivity the residential areas- a 10 foot multiuse trail to be included in the sight design along Birch. Requires a 6 foot landscape strip. Streetlights required on back of path.

N3. (Z-21-1244892) Flakes Mill Road is classified as a minor arterial. Access point on Flakes Mill Road must meet intersection sight distance prior to permitting and verified prior to occupancy by the engineer of record. Please see chapter 5 of the zoning code and chapter 14-190 of the land development code for infrastructure requirements. Requires 10 foot landscape strip, bike lanes and 6 foot sidewalks or 10 foot multiuse path (preferred), street lighting on back of sidewalk. Right of way dedication of 40 feet from centerline or such that all public infrastructure is within county right of way, whichever greater. New residential streets will be local with a right of way of 55 feet, 24 feet of pavement, curb and gutter, 6 foot landscape strip, a 6 foot sidewalk, street lighting required behind sidewalk.

N4. (Z-21-1244893) Norman Road is classified as a collector road. Please see chapter 5 of the zoning code and chapter 14-190 of the land development code for infrastructure requirements. Requires 10 foot landscape strip, bike lanes and 6 foot sidewalks or 10 foot multiuse path (preferred), street lighting on back of sidewalk. Right of way dedication of 35 feet from centerline or such that all public infrastructure is within county right of way, whichever greater. New residential streets will be local with a right of way of 55 feet, 24 feet of pavement, curb and gutter, 6 foot landscape strip, a 6 foot sidewalk, street lighting required on back of sidewalk. Continue at least 2 traffic calming features (splitter islands) similar to the ones installed in the City of Clarkton along frontage.

N5. (SLUP-21-1244895) No comment

N6. (SLUP-21-1244899) No comment

**Board of Health**

06/21/2021

To: Mr. John Reid, Senior Planner  
From: Ryan Cira, Environmental Health Manager  
Cc: Alan Gaines, Technical Services Manager  
Re: Rezone Application Review

General Comments:

DeKalb County Health Regulations prohibit use of on-site sewage disposal systems for

- multiple dwellings
- food service establishments
- hotels and motels
- commercial laundries
- funeral homes
- schools
- nursing care facilities
- personal care homes with more than six (6) clients
- child or adult day care facilities with more than six (6) clients
- residential facilities containing food service establishments

If proposal will use on-site sewage disposal, please contact the Land Use Section (404) 508-7900.

Any proposal, which will alter wastewater flow to an on-site sewage disposal system, must be reviewed by this office prior to construction.

This office must approve any proposed food service operation or swimming pool prior to starting construction.

Public health recommends the inclusion of sidewalks to continue a preexisting sidewalk network or begin a new sidewalk network. Sidewalks can provide safe and convenient pedestrian access to a community-oriented facility and access to adjacent facilities and neighborhoods.

For a public transportation route, there shall be a 5ft. sidewalk with a buffer between the sidewalk and the road. There shall be enough space next to sidewalk for bus shelter's concrete pad installation. Recommendation: Provide trash can with liner at each bus stop with bench and monitor for proper removal of waste.

Since DeKalb County is classified as a Zone 1 radon county, this office recommends the use of radon resistant construction.



Board of Health

- N.1 Z-21-1244885 2021-2678/18-100-04-019  
District 02 Super District 06  
3795 North Druid Hills Road, Decatur, GA 30033  
Acres: 1.04
- Please review general comments.
  - NS to C-1
- N.2 SLUP-21-1244886 2021-2638/18-100-04-019  
District 02 Super District 06  
3795 North Druid Hills Road, Decatur, GA 30033  
Acres: 1.04
- Please review general comments.
  - SLUP to allow drive through facility through in Town Center Character area.
- N.3 Z-21-1244892 2021-2640/12-253-03-002  
District 03 Super District 07  
5035 Flakes Mills Road, Ellenwood, GA 30294  
Acres: 27
- Septic system installed on several surrounding properties in the past.
  - Please review general comments.
  - R-100 to R-60
- N.4 Z-21-1244893 2021-2641/18-095-03-005, 18-095-03-006, 18-095-03-008, 18-095-03-009, 18-095-03-090, 18-095-03-094  
District 04 Super District 06  
3943 Norman Road, Stone Mountain, GA 30083  
Acres: 35
- Septic system installed on several surrounding properties in the past.
  - Please review general comments.
  - R-85 to RSM
- N.5 SLUP-21-1244895 2021-2641/15-137-03-028  
District 03 Super Districts 06  
2445 Candler Road, Decatur, GA 30032  
Acres: 0.3
- Dental Building at time septic installed on 12/4/1962.
  - Please review general comments.
  - SLUP to Housing Facility

**DeKalb County Board of Health**

445 Winn Way – Box 987

Decatur, GA 30031

404.294.3700 • [www.dekalbhealth.net](http://www.dekalbhealth.net)





**Board of Health**

N.6 SLUP-21-1244899 2021/2643/15-084-05-068  
District 03 Super District 06  
3008 Rollingwood Lane, Atlanta, GA 30316  
Acres: 0.35  
- Septic system installed 8/19/1960.  
- Please review general comments.

N.7 TA-21-1244945 2021-2644  
Districts 03 & 05 Super District 07  
- Please review general comments.

N.8 TA-21-1244999 2021-2645  
Districts 03 & 05 Super District 07  
- Please review general comments.

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DEKALB COUNTY GOVERNMENT  
PLANNING DEPARTMENT  
DISTRIBUTION FORM

**NOTE: PLEASE RETURN ALL COMMENTS VIA EMAIL OR FAX TO EXPEDITE THE PROCESS TO MICHELLE ALEXANDER [mmalexander@dekalbcountvga.gov](mailto:mmalexander@dekalbcountvga.gov) AND/OR LASONDRA HILL [lahill@dekalbcountvga.gov](mailto:lahill@dekalbcountvga.gov)**

**COMMENTS FORM:  
PUBLIC WORKS TRAFFIC ENGINEERING**

Case No.: 2-21-1244885 Parcel I.D. #: 18-100-04-019

Address: 3795  
N. David Hills Rd  
Decatur Ga

Adjacent Roadway (s):

\_\_\_\_\_  
\_\_\_\_\_  
(classification) (classification)

Capacity (TPD) _____	Capacity (TPD) _____
Latest Count (TPD) _____	Latest Count (TPD) _____
Hourly Capacity (VPH) _____	Hourly Capacity (VPH) _____
Peak Hour. Volume (VPH) _____	Peak Hour. Volume (VPH) _____
Existing number of traffic lanes _____	Existing number of traffic lanes _____
Existing right of way width _____	Existing right of way width _____
Proposed number of traffic lanes _____	Proposed number of traffic lanes _____
Proposed right of way width _____	Proposed right of way width _____

Please provide additional information relating to the following statement.

According to studies conducted by the Institute of Traffic Engineers (ITE) 6/7<sup>TH</sup> Edition (whichever is applicable), churches generate an average of fifteen (15) vehicle trip end (VTE) per 1, 000 square feet of floor area, with an eight (8%) percent peak hour factor. Based on the above formula, the \_\_\_\_\_ square foot place of worship building would generate \_\_\_\_\_ vehicle trip ends, with approximately \_\_\_\_\_ peak hour vehicle trip ends.

Single Family residence, on the other hand, would generate ten (10) VTE's per day per dwelling unit, with a ten (10%) percent peak hour factor. Based on the above referenced formula, the \_\_\_\_\_ (Single Family Residential) District designation which allows a maximum of \_\_\_\_\_ units per acres, and the given fact that the project site is approximately \_\_\_\_\_ acres in land area, \_\_\_\_\_ daily vehicle trip end, and \_\_\_\_\_ peak hour vehicle trip end would be generated with residential development of the parcel.

COMMENTS:

Field & plans reviewed. Nothing found that would interrupt traffic flow.

Signature: [Signature]

N-2



DEKALB COUNTY GOVERNMENT  
PLANNING DEPARTMENT  
DISTRIBUTION FORM

**NOTE: PLEASE RETURN ALL COMMENTS VIA EMAIL OR FAX TO EXPEDITE THE PROCESS TO MICHELLE ALEXANDER [mmalexander@dekalbcountyga.gov](mailto:mmalexander@dekalbcountyga.gov) AND/OR LASONDRA HILL [lahill@dekalbcountyga.gov](mailto:lahill@dekalbcountyga.gov)**

COMMENTS FORM:  
**PUBLIC WORKS TRAFFIC ENGINEERING**

Case No.: SLUP-21-1244886 Parcel I.D. #: 18-100-04-019

Address: 3795  
N. David Hill Rd  
Decatur, GA

Adjacent Roadway (s):

\_\_\_\_\_  
\_\_\_\_\_  
(classification) (classification)

Capacity (TPD) _____	Capacity (TPD) _____
Latest Count (TPD) _____	Latest Count (TPD) _____
Hourly Capacity (VPH) _____	Hourly Capacity (VPH) _____
Peak Hour Volume (VPH) _____	Peak Hour Volume (VPH) _____
Existing number of traffic lanes _____	Existing number of traffic lanes _____
Existing right of way width _____	Existing right of way width _____
Proposed number of traffic lanes _____	Proposed number of traffic lanes _____
Proposed right of way width _____	Proposed right of way width _____

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COMMENTS:

Field and plans reviewed. Nothing found that would disrupt traffic pattern/flow.

Signature: [Signature]

## NEXT STEPS

**Following an approval of this zoning action, one or several of the following may be required:**

**Land Disturbance Permit** *(Required for of new building construction on non-residential properties, or land disturbance/improvement such as storm water detention, paving, digging, or landscaping.)*

**Building Permit** *(New construction or renovation of a building (interior or exterior) may require full plan submittal or other documentation. zoning, site development, watershed and health department standards will be checked for compliance.)*

**Certificate of Occupancy** *(Required prior to occupation of a commercial space and for use of property for any business type. The issuance follows the review of submitted plans if required based on the type occupancy.)*

**Plat Approval** *(Required if any parcel is being subdivided, re-parceled, or combined. Issued “administratively”; no public hearing required.)*

**Sketch Plat Approval** *(Required for the subdivision of property into three lots or more. Requires a public hearing by the Planning Commission.)*

**Overlay Review** *(Required review of development and building plans for all new construction or exterior modification of building(s) located within a designated overlay district.)*

**Historic Preservation** *(Certificate of Appropriateness required for any proposed changes to building exteriors or improvements to land when located within the Druid Hills or the Soapstone Geological Historic Districts. Historic Preservation Committee public hearing may be required.)*

**Variance or Special Exception** *(Required seeking relief from any development standards of the Zoning Ordinance. A public hearing and action by the Board of Appeals are required for most variances.)*

**Minor Modification** *(Required if there are any proposed minor changes to zoning conditions that were approved by the Board of Commissioners. The review is administrative if the changes are determined to be minor as described by Zoning Code.)*

**Major Modification** *(Required submittal of a complete zoning application for a public hearing if there are any proposed changes to zoning conditions approved by the Board of Commissioner on a prior rezoning.)*

**Business License** *(Required for any business or non-residential enterprise operating in Unincorporated DeKalb County, including in-home occupations).*

**Alcohol License** *(Required permit to sell alcohol for consumption on-site or packaged for off-site consumption. Signed and sealed distance survey is required. Background checks will be performed.)*

**Each of the approvals and permits listed above require submittal of application, fees and supporting documents. Please consult with the appropriate department/division.**

**From:** [Valerie Manson](#)  
**To:** [Patrick, Robert J.](#); [Rader, Jeff](#); [Johnson, Larry L.](#); [Bradshaw, Stephen R.](#); [Johnson, Mereda D.](#); [Terry, Ted](#); [Cochran-Johnson, Lorraine](#); [White, Brandon L.](#); [djackson@dekalbscountyga.gov](mailto:djackson@dekalbscountyga.gov)  
**Subject:** Rezoning of 3795 North Druid Hills Road- Chick-Fil-A  
**Date:** Friday, October 22, 2021 10:13:00 AM  
**Attachments:** [CFA Final Survey Summary.pdf](#)

---

To: DeKalb County Board of Zoning  
Fr: Valerie Manson  
Re: Rezoning of 3795 North Druid Hills Road- rezoning for Chick-Fil-A  
Date: October 22, 2021

Dear Planning Department and County Commissioners:

I am writing to express my strong support for the rezoning of the Chick-fil-A at 3795 North Druid Hills Road from Neighborhood Shopping (NS) to Local Commercial (C-1) and the approval of a Special Land Use Permit (SLUP) to allow a drive-through. I live in the area represented by the Laurel Ridge Shamrock Civic Association (LRSCA) and which is most impacted by the current Chick-Fil-A location and the proposed rezoning location.

The LRSCA communication with the Board of Zoning dated September 24, 2021 states that the Board “strongly opposes” the rezoning. Based on the results of their survey (see attached), I do not believe this position reflects the opinion of the respondents. A total of 151 people completed the survey and 43% support the move while 48% oppose it with 9% neutral. I do not think their data reflect “strong opposition” on the part of the residents.

To address some of their other claims:

1. Increased traffic: I do not think moving Chick-Fil-a will increase traffic at the entrance to North Druid Woods. It is already backed up to that point now because there are three fast food restaurants further up (McDonald’s, Chick-Fil-a and Checkers) and Shamrock Plaza. Actually, I think moving the Chick-Fil-a will spread the entrances and exits out and make the traffic flow more smoothly. Having Zaxby’s further down North Druid Hills Road does not present any addition to the congestion in large part because it IS further down the road.
2. Installation of a dedicated left turn lane: This has nothing to do specifically with where Chick-Fil-a is located and has everything to do with blocking one of the two lanes when a vehicle is turning left on Birch.

Furthermore, the Chick-Fil-a in the current location along with the other restaurants and Shamrock Plaza create a traffic safety nightmare. I am confident that an accident report would show a high number of accidents due to the high volume of vehicles entering, leaving or just trying to get up or down North Druid Hills Road. I believe moving the Chick-Fil-A out of that immediate vicinity would decrease the number of accidents and create a safer traffic situation.

I ask the Board to please consider the results of the LRSCA survey (not the Board’s interpretation), the accident reports of the current configuration and adding a dedicated left turn lane onto Birch Drive in making a decision about rezoning and approving a SLUP for the Chick-Fil-A. I believe the move would make this area safer for residents and those passing through the area.

Sincerely,

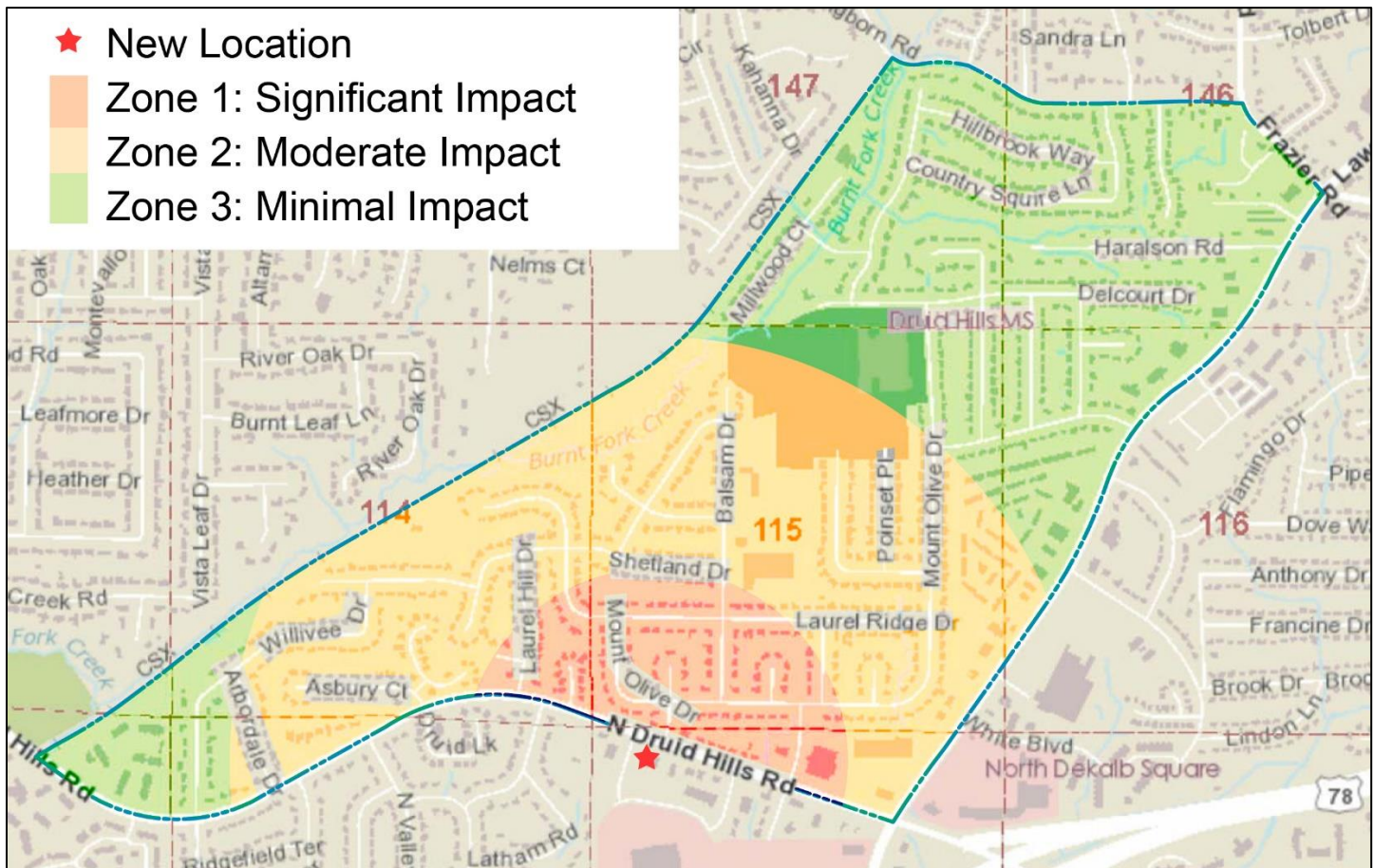
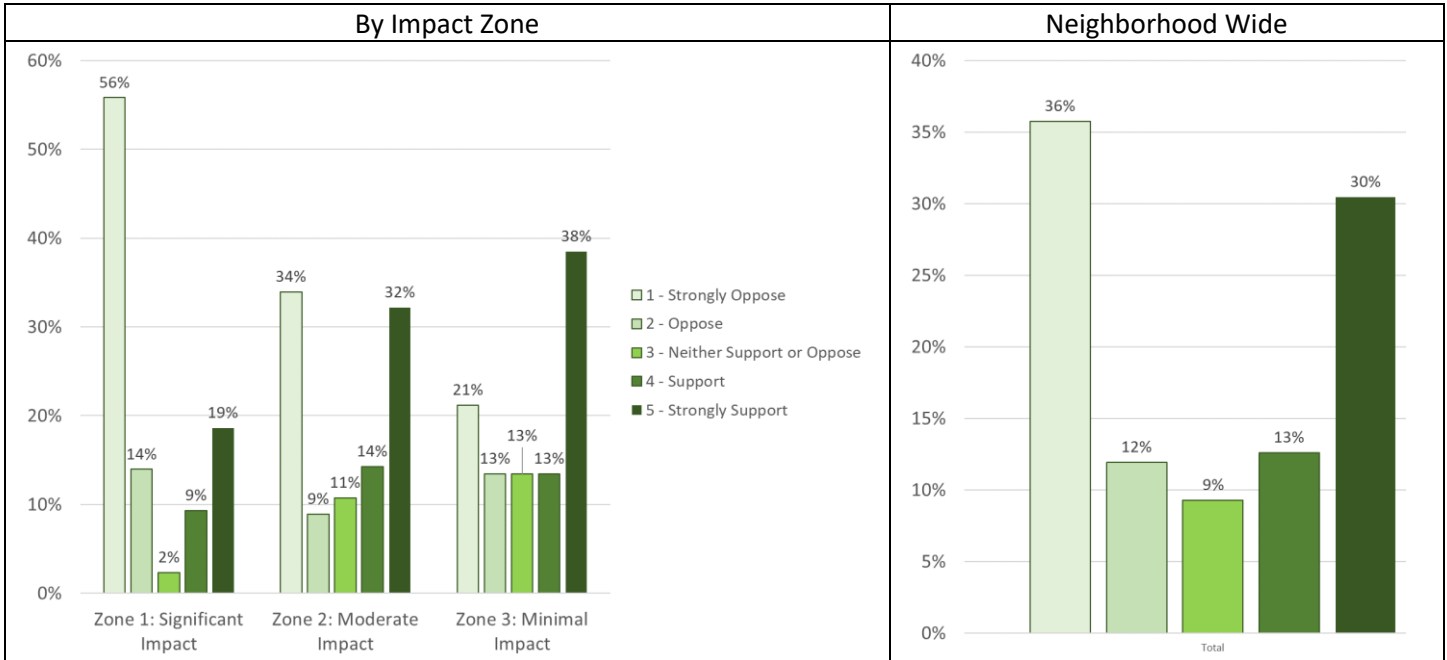
Valerie Manson  
1179 Laurel Hill Dr.

Decatur, GA 30033

# CHICK-FIL-A RELOCATION SURVEY RESULTS



Neighborhood Support for Chick-fil-A Proposal  
(responses received from 151 residents)



<b>OVERALL VOTE</b>	<b>Zone 1</b>		<b>Zone 2</b>		<b>Zone 3</b>		<b>Total</b>	
Support	12	28%	26	46%	27	52%	65	43%
Neutral	1	2%	6	11%	7	13%	14	9%
Oppose	30	70%	24	43%	18	35%	72	48%
<b>Total</b>	<b>43</b>		<b>56</b>		<b>52</b>		<b>151</b>	
<b>TOP CONCERNS</b>	<b>Zone 1</b>		<b>Zone 2</b>		<b>Zone 3</b>		<b>Total</b>	
<b>Traffic (Total)</b>	<b>34</b>	<b>79%</b>	<b>31</b>	<b>55%</b>	<b>20</b>	<b>38%</b>	<b>85</b>	<b>56%</b>
- More congestion / traffic back-ups	19		11		7		37	
- More cars on N Druid Hills Rd	14		9		5		28	
- No left turn lane / middle lane	7		9		5		21	
- Car accidents / pedestrian safety	6		10		1		17	
- Congestion at N Druid Woods entrance	6		7		3		16	
- More cut through traffic in neighborhood	6		5		5		16	
<b>Pollution (Total)</b>	<b>10</b>	<b>23%</b>	<b>8</b>	<b>14%</b>	<b>3</b>	<b>6%</b>	<b>21</b>	<b>14%</b>
- Air pollution / car exhaust	9		7		3		19	
- Noise / Light / Etc	2		1		0		3	
<b>Chick-fil-A Business Practices (Total)</b>	<b>5</b>	<b>12%</b>	<b>5</b>	<b>9%</b>	<b>4</b>	<b>8%</b>	<b>14</b>	<b>9%</b>
- Fast food / drive thru	3		3		4		10	
- Moral / religious objections	1		1		0		2	
- Chain / not local	1		0		0		1	
- Already too many CFA's nearby	0		1		0		1	
<b>Those Who Have No Concerns</b>	<b>9</b>	<b>21%</b>	<b>19</b>	<b>34%</b>	<b>27</b>	<b>52%</b>	<b>55</b>	<b>36%</b>
<b>TOP BENEFITS</b>	<b>Zone 1</b>		<b>Zone 2</b>		<b>Zone 3</b>		<b>Total</b>	
<b>Traffic (Total)</b>	<b>8</b>	<b>19%</b>	<b>18</b>	<b>32%</b>	<b>24</b>	<b>46%</b>	<b>50</b>	<b>33%</b>
- Overall improvement on N Druid Hills Rd	4		7		12		23	
- Safer for pedestrians / fewer car accidents	1		6		13		20	
- Improvement at current CFA location	3		6		4		13	
- Improvement at L'ville Hwy / NDH Rd Intersection	0		6		7		13	
<b>Better Business Location (Total)</b>	<b>8</b>	<b>19%</b>	<b>16</b>	<b>29%</b>	<b>13</b>	<b>25%</b>	<b>37</b>	<b>25%</b>
- More convenient / easier to access	3		6		9		18	
- Bigger store / building	4		3		2		9	
- Bigger lot / more parking / faster drive thru	1		5		3		9	
- Cleaner / newer store / better curb appeal	1		1		3		5	
<b>Pier 1 Store No Longer Abandoned</b>	<b>6</b>	<b>14%</b>	<b>9</b>	<b>16%</b>	<b>5</b>	<b>10%</b>	<b>20</b>	<b>13%</b>
<b>Those Who See No Benefits</b>	<b>27</b>	<b>63%</b>	<b>21</b>	<b>38%</b>	<b>15</b>	<b>29%</b>	<b>63</b>	<b>42%</b>
<b>TOP DESIRED IMPROVEMENTS</b>	<b>Zone 1</b>		<b>Zone 2</b>		<b>Zone 3</b>		<b>Total</b>	
<b>Traffic (Total)</b>	<b>12</b>	<b>28%</b>	<b>10</b>	<b>18%</b>	<b>8</b>	<b>15%</b>	<b>30</b>	<b>20%</b>
- Add left turn lane / center lane	4		5		7		16	
- Add a mall / rear facing entry/exit	3		8		4		15	
- Traffic study / unspecified mitigation measures	7		5		1		13	
- No direct entry/exit on N Druid Hills Rd	7		3		2		12	
- Make N Druid Hills entry/exit right turn only	0		2		2		4	
<b>Other (Total)</b>	<b>5</b>	<b>12%</b>	<b>7</b>	<b>13%</b>	<b>6</b>	<b>12%</b>	<b>18</b>	<b>12%</b>
- Add indoor seating	0		2		4		6	
- Fewer drive thru lanes	1		2		2		5	
- Re-zone old FCA location (no fast food)	1		3		0		4	
<b>Opposed Even With Improvements</b>	<b>17</b>	<b>40%</b>	<b>16</b>	<b>29%</b>	<b>9</b>	<b>17%</b>	<b>42</b>	<b>28%</b>



**From:** [Kellie Brownlow](#)  
**To:** [Patrick, Robert J.](#); [Johnson, Larry L.](#); [Bradshaw, Stephen R.](#); [Johnson, Mereda D.](#); [Cochran-Johnson, Lorraine](#); [Rader, Jeff](#); [Terry, Ted](#); [White, Brandon L.](#); [Jackson, Dustin](#)  
**Subject:** CFA on North Druid Hills  
**Date:** Friday, October 22, 2021 12:32:24 PM  
**Attachments:** [CFA Final Survey Summary.pdf](#)

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Good afternoon,

I am writing again to voice my support for the relocation of the Chick Fil A to the abandoned Pier 1 building. I know from reading the neighborhood page that there are about a dozen very loud voices in opposition to this project. I understand their opposition based on the proximity of their homes to the site and I am also aware that they oppose basically everything that is proposed to be developed within proximity of their homes.

The current site is unsafe and triggers constant traffic by the entrance. Clearly, the demand for CFA is much higher than the capacity of the current site. The attached pictures were taken on a random Friday and are typical of what you will find during breakfast, lunch, and dinner hours. I have heard opponents talk about traffic at the new site. The new site has the capacity to ensure that what you see in this attached picture does not happen. I have also heard opponents talk about emissions which is ludicrous given that all of us chose to buy a house in a neighborhood that has 2 schools and sits at the intersection of 2 of the busiest corridors in the county.

Please see the attached neighborhood survey. I often hear the opponents say "everyone" in the neighborhood is opposed to the project. This survey makes it clear that this statement is false. Unfortunately, as you know all too well, most of the time, the only people that speak up are the ones that are against projects.

As I mentioned in my earlier email, I have worked in public service most of my career. I know how hard it is to see the forest from the trees when it comes to a very loud minority. I also know that it takes leadership to separate the noise from reason. I am asking each of you to try and focus on the latter and think of what is best in the long term for this neighborhood, especially because the mall has finally been purchased. Yay!

I know a few other neighbors have written to you in support of this project. Ultimately, it will be an improvement to the corridor, the mall development, our neighborhood, and the community at-large.

Thank you so much for your leadership and thoughtfulness on this and all projects about which you have to make decisions.

With gratitude,

Kellie Brownlow

1314 Atterberry Place, Decatur, GA 30033



McDonald's  
Restaurant  
DRIVE-THRU

CRISPY CHICKEN  
BUCKET





**From:** [Dallas Ivey](#)  
**To:** [Patrick, Robert J.](#); [Johnson, Larry L.](#); [Bradshaw, Stephen R.](#); [Johnson, Mereda D.](#); [Cochran-Johnson, Lorraine](#); [Rader, Jeff](#); [Terry, Ted](#); [White, Brandon L.](#); [Jackson, Dustin](#)  
**Subject:** CFA Relocation on North Druid Hills Road  
**Date:** Saturday, October 23, 2021 9:49:46 AM

---

Dear Commissioners,

I am writing in support of the proposed re-location of the Chick Fil A restaurant on North Druid Hills Road. Our family lives in the Pine Glen / North Druid Woods area located on the other side of North Druid Hills Road. The proposed location is better than the current location and has greater capacity to handle the existing flow of traffic and customers. CFA provides a great service to the community and the new location will be better for our area.

Thanks for considering this message and for your work for this community.

Yours truly,

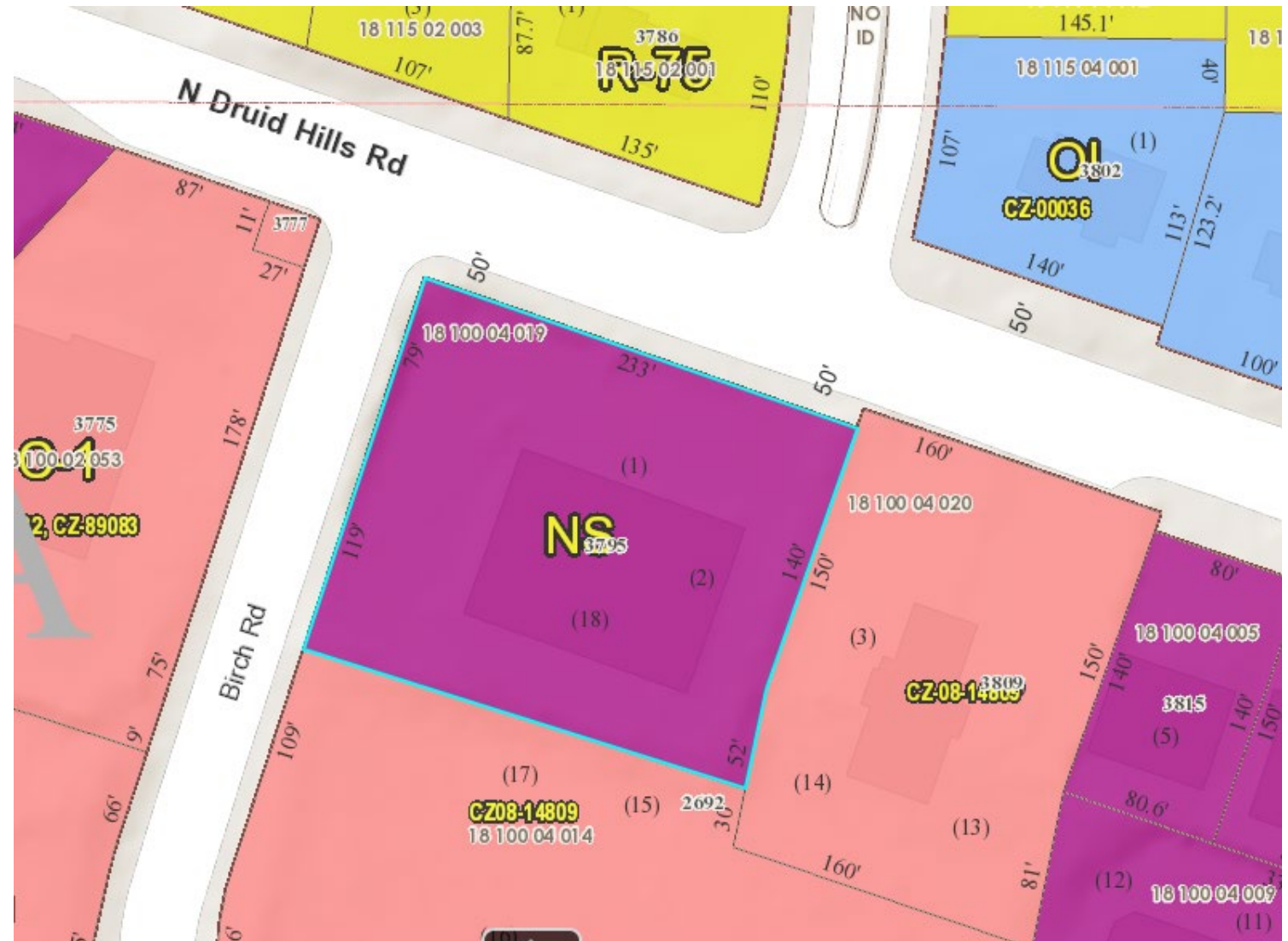
Dallas Ivey

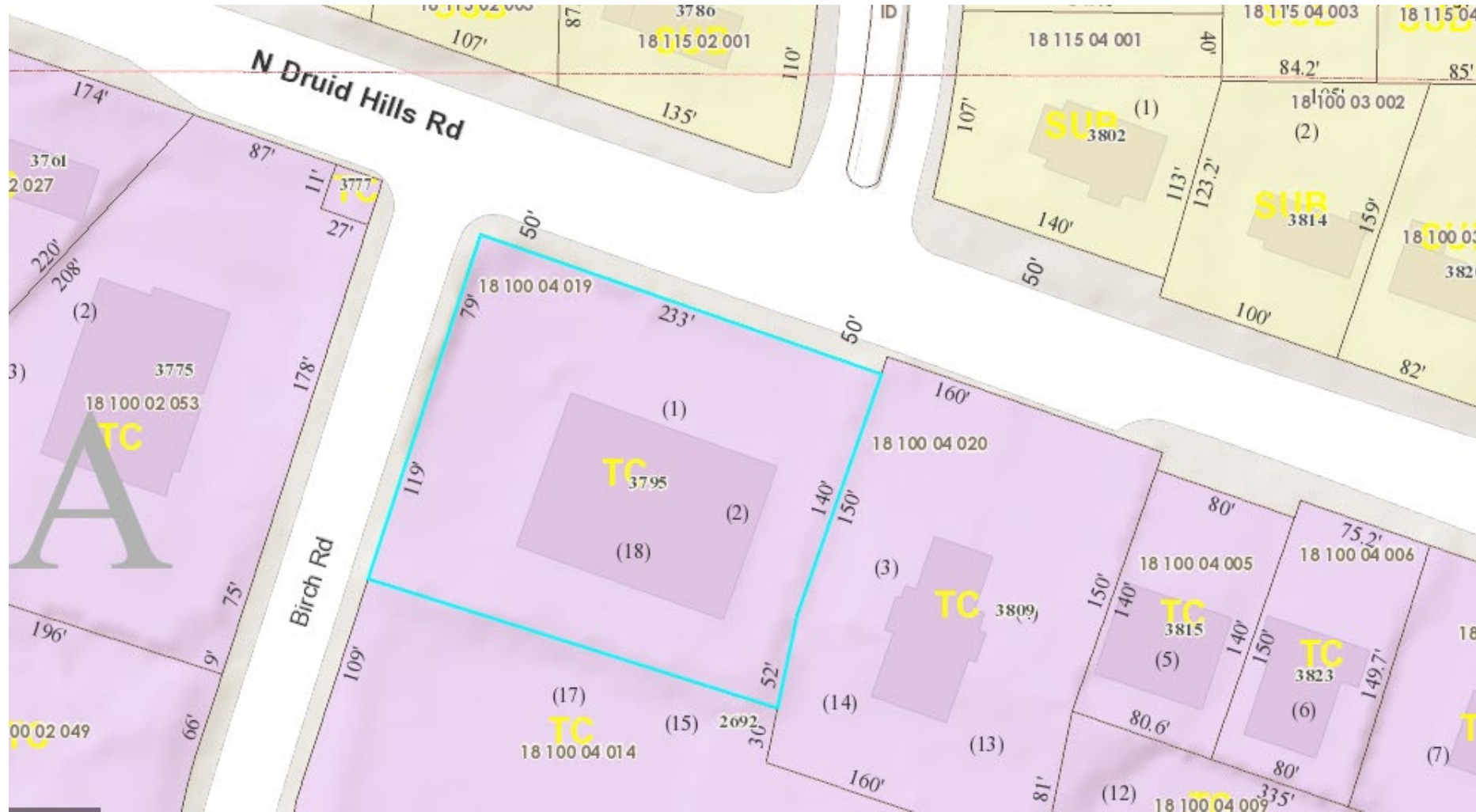
**REQUEST:**

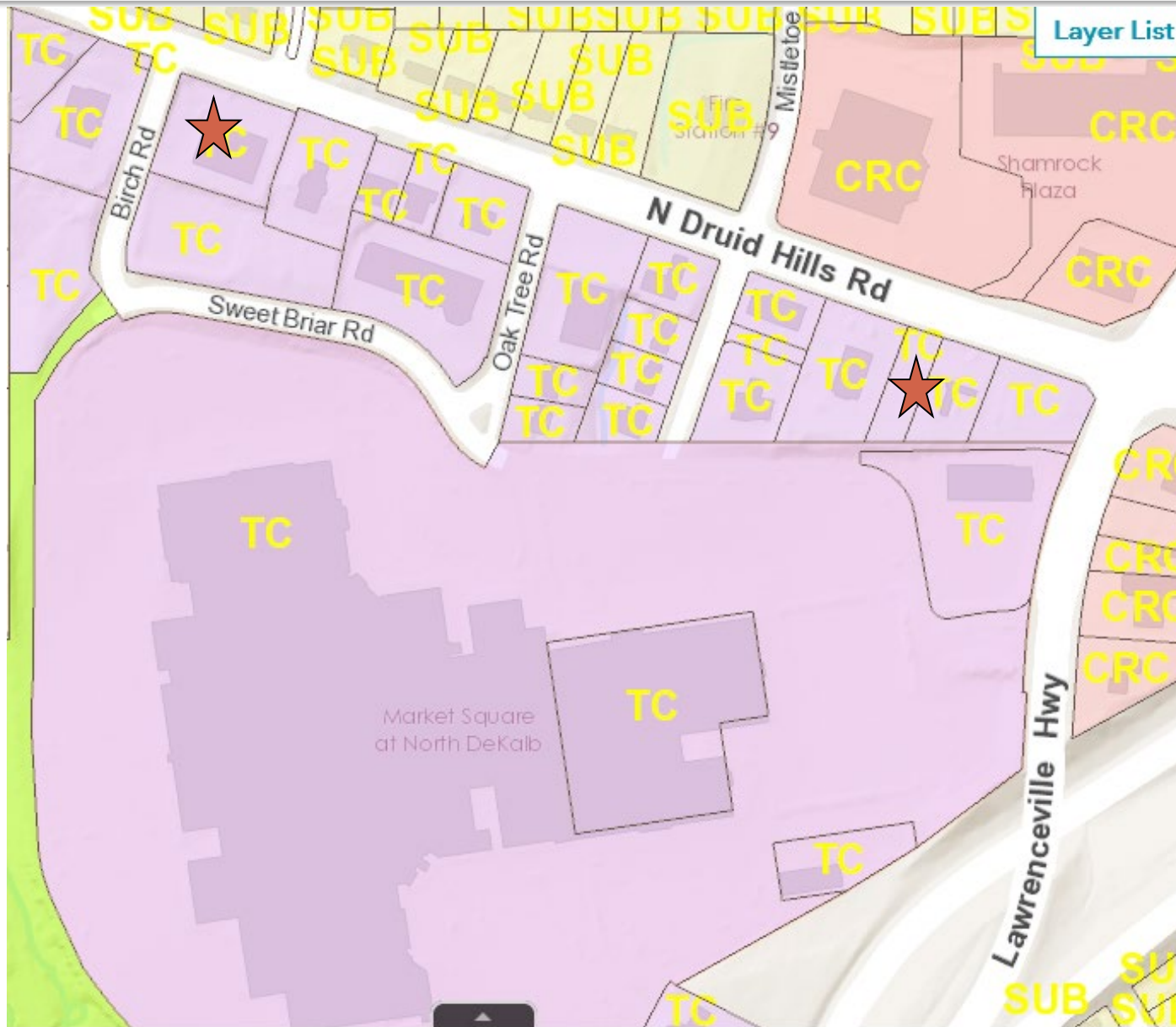
To rezone property from NS (Neighborhood Shopping) to C-1 (Local Commercial) to allow for the development of a drive-through restaurant.

**Location:** 3795 North Druid Hills Road

**Commission District:** 2  
**Super District:** 6









### Preferred Intensity

Intermediate Ring - Up to 45 du/ac

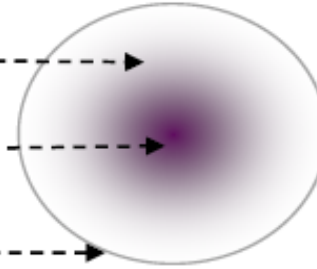
Max Height - 3-4 Stories

Core Density - Up to 60 du/ac

Max Height - 5 Stories

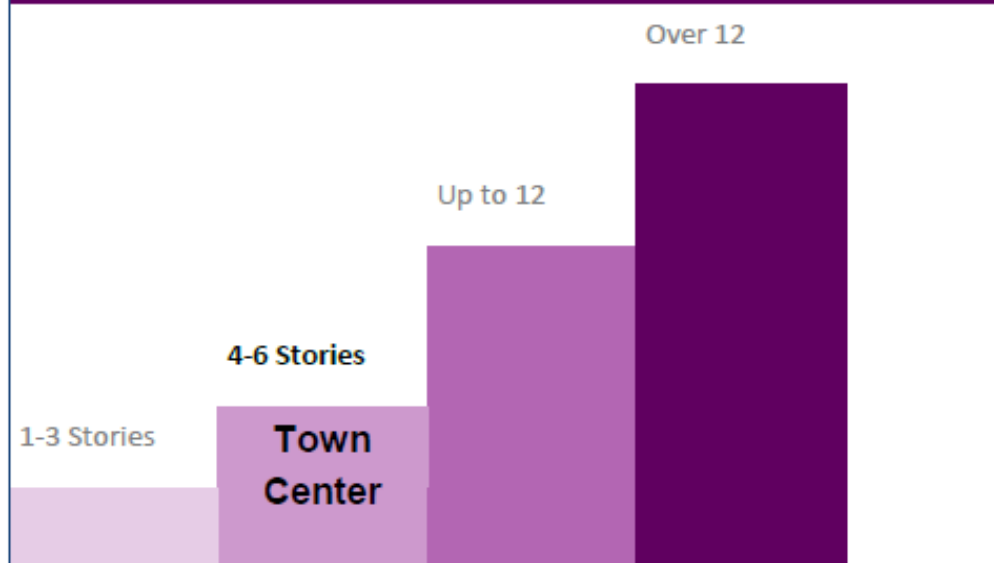
Outer Ring - Up to 12 du/ac

Max Height - 1 - 3 stories



*This is a guideline policy to protect single family housing which is supported by the new zoning code*

### Preferred Building Height for Town Center



**July 26, 2021**

Mrs. Patrece Keeter  
 Dekalb County Public Works  
 Transportation Division  
 1300 Commerce Drive  
 Decatur, GA 30030

**Turn Lane Warrant Memo:  
 North Druid Hills Road at Birch Road Chick-fil-a Relocation Turn Lane Warrant Analysis – Decatur, GA**

**Traffic Volumes**

The existing Chick-fil-a restaurant located at 3905 N Druid Hills Rd in Decatur, GA, is proposing to relocate to the southeast corner of Birch Road at N Druid Hills Rd intersection. The proposed site location was previously occupied by a Pier 1 Imports retail store. This memo analyzes the need for a westbound left turn lane on N Druid Hills Rd for inbound traffic onto Birch Road. The data analyzed is based on the existing conditions traffic data.

Traffic count data for this project was collected on Tuesday July 13, 2021. Peak hour turning movement counts were collected at the intersections of Birch Road at N Druid Hills Rd and N Druid Hills Rd at both existing Chick-fil-a driveway locations. 24-HR Bi-directional counts were also collected for the locations of Birch Road and North Druid Hills Rd on Tuesday July 13, 2021. Listed below in Table 1 are the ADT volumes collected on July 13, 2021.

**Table 1: Daily Traffic Volumes**

Road	Location	Direction	Daily Approach Traffic	Daily Two-Way Traffic
North Druid Hills Rd	East of N Druid Hills Ct	EB	15,945	33,742
		WB	17,797	
Birch Road	South of North Druid Hills Rd	NB	639	1,559
		SB	920	

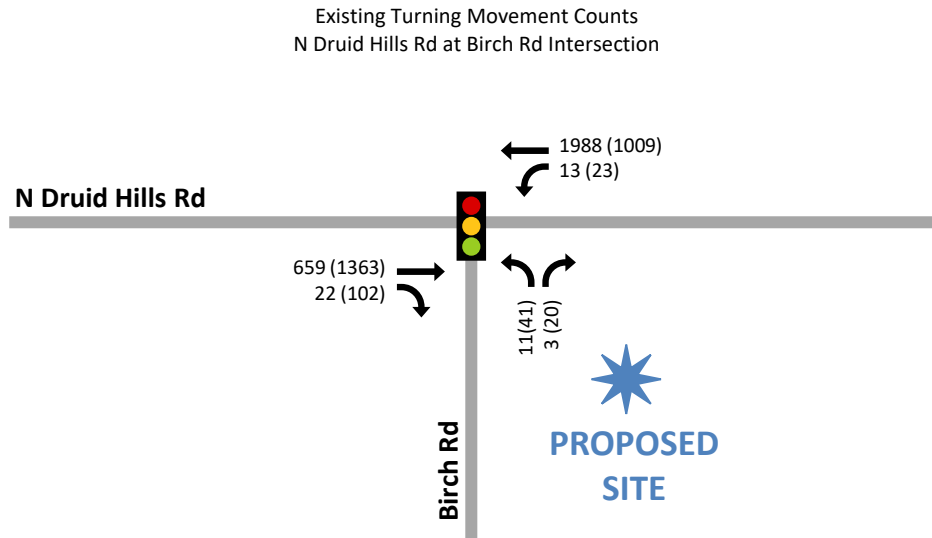
Peak hour turning movement counts were also collected at the Birch Rd at N Druid Hills Rd intersection. Turning movement counts at both existing Chick-fil-a driveway locations were collected from 6:00 am to 8:00 pm. The peak hour volumes at the Birch Rd intersection are provided in Figure 1. The full set of traffic data is provided in Appendix A. Collected volumes have not been adjusted for collection during the summer when school is not in session.

# Figure 1: Existing Traffic Volumes

## (##) → AM (PM) Traffic Volumes



NOT TO SCALE



### Trip Generation & Data Collection

Typically, to estimate the trips that are anticipated to be generated by a proposed development a trip generation for the development is calculated using equations contained in the Institute of Transportation Engineers' (ITE) latest *Trip Generation Manual*, 10<sup>th</sup> Ed, 2017. In this case we have collected traffic volumes at both existing site driveway locations, servicing the existing Chick-fil-a facility, over a 14-hour period. This traffic data is expected to be representative of the traffic generated by this existing Chick-fil-a restaurant location on a typical weekday and can be utilized to provide some insight into volume demand, trip generation rates and traffic patterns associated with fast food restaurants in this area. The traffic count data for the existing Chick-fil-a is also provided in Appendix A.

### Turn Lane Warrant Analysis:

Turn lane warrants were assessed per the *Georgia Department of Transportation Regulations for Driveway & Encroachment Control*. Turn lane warrants that were analyzed were left turn from the major road approach for the existing conditions.

North Druid Hills Rd at Birch Road was evaluated for conditions as a four-lane road, ADT greater than 10,000 vpd and a roadway at 40 mph:

- Total daily inbound volumes on Birch Road at 920 vpd.
- A Left-turn lane is required if there are 250 left turning vehicles (LTV) per day.
- At 30-50% distribution for inbound lefts from N Druid Hills Rd onto Birch Rd there are expected to be more than 250 LTV per day.
- A westbound Left-turn lane is *Warranted* at N Druid Hills Rd and Birch Rd in the existing conditions.

In addition to GDOT requirements, turn lane warrants were also analyzed for the need for a left turn lane, in the existing conditions, from N Druid Hills Rd onto Birch Rd per NCHRP Report 457: Evaluating Intersection Improvement recommendations which evaluates the necessity of a turn lane comparing the amount of turning movements with advancing and opposing volumes. Turn lane warrants that were analyzed were the westbound left-turn from major road.

- Westbound Left-turn Lane: *Warranted (PM peak period)* in the existing conditions.

The full turn-lane warrant analysis sheets are attached in Appendix B to this memo.

### Conclusions and Recommendations

As a result of this analysis, it is determined that a westbound left-turn lane on North Druid Hills Rd at Birch Rd is warranted in the existing traffic conditions. The relocation of the Chick-fil-a restaurant to the southeast corner of the N Druid Hills Rd at Birch Rd intersection would be expected to add additional volumes to the already warranted left-turn lane at this intersection.

Please contact me or Jack Johnson at 770-368-1399 if you have any questions or need additional information.

Sincerely,



**FORESITE GROUP, LLC**

Stevie Berryman  
Project Manager

**Appendix A: Traffic Counts**

### VOLUME

N Druid Hills Rd E/O N Druid Woods Ct

Day: Tuesday  
Date: 7/13/2021

City: Decatur  
Project #: GA21\_180190\_001

DAILY TOTALS					NB	SB						Total
					0	0						33,742
							15,945			17,797		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			28	22	50	12:00			201	228	429	
00:15			23	19	42	12:15			236	259	495	
00:30			28	26	54	12:30			240	235	475	
00:45			36	115	22	89	12:45		263	940	239	961
01:00			42	32	74	13:00			242	239	481	
01:15			32	21	53	13:15			215	261	476	
01:30			27	21	48	13:30			246	278	524	
01:45			29	130	16	90	13:45		250	953	249	1027
02:00			30	9	39	14:00			281	224	505	
02:15			26	16	42	14:15			305	244	549	
02:30			31	16	47	14:30			362	283	645	
02:45			23	110	10	51	14:45		319	1267	259	1010
03:00			23	11	34	15:00			356	249	605	
03:15			19	13	32	15:15			344	286	630	
03:30			16	11	27	15:30			357	237	594	
03:45			16	74	23	58	15:45		332	1389	236	1008
04:00			14	11	25	16:00			341	273	614	
04:15			16	28	44	16:15			337	275	612	
04:30			15	45	60	16:30			339	236	575	
04:45			12	57	46	130	16:45		341	1358	245	1029
05:00			19	59	78	17:00			343	245	588	
05:15			22	83	105	17:15			311	243	554	
05:30			31	131	162	17:30			326	254	580	
05:45			49	121	159	432	17:45		355	1335	232	974
06:00			46	166	212	18:00			344	237	581	
06:15			72	259	331	18:15			330	212	542	
06:30			80	301	381	18:30			323	230	553	
06:45			103	301	324	1050	18:45		269	1266	217	896
07:00			102	347	449	19:00			268	170	438	
07:15			113	384	497	19:15			267	194	461	
07:30			148	437	585	19:30			255	179	434	
07:45			157	520	505	1673	19:45		232	1022	149	692
08:00			169	479	648	20:00			231	142	373	
08:15			163	482	645	20:15			214	113	327	
08:30			160	427	587	20:30			161	136	297	
08:45			177	669	441	1829	20:45		182	788	139	530
09:00			188	343	531	21:00			147	123	270	
09:15			164	354	518	21:15			102	111	213	
09:30			154	330	484	21:30			110	129	239	
09:45			185	691	319	1346	21:45		125	484	118	481
10:00			157	237	394	22:00			135	85	220	
10:15			183	241	424	22:15			133	76	209	
10:30			195	263	458	22:30			138	84	222	
10:45			175	710	231	972	22:45		98	504	75	320
11:00			193	229	422	23:00			83	52	135	
11:15			214	235	449	23:15			82	55	137	
11:30			216	261	477	23:30			74	45	119	
11:45			207	830	229	954	23:45		72	311	43	195
<b>TOTALS</b>			4328	8674	13002	<b>TOTALS</b>			11617	9123	20740	
<b>SPLIT %</b>			33.3%	66.7%	38.5%	<b>SPLIT %</b>			56.0%	44.0%	61.5%	

DAILY TOTALS					NB	SB						Total
					0	0						33,742
							15,945			17,797		

AM Peak Hour			11:45	07:30	07:45	PM Peak Hour			15:00	14:30	14:30
AM Pk Volume			884	1903	2542	PM Pk Volume			1389	1077	2458
Pk Hr Factor			0.921	0.942	0.960	Pk Hr Factor			0.973	0.941	0.953
7 - 9 Volume	0	0	1189	3502	4691	4 - 6 Volume	0	0	2693	2003	4696
7 - 9 Peak Hour			08:00	07:30	07:45	4 - 6 Peak Hour			16:15	16:00	16:00
7 - 9 Pk Volume	0	0	669	1903	2542	4 - 6 Pk Volume	0	0	1360	1029	2387
Pk Hr Factor	0.000	0.000	0.945	0.942	0.960	Pk Hr Factor	0.000	0.000	0.991	0.935	0.972

# VOLUME

Birch Rd S/O N Druid Hills Rd

Day: Tuesday  
Date: 7/13/2021

City: Decatur  
Project #: GA21\_180190\_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					639	920	0	0	1,559		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	8			8	12:00	18	16			34
00:15	5	0			5	12:15	14	22			36
00:30	0	0			0	12:30	16	13			29
00:45	1	6	0	8	14	12:45	8	56	20	71	127
01:00	0	0			0	13:00	11	9			20
01:15	2	2			4	13:15	21	19			40
01:30	2	2			4	13:30	14	20			34
01:45	0	4	0	4	8	13:45	16	62	22	70	132
02:00	0	0			0	14:00	12	16			28
02:15	1	0			1	14:15	16	13			29
02:30	0	0			0	14:30	14	22			36
02:45	0	1	0		1	14:45	11	53	9	60	113
03:00	0	0			0	15:00	14	10			24
03:15	0	0			0	15:15	9	24			33
03:30	1	0			1	15:30	9	17			26
03:45	0	1	0		1	15:45	17	49	43	94	143
04:00	0	0			0	16:00	14	31			45
04:15	0	0			0	16:15	18	28			46
04:30	0	0			0	16:30	7	28			35
04:45	0	1	1		1	16:45	28	67	31	118	185
05:00	0	1			1	17:00	18	33			51
05:15	1	0			1	17:15	19	41			60
05:30	0	1			1	17:30	15	32			47
05:45	1	2	9	11	13	17:45	12	64	24	130	194
06:00	3	6			9	18:00	16	22			38
06:15	3	7			10	18:15	12	26			38
06:30	2	4			6	18:30	8	24			32
06:45	7	15	4	21	36	18:45	8	44	9	81	125
07:00	5	4			9	19:00	15	7			22
07:15	6	6			12	19:15	10	14			24
07:30	6	2			8	19:30	15	15			30
07:45	1	18	12	24	42	19:45	7	47	6	42	89
08:00	2	7			9	20:00	9	12			21
08:15	6	10			16	20:15	8	4			12
08:30	13	9			22	20:30	1	5			6
08:45	10	31	6	32	63	20:45	2	20	8	29	49
09:00	4	5			9	21:00	5	4			9
09:15	3	7			10	21:15	3	1			4
09:30	5	4			9	21:30	2	2			4
09:45	13	25	7	23	48	21:45	1	11	1	8	19
10:00	6	7			13	22:00	1	2			3
10:15	8	10			18	22:15	2	3			5
10:30	4	10			14	22:30	0	3			3
10:45	4	22	11	38	60	22:45	1	4	1	9	13
11:00	9	11			20	23:00	0	3			3
11:15	11	8			19	23:15	1	1			2
11:30	7	10			17	23:30	0	1			1
11:45	9	36	11	40	76	23:45	0	1	1	6	7
<b>TOTALS</b>	<b>161</b>	<b>202</b>			<b>363</b>	<b>TOTALS</b>	<b>478</b>	<b>718</b>			<b>1196</b>
<b>SPLIT %</b>	<b>44.4%</b>	<b>55.6%</b>			<b>23.3%</b>	<b>SPLIT %</b>	<b>40.0%</b>	<b>60.0%</b>			<b>76.7%</b>

DAILY TOTALS					NB	SB	EB	WB	Total
					639	920	0	0	1,559

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:45	16:45			16:45
AM Pk Volume	57	62			119	PM Pk Volume	80	137			217
Pk Hr Factor	0.792	0.705			0.826	Pk Hr Factor	0.714	0.835			0.904
7 - 9 Volume	49	56	0	0	105	4 - 6 Volume	131	248	0	0	379
7 - 9 Peak Hour	08:00	07:45			08:00	4 - 6 Peak Hour	16:45	16:45			16:45
7 - 9 Pk Volume	31	38	0	0	63	4 - 6 Pk Volume	80	137	0	0	217
Pk Hr Factor	0.596	0.792	0.000	0.000	0.716	Pk Hr Factor	0.714	0.835	0.000	0.000	0.904



# National Data & Surveying Services Intersection Turning Movement Count

**Location:** Birch Rd & N Druid Hills Rd  
**City:** Decatur  
**Control:** Signalized

**Project ID:** 21-180189-001  
**Date:** 7/13/2021

## Data - Totals

NS/EW Streets:	Birch Rd				Birch Rd				N Druid Hills Rd				N Druid Hills Rd				TOTAL
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:30 AM	2	0	0	0	0	0	0	0	0	81	0	0	2	314	0	0	399
6:45 AM	5	0	2	0	0	0	0	0	0	103	3	0	3	334	0	0	450
7:00 AM	4	0	1	0	0	0	0	0	0	103	3	0	1	356	0	0	468
7:15 AM	5	0	1	0	0	0	0	0	0	117	1	0	1	402	0	0	527
7:30 AM	4	0	1	0	0	0	0	0	0	151	3	0	2	464	0	0	625
7:45 AM	0	0	1	0	0	0	0	0	0	166	10	0	3	522	0	0	702
8:00 AM	2	0	0	0	0	0	0	0	0	171	3	0	4	515	0	0	695
8:15 AM	5	0	1	0	0	0	0	0	0	171	6	0	4	487	0	0	674
<b>TOTAL VOLUMES :</b>	27	0	7	0	0	0	0	0	0	1063	29	0	20	3394	0	0	4540
<b>APPROACH %'s :</b>	79.41%	0.00%	20.59%	0.00%						0.00%	97.34%	2.66%	0.00%	0.59%	99.41%	0.00%	0.00%
<b>PEAK HR :</b>	07:30 AM - 08:30 AM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	11	0	3	0	0	0	0	0	0	659	22	0	13	1988	0	0	2696
<b>PEAK HR FACTOR :</b>	0.550	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.963	0.550	0.000	0.813	0.952	0.000	0.000	0.960
			0.583							0.962				0.953			
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	7	0	6	0	0	0	0	0	0	347	30	0	4	244	0	0	638
4:15 PM	11	0	4	0	0	0	0	0	0	328	23	0	8	276	0	0	650
4:30 PM	5	0	3	0	0	0	0	0	0	340	23	0	5	257	0	0	633
4:45 PM	18	0	7	0	0	0	0	0	0	348	26	0	6	232	0	0	637
5:00 PM	12	0	6	0	0	0	0	0	0	337	26	0	7	235	0	0	623
5:15 PM	15	0	3	0	0	0	0	0	0	304	35	0	5	257	0	0	619
5:30 PM	14	0	2	0	0	0	0	0	0	330	28	0	4	234	0	0	612
5:45 PM	8	0	2	0	0	0	0	0	0	379	19	0	1	218	0	0	627
<b>TOTAL VOLUMES :</b>	90	0	33	0	0	0	0	0	0	2713	210	0	40	1953	0	0	5039
<b>APPROACH %'s :</b>	73.17%	0.00%	26.83%	0.00%						0.00%	92.82%	7.18%	0.00%	2.01%	97.99%	0.00%	0.00%
<b>PEAK HR :</b>	04:00 PM - 05:00 PM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	41	0	20	0	0	0	0	0	0	1363	102	0	23	1009	0	0	2558
<b>PEAK HR FACTOR :</b>	0.569	0.000	0.714	0.000	0.000	0.000	0.000	0.000	0.000	0.979	0.850	0.000	0.719	0.914	0.000	0.000	0.984
			0.610							0.971				0.908			

# National Data & Surveying Services Intersection Turning Movement Count

**Location:** Chick-fil-A W Dwy & N Druid Hills Rd  
**City:** Decatur  
**Control:** No Control

**Project ID:** 21-180189-002  
**Date:** 7/13/2021

## Data - Totals

NS/EW Streets:	Chick-fil-A W Dwy				Chick-fil-A W Dwy				N Druid Hills Rd				N Druid Hills Rd				
<b>AM</b>	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	3 WT	0 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	47	0	0	9	187	0	0	243
6:15 AM	1	0	1	0	0	0	0	0	0	76	7	0	6	274	0	0	365
6:30 AM	2	0	1	0	0	0	0	0	0	83	3	0	15	315	0	0	419
6:45 AM	4	0	3	0	0	0	0	0	0	112	5	0	11	339	0	0	474
7:00 AM	1	0	3	0	0	0	0	0	0	107	4	0	19	363	0	0	497
7:15 AM	3	0	0	0	0	0	0	0	0	125	6	0	10	404	0	0	548
7:30 AM	4	0	2	0	0	0	0	0	0	167	15	0	16	470	0	0	674
7:45 AM	3	0	2	0	0	0	0	0	0	171	10	0	6	526	0	0	718
8:00 AM	5	0	4	0	0	0	0	0	0	177	10	0	16	517	0	0	729
8:15 AM	4	0	3	0	0	0	0	0	0	177	1	0	10	497	0	0	692
8:30 AM	1	0	3	0	0	0	0	0	0	181	10	0	17	465	0	0	677
8:45 AM	3	0	5	0	0	0	0	0	0	183	12	0	17	477	0	0	697
9:00 AM	3	0	4	0	0	0	0	0	0	191	10	0	13	363	0	0	584
9:15 AM	3	0	4	0	0	0	0	0	0	181	10	0	16	386	0	0	600
9:30 AM	5	0	5	0	0	0	0	0	0	168	17	0	20	365	0	0	580
9:45 AM	3	0	3	0	0	0	0	0	0	208	13	0	10	351	0	0	588
<b>TOTAL VOLUMES :</b>	45	0	43	0	0	0	0	0	0	2354	133	0	211	6299	0	0	9085
<b>APPROACH %'s :</b>	51.14%	0.00%	48.86%	0.00%					0.00%	94.65%	5.35%	0.00%	3.24%	96.76%	0.00%	0.00%	
<b>PEAK HR :</b>	07:45 AM - 08:45 AM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	13	0	12	0	0	0	0	0	0	706	31	0	49	2005	0	0	2816
<b>PEAK HR FACTOR :</b>	0.650	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.975	0.775	0.000	0.721	0.953	0.000	0.000	0.966
			0.694							0.965				0.963			

NS/EW Streets:	Chick-fil-A W Dwy				Chick-fil-A W Dwy				N Druid Hills Rd				N Druid Hills Rd				
<b>NOON</b>	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	3 WT	0 WR	0 WU	
10:00 AM	6	0	7	0	0	0	0	0	0	172	7	0	16	259	0	0	467
10:15 AM	7	0	3	0	0	0	0	0	0	187	17	0	10	259	0	0	483
10:30 AM	4	0	4	0	0	0	0	0	0	226	9	0	13	277	0	0	533
10:45 AM	3	0	4	0	0	0	0	0	0	196	10	0	12	258	0	0	483
11:00 AM	2	0	2	0	0	0	0	0	0	220	10	0	18	230	0	0	482
11:15 AM	5	0	6	0	0	0	0	0	0	228	14	0	13	259	0	1	526
11:30 AM	3	0	7	0	0	0	0	0	0	254	15	0	15	281	0	0	575
11:45 AM	1	0	9	0	0	0	0	0	0	232	14	0	24	247	0	0	527
12:00 PM	3	0	7	0	0	0	0	0	0	229	10	0	16	250	0	1	516
12:15 PM	2	0	5	0	0	0	0	0	0	258	16	0	12	278	0	0	571
12:30 PM	3	0	6	0	0	0	0	0	0	259	16	0	22	237	0	0	543
12:45 PM	4	0	7	0	0	0	0	0	0	291	17	0	11	268	0	3	601
1:00 PM	3	0	7	0	0	0	0	0	0	266	18	0	18	269	0	1	582
1:15 PM	9	0	10	0	0	0	0	0	0	273	18	0	10	294	0	0	614
1:30 PM	1	0	5	0	0	0	0	0	0	250	15	0	19	290	0	0	580
1:45 PM	3	0	8	0	0	0	0	0	0	274	20	0	8	280	0	0	593
<b>TOTAL VOLUMES :</b>	59	0	97	0	0	0	0	0	0	3815	226	0	237	4236	0	6	8676
<b>APPROACH %'s :</b>	37.82%	0.00%	62.18%	0.00%					0.00%	94.41%	5.59%	0.00%	5.29%	94.57%	0.00%	0.13%	
<b>PEAK HR :</b>	12:45 PM - 01:45 PM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	17	0	29	0	0	0	0	0	0	1080	68	0	58	1121	0	4	2377
<b>PEAK HR FACTOR :</b>	0.472	0.000	0.725	0.000	0.000	0.000	0.000	0.000	0.000	0.928	0.944	0.000	0.763	0.953	0.000	0.333	0.968
			0.605							0.932				0.957			

NS/EW Streets:	Chick-fil-A W Dwy				Chick-fil-A W Dwy				N Druid Hills Rd				N Druid Hills Rd				
<b>PM</b>	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	3 WT	0 WR	0 WU	
2:00 PM	3	0	5	0	0	0	0	0	0	318	8	0	18	225	0	0	577
2:15 PM	1	0	10	0	0	0	0	0	0	328	15	0	10	272	0	0	636
2:30 PM	2	0	8	0	0	0	0	0	0	392	15	0	14	289	0	0	720
2:45 PM	1	0	8	0	0	0	0	0	0	355	14	0	9	273	0	0	660
3:00 PM	2	0	1	0	0	0	0	0	0	367	16	0	8	271	0	0	665
3:15 PM	3	0	4	0	0	0	0	0	0	389	15	0	10	300	0	0	721
3:30 PM	2	0	5	0	0	0	0	0	0	356	8	0	12	252	0	1	636
3:45 PM	1	0	1	0	0	0	0	0	0	378	13	0	7	247	0	0	647
4:00 PM	2	0	3	0	0	0	0	0	0	391	10	0	4	284	0	0	694
4:15 PM	1	0	5	0	0	0	0	0	0	373	9	1	9	287	0	0	685
4:30 PM	0	0	4	0	0	0	0	0	0	366	12	1	9	249	0	0	641
4:45 PM	4	0	3	0	0	0	0	0	0	381	9	0	4	258	0	0	659
5:00 PM	2	0	4	0	0	0	0	0	0	394	9	0	7	277	0	0	693
5:15 PM	1	0	4	0	0	0	0	0	0	352	16	0	8	270	0	0	651
5:30 PM	2	0	4	0	0	0	0	0	0	374	8	0	5	257	0	0	650
5:45 PM	0	0	0	0	0	0	0	0	0	394	13	0	4	256	0	0	667
6:00 PM	0	0	3	0	0	0	0	0	0	369	12	0	4	238	0	0	626
6:15 PM	2	0	3	0	0	0	0	0	0	353	10	0	7	234	0	0	609
6:30 PM	4	0	4	0	0	0	0	0	0	378	14	0	6	241	0	0	647
6:45 PM	3	0	2	0	0	0	0	0	0	322	11	0	14	229	0	0	581
7:00 PM	1	0	3	0	0	0	0	0	0	290	19	0	14	179	0	0	506
7:15 PM	3	0	2	0	0	0	0	0	0	286	10	0	6	208	0	0	515
7:30 PM	3	0	6	0	0	0	0	0	0	276	13	0	13	193	0	1	505
7:45 PM	0	0	2	0	0	0	0	0	0	257	12	0	11	169	0	0	451
<b>TOTAL VOLUMES :</b>	43	0	94	0	0	0	0	0	0	8439	291	2	213	5958	0	2	15042
<b>APPROACH %'s :</b>	31.39%	0.00%	68.61%	0.00%					0.00%	96.64%	3.33%	0.02%	3.45%	96.52%	0.00%	0.03%	
<b>PEAK HR :</b>	02:30 PM - 03:30 PM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	8	0	21	0	0	0	0	0	0	1503	60	0	41	1133	0	0	2766
<b>PEAK HR FACTOR :</b>	0.667	0.000	0.656	0.000	0.000	0.000	0.000	0.000	0.000	0.959	0.938	0.000	0.732	0.944	0.000	0.000	0.959
			0.725							0.960				0.947			

# National Data & Surveying Services Intersection Turning Movement Count

**Location:** Chick-fil-A E Dwy & N Druid Hills Rd  
**City:** Decatur  
**Control:** 1-Way Stop(SB)

**Project ID:** 21-180189-003  
**Date:** 7/13/2021

## Data - Totals

NS/EW Streets:	Chick-fil-A E Dwy				Chick-fil-A E Dwy				N Druid Hills Rd				N Druid Hills Rd				TOTAL		
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND						
AM	0.5	0	0.5	0	0	2	0	0	0	2	0	0	0	0	3	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
6:00 AM	1	0	5	0	0	0	0	0	0	48	0	0	0	199	1	0		254	
6:15 AM	2	1	9	0	0	0	0	0	0	76	0	0	0	274	0	0		362	
6:30 AM	2	0	8	0	0	0	2	0	0	85	0	0	0	334	3	0		434	
6:45 AM	2	0	9	0	1	0	1	0	1	111	0	0	0	339	6	0		470	
7:00 AM	4	0	9	0	0	0	2	0	2	110	0	0	0	376	8	1		512	
7:15 AM	4	0	13	0	0	0	0	0	0	126	0	0	0	420	6	0		569	
7:30 AM	3	0	12	0	0	0	3	0	2	163	0	0	0	470	8	1		662	
7:45 AM	1	0	14	0	2	0	5	0	1	176	0	0	0	526	9	0		734	
8:00 AM	3	1	10	0	1	0	3	0	0	181	0	0	0	529	12	0		740	
8:15 AM	1	0	9	0	0	0	0	0	1	179	0	0	0	504	10	1		705	
8:30 AM	1	0	16	0	0	0	1	0	1	181	0	0	0	480	10	0		690	
8:45 AM	2	0	13	0	0	0	2	0	1	188	0	0	0	491	15	0		712	
9:00 AM	2	0	18	0	2	0	6	0	0	196	0	0	0	367	16	0		607	
9:15 AM	2	1	15	0	2	0	4	0	0	185	0	0	0	396	16	0		621	
9:30 AM	3	0	10	0	2	0	5	1	2	170	0	0	0	381	8	0		582	
9:45 AM	1	0	19	0	2	0	3	0	4	208	0	0	0	353	21	0		611	
<b>TOTAL VOLUMES :</b>	34	3	189	0	12	0	37	1	15	2383	0	0	0	6439	149	3		9265	
<b>APPROACH %'s :</b>	15.04%	1.33%	83.63%	0.00%	24.00%	0.00%	74.00%	2.00%	0.63%	99.37%	0.00%	0.00%	0.00%	97.69%	2.26%	0.05%			
<b>PEAK HR :</b>	07:45 AM - 08:45 AM																		
<b>PEAK HR VOL :</b>	6	1	49	0	3	0	9	0	3	717	0	0	0	2039	41	1		2869	
<b>PEAK HR FACTOR :</b>	0.500	0.250	0.766	0.000	0.375	0.000	0.450	0.000	0.750	0.990	0.000	0.000	0.000	0.964	0.854	0.250		0.969	
	0.824				0.429				0.989				0.962						
NOON	0.5	0	0.5	0	0	2	0	0	0	2	0	0	0	3	0	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
10:00 AM	1	0	17	0	5	0	2	0	0	174	1	0	0	271	21	0		492	
10:15 AM	2	0	13	0	3	0	5	0	1	193	0	0	0	262	19	0		498	
10:30 AM	4	1	16	0	7	0	8	0	2	228	0	0	0	278	17	0		561	
10:45 AM	4	0	13	0	6	0	3	0	0	200	0	0	0	263	13	0		502	
11:00 AM	2	0	8	0	3	0	7	0	1	214	0	0	0	239	26	0		500	
11:15 AM	1	0	22	0	1	0	5	0	3	236	0	2	0	274	17	0		561	
11:30 AM	2	0	21	0	5	0	6	0	1	261	0	0	0	279	18	0		593	
11:45 AM	0	1	21	0	1	0	10	1	2	239	0	0	0	261	21	0		557	
12:00 PM	4	0	13	0	7	0	2	0	2	233	0	0	0	268	32	0		561	
12:15 PM	2	0	28	0	4	0	7	1	3	262	0	0	0	274	28	1		610	
12:30 PM	2	0	15	0	6	0	7	0	1	264	0	0	0	251	21	0		567	
12:45 PM	2	0	15	0	3	0	15	0	4	289	0	0	0	264	21	0		613	
1:00 PM	2	0	18	0	2	0	10	0	3	279	0	0	0	277	25	0		616	
1:15 PM	2	0	21	0	4	0	9	0	2	274	0	0	0	292	22	0		626	
1:30 PM	2	0	20	0	6	0	10	0	2	260	0	0	0	304	28	0		632	
1:45 PM	1	0	18	0	6	0	5	0	3	278	1	0	0	275	33	0		620	
<b>TOTAL VOLUMES :</b>	33	2	279	0	69	0	111	2	30	3884	2	2	0	4332	362	1		9109	
<b>APPROACH %'s :</b>	10.51%	0.64%	88.85%	0.00%	37.91%	0.00%	60.99%	1.10%	0.77%	99.13%	0.05%	0.05%	0.00%	92.27%	7.71%	0.02%			
<b>PEAK HR :</b>	01:00 PM - 02:00 PM																		
<b>PEAK HR VOL :</b>	7	0	77	0	18	0	34	0	10	1091	1	0	0	1148	108	0		2494	
<b>PEAK HR FACTOR :</b>	0.875	0.000	0.917	0.000	0.750	0.000	0.850	0.000	0.833	0.978	0.250	0.000	0.000	0.944	0.818	0.000		0.987	
	0.913				0.813				0.977				0.946						
PM	0.5	0	0.5	0	0	2	0	0	0	2	0	0	0	3	0	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
2:00 PM	0	0	20	0	4	0	8	0	1	320	0	0	0	231	19	1		604	
2:15 PM	0	1	12	0	6	0	10	0	2	338	0	0	0	275	18	0		662	
2:30 PM	0	0	12	0	4	0	8	0	1	399	0	0	0	294	13	0		731	
2:45 PM	0	1	14	0	4	0	7	0	1	360	0	0	0	272	19	0		678	
3:00 PM	0	0	20	0	2	0	6	0	0	370	0	0	0	281	28	0		707	
3:15 PM	1	0	20	0	2	0	7	0	0	393	0	0	0	294	21	0		738	
3:30 PM	0	0	19	0	6	0	10	0	2	360	0	0	0	255	14	0		666	
3:45 PM	0	0	16	0	1	0	4	0	5	367	0	0	0	250	31	0		674	
4:00 PM	1	0	18	0	7	0	11	0	3	399	0	0	0	281	25	0		745	
4:15 PM	1	0	10	0	7	0	2	0	1	377	0	0	0	288	28	0		714	
4:30 PM	0	0	12	0	7	0	7	0	1	366	0	0	0	251	28	0		672	
4:45 PM	0	0	9	0	6	0	9	0	1	390	0	0	0	261	16	0		692	
5:00 PM	1	0	12	0	6	0	6	0	3	393	0	0	0	269	24	0		714	
5:15 PM	0	0	15	0	8	0	5	0	1	346	0	0	0	273	29	0		677	
5:30 PM	0	0	15	0	1	0	14	0	1	374	0	0	0	252	25	0		682	
5:45 PM	1	0	14	0	8	0	4	0	0	403	0	0	0	251	21	0		702	
6:00 PM	1	0	9	0	6	0	7	0	1	366	0	0	0	240	25	0		655	
6:15 PM	0	0	11	0	6	0	9	0	1	356	0	0	0	226	23	0		632	
6:30 PM	1	0	17	0	4	0	6	0	1	385	0	0	0	245	34	0		693	
6:45 PM	1	0	13	0	8	0	4	0	0	324	0	0	0	233	27	0		610	
7:00 PM	2	0	16	0	4	0	0	0	0	287	0	0	0	191	18	0		518	
7:15 PM	2	1	20	0	8	0	6	0	1	293	0	0	0	217	24	0		572	
7:30 PM	2	0	16	0	4	0	4	0	2	281	0	0	0	190	14	0		513	
7:45 PM	2	0	17	0	7	0	7	0	0	258	0	0	0	173	13	0		477	
<b>TOTAL VOLUMES :</b>	16	3	357	0	126	0	161	0	29	8505	0	0	0	5993	537	1		15728	
<b>APPROACH %'s :</b>	4.26%	0.80%	94.95%	0.00%	43.90%	0.00%	56.10%	0.00%	0.34%	99.66%	0.00%	0.00%	0.00%	91.76%	8.22%	0.02%			
<b>PEAK HR :</b>	02:30 PM - 03:30 PM																		
<b>PEAK HR VOL :</b>	1	1	66	0	12	0	28	0	2	1522	0	0	0	1141	81	0		2854	
<b>PEAK HR FACTOR :</b>	0.250	0.250	0.825	0.000	0.750	0.000	0.875	0.000	0.500	0.954	0.000	0.000	0.000	0.970	0.723	0.000		0.967	
	0.810				0.833				0.953				0.970						

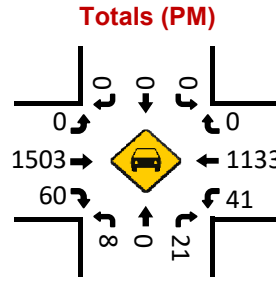
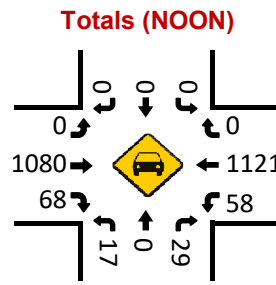
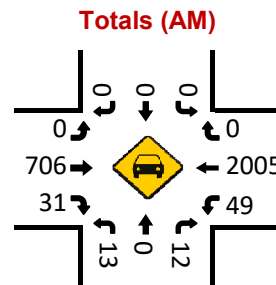
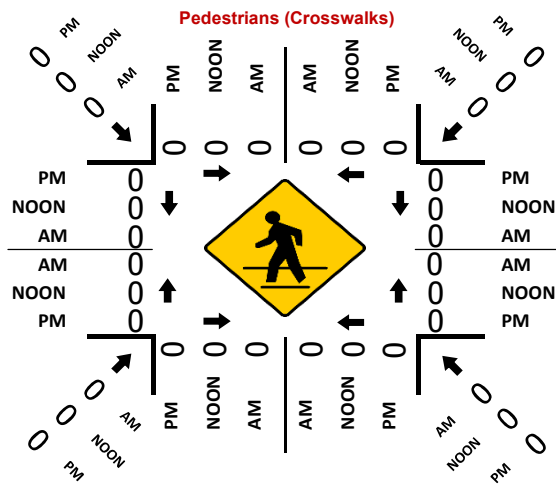
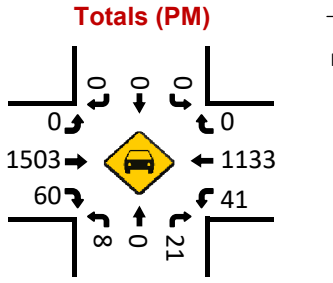
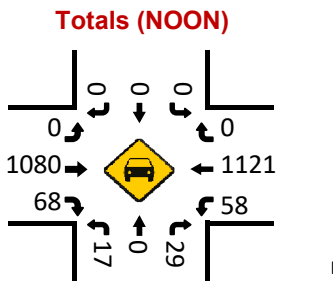
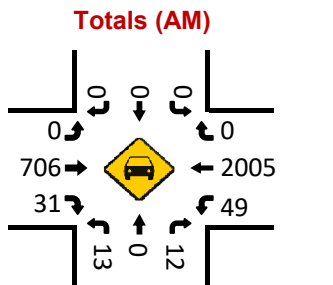
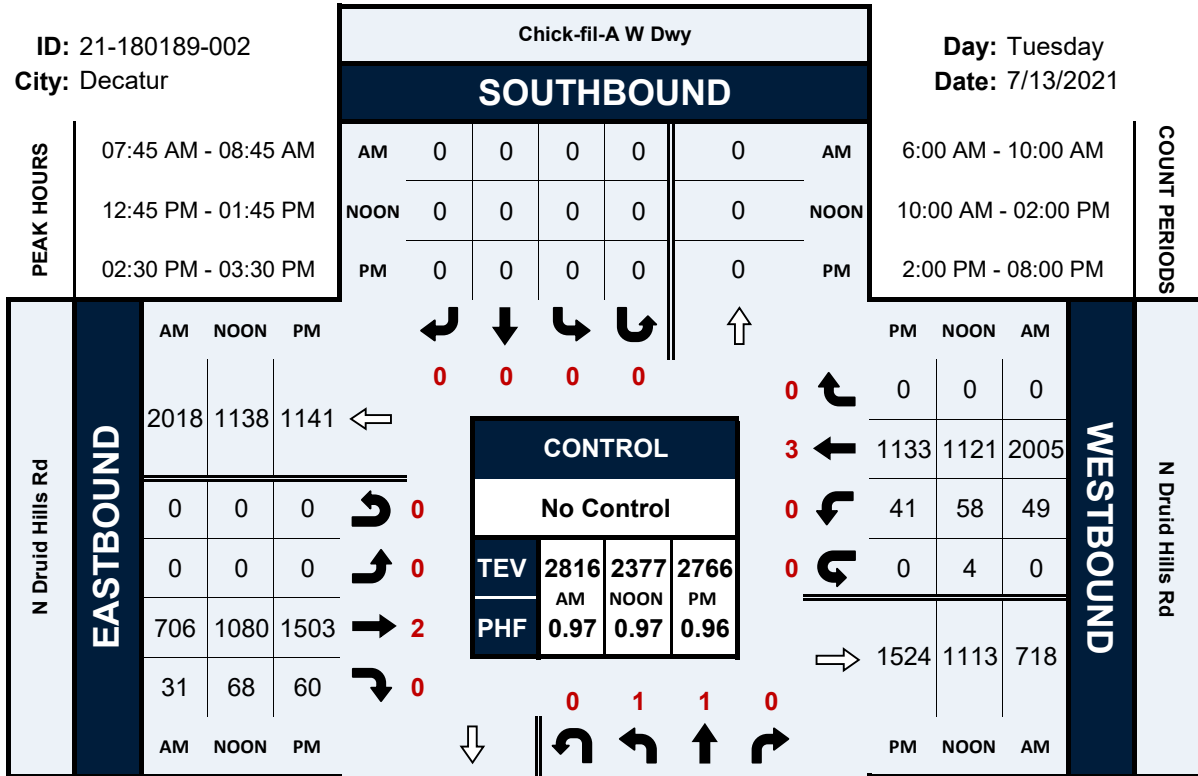


# Chick-fil-A W Dwy & N Druid Hills Rd

## Peak Hour Turning Movement Count

ID: 21-180189-002  
City: Decatur

Day: Tuesday  
Date: 7/13/2021

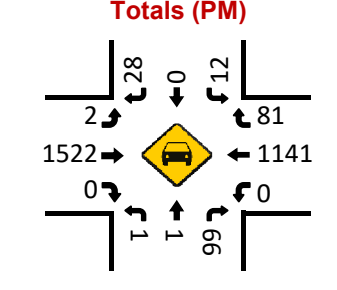
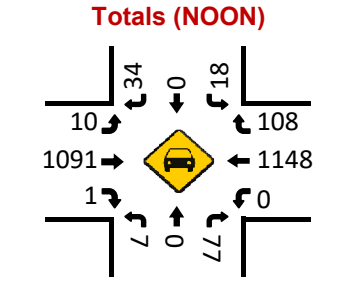
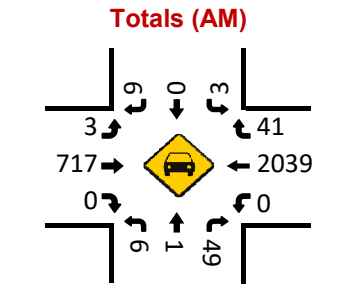
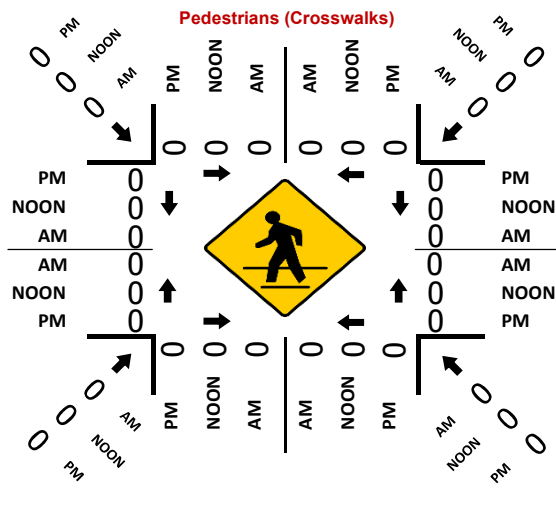
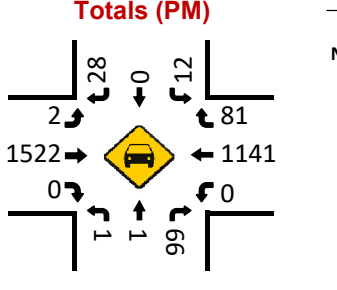
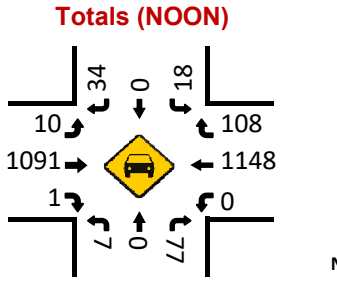
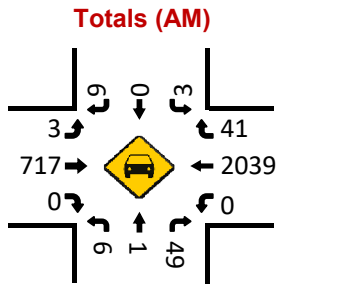
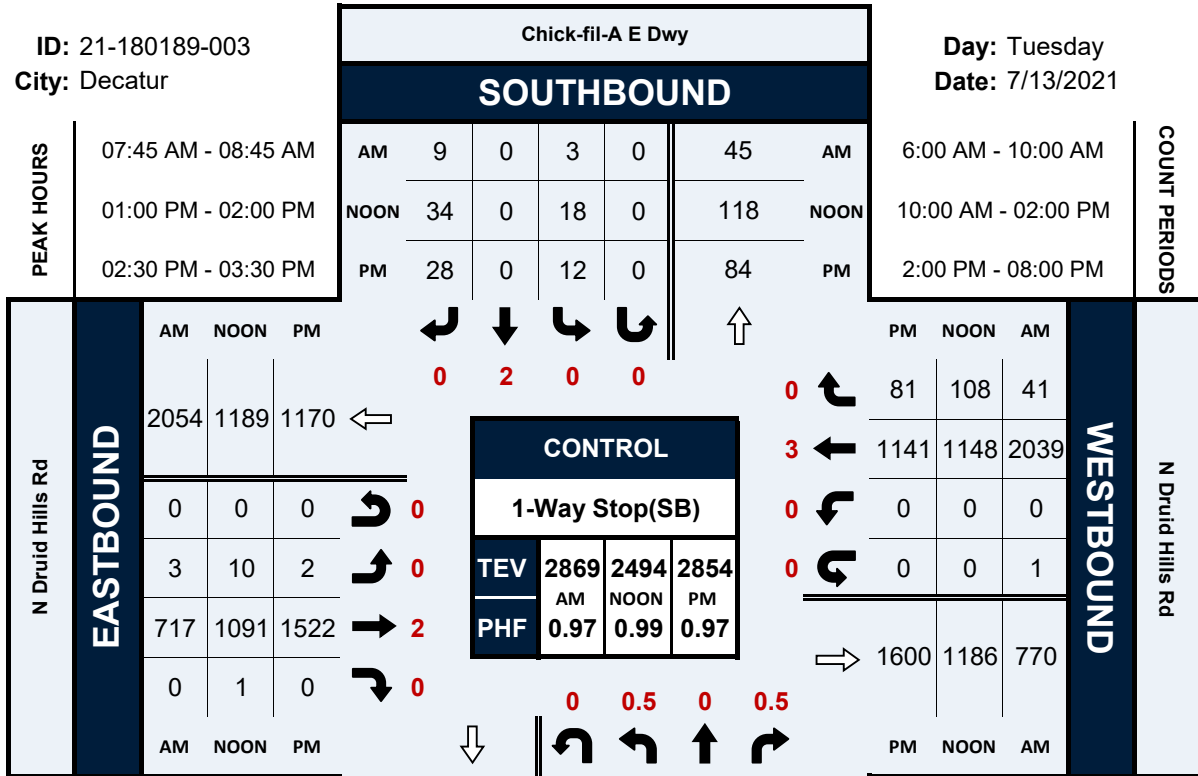


# Chick-fil-A E Dwy & N Druid Hills Rd

## Peak Hour Turning Movement Count

ID: 21-180189-003  
City: Decatur

Day: Tuesday  
Date: 7/13/2021



## **Appendix B: Turn Lane Warrant Worksheets**

Note: This warrant is being applied to a 4-phase signal that controls the minor street approach but the main line left (N Druid Hills) is not signalized (protected phase) and still makes a permissive left turn when there are acceptable gaps in traffic.

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

4-lane roadway

INPUT

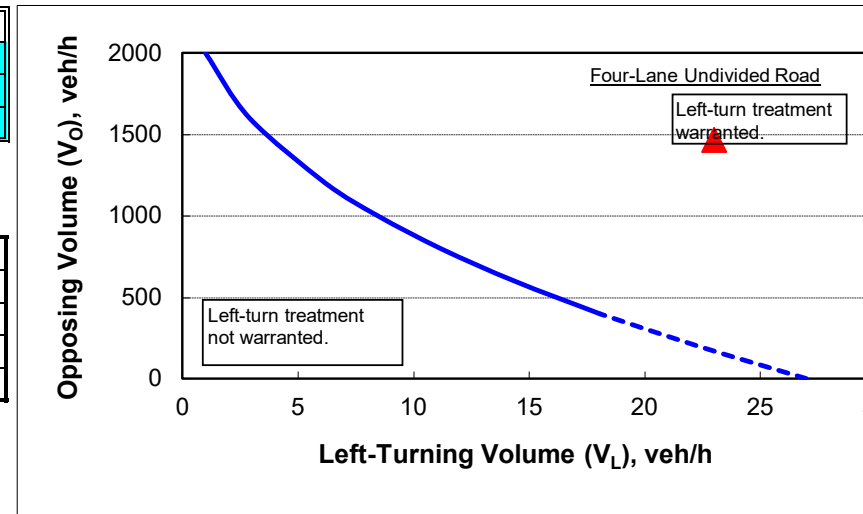
Variable	Value
Left-turning volume ( $V_L$ ), veh/h:	23
Advancing volume ( $V_A$ ), veh/h:	1032
Opposing volume ( $V_O$ ), veh/h:	1465

OUTPUT

Variable	Message
Opposing volume ( $V_O$ ) check:	O.K.
Combined volume ( $V_A$ and $V_O$ ) check:	O.K.
<b>Guidance for determining the need for a major-road left-turn bay:</b>	
Left-turn treatment warranted.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway, s:	6.0



Note: When  $V_O < 400$  veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume ( $V_A$ ) in the same direction as the left-turning traffic exceeds 400 veh/h ( $V_A > 400$  veh/h).



**September 2, 2021**

Mrs. Patrece Keeter  
DeKalb County Public Works  
Transportation Division  
1300 Commerce Drive  
Decatur, GA 30030

**Intersection Analysis Memo:  
North Druid Hills Road at Birch Road Chick-fil-a Relocation Intersection Analysis – Decatur, GA**

**Existing Traffic Volumes**

The existing Chick-fil-a restaurant located at 3905 N Druid Hills Rd in Decatur, GA, is proposing to relocate to the southeast corner of Birch Road at N Druid Hills Rd intersection. The proposed site location was previously occupied by a Pier 1 Imports retail store. This memo analyzes the intersection LOS and queuing at North Druid Hills at Birch Road in the existing and proposed building conditions and the potential impacts on the operation of this intersection by the proposed relocated Chick-fil-a restaurant.

Traffic count data for this project was originally collected on Tuesday July 13, 2021. Peak hour turning movement counts were collected at the intersections of Birch Road at N Druid Hills Rd and N Druid Hills Rd at both existing Chick-fil-a driveway locations. Additional peak hour turning movement counts were recollected at the Birch Rd intersection on Tuesday August 10<sup>th</sup>, 2021, after the school year had started. The peak hour volumes at the Birch Rd intersection are provided in Figure 1. The full set of traffic data is provided in Appendix A. Previous collected volumes at the Chick-fila driveways have not been adjusted for collection during the summer when school was not in session.

**Proposed Traffic Volumes**

For the proposed traffic volumes, the existing Chick-fil-a trips were distributed to the Birch Rd intersection and the proposed right-in-right-out driveway on North Druid Hills Rd. Chick-fil-a estimates the new site location to generate 10% more trips, so this growth factor is applied to the redistributed trips. The proposed peak hour volumes at the Birch Road intersection are provided in Figures 2 and 3.

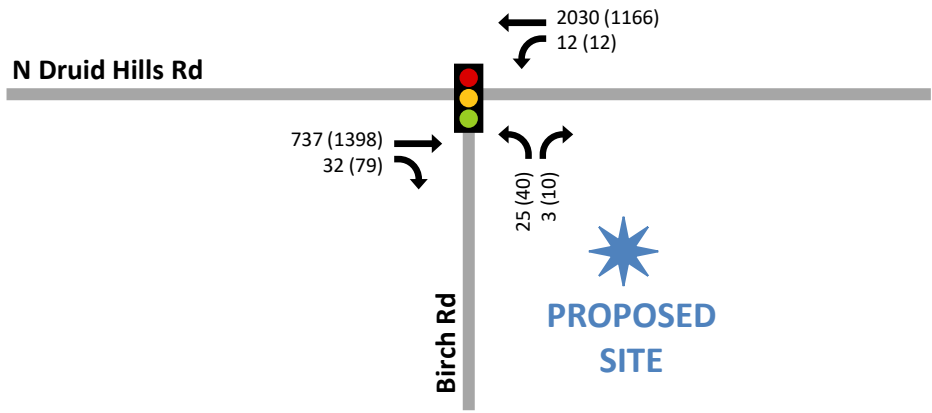
# Figure 1: Existing Traffic Volumes

## (##) → AM (PM) Traffic Volumes



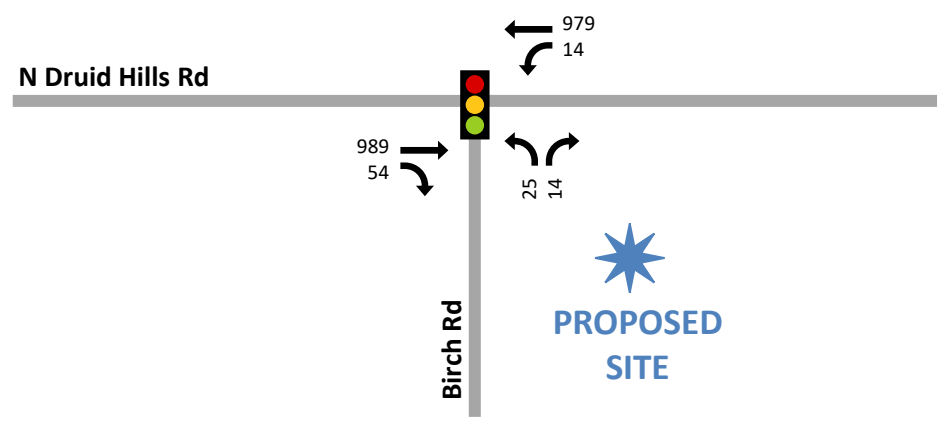
NOT TO SCALE

Existing Turning Movement Counts  
N Druid Hills Rd at Birch Rd Intersection



## (##) → MD Traffic Volumes (midday)

Existing Turning Movement Counts  
N Druid Hills Rd at Birch Rd Intersection



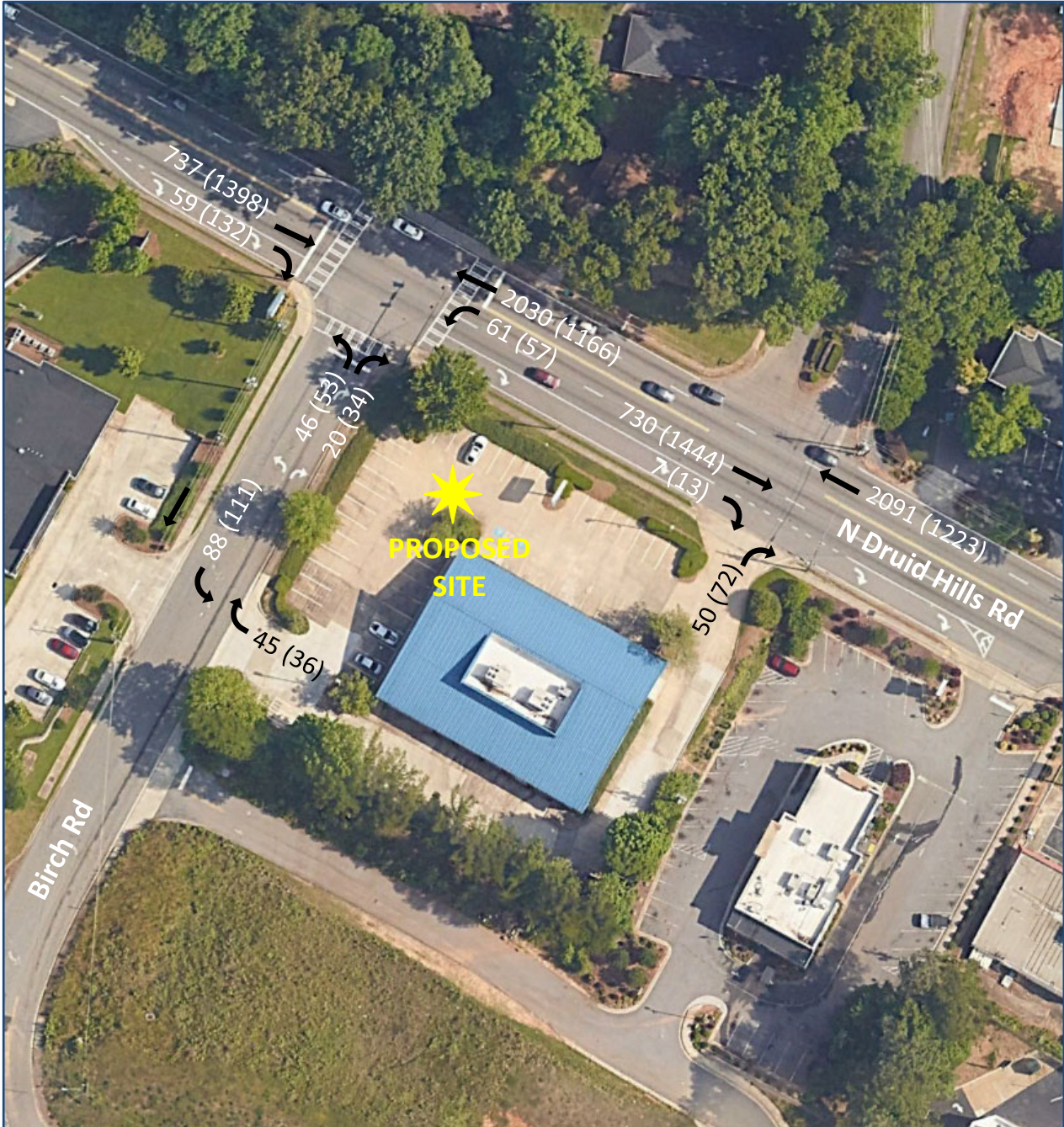
# Figure 2: Projected Peak Hour Volumes



## (##) → AM (PM) Traffic Volumes

Volumes updated 8/10/2021  
 AM peak hour of Birch Rd intersection 7:30-8:30am  
 PM peak hour of Birch Rd intersection 5:00-6:00pm

AM (PM) Peak Hour Turning movement counts – Birch Rd + Proposed Chick-fil-a site on North Druid Hills Rd



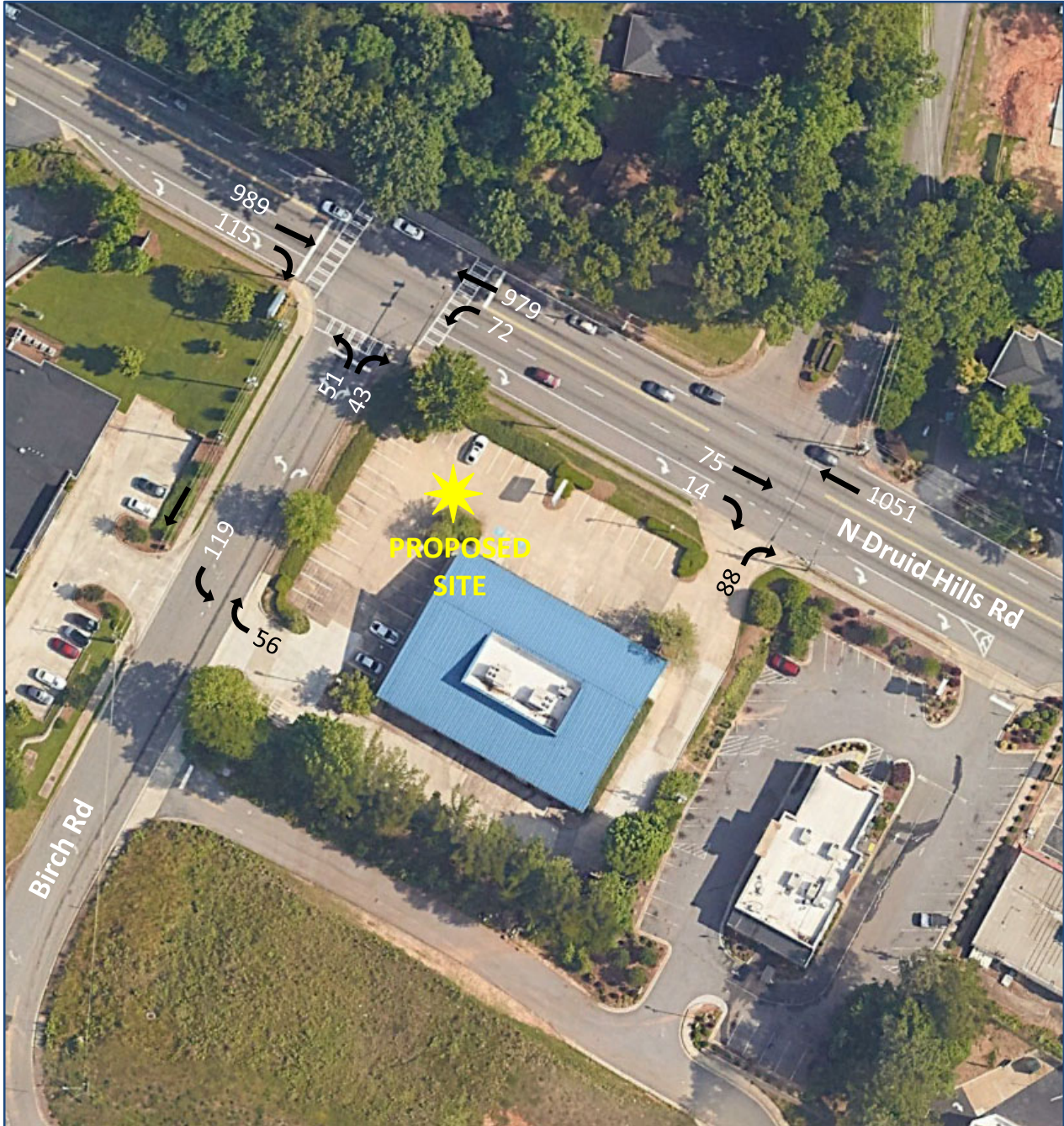
# Figure 3: Projected Peak Hour Volumes

## (##) → MD Traffic Volumes

Volumes updated 8/10/2021  
MD peak hour of Birch Rd intersection 1:00-2:00pm



AM (PM) Peak Hour Turning movement counts – Birch Rd + Proposed Chick-fil-a site on North Druid Hills Rd



### Existing Conditions Capacity Analysis

Existing traffic volumes were entered into a *Synchro* 10 model to perform capacity analysis of existing conditions for the AM, MD and PM peak periods. The results of the capacity analysis are shown by lane group movement in Table 1. Average vehicular delays and level-of service, as defined by the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition are presented, and 95<sup>th</sup> percentile queues from *SimTraffic 10* are shown. Full *Synchro* output reports are included Appendix B. The signal timings for the intersection at Birch Rd were not available at the time of this analysis. The timings were estimated to be actuated coordinated with a 140-second cycle length with a side street split time of 25 seconds. These estimated timings were used for both the existing and proposed conditions analysis. For the purposes of this analysis North Druid H

**Table 1: Existing Conditions Capacity Analysis**

Intersection	Control	Lane Group Movement	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	1.1	A	59	1.4	A	81	2.0	A	131
		EBR	0.8	A	10	0.9	A	12	1.0	A	33
		WBL	4.4	A	157	1.7	A	112	2.1	A	198
		WBT	4.9	A	130	1.7	A	59	2.2	A	148
		NBL	74.5	E	67	71.1	E	61	78.1	E	74
		NBR	66.6	E	5	68.5	E	13	66.6	E	13
		Intersection	4.4	A	-	2.8	A	-	3.5	A	-

The intersection of Birch Rd at North Druid Hills Rd (with estimated timings) is shown to operate at LOS A during the AM, MD and PM peak periods. Under these conditions the NB approaches from Birch Rd are shown to operate at LOS E. This approach LOS for the minor street is a result of the coordinated operation on the mainline.

In the existing conditions the shared WBT/L lane is shown to have 95<sup>th</sup> percentile queuing of 157-ft in the AM peak period, 112-ft in the MD peak period and 198-ft in the PM peak period. These queuing lengths are equivalent to approximately 5-8 vehicles queuing per cycle.

### Build Conditions Capacity Analysis

The proposed redistributed traffic volumes were also entered into a *Synchro* 10 model to perform capacity analysis of existing conditions for the AM, MD and PM peak periods. The results of the capacity analysis are shown by lane group movement in Table 2. Average vehicular delays and level-of service, as defined by the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition are presented, and 95<sup>th</sup> percentile queues from *SimTraffic 10* are shown. Full *Synchro* output reports are included Appendix B. The estimated signal timings for the intersection at Birch Rd remained the same as the existing conditions analysis.

**Table 2: Build Conditions Capacity Analysis**

Intersection	Control	Lane Group Movement	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	1.3	A	85	1.7	A	92	2.2	A	125
		EBR	1.0	A	23	1.2	A	35	1.2	A	35
		WBL	6.6	A	262	2.4	A	207	3.0	A	289
		WBT	5.9	A	220	2.5	A	165	3.0	A	259
		NBL	77.9	E	95	75.6	E	88	76.1	E	90
		NBR	68.6	E	13	75.5	E	25	70.4	E	32
		Intersection	6.5	A	-	5.1	A	-	4.7	A	-

The intersection of Birch Rd at North Druid Hills Rd (with estimated timings) is shown to continue operate at LOS A during the AM, MD and PM peak periods with minor increases to the overall intersection delay. Under these conditions the NB approaches from Birch Rd continue to operate at LOS E with minor increases in delay and queuing.

In the build conditions the shared WBT/L lane is shown to have 95<sup>th</sup> percentile queuing of 262-ft in the AM peak period, 207-ft in the MD peak period and 289-ft in the PM peak period. These queuing lengths are equivalent to approximately 9-12 vehicles queuing per cycle.

### Conclusions and Recommendations

The increased turning movement volumes at the Birch Rd intersection generated by the Chick-fil-a relocation contribute to minor increases in delay and queuing at the intersection approaches. The overall intersection continues to operate at the same LOS A as in the existing conditions with minor increases to overall delay. The Birch Rd minor street approach also continues to operate at the same level of service as it does in the existing conditions. The shared WBT/L lane on North Druid Hills demonstrates increases in queuing equivalent to approximately 100-ft or 4 vehicles per cycle during the peak hour build conditions.

Please contact me or Jack Johnson at 770-368-1399 if you have any questions or need additional information.

Sincerely,



**FORESITE GROUP, LLC**

Stevie Berryman  
Project Manager

## Appendix A: Traffic Counts



# National Data & Surveying Services Intersection Turning Movement Count

**Location:** Birch Rd & N Druid Hills Rd  
**City:** Decatur  
**Control:** Signalized

**Project ID:** 21-180213-001  
**Date:** 8/10/2021

### Data - Total

NS/EW Streets:	Birch Rd				Birch Rd				N Druid Hills Rd				N Druid Hills Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	0	1	0	0	0	0	0	0	2	1	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	1	0	0	0	0	0	0	0	0	58	2	0	0	211	0	0	272
6:15 AM	1	0	0	0	0	0	0	0	0	98	3	0	4	287	0	0	393
6:30 AM	0	0	0	0	0	0	0	0	0	99	0	0	0	362	0	0	461
6:45 AM	3	0	0	0	0	0	0	0	0	107	4	0	3	419	0	0	536
7:00 AM	1	0	0	0	0	0	0	0	0	127	4	0	0	405	0	0	537
7:15 AM	3	0	0	0	0	0	0	0	0	153	2	0	2	443	0	0	603
7:30 AM	2	0	2	0	0	0	0	0	0	192	9	0	2	549	0	0	756
7:45 AM	7	0	0	0	0	0	0	0	0	181	9	0	5	535	0	0	737
8:00 AM	4	0	0	0	0	0	0	0	0	167	7	0	3	475	0	0	656
8:15 AM	12	0	1	0	0	0	0	0	0	197	7	0	2	471	0	0	690
8:30 AM	6	0	0	0	0	0	0	0	0	191	9	0	1	525	0	0	732
8:45 AM	3	0	0	0	0	0	0	0	0	159	6	0	3	480	0	0	651
<b>TOTAL VOLUMES :</b>	43	0	3	0	0	0	0	0	0	1729	62	0	25	5162	0	0	7024
<b>APPROACH %'s :</b>	93.48%	0.00%	6.52%	0.00%					0.00%	96.54%	3.46%	0.00%	0.48%	99.52%	0.00%	0.00%	
<b>PEAK HR :</b>	<b>07:30 AM - 08:30 AM</b>																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	25	0	3	0	0	0	0	0	0	737	32	0	12	2030	0	0	2839
<b>PEAK HR FACTOR :</b>	0.521	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.935	0.889	0.000	0.600	0.924	0.000	0.000	0.939
			0.538								0.942			0.926			
<b>NOON</b>	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	0	0	0	0	0	2	1	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	8	0	2	0	0	0	0	0	0	192	7	0	5	263	0	0	477
11:15 AM	7	0	2	0	0	0	0	0	0	231	10	0	1	236	0	0	487
11:30 AM	6	0	2	0	0	0	0	0	0	195	7	0	4	245	0	0	459
11:45 AM	12	0	2	0	0	0	0	0	0	215	7	0	6	270	0	0	512
12:00 PM	7	0	5	0	0	0	0	0	0	215	11	0	2	222	0	0	462
12:15 PM	5	0	5	0	0	0	0	0	0	211	8	0	4	240	0	0	473
12:30 PM	6	0	2	0	0	0	0	0	0	243	5	1	6	261	0	1	525
12:45 PM	8	0	3	0	0	0	0	0	0	225	11	0	2	255	0	0	504
1:00 PM	6	0	3	0	0	0	0	0	0	252	19	0	3	226	0	0	509
1:15 PM	5	0	2	0	0	0	0	0	0	251	9	0	3	232	0	0	502
1:30 PM	8	0	1	0	0	0	0	0	0	247	12	0	4	256	0	0	528
1:45 PM	6	0	8	0	0	0	0	0	0	239	14	0	4	265	0	0	536
<b>TOTAL VOLUMES :</b>	84	0	37	0	0	0	0	0	0	2716	120	1	44	2971	0	1	5974
<b>APPROACH %'s :</b>	69.42%	0.00%	30.58%	0.00%					0.00%	95.73%	4.23%	0.04%	1.46%	98.51%	0.00%	0.03%	
<b>PEAK HR :</b>	<b>01:00 PM - 02:00 PM</b>																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	25	0	14	0	0	0	0	0	0	989	54	0	14	979	0	0	2075
<b>PEAK HR FACTOR :</b>	0.781	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.981	0.711	0.000	0.875	0.924	0.000	0.000	0.968
			0.696								0.962			0.923			
<b>PM</b>	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	0	0	0	0	0	2	1	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
3:00 PM	7	0	3	0	0	0	0	0	0	342	17	0	1	238	0	0	608
3:15 PM	8	0	1	0	0	0	0	0	0	379	9	0	4	249	0	0	650
3:30 PM	11	0	6	0	0	0	0	0	0	403	20	0	2	191	0	0	633
3:45 PM	11	0	7	0	0	0	0	0	0	354	16	0	3	223	0	0	614
4:00 PM	15	0	3	0	0	0	0	0	0	343	17	0	6	227	0	0	611
4:15 PM	7	0	1	0	0	0	0	0	0	330	23	0	4	302	0	0	667
4:30 PM	11	0	4	0	0	0	0	0	0	331	23	0	3	234	0	1	607
4:45 PM	15	0	6	0	0	0	0	0	0	352	24	0	1	239	0	0	637
5:00 PM	14	0	3	0	0	0	0	0	0	317	29	0	6	254	0	0	623
5:15 PM	8	0	4	0	0	0	0	0	0	350	16	0	1	263	0	0	642
5:30 PM	9	0	1	0	0	0	0	0	0	381	17	0	1	322	0	0	731
5:45 PM	12	0	2	0	0	0	0	0	0	350	17	0	4	327	0	0	712
<b>TOTAL VOLUMES :</b>	128	0	41	0	0	0	0	0	0	4232	228	0	36	3069	0	1	7735
<b>APPROACH %'s :</b>	75.74%	0.00%	24.26%	0.00%					0.00%	94.89%	5.11%	0.00%	1.16%	98.81%	0.00%	0.03%	
<b>PEAK HR :</b>	<b>05:00 PM - 06:00 PM</b>																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	43	0	10	0	0	0	0	0	0	1398	79	0	12	1166	0	0	2708
<b>PEAK HR FACTOR :</b>	0.768	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.917	0.681	0.000	0.500	0.891	0.000	0.000	0.926
			0.779								0.928			0.890			

## Birch Rd & N Druid Hills Rd

### Peak Hour Turning Movement Count

**ID:** 21-180213-001  
**City:** Decatur

**Day:** Tuesday  
**Date:** 8/10/2021

**PEAK HOURS**

Birch Rd							
SOUTHBOUND							
07:30 AM - 08:30 AM	AM	0	0	0	0	0	AM
01:00 PM - 02:00 PM	NOON	0	0	0	0	0	NOON
05:00 PM - 06:00 PM	PM	0	0	0	0	0	PM

**COUNT PERIODS**

**EASTBOUND**

**CONTROL**  
**Signalized**  

TEV	2839	2075	2708
AM			
PHF	0.94	0.97	0.93

**WESTBOUND**

**Cars (AM)**

PM	91	0	43	0	10	PM
NOON	68	0	25	0	14	NOON
AM	44	0	25	0	3	AM

**HT (AM)**

**Cars (NOON)**

Birch Rd						
NORTHBOUND						

**HT (NOON)**

**Cars (PM)**

Pedestrians (Crosswalks)

**HT (PM)**

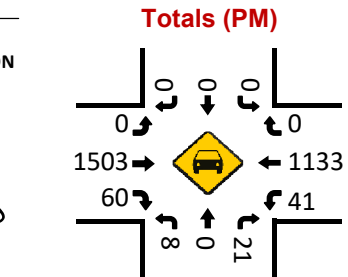
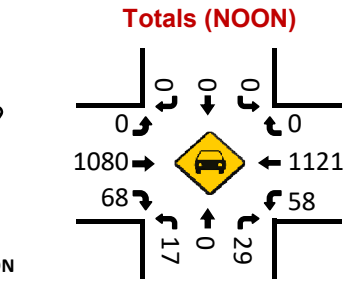
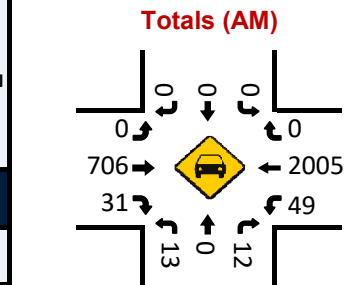
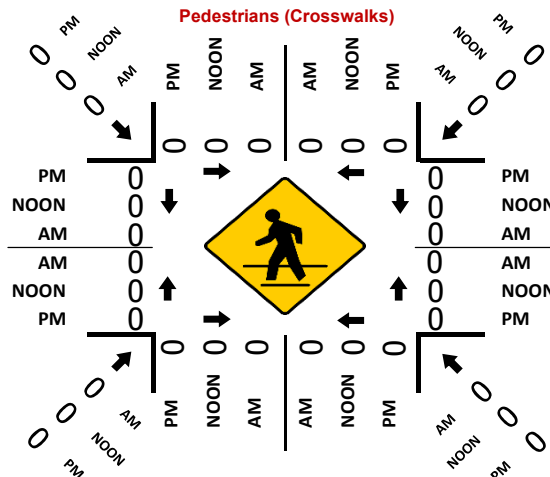
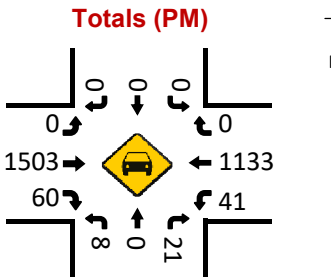
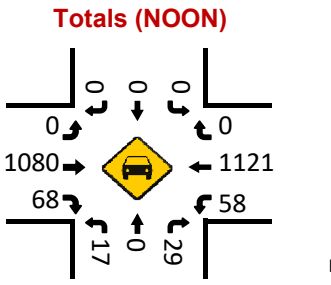
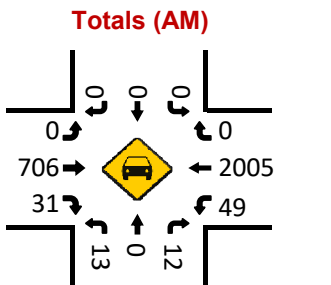
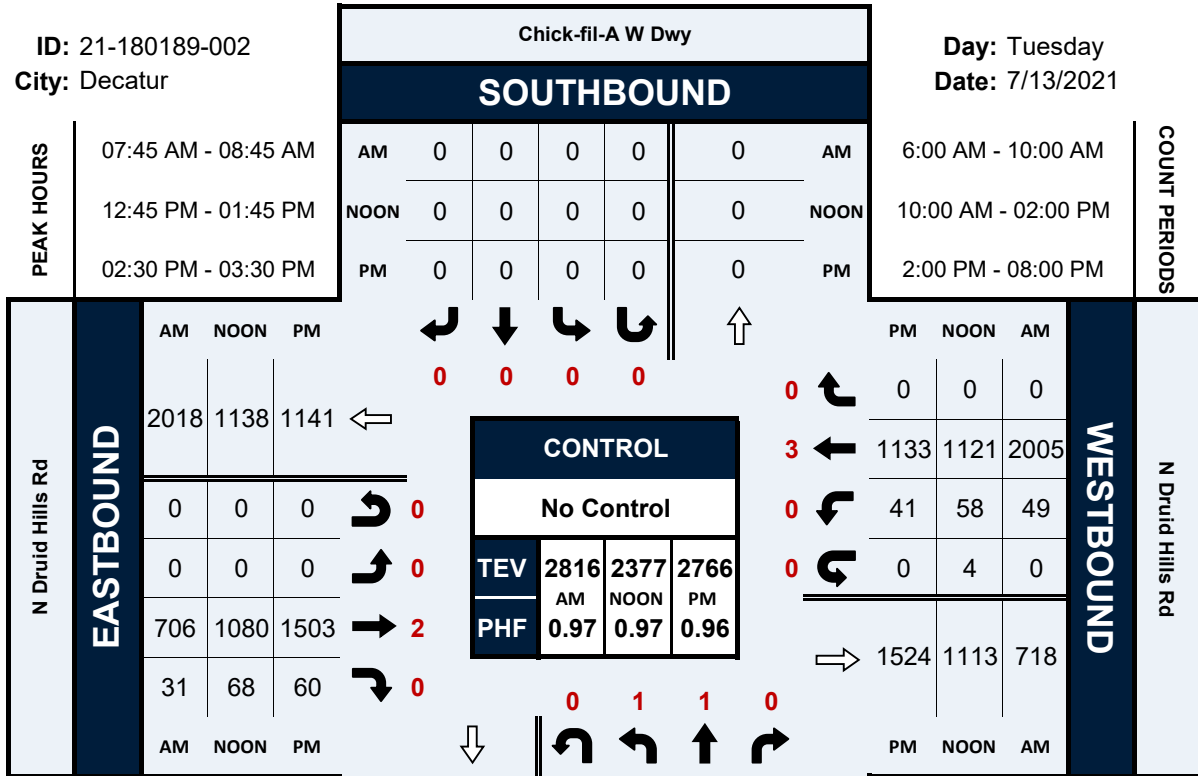


# Chick-fil-A W Dwy & N Druid Hills Rd

## Peak Hour Turning Movement Count

ID: 21-180189-002  
City: Decatur

Day: Tuesday  
Date: 7/13/2021



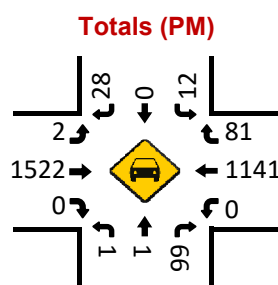
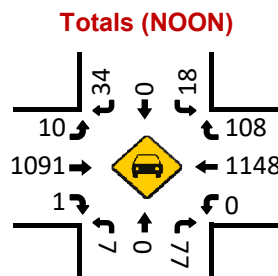
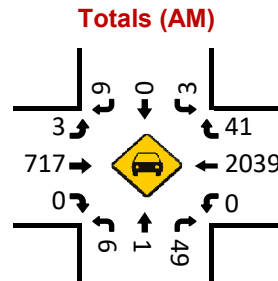
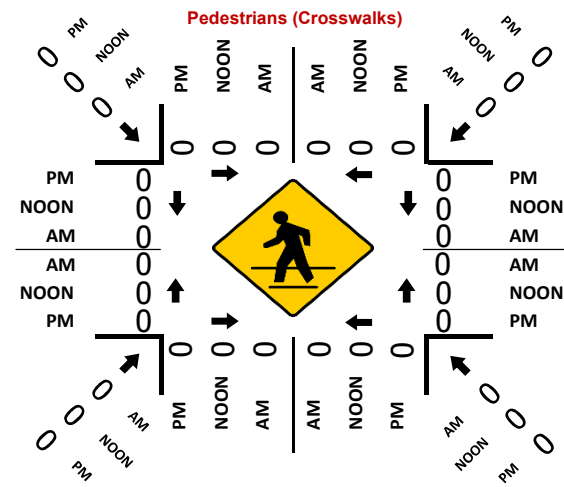
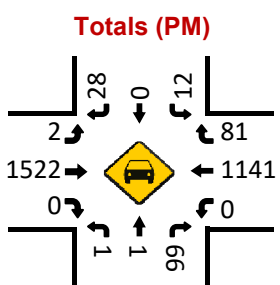
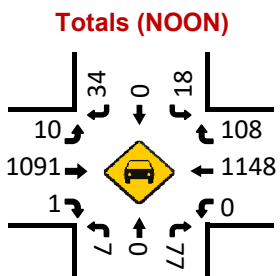
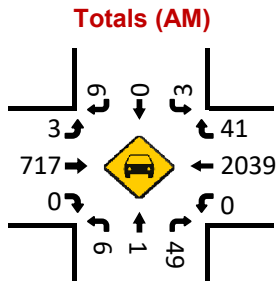
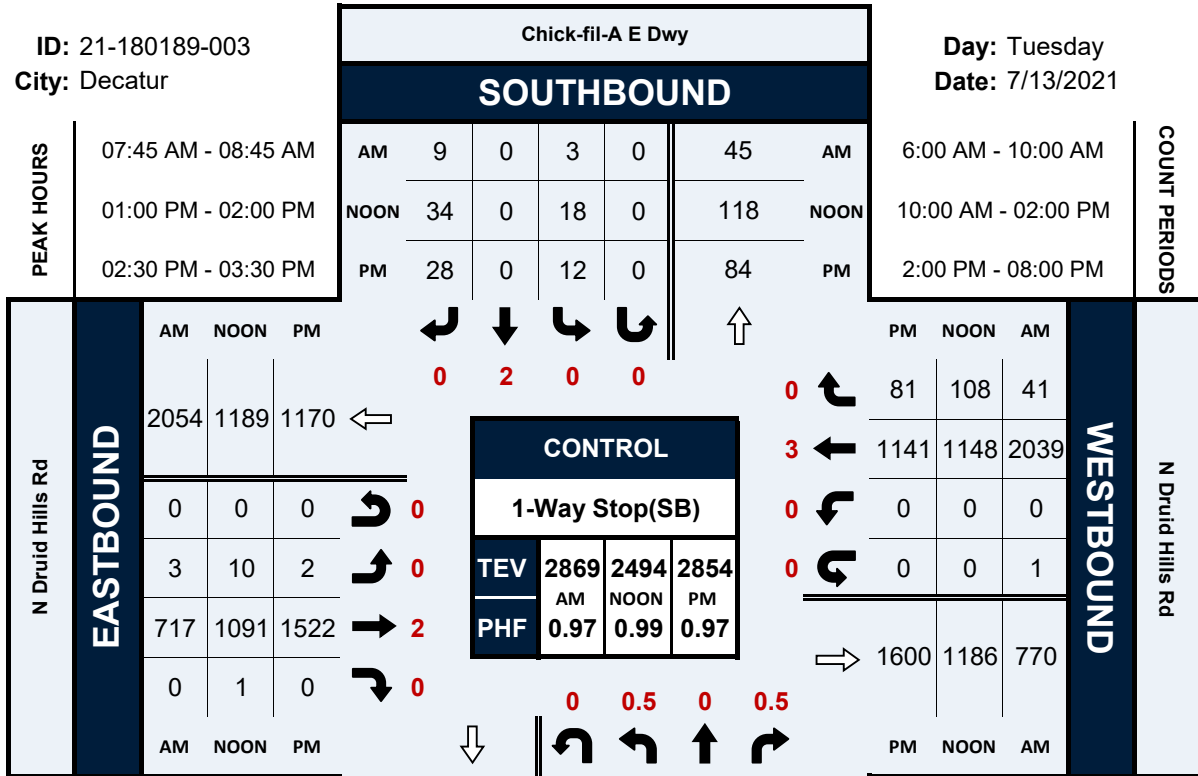


# Chick-fil-A E Dwy & N Druid Hills Rd

## Peak Hour Turning Movement Count

ID: 21-180189-003  
City: Decatur

Day: Tuesday  
Date: 7/13/2021



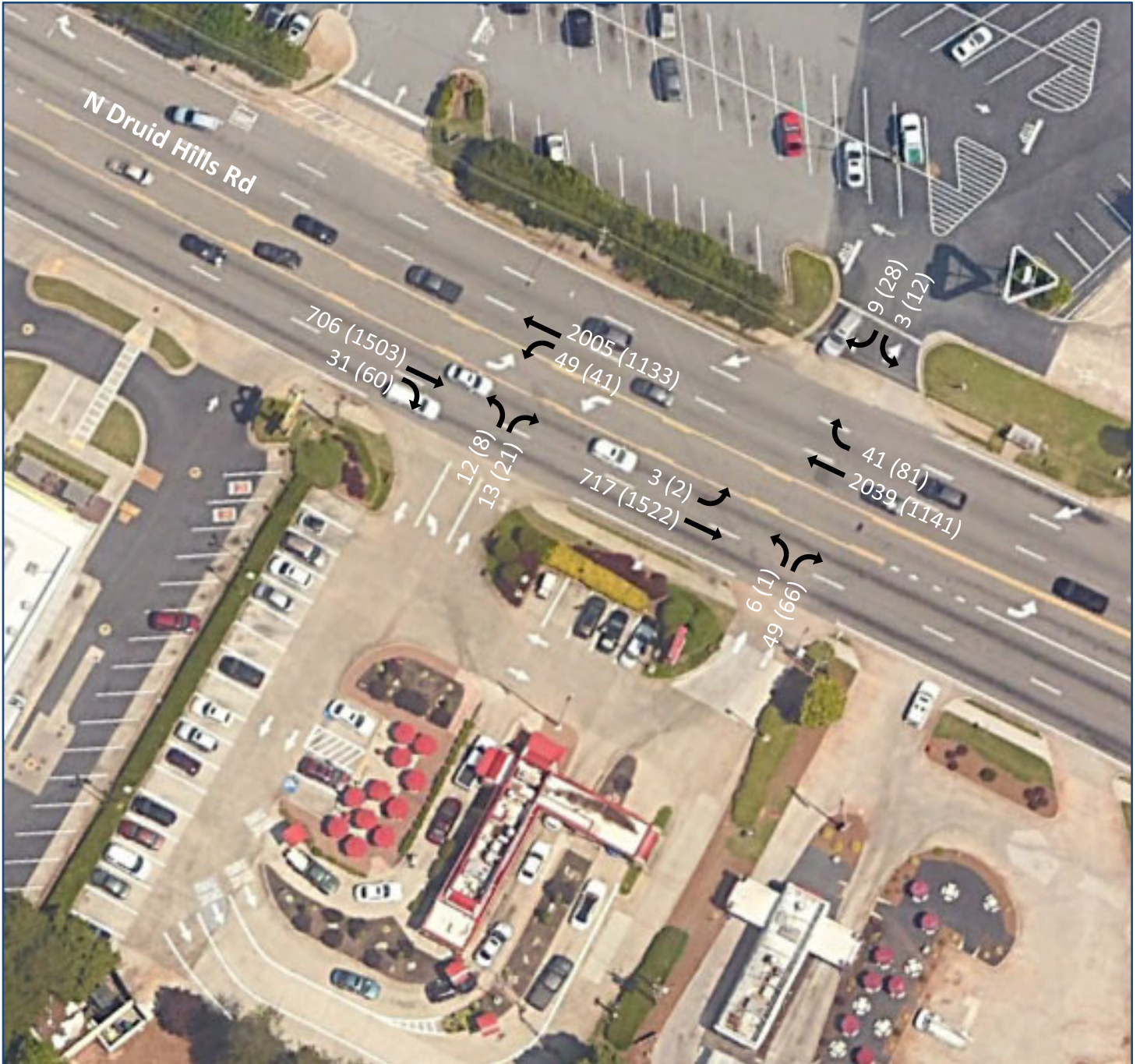
# Figure 1: Peak Hour Turning Movement Counts

## (##) → AM (PM) Traffic Volumes

AM peak hour of driveways 7:45-8:45am  
 PM peak hour of driveways 2:30-3:30pm



AM (PM) Peak Hour Turning movement counts – Existing Chick-fil-a Driveways on North Druid Hills Rd



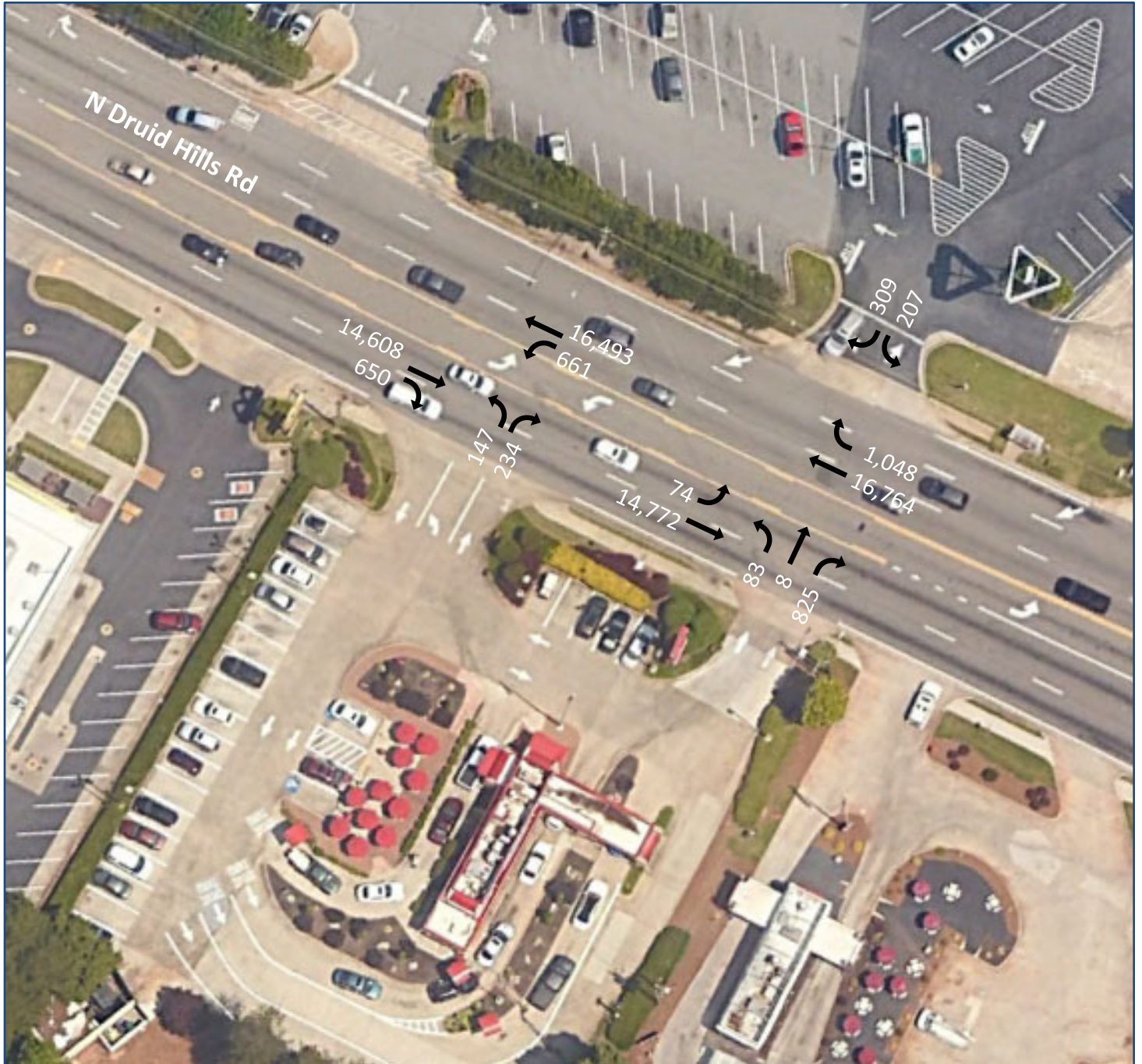
# Figure 2: 14-Hour Turning Movement Counts

## (##) → AM (PM) Traffic Volumes

14-hour counts collected 6:00am to 8:00pm



Total 14-hour Turning movement counts – Existing Chick-fil-a Driveways on North Druid Hills Rd



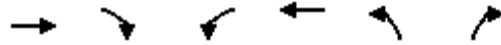


**Appendix B: Synchro Analysis**

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

08/16/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	737	32	12	2030	25	3
Future Volume (veh/h)	737	32	12	2030	25	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	801	35	13	2207	27	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3195	1425	34	3113	53	47
Arrive On Green	0.90	0.90	0.90	0.90	0.03	0.03
Sat Flow, veh/h	3647	1585	9	3548	1781	1585
Grp Volume(v), veh/h	801	35	1191	1029	27	3
Grp Sat Flow(s),veh/h/ln	1777	1585	1854	1617	1781	1585
Q Serve(g_s), s	4.1	0.3	0.0	24.7	2.1	0.3
Cycle Q Clear(g_c), s	4.1	0.3	24.8	24.7	2.1	0.3
Prop In Lane		1.00	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	3195	1425	1693	1454	53	47
V/C Ratio(X)	0.25	0.02	0.70	0.71	0.51	0.06
Avail Cap(c_a), veh/h	3195	1425	1693	1454	254	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.9	0.7	2.0	2.0	66.9	66.1
Incr Delay (d2), s/veh	0.2	0.0	2.5	2.9	7.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.1	2.9	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.1	0.8	4.4	4.9	74.5	66.6
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	836			2220	30	
Approach Delay, s/veh	1.1			4.7	73.7	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		130.9		9.1		130.9
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		110.0		20.0		110.0
Max Q Clear Time (g_c+I1), s		26.8		4.1		6.1
Green Ext Time (p_c), s		43.5		0.0		6.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			4.4			
HCM 6th LOS			A			

Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	96	52	22	205	179	90	12
Average Queue (ft)	17	5	1	59	44	24	1
95th Queue (ft)	59	26	10	157	130	67	5
Link Distance (ft)	804	804		1048	1048	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

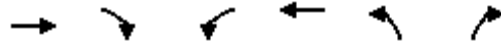
Network Summary

Network wide Queuing Penalty: 0

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

08/16/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	989	54	14	979	25	14
Future Volume (veh/h)	989	54	14	979	25	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1075	59	15	1064	27	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3177	1417	48	3037	61	55
Arrive On Green	0.89	0.89	0.89	0.89	0.03	0.03
Sat Flow, veh/h	3647	1585	24	3482	1781	1585
Grp Volume(v), veh/h	1075	59	569	510	27	15
Grp Sat Flow(s),veh/h/ln	1777	1585	1804	1617	1781	1585
Q Serve(g_s), s	6.4	0.6	0.0	6.8	2.1	1.3
Cycle Q Clear(g_c), s	6.4	0.6	6.5	6.8	2.1	1.3
Prop In Lane		1.00	0.03		1.00	1.00
Lane Grp Cap(c), veh/h	3177	1417	1639	1446	61	55
V/C Ratio(X)	0.34	0.04	0.35	0.35	0.44	0.27
Avail Cap(c_a), veh/h	3177	1417	1639	1446	254	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.1	0.8	1.1	1.1	66.3	65.9
Incr Delay (d2), s/veh	0.3	0.1	0.6	0.7	4.9	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.9	0.9	1.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.4	0.9	1.7	1.8	71.1	68.5
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1134			1079	42	
Approach Delay, s/veh	1.4			1.8	70.2	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		130.2		9.8		130.2
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		110.0		20.0		110.0
Max Q Clear Time (g_c+I1), s		8.8		4.1		8.4
Green Ext Time (p_c), s		8.7		0.1		10.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			2.8			
HCM 6th LOS			A			

Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	109	76	21	146	109	84	25
Average Queue (ft)	27	14	2	41	13	23	2
95th Queue (ft)	81	51	12	112	59	61	13
Link Distance (ft)	804	804		1048	1048	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Network Summary

Network wide Queuing Penalty: 0

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

08/16/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	1398	79	12	1166	43	10
Future Volume (veh/h)	1398	79	12	1166	43	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1520	86	13	1267	47	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3164	1411	39	3029	68	61
Arrive On Green	0.89	0.89	0.89	0.89	0.04	0.04
Sat Flow, veh/h	3647	1585	14	3488	1781	1585
Grp Volume(v), veh/h	1520	86	676	604	47	11
Grp Sat Flow(s),veh/h/ln	1777	1585	1800	1617	1781	1585
Q Serve(g_s), s	11.5	0.9	0.0	9.2	3.6	0.9
Cycle Q Clear(g_c), s	11.5	0.9	8.7	9.2	3.6	0.9
Prop In Lane		1.00	0.02		1.00	1.00
Lane Grp Cap(c), veh/h	3164	1411	1629	1439	68	61
V/C Ratio(X)	0.48	0.06	0.41	0.42	0.69	0.18
Avail Cap(c_a), veh/h	3164	1411	1629	1439	254	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.5	0.9	1.3	1.3	66.5	65.2
Incr Delay (d2), s/veh	0.5	0.1	0.8	0.9	11.6	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.1	1.3	1.3	1.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.0	1.0	2.1	2.2	78.1	66.6
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1606			1280	58	
Approach Delay, s/veh	1.9			2.2	75.9	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		129.6		10.4		129.6
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		110.0		20.0		110.0
Max Q Clear Time (g_c+I1), s		11.2		5.6		13.5
Green Ext Time (p_c), s		11.9		0.1		19.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			3.5			
HCM 6th LOS			A			

Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	159	158	52	278	240	85	25
Average Queue (ft)	56	36	7	72	43	37	2
95th Queue (ft)	131	103	33	198	148	74	13
Link Distance (ft)	804	804		1048	1048	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		1					
Queuing Penalty (veh)		1					

Network Summary

Network wide Queuing Penalty: 1
---------------------------------

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

08/16/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	737	59	61	2030	46	20
Future Volume (veh/h)	737	59	61	2030	46	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	801	64	66	2207	50	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3157	1408	95	2898	72	64
Arrive On Green	0.89	0.89	0.89	0.89	0.04	0.04
Sat Flow, veh/h	3647	1585	77	3347	1781	1585
Grp Volume(v), veh/h	801	64	1220	1053	50	22
Grp Sat Flow(s),veh/h/ln	1777	1585	1722	1617	1781	1585
Q Serve(g_s), s	4.5	0.7	12.8	29.2	3.9	1.9
Cycle Q Clear(g_c), s	4.5	0.7	32.8	29.2	3.9	1.9
Prop In Lane		1.00	0.05		1.00	1.00
Lane Grp Cap(c), veh/h	3157	1408	1557	1436	72	64
V/C Ratio(X)	0.25	0.05	0.78	0.73	0.70	0.34
Avail Cap(c_a), veh/h	3157	1408	1557	1436	254	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.1	0.9	2.6	2.5	66.3	65.4
Incr Delay (d2), s/veh	0.2	0.1	4.0	3.4	11.5	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	5.3	4.4	2.0	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.3	1.0	6.6	5.9	77.9	68.6
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	865			2273	72	
Approach Delay, s/veh	1.3			6.2	75.0	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		129.4		10.6		129.4
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		110.0		20.0		110.0
Max Q Clear Time (g_c+I1), s		34.8		5.9		6.5
Green Ext Time (p_c), s		45.3		0.1		6.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			6.5			
HCM 6th LOS			A			



Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	101	56	32	304	278	111	23
Average Queue (ft)	32	11	5	127	86	41	2
95th Queue (ft)	85	44	23	262	220	95	13
Link Distance (ft)	804	804		1048	1048	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

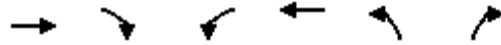
Network Summary

Network wide Queuing Penalty: 0

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

08/16/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	989	115	72	979	51	43
Future Volume (veh/h)	989	115	72	979	51	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1075	125	78	1064	55	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3139	1400	184	2460	81	72
Arrive On Green	0.88	0.88	0.88	0.88	0.05	0.05
Sat Flow, veh/h	3647	1585	175	2870	1781	1585
Grp Volume(v), veh/h	1075	125	521	621	55	47
Grp Sat Flow(s),veh/h/ln	1777	1585	1343	1617	1781	1585
Q Serve(g_s), s	7.1	1.4	0.0	10.2	4.3	4.1
Cycle Q Clear(g_c), s	7.1	1.4	6.3	10.2	4.3	4.1
Prop In Lane		1.00	0.15		1.00	1.00
Lane Grp Cap(c), veh/h	3139	1400	1216	1428	81	72
V/C Ratio(X)	0.34	0.09	0.43	0.43	0.68	0.66
Avail Cap(c_a), veh/h	3139	1400	1216	1428	254	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.4	1.0	1.3	1.5	65.8	65.8
Incr Delay (d2), s/veh	0.3	0.1	1.1	1.0	9.7	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.2	1.3	1.6	2.2	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	1.2	2.4	2.5	75.6	75.5
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1200			1142	102	
Approach Delay, s/veh	1.6			2.5	75.5	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		128.7		11.3		128.7
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		110.0		20.0		110.0
Max Q Clear Time (g_c+I1), s		12.2		6.3		9.1
Green Ext Time (p_c), s		11.1		0.2		10.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.1			
HCM 6th LOS			A			

Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	104	78	47	275	230	110	38
Average Queue (ft)	37	16	11	104	52	40	7
95th Queue (ft)	92	55	35	207	165	88	25
Link Distance (ft)	804	804		1048	1048	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

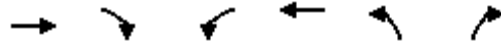
Network Summary

Network wide Queuing Penalty: 0

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

08/16/2021



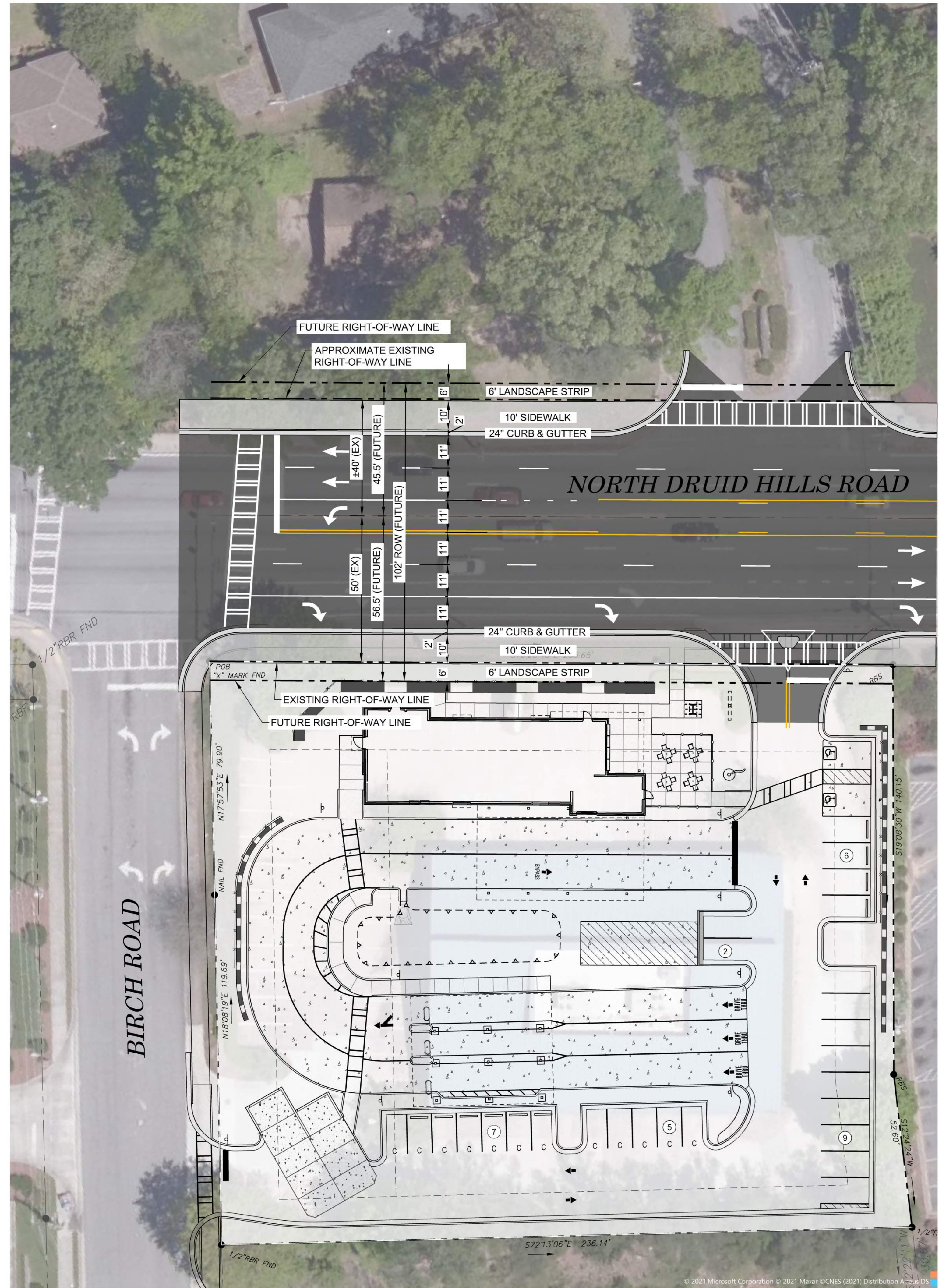
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	1398	132	57	1166	53	34
Future Volume (veh/h)	1398	132	57	1166	53	34
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1520	143	62	1267	58	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3135	1398	122	2489	83	74
Arrive On Green	0.88	0.88	0.88	0.88	0.05	0.05
Sat Flow, veh/h	3647	1585	106	2907	1781	1585
Grp Volume(v), veh/h	1520	143	608	721	58	37
Grp Sat Flow(s),veh/h/ln	1777	1585	1311	1617	1781	1585
Q Serve(g_s), s	12.3	1.6	0.0	13.3	4.5	3.2
Cycle Q Clear(g_c), s	12.3	1.6	8.0	13.3	4.5	3.2
Prop In Lane		1.00	0.10		1.00	1.00
Lane Grp Cap(c), veh/h	3135	1398	1185	1426	83	74
V/C Ratio(X)	0.48	0.10	0.51	0.51	0.70	0.50
Avail Cap(c_a), veh/h	3135	1398	1185	1426	254	226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.7	1.1	1.4	1.8	65.8	65.2
Incr Delay (d2), s/veh	0.5	0.1	1.6	1.3	10.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.2	1.6	2.1	2.3	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.2	1.2	3.0	3.0	76.1	70.4
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1663			1329	95	
Approach Delay, s/veh	2.2			3.0	73.9	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		128.5		11.5		128.5
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		110.0		20.0		110.0
Max Q Clear Time (g_c+I1), s		15.3		6.5		14.3
Green Ext Time (p_c), s		15.6		0.2		19.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			4.7			
HCM 6th LOS			A			

Intersection: 1: Birch Rd & North Druid Hills

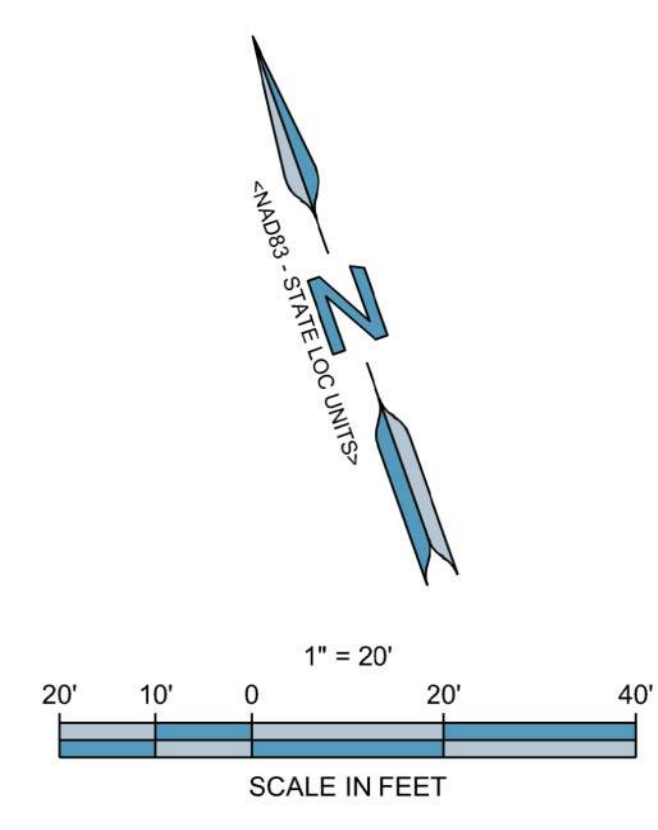
Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	132	128	48	317	280	104	48
Average Queue (ft)	56	31	11	150	104	43	10
95th Queue (ft)	125	87	35	289	259	90	32
Link Distance (ft)	804	804		1048	1048	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		1	0				
Queuing Penalty (veh)		1	0				

Network Summary

Network wide Queuing Penalty: 1



EXISTING ROADWAY CENTERLINE



**N DRUID HILLS COURT**

**CRASH DATA (AT NDH AND BIRCH ROAD INTERSECTION)**  
2015-2021: 34 REPORTED COLLISIONS  
(14 COMPLAINT OF INJURY, 1 MINOR INJURY, 1 MAJOR INJURY)  
2020: 4 COLLISIONS

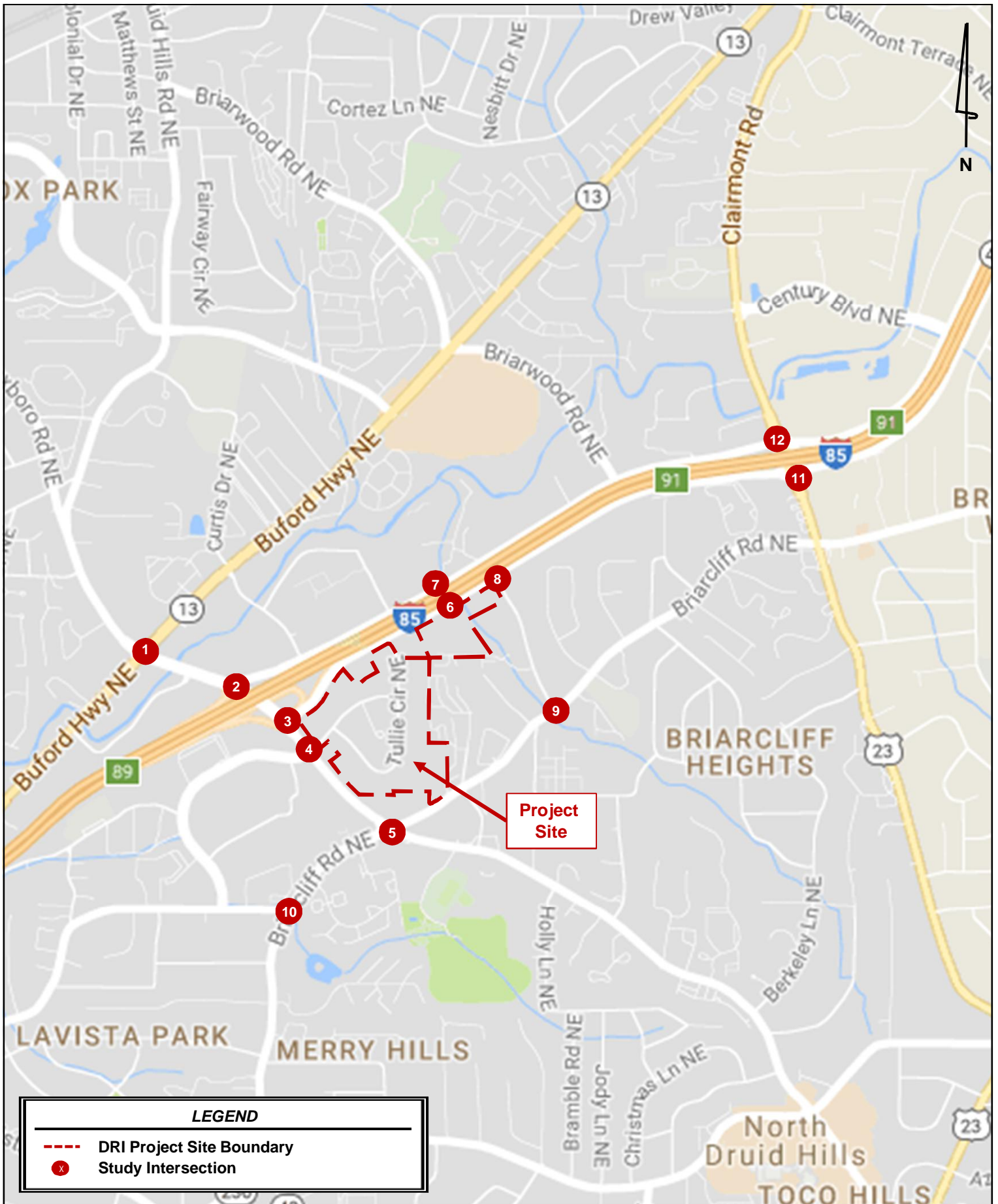
**LAWRENCEVILLE HWY**

**NORTH DRUID HILLS ROAD**

**BIRCH ROAD**

**NORTH DEKALB MALL**

**CRASH DATA (IN NDH IN FRONT OF EX CFA AND PUBLIX)**  
2015-2021: 108 REPORTED COLLISIONS  
(20 COMPLAINT OF INJURY, 4 MINOR INJURY)  
2020: 13 COLLISIONS





**November 29, 2021**

Ms. Patrece Keeter  
DeKalb County Public Works  
Transportation Division  
1300 Commerce Drive  
Decatur, GA 30030

**Intersection Analysis Memo:  
North Druid Hills Road at Birch Road Chick-fil-A Relocation Intersection Analysis – Decatur, GA**

**Existing Traffic Volumes**

The existing Chick-fil-A restaurant located at 3905 N Druid Hills Rd in Decatur, GA, is proposing to relocate to the southeast corner of the Birch Road at N Druid Hills Rd intersection. The proposed site location was previously occupied by a Pier 1 Imports retail store. This memo analyzes the intersection LOS and queuing at North Druid Hills at Birch Road in the existing and proposed building conditions and the potential impacts on the operation of this intersection by the proposed relocation of the Chick-fil-A restaurant.

Traffic count data for this project was originally collected on Tuesday July 13, 2021. Peak hour turning movement counts were collected at the intersections of Birch Road at N Druid Hills Rd and N Druid Hills Rd at both existing Chick-fil-A driveway locations. Additional peak hour turning movement counts were collected again at the Birch Rd intersection on Tuesday August 10<sup>th</sup>, 2021, after the school year had started. The peak hour volumes at the Birch Rd intersection are provided in Figure 1. The full set of traffic data is provided in Appendix A. Previous collected volumes at the Chick-fil-A driveways have not been adjusted for collection during the summer when school was not in session.

**Proposed Traffic Volumes**

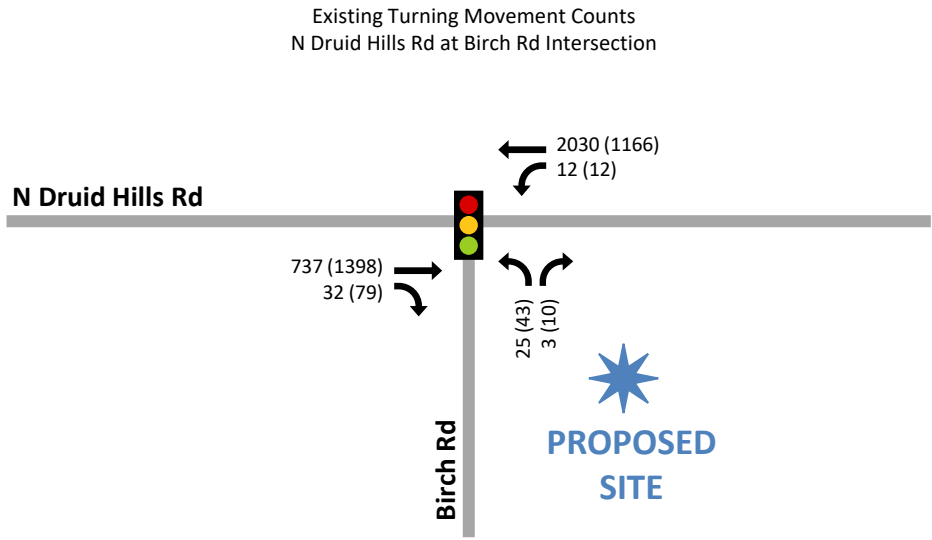
For the proposed traffic volumes, the existing Chick-fil-A trips were distributed to the Birch Rd intersection, the proposed right-in-right-out driveway on North Druid Hills Rd and the full access driveway located on Birch Rd. Chick-fil-A estimates the new site location to generate 10% more trips, so this growth factor is applied to the redistributed existing Chick-fil-A trips. In addition, with the new location proposed at the corner of Birch Rd at North Druid Hills Rd, 10% of the existing left-turning inbound trips have been distributed to arrive internal to the mall site via Sweetbriar Rd to northbound onto Birch Road. The proposed peak hour volumes at the Birch Road intersection are provided in Figures 2 and 3.

# Figure 1: Existing Traffic Volumes

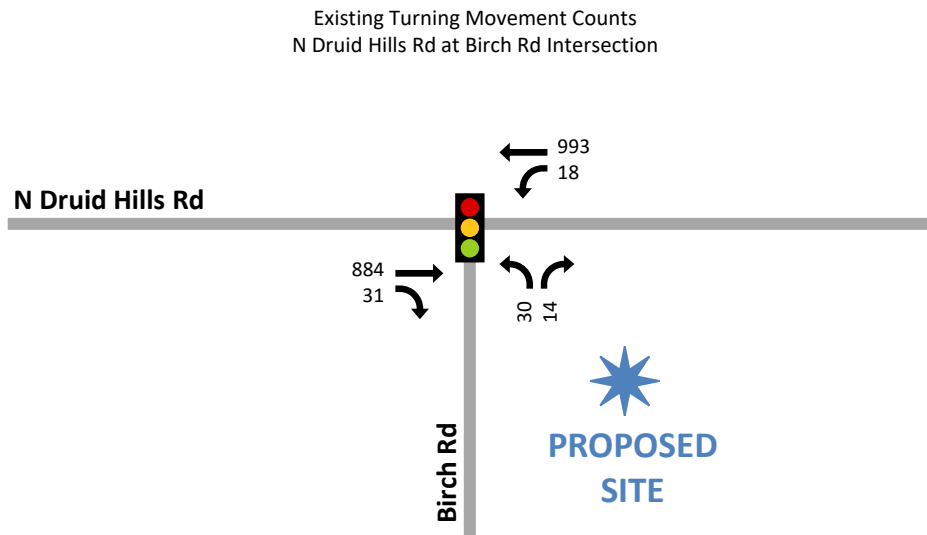
## (##) → AM (PM) Traffic Volumes



NOT TO SCALE



## (##) → MD Traffic Volumes (midday)



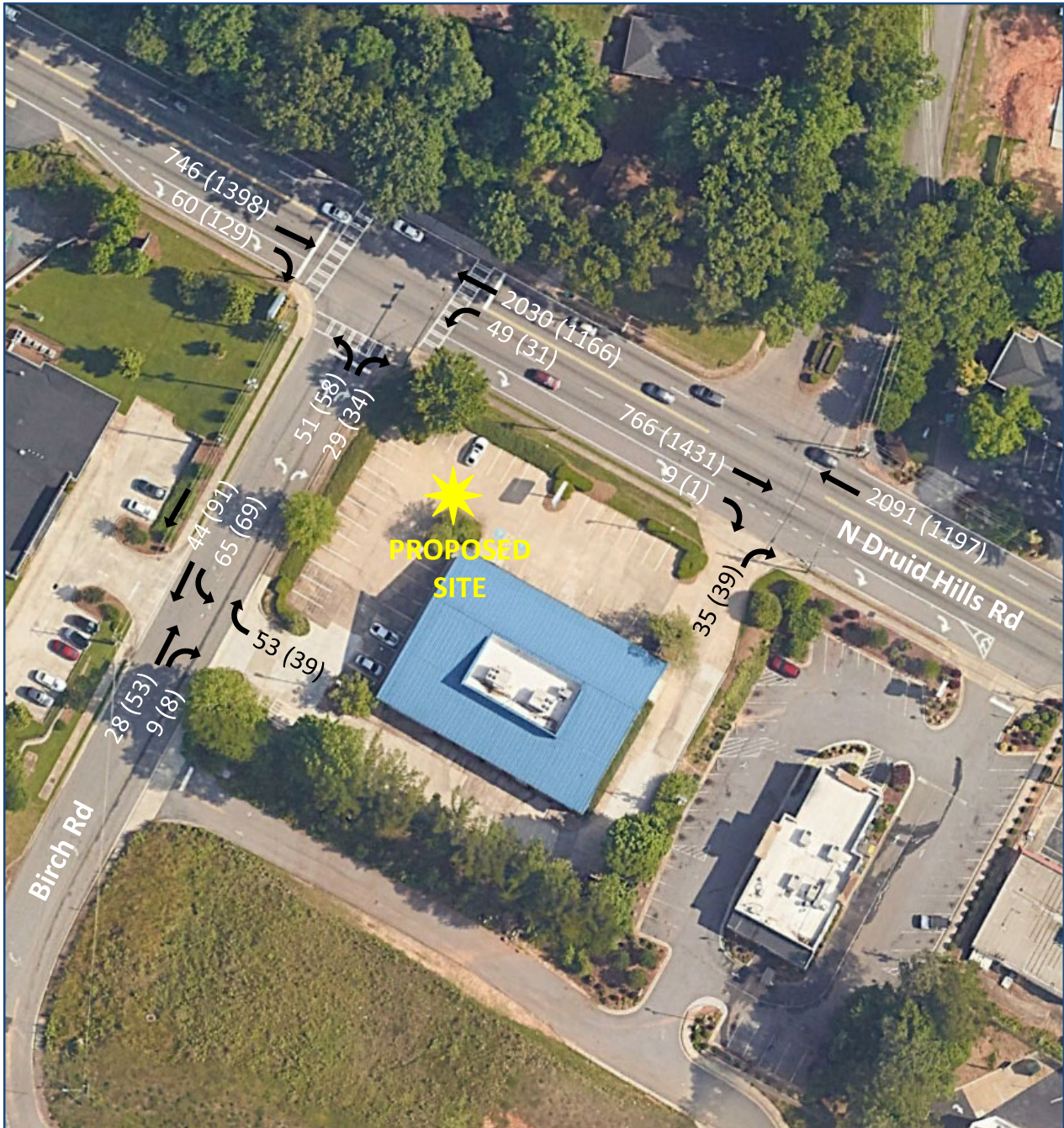
# Figure 2: Projected Peak Hour Volumes

## (##) → AM (PM) Traffic Volumes

Volumes updated 8/10/2021  
 AM peak hour of Chick-fil-A volumes 7:30-8:30am  
 PM peak hour of Chick-fil-A volumes 5:00-6:00pm



AM (PM) Peak Hour Turning movement counts – Birch Rd + Proposed Chick-fil-A site on North Druid Hills Rd



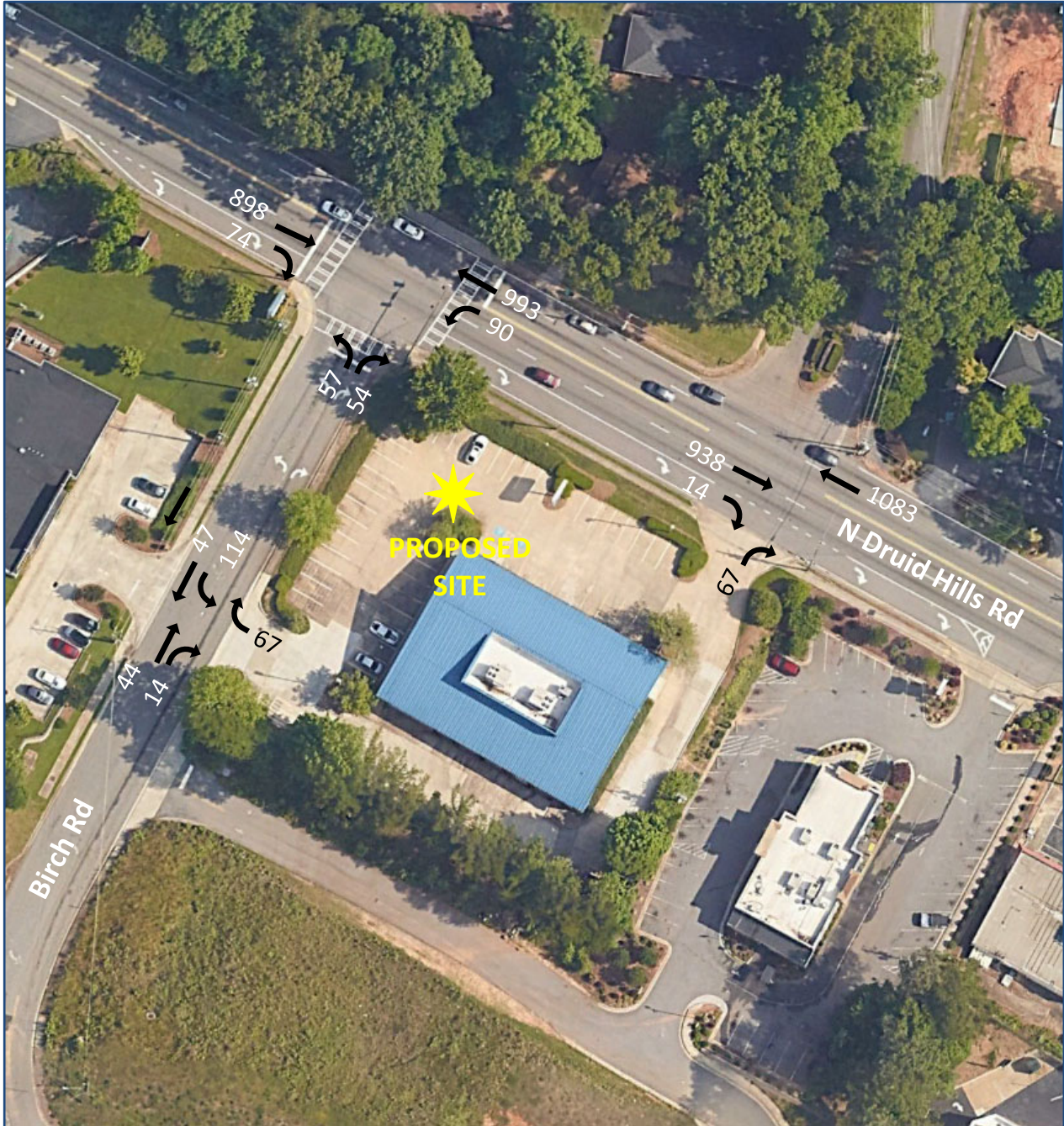
# Figure 3: Projected Peak Hour Volumes

## (##) → MD Traffic Volumes

Volumes updated 8/10/2021  
 MD peak hour of Chick-fil-a volumes 11:45am-12:45pm



AM (PM) Peak Hour Turning movement counts – Birch Rd + Proposed Chick-fil-a site on North Druid Hills Rd



### Existing Signal Timings and Field Observation

DeKalb County provided the signal timings for the intersections of Birch Road at North Druid Hills Road and Mistletoe Road. This corridor was observed in the field on Wednesday November 17<sup>th</sup>, 2021, from 7am to 6pm for all the peak and non-peak hour operations. The observation of this corridor also included the signalized intersections on North Druid Hills Road from US 29/Lawrenceville Hwy to the east and to Willivee Drive to the west of Birch Rd.

During the AM peak period this corridor runs Pattern 10 with a 150 second cycle length. The Midday (MD) period runs Pattern 20, also with a 150 second cycle length. The PM peak period runs Pattern 30 with a 170 second cycle length. On the section of the corridor between Birch Rd and Lawrenceville Hwy, the westbound traffic generally flows better because as vehicles travel westbound from Lawrenceville Hwy the amount of green time to get cars through each intersection on North Druid Hills Rd increases as vehicles go through each intersection towards Birch Rd. Similarly, the green time, or the window of time to get through the intersection on North Druid Hills Rd decreases as vehicles travel eastbound from Birch Rd to Mistletoe Rd to US 29/Lawrenceville Hwy. In the PM peak period this is the primary reason for the extreme backup, delay, and queuing. During the PM peak period the volumes are heavier going eastbound, and the narrowing of the time allowed for throughput reduces at each intersection to the east. The AM peak has a heavier westbound movement and the MD peak volumes are more balanced but increasingly gets heavier eastbound later in the day.

It should be noted that through field observations it was determined that the Birch Rd approach, or the Birch Rd phase of the signal, operates on a constant call. The signal was observed to serve the side street approach, or signal phase, from Birch Rd whether cars were present or not. This signal will serve the full Birch Rd phase split time every cycle during the day. This was also determined to be the case for side street and all left turn phases at the intersections of Mistletoe Rd and US 29/Lawrenceville Hwy. With these phases set on constant call, it was determined that this section of the corridor operates essentially as fixed time signals when setting up our corridor modeling.

During the AM peak the intersection at Birch Rd was observed to operate with no major issues. The AM peak traffic flow is predominately westbound during this time. There were observed to be distinct platoons arriving from Mistletoe Rd that generally always made it through the intersection at Birch Rd. It was observed that cars queuing westbound at this intersection typically arrived from the side streets at Mistletoe Rd or the adjacent neighborhood. There were large gaps in the eastbound traffic that allowed plenty of gaps for cars turning left from North Druid Hills Rd onto Birch Rd to make that turn without much associated delay. This movement was observed for several MARTA buses and large trucks serving the mall area.

The MD peak was observed to operate similarly to the AM peak period. The traffic volumes on North Druid Hills Rd become more balanced directionally, but the operation of the intersection continues to function with very little delay and queuing. The platoons from the east continue to clear the intersection. The eastbound traffic continues to have sizeable gaps in traffic allowing for left turn maneuvers to continue onto Birch Rd without much associated delay.

The PM peak period experiences heaving queuing delay for eastbound traffic that is compounded later in the peak period. The traffic volumes were observed to intensify during the four o'clock hour that coincides with a school release period. During the peak period the queuing originates at US 29/Lawrenceville Hwy intersection and causes delays back at the Mistletoe Rd intersection. This queuing eventually spills back further west impacting the delay at the Birch Rd intersection. The queuing from Birch Rd was observed to average around 2,000-ft+ to the west. It was observed at this intersection when queuing was extreme, drivers would leave the intersection open to allow vehicles turning left from North Druid Hills to make that maneuver. This same type of operation happens at the existing Chick-fil-A driveway location during the PM peak period. This observed queuing was utilized to calibrate the timings for this section of the corridor by oversaturating the demand to match the average queuing in the *SimTraffic* simulation modeling.

### Existing Conditions Capacity Analysis

Existing traffic volumes were entered into a *Synchro 10* model to perform capacity analysis of existing conditions for the AM, MD and PM peak periods. The timings were calibrated to the field conditions to match existing conditions. The results of the capacity analysis are shown by lane group movement in Table 1. Average vehicular delays and level-of service, as defined by the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition are presented, and 95<sup>th</sup> percentile queues from *SimTraffic 10* are shown. Full *Synchro* output reports are included Appendix B.

**Table 1: Existing Conditions Capacity Analysis**

Intersection	Control	Lane Group Movement	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	7.5	A	173	8.9	A	220	36.8	D	4539
		EBR	5.8	A	29	6.4	A	29	5.5	A	168
		WBL	2.5	A	144	0.9	A	95	73.2	F	160
		WBT	3.1	A	167	1.1	A	70	2.6	A	166
		NBL	49.6	D	57	48.2	D	57	61.8	E	77
		NBR	48.5	D	10	47.5	D	22	59.0	E	27
		Intersection	4.5	A	-	5.7	A	-	37.1	D	-

The intersection of Birch Rd at North Druid Hills Rd is shown to operate at LOS A during the AM and MD peak periods. Under these conditions the NB approach lanes from Birch Rd are shown to operate at LOS D. The northbound approach of the signal is on constant recall.

The PM peak period is shown to operate at LOS D with 37.1 seconds of overall intersection delay. The northbound approaches are shown to operate at LOS E. The existing WBL movement is shown to operate at LOS F. The 95<sup>th</sup> percentile queuing for the eastbound approach is shown to be 4,539-ft and the average queuing is shown to be at 2,100-ft+. The delay at this intersection is largely due to the extreme peak hour queuing from upstream intersections to the east and less from the side street volume demands.

### Build Conditions Capacity Analysis

The proposed redistributed traffic volumes were also entered into a *Synchro 10* model to perform capacity analysis of existing conditions for the AM, MD and PM peak periods. The results of the capacity analysis are shown by lane group movement in Table 2. Average vehicular delays and level-of service, as defined by the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition are presented, and 95<sup>th</sup> percentile queues from *SimTraffic 10* are shown. This analysis also include the additional proposed Chick-fil-A driveways located on North Druid Hills Rd and Birch Rd. Full *Synchro* output reports are included Appendix B. The estimated signal timings for the intersection at Birch Rd remain the same as the existing conditions analysis.

**Table 2: Build Conditions Capacity Analysis**

Intersection	Control	Lane Group Movement	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	7.6	A	186	8.5	A	221	36.8	D	5446
		EBR	6.0	A	49	6.3	A	64	5.9	A	170
		WBL	13.6	B	183	3.5	A	176	426.2	F	207
		WBT	10.4	B	200	1.9	A	173	5.3	A	246
		NBL	50.9	D	84	49.0	D	123	63.3	E	100
		NBR	50.6	D	37	49.3	D	57	64.0	E	96
	Intersection	11.9	B	-	7.6	A	-	91.5	F	-	
North Druid Hills Rd at DW1	Side Street Stop Controlled	EBT	-	-	-	-	-	-	-	-	228
		EBR	-	-	-	-	-	-	-	-	-
		WBT	-	-	134	-	-	88	-	-	142
		NBR	11.6	B	38	13.3	B	47	23.9	C	96
		Intersection	0.1	-	-	0.4	-	-	0.1	-	-
Birch Rd at DW2	Side Street Stop Controlled	WB	8.6	A	50	8.7	A	54	8.8	A	45
		NB	-	-	3	-	-	-	-	-	5
		SB	7.4	A	21	7.5	A	38	7.5	A	24
		Intersection	4.7	A	-	5.7	A	-	3.9	-	-

The intersection of Birch Rd at North Druid Hills Rd is shown to continue to operate at acceptable levels of service during the AM and MD peak periods with minor increases to the overall intersection delay. Under these conditions the NB approaches from Birch Rd continues to operate at LOS D with minor increases in delay and queuing. The queuing shown during these time periods does not spill back and block the driveway located to the south on Birch Rd. The additional driveways located on North Druid Hills Rd and Birch Rd are shown to operate at acceptable levels of service during the AM and MD peak periods.

The PM peak period is shown to operate at LOS F with 91.5 seconds of overall intersection delay. The northbound approaches are shown to operate at LOS E. The WBL movement continues to operate at LOS F with increased delay. This increased delay for this approach contributes to the overall delay of the intersection degrading to LOS F. The average queuing in this scenario is shown to be at 2,600-ft+.

This intersection was also evaluated by allowing the signal to operate as actuated, removing the constant recall, and with an optimized split time for the Birch Road approach. The impacts of those changes are provided below in Table 3.

**Table 3: Build Conditions Capacity Analysis (Optimized)**

Intersection	Control	Lane Group Movement	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)	Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	1.7	A	105	1.7	A	221	9.7	A	5718
		EBR	1.2	A	31	1.2	A	64	1.8	A	160
		WBL	3.9	A	132	1.2	A	176	20.5	C	210
		WBT	3.5	A	134	1.0	A	173	2.8	A	238
		NBL	80.1	F	115	78.5	D	123	91.7	F	92
		NBR	74.0	E	20	81.8	D	57	96.1	F	155
		Intersection	5.1	A	-	5.4	A	-	12.6	B	-

This analysis indicates there is potential opportunity to improve the signal operation with some minor adjustments to the existing timings and functionality of the intersection vehicle detection.

**Build Conditions Alternative Analysis**

The intersection at Birch and North Druid Hills Rd has also been analyzed with minor changes to the signal timing or intersection configuration with focus during the PM peak operation. The first alternate analysis considers allowing the side street approach (Birch Rd) phase of the signal to be detection actuated instead of being on constant recall. The result of the implemented actuated detection is provided below in Table 4.

**Table 4: Build Conditions Alternate Analysis 1**

Intersection	Control	Lane Group Movement	PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> % Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	9.3	A	5601
		EBR	1.8	A	164
		WBL	20.8	C	212
		WBT	2.8	A	228
		NBL	91.1	F	114
		NBR	95.3	F	121
		Intersection	12.7	B	-

These results indicate the intersection can potentially operate at LOS B in the PM peak period. The actuated detection does increase delay for the northbound approaches to degrade to LOS F. This adjustment also improves the WBL approach delay which most benefits the reduction of the overall delay at the intersection.

The intersection at Birch and North Druid Hills Rd has also been analyzed as a half-cycle operation with just a minimum recall placed on the side street approach. This shortened the cycle time at this intersection to 85 seconds, but the intersection remains in coordination with the other intersections on the corridor. The result of the implemented timings changes is provided below in Table 5.



**Table 5: Build Conditions Alternate Analysis 2**

Intersection	Control	Lane Group Movement	PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	17.6	B	5527
		EBR	2.4	A	165
		WBL	27.4	C	203
		WBT	3.6	A	238
		NBL	44.3	D	65
		NBR	46.1	D	65
		Intersection	17.0	B	-

These results indicate the intersection can potentially operate at LOS B in the PM peak period with a reduced half cycle. The minor street approach in this scenario was placed on minimum recall. This adjustment also improves the WBL approach delay which most benefits the reduction of the overall delay at the intersection.

The intersection at Birch and North Druid Hills Rd has also been analyzed to consider a future potential left turn lane with left turn signal phasing operation. The side street approach has been placed in a maximum constant recall, as in the existing conditions, but the split time has been reduced. A left turn phase and timing has also been included with actuated detection. The result of the implemented timings changes is provided below in Table 6.

**Table 6: Build Conditions Alternate Analysis 3**

Intersection	Control	Lane Group Movement	PM Peak Hour		
			Delay (s)	LOS	95 <sup>th</sup> Queue (ft)
North Druid Hills Rd at Birch Rd	Signal Control	EBT	34.3	C	5482
		EBR	5.6	A	168
		WBL	55.4	E	73
		WBT	1.0	A	61
		NBL	76.7	E	104
		NBR	78.4	E	101
		Intersection	23.3	C	-

These results indicate the intersection can potentially operate at LOS C in the PM peak period with a reduced side street approach phase time and the inclusion of a westbound left turn lane and signal phase. The minor street approach in this scenario was placed on maximum recall with a reduced split time. This adjustment also improves the WBT operation and approach. The WBL queuing is also reduced.

## Conclusions and Recommendations

The intersection of Birch Rd at North Druid Hills Rd operates at acceptable levels of service, with minor delay and queuing during the AM and MD peak periods in the existing conditions. This intersection continues to operate at acceptable levels of service, with minor delay and queuing, when the volumes generated by Chick-fil-A are distributed to this intersection.

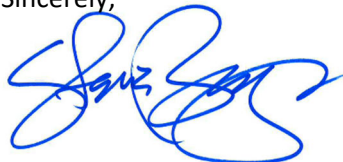
During the PM peak period the intersection of Birch Rd at North Druid Hills Rd experiences delay and queuing that can be attributed to delay and queuing originating from intersections located to the east. The Birch Rd intersection is shown to operate at LOS D during the PM peak period with average queuing observed to be 2,000-ft+ to the west. When the Chick-fil-A traffic is distributed to the intersection in the PM peak period, and simulated with the existing timing configuration, the intersection delay is shown to increase, degrading the overall intersection level of service. However, there are potentially a few minor timing adjustments then could be implemented to help reduce delay and improve the overall intersection level of service.

Because of the extreme queuing and backup occurring on the corridor during the PM peak period, the driveways for the Chick-fil-A at the existing location are experiencing the same type of delays shown when those volumes are distributed to the Birch Rd intersection. By relocating the restaurant, the Birch Rd intersection can potentially allow for improved traffic operations by providing a signal operation for the outbound vehicles turning left from Chick-fil-A. In addition, having the option for customers to arrive from south of the site via Birch Rd may potentially reduce traffic demands of customers arriving via North Druid Hills Rd.

The simulation modeling indicates that the intersection operation can potentially be improved with some minor timing adjustments, even with the addition of traffic volumes generated by the Chick-fil-A. These timing and signal adjustments could be implemented relatively quickly if necessary. For the long-term operation of this intersection, it is recommended for westbound left turn lane and left turn signal phasing be added to this intersection.

Please contact me or Jack Johnson at 770-368-1399 if you have any questions or need additional information.

Sincerely,



**FORESITE GROUP, LLC**

Stevie Berryman  
Project Manager

## **Appendix A: Traffic Counts**

# National Data & Surveying Services Intersection Turning Movement Count

**Location:** Birch Rd & N Druid Hills Rd  
**City:** Decatur  
**Control:** Signalized

**Project ID:** 21-180213-001  
**Date:** 8/10/2021

## Data - Total

NS/EW Streets:	Birch Rd				Birch Rd				N Druid Hills Rd				N Druid Hills Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	0 NT	1 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	1 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
6:00 AM	1	0	0	0	0	0	0	0	0	58	2	0	0	211	0	0	272
6:15 AM	1	0	0	0	0	0	0	0	0	98	3	0	4	287	0	0	393
6:30 AM	0	0	0	0	0	0	0	0	0	99	0	0	0	362	0	0	461
6:45 AM	3	0	0	0	0	0	0	0	0	107	4	0	3	419	0	0	536
7:00 AM	1	0	0	0	0	0	0	0	0	127	4	0	0	405	0	0	537
7:15 AM	3	0	0	0	0	0	0	0	0	153	2	0	2	443	0	0	603
7:30 AM	2	0	2	0	0	0	0	0	0	192	9	0	2	549	0	0	756
7:45 AM	7	0	0	0	0	0	0	0	0	181	9	0	5	535	0	0	737
8:00 AM	4	0	0	0	0	0	0	0	0	167	7	0	3	475	0	0	656
8:15 AM	12	0	1	0	0	0	0	0	0	197	7	0	2	471	0	0	690
8:30 AM	6	0	0	0	0	0	0	0	0	191	9	0	1	525	0	0	732
8:45 AM	3	0	0	0	0	0	0	0	0	159	6	0	3	480	0	0	651
<b>TOTAL VOLUMES :</b>	43	0	3	0	0	0	0	0	0	1729	62	0	25	5162	0	0	7024
<b>APPROACH %'s :</b>	93.48%	0.00%	6.52%	0.00%					0.00%	96.54%	3.46%	0.00%	0.48%	99.52%	0.00%	0.00%	
<b>PEAK HR :</b>	07:30 AM - 08:30 AM																
<b>PEAK HR VOL :</b>	25	0	3	0	0	0	0	0	0	737	32	0	12	2030	0	0	2839
<b>PEAK HR FACTOR :</b>	0.521	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.935	0.889	0.000	0.600	0.924	0.000	0.000	0.939
			0.538							0.942				0.926			
NOON	1 NL	0 NT	1 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	1 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
11:00 AM	8	0	2	0	0	0	0	0	0	192	7	0	5	263	0	0	477
11:15 AM	7	0	2	0	0	0	0	0	0	231	10	0	1	236	0	0	487
11:30 AM	6	0	2	0	0	0	0	0	0	195	7	0	4	245	0	0	459
11:45 AM	12	0	2	0	0	0	0	0	0	215	7	0	6	270	0	0	512
12:00 PM	7	0	5	0	0	0	0	0	0	215	11	0	2	222	0	0	462
12:15 PM	5	0	5	0	0	0	0	0	0	211	8	0	4	240	0	0	473
12:30 PM	6	0	2	0	0	0	0	0	0	243	5	1	6	261	0	1	525
12:45 PM	8	0	3	0	0	0	0	0	0	225	11	0	2	255	0	0	504
1:00 PM	6	0	3	0	0	0	0	0	0	252	19	0	3	226	0	0	509
1:15 PM	5	0	2	0	0	0	0	0	0	251	9	0	3	232	0	0	502
1:30 PM	8	0	1	0	0	0	0	0	0	247	12	0	4	256	0	0	528
1:45 PM	6	0	8	0	0	0	0	0	0	239	14	0	4	265	0	0	536
<b>TOTAL VOLUMES :</b>	84	0	37	0	0	0	0	0	0	2716	120	1	44	2971	0	1	5974
<b>APPROACH %'s :</b>	69.42%	0.00%	30.58%	0.00%					0.00%	95.73%	4.23%	0.04%	1.46%	98.51%	0.00%	0.03%	
<b>PEAK HR :</b>	01:00 PM - 02:00 PM																
<b>PEAK HR VOL :</b>	25	0	14	0	0	0	0	0	0	989	54	0	14	979	0	0	2075
<b>PEAK HR FACTOR :</b>	0.781	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.981	0.711	0.000	0.875	0.924	0.000	0.000	0.968
			0.696							0.962				0.923			
PM	1 NL	0 NT	1 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	2 ET	1 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
3:00 PM	7	0	3	0	0	0	0	0	0	342	17	0	1	238	0	0	608
3:15 PM	8	0	1	0	0	0	0	0	0	379	9	0	4	249	0	0	650
3:30 PM	11	0	6	0	0	0	0	0	0	403	20	0	2	191	0	0	633
3:45 PM	11	0	7	0	0	0	0	0	0	354	16	0	3	223	0	0	614
4:00 PM	15	0	3	0	0	0	0	0	0	343	17	0	6	227	0	0	611
4:15 PM	7	0	1	0	0	0	0	0	0	330	23	0	4	302	0	0	667
4:30 PM	11	0	4	0	0	0	0	0	0	331	23	0	3	234	0	1	607
4:45 PM	15	0	6	0	0	0	0	0	0	352	24	0	1	239	0	0	637
5:00 PM	14	0	3	0	0	0	0	0	0	317	29	0	6	254	0	0	623
5:15 PM	8	0	4	0	0	0	0	0	0	350	16	0	1	263	0	0	642
5:30 PM	9	0	1	0	0	0	0	0	0	381	17	0	1	322	0	0	731
5:45 PM	12	0	2	0	0	0	0	0	0	350	17	0	4	327	0	0	712
<b>TOTAL VOLUMES :</b>	128	0	41	0	0	0	0	0	0	4232	228	0	36	3069	0	1	7735
<b>APPROACH %'s :</b>	75.74%	0.00%	24.26%	0.00%					0.00%	94.89%	5.11%	0.00%	1.16%	98.81%	0.00%	0.03%	
<b>PEAK HR :</b>	05:00 PM - 06:00 PM																
<b>PEAK HR VOL :</b>	43	0	10	0	0	0	0	0	0	1398	79	0	12	1166	0	0	2708
<b>PEAK HR FACTOR :</b>	0.768	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.917	0.681	0.000	0.500	0.891	0.000	0.000	0.926
			0.779							0.928				0.890			



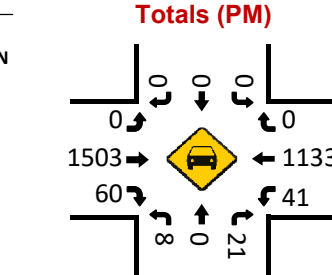
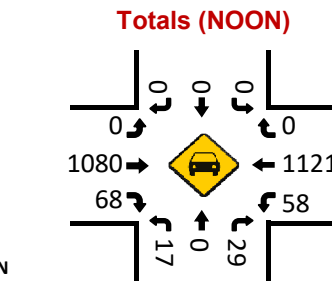
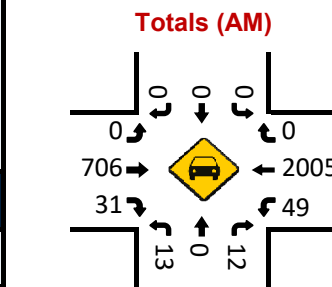
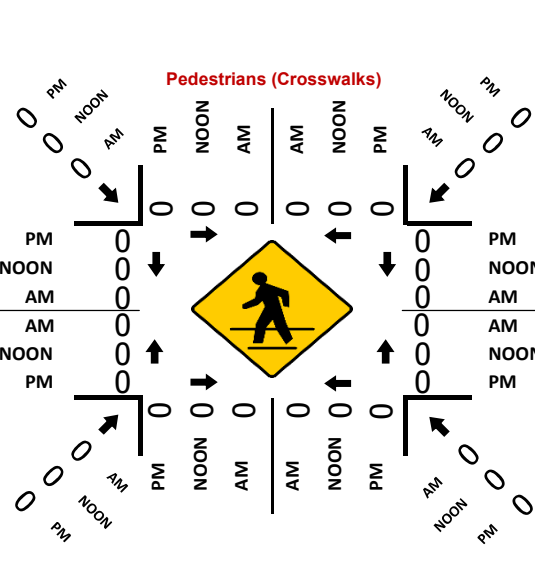
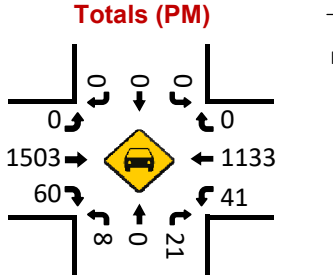
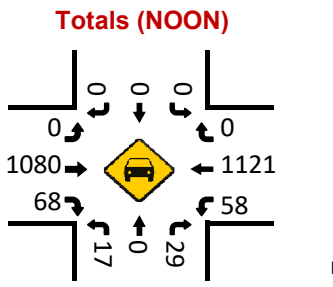
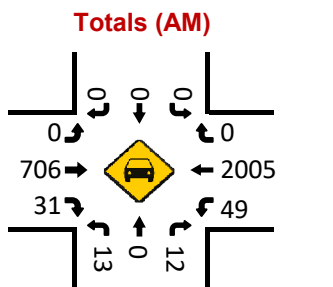
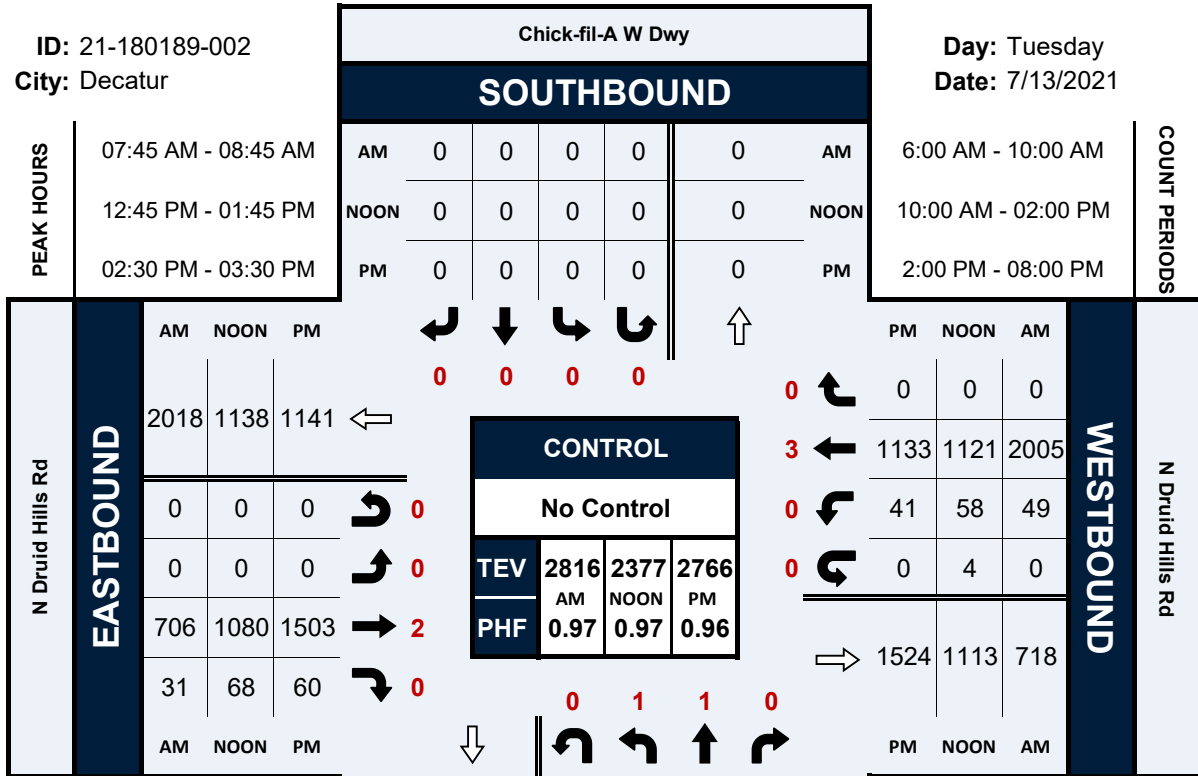


# Chick-fil-A W Dwy & N Druid Hills Rd

## Peak Hour Turning Movement Count

ID: 21-180189-002  
City: Decatur

Day: Tuesday  
Date: 7/13/2021





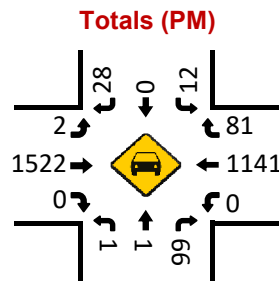
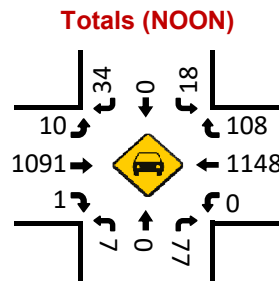
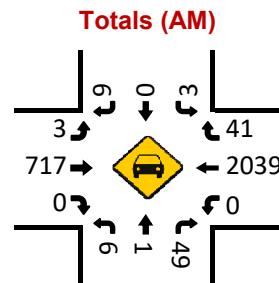
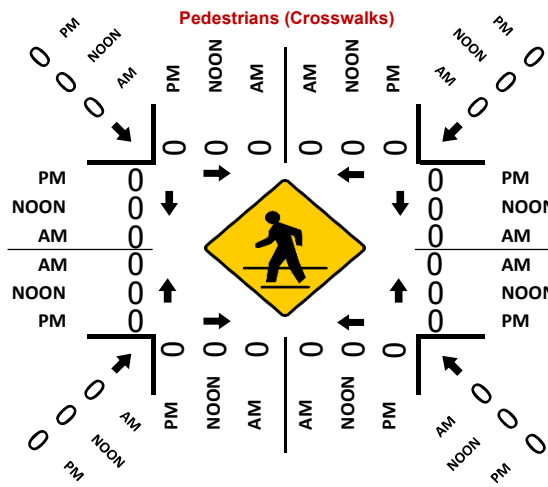
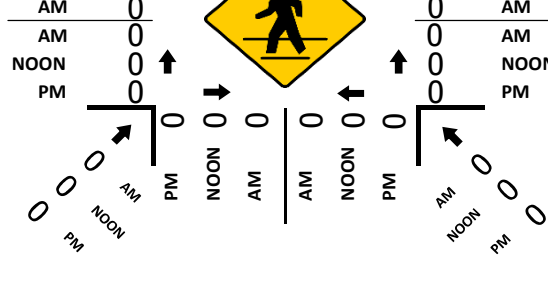
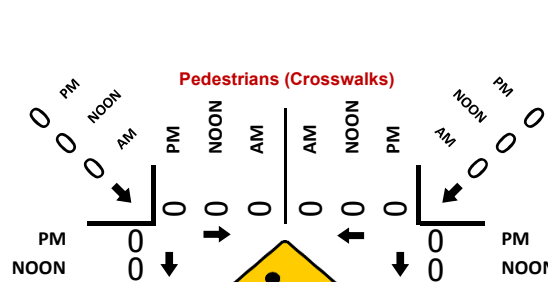
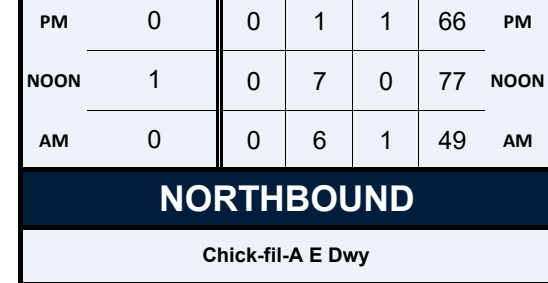
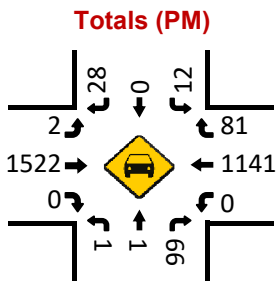
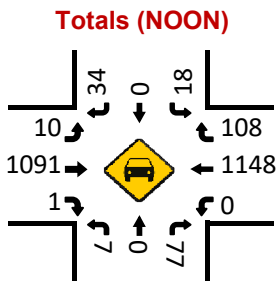
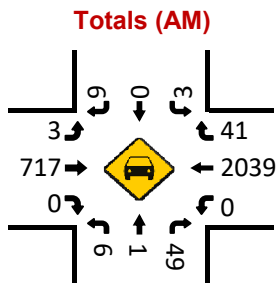
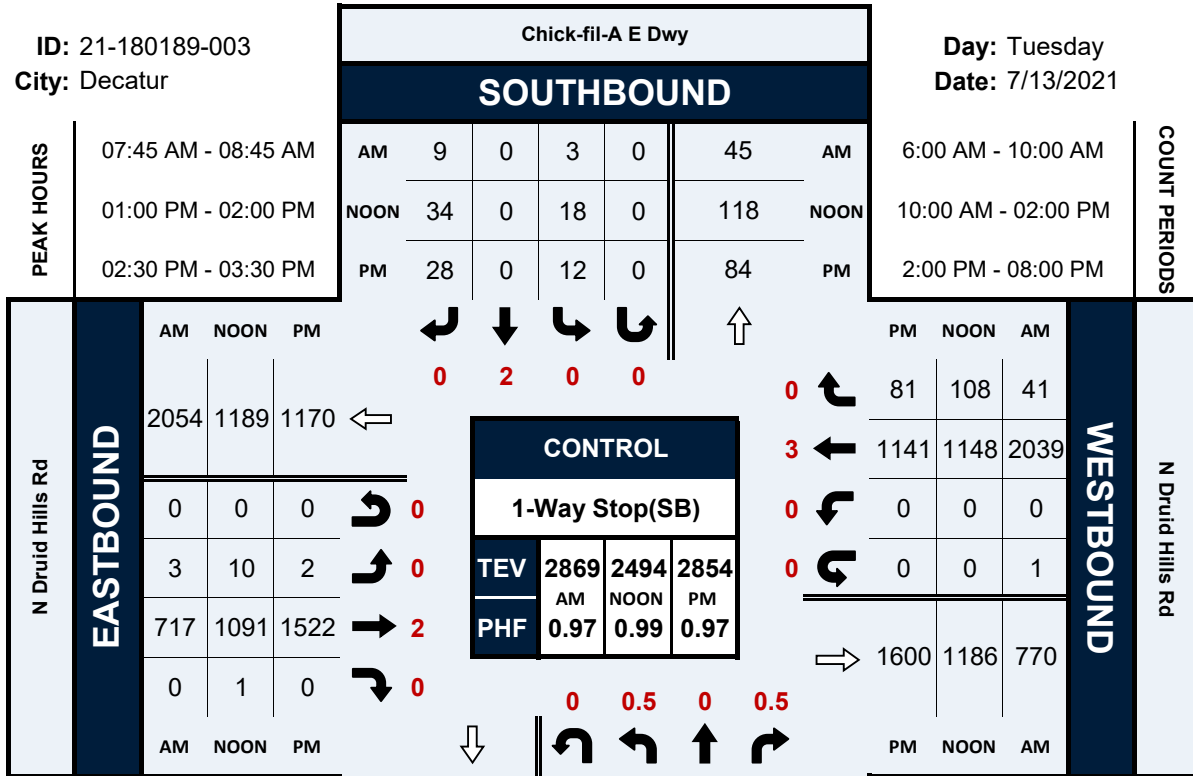


# Chick-fil-A E Dwy & N Druid Hills Rd

## Peak Hour Turning Movement Count

ID: 21-180189-003  
City: Decatur

Day: Tuesday  
Date: 7/13/2021



## **Appendix B: Synchro Analysis**

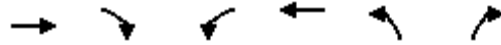
Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	193	144	50	213	231	83	20
Average Queue (ft)	99	51	5	58	67	20	2
95th Queue (ft)	173	116	29	144	167	57	10
Link Distance (ft)	804	804		1083	1083	311	311
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		2					
Queuing Penalty (veh)		1					

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	737	32	12	2030	25	3
Future Volume (veh/h)	737	32	12	2030	25	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	801	35	13	2207	27	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2580	1151	31	2513	350	312
Arrive On Green	0.73	0.73	1.00	1.00	0.20	0.20
Sat Flow, veh/h	3647	1585	9	3547	1781	1585
Grp Volume(v), veh/h	801	35	1191	1029	27	3
Grp Sat Flow(s),veh/h/ln	1777	1585	1854	1617	1781	1585
Q Serve(g_s), s	12.0	0.9	0.0	0.0	1.9	0.2
Cycle Q Clear(g_c), s	12.0	0.9	0.0	0.0	1.9	0.2
Prop In Lane		1.00	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	2580	1151	1370	1174	350	312
V/C Ratio(X)	0.31	0.03	0.87	0.88	0.08	0.01
Avail Cap(c_a), veh/h	2580	1151	1370	1174	350	312
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.30	0.30	1.00	1.00
Uniform Delay (d), s/veh	7.3	5.8	0.0	0.0	49.1	48.5
Incr Delay (d2), s/veh	0.3	0.0	2.5	3.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.3	1.0	1.0	0.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	5.8	2.5	3.1	49.6	48.5
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	836			2220	30	
Approach Delay, s/veh	7.5			2.8	49.5	
Approach LOS	A			A	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		115.0		35.0		115.0
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.1E2		29.5		* 1.1E2
Max Q Clear Time (g_c+I1), s		2.0		3.9		14.0
Green Ext Time (p_c), s		48.2		0.0		6.4
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

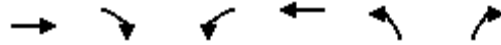
Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	239	209	45	140	124	80	26
Average Queue (ft)	134	84	7	31	18	19	6
95th Queue (ft)	220	179	29	95	70	57	22
Link Distance (ft)	804	804		1075	1075	536	536
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		4	0				
Queuing Penalty (veh)		1	0				

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	884	31	18	993	30	14
Future Volume (veh/h)	884	31	18	993	30	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	961	34	20	1079	33	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2533	1130	49	2407	374	333
Arrive On Green	0.71	0.71	1.00	1.00	0.21	0.21
Sat Flow, veh/h	3647	1585	33	3462	1781	1585
Grp Volume(v), veh/h	961	34	578	521	33	15
Grp Sat Flow(s),veh/h/ln	1777	1585	1793	1617	1781	1585
Q Serve(g_s), s	16.0	0.9	0.0	0.0	2.2	1.1
Cycle Q Clear(g_c), s	16.0	0.9	0.0	0.0	2.2	1.1
Prop In Lane		1.00	0.03		1.00	1.00
Lane Grp Cap(c), veh/h	2533	1130	1303	1152	374	333
V/C Ratio(X)	0.38	0.03	0.44	0.45	0.09	0.05
Avail Cap(c_a), veh/h	2533	1130	1303	1152	374	333
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.84	0.84	1.00	1.00
Uniform Delay (d), s/veh	8.5	6.3	0.0	0.0	47.7	47.3
Incr Delay (d2), s/veh	0.4	0.0	0.9	1.1	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.3	0.3	0.3	1.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	6.4	0.9	1.1	48.2	47.5
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	995			1099	48	
Approach Delay, s/veh	8.8			1.0	48.0	
Approach LOS	A			A	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		113.0		37.0		113.0
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.1E2		31.5		* 1.1E2
Max Q Clear Time (g_c+I1), s		2.0		4.2		18.0
Green Ext Time (p_c), s		9.0		0.1		8.3
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.7			
HCM 6th LOS			A			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	4633	4613	125	217	235	89	40
Average Queue (ft)	2134	2145	69	52	52	35	7
95th Queue (ft)	4539	4532	168	160	166	77	27
Link Distance (ft)	4950	4950		1027	1027	498	498
Upstream Blk Time (%)	3	3					
Queuing Penalty (veh)	0	0					
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		46	0				
Queuing Penalty (veh)		36	0				

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑	↖	↗
Traffic Volume (veh/h)	2040	79	12	1166	43	10
Future Volume (veh/h)	2040	79	12	1166	43	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1477	1477	1477	1477	1477	1477
Adj Flow Rate, veh/h	2103	86	13	1267	47	11
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2127	949	22	1594	244	217
Arrive On Green	0.76	0.76	1.00	1.00	0.17	0.17
Sat Flow, veh/h	2879	1251	1	2169	1406	1251
Grp Volume(v), veh/h	2103	86	651	629	47	11
Grp Sat Flow(s),veh/h/ln	1403	1251	827	1277	1406	1251
Q Serve(g_s), s	123.0	3.0	5.9	0.0	4.9	1.2
Cycle Q Clear(g_c), s	123.0	3.0	128.9	0.0	4.9	1.2
Prop In Lane		1.00	0.02		1.00	1.00
Lane Grp Cap(c), veh/h	2127	949	648	968	244	217
V/C Ratio(X)	0.99	0.09	1.00	0.65	0.19	0.05
Avail Cap(c_a), veh/h	2127	949	648	968	244	217
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.75	0.75	1.00	1.00
Uniform Delay (d), s/veh	19.8	5.3	41.8	0.0	60.1	58.6
Incr Delay (d2), s/veh	17.0	0.2	31.5	2.6	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	39.1	0.8	26.5	0.7	1.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.8	5.5	73.2	2.6	61.8	59.0
LnGrp LOS	D	A	F	A	E	E
Approach Vol, veh/h	2189			1280	58	
Approach Delay, s/veh	35.6			38.5	61.3	
Approach LOS	D			D	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		135.0		35.0		135.0
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.3E2		29.5		* 1.3E2
Max Q Clear Time (g_c+1), s		130.9		6.9		125.0
Green Ext Time (p_c), s		0.0		0.1		3.5
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			37.1			
HCM 6th LOS			D			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



**Intersection: 1: Birch Rd & North Druid Hills**

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	214	192	94	175	211	105	49
Average Queue (ft)	109	61	13	102	104	39	11
95th Queue (ft)	186	147	49	183	200	84	37
Link Distance (ft)	804	804		156	156	122	122
Upstream Blk Time (%)				5	6	1	
Queuing Penalty (veh)				52	59	0	
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		2					
Queuing Penalty (veh)		1					

**Intersection: 2: DW1 & North Druid Hills**

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	240	213	42
Average Queue (ft)	29	27	18
95th Queue (ft)	134	123	38
Link Distance (ft)	868	868	123
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 3: Birch Rd & DW2**

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	54	4	35
Average Queue (ft)	27	0	4
95th Queue (ft)	50	3	21
Link Distance (ft)	130	282	122
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Zone Summary**

Zone wide Queuing Penalty: 112

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↖↑	↘	↗
Traffic Volume (veh/h)	746	60	49	2030	51	29
Future Volume (veh/h)	746	60	49	2030	51	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	811	65	53	2207	55	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2580	1151	69	2401	350	312
Arrive On Green	0.73	0.73	1.00	1.00	0.20	0.20
Sat Flow, veh/h	3647	1585	61	3393	1781	1585
Grp Volume(v), veh/h	811	65	1213	1047	55	32
Grp Sat Flow(s),veh/h/ln	1777	1585	1751	1617	1781	1585
Q Serve(g_s), s	12.2	1.8	0.0	0.0	3.8	2.5
Cycle Q Clear(g_c), s	12.2	1.8	0.0	0.0	3.8	2.5
Prop In Lane		1.00	0.04		1.00	1.00
Lane Grp Cap(c), veh/h	2580	1151	1297	1174	350	312
V/C Ratio(X)	0.31	0.06	0.94	0.89	0.16	0.10
Avail Cap(c_a), veh/h	2580	1151	1297	1174	350	312
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	5.9	0.0	0.0	49.9	49.4
Incr Delay (d2), s/veh	0.3	0.1	13.6	10.4	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.6	4.9	3.4	1.8	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	6.0	13.6	10.4	50.9	50.1
LnGrp LOS	A	A	B	B	D	D
Approach Vol, veh/h	876			2260	87	
Approach Delay, s/veh	7.5			12.2	50.6	
Approach LOS	A			B	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		115.0		35.0		115.0
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.1E2		29.5		* 1.1E2
Max Q Clear Time (g_c+I1), s		2.0		5.8		14.2
Green Ext Time (p_c), s		52.7		0.2		6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.9			
HCM 6th LOS			B			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	766	9	0	2079	0	35
Future Vol, veh/h	766	9	0	2079	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
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	833	10	0	2260	0	38

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	417
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	585
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	585
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	585	-	-	-
HCM Lane V/C Ratio	0.065	-	-	-
HCM Control Delay (s)	11.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↓
Traffic Vol, veh/h	0	53	28	9	65	44
Future Vol, veh/h	0	53	28	9	65	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	58	30	10	71	48

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	225	20	0	0	40	0
Stage 1	35	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	753	1053	-	-	1569	-
Stage 1	983	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	718	1053	-	-	1569	-
Mov Cap-2 Maneuver	718	-	-	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	803	-	-	-	-	-

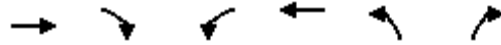
Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	4.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1053	1569
HCM Lane V/C Ratio	-	-	0.055	0.045
HCM Control Delay (s)	-	-	8.6	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	746	60	49	2030	51	29
Future Volume (veh/h)	746	60	49	2030	51	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	811	65	53	2207	55	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3117	1390	78	2902	81	72
Arrive On Green	0.88	0.88	1.00	1.00	0.05	0.05
Sat Flow, veh/h	3647	1585	61	3393	1781	1585
Grp Volume(v), veh/h	811	65	1212	1048	55	32
Grp Sat Flow(s),veh/h/ln	1777	1585	1752	1617	1781	1585
Q Serve(g_s), s	5.4	0.8	0.0	0.0	4.6	3.0
Cycle Q Clear(g_c), s	5.4	0.8	0.0	0.0	4.6	3.0
Prop In Lane		1.00	0.04		1.00	1.00
Lane Grp Cap(c), veh/h	3117	1390	1562	1418	81	72
V/C Ratio(X)	0.26	0.05	0.78	0.74	0.68	0.44
Avail Cap(c_a), veh/h	3117	1390	1562	1418	350	312
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.5	1.2	0.0	0.0	70.5	69.7
Incr Delay (d2), s/veh	0.2	0.1	3.9	3.5	9.6	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	1.7	1.4	2.3	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	1.2	3.9	3.5	80.1	74.0
LnGrp LOS	A	A	A	A	F	E
Approach Vol, veh/h	876			2260	87	
Approach Delay, s/veh	1.6			3.7	77.8	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		137.7		12.3		137.7
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.1E2		29.5		* 1.1E2
Max Q Clear Time (g_c+I1), s		2.0		6.6		7.4
Green Ext Time (p_c), s		52.7		0.2		6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.1			
HCM 6th LOS			A			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th TWSC  
2: DW1 & North Druid Hills

11/23/2021

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	766	9	0	2079	0	35
Future Vol, veh/h	766	9	0	2079	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
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	833	10	0	2260	0	38

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	417
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	585
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	585
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	585	-	-	-
HCM Lane V/C Ratio	0.065	-	-	-
HCM Control Delay (s)	11.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	28	9	65	44
Future Vol, veh/h	0	53	28	9	65	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	58	30	10	71	48

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	225	20	0	0	40	0
Stage 1	35	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	753	1053	-	-	1569	-
Stage 1	983	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	718	1053	-	-	1569	-
Mov Cap-2 Maneuver	718	-	-	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	803	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	4.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1053	1569
HCM Lane V/C Ratio	-	-	0.055	0.045
HCM Control Delay (s)	-	-	8.6	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection: 1: Birch Rd & North Druid Hills

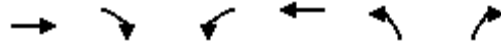
Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	138	127	53	162	153	118	31
Average Queue (ft)	43	21	8	51	45	61	4
95th Queue (ft)	105	72	31	132	134	115	20
Link Distance (ft)	804	804		156	156	122	122
Upstream Blk Time (%)				0	0	2	
Queuing Penalty (veh)				5	0	1	
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					



# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/29/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	746	60	49	2030	51	29
Future Volume (veh/h)	746	60	49	2030	51	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	811	65	53	2207	55	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3117	1390	78	2902	81	72
Arrive On Green	0.88	0.88	1.00	1.00	0.05	0.05
Sat Flow, veh/h	3647	1585	61	3393	1781	1585
Grp Volume(v), veh/h	811	65	1212	1048	55	32
Grp Sat Flow(s),veh/h/ln	1777	1585	1752	1617	1781	1585
Q Serve(g_s), s	5.4	0.8	0.0	0.0	4.6	3.0
Cycle Q Clear(g_c), s	5.4	0.8	0.0	0.0	4.6	3.0
Prop In Lane		1.00	0.04		1.00	1.00
Lane Grp Cap(c), veh/h	3117	1390	1562	1418	81	72
V/C Ratio(X)	0.26	0.05	0.78	0.74	0.68	0.44
Avail Cap(c_a), veh/h	3117	1390	1562	1418	232	206
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.5	1.2	0.0	0.0	70.5	69.7
Incr Delay (d2), s/veh	0.2	0.1	3.9	3.5	9.6	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	1.7	1.4	2.3	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	1.2	3.9	3.5	80.1	74.0
LnGrp LOS	A	A	A	A	F	E
Approach Vol, veh/h	876			2260	87	
Approach Delay, s/veh	1.6			3.7	77.8	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		137.7		12.3		137.7
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.2E2		19.5		* 1.2E2
Max Q Clear Time (g_c+I1), s		2.0		6.6		7.4
Green Ext Time (p_c), s		54.6		0.1		6.6

### Intersection Summary

HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

**Intersection: 1: Birch Rd & North Druid Hills**

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	245	210	120	168	194	109	64
Average Queue (ft)	135	92	19	98	66	45	28
95th Queue (ft)	221	180	64	176	173	93	57
Link Distance (ft)	804	804		157	157	123	123
Upstream Blk Time (%)				2	1	1	
Queuing Penalty (veh)				11	4	0	
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		5	0				
Queuing Penalty (veh)		3	0				

**Intersection: 2: DW1 & North Druid Hills**

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	150	119	56
Average Queue (ft)	19	10	24
95th Queue (ft)	88	63	47
Link Distance (ft)	860	860	68
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 3: Birch Rd & DW2**

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	68	60
Average Queue (ft)	30	10
95th Queue (ft)	54	38
Link Distance (ft)	123	123
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

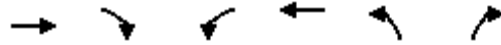
**Zone Summary**

Zone wide Queuing Penalty: 18

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	898	74	90	993	57	54
Future Volume (veh/h)	898	74	90	993	57	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	976	80	98	1079	62	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2559	1141	173	1902	380	338
Arrive On Green	0.72	0.72	1.00	1.00	0.21	0.21
Sat Flow, veh/h	3647	1585	201	2727	1781	1585
Grp Volume(v), veh/h	976	80	534	643	62	59
Grp Sat Flow(s),veh/h/ln	1777	1585	1225	1617	1781	1585
Q Serve(g_s), s	15.9	2.2	11.4	0.0	4.3	4.6
Cycle Q Clear(g_c), s	15.9	2.2	27.3	0.0	4.3	4.6
Prop In Lane		1.00	0.18		1.00	1.00
Lane Grp Cap(c), veh/h	2559	1141	911	1164	380	338
V/C Ratio(X)	0.38	0.07	0.59	0.55	0.16	0.17
Avail Cap(c_a), veh/h	2559	1141	911	1164	380	338
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.1	6.2	0.8	0.0	48.1	48.2
Incr Delay (d2), s/veh	0.4	0.1	2.8	1.9	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.7	0.7	0.6	2.0	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	6.3	3.5	1.9	49.0	49.3
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	1056			1177	121	
Approach Delay, s/veh	8.4			2.6	49.2	
Approach LOS	A			A	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		113.0		37.0		113.0
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		108.0		32.0		108.0
Max Q Clear Time (g_c+I1), s		29.3		6.6		17.9
Green Ext Time (p_c), s		11.7		0.3		8.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	938	14	0	1083	0	67
Future Vol, veh/h	938	14	0	1083	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
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	1020	15	0	1177	0	73

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	510
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	509
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	509
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	509	-	-	-
HCM Lane V/C Ratio	0.143	-	-	-
HCM Control Delay (s)	13.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	67	44	14	114	49
Future Vol, veh/h	0	67	44	14	114	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	48	15	124	53

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	357	32	0	0	63	0
Stage 1	56	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	628	1035	-	-	1539	-
Stage 1	960	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	576	1035	-	-	1539	-
Mov Cap-2 Maneuver	576	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	688	-	-	-	-	-

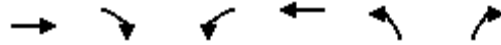
Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	5.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1035	1539
HCM Lane V/C Ratio	-	-	0.07	0.081
HCM Control Delay (s)	-	-	8.7	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.3

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	898	74	90	993	57	54
Future Volume (veh/h)	898	74	90	993	57	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	976	80	98	1079	62	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3133	1397	222	2397	92	82
Arrive On Green	0.88	0.88	1.00	1.00	0.05	0.05
Sat Flow, veh/h	3647	1585	219	2805	1781	1585
Grp Volume(v), veh/h	976	80	534	643	62	59
Grp Sat Flow(s),veh/h/ln	1777	1585	1322	1617	1781	1585
Q Serve(g_s), s	6.7	0.9	0.0	0.0	5.1	5.5
Cycle Q Clear(g_c), s	6.7	0.9	0.0	0.0	5.1	5.5
Prop In Lane		1.00	0.18		1.00	1.00
Lane Grp Cap(c), veh/h	3133	1397	1194	1425	92	82
V/C Ratio(X)	0.31	0.06	0.45	0.45	0.67	0.72
Avail Cap(c_a), veh/h	3133	1397	1194	1425	380	338
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.5	1.1	0.0	0.0	69.9	70.0
Incr Delay (d2), s/veh	0.3	0.1	1.2	1.0	8.2	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2	0.4	0.4	2.6	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	1.2	1.2	1.0	78.1	81.2
LnGrp LOS	A	A	A	A	E	F
Approach Vol, veh/h	1056			1177	121	
Approach Delay, s/veh	1.7			1.1	79.6	
Approach LOS	A			A	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		137.2		12.8		137.2
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		108.0		32.0		108.0
Max Q Clear Time (g_c+I1), s		2.0		7.5		8.7
Green Ext Time (p_c), s		11.7		0.3		8.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	938	14	0	1083	0	67
Future Vol, veh/h	938	14	0	1083	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
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	1020	15	0	1177	0	73

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	510
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	509
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	509
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	509	-	-	-
HCM Lane V/C Ratio	0.143	-	-	-
HCM Control Delay (s)	13.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	67	44	14	114	49
Future Vol, veh/h	0	67	44	14	114	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	48	15	124	53

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	357	32	0	0	63	0
Stage 1	56	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	628	1035	-	-	1539	-
Stage 1	960	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	576	1035	-	-	1539	-
Mov Cap-2 Maneuver	576	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	5.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1035	1539
HCM Lane V/C Ratio	-	-	0.07	0.081
HCM Control Delay (s)	-	-	8.7	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.3



Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	120	73	31	163	169	123	54
Average Queue (ft)	35	12	4	68	18	62	27
95th Queue (ft)	91	44	20	146	92	112	55
Link Distance (ft)	804	804		157	157	123	123
Upstream Blk Time (%)				1	0	1	
Queuing Penalty (veh)				3	1	1	
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/29/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	898	74	90	993	57	54
Future Volume (veh/h)	898	74	90	993	57	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	976	80	98	1079	62	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3135	1398	222	2399	91	81
Arrive On Green	0.88	0.88	1.00	1.00	0.05	0.05
Sat Flow, veh/h	3647	1585	219	2805	1781	1585
Grp Volume(v), veh/h	976	80	534	643	62	59
Grp Sat Flow(s),veh/h/ln	1777	1585	1322	1617	1781	1585
Q Serve(g_s), s	6.7	0.9	0.0	0.0	5.1	5.5
Cycle Q Clear(g_c), s	6.7	0.9	0.0	0.0	5.1	5.5
Prop In Lane		1.00	0.18		1.00	1.00
Lane Grp Cap(c), veh/h	3135	1398	1195	1426	91	81
V/C Ratio(X)	0.31	0.06	0.45	0.45	0.68	0.73
Avail Cap(c_a), veh/h	3135	1398	1195	1426	238	211
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.4	1.1	0.0	0.0	69.9	70.1
Incr Delay (d2), s/veh	0.3	0.1	1.2	1.0	8.5	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2	0.4	0.4	2.6	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	1.2	1.2	1.0	78.5	81.8
LnGrp LOS	A	A	A	A	E	F
Approach Vol, veh/h	1056			1177	121	
Approach Delay, s/veh	1.7			1.1	80.1	
Approach LOS	A			A	F	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		137.3		12.7		137.3
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		120.0		20.0		120.0
Max Q Clear Time (g_c+I1), s		2.0		7.5		8.7
Green Ext Time (p_c), s		11.7		0.2		8.7
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

**Intersection: 1: Birch Rd & North Druid Hills**

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	4878	4868	125	177	227	130	119
Average Queue (ft)	2659	2669	74	100	106	48	48
95th Queue (ft)	5456	5446	170	207	246	100	96
Link Distance (ft)	4950	4950		158	158	126	126
Upstream Blk Time (%)	13	14		7	7	1	0
Queuing Penalty (veh)	0	0		43	43	0	0
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		44	0				
Queuing Penalty (veh)		56	0				

**Intersection: 2: DW1 & North Druid Hills**

Movement	EB	EB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	190	190	196	202	103
Average Queue (ft)	129	136	38	31	29
95th Queue (ft)	228	232	142	132	96
Link Distance (ft)	158	158	810	810	317
Upstream Blk Time (%)	6	8			
Queuing Penalty (veh)	39	56			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 3: Birch Rd & DW2**

Movement	WB	NB	SB
Directions Served	LR	T	LT
Maximum Queue (ft)	57	6	44
Average Queue (ft)	30	0	5
95th Queue (ft)	45	5	24
Link Distance (ft)	164	320	126
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

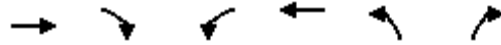
**Zone Summary**

Zone wide Queuing Penalty: 238

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑	↖	↗
Traffic Volume (veh/h)	2040	129	31	1166	58	54
Future Volume (veh/h)	2040	129	31	1166	58	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1477	1477	1477	1477	1477	1477
Adj Flow Rate, veh/h	2103	140	34	1267	63	59
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2127	949	24	1270	244	217
Arrive On Green	0.76	0.76	1.00	1.00	0.17	0.17
Sat Flow, veh/h	2879	1251	2	1742	1406	1251
Grp Volume(v), veh/h	2103	140	576	725	63	59
Grp Sat Flow(s),veh/h/ln	1403	1251	400	1277	1406	1251
Q Serve(g_s), s	123.0	5.2	5.9	0.0	6.6	7.0
Cycle Q Clear(g_c), s	123.0	5.2	128.9	0.0	6.6	7.0
Prop In Lane		1.00	0.06		1.00	1.00
Lane Grp Cap(c), veh/h	2127	949	326	968	244	217
V/C Ratio(X)	0.99	0.15	1.77	0.75	0.26	0.27
Avail Cap(c_a), veh/h	2127	949	326	968	244	217
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	5.6	68.5	0.0	60.8	60.9
Incr Delay (d2), s/veh	17.0	0.3	357.7	5.3	2.5	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	39.1	1.4	43.2	1.4	2.6	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.8	5.9	426.2	5.3	63.3	64.0
LnGrp LOS	D	A	F	A	E	E
Approach Vol, veh/h	2243			1301	122	
Approach Delay, s/veh	34.9			191.7	63.7	
Approach LOS	C			F	E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		135.0		35.0		135.0
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.3E2		29.5		* 1.3E2
Max Q Clear Time (g_c+I1), s		130.9		9.0		125.0
Green Ext Time (p_c), s		0.0		0.3		3.6

### Intersection Summary

HCM 6th Ctrl Delay	91.5
HCM 6th LOS	F

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	2073	1	0	1197	0	8
Future Vol, veh/h	2073	1	0	1197	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
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	2253	1	0	1301	0	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1127
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 199
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 199
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	199	-	-	-
HCM Lane V/C Ratio	0.044	-	-	-
HCM Control Delay (s)	23.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	53	8	69	91
Future Vol, veh/h	0	69	53	8	69	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	58	9	75	99

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	312	34	0	0	67	0
Stage 1	63	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	668	1032	-	-	1534	-
Stage 1	953	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	633	1032	-	-	1534	-
Mov Cap-2 Maneuver	633	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	751	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1032	1534
HCM Lane V/C Ratio	-	-	0.073	0.049
HCM Control Delay (s)	-	-	8.8	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

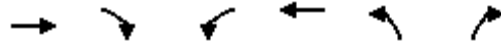
Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	4887	4895	125	80	100	94	114	114
Average Queue (ft)	2591	2605	73	31	18	27	54	48
95th Queue (ft)	5482	5483	168	73	61	74	104	101
Link Distance (ft)	4951	4951			158	158	120	120
Upstream Blk Time (%)	18	19			0		2	1
Queuing Penalty (veh)	0	0			0		1	1
Storage Bay Dist (ft)			85	250				
Storage Blk Time (%)		42	0		0			
Queuing Penalty (veh)		54	0		0			

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/24/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Volume (veh/h)	2040	129	31	1166	58	54
Future Volume (veh/h)	2040	129	31	1166	58	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1477	1477	1477	1477	1477	1477
Adj Flow Rate, veh/h	2103	140	34	1267	63	59
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2144	956	83	2292	161	144
Arrive On Green	0.76	0.76	0.05	1.00	0.11	0.11
Sat Flow, veh/h	2879	1251	1406	2879	1406	1251
Grp Volume(v), veh/h	2103	140	34	1267	63	59
Grp Sat Flow(s),veh/h/ln	1403	1251	1406	1403	1406	1251
Q Serve(g_s), s	120.0	5.1	0.8	0.0	7.1	7.4
Cycle Q Clear(g_c), s	120.0	5.1	0.8	0.0	7.1	7.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2144	956	83	2292	161	144
V/C Ratio(X)	0.98	0.15	0.41	0.55	0.39	0.41
Avail Cap(c_a), veh/h	2144	956	216	2292	161	144
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	5.3	52.2	0.0	69.7	69.9
Incr Delay (d2), s/veh	15.4	0.3	3.2	1.0	7.0	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.4	1.3	1.2	0.3	2.9	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.3	5.6	55.4	1.0	76.7	78.4
LnGrp LOS	C	A	E	A	E	E
Approach Vol, veh/h	2243			1301	122	
Approach Delay, s/veh	32.5			2.4	77.5	
Approach LOS	C			A	E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		145.0		25.0	9.0	136.0
Change Period (Y+Rc), s		* 6.1		5.5	5.0	* 6.1
Max Green Setting (Gmax), s		* 1.4E2		19.5	20.0	* 1.1E2
Max Q Clear Time (g_c+I1), s		2.0		9.4	2.8	122.0
Green Ext Time (p_c), s		12.8		0.2	0.0	0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			23.3			
HCM 6th LOS			C			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



**Intersection: 1: Birch Rd & North Druid Hills**

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	4994	4995	125	182	234	127	135
Average Queue (ft)	2594	2606	69	101	108	55	56
95th Queue (ft)	5601	5596	164	212	248	114	121
Link Distance (ft)	4950	4950		158	158	126	126
Upstream Blk Time (%)	16	15		6	6	1	2
Queuing Penalty (veh)	0	0		35	33	1	1
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		42	0				
Queuing Penalty (veh)		54	0				

**Intersection: 2: DW1 & North Druid Hills**

Movement	EB	EB	EB	WB	WB	NB
Directions Served	T	T	R	T	T	R
Maximum Queue (ft)	196	189	101	163	152	81
Average Queue (ft)	141	143	4	33	28	22
95th Queue (ft)	233	229	43	118	107	67
Link Distance (ft)	158	158	158	810	810	317
Upstream Blk Time (%)	14	16	0			
Queuing Penalty (veh)	99	113	2			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

**Intersection: 3: Birch Rd & DW2**

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	77	12	36
Average Queue (ft)	30	0	5
95th Queue (ft)	56	6	25
Link Distance (ft)	164	320	126
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

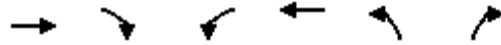
**Zone Summary**

Zone wide Queuing Penalty: 337

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/23/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	2040	129	31	1166	58	54
Future Volume (veh/h)	2040	129	31	1166	58	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1477	1477	1477	1477	1477	1477
Adj Flow Rate, veh/h	2103	140	34	1267	63	59
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2446	1091	49	1825	84	75
Arrive On Green	0.87	0.87	1.00	1.00	0.06	0.06
Sat Flow, veh/h	2879	1251	30	2160	1406	1251
Grp Volume(v), veh/h	2103	140	591	710	63	59
Grp Sat Flow(s),veh/h/ln	1403	1251	847	1277	1406	1251
Q Serve(g_s), s	65.2	2.7	83.1	0.0	7.5	7.9
Cycle Q Clear(g_c), s	65.2	2.7	148.2	0.0	7.5	7.9
Prop In Lane		1.00	0.06		1.00	1.00
Lane Grp Cap(c), veh/h	2446	1091	761	1113	84	75
V/C Ratio(X)	0.86	0.13	0.78	0.64	0.75	0.79
Avail Cap(c_a), veh/h	2446	1091	761	1113	244	217
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.6	1.6	13.1	0.0	78.7	78.9
Incr Delay (d2), s/veh	4.2	0.2	7.7	2.8	12.4	16.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	0.5	15.8	0.9	3.0	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.8	1.8	20.8	2.8	91.1	95.3
LnGrp LOS	A	A	C	A	F	F
Approach Vol, veh/h	2243			1301	122	
Approach Delay, s/veh	9.3			11.0	93.1	
Approach LOS	A			B	F	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		154.3		15.7		154.3
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.3E2		29.5		* 1.3E2
Max Q Clear Time (g_c+I1), s		150.2		9.9		67.2
Green Ext Time (p_c), s		0.0		0.3		34.5

### Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC  
2: DW1 & North Druid Hills

11/23/2021

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	2073	1	0	1197	0	8
Future Vol, veh/h	2073	1	0	1197	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
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	2253	1	0	1301	0	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 1127
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	- 0	- 0 199
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 199
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	199	-	-	-
HCM Lane V/C Ratio	0.044	-	-	-
HCM Control Delay (s)	23.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	53	8	69	91
Future Vol, veh/h	0	69	53	8	69	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	58	9	75	99

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	312	34	0	0	67	0
Stage 1	63	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	668	1032	-	-	1534	-
Stage 1	953	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	633	1032	-	-	1534	-
Mov Cap-2 Maneuver	633	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	751	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1032	1534
HCM Lane V/C Ratio	-	-	0.073	0.049
HCM Control Delay (s)	-	-	8.8	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

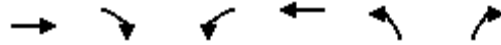
Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	4986	4998	125	188	233	69	79
Average Queue (ft)	2741	2755	73	154	170	32	30
95th Queue (ft)	5527	5527	165	203	238	64	65
Link Distance (ft)	4950	4950		158	158	126	126
Upstream Blk Time (%)	19	19		13	15		0
Queuing Penalty (veh)	0	0		76	91		0
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		44	0				
Queuing Penalty (veh)		57	0				

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/24/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Traffic Volume (veh/h)	2040	129	31	1166	58	54
Future Volume (veh/h)	2040	129	31	1166	58	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1477	1477	1477	1477	1477	1477
Adj Flow Rate, veh/h	2103	140	34	1267	63	59
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2220	990	53	1670	102	90
Arrive On Green	0.79	0.79	1.00	1.00	0.07	0.07
Sat Flow, veh/h	2879	1251	11	2177	1406	1251
Grp Volume(v), veh/h	2103	140	621	680	63	59
Grp Sat Flow(s),veh/h/ln	1403	1251	845	1277	1406	1251
Q Serve(g_s), s	53.1	2.2	14.1	0.0	3.7	3.9
Cycle Q Clear(g_c), s	53.1	2.2	67.3	0.0	3.7	3.9
Prop In Lane		1.00	0.05		1.00	1.00
Lane Grp Cap(c), veh/h	2220	990	713	1010	102	90
V/C Ratio(X)	0.95	0.14	0.87	0.67	0.62	0.65
Avail Cap(c_a), veh/h	2220	990	713	1010	323	287
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	2.1	13.6	0.0	38.3	38.4
Incr Delay (d2), s/veh	10.2	0.3	13.8	3.6	6.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	0.3	6.2	1.0	1.4	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	2.4	27.4	3.6	44.3	46.1
LnGrp LOS	B	A	C	A	D	D
Approach Vol, veh/h	2243			1301	122	
Approach Delay, s/veh	16.7			15.0	45.2	
Approach LOS	B			B	D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.4		11.6		73.4
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 54		19.5		* 54
Max Q Clear Time (g_c+I1), s		69.3		5.9		55.1
Green Ext Time (p_c), s		0.0		0.2		0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

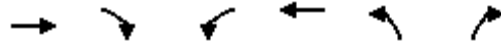
Intersection: 1: Birch Rd & North Druid Hills

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	R	LT	T	L	R
Maximum Queue (ft)	4985	5002	125	164	223	95	147
Average Queue (ft)	2916	2927	61	95	99	46	81
95th Queue (ft)	5718	5721	160	210	238	92	155
Link Distance (ft)	4950	4950		158	158	126	126
Upstream Blk Time (%)	24	25		5	4		23
Queuing Penalty (veh)	0	0		28	23		14
Storage Bay Dist (ft)			85				
Storage Blk Time (%)		45	0				
Queuing Penalty (veh)		58	0				

# HCM 6th Signalized Intersection Summary

## 1: Birch Rd & North Druid Hills

11/29/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑	↖	↗
Traffic Volume (veh/h)	2040	129	31	1166	58	54
Future Volume (veh/h)	2040	129	31	1166	58	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1477	1477	1477	1477	1477	1477
Adj Flow Rate, veh/h	2103	140	34	1267	63	59
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2448	1092	49	1828	83	74
Arrive On Green	0.87	0.87	1.00	1.00	0.06	0.06
Sat Flow, veh/h	2879	1251	30	2162	1406	1251
Grp Volume(v), veh/h	2103	140	591	710	63	59
Grp Sat Flow(s),veh/h/ln	1403	1251	849	1277	1406	1251
Q Serve(g_s), s	64.9	2.7	83.4	0.0	7.5	7.9
Cycle Q Clear(g_c), s	64.9	2.7	148.3	0.0	7.5	7.9
Prop In Lane		1.00	0.06		1.00	1.00
Lane Grp Cap(c), veh/h	2448	1092	763	1114	83	74
V/C Ratio(X)	0.86	0.13	0.77	0.64	0.76	0.80
Avail Cap(c_a), veh/h	2448	1092	763	1114	161	144
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.5	1.6	12.9	0.0	78.7	78.9
Incr Delay (d2), s/veh	4.2	0.2	7.6	2.8	12.9	17.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	0.5	15.6	0.9	3.0	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	1.8	20.5	2.8	91.7	96.1
LnGrp LOS	A	A	C	A	F	F
Approach Vol, veh/h	2243			1301	122	
Approach Delay, s/veh	9.2			10.8	93.8	
Approach LOS	A			B	F	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		154.4		15.6		154.4
Change Period (Y+Rc), s		* 6.1		5.5		* 6.1
Max Green Setting (Gmax), s		* 1.4E2		19.5		* 1.4E2
Max Q Clear Time (g_c+I1), s		150.3		9.9		66.9
Green Ext Time (p_c), s		0.0		0.2		37.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			
<b>Notes</b>						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						