Mayor and Council Work Session

700 Doug Davis Drive
Hapeville, GA 30354

October 15, 2019 6:00PM

Agenda

1. Call To Order

2. Roll Call
   Mayor Alan Hallman
   Alderman Mike Rast
   Councilman at Large Travis Horsley
   Councilman Ward I Mark Adams
   Councilman Ward II Chloe Alexander

3. Welcome

4. Presentation

4.I. Presentation Of Donated Funds To Ms. Barbara Riley Of The Amanda Riley Foundation By Chief Bloodworth

Background:

Fire Chief Bloodworth will give recognition to all those that made contributions to the Amanda Riley Foundation on behalf of the Hapeville Fire Department and will present the donated funds to Ms. Barbara Riley, President of the Amanda Riley Foundation.

5. Public Hearing

5.I. Consideration And Action On A Special Exception At 600 South Central Avenue

Background:

Michael Foster on behalf of Regions Bank is requesting approval of a special exception to authorize the installation of an Automated Teller Machine (ATM) at 600 South Central Avenue, Parcel Identification Number 14 009800200513. The property is zoned RMU, Residential Mixed Use and is located in the Arts District Overlay (A-D). The Planning Commission considered this item on Tuesday, October 8, 2019 and recommended the Mayor and Council grant the special exception as requested. Staff supported their recommendation.

Staff Comment
Applicant Comment
Public Comment

Documents:

600 SOUTH CENTRAL AVENUE - SPECIAL EXCEPTION _REDACTED.PDF
PLANNERS REPORT SPECIAL EXCEPTION 600 S CENTRAL AVE ATM (002).PDF
LEGAL ADV. - 600 SOUTH CENTRAL AVENUE, SPECIAL EXCEPTION 10-15-2019.PDF
MINUTES 10-8-2019 (DRAFT).PDF

6. Questions On Agenda Items
   The public is encouraged to communicate their questions, concerns, and suggestions during Public Comments. The Council does listen to your concerns and will have Staff

follow-up on any questions you raise. Any and all comments should be addressed to the Governing Body, not to the general public and delivered in a civil manner in keeping with common courtesy and decorum.

7. Consent Agenda

8. Old Business

8.I. Consideration And Action To Amend And Update Mobile Food Vendor Ordinance To Be Consistent With Transient Merchant Ordinance - 1st Reading

Background:

Attached for approval is an amended Mobile Food Vendor ordinance. Legal has updated the language in this ordinance so that it is identical and consistent with the Transient Merchant ordinance.

Staff respectfully requests Mayor and Council to waive first reading due to the upcoming events this month

Documents:

ORDINANCE - MOBILE FOOD VENDOR.PDF

9. New Business

9.I. Consideration And Action On Bond Refinancing Recommendation For The Development Authority

Background:

With the recent low interest rates, the City and Development Authority explored refinancing the 2004A, 2004B and 2007 bonds. The City issued and RFP on behalf of the Authority. Twenty five requests were issued with 3 bids returned. BB&T returned a winning bid as detailed in the packet. For Council consideration and approval is a resolution approving the issuance by the Hapeville Development Authority of $4,705,000 Revenue bonds to refinance the Series 2004A, 2004B and 2007 Bonds and approving an Intergovernmental contract between the Authority and the City securing the Bonds in order to effect approx $120,000 in interest cost savings by lowering the interest rate from approx 4.5% to approx 2.4%".

Additional documents will be uploaded to the City's website on Monday.

Documents:

HDA REFUNDING 2004A, 2004B AND 2007.PDF

9.II. Consideration And Action To Renew The Annual Water & Sewer And Stormwater Repair Contract With The Corbett Group, LLC.

Background:

An RFP was issued in 2018 for Annual Repairs to the Water & Sewer and Stormwater infrastrcture. This annual contract is for jobs that require the assistance of a contractor due to the complexity of the repair.The Corbett Group was the low bidder and the annual contract has two additional one year options to renew.Staff recommends renewal of the first year option with no changes in the bid unit pricing.

Documents:

CHANGE ORDER NO. 2 WATER.PDF
CHANGE ORDER NO. 1 STORM.PDF
SKM_368E19100811380.PDF

9.III. Consideration And Action On Acceptance Of LCI Wayfinding And Virginia Avenue Roundabout Project

Background:

As a follow up to the 2017 LCI study, with funding from the Atlanta Regional Commission, the City of Hapeville engaged Stantec Consulting Services, Inc. to perform a feasibility study for the Virginia Avenue Roundabout and Wayfinding recommendations for the Virginia Avenue Corridor. The study and recommendations were completed in September 2019 and are now being presented to Council. Staff recommendation is for the Council to accept delivery of the study. Staff requests the Council review the results of the study and direct Staff at a later date for any desired action.

Documents:

VIRGINIA_AVE_FEASIBILITY_STUDY_ROUNDABOUT.PDF
2019_09_26_HAPEVILLEWAYFINDING_REPORT (002).PDF

9.IV. Consideration On Ordinance Amendment For Mayor And Council Regular Meeting Schedule - 1st Reading

Background:

Attached for consideration is an ordinance amendment for the Mayor and Council regular meeting schedule. The ordinance has been amended to include November 19, 2019 as a regular meeting date.

Documents:

AMENDMENT TO ORDINANCE FOR REGULAR MEETINGS.PDF

10. City Manager Report

11. Public Comments

Members of the public wishing to speak shall sign in with the City Clerk prior to the start of the meeting. Time limitations for Registered Comments are three (3) minutes per person. The total Registered Comment session shall not last more than fifteen (15) minutes unless extended by Council. Each member of the public, who fails to sign up with the City Clerk prior to the start of the meeting, wishing to address Mayor and Council shall have a total of two (2) minutes. The entire general comment session for Unregistered Comments shall not last more than ten (10) minutes unless extended by Council.

12. Mayor And Council Comments

13. Executive Session

When Executive Session is Required one will be called for the following issues: 1) Litigation O.C.G.A. §50-14-2; 2) Real Estate O.C.G.A. §50-14-3(b)(1); or 3) Personnel O.C.G.A. §50-14-3(b)(2).

14. Adjourn

Public involvement and citizen engagement is welcome as Hapeville operates a very open, accessible and transparent government. We do however remind our attendees/residents that there are times allocated for public comments on the agenda. In order for council to conduct their necessary business at each meeting, we respectfully ask that side-bar conversations and comments be reserved for the appropriate time during the meeting. This will allow the City Council to conduct the business at hand and afford our meeting attendees ample time for comments at the appropriate time during the meeting.

19-PC-10-23

CITY OF HAPEVILLE
ECONOMIC DEVELOPMENT DEPARTMENT
PLANNING COMMISSION APPLICATION

Name of Applicant Michael Foster

Mailing Address: 2100 First Avenue North, Birmingham, AL 35203

Telephone 205-252-8222 Mobile # [redacted] Email michael.foster@bdgllp.com

Property Owner (s) Regions Bank (John Earley)

Mailing Address 250 Riverchase Parkway East, Birmingham, AL 35244

Telephone 205-560-5348 Mobile #

Address/Location of Property: 600 South Central Avenue

Parcel I.D. # **(INFORMATION MUST BE PROVIDED):** 14 009800200513

Present Zoning Classification: RMU Size of Tract: 1.4053 acre(s)

Present Land Use: Bank

Please check the following as it applies to this application

_____Site Plan Review
_____Conditional Use Permit
_____Temporary Use Permit

Other (Please State) Special Exception

I hereby make application to the City of Hapeville, Georgia for the above referenced property. I do hereby swear or affirm that the information provided here and above is true, complete and accurate, and I understand that any inaccuracies may be considered just cause for invalidation of this application and any action taken on this application. I understand that the City of Hapeville, Georgia, reserves the right to enforce any and all ordinances. I further understand that it is my/our responsibility to conform with all of City of Hapeville's Ordinances in full. I hereby acknowledge that all requirements of the City of Hapeville shall be adhered too. I can read and write the English language and/or this document has been read and explained to me and I have full and voluntarily completed this application. I understand that it is a felony to make false statements or writings to the City of Hapeville, Georgia pursuant to O.C.G.A. 16-10-20 and I may be prosecuted for a violation thereof.

Applicant's signature

Date: 9/5/2019

Sworn to and subscribed before me

This 5 **day of** September 2019.

Kay D. Milstead
Notary Public

Kay D. Milstead
Notary Public
State of Alabama at Large
My Commission Expires 2/9/2020

CITY OF HAPEVILLE
ECONOMIC DEVELOPMENT DEPARTMENT
PLANNING COMMISSION APPLICATION

WRITTEN SUMMARY

In detail, provide a summary of the proposed project in the space provided below. (Please type or print legibly.)

Addition of a new thru-wall ATM and removal of existing drive-thru window.

CITY OF HAPEVILLE
ECONOMIC DEVELOPMENT DEPARTMENT
PLANNING COMMISSION APPLICATION

AUTHORIZATION OF PROPERTY OWNER

I CERTIFY THAT I AM THE OWNER OF THE PROPERTY LOCATED AT:

600 South Central Avenue

Hapeville, GA

City of Hapeville, County of Fulton, State of Georgia

WHICH IS THE SUBJECT MATTER OF THIS APPLICATION. I AUTHORIZE THE APPLICANT NAMED BELOW TO ACT AS THE APPLICANT IN THE PURSUIT OF THIS APPLICATION FOR PLANNING COMMISSION REVIEW.

Name of Applicant Michael Foster

Address of Applicant
2100 First Avenue North, Birmingham, AL 35203

Telephone of Applicant
205-252-8222

Signature of Owner

John Earley

Print Name of Owner

Personally Appeared Before Me this 4 day of September, 20 19.

Randi L Dicus

Notary Public

RANDI L. DICUS
Notary Public
Alabama State at Large

Site Plan Checklist – <u>Please include with your application.</u>

A site plan is used to determine the practical ability to develop a particular property within the City of Hapeville. Information relating to environmental condition, zoning, development impact, consistency with the Hapeville Comprehensive Plan and relevant town master plans will be considered in the decision process. To be considered, a site plan **<u>must</u>** contain the following information:

(Please ***<u>initial</u>*** each item on the list above certifying the all required information has been included on the site plan)

MF A brief project report shall be provided to include an explanation of the character of the proposed development, verification of the applicant's ownership and/or contractual interest in the subject site, and the anticipated development schedule. Please complete and submit all forms contained within the application for site plan review.

MF Site plans shall be submitted indicating project name, applicant's name, adjoining streets, scale, north arrow and date drawn.

MF The locations, size (sf) and height (ft) of all existing and proposed structures on the site. Height should be assessed from the base of the foundation at grade to the peak of the tallest roofline.

MF Site plans shall include the footprint/outline of existing structures on adjoining properties. For detached single-family residential infill development, the front yard setback shall be assessed based on the average setback of existing structures on adjoining lots. Where practical, new construction shall not deviate more than ten (10) feet from the average front yard setback of the primary residential structure on an adjoining lot. Exemption from this requirement due to unnecessary hardship or great practical difficulty can be approved at the discretion of the Planning Commission. To be considered for an exemption, the applicant must submit a "Request for Relief" in writing with their site plan application, including the conditions that necessitate relief (i.e. floodplain, wetland encroachment, excessive slope, unusual lot configuration, legally nonconforming lot size, unconventional sitting of adjoining structures, etc).

MF The location and general design cross-section characteristics of all driveways, curb cuts and sidewalks including connections to building entrances. A walkway from the primary entrance directly to the public sidewalk is required for all single-family residential development.

MF The locations, area and number of proposed parking spaces. Please refer to Article 22.1 Chart of Dimensional Requirements to determine the correct number of parking spaces for your particular type of development.

MF Existing and proposed grades at an interval of five (5) feet or less.

N/A The location and general type of all existing trees over six (6) inch caliper and, in addition, an identification of those to be retained. Requirements for the tree protection plan are available in Code Section 93-2-14(f). Please refer to Sec. 93-2-14(y) to determine the required tree density for your lot(s).

N/A A Landscape Plan: The location and approximate size of all proposed plant material to be used in landscaping, by type such as hardwood deciduous trees, evergreen trees, flowering trees and shrub masses, and types of ground cover (grass, ivies, etc.). Planting in parking areas should be included, as required in Section 93-23-18.

N/A The proposed general use and development of the site, including all recreational and open space areas, plazas and major landscape areas by function, and the general location and description of all proposed, outdoor furniture (seating, lighting, telephones, etc.). Detached single-family residential development may be exempt from this requirement.

N/A The location of all retaining walls, fences (including privacy fences around patios, etc.) and earth berms. Detached single-family residential development may be exempt from this requirement.

N/A The identification and location of all refuse collection facilities, including screening to be provided. Detached single-family residential development may be exempt from this requirement.

N/A Provisions for both on-site and offsite storm-water drainage and detention related to the proposed development.

MF Location and size of all signs. Detached single-family residential development may be exempt from this requirement.

MF Typical elevations of proposed building provided at a reasonable scale (1/8" = 1'0") and include the identification of proposed exterior building materials. Exterior elevations should show <u>all</u> sides of a proposed building.

MF Site area (square feet and acres).

MF Allocation of site area by building coverage, parking, loading and driveways, and open space areas, including total open space, recreation areas, landscaped areas and others. Total dwelling units and floor area distributed generally by dwelling unit type (one-bedroom, two-bedroom, etc.) where applicable.

N/A Floor area in nonresidential use by category. Detached single-family residential development may be exempt from this requirement.

N/A Total floor area ratio and/or residential density distribution.

MF Number of parking spaces and area of paved surface for parking and circulation

MF At the discretion of the planning commission, analyses by qualified technical personnel or consultants may be required as to the market and financial feasibility, traffic impact, environmental impact, storm water and erosion control, etc. of the proposed development.

Please ***<u>initial</u>*** each item on the list above certifying the all required information has been included on the site plan, sign and submit this form with your site plan application. Failure to include this form and information required herein may result in additional delays for the consideration of your application.

Applicant Signature: _____

Date 9/5/2019

REGIONS

August 9, 2019

To Whom it May Concern:

We are writing in support of the proposed text amendment to the code to allow construction of drive thru lanes on a limited basis. Drive thru ATM usage is central to the modern banking experience, and the level of service and convenience these stations afford our customers is widely used and universally expected.

We understand the intent of the drive thru restriction is to protect the character of the City of Hapeville, but suggest that this should not apply to financial institutions because they do not produce the negative results associated with other uses. The modern fast food chain drive thru, for example, is often associated with wide swathes of impervious surfaces; dramatically increased vehicular traffic; long lines of queuing cars that can stack out and obstruct adjacent roadways; large, garish lighting and signage infrastructure for wayfinding and branding. In contrast, bank drive thru ATMs are small, limited in number, and rarely stack up beyond one or two cars.

The most important distinction, however, is related to customer service. Bank drive thru ATMs allow us to deliver a high level of financial service to our customers during nights and weekends when such services would otherwise be unavailable. Bank drive thru ATMs are useful and convenient during normal branch operations, but absolutely essential when bank branches are closed. Our goal is to make this level of service available to our Hapeville branch patrons.

In our view, bank drive thrus deliver a high level of service to the community without the drawbacks often associated with other drive thru lane usage. They provide valuable services to the community when no other such service can be delivered. Further, with any new drive thru construction, we are committed to doing all that is required to meet the City of Hapeville's high standards and further enhance this community. With these considerations in mind, we encourage the Commission to approve the zoning amendment at issue.

Thank you for your consideration.

Sincerely,

John Earley
Vice President
Corporate Real Estate & Properties Department

Post Office Box 11007
Birmingham, Alabama 35288



REGIONS

HAPEVILLE MAIN
EXTERIOR PHOTO
EXISTING CONDITIONS

bdg architects



REGIONS

HAPEVILLE MAIN
EXTERIOR PHOTO
NEW WORK

bdg architects

REGIONS

RFC #
Project Number: OP015475
Site Name:
Address: 600 South Central Ave.
City, ST, Zip: Hapeville, GA 30354
Date: 6/5/19



N

Site Approved: _____
Date: _____

Allen Industries
YOUR BRAND AT ITS BEST™

CANOPY SPECIFICATIONS

ALUMINUM AWNING W/ DOWN LIGHTING.
ALUMINUM FRAMING & SUPPORTS PAINTED
PMS 370C ALUMINUM FRAME, WITH .080"
ALUMINUM CLADDING, CLOSED ENDS, CLOSED BACKS.
PAINTED PMS 370C.

COLOR SPECIFICATIONS

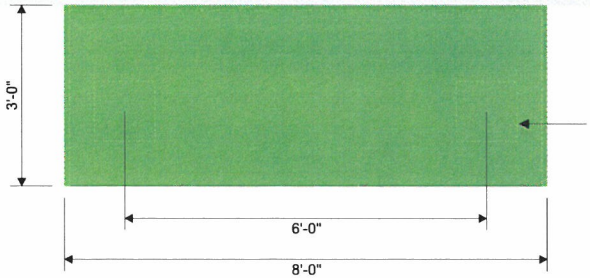
PMS 370C GREEN

WHITE

Allen Industries — FILE NUMBER: E212503 — c(MET)us LISTED — ELECTRIC SIGN

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

GROUNDED ELECTRICAL CONNECTIONS



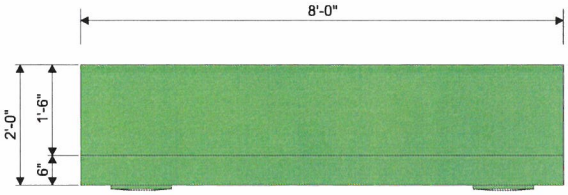
DOWN LIGHTING
CLOSED BOTTOM WITH HOLES CUT FOR
XSL S LED 50 SS CW LIGHT FIXTURES

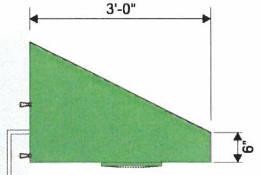
DOWN LIGHTING SPECIFICATIONS:

QTY (2) NEW XSL S LED 50 SS CW LIGHT FIXTURES FOR NEW AWNING,
1 ON EACH SIDE OF AWNING PAINTED GREEN TO MATCH AWNING

TOP VIEW

SCALE: 1/2" = 1'-0"





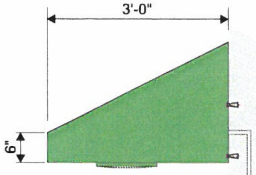
LEFT SIDE VIEW

SCALE: 1/2" = 1'-0"



FRONT VIEW

SCALE: 1/2" = 1'-0"



RIGHT SIDE VIEW

SCALE: 1/2" = 1'-0"

REGIONS

Client Review Status

Allen Industries, Inc. requires that an " ☐Approved" drawing be obtained from the client prior to any production release or production release revision.

☐Approved ☐Approved as Noted ☐Revise & Resubmit

Name

Title Date

Declaration

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Date / Description

6/4/19		Issue Date
6/5/19	1	Change light spec
—	2	—
-	3	-
-	4	-

Project Information

Client Regions Bank
600 South Central Ave.
Hapeville, GA 30354
File OP015475 Hapeville, GA 301
Sales House Design LB PM JC

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1-800-967-2553
www.allenindustries.com

PROPOSED ELEVATION



PHOTO ELEVATION DEPICTION INTENDED FOR GENERAL CONCEPT ILLUSTRATION ACTUAL SIZING, COLORS & PERSPECTIVE WILL VARY SLIGHTLY FROM IMAGE

REGIONS

Client Review Status

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☐Approved ☐Approved as Noted ☐Revise & Resubmit

Name

Title Date

Declaration

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Date / Description

6/4/19		Issue Date
6/5/19	1	Change light spec
—	2	—
-	3	-
-	4	-

Project Information

Client Regions Bank
600 South Central Ave.
Hapeville, GA 30354

File OP015475_Hapeville, GA_301

Sales House Design LB PM JC

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www.allenindustries.com



1 SITE PLAN
1" = 20'-0"

bdg
architects
2100 1st Ave. North
Ste. 100
Birmingham, Al 35203
P: 205 - 252 - 8222
Lic. #: AA - 0003590
W: www.bdgllp.com

REGIONS

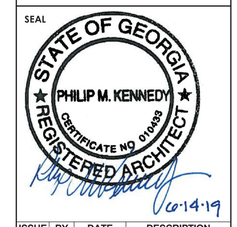
REGIONS HAPEVILLE ATM ADDITION

600 SOUTH CENTRAL AVENUE,
HAPEVILLE, GA 30354

REGIONS PROJECT #GASC193138ER

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SEAL



ISSUE	BY	DATE	DESCRIPTION

PROJECT INFORMATION BLOCK

JOB #	183305
DATE:	05-10-2019
DRAWN BY:	McR
CHECKED BY:	JQ

SHEET TITLE

OVERALL ARCHITECTURAL SITEPLAN

SHEET NUMBER

A-100

DEPARTMENT OF PLANNING AND ZONING
PLANNER'S REPORT

DATE: September 30, 2019
TO: Adrienne Senter
FROM: Michael Smith
RE: Special Exception Request – 600 South Central Avenue

BACKGROUND

The City of Hapeville has received a special exception application from Mr. Michael Foster to permit a drive-up ATM accessory to a Regions Bank located at 600 South Central Avenue. The ATM would be located on the east side of the building, adjacent to an existing drive-through teller window, and would use the existing drive-through lane.

The property is zoned RMU, Residential Mixed-Use, and is within the A-D, Arts District overlay.

At the request of the applicant and in conjunction with this proposal, Mayor & City Council voted on September 17, 2019, to adopt a text amendment permitting drive-throughs in the A-D overlay when used by banks.

REVIEW

The following code sections are applicable to this application:

ARTICLE 11.5. - RMU ZONE (RESIDENTIAL MIXED USE)

Sec. 93-11.5-1. - Intent.

The RMU district is established in order to:

(1) Ensure development that is consistent with neo-traditional planning practices, which are often defined by pedestrian-oriented buildings, interconnected streets, a mix of uses and housing types, and a compact walkable scale.

(2) Help create a compact, dense, and distinguishable core area;

(3) Provide for an urban form allowing mid-rise structures;

(4) Encourage multiple uses within the same structure; and

(5) Include street oriented activity and pedestrian amenities at the street level of structures.

Sec. 93-11.5-3. - Permitted uses.

The following are permitted within the RMU zone:

(1) Business and professional offices/agencies, including:

j. Banks and other financial institutions (not including pawnshops, check cashing businesses, title pawn, and payday loans).

ARTICLE 28. - A-D ZONE (ARTS DISTRICT OVERLAY)

Sec. 93-28-3. - Purpose.

The purpose of the arts district overlay is to facilitate creation of an arts destination, sustain established arts and cultural uses and promote new arts and cultural uses. The arts district overlay seeks integration of the arts into the fabric of the community and is conceived as the location of art galleries and art studios forming the core of an arts district. A complementary mix of shops, restaurants and entertainment venues will support these uses. These elements are expected to generate interest in downtown Hapeville and attract arts and cultural events.

The arts district overlay features an expanded range of permitted uses focused on the arts while retaining all property rights established by the underlying zoning. The arts district overlay encourages adaptive reuse of historic buildings and new construction technologies, affording owners expanded development options. These measures will enhance the market attractiveness of the arts district.

Arts venues, community festivals, expanded arts uses and pedestrian character are expected to promote an arts district. Planned investment in public art, lighting, sidewalks and off-street parking will leverage private investment and enhance public safety. This combination of public and private investment is expected to advance Hapeville's position in regional leadership in the arts and stimulate broad economic revitalization. Importantly, the arts district overlay features walkable distances from nearby neighborhoods to small-scale establishments and live entertainment venues accommodated by the arts district overlay and compatible with the neighborhood character.

Sec. 93-28-8. - Prohibited uses.

The following uses shall be prohibited in the Arts District Overlay:

(1) All drive-through facilities other than those permitted by special exception for accessory use by banks or credit unions.

Sec. 93-24-10. - Special exceptions.

(a) Special exceptions and special property use permits shall be decided by the mayor and council.

(b) The planning commission shall review and make nonbinding recommendations to the mayor and council on special exceptions and special property use permits.

(c) Special exceptions may be sought for:

(1) Reduction of the number and size of parking spaces and off-street loading space requirements;

(2) Location of off-street parking space and off-street loading spaces; and

(3) Location and number of drive-throughs.

(d) When acting upon an application for a special exception, in addition to the requirements listed under the above references, the planning commission and the mayor and council shall give consideration to the following factors where applicable:

(1) The proposed design and location of the particular development;

(2) The possible traffic generating characteristics of the proposed development;

(3) The effects the proposed development will have on the present or intended character of the area in which it proposes to locate;

(4) The availability of public utilities, facilities and services; and

(5) The character, and effect of the parking demands of the proposed development.

(e) After considering the above-listed factors and after reviewing the planning commission recommendation, the mayor and council shall take any actions or establish any reasonable conditions of approval, such as planted buffers, as will accomplish the intent and purpose of this chapter.

RECOMMENDATION

The proposed design and location will partially obscure the ATM from the right-of-way by placing it behind an existing teller window and canopy. The Design Review Committee approved the design on August 21, 2019. No new drive-through lanes or infrastructure other than the ATM itself and the associated canopy will be required. As there is already a daytime teller window and a walk-up ATM adjacent to parking at the site, traffic generated by those seeking ATM access will likely reflect existing levels.

The intent of the Arts District is to generate interest in downtown Hapeville and attract arts and cultural events in part by promoting a pedestrian character. It was specifically designed to provide for walkable distances between nearby neighborhoods and small-scale establishments compatible with the neighborhood character. Allowing for a proliferation of typical drive-through establishments may compromise this goal of the district.

In the past, Hapeville has required new outdoor ATMs to be walk-up models, accessible via the sidewalk but not by car. Staff consulted with the Hapeville Chief of Police to determine if there are any safety concerns regarding vehicle or drive-up ATMs. Chief Glavosek suggested that walk-up ATMs may leave people more vulnerable to being targets of thieves, whereas drive-up ATMs could be a safer alternative. Regions Bank has indicated in conversations that the market and industry standards are changing to address convenience and thus teller windows are being replaced with more ATMs and similar automated machines.

In considering the special exception, staff recommends the Planning Commission and City Council carefully consider the intent of the Arts-District, safety, and changing industry and market conditions. Staff recommends approval for the drive-up ATM.

PUBLISHER'S AFFIDAVIT

STATE OF GEORGIA
COUNTY OF FULTON

Before me, the undersigned, a Notary Public, this day personally came the undersigned who, being duly sworn, according to law, says she is an agent of ALM Media, LLC., publishers of the **Daily Report**, the official newspaper published in Atlanta, GA, in said county and state, and that the publication, of which the annexed is a true copy, was published in said newspaper as provided by law on the following dates: 09/30/2019.

Subscribed and sworn to before me this September 30, 2019



NOTICE
City of Hapeville

The Mayor and Council of the City of Hapeville will hold a Public Hearing **at 6:00 p.m. on Tuesday, October 15, 2019** at the City of Hapeville Municipal Court Annex located at 700 Doug Davis Drive, Hapeville, Georgia 30354, to consider the following application:

Michael Foster on behalf of Regions Bank is requesting approval of a special exception to authorize the installation of an Automated Teller Machine (ATM) at 60(South Central Avenue, Parcel Identification number 14 009800200513. The property is zoned RMU, Residential Mixed Use and is located in the Arts District Overlay (A-D).
#0000429153:09/30-1AS

Planning Commission Meeting
700 Doug Davis Drive
Hapeville, Georgia 30354

October 8, 2019
SUMMARY MINUTES
6:00 PM

1. **Welcome and Introduction**
   Chairman Brian Wismer called the meeting to order at 6:00 p.m. in the City of Hapeville Municipal Annex located at 700 Doug Davis Drive, Hapeville, Georgia 30354. Members in attendance inlcuded Vice Chairman Jeanne Rast, Leah Davis, Lucy Dolan, Larry Martin, Charlotte Rentz and Cliff Thomas. City Planner Lynn Patterson and Secretary Adrienne Senter were also present.

2. **Minutes of September 10, 2019**
   MOTION ITEM: Charlotte Rentz made a motion, Cliff Thomas seconded to approve the minutes of September 10, 2019 as amended. Motion Carried: 5-1; Jeanne Rast abstained.

3. **New Business**

   3.I. 600 South Central Avenue Special Exception Request
   Michael Foster on behalf of Regions Bank requested approval of a special exception to authorize the installaiton of an Automated Teller Machine (ATM) at 600 South Central Avenue, Parcel Identification Number 14 009800200513. The property is zoned RMU, Residential Mixed use and is located in the Arts District Overlay (A-D).

   Staff Comment:
   The ATM would be located on the east side of the building adjacent to an existing drive-through teller window, and would use the exisitng drive-through lane.

   At the request of the applicant and in conjunction with this proposal, Mayor and City Council voted on September 17, 2019, to adopt a text amendment permitting drive-throughs in the A-D overlay when used by banks.

   Commissioner Rast inquired if the full service window would be open or closed during business hours.

   Commissioner Rentz asked if Council's vote would be final.

   Dr. Patterson stated Council voted to approve the text amendment to the Arts District Overlay so the vote would be final.
   Applicant Comment:

DRAFT

The existing drive-through window will remain. The ATM window should not create any impact and will keep with the goal of the Arts District. The project will be for a drive-up ATM and not a walk-up ATM for safety concerns. The ATM will be located on the inside lane as the outside lane will not allow for the infrastructor.

Public Comment: None.

MOTION ITEM: Charlotte Rentz made a motion, Lucy Dolan seconded to recommend the Mayor and Council grant the special exception to allow the installation of a drive-up Automated Teller Machine (ATM) at 600 South Central Avenue.
Motion Carried: 6-0

3.II. 0 Porsche Avenue Site Plan Review

Steven Ellis of PRO Building Systems, Inc. and authorized representative of Porsche Cars North America,Inc. is requesting site plan approval to develop a specialty auto service center and repair facility to be located at 0 Porsche Avenue, Parcel Identification 14 0096 LL0593. The property is zoned B-P, Business Park and is subject to the Commercial/Mixed-Use area, Subarea B, of the Architectural Design Standards.

Staff Comments:
The lot is currently partially paved but is otherwise undeveloped. The site area under construction is 2.5 acres. The facility is shown as a 20' high, 17,600/20,815 square foot building surrounded by parking as well as one accessory structure.

The project as proposed will require the following variances from the Board of Appeals.

- Parking in excess of the 110% requirement.
- Reduction in the number of compact parking spaces
- Increase the width of the curb cut along Porsche Avenue

Staff supports these variances.

In addition, the site plan should be revised to address the following concerns identified per the planner's review for zoning compliance:

- *The applicant should clarify the actual square footage.*
- *The applicant should provide the distance between accessory structure and the nearest property line.*
- *The applicant should clarify if the curb cut is new or existing. A new curb cut is not allowed. An existing curb cut may be relocated.*
- *The applicant should provide the width of the new curb cut.*
- *No sidewalk is shown at the street as required by the Architectural Design Standards. Sidewalk must adhere to the Commercial/Mixed Use standard (5' landscape zone, 10' sidewalk/clear area).*
- *The applicant should provide site coverage broken down by type, such as*

building area and parking.

- *The applicant should indicate one dedicated loading space on the plans.*
- *The applicant should indicate the need for additional parking, if shared parking is the intent.*
- *The applicant should provide an anticipated development schedule.*
- *At least 30% of provided parking spaces must be compact size. The plans state that 21 (14%) of the 148 provided spaces are compact size, which is not compliant. However, the locations and dimensions of those spaces are unclear.*
- *The majority of provided spaces are between the dimensional requirements for full-size spaces and compact-size spaces, being too narrow for the former and too long for the latter.*
- *10 of the provided parking spaces are at angles of less than 90 degrees to the curb and do not have lengths provided.*
- *The applicant must provide three ADA parking spaces.*
- *The applicant should provide one 15' high, 15' wide, and 60' long loading space.*

Per the B-P regulations, the building elevations, landscape architecture and parking lot landscaping will be reviewed by the Design Review Committee for compliance with the Architectural Design Standards.

Should the site plan address all the planner's comments and the City Engineer's comments then the site plan is recommended for approval by the Planning Commission subject to approval of the required variances by the Board of Appeals.

Commissioner Martin stated per the code 30 percent of the parking must be compact car parking spaces. The plan indicates 21 compact parking spaces will be required but they need 43-44 spaces. He confirmed that the remaining spaces will accommodate regular size cars.

Dr. Patterson stated the plan currently exceeds the parking requirement.

Commissioner Martin asked for clarification regarding the variances that will go before the Board of Appeals.

Dr. Patterson stated that the project will require the following variances:

- Parking in excess of the 110% requirement.
- Reduction in the number of compact parking spaces
- Increase the width of the curb cut along Porsche Avenue

Commissioner Rentz asked for clarification of Sec. 93-23-17, Continuing character of obligation that is mentioned as part of the planner's report.

Dr. Patterson stated that this property does not apply to section 93-23-17 as there is not an existing structure onsite but if the property had an existing structure and it was sold or transferred, then the owner must continue to maintain the parking lot.

Applicant Comment:
Laurel David on behalf of Galloway Law Group, LLC. stated that the square footage of the project is 20,815-sf and requires 70 parking spaces. The parking that will be provided will not be shared with any future development. The parking will service the staff, technicians and customers, loaner vehicles and overnight parking for next day car service. Porsche Cars will have a joint partnership with Jim Ellis Automotive and Hennessy Automotive and they are relying on their partners to anticipate the parking need. The driveway will include 3 lanes to accommodate a turning lane and for future development. Porsche Cars will install a pedestrian crossing treatment such as a stamped concrete to provide a continuation of the sidewalk over the driveway area. The compact parking will be located to the rear of the property and fenced off for loaner cars.

Chairman Wismer stated that they will be required to obtain a variance for a reduction to the number of compact spaces.

Commissioner Dolan inquired if company events would be held onsite and if additional parking would be required.

Ms. David stated that no events would be held onsite. The parking would be for overnight parking or loaners and it is not designed for any types of events.

Commission Dolan inquired regarding the days of operation.

Ms. David stated the facility will be closed on Sundays.

Commissioner Thomas inquired if the decision to install 2 exit lanes was based upon a traffic study.

Ms. David stated that it was based upon anticipation of future need. Also, from a traffic perspective, left turn movement usually presents more conflict and the additional lane would help for backup and limits the number of curb cuts.

Dr. Patterson stated that the goal is to minimize the number of curb cuts and encourage inner parcel circulation.

Commissioner Rentz inquired regarding the numbers on the Kimley Horn plan.

Ms. David stated those numbers covers the number of parking spaces for that area.

Chairman Wismer stated that 2 ADA spaces are indicated on the site and inquired if that would decrease their parking by one space.

Ms. David confirmed that one space will be lost and will increase the ADA spaces as required.

Commissioner Martin confirmed that the additional width of the driveway would accommodate for one entry lane and two exit lanes. Ms. David confirmed.

Chairman Wismer asked Dr. Patterson to give the Commission a description of staff's recommendation to keep the curb cut treatment and raise the driveway up to grade. Dr. Patterson stated the sidewalk would continue across the driveway and include some type of concrete treatment to slow the traffic down and encourage a pedestrian friendly crossing.

Ms. David stated that there are a few Porsche designs that are too low, and they would not be able to raise the driveway grade up to the sidewalk but will install a pedestrian friendly crosswalk that will include a texture change.

Public Comment: None.

MOTION ITEM: Larry Martin made a motion, Charlotte Rentz seconded to approve the site plan request for the property located at 0 Porsche Avenue subject to the deficiencies outlined in the planner's and engineer's reports with the following recommendations:

- **Recommend the Board of Appeals grant variances to increase the parking limitation, reduce the number of compact parking spaces, increase the width of the curb cut along Porsche Avenue and include a pedestrian-friendly crosswalk treatment. Motion Carried: 6-0.**

4. **Next Meeting Date – November 12, 2019 at 6:00 PM**

5. **Adjourn**
   MOTION ITEM: Larry Martin made a motion, Charlotte Rentz seconded to adjourn the meeting at 6:37 p.m. Motion Carried; 6-0.

   Respectfully submitted by,

Chairman, Brian Wismer Secretary, Adrienne Senter

STATE OF GEORGIA
CITY OF HAPEVILLE

ORDINANCE NO. _____

AN ORDINANCE TO REVISE CHAPTER 11 ("BUSINESS LICENSING AND REGULATION"), ARTICLE 11 ("COMMERCIAL SOLICITATIONS AND TRANSIENT MERCHANTS"), SECTION 11-11-3 ("REGULATION AND LICENSING MOBILE FOOD VENDORS") OF THE CODE OF ORDINANCES, CITY OF HAPEVILLE, GEORGIA TO PROVIDE FOR THE REGULATION OF MOBILE FOOD VENDORS; TO PROVIDE FOR SEVERABILITY; TO REPEAL CONFLICTING ORDINANCES; TO PROVIDE AN EFFECTIVE DATE; AND TO PROVIDE FOR OTHER LAWFUL PURPOSES.

WHEREAS, the mayor and council shall have full power and authority to provide for the execution of all powers, functions, rights, privileges, duties and immunities of the city, its officers, agencies, or employees granted by the City of Hapeville's Charter or by state law; and,

WHEREAS, the municipal government of the City of Hapeville (hereinafter "City") and all powers of the City shall be vested in the mayor and council. The mayor and council shall be the legislative body of the City; and,

WHEREAS, existing ordinances, resolutions, rules and regulations of the City and its agencies now lawfully in effect not inconsistent with the provisions of the City's charter shall remain effective until they have been repealed, modified or amended; and,

WHEREAS, amendments to any of the provisions of the City's Code may be made by amending such provisions by specific reference to the section number of the City's Code; and,

WHEREAS, every official act of the mayor and council which is to become law shall be by ordinance; and,

WHEREAS, the governing authority of the City finds it desirable to provide for the licensing, operation and regulation of Mobile Food Vendors and to make updates regarding the same.

BE IT, AND IT IS HEREBY ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HAPEVILLE, GEORGIA THAT:

Section One. Chapter 11 (Business Licensing and Regulation), Article 11 (Commercial Solicitations and Transient Merchants), Section 11-11-3 (Regulation and Licensing Mobile Food Vendors) of the City Code of Ordinances is hereby amended by stricking said section in its entirety and replacing it with the following language:

Section 11-11-3 - Regulation and Licensing of Mobile Food Vendors.

(a) It shall be unlawful for any person to sell, or offer for sale, food of any type from a Mobile Food Vendor without a permit first having been granted under this section.

(b) An application for a permit hereunder shall be submitted to the City Clerk or his or her designee setting forth all information required hereunder and in compliance with this ordinance. The City Clerk or his or her designee shall develop a form application for the purpose of compliance with this article. The application shall be accompanied by an executed indemnity agreement indemnifying and releasing the City, its agents, employees and elected officials from any and all liability against any and all claims, actions and suits of any type whatsoever arising in connection with the activities of the Mobile Food Vendor pursuant to the permit issued hereunder. Mobile Food Vendor permits shall be active for:

a. ninety (90) days commencing on the day of issuance; or

b. three (3) consecutive days as expressly stated on the permit.

(c) The following information shall be provided with each application for a Mobile Food Vendor permit, along with an application fee of $100.00 for a 90-day permit or $50.00 for a three consecutive day permit, and an executed Release and Indemnification Agreement provided by the City:

(1) Name of the Mobile Food Vendor;

(2) Make, model and license plate number of vending unit;

(3) Owner's contact information;

(4) Operator's contact information;

(5) Copy of approved permit from the Fulton County Health Department;

(6) List of operating locations and times including map detailing the position of the vehicle, and current zoning in said locations;

(7) Signatures from property owners indicating consent for the use of their property; and

(8) Signature of applicant indicating agreement to the listed requirements.

(d) A waiver of the application fee may be requested at the time of application by the applicant if: (1) the event is a 501(c) non-profit event and proof is submitted thereof; or (2) the event is a city-sponsored event as determined by the City Manager. However, all mobile food vendors must fill out an application form, execute an Indemnification Agreement, and provided the City with all necessary documentation required by the City.

(e) Mobile Food Vendors may conduct business or operate in the public right-of-way, only if parking in the right-of-way is legally allowed and it does not impede the flow of traffic. A determination of traffic impediment shall be made by the City of Hapeville Police Department.

Mobile Food Vendors must be located in a lot that can safely be accessible by patrons. Mobile Food Vendors cannot be parked on sidewalks. Parking on public, city-owned grass areas is permissible with prior approval from the City Manager at the time of application.

(f) A Mobile Food Vendor shall not operate on any private property without the prior written consent of the owner. A Mobile Food Vendor shall not be allowed to park overnight on any private property without the prior written consent of the owner.

(g) A Mobile Food Vendor may operate on City owned property, if: (1) the Mobile Food Vendor has received permission to do so from the City Manager; and (2) has indicated the appropriate City owned location, date, and times of use on the application. At no time shall a Mobile Food Vendor be allowed to park overnight on any City owned property. Designated City lots, dates and times are attached hereto and incorporated herein as Exhibit "A".

(h) A Mobile Food Vendor shall maintain a one million-dollar ($1,000,000.00) liability insurance policy. Proof of current liability insurance, issued by an insurance company licensed to do business in Georgia, protecting the Mobile Food Vendor, the public and the City from all claims for damage to property and bodily injury, including death, which may arise from operation under or in connection with the permit, shall be provided to the City as part of its permit application. If the Mobile Food Vendor does not have insurance, the Mobile Food Vendor may be under the umbrella of an existing business with the business' permission to do so. Such arrangement documentation shall be included with the application to the City.

(i) A Mobile Food Vendor shall not make sounds or announcements to call attention to the mobile food vehicle either while traveling on the public rights-of-way or when stationary. At all times said Mobile Food Vendor shall be in compliance with the City's noise ordinance.

(j) The permit under which a Mobile Food Vendor is operating must be firmly attached and visible on the Mobile Food Vendor at all times.

(k) Any driver of a Mobile Food Vendor motorized vehicle must possess a valid Georgia driver's license.

(l) Mobile Food Vendors shall not be located within fifteen (15) feet of any street intersection or pedestrian crosswalk or ten (10) feet of any driveway.

(m) A Mobile Food Vendor shall not sell or offer to sell any goods, foods, products, or services between the hours of 10:00 p.m. to 9:00 a.m., unless otherwise approved and extended by the City Manager.

(n) Vending structures shall not be left unattended or stored at any time on the open vending site when vending is not taking place or during restricted hours of operation.

(o) No sale or offer for sale of ice cream, frozen milk, frozen dairy or ice confection products shall be made from a Mobile Food Vendor unless each side of the vehicle is marked, in letters and numbers at least three (3) inches in height, with the name and address of the Mobile Food Vendor licensee.

(p) Mobile Food Vendors shall comply with all state, federal and local health and safety regulations and requirements and shall obtain and maintain any and all license and permits required by any other health organization or governmental organization having jurisdiction over this subject matter.

(q) The following safety regulations shall apply to any and all vehicles operating under this article or used for mobile retail food establishments:

(1) Every vehicle shall be equipped with a reverse gear signal alarm with a sound distinguishable from the surrounding noise level.

(2) Every vehicle shall be equipped with two (2) rear-vision mirrors, one (1) at each side, firmly attached to the outside of the motor vehicle, and so located as to reflect to the driver a view of the highway to the rear, along both sides of the vehicle.

(r) A Mobile Food Vendor may only sell food and non-alcoholic beverage items. A Mobile Food Vendor may sale alcoholic beverages if all proper licensing requirements are satisfied and if the Mobile Food Vendor has all necessary permits and/or licenses.

Section Two. Codification and Certify. This Ordinance adopted hereby shall be codified and certified in a manner consistent with the laws of the State of Georgia and the City.

Section Three. Severability.

(a) It is hereby declared to be the intention of the Mayor and Council that all sections, paragraphs, sentences, clauses and phrases of this Ordinance are or were, upon their enactment, believed by the Mayor and Council to be fully valid, enforceable and constitutional.

(b) It is hereby declared to be the intention of the Mayor and Council that, to the greatest extent allowed by law, each and every section, paragraph, sentence, clause or phrase of this Ordinance is severable from every other section, paragraph, sentence, clause or phrase of this Ordinance. It is hereby further declared to be the intention of the Mayor and Council that, to the greatest extent allowed by law, no section, paragraph, sentence, clause or phrase of this Ordinance is mutually dependent upon any other section, paragraph, sentence, clause or phrase of this Ordinance.

(c) In the event that any phrase, clause, sentence, paragraph or section of this Ordinance shall, for any reason whatsoever, be declared invalid, unconstitutional or otherwise unenforceable by the valid judgment or decree of any court of competent jurisdiction, it is the express intent of the Mayor and Council that such invalidity, unconstitutionality or unenforceability shall, to the greatest extent allowed by law, not render invalid, unconstitutional or otherwise unenforceable any of the remaining phrases, clauses, sentences, paragraphs or sections of the Ordinance and that, to the greatest extent allowed by law, all remaining phrases, clauses, sentences, paragraphs and sections of the Ordinance shall remain valid, constitutional, enforceable, and of full force and effect.

Section Four. Repeal of Conflicting Ordinances. All ordinances and parts of ordinances in conflict herewith are hereby expressly repealed.

Section Five. Effective Date. The effective date of this Ordinance shall be the date of adoption unless otherwise stated herein.

ORDAINED this _____ day of _____, 2019.

CITY OF HAPEVILLE, GEORGIA

_____

Alan Hallman, Mayor

ATTEST:

_____

City Clerk

APPROVED BY:

_____

City Attorney

Hapeville Development Authority
Refunding of the Series 2004A, 2004B and 2007 Bonds
Summary Presentation to Authority
10 October 2019

I. Debt Service Schedules from 2004A, 2004B and 2007 Bonds being refunded

II. Term Sheet and Distribution List

III. Summary of Bids and Refunding results

IV. BB & T Proposal (winning bid)

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bonds, Series 2004A

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2020			39,000	39,000
06/30/2021	620,000	4.800%	63,120	683,120
06/30/2022	650,000	4.800%	32,640	682,640
06/30/2023	110,000	4.800%	14,400	124,400
06/30/2024	120,000	4.800%	8,880	128,880
06/30/2025	125,000	4.800%	3,000	128,000
	1,625,000		161,040	1,786,040

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bonds, Series 2004A

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
02/01/2020			39,000	39,000	
06/30/2020					39,000
08/01/2020	620,000	4.800%	39,000	659,000	
02/01/2021			24,120	24,120	
06/30/2021					683,120
08/01/2021	650,000	4.800%	24,120	674,120	
02/01/2022			8,520	8,520	
06/30/2022					682,640
08/01/2022	110,000	4.800%	8,520	118,520	
02/01/2023			5,880	5,880	
06/30/2023					124,400
08/01/2023	120,000	4.800%	5,880	125,880	
02/01/2024			3,000	3,000	
06/30/2024					128,880
08/01/2024	125,000	4.800%	3,000	128,000	
06/30/2025					128,000
	1,625,000		161,040	1,786,040	1,786,040

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bonds, Series 2004B

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2020			39,129.75	39,129.75
06/30/2021	305,000	4.590%	71,259.75	376,259.75
06/30/2022	320,000	4.590%	56,916.00	376,916.00
06/30/2023	340,000	4.590%	41,769.00	381,769.00
06/30/2024	360,000	4.590%	25,704.00	385,704.00
06/30/2025	380,000	4.590%	8,721.00	388,721.00
	1,705,000		243,499.50	1,948,499.50

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bonds, Series 2004B

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
02/01/2020			39,129.75	39,129.75	
06/30/2020					39,129.75
08/01/2020	305,000	4.590%	39,129.75	344,129.75	
02/01/2021			32,130.00	32,130.00	
06/30/2021					376,259.75
08/01/2021	320,000	4.590%	32,130.00	352,130.00	
02/01/2022			24,786.00	24,786.00	
06/30/2022					376,916.00
08/01/2022	340,000	4.590%	24,786.00	364,786.00	
02/01/2023			16,983.00	16,983.00	
06/30/2023					381,769.00
08/01/2023	360,000	4.590%	16,983.00	376,983.00	
02/01/2024			8,721.00	8,721.00	
06/30/2024					385,704.00
08/01/2024	380,000	4.590%	8,721.00	388,721.00	
06/30/2025					388,721.00
	1,705,000		243,499.50	1,948,499.50	1,948,499.50

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bond, Series 2007

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2008			51,085.27	51,085.27
06/30/2009			50,943.76	50,943.76
06/30/2010			50,943.76	50,943.76
06/30/2011			50,943.76	50,943.76
06/30/2012			50,943.76	50,943.76
06/30/2013			50,943.76	50,943.76
06/30/2014			50,943.76	50,943.76
06/30/2015			50,943.76	50,943.76
06/30/2016			50,943.76	50,943.76
06/30/2017			50,943.76	50,943.76
06/30/2018			50,943.76	50,943.76
06/30/2019			50,943.76	50,943.76
06/30/2020	125,000	4.250%	50,943.76	175,943.76
06/30/2021	135,000	4.250%	45,631.26	180,631.26
06/30/2022	140,000	4.250%	39,893.76	179,893.76
06/30/2023	145,000	4.250%	33,943.76	178,943.76
06/30/2024	150,000	4.375%	27,781.26	177,781.26
06/30/2025	155,000	4.375%	21,218.76	176,218.76
06/30/2026	160,000	4.375%	14,437.50	174,437.50
06/30/2027	170,000	4.375%	7,437.50	177,437.50
	1,180,000		852,754.19	2,032,754.19

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bond, Series 2007

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
08/01/2007			25,613.39	25,613.39	
02/01/2008			25,471.88	25,471.88	
06/30/2008					51,085.27
08/01/2008			25,471.88	25,471.88	
02/01/2009			25,471.88	25,471.88	
06/30/2009					50,943.76
08/01/2009			25,471.88	25,471.88	
02/01/2010			25,471.88	25,471.88	
06/30/2010					50,943.76
08/01/2010			25,471.88	25,471.88	
02/01/2011			25,471.88	25,471.88	
06/30/2011					50,943.76
08/01/2011			25,471.88	25,471.88	
02/01/2012			25,471.88	25,471.88	
06/30/2012					50,943.76
08/01/2012			25,471.88	25,471.88	
02/01/2013			25,471.88	25,471.88	
06/30/2013					50,943.76
08/01/2013			25,471.88	25,471.88	
02/01/2014			25,471.88	25,471.88	
06/30/2014					50,943.76
08/01/2014			25,471.88	25,471.88	
02/01/2015			25,471.88	25,471.88	
06/30/2015					50,943.76
08/01/2015			25,471.88	25,471.88	
02/01/2016			25,471.88	25,471.88	
06/30/2016					50,943.76
08/01/2016			25,471.88	25,471.88	
02/01/2017			25,471.88	25,471.88	
06/30/2017					50,943.76
08/01/2017			25,471.88	25,471.88	
02/01/2018			25,471.88	25,471.88	
06/30/2018					50,943.76
08/01/2018			25,471.88	25,471.88	
02/01/2019			25,471.88	25,471.88	
06/30/2019					50,943.76
08/01/2019			25,471.88	25,471.88	
02/01/2020	125,000	4.250%	25,471.88	150,471.88	
06/30/2020					175,943.76
08/01/2020			22,815.63	22,815.63	
02/01/2021	135,000	4.250%	22,815.63	157,815.63	
06/30/2021					180,631.26
08/01/2021			19,946.88	19,946.88	
02/01/2022	140,000	4.250%	19,946.88	159,946.88	
06/30/2022					179,893.76
08/01/2022			16,971.88	16,971.88	
02/01/2023	145,000	4.250%	16,971.88	161,971.88	
06/30/2023					178,943.76
08/01/2023			13,890.63	13,890.63	
02/01/2024	150,000	4.375%	13,890.63	163,890.63	
06/30/2024					177,781.26
08/01/2024			10,609.38	10,609.38	
02/01/2025	155,000	4.375%	10,609.38	165,609.38	
06/30/2025					176,218.76
08/01/2025			7,218.75	7,218.75	

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Bond, Series 2007

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
02/01/2026	160,000	4.375%	7,218.75	167,218.75	
06/30/2026					174,437.50
08/01/2026			3,718.75	3,718.75	
02/01/2027	170,000	4.375%	3,718.75	173,718.75	
06/30/2027					177,437.50
	1,180,000		852,754.19	2,032,754.19	2,032,754.19

HAPEVILLE DEVELOPMENT AUTHORITY, GEORGIA
REVENUE REFUNDING BONDS, SERIES 2019A (TAX-EXEMPT) AND 2019B (TAXABLE)

Proposed Term Sheet

Issuer:	Hapeville Development Authority, Georgia (the "Issuer")
Issue:	Revenue Refunding Bond, Series 2019A (Tax-Exempt) and Revenue Refunding Bond, Series 2019B (Taxable), collectively the "2019 Bonds"
Amount:	Series 2019A $2,910,000* Series 2019B $1,765,000*
Purpose:	The proceeds of the loan will be used to provide funds to refinance (i) the Authority's Series 2004A, Series 2004B (Taxable) and Series 2007 Bonds and (ii) the costs of issuance of the Bonds.
Bids Due:	Bids must be submitted on September 17, 2019 by 12:00 PM ET.
Rating:	The Series 2019 Bonds will not be rated.
Tax Status:	The interest on the Series 2019A Bond will be exempt from federal and state income taxation. The interest on the Series 2019B Bond will be federally taxable.
Bank Qualification:	The Series 2019A Bond will be designated as bank qualified.
Average Life:	Series 2019A Bond: 2.730 years Series 2019B Bond: 2.860 years
Interest Rate:	Series 2019A: TBD Series 2019B: TBD
Interest Payments:	Semiannually on February 1 and August 1, beginning February 1, 2020
Principal Payments:	Series 2019A: Semiannually on February 1 and August 1, beginning February 1, 2020 Series 2019B: Annually on August 1, beginning August 1, 2020
Call Feature:	Callable after 5 years* of issuance.
Investment Letter:	An Investment Letter will specify that the Purchaser acknowledges that (a) no official statement is being prepared and, (b) it has undertaken an independent review of the credit and been provided with all information necessary to purchase the bond.
Estimated Closing Date:	October 2019
Source of Security:	The Series 2019 Bonds are secured by an Intergovernmental Contract ("Contract") between the Authority and the City of Hapeville (the "City") whereby the City will agree in the Contract to levy an annual ad valorem tax on all taxable property located within corporate limits of the City, at such rates, without limitation as to rate or amount, as may be necessary to produce in each year revenues that are sufficient to fulfill the City's obligation under the Contract.

*Preliminary; subject to change.

September 4, 2019

HAPEVILLE DEVELOPMENT AUTHORITY, GEORGIA
REVENUE REFUNDING BONDS, SERIES 2019A (TAX-EXEMPT) AND 2019B (TAXABLE)

Bond Counsel: Nelson Mullins Riley & Scarborough, Atlanta, GA, Earle Taylor, 404.322.6130

Financial Advisor: Piper Jaffray & Co., Atlanta, GA, Ed Wall, 404.846.9571

Amortization Schedule:

Proposed Amortization Schedule

Series 2019A (Tax-Exempt)

February 1	Principal*	August 1	Principal*
2020	$ 160,000	2020	400,000
2021	400,000	2021	410,000
2022	405,000	2022	130,000
2023	130,000	2023	135,000
2024	140,000	2024	140,000
2025	140,000	2025	80,000
2026	75,000	2026	80,000
2027	80,000		

Series 2019B (Taxable)

August 1	Principal*
2020	$ 330,000
2021	340,000
2022	355,000
2023	365,000
2024	375,000

Hapeville, Georgia Financial Statements:

2019/20 Budget: http://hapeville.org/DocumentCenter/View/3540
2018: http://hapeville.org/DocumentCenter/View/3486
2017: http://hapeville.org/DocumentCenter/View/3299
2016: http://hapeville.org/DocumentCenter/View/3300

Attachments: Preliminary Number Runs

*Preliminary; subject to change.

September 4, 2019

POTENTIAL BOND PURCHASER

DISTRIBUTION LIST

Wells Fargo Bank
Wells Fargo Bank, N.A.
360 Interstate North Parkway, 5th Floor
Atlanta, GA 30339-2204

Michelle Knowles
Senior Vice President
Southeast Relationship Team Leader
Government Banking
(678) 589-4318 (office)
(770) 656-9107 (cell)
(678) 589-4315 (fax)
michelle.knowles@wellsfargo.com

Banc of America Merrill Lynch
2170 Satellite Blvd., Suite 250
Duluth, Georgia 30097

Mike Romano
(770) 510-4046 (office)
(404) 260-9681 (fax)
mike.romano@baml.com

J.P. Morgan
3475 Piedmont Rd, NE
18th Floor
Atlanta, Georgia 30305

Dan Lally
(404) 926-2726
dan.lally@chase.com

Alison Hastings
(404) 926-2627
alison.a.hastings@jpmorgan.com

SunTrust
STI Institutional & Government, Inc.
Mail Code GA-ATL-0030
1155 Peachtree Street NE, 9th Floor
Atlanta, Georgia 30309

Charlene Craig
(404) 230-1914 (office)
(404) 783-9018 (cell)
Charlene.H.Craig@SunTrust.com>

U.S. Bank, NA
425 Walnut Street, 11th Floor
Cincinnati, Ohio 45202

Cameron M. Parker
Vice President, Public Sector Banking
(513) 449-7186 (office)
Cell: 513-290-6680
Fax: 513-632-4362
cameron.parker@usbank.com

PNC Financial Services Group
1075 Peachtree St. NE Ste 1800
Atlanta, Georgia 30309.

Charles DiGiacomo, Vice President Public Finance
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Fadzai Mugobogobo
Assistant Vice President – Public Finance
PNC Certified Women's Business Advocate

The PNC Financial Services Group
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BB&T Corporation
Mary Parish Coley
(704) 954-1706
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mcoley@bbandt.com

Fabian Wilson, Commercial Banking Relationship Mgr.
Assistant Vice President – Commercial Banking
271 17th Street NW
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(850) 322-5421 (cell)
(404) 260-4487 (office)
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POTENTIAL BOND PURCHASER

DISTRIBUTION LIST

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2970 Peachtree Road, NW, Suite 100
Atlanta, Georgia 30305
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(404) 240-5000 Main
fred.andrew@iberiabank.com

BBVA Compass Bank
Two Alliance Center
3560 Lenox Rd.
Suite 3050
Atlanta, Georgia 30326

Zennie Lynch
(404) 504-6155
Zennie.lynch@bbva.com

Citizens Trust Bank
230 Peachtree Street, NW, Suite 2700
Atlanta, Georgia 30303

Frederick L. Daniels, Jr.
EVP/Chief Credit Officer
(404) 575-8282
fred.daniels@ctbatl.com

Regions Bank
Jeremy Fisher
Senior VP, Government and Institutional Banking
(828) 729-3105
jeremy.fisher@regions.com

Synovus Bank
David Abee
Senior VP, Government and Institutional Banking
(770) 751-4768
davidabee@synovus.com

PiperJaffray.

Piper Jaffray & Co. Since 1895. Member SIPC and NYSE

Memo

To: Randy Brewer & Tim Young, City of Hapeville

From: Ed Wall & Whit Moloney

Date: 17 September 2019

Re: Hapeville Development Authority Refunding Review

The Hapeville Development Authority (the "Authority") received bids from 3 lenders on the proposed refunding of the Series 2004A, 2004B and Series 2007 Bonds. The results are below:

Bidders	2019A	2019B	Call Provisions
PNC Financial Services Group	2.22%	2.69%	Yield Maintenance Provisions
BB&T Corporation	2.18%	2.66%	Callable at Any Time
Iberia Bank	2.27%	2.80%	None Described

BB&T was the low bidder for both issues. If BB&T is selected, if the Bonds were to close on October 15th, the Authority would realize total interest savings, net of cost of issuance, of ***$125,725.83*** for a present value savings of ***$124,747.51*** over the life of the issue. The refunding is structured as a cash defeasance of the refunded bonds and does not take into consideration interest earnings in the escrow for 30 days.

The 2019A Bonds would be lowering the interest rate from an average of 4.52% to 2.18%. The 2019B Bonds would be ***lowering and fixing*** the interest rate from a 2019 average of 4.811% to 2.66%.

On August 15th, Piper shared with City of Hapeville these refunding opportunities. In the month since, MMD, the benchmark index for tax-exempt rates, has increased on average 32.5 basis points from 2020 – 2027. US Treasuries, the benchmark indecies for taxable rates, have increased on average 23.5 basis points.

Attached you find the associated number runs.

Please let us know if you have questions.

Regards,

Ed Wall
Managing Director

Whit Moloney
Senior Vice President

Enclosed: Refunding Schedules

1442 Dresden Drive, Suite 257 Atlanta, Georgia 30319 (404) 846-9571 Fax: (404) 745-8098

SOURCES AND USES OF FUNDS

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Sources:	
Bond Proceeds:	
Par Amount	4,695,000.00
	4,695,000.00

Uses:	
Refunding Escrow Deposits:	
Cash Deposit	4,569,283.15
Delivery Date Expenses:	
Cost of Issuance	121,950.00
Other Uses of Funds:	
Additional Proceeds	3,766.85
	4,695,000.00

SUMMARY OF REFUNDING RESULTS

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Dated Date	10/15/2019
Delivery Date	10/15/2019
Arbitrage yield	2.180546%
Escrow yield	0.000000%
Value of Negative Arbitrage	
Bond Par Amount	4,695,000.00
True Interest Cost	2.368022%
Net Interest Cost	2.366760%
Average Coupon	2.366760%
Average Life	2.786
Par amount of refunded bonds	4,510,000.00
Average coupon of refunded bonds	4.550054%
Average life of refunded bonds	2.816
PV of prior debt to 10/15/2019 @ 2.180546%	4,839,372.70
Net PV Savings	124,747.51
Percentage savings of refunded bonds	2.766020%
Percentage savings of refunding bonds	2.657029%

SAVINGS

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Date	Prior Debt Service	Refunding Debt Service	Savings	Present Value to 10/15/2019 @ 2.1805456%
06/30/2020	228,601.63	197,645.35	30,956.28	30,759.23
06/30/2021	1,240,011.01	1,223,579.50	16,431.51	18,598.33
06/30/2022	1,239,449.76	1,227,174.00	12,275.76	14,331.47
06/30/2023	685,112.76	673,161.00	11,951.76	10,956.08
06/30/2024	692,365.26	677,632.50	14,732.76	13,345.51
06/30/2025	692,939.76	676,608.00	16,331.76	14,518.71
06/30/2026	174,437.50	161,158.50	13,279.00	10,906.68
06/30/2027	177,437.50	167,670.50	9,767.00	7,564.64
	5,130,355.18	5,004,629.35	125,725.83	120,980.66

Savings Summary

PV of savings from cash flow	120,980.66
Plus: Refunding funds on hand	3,766.85
Net PV Savings	124,747.51

SUMMARY OF BONDS REFUNDED

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Bond	Maturity Date	Interest Rate	Par Amount	Call Date	Call Price
Revenue Bonds, Series 2004A, 04A:					
TERM_24	08/01/2024	4.800%	1,625,000.00	11/14/2019	100.000
Revenue Bonds, Series 2004B, 04B:					
TERM_24	08/01/2024	4.590%	1,705,000.00	11/14/2019	100.000
Revenue Bond, Series 2007, 07:					
TERM_23	02/01/2023	4.250%	545,000.00	11/14/2019	100.000
TERM_27	02/01/2027	4.375%	635,000.00	11/14/2019	100.000
			1,180,000.00		
			4,510,000.00		

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2020	165,000	2.180%	32,645.35	197,645.35
06/30/2021	1,125,000	** %	98,579.50	1,223,579.50
06/30/2022	1,155,000	** %	72,174.00	1,227,174.00
06/30/2023	625,000	** %	48,161.00	673,161.00
06/30/2024	645,000	** %	32,632.50	677,632.50
06/30/2025	660,000	** %	16,608.00	676,608.00
06/30/2026	155,000	2.180%	6,158.50	161,158.50
06/30/2027	165,000	2.180%	2,670.50	167,670.50
	4,695,000		309,629.35	5,004,629.35

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt)
BB&T Bid
Refunding of the Series 2004A and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
06/30/2020	165,000	2.180%	18,743.16	183,743.16	183,743.16
12/30/2020	395,000	2.180%	30,029.50	425,029.50	
06/30/2021	400,000	2.180%	25,724.00	425,724.00	850,753.50
12/30/2021	410,000	2.180%	21,364.00	431,364.00	
06/30/2022	405,000	2.180%	16,895.00	421,895.00	853,259.00
12/30/2022	135,000	2.180%	12,480.50	147,480.50	
06/30/2023	135,000	2.180%	11,009.00	146,009.00	293,489.50
12/30/2023	135,000	2.180%	9,537.50	144,537.50	
06/30/2024	140,000	2.180%	8,066.00	148,066.00	292,603.50
12/30/2024	140,000	2.180%	6,540.00	146,540.00	
06/30/2025	140,000	2.180%	5,014.00	145,014.00	291,554.00
12/30/2025	75,000	2.180%	3,488.00	78,488.00	
06/30/2026	80,000	2.180%	2,670.50	82,670.50	161,158.50
12/30/2026	85,000	2.180%	1,798.50	86,798.50	
06/30/2027	80,000	2.180%	872.00	80,872.00	167,670.50
	2,920,000		174,231.66	3,094,231.66	3,094,231.66

BOND DEBT SERVICE

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004B Bond
Callable at Anytime
Interest rate good until November 5, 2019

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
06/30/2020			13,902.19	13,902.19	13,902.19
12/30/2020	330,000	2.660%	23,607.50	353,607.50	
06/30/2021			19,218.50	19,218.50	372,826.00
12/30/2021	340,000	2.660%	19,218.50	359,218.50	
06/30/2022			14,696.50	14,696.50	373,915.00
12/30/2022	355,000	2.660%	14,696.50	369,696.50	
06/30/2023			9,975.00	9,975.00	379,671.50
12/30/2023	370,000	2.660%	9,975.00	379,975.00	
06/30/2024			5,054.00	5,054.00	385,029.00
12/30/2024	380,000	2.660%	5,054.00	385,054.00	
06/30/2025					385,054.00
	1,775,000		135,397.69	1,910,397.69	1,910,397.69

ESCROW COST

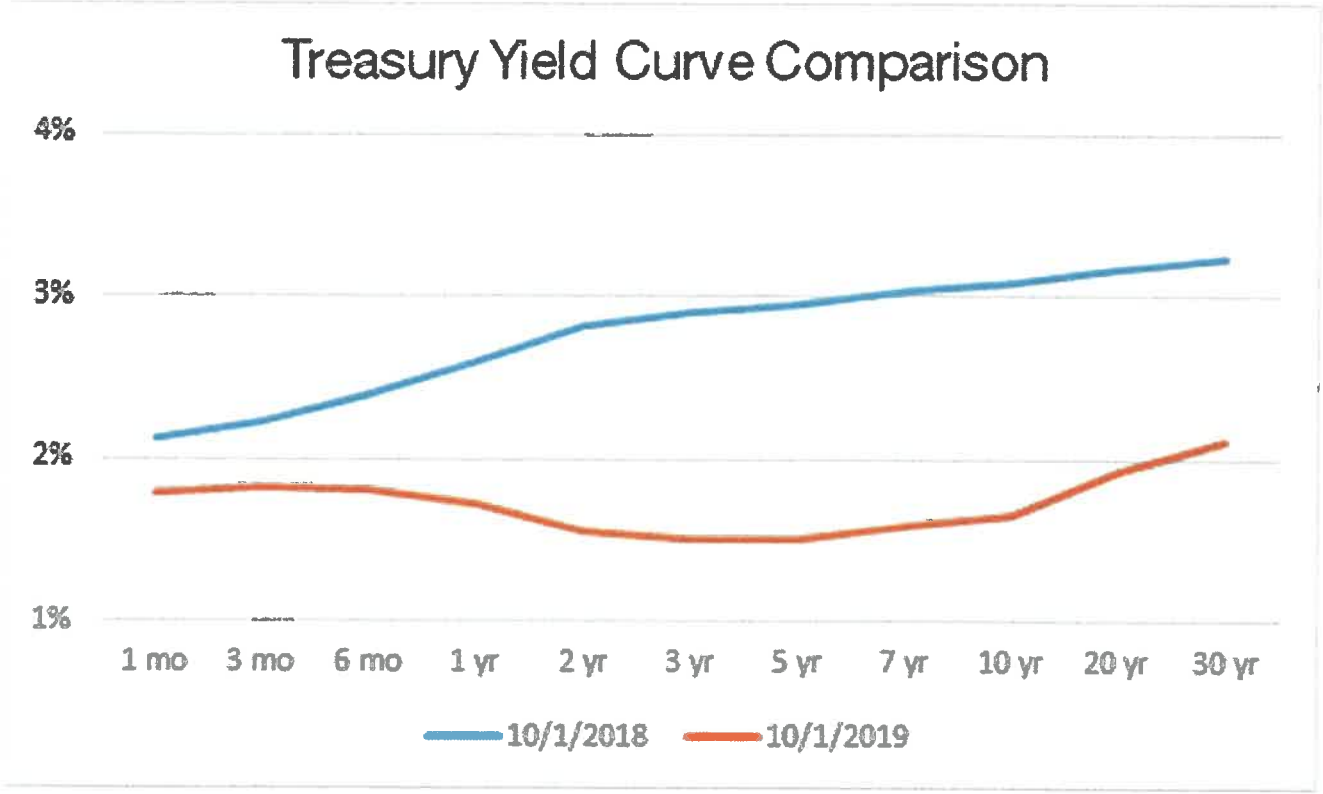
Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Purchase Date	Cost of Securities	Cash Deposit	Total Escrow Cost
10/15/2019		4,569,283.15	4,569,283.15
	0	4,569,283.15	4,569,283.15

ESCROW SUFFICIENCY

Hapeville Development Authority
Revenue Refunding Bonds, Series 2019A (Tax-Exempt) and 2019B (Taxable)
BB&T Bid
Refunding of the Series 2004A, 2004B and 2007 Bonds
Callable at Anytime
Interest rate good until November 5, 2019

Date	Escrow Requirement	Net Escrow Receipts	Excess Receipts	Excess Balance
10/15/2019		4,569,283.15	4,569,283.15	4,569,283.15
11/14/2019	4,569,283.15		(4,569,283.15)	
	4,569,283.15	4,569,283.15	0.00	


Treasury Yield Curve Comparison
4%
3%
2%
1%
1 mo
3 mo
6 mo
1 yr
2 yr
3 yr
5 yr
7 yr
10 yr
20 yr
30 yr
10/1/2018
10/1/2019

BB&T

BB&T Governmental Finance

5130 Parkway Plaza Boulevard
Charlotte, North Carolina 28217
(704) 954-1700
Fax (704) 954-1799

September 17, 2019

Mr. Randy Brewer
City of Hapeville, Georgia

Mr. Ed Wall
Piper Jaffray & Co.

Via Electronic Mail: RBrewer@hapeville.org; Edmund.J.Wall@pjc.com;

Re: Hapeville Development Authority

Gentlemen:

Branch Banking and Trust Company ("BB&T") is pleased to offer this proposal for the financing requested by Hapeville Development Authority (the "Authority").

(1) **Project:** Revenue Refunding Bond, Series 2019A

(2) **Amount To Be Financed:** $2,910,000

(3) **Interest Rates, Financing Terms and Corresponding Payments:**

Maturity	Rate
February 1, 2027 (one term bond)	2.18%

Principal payments shall be annually in arrears commencing February 1, 2020. Interest shall be paid semi-annually commencing February 1, 2020. The interest rate stated above is valid for a closing not later than November 5, 2019. Closing of the financing is contingent upon completing documentation acceptable to BB&T and its counsel. The financing documents shall allow prepayment of the principal balance in whole at par at any time, beginning February 1, 2023.

Remuneration for our legal review and underwriting expenses for this financing transaction shall not exceed $5,000. All applicable costs of counsel for the Authority and any other costs shall be the Authority's responsibility and separately payable by the Authority.

The stated interest rate assumes that the Authority expects to borrow less than $10,000,000 in calendar year 2019 and that the Authority shall comply with IRS Code Sections 141, 148, 149(e) and Section 265(b)(3) as they may pertain to the Bond, and in accordance with Georgia state laws.

BB&T reserves the right to terminate its interest in this bid or to negotiate a mutually acceptable rate if the financing is not a qualified tax-exempt financing.

Please note that BB&T will disperse bond proceeds via wire or check, allowing a maximum of four (4) disbursements per transaction.

(4) Financing Documents:

It shall be the responsibility of the Authority to retain and compensate counsel to appropriately structure the Bond according to federal and state laws. Additionally, the financing documents shall include provisions that will outline appropriate changes to be implemented in the event that this transaction is determined to be non-bank qualified or taxable in accordance with Georgia state statutes or the Internal Service Revenue Code. Documentation should not include presentation language in order to receive payments (including final maturity).

(5) Security:

The Bond is secured by an intergovernmental contract between the Authority and the City of Hapeville, Georgia, whereby the City will agree in the contract to levy an annual ad valorem tax on all taxable property located within corporate limits of the City at such rates, without limitation as to rate or amount, as may be necessary to produce in each year revenues that are sufficient to fulfill the City's obligation under the contract.

* * * * * *

BB&T appreciates the opportunity to provide this financing proposal and requests to be notified within ten days of this proposal should BB&T be the successful proposer.

BB&T shall have the right to cancel this offer by notifying the Authority of its election to do so (whether or not this offer has previously been accepted by the Authority) if at any time prior to the closing there is a material adverse change in the Authority's financial condition, if we discover adverse circumstances of which we are currently unaware, if we are unable to agree on acceptable documentation with the Authority or if there is a change in law (or proposed change in law) that changes the economic effect of this financing to BB&T. We reserve the right to negotiate and/or terminate our interest in this transaction should we be the successful proposer.

Please call me at (704) 954-1706 with your questions and comments. We look forward to hearing from you.

Sincerely,

Branch Banking and Trust Company

Mary Parrish Coley

Mary Parrish Coley
Senior Vice President

BB&T

BB&T Governmental Finance

5130 Parkway Plaza Boulevard
Charlotte, North Carolina 28217
(704) 954-1700
Fax (704) 954-1799

September 17, 2019

Mr. Randy Brewer
City of Hapeville, Georgia

Mr. Ed Wall
Piper Jaffray & Co.

Via Electronic Mail: RBrewer@hapeville.org; Edmund.J.Wall@pjc.com;

Re: Hapeville Development Authority

Gentlemen:

Branch Banking and Trust Company ("BB&T") is pleased to offer this proposal for the financing requested by Hapeville Development Authority (the "Authority").

(1) Project: Revenue Refunding Bond, Taxable Series 2019B

(2) Amount To Be Financed: $1,765,000

(3) Interest Rates, Financing Terms and Corresponding Payments:

Maturity	Rate
August 1, 2024 (one term bond)	2.66%

Principal payments shall be annually in arrears commencing August 1, 2020. Interest shall be paid semi-annually commencing February 1, 2020. The interest rate stated above is valid for a closing not later than November 5, 2019. Closing of the financing is contingent upon completing documentation acceptable to BB&T and its counsel. The financing documents shall allow prepayment of the principal balance in whole at par at any time.

Remuneration for our legal review and underwriting expenses for this financing transaction shall not exceed $5,000. All applicable costs of counsel for the Authority and any other costs shall be the Authority's responsibility and separately payable by the Authority.

The stated interest rate assumes that the Authority shall comply with IRS Code Sections 141, 148, 149(e) and Section 265(b)(3) as they may pertain to the Bond, and in accordance with Georgia state laws.

Please note that BB&T will disperse bond proceeds via wire or check, allowing a maximum of four (4) disbursements per transaction.

(4) Financing Documents:

It shall be the responsibility of the Authority to retain and compensate counsel to appropriately structure the Bond according to federal and state laws. Documentation should not include presentation language in order to receive payments (including final maturity).

(5) Security:

The Bond is secured by an intergovernmental contract between the Authority and the City of Hapeville, Georgia, whereby the City will agree in the contract to levy an annual ad valorem tax on all taxable property located within corporate limits of the City at such rates, without limitation as to rate or amount, as may be necessary to produce in each year revenues that are sufficient to fulfill the City's obligation under the contract.

* * * * * *

BB&T appreciates the opportunity to provide this financing proposal and requests to be notified within ten days of this proposal should BB&T be the successful proposer.

BB&T shall have the right to cancel this offer by notifying the Authority of its election to do so (whether or not this offer has previously been accepted by the Authority) if at any time prior to the closing there is a material adverse change in the Authority's financial condition, if we discover adverse circumstances of which we are currently unaware, if we are unable to agree on acceptable documentation with the Authority or if there is a change in law (or proposed change in law) that changes the economic effect of this financing to BB&T. We reserve the right to negotiate and/or terminate our interest in this transaction should we be the successful proposer.

Please call me at (704) 954-1706 with your questions and comments. We look forward to hearing from you.

Sincerely,

Branch Banking and Trust Company

Mary Parrish Coley

Mary Parrish Coley
Senior Vice President

Change Order No. 2

Date of Issuance: 10/2/19
Effective Date: 9/13/19

Owner: City of Hapeville, Georgia
Owner's Contract No.:

Contractor: The Corbett Group, LLC
Contractor's Project No.:

Engineer: Keck & Wood
Engineer's Project No.: 180130

Project: Annual contract for construction and maintenance of water lines, gravity sewers, and force mains
Contract Name:

The Contract is modified as follows upon execution of this Change Order:

Description:
Contract renewal for a year.

Attachments:
Letter of contract agreement.

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price: $	Original Contract Times: Substantial Completion: 365 Days Ready for Final Payment: 365 Days days or dates
[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: $	
Contract Price prior to this Change Order: $	Contract Times prior to this Change Order: Substantial Completion: 365 Days Ready for Final Payment: 365 Days days or dates
[Increase] [Decrease] of this Change Order: $	Increase of this Change Order: Substantial Completion: 365 Days Ready for Final Payment: 365 Days days or dates
Contract Price incorporating this Change Order: $	Contract Times with all approved Change Orders: Substantial Completion: 730 Days Ready for Final Payment: 730 Days days or dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By:	By:	By:
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: Assoc. VP	Title	Title OPERATIONS MANAGER
Date: 10/2/19	Date	Date 10/2/19

The Corbett Group

September 27, 2019

Keck & Wood, Inc
Attn: Adam Shelton, PE
3090 Premiere Pkwy, Ste 200
Duluth, GA 30097

Ref: Annual Contract for Construction and Maintenance of Water Lines, Gravity Sewers, and Force Mains
Contract Renewal

Mr. Shelton,

The Corbett Group, LLC will like to express our interest in renewing the above referenced project at our current contract prices. We look forward to continuing to work with you on future projects.

Sincerely,

Michael Corbett
President

CC: File

Change Order No. 2 | 05

Date of Issuance: 10/2/19
Effective Date: 9/13/19

Owner: City of Hapeville, Georgia
Owner's Contract No.:

Contractor: The Corbett Group, LLC
Contractor's Project No.:

Engineer: Keck & Wood
Engineer's Project No.: 180177

Project: Annual Contract for Construction and Maintenance of Storm Sewers
Contract Name:

The Contract is modified as follows upon execution of this Change Order:

Description:
Contract renewal for a year.

Attachments:
Letter of contract agreement.

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price: $	Original Contract Times: Substantial Completion: 365 Days Ready for Final Payment: 365 Days days or dates
[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: $	
Contract Price prior to this Change Order: $	Contract Times prior to this Change Order: Substantial Completion: 365 Days Ready for Final Payment: 365 Days days or dates
[Increase] [Decrease] of this Change Order: $	Increase of this Change Order: Substantial Completion: 365 Days Ready for Final Payment: 365 Days days or dates
Contract Price incorporating this Change Order: $	Contract Times with all approved Change Orders: Substantial Completion: 730 Days Ready for Final Payment: 730 Days days or dates

RECOMMENDED:	ACCEPTED:	~~ACCEPTED:~~
By:	By:	By:
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: Assoc. VP	Title	Title OPERATIONS MANAGER
Date: 10/2/19	Date	Date 10/2/19

The Corbett Group

September 27, 2019

Keck & Wood, Inc
Attn: Adam Shelton, PE
3090 Premiere Pkwy, Ste 200
Duluth, GA 30097

Ref: Annual Contract for Construction and Maintenance of Storm Sewers
Contract Renewal

Mr. Shelton,

The Corbett Group, LLC will like to express our interest in renewing the above referenced project at our current contract prices. We look forward to continuing to work with you on future projects.

Sincerely,

Michael Corbett
President

CC: File

Keck & Wood, Inc.

3090 Premiere Parkway
Suite 200
Duluth, Georgia 30097
Office: (678) 417-4000
Fax: (678) 417-4055
www.keckwood.com

August 2, 2018

Honorable Mayor and Council
City of Hapeville
3468 N Fulton Avenue
Hapeville, Georgia 30354

Re: Annual Contracts for Construction and Maintenance of Water Lines, Sanitary Sewers and Storm Sewers
Our Reference No. 180130.00

Dear Mayor and Council Members:

We have reviewed the bids received at City Hall, at 2:00 p.m., local time on July 31, 2018 for construction of the referenced project. Two (2) bids were received. The following is a summary of the two (2) bids.

	Bidder	Construction and Maintenance of Water Lines, Gravity Sewers, and Force Mains (Contract No.1)	Construction and Maintenance of Storm Sewers (Contract No.2)
1.	The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134	$243,262.50	$117,384.00
2.	RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263	$1,002,939.50	$539,040.00

A certified tabulation of all bids received is attached. A copy of the tabulation has been mailed to each bidder for their information.

Each bidder submitted a 5% bid bond from a surety company listed on U. S. Treasury Circular 570 (07/01/18). The low bid of $243,262.50 is within the funds allocated for Contract No. 1. The low bid of $117,384.00 is within the funds allocated for Contract No. 2.

Keck & Wood, Inc. has worked with The Corbett Group, LLC on projects of similar scope and size and consider them capable of performing the required activities to successfully complete this project.

Keck & Wood, Inc., therefore, recommends contract award to The Corbett Group, LLC in the amount of $243,262.50 for construction of Contract No.1 and $117,384.00 for construction of Contract No.2 of the Annual Contracts for Construction and Maintenance of Water Lines, Sanitary Sewers and Storm Sewers.

Merchants National Bonding, Inc. is the surety company for the recommended bidder's bid bond and will likely be the surety company used for the payment and performance bonds on the project. In addition to being listed on the U.S. Treasury Department Circular 570, the surety is shown as being licensed in Georgia, having an Active/Compliance status, and with an underwriting limitation that is greater than the bond amount. Please note that in accordance with Georgia Law (OCGA 36-91-40 (a)(2)), the City must have an "officer of the government entity" to "approve as to form and as to the solvency of the surety" for the proposed surety company named above. We recommend that your legal counsel be contacted to handle or suggest the procedures necessary to comply with this Georgia law. We can provide additional information on this issue if needed.

If there are any questions, please contact our office.

Very truly yours,

KECK & WOOD, INC.

James A. Brenton, P.E.
Associate Vice President

Enclosure

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF WATER LINES, GRAVITY SEWERS, AND FORCE MAINS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

				BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134		BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263	
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
1	Contract Bonds and Insurance	1	LS	$7,050.00	$7,050.00	$77,000.00	$77,000.00
2	6" Water Main DIPW-1	5	LF	$55.00	$275.00	$2,406.00	$12,030.00
3	8" Water Main DIPW-1	5	LF	$70.00	$350.00	$2,452.00	$12,260.00
4	10" Water Main DIPW-1	5	LF	$75.00	$375.00	$2,500.00	$12,500.00
5	12" Water Main DIPW-1	5	LF	$81.00	$405.00	$2,510.00	$12,550.00
6	16" Water Main DIPW-1	5	LF	$120.00	$600.00	$2,667.00	$13,335.00
7	18" Water Main DIPW-1	5	LF	$140.00	$700.00	$2,680.00	$13,400.00
8	8" Water Main DIPW-2	5	LF	$65.00	$325.00	$2,475.00	$12,375.00
9	10" Water Main DIPW-2	5	LF	$75.00	$375.00	$2,489.00	$12,445.00
10	12" Water Main DIPW-2	5	LF	$95.00	$475.00	$2,545.00	$12,725.00
11	2" Water Main PVCPW-1	5	LF	$35.00	$175.00	$2,386.00	$11,930.00
12	4" Water Main PVCPW-1	5	LF	$35.00	$175.00	$2,388.00	$11,940.00
13	6" Water Main PVCPW-2	5	LF	$40.00	$200.00	$2,435.00	$12,175.00
14	8" Water Main PVCPW-2	5	LF	$45.00	$225.00	$2,441.00	$12,205.00
15	10" Water Main PVCPW-2	5	LF	$55.00	$275.00	$2,449.00	$12,245.00
16	12" Water Main PVCPW-2	5	LF	$65.00	$325.00	$2,499.00	$12,495.00
17	8" HDPE-1 Water Main by HDD	5	LF	$200.00	$1,000.00	$2,903.00	$14,515.00
18	10" HDPE-1 Water Main by HDD	5	LF	$250.00	$1,250.00	$2,935.00	$14,675.00
19	12" HDPE-1 Water Main by HDD	5	LF	$400.00	$2,000.00	$2,959.00	$14,795.00
20	16" HDPE-1 Water Main by HDD	5	LF	$400.00	$2,000.00	$3,029.00	$15,145.00
21	18" HDPE-1 Water Main by HDD	5	LF	$300.00	$1,500.00	$3,071.00	$15,355.00
22	Water Main Pipe Fittings	1	TN	$8,000.00	$8,000.00	$15,831.00	$15,831.00
23	Repair leak in 2" - < 6" Water Main	1	EA	$2,500.00	$2,500.00	$4,578.00	$4,578.00
24	Repair leak in 6" -10" Water Main	1	EA	$3,500.00	$3,500.00	$4,731.00	$4,731.00
25	Repair leak in 12" Water Main	1	EA	$4,000.00	$4,000.00	$186.00	$186.00
26	Repair leak in 16" Water Main	1	EA	$6,000.00	$6,000.00	$5,932.00	$5,932.00
27	Repair leak in 18" Water Main	1	EA	$8,000.00	$8,000.00	$6,085.00	$6,085.00
28	Curb Stop and Curb Box, 3/4" - 2"	1	EA	$200.00	$200.00	$1,479.00	$1,479.00
29	6" GVW-1 Gate Valve and Box	1	EA	$900.00	$900.00	$2,002.00	$2,002.00
30	8" GVW-1 Gate Valve and Box	1	EA	$1,200.00	$1,200.00	$2,806.00	$2,806.00
31	10" GVW-1 Gate Valve and Box	1	EA	$1,600.00	$1,600.00	$3,468.00	$3,468.00
32	12" GVW-1 Gate Valve and Box	1	EA	$2,200.00	$2,200.00	$4,713.00	$4,713.00
33	16" BFV-1 Butterfly Valve and Box	1	EA	$7,500.00	$7,500.00	$11,175.00	$11,175.00
34	18" BFV-1 Butterfly Valve and Box	1	EA	$9,000.00	$9,000.00	$15,776.00	$15,776.00
35	Removal of ex. Fire Hydrants	1	EA	$250.00	$250.00	$1,512.00	$1,512.00
36	Relocation and Reconnection of ex. Fire Hydrants	1	EA	$5,500.00	$5,500.00	$4,430.00	$4,430.00
37	Fire Hydrants	1	EA	$4,600.00	$4,600.00	$5,125.00	$5,125.00
38	Adjusting existing Fire Hydrants	1	VF	$250.00	$250.00	$1,211.00	$1,211.00

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF WATER LINES, GRAVITY SEWERS, AND FORCE MAINS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

				BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134		BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263	
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
39	Service tubing system, 3/4" -1.25"	5	LF	$20.00	$100.00	$54.00	$270.00
40	Service tubing system, 1.50" -2"	5	LF	$20.00	$100.00	$75.00	$375.00
41	Copper service tubing system, 3/4"-1.25"	5	LF	$35.00	$175.00	$138.00	$690.00
42	Copper service tubing system, 1.50" -2"	5	LF	$35.00	$175.00	$189.00	$945.00
43	Service tubing under roadway	5	LF	$35.00	$175.00	$175.00	$875.00
44	Repair leak in service line 3/4" - 2.0"	1	EA	$1,500.00	$1,500.00	$4,578.00	$4,578.00
45	Service connection in 6" thru 10" water mains	1	EA	$1,000.00	$1,000.00	$1,125.00	$1,125.00
46	Service connection in 12" thru 18" water mains	1	EA	$2,500.00	$2,500.00	$1,394.00	$1,394.00
47	Service saddle repair or replacement in 6" thru 10" water mains	1	EA	$1,000.00	$1,000.00	$5,932.00	$5,932.00
48	Service saddle repair or replacement in 12" thru 18" water mains	1	EA	$1,200.00	$1,200.00	$6,466.00	$6,466.00
49	Water meters installation - up to 1"	1	EA	$500.00	$500.00	$1,444.00	$1,444.00
50	Water meters installation - > 1" to 2"	1	EA	$1,000.00	$1,000.00	$1,444.00	$1,444.00
51	Water meter relocation 3/4" thru 2"	1	EA	$3,500.00	$3,500.00	$1,444.00	$1,444.00
52	Water service changeover 3/4" thru 2"	1	EA	$1,500.00	$1,500.00	$1,444.00	$1,444.00
53	Tapping sleeve and Valve connection (TSVW) 6" x 6"	1	EA	$3,600.00	$3,600.00	$5,528.00	$5,528.00
54	Tapping sleeve and Valve connection (TSVW) 8" x 6" to 8" (side outlet)	1	EA	$2,700.00	$2,700.00	$8,077.00	$8,077.00
55	Tapping sleeve and Valve connection (TSVW) 10" x 6" to 10" (side outlet)	1	EA	$3,000.00	$3,000.00	$13,906.00	$13,906.00
56	Tapping sleeve and Valve connection (TSVW) 12" x 6" to 12" (side outlet)	1	EA	$7,500.00	$7,500.00	$20,318.00	$20,318.00
57	Connection to existing water main less than 6" (Wet cut in)	1	EA	$1,200.00	$1,200.00	$7,543.00	$7,543.00
58	Connection to existing water main 6" - 8" (Wet cut in)	1	EA	$4,000.00	$4,000.00	$7,696.00	$7,696.00
59	Connection to existing water main 10" - 16" (Wet cut in)	1	EA	$6,500.00	$6,500.00	$7,424.00	$7,424.00
60	12" Steel Casing Pipe Tunnel Liner	5	LF	$40.00	$200.00	$1,073.00	$5,365.00
61	16" Steel Casing Pipe Tunnel Liner	5	LF	$50.00	$250.00	$1,136.00	$5,680.00
62	18" Steel Casing Pipe Tunnel Liner	5	LF	$70.00	$350.00	$1,247.00	$6,235.00
63	20" Steel Casing Pipe Tunnel Liner	5	LF	$80.00	$400.00	$1,344.00	$6,720.00
64	Line plugging device less than 6"	1	EA	$12,000.00	$12,000.00	$5,763.00	$5,763.00
65	Line plugging device 6" - 8"	1	EA	$15,000.00	$15,000.00	$7,120.00	$7,120.00
66	Line plugging device 10" -12"	1	EA	$18,000.00	$18,000.00	$14,917.00	$14,917.00
67	4" – 8" Existing Water Mains to be Removed	5	LF	$15.00	$75.00	$111.00	$555.00
68	DIP to HDPE Transition 4"	1	EA	$1,800.00	$1,800.00	$1,651.00	$1,651.00
69	DIP to HDPE Transition 6" - 8"	1	EA	$2,000.00	$2,000.00	$1,796.00	$1,796.00
70	DIP to HDPE Transition 10" -12"	1	EA	$3,200.00	$3,200.00	$1,978.00	$1,978.00
71	DIP to HDPE Transition 16"	1	EA	$4,000.00	$4,000.00	$2,195.00	$2,195.00
72	Concrete Blocking – Thrust Restraint on Existing Components	1	CY	$200.00	$200.00	$421.00	$421.00
73	8" DIPS Sewer, 0' to 10' Depth	5	LF	$105.00	$525.00	$1,793.00	$8,965.00
74	8" DIPS Sewer, >10' to 14' Depth	5	LF	$115.00	$575.00	$2,038.00	$10,190.00
75	8" DIPS Sewer, >14' to 18' Depth	5	LF	$125.00	$625.00	$2,240.00	$11,200.00
76	8" DIPS Sewer, >18' to 22' Depth	5	LF	$135.00	$675.00	$2,644.00	$13,220.00

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF WATER LINES, GRAVITY SEWERS, AND FORCE MAINS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

				BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134		BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263	
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
77	10" DIPS Sewer, 0' to 10' Depth	5	LF	$110.00	$550.00	$1,978.00	$9,890.00
78	10" DIPS Sewer, >10' to 14' Depth	5	LF	$120.00	$600.00	$2,045.00	$10,225.00
79	10" DIPS Sewer, >14' to 18' Depth	5	LF	$130.00	$650.00	$2,247.00	$11,235.00
80	10" DIPS Sewer, >18' to 22' Depth	5	LF	$140.00	$700.00	$2,652.00	$13,260.00
81	12" DIPS Sewer, 0' to 10' Depth	5	LF	$120.00	$600.00	$1,987.00	$9,935.00
82	12" DIPS Sewer, >10' to 14' Depth	5	LF	$130.00	$650.00	$2,055.00	$10,275.00
83	12" DIPS Sewer, >14' to 18' Depth	5	LF	$140.00	$700.00	$2,257.00	$11,285.00
84	12" DIPS Sewer, >18' to 22' Depth	5	LF	$150.00	$750.00	$2,661.00	$13,305.00
85	18" DIPS Sewer, 0' to 10' Depth	5	LF	$155.00	$775.00	$2,028.00	$10,140.00
86	18" DIPS Sewer, >10' to 14' Depth	5	LF	$165.00	$825.00	$2,182.00	$10,910.00
87	18" DIPS Sewer, >14' to 18' Depth	5	LF	$175.00	$875.00	$2,317.00	$11,585.00
88	18" DIPS Sewer, >18' to 22' Depth	5	LF	$200.00	$1,000.00	$2,721.00	$13,605.00
89	24" DIPS Sewer, 0' to 10' Depth	5	LF	$200.00	$1,000.00	$2,096.00	$10,480.00
90	24" DIPS Sewer, >10' to 14' Depth	5	LF	$215.00	$1,075.00	$2,163.00	$10,815.00
91	24" DIPS Sewer, >14' to 18' Depth	5	LF	$230.00	$1,150.00	$2,365.00	$11,825.00
92	24" DIPS Sewer, >18' to 22' Depth	5	LF	$250.00	$1,250.00	$2,769.00	$13,845.00
93	8" PVCS Sewer, 0' to 10' Depth	5	LF	$65.00	$325.00	$1,972.00	$9,860.00
94	8" PVCS Sewer, >10' to 14' Depth	5	LF	$75.00	$375.00	$2,040.00	$10,200.00
95	10" PVCS Sewer, 0' to 10' Depth	5	LF	$75.00	$375.00	$1,980.00	$9,900.00
96	10" PVCS Sewer, >10' to 14' Depth	5	LF	$85.00	$425.00	$2,045.00	$10,225.00
97	12" PVCS Sewer, 0' to 10' Depth	5	LF	$85.00	$425.00	$1,982.00	$9,910.00
98	12" PVCS Sewer, >10' to 14' Depth	5	LF	$95.00	$475.00	$2,050.00	$10,250.00
99	4" PVCFM Force Main	5	LF	$35.00	$175.00	$684.00	$3,420.00
100	6" PVCFM Force Main	5	LF	$45.00	$225.00	$694.00	$3,470.00
101	4" DIPFM Force Main	5	LF	$45.00	$225.00	$696.00	$3,480.00
102	6" DIPFM Force Main	5	LF	$50.00	$250.00	$711.00	$3,555.00
103	4" PEFM Force Main by HDD	5	LF	$100.00	$500.00	$704.00	$3,520.00
104	6" PEFM Force Main by HDD	5	LF	$150.00	$750.00	$751.00	$3,755.00
105	8" to 10" Transition Collar	1	EA	$500.00	$500.00	$1,760.00	$1,760.00
106	12" to 16" Transition Collar	1	EA	$1,000.00	$1,000.00	$2,086.00	$2,086.00
107	4" DIPS Sewer Service Line	5	LF	$38.00	$190.00	$192.00	$960.00
108	6" DIPS Sewer Service Line	5	LF	$48.00	$240.00	$199.00	$995.00
109	DIPS Sewer Service Cleanout	1	EA	$450.00	$450.00	$1,950.00	$1,950.00
110	8" to 10" Sewer Service Wye or Tee	1	EA	$250.00	$250.00	$1,112.00	$1,112.00
111	12" to 18" Sewer Service Wye or Tee	1	EA	$350.00	$350.00	$1,112.00	$1,112.00
112	CCTV Inspection and Video Record 4" to 12" Dia. Sewer	5	LF	$2.00	$10.00	$4.00	$20.00
113	CCTV Inspection and Video Record 14" to 24" Dia. Sewer	5	LF	$2.45	$12.25	$5.00	$25.00
114	Light Sewer Cleaning 4" to 12" Dia. Sewer	5	LF	$2.45	$12.25	$3.00	$15.00

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF WATER LINES, GRAVITY SEWERS, AND FORCE MAINS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

				BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134		BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263	
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
115	Light Sewer Cleaning 14" to 24" Dia. Sewer	5	LF	$5.25	$26.25	$4.00	$20.00
116	Heavy Sewer Cleaning 4" to 12" Dia. Sewer	5	LF	$4.25	$21.25	$7.00	$35.00
117	Heavy Sewer Cleaning 14" to 24" Dia. Sewer	5	LF	$15.25	$76.25	$8.00	$40.00
118	Root Cutting Sewer Cleaning 4" to 12" Dia. Sewer	5	LF	$3.00	$15.00	$9.00	$45.00
119	Root Cutting Sewer Cleaning 14" to 24" Dia. Sewer	5	LF	$18.00	$90.00	$11.00	$55.00
120	4 Ft Dia. Precast Manhole	1	EA	$1,800.00	$1,800.00	$4,490.00	$4,490.00
121	4 Ft Precast Manhole Riser	5	VF	$100.00	$500.00	$280.00	$1,400.00
122	5 Ft Dia. Precast Manhole	1	EA	$1,800.00	$1,800.00	$4,735.00	$4,735.00
123	5 Ft Precast Manhole Riser	5	VF	$100.00	$500.00	$406.00	$2,030.00
124	Standard Manhole Frame and Cover	1	EA	$675.00	$675.00	$566.00	$566.00
125	Watertight, Bolt Down Manhole Frame & Cover	1	EA	$850.00	$850.00	$675.00	$675.00
126	5' to 4' Precast Manhole Riser Transition	1	EA	$800.00	$800.00	$672.00	$672.00
127	Manhole Drop Connection	1	EA	$1,200.00	$1,200.00	$1,420.00	$1,420.00
128	Manhole Stub Out	1	EA	$500.00	$500.00	$1,238.00	$1,238.00
129	Manhole Over Existing Sewer - Extra	1	EA	$800.00	$800.00	$12,504.00	$12,504.00
130	Manhole Protective Coating	1	EA	$800.00	$800.00	$1,451.00	$1,451.00
131	Connect to Existing Manhole	1	EA	$1,500.00	$1,500.00	$5,582.00	$5,582.00
132	Deep Manhole Safety Platform	1	EA	$800.00	$800.00	$561.00	$561.00
133	Adjust Manhole Frame/Cover to Grade – 1 VF or Less, Non-Pavement	1	EA	$800.00	$800.00	$610.00	$610.00
134	Adjust Manhole Frame/Cover to Grade – 1 VF or Less, Pavement	1	EA	$800.00	$800.00	$1,017.00	$1,017.00
135	Adjust Manhole Frame/Cover to Grade – Over 1VF	1	EA	$800.00	$800.00	$1,695.00	$1,695.00
136	Remove or Abandon Existing Sewer Structure	1	EA	$1,500.00	$1,500.00	$2,850.00	$2,850.00
137	Plug Existing Sewer	1	EA	$2,500.00	$2,500.00	$2,754.00	$2,754.00
138	Plug Existing Force Main	1	EA	$2,500.00	$2,500.00	$2,754.00	$2,754.00
139	Sewage Bypass Pumping Mobilization/Demobilization	1	EA	$3,500.00	$3,500.00	$7,520.00	$7,520.00
140	Sewage Bypass Pumping – Additional Suction/Discharge Hose	5	LF	$25.00	$125.00	$167.00	$835.00
141	4 Inch Pump Bypass Operation	1	DAY	$650.00	$650.00	$5,574.00	$5,574.00
142	6 Inch Pump Bypass Operation	1	DAY	$900.00	$900.00	$6,300.00	$6,300.00
143	8 Inch Pump Bypass Operation	1	DAY	$1,500.00	$1,500.00	$7,025.00	$7,025.00
144	Concrete Support Piers	1	CY	$350.00	$350.00	$2,032.00	$2,032.00
145	Pipe Tracer wire	5	LF	$2.00	$10.00	$0.50	$2.50
146	Exploratory Excavation	1	HR	$550.00	$550.00	$397.00	$397.00
147	Temporary Traffic Control	5	LF	$100.00	$500.00	$73.00	$365.00
148	Temporary Traffic Control Detour	1	DAY	$1,000.00	$1,000.00	$729.00	$729.00
149	Stabilization Stone	5	CY	$35.00	$175.00	$95.00	$475.00
150	Rock excavation	5	CY	$200.00	$1,000.00	$475.00	$2,375.00
151	Pavement Patch Type 1	5	LF	$50.00	$250.00	$284.00	$1,420.00
152	Pavement Patch Type 2	5	LF	$50.00	$250.00	$284.00	$1,420.00

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF WATER LINES, GRAVITY SEWERS, AND FORCE MAINS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134 UNIT PRICE	BIDDER NO. 1 AMOUNT	BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263 UNIT PRICE	BIDDER NO. 2 AMOUNT
153	Sidewalk removal and restoration	5	SY	$35.00	$175.00	$197.00	$985.00
154	Curb and Gutter removal and restoration	5	LF	$26.00	$130.00	$101.00	$505.00
155	Curb removal and restoration	5	LF	$20.00	$100.00	$271.00	$1,355.00
156	Temporary Construction Exit	1	EA	$800.00	$800.00	$3,390.00	$3,390.00
157	Temporary Stone Check Dam	1	EA	$125.00	$125.00	$542.00	$542.00
158	Temporary Hay Bale Check Dam	1	EA	$85.00	$85.00	$542.00	$542.00
159	Temporary Silt Fence – Sensitive	5	LF	$3.00	$15.00	$4.00	$20.00
160	Temporary Silt Fence – Non Sensitive	5	LF	$2.00	$10.00	$3.00	$15.00
161	Rip Rap Stabilization	5	SY	$45.00	$225.00	$69.00	$345.00
162	Erosion and Sedimentation Control	5	LF	$2.85	$14.25	$271.00	$1,355.00
163	Earth Fill	5	CY	$35.00	$175.00	$169.00	$845.00
164	Geotechnical Compaction Testing	1	EA	$250.00	$250.00	$1,153.00	$1,153.00
	TOTAL OF ALL CONTRACT NO.1 UNIT PRICE BID ITEMS				**$243,262.50 ***		**$1,002,939.50**
	BID BOND				5%		5%
	NOTE REFERENCE				(1)		(1)
	LICENSE NUMBER				UC302014		UC302155

NOTES:

* DENOTES CORRECTED VALUE

(1) SURETY COMPANY LISTED ON U. S. TREASURY CIRCULAR 570 (7/1/18).

THIS IS TO CERTIFY THAT THIS IS A TRUE AND CORRECT TABULATION OF BIDS RECEIVED AT THE TIME AND PLACE STATED ABOVE. BIDS WERE SEALED WHEN RECEIVED AND OPENED AND READ ALOUD IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.

Michael J. Moffitt 8-2-18
KECK & WOOD, INC. DATE

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF STORM SEWERS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

				BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134		BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263	
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
1	Contract Bonds and Insurance	1	LS	$3,429.00	$3,429.00	$75,000.00	$75,000.00
2	12" DIPS Storm Sewer	20	LF	$45.00	$900.00	$1,128.00	$22,560.00
3	16" DIPS Storm Sewer	20	LF	$50.00	$1,000.00	$1,203.00	$24,060.00
4	Storm Drain Pipe, 15 inch CMP	20	LF	$36.00	$720.00	$328.00	$6,560.00
5	Storm Drain Pipe, 18 inch CMP	20	LF	$45.00	$900.00	$353.00	$7,060.00
6	Storm Drain Pipe, 21 inch CMP	20	LF	$55.00	$1,100.00	$376.00	$7,520.00
7	Storm Drain Pipe, 24 inch CMP	20	LF	$65.00	$1,300.00	$429.00	$8,580.00
8	Storm Drain Pipe, 30 inch CMP	20	LF	$60.00	$1,200.00	$544.00	$10,880.00
9	Storm Drain Pipe, 15 inch RCP	20	LF	$40.00	$800.00	$285.00	$5,700.00
10	Storm Drain Pipe, 18 inch RCP	20	LF	$50.00	$1,000.00	$324.00	$6,480.00
11	Storm Drain Pipe, 21 inch RCP	20	LF	$55.00	$1,100.00	$432.00	$8,640.00
12	Storm Drain Pipe, 24 inch RCP	20	LF	$60.00	$1,200.00	$458.00	$9,160.00
13	Storm Drain Pipe, 30 inch RCP	20	LF	$80.00	$1,600.00	$544.00	$10,880.00
14	18" HDPE Storm Sewer by Pipe Bursting	20	LF	$450.00	$9,000.00	$2,400.00	$48,000.00
15	20" HDPE Storm Sewer by Pipe Bursting	20	LF	$500.00	$10,000.00	$2,450.00	$49,000.00
16	24" HDPE Storm Sewer by Pipe Bursting	20	LF	$600.00	$12,000.00	$2,500.00	$50,000.00
17	CCTV Inspection and Video Record 4" to 12" Dia. Storm Sewer	20	LF	$2.00	$40.00	$5.00	$100.00
18	CCTV Inspection and Video Record 14" to 24" Dia. Storm Sewer	20	LF	$2.00	$40.00	$7.00	$140.00
19	4 Ft Dia. Precast Manhole	2	EA	$1,500.00	$3,000.00	$357.00	$714.00
20	4 Ft Precast Manhole Riser	10	VF	$250.00	$2,500.00	$165.00	$1,650.00
21	5 Ft Dia. Precast Manhole	2	EA	$1,500.00	$3,000.00	$357.00	$714.00
22	5 Ft Precast Manhole Riser	10	VF	$250.00	$2,500.00	$380.00	$3,800.00
23	Standard Manhole Frame and Cover	2	EA	$800.00	$1,600.00	$635.00	$1,270.00
24	Watertight, Bolt Down Manhole Frame & Cover	2	EA	$1,200.00	$2,400.00	$738.00	$1,476.00
25	5' to 4' Precast Manhole Riser Transition	2	EA	$800.00	$1,600.00	$206.00	$412.00
26	Manhole Drop Connection	2	EA	$1,000.00	$2,000.00	$957.00	$1,914.00
27	Manhole Stub Out	2	EA	$850.00	$1,700.00	$957.00	$1,914.00
28	Manhole Over Existing Sewer - Extra	2	EA	$2,500.00	$5,000.00	$14,999.00	$29,998.00
29	Manhole Protective Coating	2	EA	$1,200.00	$2,400.00	$3,661.00	$7,322.00
30	Connect to Existing Manhole	2	EA	$500.00	$1,000.00	$6,788.00	$13,576.00
31	Adjust Manhole Frame/Cover to Grade – 1 VF or Less, Non-Pavement	2	EA	$450.00	$900.00	$616.00	$1,232.00
32	Adjust Manhole Frame/Cover to Grade – 1 VF or Less, Pavement	2	EA	$800.00	$1,600.00	$1,026.00	$2,052.00
33	Adjust Manhole Frame/Cover to Grade – Over 1VF	2	EA	$1,200.00	$2,400.00	$1,711.00	$3,422.00
34	Remove or Abandon Existing Storm Sewer Structure	2	EA	$800.00	$1,600.00	$1,997.00	$3,994.00
35	Plug Existing Storm Sewer	2	EA	$500.00	$1,000.00	$2,560.00	$5,120.00
36	Drop Inlet	2	EA	$1,500.00	$3,000.00	$10,063.00	$20,126.00
37	Drop Inlet Additional Depth	10	VF	$250.00	$2,500.00	$165.00	$1,650.00
38	Catch Basin	2	EA	$1,800.00	$3,600.00	$5,212.00	$10,424.00
39	Catch Basin Additional Depth	10	VF	$150.00	$1,500.00	$165.00	$1,650.00

BID TABULATION
ANNUAL CONTRACT FOR CONSTRUCTION AND MAINTENANCE OF STORM SEWERS
CITY OF HAPEVILLE, GEORGIA

RECEIVED BY: CITY OF HAPEVILLE, GEORGIA
AT HAPEVILLE CITY HALL
2:00 P.M., LOCAL TIME, JULY 31, 2018

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	BIDDER NO. 1 The Corbett Group, LLC 6535 Bankhead Highway Douglasville, GA 30134 UNIT PRICE	BIDDER NO. 1 AMOUNT	BIDDER NO. 2 RDJE, Inc. 679 Highway 29 South, Suite A Newnan, GA 30263 UNIT PRICE	BIDDER NO. 2 AMOUNT
40	Junction Box	2	EA	$1,500.00	$3,000.00	$5,293.00	$10,586.00
41	Concrete Headwall	2	EA	$1,800.00	$3,600.00	$7,374.00	$14,748.00
42	Concrete Support Piers	5	CY	$1,000.00	$5,000.00	$2,050.00	$10,250.00
43	Pipe Tracer wire	20	LF	$1.00	$20.00	$2.00	$40.00
44	Exploratory Excavation	1	HR	$450.00	$450.00	$401.00	$401.00
45	Temporary Traffic Control	20	LF	$75.00	$1,500.00	$293.00	$5,860.00
46	Temporary Traffic Control Detour	1	DAY	$750.00	$750.00	$736.00	$736.00
47	Stabilization Stone	5	CY	$50.00	$250.00	$22.00	$110.00
48	Rock excavation	5	CY	$250.00	$1,250.00	$156.00	$780.00
49	Pavement Patch Type 1	20	LF	$50.00	$1,000.00	$232.00	$4,640.00
50	Pavement Patch Type 2	20	LF	$50.00	$1,000.00	$232.00	$4,640.00
51	Sidewalk removal and restoration	5	SY	$60.00	$300.00	$198.00	$990.00
52	Curb and Gutter removal and restoration	20	LF	$60.00	$1,200.00	$103.00	$2,060.00
53	Curb removal and restoration	20	LF	$40.00	$800.00	$274.00	$5,480.00
54	Temporary Construction Exit	1	EA	$1,800.00	$1,800.00	$3,422.00	$3,422.00
55	Temporary Stone Check Dam	1	EA	$125.00	$125.00	$567.00	$567.00
56	Temporary Hay Bale Check Dam	1	EA	$35.00	$35.00	$547.00	$547.00
57	Temporary Silt Fence – Sensitive	20	LF	$3.00	$60.00	$6.00	$120.00
58	Temporary Silt Fence – Non Sensitive	20	LF	$2.00	$40.00	$4.00	$80.00
59	Rip Rap Stabilization	5	SY	$65.00	$325.00	$44.00	$220.00
60	Erosion and Sedimentation Control	20	LF	$10.00	$200.00	$274.00	$5,480.00
61	Earth Fill	5	CY	$60.00	$300.00	$274.00	$1,370.00
62	Geotechnical Compaction Testing	1	EA	$250.00	$250.00	$1,163.00	$1,163.00
	TOTAL OF ALL CONTRACT NO.2 UNIT PRICE BID ITEMS				**$117,384.00 ***		**$539,040.00 ***
	BID BOND				5%		5%
	NOTE REFERENCE				(1)		(1)
	LICENSE NUMBER				UC302014		UC302155

NOTES:

* DENOTES CORRECTED VALUE

(1) SURETY COMPANY LISTED ON U. S. TREASURY CIRCULAR 570 (7/1/18).

THIS IS TO CERTIFY THAT THIS IS A TRUE AND CORRECT TABULATION OF BIDS RECEIVED AT THE TIME AND PLACE STATED ABOVE. BIDS WERE SEALED WHEN RECEIVED AND OPENED AND READ ALOUD IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.

Michael J Moffitt 8-2-18

KECK & WOOD, INC. DATE

Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place Roundabout Feasibility Study

September 16, 2019

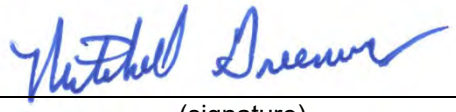
Prepared for:

City of Hapeville

Prepared by:

Stantec Consulting Services Inc.

This document entitled Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place Roundabout Feasibility Study was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of City of Hapeville (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by  (signature)

Mitchell Greenway, PE

Reviewed by  (signature)

Keith Strickland, PE

Approved by  (signature)

Mike Holt, PE, PTOE

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1.0 INTRODUCTION

1.1 PURPOSE AND NEED STATEMENT

The City of Hapeville Comprehensive Plan/LCI Study Update (LCI Study Update) of 2017 identified Virginia Avenue as a gateway corridor into downtown. This study suggested growth and redevelopment would continue along the corridor. The intersection of Virginia Avenue, Little Virginia Avenue, Doug Davis Drive, and Clay Place is a major intersection and currently serves as a central hub for dining establishments. Pedestrian, bicycle, and vehicular traffic will increase as the area grows with denser residential and mixed-use commercial developments. The proposed project will enhance safety and improve operational efficiency at the intersection of Virginia Avenue, Little Virginia Avenue, Doug Davis Drive, and Clay Place.

1.2 BACKGROUND

The LCI Study Update identified several gateway corridors into downtown Hapeville. Virginia Avenue was one such corridor, providing access from I-85 into downtown Hapeville. The LCI Study Update recommended denser commercial and residential development along Virginia Avenue by eliminating surface parking adjacent to the street and building taller, multi-floor structures. It also suggested improving bicycle and pedestrian facilities to encourage a more walkable city. There are currently several hotels and businesses at the I-85 interchange, which is just 0.5 miles or a 10-15 minute walk from the study area. There are also parking issues associated with lunch and dinner traffic at several of the restaurants at the intersection. The LCI Study Update suggests that making the corridor more walkable (and redeveloping the corridor) could transform Virginia Avenue into a “vibrant, mixed use…gateway node that serve[s] the residents, visitors, business, and employees, while celebrating the city’s small-town charm and character.” To help create this welcoming gateway and improve functionality, the LCI Study Update proposed a roundabout at the Virginia Avenue, Little Virginia Avenue, Doug Davis Drive, Clay Place intersection. It also proposed streetscape improvements along the corridor. This feasibility study will consider various intersection improvement options to promote the desired outcome of the LCI Study Update.

It should be noted that Aerotropolis Atlanta Community Improvement Districts (CIDs) is currently working on a Virginia Avenue project that is anticipated to introduce a road diet to the corridor. At the time of this study, that project had not developed to a stage where information could be utilized for this study. Additionally, the City of Hapeville has a future road diet project along Doug Davis Drive. As such, this feasibility study proposed ideas that could easily function within the context of existing conditions or be easily modified to accommodate proposed improvements as part of the two road diet projects.

2.0 CONCEPTUAL DESIGN ALTERNATIVE

The study area for this project included detailed traffic analysis for the intersections of Virginia Avenue at Hamilton Avenue and Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place. Additionally, geometric improvements were analyzed in the east-west direction from Oakridge Avenue to South Whitney Avenue (Delta Airlines driveway) and in the south-north direction from 856 Virginia Avenue to Hamilton Park. See Appendix A for a map of the study area.

2.1 EXISTING ROADWAY

Virginia Avenue is listed as a major collector on the Georgia Department of Transportation's (GDOT) functional classification map. The posted speed limit is 35 miles per hour (mph). Doug Davis Drive and Clay Place are both local roads. Doug Davis Drive is posted at 35 mph. Clay Place does not have a posting, but it is a short segment with maximum speeds of about 25 mph. The existing intersection is signalized. All legs of the intersection have curb-and-gutter and sidewalks. The sidewalks were constructed as part of a streetscape project. Overall, the sidewalks are in good condition, but trees in the middle of the sidewalk restrict pedestrian movement by narrowing up the usable sidewalk width. Virginia Avenue makes up the western and northern legs of the intersection; Clay Place is the southern leg; and Doug Davis Drive is the eastern leg. The following is a list of characteristics of each leg of the intersection.

- The western leg of Virginia Avenue is an urban five-lane section with two thru-lanes in each direction and an eastbound left-turn lane.
- The northern leg of Virginia Avenue is a two-lane urban section. It has one wide (15-16 feet) thru lane in each direction. As it approaches the intersection the thru lanes are reduced to approximately 10 feet, and a short left-turn lane is added.
- Doug Davis Drive is an urban five-lane section with two eastbound thru lanes and one westbound thru lane. It also has a westbound left-turn lane and a westbound right-turn lane.
- Clay Place functions like a large commercial driveway. It is an urban section with a single thru-lane in each direction and a northbound left-turn lane. It also has a right-turn lane separated by a large landscaped island.
- The east-west corridor of Virginia Avenue/Little Virginia Avenue/Doug Davis Drive has a large deflection of about 30-degrees at the intersection.

Approximately 125 feet west of the Virginia Avenue, Little Virginia Avenue, Doug Davis Drive, and Clay Place intersection is the Virginia Avenue/Hamilton Avenue intersection. Hamilton Avenue is a low-volume neighborhood street that serves as an access point to the Virginia Park neighborhood. It is an urban section with one travel lane in each direction. It is currently stop controlled with Virginia Avenue being the primary road.

About 180 feet west of Hamilton Avenue is the intersection of Virginia Avenue and Harding Avenue. Harding Avenue also provides access to the Virginia Park neighborhood. It is also an urban two-lane section with one travel lane in each direction. It is currently stop controlled with Virginia Avenue being the primary road.

In addition to the public road intersections, there are several commercial driveways within the study area. Most of the driveways provide access to restaurants. Some provide access to local businesses or vacant commercial buildings.

2.2 PROPOSED DESIGN CRITERIA

For this study, the GDOT Design Policy Manual (DPM) was the guiding document. This document provides "design guidelines and standards adopted by the Georgia Department of Transportation (GDOT) for the design of roadways and related infrastructure" for Federal-Aid and State-Aid projects in Georgia. For the roundabout analysis, the DPM references the National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide, 2nd Edition, also known as NCHRP 672.

2.2.1 Design Vehicle

The design vehicle for an urban collector should be at least a BUS-40 or SU, which is an intercity bus or single-unit truck. Based on conversations with local officials and stakeholders, WB-40 trucks (a semi-trailer) frequently travel through the intersection to make deliveries at local businesses. For the purposes of this study, a WB-40 was the selected design vehicle. Also, because the City of Hapeville Fire Department operates a fire engine with a 95' ladder, turning templates were used to verify this vehicle could be accommodated.

Roadway Type	Design Vehicle	Typical Design Speed (mph)(3)
Rural		
Interstate / Freeway	WB-67	70
Ramp		
Free-Flow	WB-67	35 (1)
Entrance / Exit	WB-67	35 (1)
Loop	WB-67	35 (1)
Principal Arterial	≥WB-40(2)	(See Table 6.6)
Minor Arterial	≥SU(2)	(See Table 6.6)
Collector	≥SU(2)	(See Table 6.5)
Local Road		
Paved	≥S-BUS36(2)	(See Table 6.4)
Gravel	≥S-BUS36(2)	35
Urban		
Interstate / Freeway	WB-67	65
Ramp		
Free-Flow	WB-67	35 (1)
Entrance / Exit	WB-67	35 (1)
Loop	≥WB-40(2)	35 (1)
Principal Arterial	≥WB-40(2)	(See Table 6.6)
Minor Arterial	≥WB-40 or ≥BUS-40(2)	(See Table 6.6)
Collector	≥BUS-40 or ≥SU(2)	(See Table 6.5)
Residential/Local Road	≥SU or ≥P(2)	(See Table 6.4)

(1) Refer to Section 3.3.3 Freeway Exit and Entrance Ramps.
(2) Refer to Section 3.2.2 Local Input for Selecting a Design Vehicle.
(3) Refer to Section 3.3 Design Speed and Table 6.4 To 6.7.

Design Vehicle Type Symbols: *BUS=Intercity Bus/Motor Coach, P=Passenger Car, S-BUS=School Bus, SU=Single-Unit Truck, WB=Semi Trailer*

Table 1. Design Vehicles and Typical Design Speeds
(Source: GDOT Design Policy Manual)

Based on the GDOT DPM Table 6.5, the design speed for an urban collector should be 35 mph. For a roundabout, NCHRP 672 states the entry

design speed is 20-25 mph. Typically, circulating speeds are slightly lower, and departure speeds are in a similar range. Curvature is introduced on the approaches to forcibly reduce speeds from 35 mph to the 20-25 mph range.

2.2.2 Bicycle and Pedestrian Accommodations

All proposed alternatives will include improved sidewalks for pedestrians with a minimum width of five feet and a desirable width of 10 feet. Bicycle facilities will be considered both on-street and off-street. The minimum width sidewalks are possible if on-street bike lanes are utilized. If dedicated bike lanes are not feasible, then wider 8-10 foot shared-use paths may be proposed. Within the footprint of roundabout options, sidewalk will be a minimum width of 10 feet. Any bicyclist uncomfortable with navigating through the roundabout with vehicular traffic can mix with pedestrians along the wide sidewalks to pass through the intersection.

2.3 PROPOSED ALTERNATIVES

Two alternatives were analyzed. One is an improved signalized intersection, and one is converting the intersection to a roundabout. Sketches of both alternatives are attached in the Appendices.

2.3.1 Alternative 1

Alternative 1 is very similar to existing conditions with a few modifications. A raised, landscaped median will replace the flush median in front of 3435 Hamilton Avenue (Schlotzky's Deli) and in front of 832/834 Virginia Avenue (Johnny's New York Style Pizza, Touch Nails, and Jimmy John's). The left-turn lanes on Virginia Avenue and Doug Davis Drive will be shortened. Turn lanes on Clay Place will be removed. The traffic signal timing will be optimized. Other improvements will include unobstructed sidewalks and new landscaping.

2.3.2 Alternative 2

Alternative 2 converts the existing signalized intersection to a single lane modern roundabout. The roundabout will have a 110' inscribed diameter (outside diameter of circulating roadway). The circulating roadway will be 18' wide with a 10' truck apron to accommodate larger vehicles. The central island will have a 54' diameter, and it will be landscaped. It could potentially have a sculpture or some form of wayfinding and signage as part of a gateway improvement. Five parallel parking spots are proposed along Doug Davis Drive to offset two lost spaces at Johnny's New York Style Pizza (Johnny's). Eight parallel parking spaces are proposed along Hamilton Avenue to offset lost spaces at 855 Virginia Avenue (Grecian Gyro). A cul-de-sac is proposed along Hamilton Avenue to allow traffic to u-turn to access the parallel parking. The driveway off Virginia Avenue for the Grecian Gyro restaurant will be closed, and an interparcel driveway connection is recommended between the Grecian Gyro and 839 Virginia Avenue (Waffle House). Hamilton Avenue will be converted to a right-in/right-out intersection with no left-turns allowed. Johnny's driveway on Doug Davis Drive will be converted to a right-in/right-out driveway for passenger cars. A median cut will be provided with a reduced median height (similar to the truck apron)

or other treatment to allow passage of delivery trucks but deter usage by passenger cars. All approaches to the roundabout will be tapered down to a single lane. Other improvements will include new unobstructed sidewalks and new landscaping.

3.0 TRAFFIC AND SAFETY

A traffic study was performed for two intersections:

1. Virginia Avenue at Hamilton Avenue
2. Virginia Avenue/Doug Davis Drive at Little Virginia Avenue/Clay Place.

The full traffic data report can be found in the Appendices.

3.1 TRAFFIC VOLUME FORECASTING

Existing peak hour volumes and future peak hour volumes – based on a 0.9% annual growth rate – were calculated from traffic counts. For this study, the project opening year was estimated to be 2023 with a design year of 2043, or a 20-year design horizon. It was determined that the midday peak hour volumes were slightly higher than morning or afternoon peak hour volumes. The two-way Average Annual Daily Traffic volume is forecasted to be 13,625 vehicles/day in 2043.

3.2 CAPACITY ANALYSIS

Two alternatives were analyzed for capacity. The first alternative was an improved intersection that optimizes signal timing while maintaining existing lane configurations. This alternative does add a section of extended median along Virginia Avenue and Doug Davis Drive, but the median does not adversely impact the two study intersections. The second alternative is a single lane roundabout.

Levels of service (LOS) for the both alternatives are within acceptable ranges for the type of facility. Alternative 1 will experience LOS ranging from A to D, depending on time of day and intersecting street. Alternative 2 will experience LOS ranging from A to B, again depending on time of day and intersecting street. Alternative 2 is a slight improvement over Alternative 1, which has very similar results to the No Build scenario. This is to be expected because the intersection configuration is very similar between existing conditions and Alternative 1. The noon peak hour was selected for analysis instead of the morning peak hour since the noon peak hour volumes were significantly greater than the typical morning peak hour volumes.

	2043: No Build		2043: Alternative 1		2043: Alternative 2	
Approach	**Noon Peak LOS (Delay)**	**PM Peak LOS (Delay)**	**Noon Peak LOS (Delay)**	**PM Peak LOS (Delay)**	**Noon Peak LOS (Delay)**	**PM Peak LOS (Delay)**
Clay Place	D (40.7 s)	D (38.6 s)	D (39.6 s)	D (39.5 s)	A (8 s)	A (6 s)
Clay Place (Right Turn Lane)	A (9.3 s)	A (9.2 s)	N/A	N/A	N/A	N/A
Little Virginia Ave (North Leg)	C (34.3 s)	C (33.7 s)	C (34.3 s)	C (33.9 s)	A (10 s)	A (8 s)
Virginia Ave (West Leg)	B (12.5)	A (9.6 s)	B (13.9 s)	B (10.9 s)	B (10 s)	A (7 s)
Doug Davis Dr	B (16.2 s)	B (17.3 s)	C (23.7 s)	C (20.5 s)	A (8 s)	A (9 s)

Table 2. Level of Service and Delay for Projected Traffic Volumes

3.3 SAFETY ANALYSIS

There were two total crashes at Virginia Avenue at Hamilton Avenue intersection from 2016 to 2018. One crash was an angle collision, and one crash was a sideswipe. There were no injuries or fatalities reported.

There were 13 total crashes at the Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place intersection from 2016 to 2018. 42% of the crashes were rear end collisions; 23% were angle crashes; and 42% were sideswipe collisions. There was one reported injury and no fatalities.

Crashes for Alternative 1 can be expected to increase as traffic volumes increase. Alternative 2 will reduce crashes by as much as 39%, and it will reduce serious (injury and fatality) crashes by as much as 78%. Alternative 2 will also reduce pedestrian exposure to vehicular traffic by providing refuge islands between opposing directions of travel. Pedestrians will cross single lane of one direction of traffic at a time.

	Virginia Avenue/Doug Davis Drive @ Little Virginia Avenue/Clay Place				Virginia Avenue @ Hamilton Avenue			
Year	**Total**	**Property Damage**	**Injury**	**Fatal**	**Total**	**Property Damage**	**Injury**	**Fatal**
2016	4	4	0	0	1	1	0	0
2017	4	4	0	0	0	0	0	0
2018	5	4	1	0	1	1	0	0

Table 3. Crash Totals by Intersection

4.0 PUBLIC OUTREACH AND STAKEHOLDER ENGAGEMENT

Understanding the concerns, needs, and desires of the users from the communities that travel through the Virginia Avenue at Hamilton Avenue and Virginia Avenue/Doug Davis Drive at Little Virginia Avenue/Clay Place intersections, as well as those who live and/or work within the project study area, are important components of this project's development. Our team worked with three levels of stakeholders throughout this process:

1. Project Management Team (PMT)
2. Advisory Group
3. General Public.

The PMT met bi-weekly to discuss project development and plan larger outreach efforts. The PMT members included staff from the City of Hapeville, Stantec, and Sizemore Group.

The Advisory Group consisted of business and property owners, community leaders, ARC, GDOT, MARTA, and Aerotropolis Atlanta CIDs. The members were selected through a collaborative effort of the Mayor, City Council, and City Management. The Advisory Group met on three occasions to brainstorm ideas and provide the planning team more local knowledge of the area.

Finally, the General Public was engaged at key junctures of the process. A Demonstration Project was held on site and a Community Meeting with a questions and answers session was held. The results of the process were shared with the City Council and Planning Commission prior to the Community Meeting.

4.1 MEETING PROCESS

At the first Advisory Group meeting, the planning team discussed the project background and traffic analysis performed at that time. The discussion focused on the process moving forward and included the following design themes and guiding principles for the project:

- Safety for ALL users
- Connectivity
- Gateway
- Focus on intersection treatment/service
- Mitigate right-of-way takings where possible
- Consistent and unique signage/messaging

Examples of similar projects were presented to promote positive brainstorming activities. Following a brief presentation, the group discussed "problem areas" and identified issues related to turning movements, traffic queuing, walking, bicycling, parking, etc. The team then discussed possible solutions to consider during the planning process to resolve or mitigate some of these design challenges.

During the second Advisory Group meeting, the design presented further developed conceptual layouts for a design charette. The group separated into two smaller teams for a discussion of three alternatives. Based on the feedback from this meeting, the layouts were refined for the upcoming Demonstration Project and Community Meeting.

For the Demonstration Project, the design team set up a mock roundabout within the existing intersection. It was installed at a smaller scale than the proposed roundabout, and it functioned effectively for passenger cars. During the Advisory Group meetings, several people thought a roundabout may be confusing to some motorists, and the Demonstration Project showed how quickly people could adapt to a reconfigured intersection. However, several business owners expressed concern over the disruption to business both during construction and after implementation of a proposed roundabout. They're biggest concern was loss of parking and flow of delivery traffic. Their comments were noted, and the conceptual layouts were further refined to address some of those concerns.



Figure 1. Demonstration Project

After the Demonstration Project, the Advisory Group reconvened to review the new layouts and to discuss the outcome of the Demonstration Project. Then presentations were made to the City Council and the Planning Commission to show the proposed conceptual layouts and address questions and concerns they may have. Finally, a Community Meeting was held where the final conceptual layouts were presented, and the public could ask questions and provide comments to the design team. The design team received four comment cards from this meeting. These comments are provided in Appendix A4.

5.0 IMPACT EVALUATION

5.1 HUMAN ENVIRONMENT

5.1.1 Relocations

Neither alternative is expected to require a business relocation. However, for Alternative 2, if interparcel connectivity between 839 Virginia Avenue and 855 Virginia Avenue is not provided, then 855 Virginia Avenue may be severely impacted and require relocating. Parallel parking is proposed along Hamilton Avenue to offset the lost parking on 855 Virginia Avenue.



Figure 2. Tax Map with Street Numbers
(Source: Fulton County Tax Assessor)

5.1.2 Historic Resources

For the project area, there are no known historic resources except for the Hapeville Historic District (HHD), and the alternatives presented do not propose improvements that would impact the HHD. Figure 3 shows the HHD boundary relative to the project. The National Register of Historic Places Registration Form is attached in Appendix A.5. It extends to Virginia Avenue at Harding Avenue, across from

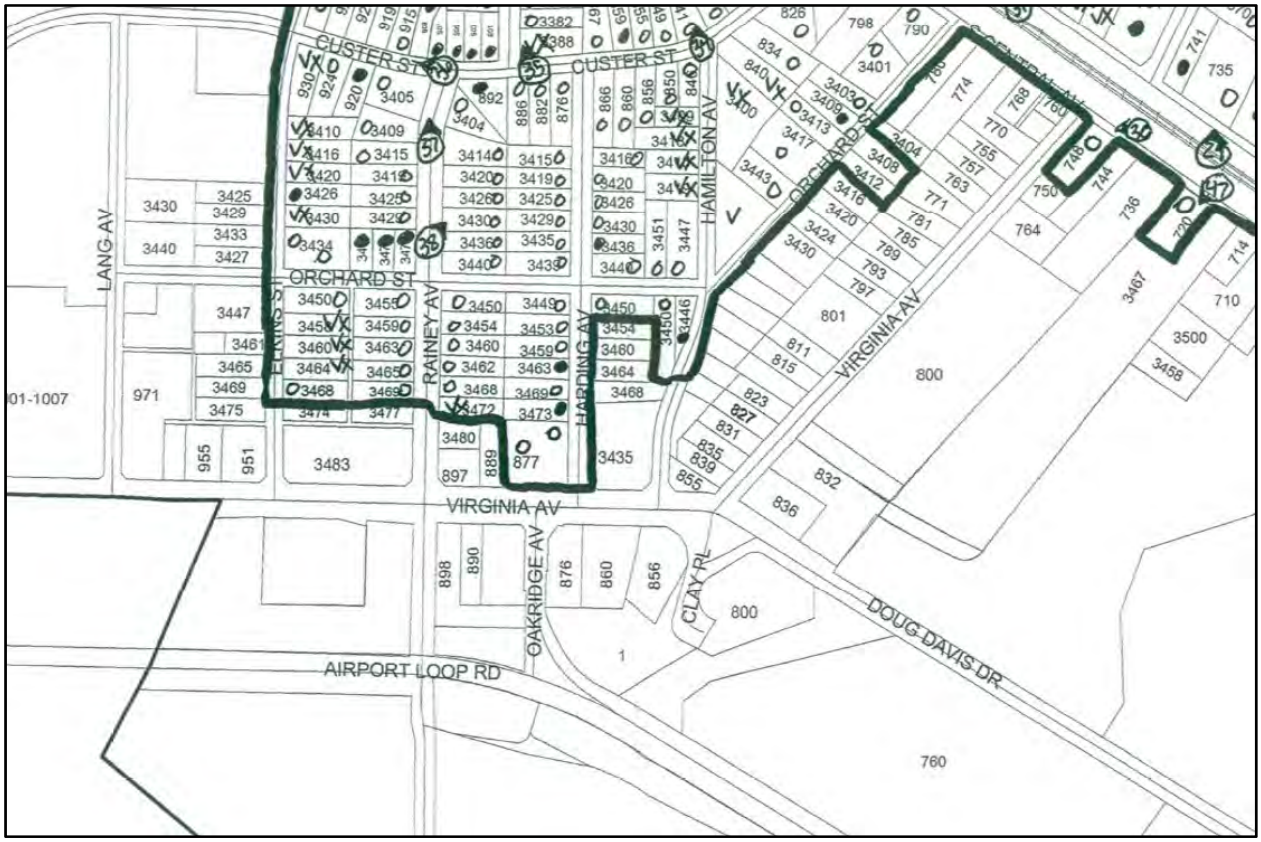


Figure 3. Hapeville Historic District Boundary Map
(Source: National Register of Historic Places)

Oakridge Avenue and includes 877 Virginia Avenue (See Figure 3).

5.2 NATURAL ENVIRONMENT

5.2.1 Streams and Wetlands

There are no streams or wetlands within the study area.

5.2.2 Threatened and Endangered Species

The project area is mostly urban in nature with a large amount of maintained/disturbed land. Protected species are not anticipated to be found within the study area; however, future studies should include natural resource surveys to preclude the presence of protected species or their habitat.

5.3 IMPACT SUMMARY

IMPACT CATEGORY	ALTERNATIVE 1	ALTERNATIVE 2
Residential Relocations	0	00
Business Relocations	0	$100,000
National Register Properties	0	0
Cemeteries	0	0
Stream Impacts (ft)	0	0
Wetland Impacts (acres)	0	0
Permanent Right-of-Way Acquisition (acres)	0	0.47
Temporary Construction Easement (acres)	0.10	0.23
Construction Costs	$250,000	$1,500,000
Utility Costs	$25,000	$150,000
Right-of-Way Costs	$70,000	$1,165,000
Total Costs	$345,000	$2,915,000

Table 4. Impact and Cost Summary

6.0 CONCLUSIONS AND RECOMMENDATIONS

The existing signalized intersection will continue to function at an acceptable level of service in 2043 without intersection improvements. However, if redevelopment occurs per the Comprehensive Plan/LCI Study Update suggests, improvements are recommended. Particularly, improvements for pedestrian and bicycle facilities should be considered. This could mean wider, unobstructed sidewalks; dedicated bicycle lanes; and pedestrian refuge islands. Both proposed alternatives provide functional improvements with Alternative 2 providing slight operational improvements.

Alternative 1 proposes wider, unobstructed sidewalks and more visible pavement markings, but it does little to slow traffic and provide pedestrian refuge locations. Alternative 2 includes wider sidewalks and refuge islands, as well as reducing traffic velocities. It provides more opportunities for gateway features per the LCI Study Update and greater access control for improved safety. The sidewalks for Alternative 2 also accommodate bicycles.

Neither Alternative 1 nor Alternative 2 includes dedicated bicycle lanes. As the Aerotropolis Atlanta CIDs' and City of Hapeville's road diet projects along the Virginia Avenue/Doug Davis Drive corridor progress, dedicated bicycle lanes should be considered. If bicycle lanes are incorporated along the corridor, Alternatives 1 and 2 should be revisited to accommodate the bicycle lanes.

Alternative 2 does have the potential to create a business relocation (Grecian Gyro) and disrupt deliveries at other businesses. Further investigation is required based on topographic surveys and property research to determine the exact limits of impacts to these properties. If a practical alternative is not available for the Grecian Gyro property, acquisition may be required.

Alternative 2 also causes relocation of existing parking spaces for Johnny's Pizza and Grecian Gyro. The plan has options to mitigate the parking, but further analysis should be performed to determine the feasibility of the proposed parking solution.

In conclusion, Alternative 1 does little to improve the intersection and satisfy the need and purpose of the project. Alternative 2 addresses the project need, but there are some unresolved issues that require further investigation based on more detailed information to determine the extent of the impacts.

Appendix A

A.1 EXISTING ROADWAY & STUDY AREA

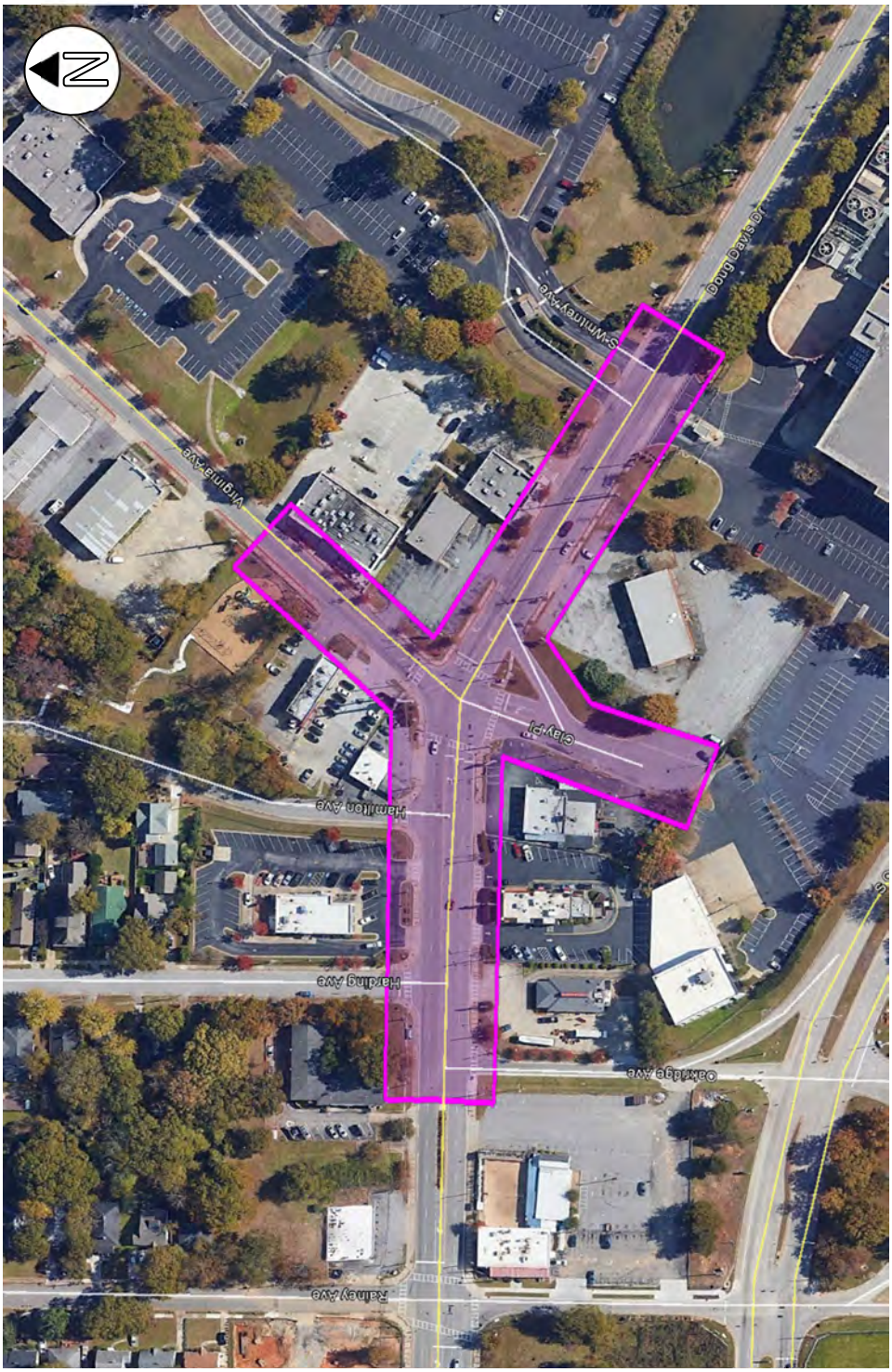


Figure A-1. Existing Roadway and Study Area
(Source: Google Earth Pro)

A.2 PROPOSED ALTERNATIVES

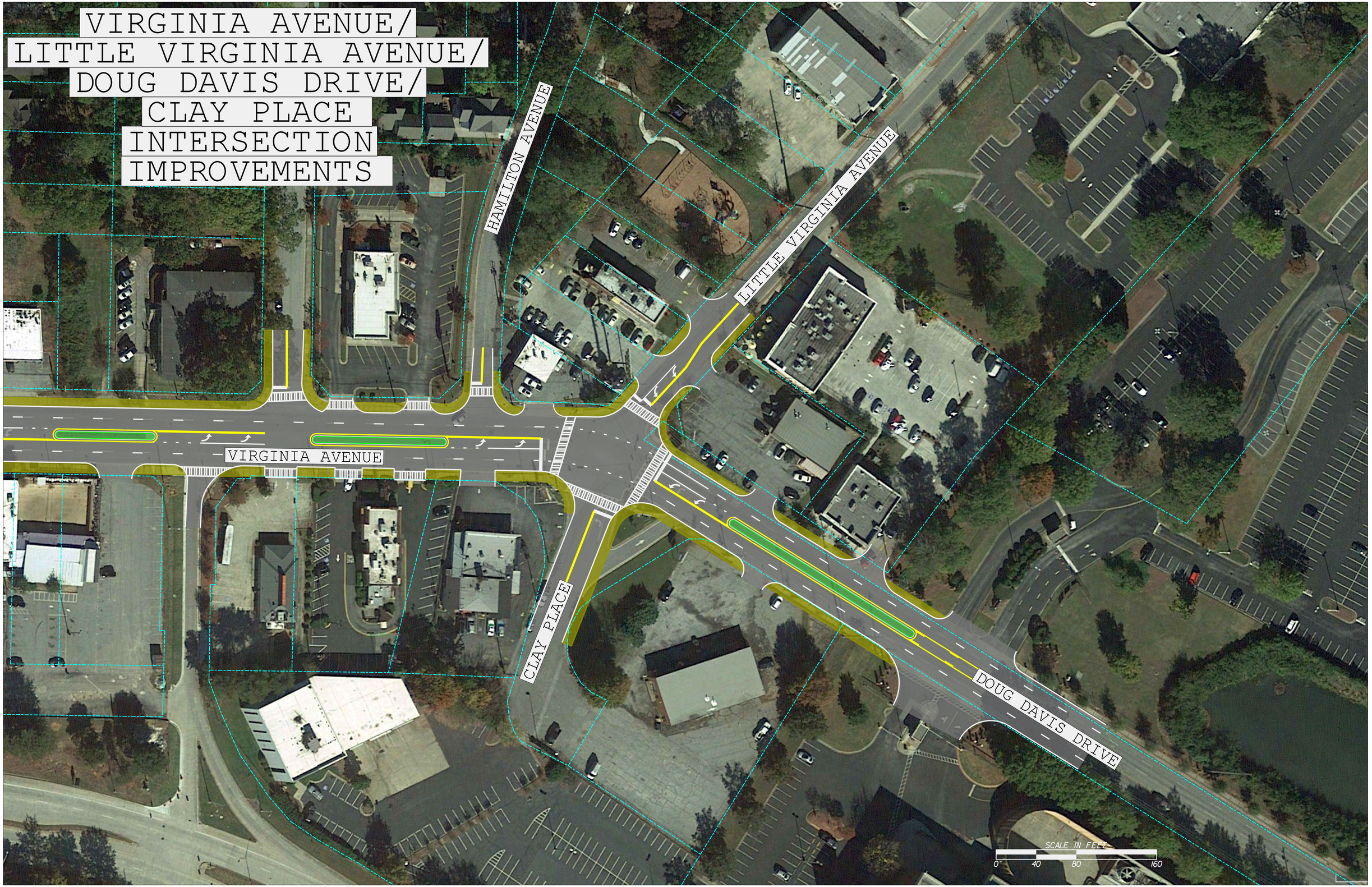


Figure B-1. Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place Intersection Improvements

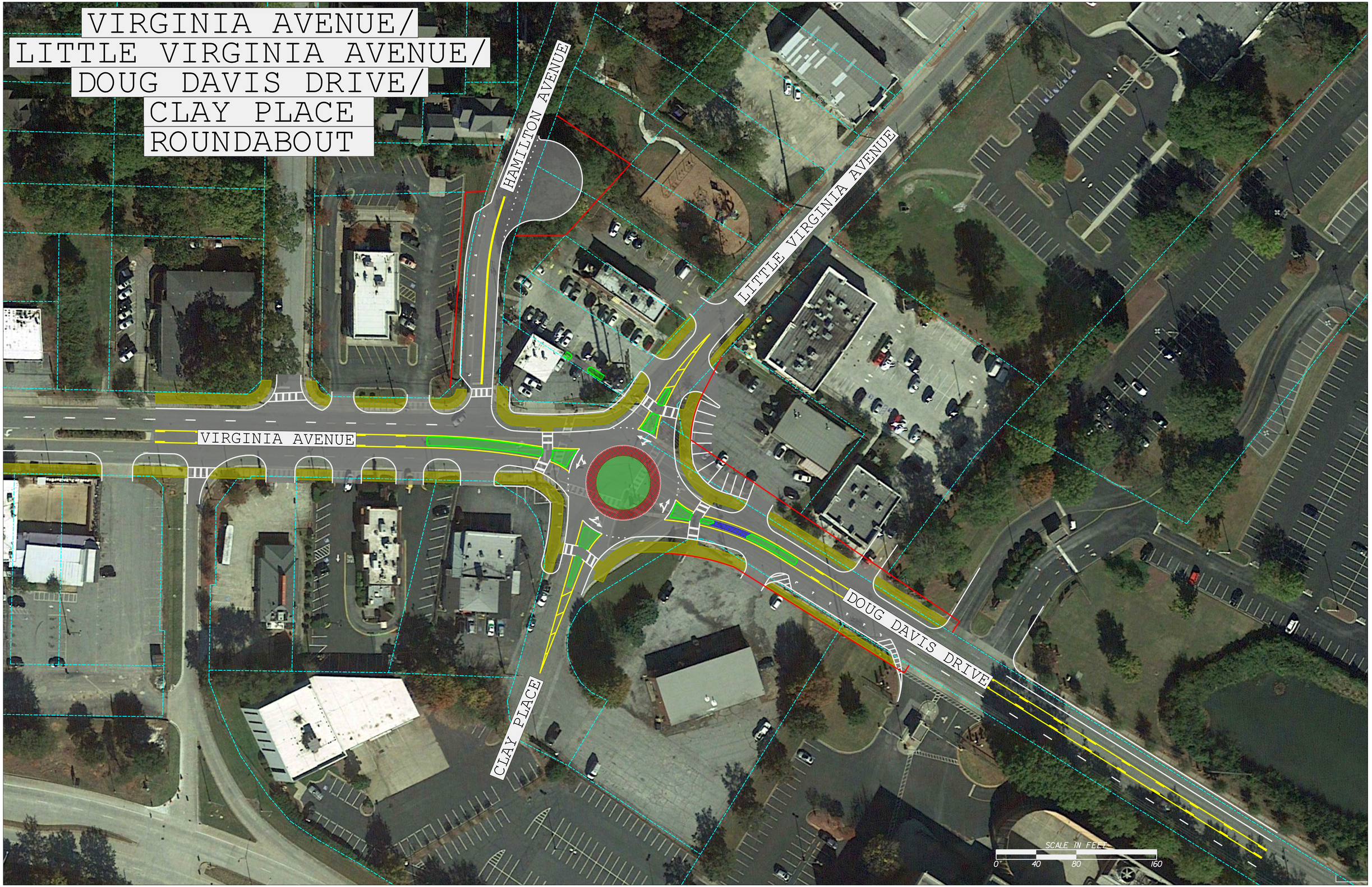


Figure B-2. Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place Roundabout

A.3 TRAFFIC DATA REPORT

Virginia Avenue/Doug Davis Drive at Clay Place/Virginia Avenue Traffic Data Report

Project Number: 171007021 – Virginia Avenue/Doug Davis Drive at Clay Place/Virginia Avenue Roundabout Feasibility Study
City of Hapeville, Fulton County, GA

Stantec

Prepared for:
City of Hapeville

Prepared by:
Stantec Consulting Services Inc.

September 13, 2019

Sign-off Sheet

This document entitled Virginia Avenue/Doug Davis Drive at Clay Place/Virginia Avenue Roundabout Feasibility Study was prepared by Stantec Consulting Services Inc. ("Stantec") for the City of Hapeville (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

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Mitchell Greenway, PE

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1.0 INTRODUCTION

The purpose of this report is to document the traffic data and analysis for the Virginia Avenue/Doug Davis Drive at Clay Place/Virginia Avenue Roundabout Feasibility Study. The analysis considers existing conditions and traffic volumes and projections of future traffic volumes and proposed improvements to the intersections in this study. These improvements were identified in the Comprehensive Plan/LCI Study Update of 2017.

For the purpose of this report, Virginia Avenue is referred to as an east-west route throughout the entire study area. As illustrated in **Figure 1** on the following page, the two study intersections are:

1. Virginia Avenue at Hamilton Avenue;
2. Virginia Avenue/Doug Davis Drive at Clay Place/Virginia Avenue;

This project is analyzing the feasibility of a roundabout that could include roadway streetscape and pedestrian/bicycle facility improvements at the Virginia Avenue/Doug Davis Drive and Clay Place/Virginia Avenue intersection. A roundabout may reduce vehicular crash severity and improve overall operations at the intersection. Vehicular conflict points are reduced from 32 to eight, and total crashes may be expected to decrease by approximately 26% per the Crash Modification Factors Clearinghouse for conversion of a signalized intersection into a single-lane roundabout. Pedestrian and bicyclist safety would also increase at the intersection by providing wider sidewalks and shorter crossing distances. By providing this increased safety, the addition of a roundabout could encourage increased pedestrian and bicycle traffic in the area, which could facilitate future growth.

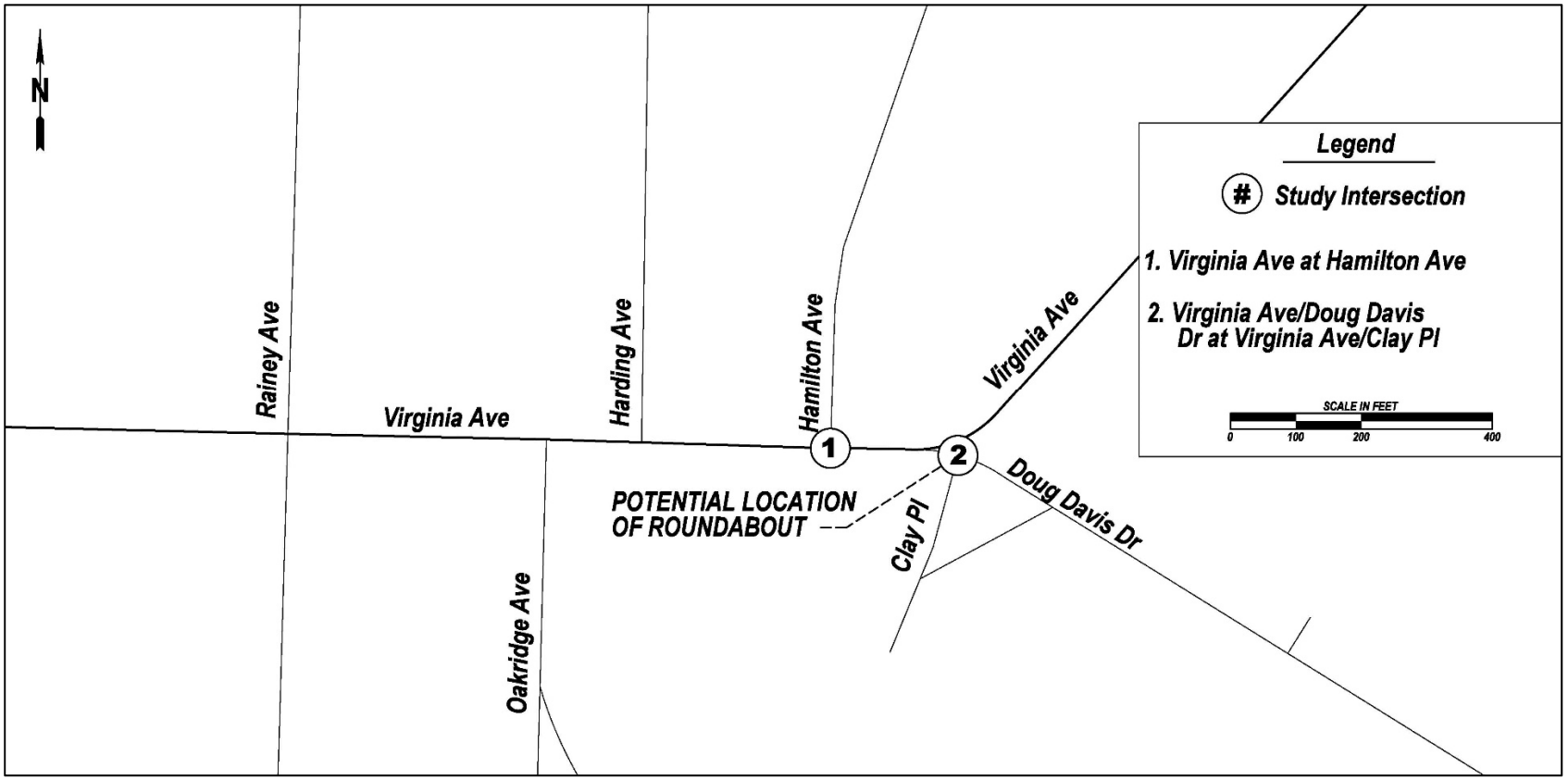


Figure 1: Site Location Map

2.0 EXISTING CONDITIONS

2.1 CORRIDOR DESCRIPTION

The study area includes Virginia Avenue from Hamilton Avenue to the intersection of Virginia Avenue/Doug Davis Drive and Clay Pl/Virginia Avenue. Virginia Avenue is an urban major collector for its entire extent; bounded from the west by E Main Street in College Park and from the east by S Central Avenue. To the west of Clay Place, Virginia Avenue is a 5-lane east/west collector with auxiliary left turn lanes at signalized intersections and a two-way left turn lane running throughout for access to businesses and minor roads. Once Virginia Avenue intersects with Clay Place, it becomes a 2-lane street and bears north/south; this is illustrated above in **Figure 1**. As noted in **Figure 1** above, Hamilton Avenue has stop-controlled access to Virginia Avenue at intersection 1. The south leg of intersection 1 is a marked entry-only driveway for the Virginia Curve Package store. Intersection 2 in **Figure 1** is a signalized intersection and the location of the potential roundabout that is the subject of this study. The posted speed limit is 35 miles per hour on Virginia Ave.

Sidewalks line the street along both sides of the corridor and range from 4.5 feet to 9 feet in width. However, in several locations along the corridor there are trees and utility poles located on the sidewalk that reduce the available width. These obstacles severely limit wheelchair access along the sidewalk. There is street lighting and pedestrian lighting along the Virginia Avenue study area. On the south end of Intersection 2, there is a triangular pedestrian refuge island that shortens the crossing distance needed to navigate north or south along the 5-lane road. Intersection 2 has pedestrian signals on all corners, except between the pedestrian refuge island and the south sidewalk of Doug Davis Drive.

2.2 DATA COLLECTION

Weekday 48-hour directional volume and vehicle classification counts were collected in two different periods. Counts were collected on Tuesday-Wednesday 5/14-5/15/2019. Additionally, peak-period turning movement counts (TMCs) were conducted at the study intersections on Tuesday, 5/14/2019. The counts were conducted during a typical commuter AM peak period (7:00 AM – 10:00 AM) and a typical commuter PM peak period (3:30 PM – 6:30 PM). Based on the peak hour of the daily counts, the identified peak hours stray from typical times dictated predominantly by commuter traffic. As a result, there is no AM peak hour, instead there is a noon peak of 12:00 PM – 1:00 PM and a PM Peak hour of 4:45 PM – 5:45 PM. The approved map indicating the count location numbers and corresponding vendor labels, Noon and PM peak hour turning movement counts, and bi-directional 48-hour classification counts, are included in **Appendix A**.

2.3 PEAK HOUR DETERMINIATION

As previously discussed, the early peak hour of the study area was 12:00 PM to 1:00 PM and the late peak hour is 4:45 PM to 5:45 PM. In order to further support the use of a noon peak hour instead of a traditional AM peak, a table of diurnal distribution data for the intersection was computed and compared to a control from Report 765 by the National Cooperative Highway Research Program (NCHRP). NCHRP Report 765 contains a table showing diurnal distribution factors by functional class for an urban area with population over 1,000,000, which is similar to the Atlanta metro area. By comparing the NCHRP table of diurnal distributions to the one computed for the project site, it becomes clear how much smaller the AM distributions are at the project site and how much larger the noon peak distribution is as compared to a typical noon peak. PM distribution amongst the two were approximately the same. Both the NCHRP table and the Project site table are shown in Appendix B. An excerpt of both are shown below in **Table 1** for the hours of 7 AM to 4 PM, for both Virginia Avenue west of Hamilton Street and a typical large-urban collector on a weekday.

Table 1: Diurnal Distribution Comparison

Hour Begins	Virginia Ave, W of Hamilton Ave (Day 1/Day 2 Average)	Typical Large-Urban Collector (Weekday)
7:00 AM	4.20%	5.92%
8:00 AM	5.02%	6.05%
9:00 AM	3.97%	5.82%
10:00 AM	4.14%	5.78%
11:00 AM	6.66%	6.55%
12:00 PM	8.88%	7.08%
1:00 PM	7.69%	6.95%
2:00 PM	6.60%	7.20%
3:00 PM	6.69%	7.97%

In addition to the traffic volume data supporting the choice of using a noon peak hour, it is also supported by the kinds of businesses that line the study area. From the center of Intersection 2, there are 9 restaurants within a 300 ft radius. The many employees at nearby Delta, Wells Fargo, and Porsche facilities likely contribute to the meal-time traffic in the study area, particularly during lunch, which is when the busiest hour of the day (12:00 PM – 1:00 PM) occurs.

2.4 PEAK HOUR DATA COMPUTATION

As mentioned, TMC data was collected during the hours of 7:00 AM – 10:00 AM and 3:30 PM – 6:30 PM, based on typical commuter traffic patterns. Therefore, no TMC data was collected during the noon peak hour. Since the pattern of traffic favors lunch and dinner rush times, emphasis on traffic behavior must be placed on these times in the determination of design hour volumes to be tested for roundabout feasibility. In order to do so, traffic projections for turning movement ADTs for both early and late peak hours were made based on the turning movement percentages during the 3 PM hours of the TMC field data (3:30-6:30 PM). This decision was made under the assumption that relative turning movement volumes during the noon peak hour is likely similar to turning movement volumes during the PM peak.

In order to visualize existing noon turning movement volumes, steps were taken to generate this data. However, the data was not directly utilized for any traffic projections, instead they act as a baseline for comparison. Using the reasoning described in the previous paragraph, the turning movement percentages of the PM peak (4:45-5:45 PM) were mirrored in the AM peak (12:00-1:00 PM). Then, using ADT data collected from the 12:00-1:00 PM ADT field counts, the volume entering the intersection from a particular leg was multiplied by each turning movement percentage to find a volume for each turning movement in the hour of 12:00-1:00 PM. An example calculation is shown below for the north bound approach of Intersection 2.

Table 2: Noon Baseline Volume Calculations

	NB Left	*NB Through*	*NB Right*	*NB U-Turn*
Turning Movement Distribution[1]	*36.7%*	*15.2%*	*48.1%*	*0.0%*
Vehicle Volume per movement	*62 * .0367 = 23 vehicles*	*62 * .0152 = 9 vehicles*	*62 * .0481 = 30 vehicles*	*62 * 0 = 0 vehicles*

1. Pulled from corresponding PM peak turning movement percentages
2. There are 62 NB Vehicles during Noon Peak Hour (From 48 Hour ADT Data).

As previously mentioned, the volumes produced using this method are not used for making any peak hour turning movement projections but are only used for a baseline of comparison. However, the turning movement percentages (those which were mirrored from the PM peak turning movement percentages) *are* used when projecting the peak hour turning movement volumes for the noon peak hour. Volumes computation tables are included in **Appendix B**.

3.0 EXISTING BASELINE VOLUMES

3.1 APPLIED FACTORS

Seasonal, daily, and axle factors provided by the Georgia Department of Transportation (GDOT) were applied to the 48-hour daily counts to develop baseline Annual Average Daily Traffic (AADT). Additionally, the K and D factors were calculated. The K factor is the proportion of traffic occurring during the 30th highest hourly volume of the year. The D factor is the directional distribution of traffic moving the peak travel direction. **Table 3** on the following page shows the K and D factors used in this project. A summary of the K and D factor calculations is shown in **Appendix C.**

Table 3. K & D Factor Calculations

Location	Functional Class (Factor Group)	Count # (Class in yellow)	Enter	Traffic Volumes																							
				Raw Data												GDOT Traffic Factors				Calc. AADT	Balanced & Rounded Volumes								
				Day 1			Day 2			Average of Day 1 & 2			K & D Factors															
				NE - VOL	SW - VOL	Total	NE - VOL	SW - VOL	Total	NE - VOL	SW - VOL	Total	K	D	SF (Monthly)	DF1 (Daily1)	DF2 (Daily2)	AXF (Axle)		AADT	NE - VOL	SW - VOL	Hourly Total	T NE - VOL	T SW - VOL	K	D	Margin of Error
Virginia Ave W of Hamilton Ave	Urban Major Collector (4)	1	12:00 P.M.	519	467	986	518	506	1,024	519	487	1,005	8.9%	0.52	0.96	0.93	0.92	0.96	9,630	9,850	15	10	25	4,925	4,925	0.3%	0.60	2%
			4:45 P.M.	350	546	896	401	536	937	376	541	917	8.1%	0.59							10	10	20			0.2%	0.50	
			Daily	5,550	5,604	11,154	5,646	5,794	11,440	5,598	5,699	11,297																
Hamilton Ave N of Virginia Ave	Urban Local Road (4)	2	12:00 P.M.	15	15	30	9	10	19	12	13	25	10.1%	0.51	0.96	0.93	0.92	0.96	207	200	15	40	55	100	100	27.5%	0.73	3%
			4:45 P.M.	10	9	19	7	10	17	9	10	18	7.4%	0.53							15	40	55			27.5%	0.73	
			Daily	109	142	251	97	137	234	103	140	243																
Virginia Ave N of Doug Davis Dr	Urban Major Collector (4)	3	12:00 P.M.	237	313	550	275	289	564	256	301	557	10.0%	0.54	0.96	0.93	0.92	0.96	4,740	4,800	500	450	950	2,400	2,400	19.8%	0.53	1%
			4:45 P.M.	212	178	390	246	198	444	229	188	417	7.5%	0.55							360	435	795			16.6%	0.55	
			Daily	2,694	2,816	5,510	2,743	2,869	5,612	2,719	2,843	5,561																
Doug Davis Dr E of Virginia Ave/Clay Pl	Urban Local Road (4)	4	12:00 P.M.	380	333	713	396	354	750	388	344	732	8.7%	0.53	0.96	0.93	0.92	0.96	7,189	6,800	60	40	100	3,400	3,400	1.5%	0.60	5%
			4:45 P.M.	249	462	711	277	447	724	263	455	718	8.5%	0.63							60	40	100			1.5%	0.60	
			Daily	4,202	4,209	8,411	4,263	4,193	8,456	4,233	4,201	8,434																
Clay Pl S of Doug Davis Dr	Urban Local Road (4)	5	12:00 P.M.	53	34	87	70	42	112	62	38	100	10.6%	0.62	0.96	0.93	0.92	0.96	797	900	60	35	95	450	450	10.6%	0.63	13%
			4:45 P.M.	65	37	102	60	40	100	63	39	101	10.8%	0.62							60	35	95			10.6%	0.63	
			Daily	500	372	872	539	459	998	520	416	935																

3.2 TRUCK PERCENTAGES

The 2019 vehicle classification counts were used to determine the Truck Percentages in the study area. **Table 4** shows the Truck Percentages used in this project. A summary of the truck percentage calculations is shown in **Appendix D**.

Table 4. Truck Percentages

Count Number	Count Location	24 Hour T%			Peak Hour T%			
		S.U.	Comb.	Total	Period	S.U.	Comb.	Total
1	Virginia Ave W of Hamilton Ave	4.0%	0.0%	4.0%	**AM**	3.5%	0.0%	3.5%
					PM	3.0%	0.0%	3.0%
2	Hamilton Ave N of Virginia Ave	4.5%	0.0%	4.5%	**AM**	10.0%	0.0%	10.0%
					PM	3.0%	0.0%	3.0%
3	Virginia Ave N of Doug Davis Dr	2.5%	0.0%	2.5%	**AM**	4.0%	0.5%	4.5%
					PM	1.5%	0.0%	1.5%
4	Doug Davis Dr E of Virginia Ave/Clay Pl	3.0%	0.0%	3.0%	**AM**	3.0%	0.0%	3.0%
					PM	2.5%	0.0%	2.5%
5	Clay Pl S of Doug Davis Dr	4.0%	0.0%	4.0%	**AM**	3.5%	0.0%	3.5%
					PM	2.5%	0.0%	2.5%

3.3 EXISTING 2019 VOLUMES

Traffic diagrams are provided in **Appendix E**. Diagrams were created for the 2019 existing Annual Average Daily Traffic (AADT) volumes, the Design Hourly Volumes (DHV). To allow for easy comparison, the projections of the AADT and DHV for 2023, 2025, 2043, and 2045 are also provided in traffic diagrams in **Appendix E**. Section 4.2 will cover how these traffic volume projections were calculated in greater detail.

4.0 FUTURE BUILD CONDITIONS

4.1 DESCRIPTION OF PROPOSED ROUNDABOUT

While the selection of a final design is beyond the scope of this analysis, there are common aspects of roundabouts that would be present if it is ultimately constructed. As will be discussed later in the report, the traffic volumes are low enough at this location that they can be handled by a single lane roundabout. A roundabout this size could fit at this location, although not without impacts to the adjacent properties. The roundabout would have splitter islands on each approach that would act as pedestrian refuges. This would dramatically reduce the crossing distance for pedestrians, which would also reduce their exposure to automobiles. Additionally, the layout of a roundabout allows a pedestrian to cross while checking for traffic in one direction at a time. The perimeter of the roundabout would include wider sidewalks to allow both cyclists and pedestrians to safely travel around the roundabout. Lower circulating speeds in the roundabout would also improve the safety of cyclists who choose to travel in the roundabout roadway instead of on the wider sidewalks.

4.2 GROWTH RATE AND FUTURE VOLUMES

Several measures were taken in order to determine a growth rate that best fits the study area in question between existing conditions and the design year (2043). One factor considered for arriving at a growth rate for the project was using historical AADT data provided by GDOT at counting stations in the vicinity of the site. From this, annual growth trends were calculated for the project. The Historical GDOT Traffic Count data and growth rate calculations are shown in **Appendix F.1.** The GDOT count stations identified as being of good use for this project are as follows:

1. #121-5586 Virginia Avenue North of Doug Davis Drive

2. #121-5598 Virginia Avenue West of Hamilton Avenue

Calculated growth rates are summarized below in **Table 5**.

Table 5: Historical Annual Growth Rates – GDOT Counts

	5-Year Growth Rate	10-Year Growth Rate
Station #121-5586	7.0%	3.8%
Station #121-5598	-2.9%	0.2%

The growth rates found using this method, however, were determined as being less accurate than desired, as the count stations found near the study area only have one year of actual AADT counts between both stations. All other years of AADT data reported were either estimates or the collection methods were not indicated. As a result, this method did not make its way into being factored into the final growth rate used.

The 2010-2018 US Census population estimates were another factor considered to calculate a growth rate for the study area. Population estimates were pulled for Census tracts 108 and 403.08. Tract 108 in Fulton County is the location of the project site, and tract 403.08 in Clayton County is adjacent to the project site. Tract 403.08 had a negative historical growth, which is not feasible to use, so only tract 108's growth was considered, which was 0.9%. The Historical US census population data and growth rate calculations are shown in **Appendix F.2**.

The last method for finding growth in the area used was to analyze the growth trends from the Atlanta Regional Commission's (ARC) Regional Transportation Plan (RTP), last updated May 2019. The RTP projects an average annual growth rate of 1.5% for the Atlanta Region from 2015 to 2040.

After using several methods to create a clear picture of the study area's growth, the census growth rate of 0.9% was chosen for the study area. The 0.9% annual growth rate will be applied to the existing turning movement and AADT volumes to forecast volumes for the 2023, 2025, 2043, and 2045 future years under the No Build and Build conditions. Due to the nature of this project, all No Build volumes are the same as the Build out volumes for each respective year, so no distinction between the two is made in the traffic diagrams. The 2019, 2023, 2025, 2043, and 2045 traffic diagrams are presented in **Appendix E**.

5.0 CAPACITY ANALYSIS

5.1 SIGNALIZED INTERSECTION ANALYSIS

Synchro was used to model the existing and 2043 projected capacity of both intersections under the assumption that no roundabout is constructed, and the existing layout is maintained. In addition to these two scenarios, a third scenario that included a road diet on Virginia Avenue, Doug Davis Drive, and Clay Place was also analyzed (See **Figures 2** and **3** for a comparison). It should also be noted that for both future scenarios a new signal timing was used in the Synchro model. This was done to reflect the possibility that even if the layout of the intersection remains unchanged, the signal timings could be updated to better handle projected traffic volumes.

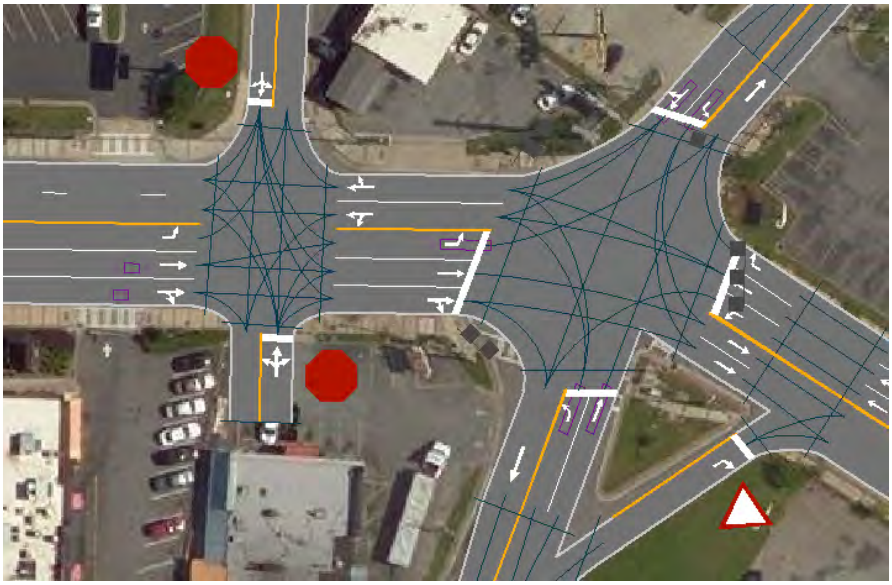


Figure 2: Synchro Model with Existing Layout

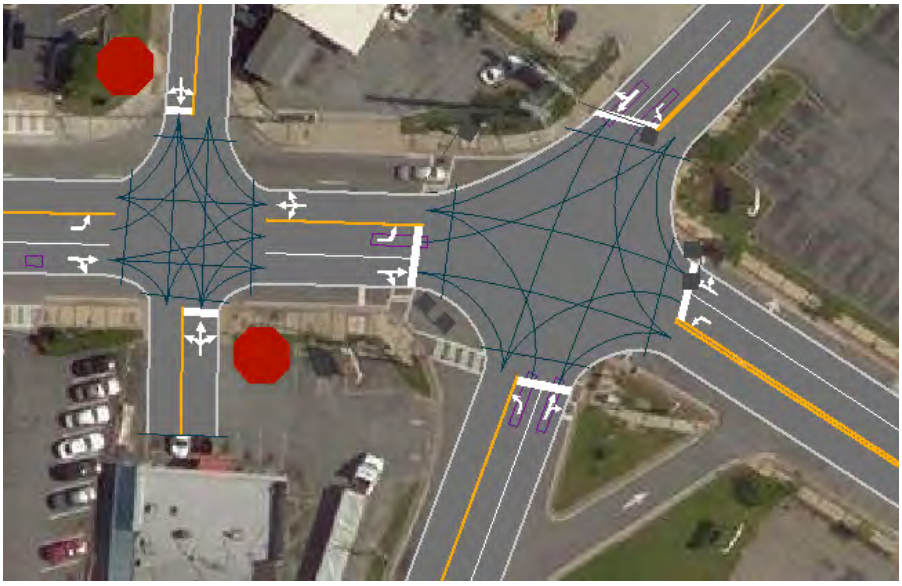


Figure 3: Synchro Model with Road Diet

Table 6 contains the results of the Synchro capacity analysis for intersection 1. Intersection 1 is currently operating well under existing conditions with the level of service (LOS) on each approach being at a C or above. As expected, the increased 2043 volumes decrease the LOS for the Hamilton Avenue and Driveway approaches while having little effect on Virginia Avenue since it is free flowing. The outputs from the Synchro analyses are provided in **Appendix G**.

Table 6. Intersection 1 Level of Service for Existing and Projected Traffic Volumes

	2019 Existing Volumes		2043 Volumes: No Build		2043 Volumes: Road Diet	
Approach	Noon Peak LOS (Delay)	PM Peak LOS (Delay)	Noon Peak LOS (Delay)	PM Peak LOS (Delay)	Noon Peak LOS (Delay)	PM Peak LOS (Delay)
Driveway	C (18.3 s)	B (14.9 s)	C (24.4 s)	C (18.4 s)	E (36.3 s)	D (26.3 s)
Hamilton Ave	C (15.8 s)	B (14.3 s)	C (19.7 s)	C (17.5 s)	D (28.2 s)	C (22.4 s)
Virginia Ave (West Leg)	A (0.1 s)	A (0 s)	A (0.1 s)	A (0 s)	A (0.1 s)	A (0 s)
Virginia Ave (East Leg)	A (0.1 s)	A (0.1 s)	A (0.2 s)	A (0.1 s)	A (0.1 s)	A (0.1 s)

Table 7 contains the results of the Synchro capacity analysis for intersection 2. The eastbound and westbound legs of this intersection are currently operating well at a LOS of A or B. The northbound and southbound legs are both operating at a LOS of D. The intersection operates at a similar level of perform in the 2043 scenarios due to signal timings being optimized for the increased volumes. Delay for the northbound and south bound approaches is lower in both 2043 scenarios than in the existing 2019 scenario. In the road diet scenario, the delay on Virginia Avenue and Doug Davis Drive does increase to the point that both of these approaches drop to a lower LOS. The outputs from the Synchro analyses are provided in **Appendix G**.

Table 7. Intersection 2 Level of Service for Existing and Projected Traffic Volumes

	2019 Existing Volumes		2043 Volumes: No Build		2043 Volumes: Road Diet	
Approach	Noon Peak LOS (Delay)	PM Peak LOS (Delay)	Noon Peak LOS (Delay)	PM Peak LOS (Delay)	Noon Peak LOS (Delay)	PM Peak LOS (Delay)
Clay Place	D (50.7 s)	D (53.9 s)	D (40.7 s)	D (38.6 s)	D (39.6 s)	D (39.5 s)
Clay Place (Right Turn Lane)	A (9.3 s)	A (9.1 s)	A (9.3 s)	A (9.2 s)	N/A	N/A
Virginia Ave (North Leg)	D (44.9 s)	D (48.8 s)	C (34.3 s)	C (33.7 s)	C (34.3 s)	C (33.9 s)
Virginia Ave (West Leg)	A (9.0 s)	A (7.1 s)	B (12.5)	A (9.6 s)	B (13.9 s)	B (10.9 s)
Doug Davis Dr	B (15.2 s)	B (12.3 s)	B (16.2 s)	B (17.3 s)	C (23.7 s)	C (20.5 s)

5.2 ROUNDABOUT ANALYSIS

The existing and projected traffic volumes were also modeled in the GDOT Roundabout Analysis Tool version 4.1. This tool aids in preliminary analysis of the capacity, delay, and other operational factors of a proposed roundabout. The roundabout was modeled as a single lane roundabout with 4 approaches. Models were created for the Noon and PM Peaks for the 2019, 2023, 2025, 2043, and 2045 traffic volumes. In each of these scenarios, the LOS was at an A for all approaches except for the occasional LOS of B on the westbound approach. Results for the 2019 existing volumes and 2043 projected volumes are provided in **Table 8** below. According to this analysis this intersection could function better as a roundabout than as a signalized intersection. The output from each of the roundabout models and roundabout traffic diagrams are provided in **Appendix H**.

Table 8. Roundabout Level of Service for Existing and Projected Traffic Volumes

	2019 Existing Volumes		2043 Volumes: Build	
Approach	Noon Peak LOS (Delay)	PM Peak LOS (Delay)	Noon Peak LOS (Delay)	PM Peak LOS (Delay)
Clay Place	A (7 s)	A (5 s)	A (8 s)	A (6 s)
Virginia Ave (North Leg)	A (7 s)	A (6 s)	A (10 s)	A (8 s)
Virginia Ave (West Leg)	A (8 s)	A (6 s)	B (10 s)	A (7 s)
Doug Davis Dr	A (7 s)	A (7 s)	A (8 s)	A (9 s)

6.0 CONCLUSION

The key conclusions to be drawn from this report are as follows:

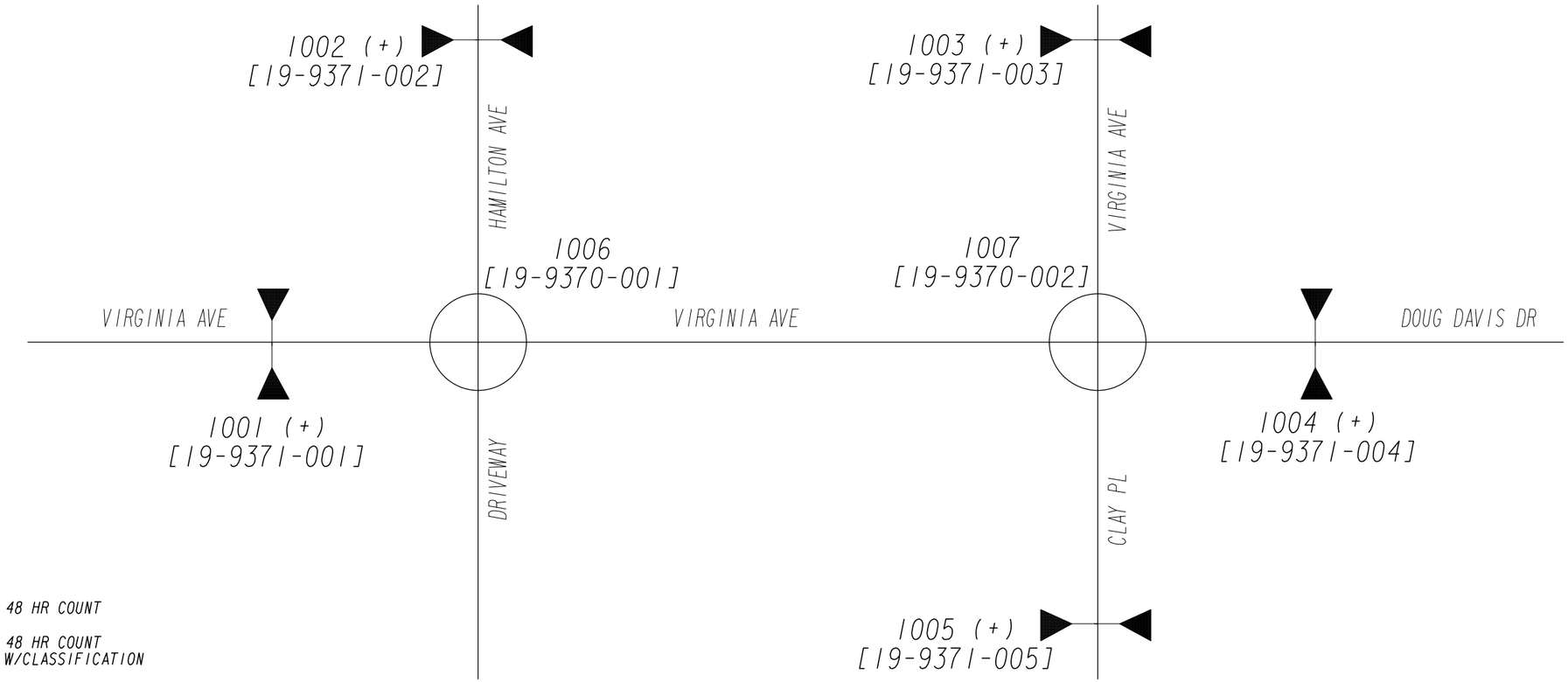
1. The Virginia Avenue and Clay Place intersection is currently operating at an acceptable level of service. Looking to the future, if the existing layout of the intersection is maintained it may still operate at an acceptable level if it is possible to update the signal timings.

2. This analysis found that this intersection could operate more efficiently as a single lane roundabout than as a signalized intersection. In analyzed years and in both the Noon and PM Peaks, the roundabout would operate at a LOS of A overall, with only one approach dropping to a B in select scenarios. It is therefore the conclusion of this report that a roundabout is feasible in terms of traffic operations.

APPENDIX A – TRAFFIC COUNTS

9/5/2019 9:32:29 AM Jekstedt	GPLOT-V8 gplotborder-V81-P0.tbl	171007021_count_map.dgn	STATE GA	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS

FULTON COUNTY



= 48 HR COUNT

(+) = 48 HR COUNT W/CLASSIFICATION

= PEAK TURNING MOVEMENT
7:00AM - 10:00AM
15:30 - 18:30 PM

[XXX] = COUNT NUMBER PROVIDED BY VENDOR

PI 171007021
FULTON COUNTY

VIRGINIA AVE FROM
HAMILTON AVE
TO DOUG DAVIS DRIVE/CLAY PL

JE
06/2019

LOCATION MAP

2019 EXISTING DHV
(PM) AM

JE
06/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0001

ADT

Count #	Vendor Count #	Class*	Description**
1001	19-9371-001	+	Virginia Ave, West of Hamilton Ave
1002	19-9371-002	+	Hamilton Ave, North of Virginia Ave
1003	19-9371-003	+	Virginia Ave, North of Doug Davis Dr
1004	19-9371-004	+	Doug Davis Dr, East of Virginia Ave/Clay Pl
1005	19-9371-005	+	Clay Pl, South of Doug Davis Dr

TMCs

Count #	Vendor Count #	Class*	Description**
1006	19-9370-001	+	Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave
1007	19-9370-002	+	Hamilton Ave & Virginia Ave

* "+" indicates ADT classification counts or TMCs with bicycle and pedestrian counts.

** All two way or bi-directional unless otherwise stated.

Prepared by National Data & Surveying Services

Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave

Peak Hour Turning Movement Count

ID: 19-09370-001
City: Hapeville

Day: Tuesday
Date: 05/14/2019

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	07:00 AM - 10:00 AM
NONE	NONE
04:30 PM - 05:30 PM	03:45 PM - 06:45 PM

SOUTHBOUND — Virginia Ave/Clay Pl

AM	90	4	37	0	134	AM
NOON	0	0	0	0	0	NOON
PM	134	4	33	0	221	PM

EASTBOUND — Doug Davis Dr/Virginia Ave

AM	NOON	PM	
235	0	521	
0	0	2	0
106	0	119	0
237	0	197	2
28	0	22	0
AM	NOON	PM	

WESTBOUND — Doug Davis Dr/Virginia Ave

PM	NOON	AM	
84	0	27	0
356	0	143	2
18	0	5	0
0	0	0	0
272	0	277	
PM	NOON	AM	

NORTHBOUND — Virginia Ave/Clay Pl

PM	44	0	29	18	42	PM
NOON	0	0	0	0	0	NOON
AM	37	0	2	1	3	AM

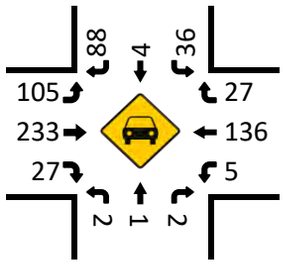
0	1	0	0	
0	0	0	0	

CONTROL

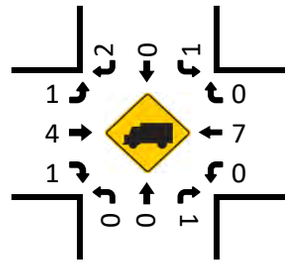
1-Way Stop (SB)

TEV	683 AM	0 NOON	1058 PM
PHF	0.95		0.90

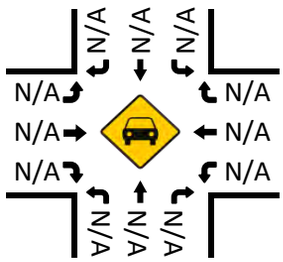
Cars (AM)



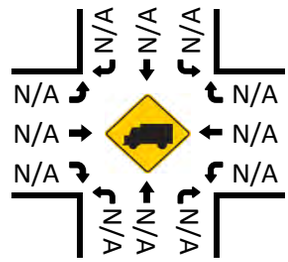
HT (AM)



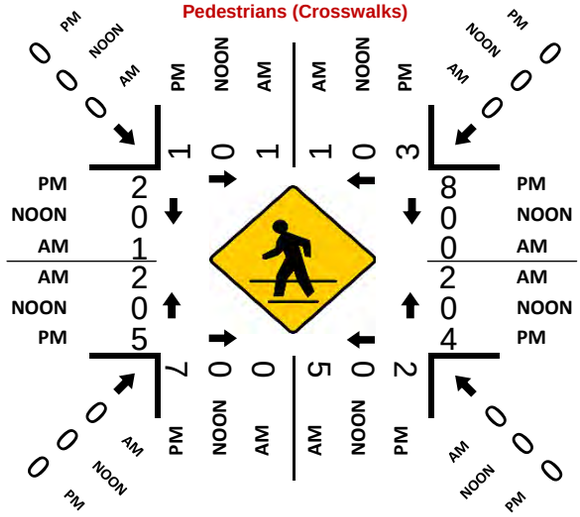
Cars (NOON)



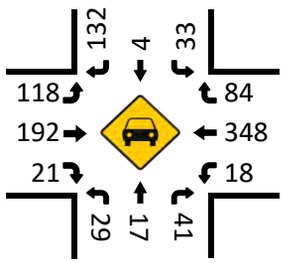
HT (NOON)



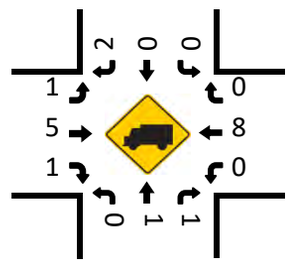
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave
City: Hapeville
Control: 1-Way Stop (SB)

Project ID: 19-09370-001
Date: 5/14/2019

Total

NS/EW Streets:	Virginia Ave/Clay Pl				Virginia Ave/Clay Pl				Doug Davis Dr/Virginia Ave				Doug Davis Dr/Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	0	0	0	7	1	13	0	14	54	0	0	1	29	10	0	130
7:15 AM	0	0	0	0	12	0	20	0	12	60	1	0	0	29	3	0	137
7:30 AM	0	0	0	0	8	0	26	0	13	60	1	0	1	29	5	0	143
7:45 AM	0	0	0	0	19	2	20	0	20	56	2	0	1	44	7	0	171
8:00 AM	1	0	1	0	2	2	24	0	33	54	4	0	1	30	4	0	156
8:15 AM	0	0	2	0	6	0	17	0	38	58	12	0	1	32	11	0	177
8:30 AM	1	1	0	0	10	0	29	0	15	69	10	0	2	37	5	0	179
8:45 AM	0	1	1	0	22	2	28	1	16	58	4	0	4	26	8	0	171
9:00 AM	0	1	2	0	16	3	22	0	19	43	2	0	1	24	5	0	138
9:15 AM	0	0	2	0	10	0	17	0	21	35	1	0	2	30	9	0	127
9:30 AM	3	1	2	0	18	0	20	0	14	44	3	0	0	26	2	0	133
9:45 AM	0	0	0	0	10	2	18	0	23	45	1	0	0	30	4	0	133
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	4	10	0	140	12	254	1	238	636	41	0	14	366	73	0	1795
APPROACH %'s :	30.00%	20.00%	50.00%	0.00%	34.40%	2.95%	62.41%	0.25%	26.01%	69.51%	4.48%	0.00%	3.09%	80.79%	16.11%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	2	1	3	0	37	4	90	0	106	237	28	0	5	143	27	0	683
PEAK HR FACTOR :	0.500	0.250	0.375	0.000	0.487	0.500	0.776	0.000	0.697	0.859	0.583	0.000	0.625	0.813	0.614	0.000	0.954
	0.750				0.799				0.859				0.841				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	3	0	3	0	5	2	39	0	29	42	0	0	4	65	15	0	207
4:00 PM	6	3	4	0	5	2	30	0	21	51	8	0	4	63	19	0	216
4:15 PM	2	2	5	0	8	3	32	0	30	44	4	0	1	77	18	0	226
4:30 PM	6	8	8	0	5	1	27	0	33	64	8	0	4	79	18	0	261
4:45 PM	3	3	6	0	4	0	31	0	27	37	4	1	0	87	13	0	216
5:00 PM	8	2	12	0	17	1	39	0	26	45	4	0	6	98	29	0	287
5:15 PM	12	5	16	0	7	2	37	0	33	51	6	1	8	92	24	0	294
5:30 PM	6	2	4	0	3	1	48	0	35	50	2	0	4	85	20	0	260
5:45 PM	6	2	2	0	6	3	32	0	35	49	7	0	2	51	15	0	210
6:00 PM	2	4	4	0	6	1	32	0	30	42	5	0	2	57	10	0	195
6:15 PM	7	2	3	0	6	4	33	0	30	43	4	0	3	65	12	0	212
6:30 PM	4	4	9	0	2	3	39	0	26	44	4	0	2	48	12	0	197
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	65	37	76	0	74	23	419	0	355	562	56	2	40	867	205	0	2781
APPROACH %'s :	36.52%	20.79%	42.70%	0.00%	14.34%	4.46%	81.20%	0.00%	36.41%	57.64%	5.74%	0.21%	3.60%	77.97%	18.44%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	29	18	42	0	33	4	134	0	119	197	22	2	18	356	84	0	1058
PEAK HR FACTOR :	0.604	0.563	0.656	0.000	0.485	0.500	0.859	0.000	0.902	0.770	0.688	0.500	0.563	0.908	0.724	0.000	0.900
	0.674				0.750				0.810				0.861				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave
City: Hapeville
Control: 1-Way Stop (SB)

Project ID: 19-09370-001
Date: 5/14/2019

Cars

NS/EW Streets:	Virginia Ave/Clay Pl				Virginia Ave/Clay Pl				Doug Davis Dr/Virginia Ave				Doug Davis Dr/Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	0	0	0	7	1	12	0	14	54	0	0	1	28	10	0	128
7:15 AM	0	0	0	0	12	0	20	0	12	57	1	0	0	28	3	0	133
7:30 AM	0	0	0	0	8	0	26	0	13	56	1	0	1	27	5	0	137
7:45 AM	0	0	0	0	18	2	20	0	19	56	2	0	1	43	7	0	168
8:00 AM	1	0	0	0	2	2	23	0	33	54	4	0	1	29	4	0	153
8:15 AM	0	0	2	0	6	0	16	0	38	56	12	0	1	28	11	0	170
8:30 AM	1	1	0	0	10	0	29	0	15	67	9	0	2	36	5	0	175
8:45 AM	0	1	1	0	22	2	26	1	16	58	4	0	4	24	6	0	165
9:00 AM	0	1	2	0	16	3	22	0	17	42	2	0	1	20	4	0	130
9:15 AM	0	0	2	0	10	0	17	0	20	35	1	0	2	28	9	0	124
9:30 AM	2	1	2	0	18	0	19	0	13	43	3	0	0	25	2	0	128
9:45 AM	0	0	0	0	10	1	17	0	22	41	1	0	0	27	3	0	122
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	4	9	0	139	11	247	1	232	619	40	0	14	343	69	0	1733
APPROACH %'s :	27.78%	22.22%	50.00%	0.00%	34.92%	2.76%	62.06%	0.25%	26.04%	69.47%	4.49%	0.00%	3.29%	80.52%	16.20%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	2	1	2	0	36	4	88	0	105	233	27	0	5	136	27	0	666
PEAK HR FACTOR :	0.50	0.250	0.250	0.000	0.500	0.500	0.759	0.000	0.691	0.869	0.563	0.000	0.625	0.791	0.614	0.000	0.951
		0.625				0.800				0.861				0.824			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	3	0	3	0	5	2	39	0	27	37	0	0	4	63	15	0	198
4:00 PM	6	3	4	0	5	2	30	0	21	48	7	0	4	62	19	0	211
4:15 PM	2	2	5	0	8	3	32	0	30	42	4	0	1	75	18	0	222
4:30 PM	6	7	7	0	5	1	25	0	33	63	7	0	4	79	18	0	255
4:45 PM	3	3	6	0	4	0	31	0	27	37	4	1	0	85	13	0	214
5:00 PM	8	2	12	0	17	1	39	0	26	42	4	0	6	96	29	0	282
5:15 PM	12	5	16	0	7	2	37	0	32	50	6	1	8	88	24	0	288
5:30 PM	6	2	4	0	3	1	48	0	35	48	2	0	4	81	20	0	254
5:45 PM	6	2	2	0	6	3	32	0	33	48	6	0	2	50	15	0	205
6:00 PM	2	4	4	0	6	1	32	0	29	39	5	0	2	55	10	0	189
6:15 PM	6	2	3	0	6	4	31	0	30	41	4	0	3	63	12	0	205
6:30 PM	4	4	9	0	2	3	38	0	26	42	4	0	2	47	12	0	193
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	64	36	75	0	74	23	414	0	349	537	53	2	40	844	205	0	2716
APPROACH %'s :	36.57%	20.57%	42.86%	0.00%	14.48%	4.50%	81.02%	0.00%	37.09%	57.07%	5.63%	0.21%	3.67%	77.50%	18.82%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	29	17	41	0	33	4	132	0	118	192	21	2	18	348	84	0	1039
PEAK HR FACTOR :	0.60	0.607	0.641	0.000	0.485	0.500	0.846	0.000	0.894	0.762	0.750	0.500	0.563	0.906	0.724	0.000	0.902
		0.659				0.741				0.808				0.859			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave
City: Hapeville
Control: 1-Way Stop (SB)

Project ID: 19-09370-001
Date: 5/14/2019

HT

NS/EW Streets:	Virginia Ave/Clay Pl				Virginia Ave/Clay Pl				Doug Davis Dr/Virginia Ave				Doug Davis Dr/Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
7:45 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	3
8:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	3
8:15 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	4	0	0	7
8:30 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	0	4
8:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	2	2	0	6
9:00 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	4	1	0	8
9:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	3
9:30 AM	1	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	5
9:45 AM	0	0	0	0	0	1	1	0	1	4	0	0	0	3	1	0	11
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	1	0	1	1	7	0	6	17	1	0	0	23	4	0	62
APPROACH %'s :	50.00%	0.00%	50.00%	0.00%	11.11%	11.11%	77.78%	0.00%	25.00%	70.83%	4.17%	0.00%	0.00%	85.19%	14.81%	0.00%	
PEAK HR :	**07:45 AM - 08:45 AM**																TOTAL
PEAK HR VOL :	0	0	1	0	1	0	2	0	1	4	1	0	0	7	0	0	17
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.250	0.500	0.250	0.000	0.000	0.438	0.000	0.000	0.607
	0.250				0.750				0.500				0.438				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	0	0	0	0	0	0	0	0	2	5	0	0	0	2	0	0	9
4:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	0	5
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
4:30 PM	0	1	1	0	0	0	2	0	0	1	1	0	0	0	0	0	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	4	0	0	6
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	2	1	1	0	0	1	0	0	5
6:00 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	2	0	0	6
6:15 PM	1	0	0	0	0	0	2	0	0	2	0	0	0	2	0	0	7
6:30 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	1	0	0	0	5	0	6	25	3	0	0	23	0	0	65
APPROACH %'s :	33.33%	33.33%	33.33%	0.00%	0.00%	0.00%	100.00%	0.00%	17.65%	73.53%	8.82%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	0	1	1	0	0	0	2	0	1	5	1	0	0	8	0	0	19
PEAK HR FACTOR :	0.00	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.417	0.250	0.000	0.000	0.500	0.000	0.000	0.792
	0.250				0.250				0.583				0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave
City: Hapeville
Control: 1-Way Stop (SB)

Project ID: 19-09370-001
Date: 5/14/2019

Bikes

NS/EW Streets:	Virginia Ave/Clay Pl				Virginia Ave/Clay Pl				Doug Davis Dr/Virginia Ave				Doug Davis Dr/Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	2	0	1	1	0	0	0	1	0	0	5
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
APPROACH %'s :													0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave
City: Hapeville
Project ID: 19-09370-001
Date: 5/14/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Virginia Ave/Clay Pl		Virginia Ave/Clay Pl		Doug Davis Dr/Virginia Ave		Doug Davis Dr/Virginia Ave				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	1	1	2	0	0	0	0	1	2	0	7
7:15 AM	0	0	1	1	0	1	0	0	0	0	3
7:30 AM	0	0	1	1	1	0	0	0	1	1	5
7:45 AM	0	1	0	0	0	0	1	0	0	0	2
8:00 AM	1	0	0	3	1	0	1	1	0	4	11
8:15 AM	0	0	0	1	0	0	0	0	0	1	2
8:30 AM	0	0	0	1	1	0	0	0	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	1	0	1	0	0	0	0	0	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	1	1	1	1	2	2	0	1	9
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	2	2	6	8	5	2	4	4	3	8	44
APPROACH %'s :	50.00%	50.00%	42.86%	57.14%	71.43%	28.57%	50.00%	50.00%	27.27%	72.73%	
PEAK HR :	07:45 AM - 08:45 AM										TOTAL
PEAK HR VOL :	1	1	0	5	2	0	2	1	0	6	18
PEAK HR FACTOR :	0.250	0.250		0.417	0.500		0.500	0.250		0.375	0.409
	0.500		0.417		0.500		0.375		0.375		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
3:45 PM	0	0	4	3	1	0	3	2	3	3	19
4:00 PM	0	1	0	2	0	2	0	1	0	1	7
4:15 PM	0	2	0	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	1	1	6	0	0	6	1	16
4:45 PM	0	0	4	0	0	1	0	2	4	0	11
5:00 PM	0	1	2	1	2	0	4	0	1	3	14
5:15 PM	1	1	1	0	1	1	1	0	1	0	7
5:30 PM	1	1	5	2	2	0	4	6	2	2	25
5:45 PM	3	8	0	3	1	2	6	2	1	2	28
6:00 PM	1	4	6	3	2	0	0	2	4	4	26
6:15 PM	1	7	1	0	0	0	0	0	1	0	10
6:30 PM	0	3	3	0	2	0	0	1	1	0	10
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	7	29	26	15	12	12	18	16	24	16	175
APPROACH %'s :	19.44%	80.56%	63.41%	36.59%	50.00%	50.00%	52.94%	47.06%	60.00%	40.00%	
PEAK HR :	04:30 PM - 05:30 PM										TOTAL
PEAK HR VOL :	1	3	7	2	4	8	5	2	12	4	48
PEAK HR FACTOR :	0.250	0.750	0.438	0.500	0.500	0.333	0.313	0.250	0.500	0.333	0.750
	0.500		0.563		0.429		0.438		0.571		

Prepared by National Data & Surveying Services

Hamilton Ave & Virginia Ave

Peak Hour Turning Movement Count

ID: 19-09370-002
City: Hapeville

Day: Tuesday
Date: 05/14/2019

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	07:00 AM - 10:00 AM
NONE	NONE
04:45 PM - 05:45 PM	03:45 PM - 06:45 PM

Hamilton Ave — SOUTHBOUND

AM	3	0	6	0	4	AM
NOON	0	0	0	0	0	NOON
PM	8	0	3	0	6	PM

Virginia Ave — EASTBOUND

AM	NOON	PM	
233	0	552	
0	0	0	0
2	0	2	1
365	0	323	2
0	0	24	0
AM	NOON	PM	

Virginia Ave — WESTBOUND

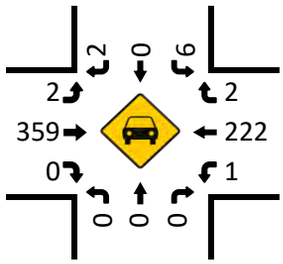
PM	NOON	AM	
4	0	2	1
537	0	230	1
4	0	1	1
0	0	0	0
328	0	371	
PM	NOON	AM	

Hamilton Ave — NORTHBOUND

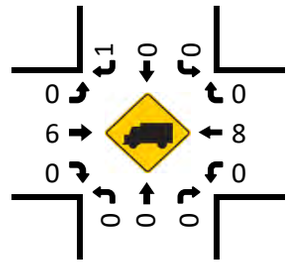
PM	28	0	7	0	2	PM
NOON	0	0	0	0	0	NOON
AM	1	0	0	0	0	AM

CONTROL			
Signalized			
TEV	609 AM	0 NOON	914 PM
PHF	0.92		0.94

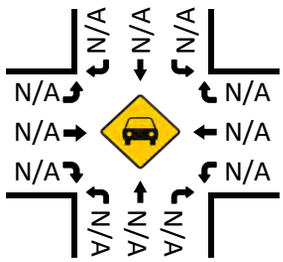
Cars (AM)



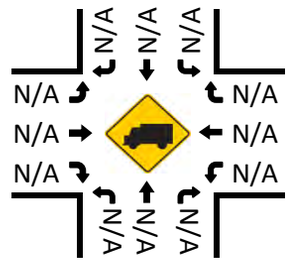
HT (AM)



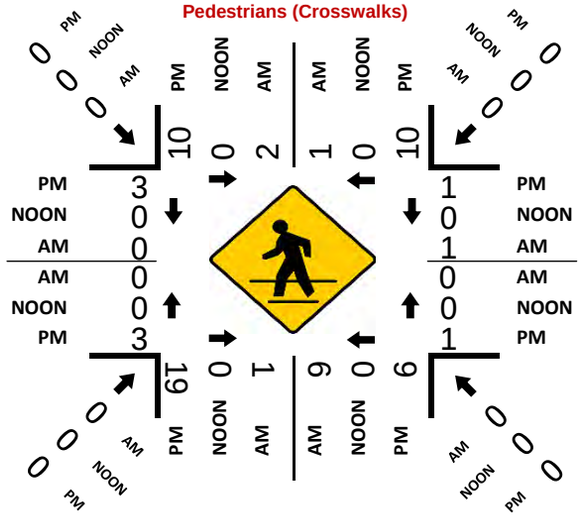
Cars (NOON)



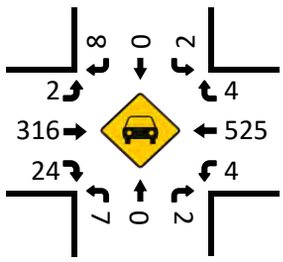
HT (NOON)



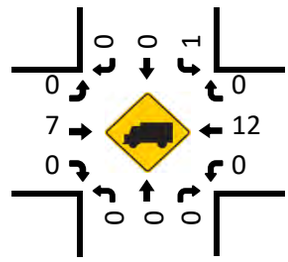
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Hamilton Ave & Virginia Ave
City: Hapeville
Control: Signalized

Project ID: 19-09370-002
Date: 5/14/2019

Total

NS/EW Streets:	Hamilton Ave				Hamilton Ave				Virginia Ave				Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	1	0	0	0	1	67	0	0	0	46	0	0	115
7:15 AM	0	0	0	0	3	0	0	0	0	70	0	0	1	45	0	0	119
7:30 AM	0	0	0	0	0	0	1	0	0	74	0	0	0	57	0	0	132
7:45 AM	0	0	0	0	1	0	0	0	1	81	0	0	0	60	2	0	145
8:00 AM	0	0	0	0	2	0	0	0	0	85	0	0	0	51	0	0	138
8:15 AM	0	0	0	0	2	0	2	0	1	103	0	0	1	52	0	0	161
8:30 AM	0	0	0	0	1	0	1	0	0	96	0	0	0	67	0	0	165
8:45 AM	0	0	0	0	1	0	0	0	1	77	0	0	0	52	1	0	132
9:00 AM	0	0	0	0	0	1	0	0	0	59	0	0	1	46	0	0	107
9:15 AM	1	0	0	0	0	0	0	0	0	62	2	0	0	46	1	0	112
9:30 AM	1	0	0	0	2	0	2	0	1	61	0	1	0	49	1	0	118
9:45 AM	0	0	0	0	0	0	0	0	1	65	1	0	1	46	0	0	114
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	0	0	13	1	6	0	6	900	3	1	4	617	5	0	1558
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	65.00%	5.00%	30.00%	0.00%	0.66%	98.90%	0.33%	0.11%	0.64%	98.56%	0.80%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	6	0	3	0	2	365	0	0	1	230	2	0	609
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.750	0.000	0.375	0.000	0.500	0.886	0.000	0.000	0.250	0.858	0.250	0.000	0.923
					0.563				0.882				0.869				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	1	0	0	0	1	0	2	0	0	71	3	0	1	108	1	0	188
4:00 PM	4	0	0	0	0	0	0	0	1	78	7	0	1	95	0	0	186
4:15 PM	5	0	2	0	1	0	1	0	1	83	3	0	1	108	2	0	207
4:30 PM	3	0	1	0	0	0	0	0	2	91	6	0	2	110	0	0	215
4:45 PM	0	0	0	0	0	0	5	0	0	74	4	0	1	120	1	0	205
5:00 PM	2	0	0	0	1	0	3	0	0	70	8	0	0	145	1	0	230
5:15 PM	2	0	0	0	1	0	0	0	1	95	4	0	0	139	2	0	244
5:30 PM	3	0	2	0	1	0	0	0	1	84	8	0	3	133	0	0	235
5:45 PM	4	0	0	0	1	0	1	0	0	89	3	0	1	90	1	0	190
6:00 PM	1	0	1	0	2	0	0	0	1	76	4	0	1	90	4	0	180
6:15 PM	4	1	1	0	0	0	3	0	1	77	5	0	0	100	1	0	193
6:30 PM	0	0	1	0	2	0	2	0	4	67	7	0	1	85	3	0	172
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	29	1	8	0	10	0	17	0	12	955	62	0	12	1323	16	0	2445
APPROACH %'s :	76.32%	2.63%	21.05%	0.00%	37.04%	0.00%	62.96%	0.00%	1.17%	92.81%	6.03%	0.00%	0.89%	97.93%	1.18%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	7	0	2	0	3	0	8	0	2	323	24	0	4	537	4	0	914
PEAK HR FACTOR :	0.583	0.000	0.250	0.000	0.750	0.000	0.400	0.000	0.500	0.850	0.750	0.000	0.333	0.926	0.500	0.000	0.936
			0.450				0.550				0.873				0.933		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hamilton Ave & Virginia Ave
City: Hapeville
Control: Signalized

Project ID: 19-09370-002
Date: 5/14/2019

Cars

NS/EW Streets:	Hamilton Ave				Hamilton Ave				Virginia Ave				Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	1	0	0	0	1	67	0	0	0	43	0	0	112
7:15 AM	0	0	0	0	2	0	0	0	0	68	0	0	1	45	0	0	116
7:30 AM	0	0	0	0	0	0	1	0	0	70	0	0	0	54	0	0	125
7:45 AM	0	0	0	0	1	0	0	0	1	80	0	0	0	60	2	0	144
8:00 AM	0	0	0	0	2	0	0	0	0	85	0	0	0	49	0	0	136
8:15 AM	0	0	0	0	2	0	1	0	1	101	0	0	1	47	0	0	153
8:30 AM	0	0	0	0	1	0	1	0	0	93	0	0	0	66	0	0	161
8:45 AM	0	0	0	0	1	0	0	0	1	77	0	0	0	48	1	0	128
9:00 AM	0	0	0	0	0	1	0	0	0	56	0	0	1	42	0	0	100
9:15 AM	1	0	0	0	0	0	0	0	0	61	2	0	0	44	1	0	109
9:30 AM	1	0	0	0	2	0	2	0	1	59	0	1	0	46	1	0	113
9:45 AM	0	0	0	0	0	0	0	0	1	60	1	0	1	42	0	0	105
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	0	0	12	1	5	0	6	877	3	1	4	586	5	0	1502
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	66.67%	5.56%	27.78%	0.00%	0.68%	98.87%	0.34%	0.11%	0.67%	98.49%	0.84%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	6	0	2	0	2	359	0	0	1	222	2	0	594
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.750	0.000	0.500	0.000	0.500	0.889	0.000	0.000	0.250	0.841	0.250	0.000	0.922
					0.667				0.885				0.852				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	1	0	0	0	0	0	2	0	0	64	3	0	1	106	1	0	178
4:00 PM	4	0	0	0	0	0	0	0	1	76	7	0	1	94	0	0	183
4:15 PM	5	0	2	0	1	0	1	0	1	80	3	0	1	106	2	0	202
4:30 PM	3	0	1	0	0	0	0	0	2	90	6	0	2	108	0	0	212
4:45 PM	0	0	0	0	0	0	5	0	0	74	4	0	1	118	1	0	203
5:00 PM	2	0	0	0	0	0	3	0	0	68	8	0	0	143	1	0	225
5:15 PM	2	0	0	0	1	0	0	0	1	92	4	0	0	135	2	0	237
5:30 PM	3	0	2	0	1	0	0	0	1	82	8	0	3	129	0	0	229
5:45 PM	4	0	0	0	1	0	1	0	0	83	3	0	1	89	1	0	183
6:00 PM	1	0	1	0	2	0	0	0	1	73	4	0	1	88	4	0	175
6:15 PM	4	1	1	0	0	0	3	0	1	76	5	0	0	95	1	0	187
6:30 PM	0	0	1	0	2	0	2	0	4	65	7	0	1	83	3	0	168
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	29	1	8	0	8	0	17	0	12	923	62	0	12	1294	16	0	2382
APPROACH %'s :	76.32%	2.63%	21.05%	0.00%	32.00%	0.00%	68.00%	0.00%	1.20%	92.58%	6.22%	0.00%	0.91%	97.88%	1.21%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	7	0	2	0	2	0	8	0	2	316	24	0	4	525	4	0	894
PEAK HR FACTOR :	0.58	0.000	0.250	0.000	0.500	0.000	0.400	0.000	0.500	0.859	0.750	0.000	0.333	0.918	0.500	0.000	0.943
			0.450				0.500				0.881				0.925		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hamilton Ave & Virginia Ave
City: Hapeville
Control: Signalized

Project ID: 19-09370-002
Date: 5/14/2019

HT

NS/EW Streets:	Hamilton Ave				Hamilton Ave				Virginia Ave				Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
7:15 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0	7
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	5	0	0	8
8:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
9:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
9:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	1	0	0	23	0	0	0	31	0	0	56
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	6	0	0	0	8	0	0	15
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.400	0.000	0.000	0.469
					0.250				0.500				0.400				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	0	0	0	0	1	0	0	0	0	7	0	0	0	2	0	0	10
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:00 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	2	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
6:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
6:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	0	6
6:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	0	0	0	32	0	0	0	29	0	0	63
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	7	0	0	0	12	0	0	20
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.583	0.000	0.000	0.000	0.750	0.000	0.000	0.714
					0.250				0.583				0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hamilton Ave & Virginia Ave
City: Hapeville
Control: Signalized

Project ID: 19-09370-002
Date: 5/14/2019

Bikes

NS/EW Streets:	Hamilton Ave				Hamilton Ave				Virginia Ave				Virginia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
										0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hamilton Ave & Virginia Ave
City: Hapeville
Project ID: 19-09370-002
Date: 5/14/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Hamilton Ave		Hamilton Ave		Virginia Ave		Virginia Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	0	1	1	0	0	1	0	5
7:15 AM	0	0	1	2	0	1	0	0	4
7:30 AM	1	0	1	1	0	0	0	0	3
7:45 AM	0	1	1	1	0	0	0	0	3
8:00 AM	1	0	0	3	0	1	0	0	5
8:15 AM	1	0	0	1	0	0	0	0	2
8:30 AM	0	0	0	1	0	0	0	0	1
8:45 AM	0	3	0	0	0	0	0	0	3
9:00 AM	0	1	0	0	0	0	0	0	1
9:15 AM	0	0	1	0	0	0	0	0	1
9:30 AM	3	0	1	2	0	1	0	0	7
9:45 AM	0	0	0	0	0	0	1	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	8	5	6	12	0	3	2	0	36
APPROACH %'s :	61.54%	38.46%	33.33%	66.67%	0.00%	100.00%	100.00%	0.00%	
PEAK HR :	**07:45 AM - 08:45 AM**								TOTAL
PEAK HR VOL :	2	1	1	6	0	1	0	0	11
PEAK HR FACTOR :	0.500	0.250	0.250	0.500		0.250			0.550
	0.750		0.583		0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:45 PM	2	4	3	1	0	0	0	1	11
4:00 PM	8	4	0	4	5	3	0	0	24
4:15 PM	1	2	0	3	1	0	0	0	7
4:30 PM	0	2	0	2	0	1	1	0	6
4:45 PM	0	0	5	1	0	0	0	3	9
5:00 PM	6	3	4	1	0	1	3	0	18
5:15 PM	2	4	3	6	1	0	0	0	16
5:30 PM	2	3	7	1	0	0	0	0	13
5:45 PM	5	9	7	5	0	0	1	0	27
6:00 PM	4	7	5	3	1	0	0	0	20
6:15 PM	1	10	2	1	0	0	0	0	14
6:30 PM	2	4	2	1	2	2	0	0	13
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	33	52	38	29	10	7	5	4	178
APPROACH %'s :	38.82%	61.18%	56.72%	43.28%	58.82%	41.18%	55.56%	44.44%	
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	10	10	19	9	1	1	3	3	56
PEAK HR FACTOR :	0.417	0.625	0.679	0.375	0.250	0.250	0.250	0.250	0.778
	0.556		0.778		0.500		0.500		

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	114	11	1	6	0	0	0	0	0	0	0	0	**132**
01:00	0	76	8	0	0	0	0	0	0	0	0	0	0	**84**
02:00	0	58	7	0	0	0	0	0	0	0	0	0	0	**65**
03:00	0	36	6	0	3	0	0	0	1	0	0	0	0	**46**
04:00	1	95	16	2	3	0	0	0	1	0	0	0	0	**118**
05:00	0	216	35	1	7	0	0	0	1	0	0	0	0	**260**
06:00	0	273	47	2	11	0	0	0	1	0	0	0	0	**334**
07:00	0	417	50	2	11	0	0	0	0	0	0	0	0	**480**
08:00	1	486	59	3	13	1	0	1	0	0	0	0	0	**564**
09:00	1	354	51	3	19	1	0	1	0	0	0	0	0	**430**
10:00	0	330	57	3	22	0	0	0	0	0	0	0	0	**412**
11:00	1	629	98	6	29	4	0	1	1	0	0	0	0	**769**
12:00 PM	3	816	128	2	36	0	0	1	0	0	0	0	0	**986**
13:00	0	697	120	6	31	0	0	1	0	0	0	0	0	**855**
14:00	1	604	94	8	20	1	0	0	0	0	0	0	0	**728**
15:00	0	625	91	5	23	1	0	0	0	0	0	0	0	**745**
16:00	0	667	105	2	11	1	0	0	0	0	0	0	0	**786**
17:00	1	751	105	5	18	0	0	1	0	0	0	0	0	**881**
18:00	0	543	83	5	15	0	0	0	0	0	0	0	0	**646**
19:00	0	473	63	2	15	0	0	0	1	0	0	0	0	**554**
20:00	0	362	50	1	12	0	0	0	0	0	0	0	0	**425**
21:00	0	290	39	1	8	1	0	0	0	0	0	0	0	**339**
22:00	0	235	28	0	4	0	0	0	0	0	0	0	0	**267**
23:00	0	208	29	0	10	1	0	0	0	0	0	0	0	**248**
Totals	**9**	**9355**	**1380**	**60**	**327**	**11**		**6**	**6**					**11154**
% of Totals	0%	84%	12%	1%	3%	0%		0%	0%					100%

AM Volumes	4	3084	445	23	124	6	0	3	5	0	0	0	0	3694
% AM	0%	28%	4%	0%	1%	0%		0%	0%					33%
AM Peak Hour	04:00	11:00	11:00	11:00	11:00	11:00		08:00	03:00					11:00
Volume	1	629	98	6	29	4		1	1					769
PM Volumes	5	6271	935	37	203	5	0	3	1	0	0	0	0	7460
% PM	0%	56%	8%	0%	2%	0%		0%	0%					67%
PM Peak Hour	12:00	12:00	12:00	14:00	12:00	14:00		12:00	19:00					12:00
Volume	3	816	128	8	36	1		1	1					986

Directional Peak Periods	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	1044 ⟷	9%	1841 ⟷	17%	1667 ⟷	15%	6602 ⟷	59%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Virginia Ave W/O Hamilton Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,550	5,604	11,154

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	12		27		39		12:00	0	0	131		104		235	
00:15	0	0	13		16		29		12:15	0	0	136		127		263	
00:30	0	0	21		16		37		12:30	0	0	109		99		208	
00:45	0	0	13	59	14	73	27	132	12:45	0	0	143	519	137	467	280	986
01:00	0	0	8		14		22		13:00	0	0	126		116		242	
01:15	0	0	9		8		17		13:15	0	0	135		106		241	
01:30	0	0	15		11		26		13:30	0	0	101		87		188	
01:45	0	0	7	39	12	45	19	84	13:45	0	0	89	451	95	404	184	855
02:00	0	0	10		10		20		14:00	0	0	91		80		171	
02:15	0	0	11		11		22		14:15	0	0	91		102		193	
02:30	0	0	5		8		13		14:30	0	0	96		84		180	
02:45	0	0	6	32	4	33	10	65	14:45	0	0	92	370	92	358	184	728
03:00	0	0	4		7		11		15:00	0	0	88		97		185	
03:15	0	0	1		10		11		15:15	0	0	106		83		189	
03:30	0	0	5		5		10		15:30	0	0	83		98		181	
03:45	0	0	6	16	8	30	14	46	15:45	0	0	80	357	110	388	190	745
04:00	0	0	9		7		16		16:00	0	0	88		90		178	
04:15	0	0	13		19		32		16:15	0	0	86		107		193	
04:30	0	0	14		11		25		16:30	0	0	106		110		216	
04:45	0	0	21	57	24	61	45	118	16:45	0	0	81	361	118	425	199	786
05:00	0	0	27		19		46		17:00	0	0	86		153		239	
05:15	0	0	36		34		70		17:15	0	0	95		136		231	
05:30	0	0	39		26		65		17:30	0	0	88		139		227	
05:45	0	0	40	142	39	118	79	260	17:45	0	0	92	361	92	520	184	881
06:00	0	0	34		41		75		18:00	0	0	75		91		166	
06:15	0	0	34		42		76		18:15	0	0	64		109		173	
06:30	0	0	48		38		86		18:30	0	0	80		79		159	
06:45	0	0	49	165	48	169	97	334	18:45	0	0	54	273	94	373	148	646
07:00	0	0	67		43		110		19:00	0	0	86		84		170	
07:15	0	0	70		41		111		19:15	0	0	64		80		144	
07:30	0	0	66		56		122		19:30	0	0	58		69		127	
07:45	0	0	78	281	59	199	137	480	19:45	0	0	49	257	64	297	113	554
08:00	0	0	76		49		125		20:00	0	0	53		65		118	
08:15	0	0	104		52		156		20:15	0	0	37		45		82	
08:30	0	0	94		64		158		20:30	0	0	65		62		127	
08:45	0	0	74	348	51	216	125	564	20:45	0	0	47	202	51	223	98	425
09:00	0	0	59		49		108		21:00	0	0	51		47		98	
09:15	0	0	60		42		102		21:15	0	0	31		52		83	
09:30	0	0	60		49		109		21:30	0	0	42		48		90	
09:45	0	0	64	243	47	187	111	430	21:45	0	0	31	155	37	184	68	339
10:00	0	0	59		54		113		22:00	0	0	29		38		67	
10:15	0	0	64		44		108		22:15	0	0	29		39		68	
10:30	0	0	37		39		76		22:30	0	0	24		33		57	
10:45	0	0	67	227	48	185	115	412	22:45	0	0	38	120	37	147	75	267
11:00	0	0	85		83		168		23:00	0	0	29		49		78	
11:15	0	0	89		90		179		23:15	0	0	34		36		70	
11:30	0	0	102		88		190		23:30	0	0	33		34		67	
11:45	0	0	127	403	105	366	232	769	23:45	0	0	16	112	17	136	33	248
TOTALS				2012		1682		3694	TOTALS				3538		3922		7460
SPLIT %				54.5%		45.5%		33.1%	SPLIT %				47.4%		52.6%		66.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,550	5,604	11,154

AM Peak Hour				11:45		11:45		11:45	PM Peak Hour				12:00		16:45		12:15
AM Pk Volume				503		435		938	PM Pk Volume				519		546		993
Pk Hr Factor				0.925		0.856		0.892	Pk Hr Factor				0.907		0.892		0.887
7 - 9 Volume	0	0		629		415		1044	4 - 6 Volume	0	0		722		945		1667
7 - 9 Peak Hour				07:45		07:45		07:45	4 - 6 Peak Hour				16:30		16:45		16:45
7 - 9 Pk Volume	0	0		352		224		576	4 - 6 Pk Volume	0	0		368		546		896
Pk Hr Factor	0.000	0.000		0.846		0.875		0.911	Pk Hr Factor	0.000	0.000		0.868		0.892		0.937

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	33	4	0	2	0	0	0	0	0	0	0	0	39
00:15	0	27	2	0	0	0	0	0	0	0	0	0	0	29
00:30	0	32	3	0	2	0	0	0	0	0	0	0	0	37
00:45	0	22	2	1	2	0	0	0	0	0	0	0	0	27
01:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22
01:15	0	15	2	0	0	0	0	0	0	0	0	0	0	17
01:30	0	25	1	0	0	0	0	0	0	0	0	0	0	26
01:45	0	17	2	0	0	0	0	0	0	0	0	0	0	19
02:00	0	18	2	0	0	0	0	0	0	0	0	0	0	20
02:15	0	19	3	0	0	0	0	0	0	0	0	0	0	22
02:30	0	12	1	0	0	0	0	0	0	0	0	0	0	13
02:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	7	2	0	1	0	0	0	1	0	0	0	0	11
03:15	0	9	1	0	1	0	0	0	0	0	0	0	0	11
03:30	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:45	0	11	2	0	1	0	0	0	0	0	0	0	0	14
04:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
04:15	0	25	5	0	1	0	0	0	1	0	0	0	0	32
04:30	1	20	2	1	1	0	0	0	0	0	0	0	0	25
04:45	0	37	6	1	1	0	0	0	0	0	0	0	0	45
05:00	0	40	5	0	1	0	0	0	0	0	0	0	0	46
05:15	0	56	11	0	2	0	0	0	1	0	0	0	0	70
05:30	0	54	9	0	2	0	0	0	0	0	0	0	0	65
05:45	0	66	10	1	2	0	0	0	0	0	0	0	0	79
06:00	0	58	13	2	2	0	0	0	0	0	0	0	0	75
06:15	0	60	12	0	3	0	0	0	1	0	0	0	0	76
06:30	0	72	11	0	3	0	0	0	0	0	0	0	0	86
06:45	0	83	11	0	3	0	0	0	0	0	0	0	0	97
07:00	0	97	10	1	2	0	0	0	0	0	0	0	0	110
07:15	0	99	10	0	2	0	0	0	0	0	0	0	0	111
07:30	0	102	13	1	6	0	0	0	0	0	0	0	0	122
07:45	0	119	17	0	1	0	0	0	0	0	0	0	0	137
08:00	0	109	14	0	2	0	0	0	0	0	0	0	0	125

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	1	132	15	0	7	1	0	0	0	0	0	0	0	156
08:30	0	138	16	1	2	0	0	1	0	0	0	0	0	158
08:45	0	107	14	2	2	0	0	0	0	0	0	0	0	125
09:00	0	89	12	1	6	0	0	0	0	0	0	0	0	108
09:15	1	85	13	0	3	0	0	0	0	0	0	0	0	102
09:30	0	90	14	0	4	0	0	1	0	0	0	0	0	109
09:45	0	90	12	2	6	1	0	0	0	0	0	0	0	111
10:00	0	89	14	2	8	0	0	0	0	0	0	0	0	113
10:15	0	89	16	1	2	0	0	0	0	0	0	0	0	108
10:30	0	62	10	0	4	0	0	0	0	0	0	0	0	76
10:45	0	90	17	0	8	0	0	0	0	0	0	0	0	115
11:00	0	134	25	1	7	0	0	0	1	0	0	0	0	168
11:15	0	149	21	0	9	0	0	0	0	0	0	0	0	179
11:30	0	157	21	3	7	2	0	0	0	0	0	0	0	190
11:45	1	189	31	2	6	2	0	1	0	0	0	0	0	232
12:00 PM	1	200	26	0	8	0	0	0	0	0	0	0	0	235
12:15	0	216	36	2	9	0	0	0	0	0	0	0	0	263
12:30	1	168	30	0	8	0	0	1	0	0	0	0	0	208
12:45	1	232	36	0	11	0	0	0	0	0	0	0	0	280
13:00	0	191	39	1	11	0	0	0	0	0	0	0	0	242
13:15	0	198	32	2	9	0	0	0	0	0	0	0	0	241
13:30	0	155	24	2	7	0	0	0	0	0	0	0	0	188
13:45	0	153	25	1	4	0	0	1	0	0	0	0	0	184
14:00	0	144	22	1	4	0	0	0	0	0	0	0	0	171
14:15	0	154	29	4	6	0	0	0	0	0	0	0	0	193
14:30	1	149	23	0	6	1	0	0	0	0	0	0	0	180
14:45	0	157	20	3	4	0	0	0	0	0	0	0	0	184
15:00	0	153	23	1	7	1	0	0	0	0	0	0	0	185
15:15	0	160	25	0	4	0	0	0	0	0	0	0	0	189
15:30	0	153	21	1	6	0	0	0	0	0	0	0	0	181
15:45	0	159	22	3	6	0	0	0	0	0	0	0	0	190
16:00	0	151	23	0	3	1	0	0	0	0	0	0	0	178
16:15	0	158	30	1	4	0	0	0	0	0	0	0	0	193

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	188	25	0	3	0	0	0	0	0	0	0	0	**216**
16:45	0	170	27	1	1	0	0	0	0	0	0	0	0	**199**
17:00	0	208	27	3	1	0	0	0	0	0	0	0	0	**239**
17:15	0	196	28	1	6	0	0	0	0	0	0	0	0	**231**
17:30	0	194	27	1	5	0	0	0	0	0	0	0	0	**227**
17:45	1	153	23	0	6	0	0	1	0	0	0	0	0	**184**
18:00	0	140	21	1	4	0	0	0	0	0	0	0	0	**166**
18:15	0	143	24	1	5	0	0	0	0	0	0	0	0	**173**
18:30	0	136	19	2	2	0	0	0	0	0	0	0	0	**159**
18:45	0	124	19	1	4	0	0	0	0	0	0	0	0	**148**
19:00	0	147	16	1	6	0	0	0	0	0	0	0	0	**170**
19:15	0	123	16	0	4	0	0	0	1	0	0	0	0	**144**
19:30	0	105	16	1	5	0	0	0	0	0	0	0	0	**127**
19:45	0	98	15	0	0	0	0	0	0	0	0	0	0	**113**
20:00	0	104	13	0	1	0	0	0	0	0	0	0	0	**118**
20:15	0	69	8	0	5	0	0	0	0	0	0	0	0	**82**
20:30	0	105	17	1	4	0	0	0	0	0	0	0	0	**127**
20:45	0	84	12	0	2	0	0	0	0	0	0	0	0	**98**
21:00	0	86	11	0	1	0	0	0	0	0	0	0	0	**98**
21:15	0	71	8	1	3	0	0	0	0	0	0	0	0	**83**
21:30	0	78	11	0	0	1	0	0	0	0	0	0	0	**90**
21:45	0	55	9	0	4	0	0	0	0	0	0	0	0	**68**
22:00	0	62	5	0	0	0	0	0	0	0	0	0	0	**67**
22:15	0	60	8	0	0	0	0	0	0	0	0	0	0	**68**
22:30	0	49	7	0	1	0	0	0	0	0	0	0	0	**57**
23:00	0	67	7	0	4	0	0	0	0	0	0	0	0	**78**
23:15	0	58	10	0	2	0	0	0	0	0	0	0	0	**70**
23:30	0	55	8	0	3	1	0	0	0	0	0	0	0	**67**
23:45	0	28	4	0	1	0	0	0	0	0	0	0	0	**33**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	9	9355	1380	60	327	11		6	6					11154
% of Totals	0%	84%	12%	1%	3%	0%		0%	0%					100%
AM Volumes	4	3084	445	23	124	6	0	3	3	0	0	0	0	3694
% AM	0%	28%	4%	0%	1%	0%		0%	0%					33%
AM Peak Hour	11:45	11:45	11:45	11:30	10:45	11:00		11:45	02:15					11:45
Volume	3	773	123	7	31	4		2	1					938
PM Volumes	5	6271	935	37	203	5	0	3	1	0	0	0	0	7460
% PM	0%	56%	8%	0%	2%	0%		0%	0%					67%
PM Peak Hour	12:00	12:00	12:15	13:30	12:15	14:15		12:00	18:30					12:15
Volume	3	816	141	8	39	2		1	1					993

Directional Peak Periods All Classes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
	Volume	%	Volume	%	Volume	%	Volume	%
	1044	9%	1841	17%	1667	15%	6602	59%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	107	14	0	7	0	0	0	0	0	0	0	0	**128**
01:00	0	53	8	0	1	0	0	0	0	0	0	0	0	**62**
02:00	0	39	5	0	1	0	0	0	1	0	0	0	0	**46**
03:00	0	39	6	0	0	1	0	0	0	0	0	0	0	**46**
04:00	0	78	9	3	3	0	0	0	0	0	0	0	0	**93**
05:00	1	205	32	1	13	0	0	0	0	0	0	0	0	**252**
06:00	0	263	46	6	13	2	0	0	0	0	0	0	0	**330**
07:00	0	384	68	4	13	1	0	0	1	0	0	0	0	**471**
08:00	0	464	79	3	20	3	0	0	0	0	0	0	0	**569**
09:00	1	362	79	6	16	0	0	0	2	0	0	0	0	**466**
10:00	0	419	80	2	22	1	0	1	0	0	0	0	0	**525**
11:00	2	588	114	2	31	0	0	1	0	0	0	0	0	**738**
12:00 PM	2	830	156	5	29	0	0	1	1	0	0	0	0	**1024**
13:00	1	713	127	7	34	1	0	2	0	0	0	0	0	**885**
14:00	0	607	120	7	29	2	0	0	0	0	0	0	0	**765**
15:00	0	617	118	3	27	2	0	1	0	0	0	0	0	**768**
16:00	0	658	123	6	28	0	0	0	0	0	0	0	0	**815**
17:00	1	750	129	3	30	0	0	0	0	0	0	0	0	**913**
18:00	2	576	86	8	19	0	0	0	0	0	0	0	0	**691**
19:00	0	434	69	1	11	0	0	0	0	0	0	0	0	**515**
20:00	0	391	72	0	8	0	0	0	0	0	0	0	0	**471**
21:00	1	274	47	2	13	0	0	0	0	0	0	0	0	**337**
22:00	0	234	42	1	11	0	0	0	0	0	0	0	0	**288**
23:00	0	198	33	0	11	0	0	0	0	0	0	0	0	**242**
Totals	**11**	**9283**	**1662**	**70**	**390**	**13**		**6**	**5**					**11440**
% of Totals	0%	81%	15%	1%	3%	0%		0%	0%					100%

AM Volumes	4	3001	540	27	140	8	0	2	4	0	0	0	0	3726
% AM	0%	26%	5%	0%	1%	0%		0%	0%					33%
AM Peak Hour	11:00	11:00	11:00	06:00	11:00	08:00		10:00	09:00					11:00
Volume	2	588	114	6	31	3		1	2					738
PM Volumes	7	6282	1122	43	250	5	0	4	1	0	0	0	0	7714
% PM	0%	55%	10%	0%	2%	0%		0%	0%					67%
PM Peak Hour	12:00	12:00	12:00	18:00	13:00	14:00		13:00	12:00					12:00
Volume	2	830	156	8	34	2		2	1					1024

Directional Peak Periods **All Classes**	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
	Volume	%	Volume	%	Volume	%	Volume	%
	1040 ⟷	9%	1909 ⟷	17%	1728 ⟷	15%	6763 ⟷	59%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Virginia Ave W/O Hamilton Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,646	5,794	11,440

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	17		21		38		12:00	0	0	105		124		229	
00:15	0	0	9		26		35		12:15	0	0	142		138		280	
00:30	0	0	13		18		31		12:30	0	0	143		120		263	
00:45	0	0	12	51	12	77	24	128	12:45	0	0	128	518	124	506	252	1024
01:00	0	0	9		9		18		13:00	0	0	115		100		215	
01:15	0	0	6		11		17		13:15	0	0	116		115		231	
01:30	0	0	1		6		7		13:30	0	0	123		95		218	
01:45	0	0	6	22	14	40	20	62	13:45	0	0	117	471	104	414	221	885
02:00	0	0	7		5		12		14:00	0	0	96		117		213	
02:15	0	0	3		6		9		14:15	0	0	84		99		183	
02:30	0	0	3		7		10		14:30	0	0	105		86		191	
02:45	0	0	10	23	5	23	15	46	14:45	0	0	74	359	104	406	178	765
03:00	0	0	2		3		5		15:00	0	0	86		112		198	
03:15	0	0	1		9		10		15:15	0	0	91		85		176	
03:30	0	0	7		8		15		15:30	0	0	85		96		181	
03:45	0	0	6	16	10	30	16	46	15:45	0	0	105	367	108	401	213	768
04:00	0	0	6		5		11		16:00	0	0	88		101		189	
04:15	0	0	7		11		18		16:15	0	0	86		110		196	
04:30	0	0	18		10		28		16:30	0	0	88		118		206	
04:45	0	0	21	52	15	41	36	93	16:45	0	0	103	365	121	450	224	815
05:00	0	0	27		23		50		17:00	0	0	87		145		232	
05:15	0	0	35		30		65		17:15	0	0	120		134		254	
05:30	0	0	26		35		61		17:30	0	0	91		136		227	
05:45	0	0	35	123	41	129	76	252	17:45	0	0	96	394	104	519	200	913
06:00	0	0	27		41		68		18:00	0	0	74		111		185	
06:15	0	0	30		36		66		18:15	0	0	79		97		176	
06:30	0	0	60		32		92		18:30	0	0	73		101		174	
06:45	0	0	59	176	45	154	104	330	18:45	0	0	77	303	79	388	156	691
07:00	0	0	53		41		94		19:00	0	0	66		69		135	
07:15	0	0	74		41		115		19:15	0	0	58		94		152	
07:30	0	0	72		50		122		19:30	0	0	50		60		110	
07:45	0	0	86	285	54	186	140	471	19:45	0	0	56	230	62	285	118	515
08:00	0	0	70		54		124		20:00	0	0	59		72		131	
08:15	0	0	88		60		148		20:15	0	0	51		55		106	
08:30	0	0	97		54		151		20:30	0	0	65		68		133	
08:45	0	0	85	340	61	229	146	569	20:45	0	0	45	220	56	251	101	471
09:00	0	0	72		48		120		21:00	0	0	49		57		106	
09:15	0	0	64		51		115		21:15	0	0	35		49		84	
09:30	0	0	66		50		116		21:30	0	0	33		48		81	
09:45	0	0	68	270	47	196	115	466	21:45	0	0	27	144	39	193	66	337
10:00	0	0	70		55		125		22:00	0	0	39		39		78	
10:15	0	0	74		56		130		22:15	0	0	28		29		57	
10:30	0	0	62		65		127		22:30	0	0	37		51		88	
10:45	0	0	79	285	64	240	143	525	22:45	0	0	36	140	29	148	65	288
11:00	0	0	76		78		154		23:00	0	0	41		36		77	
11:15	0	0	85		96		181		23:15	0	0	25		32		57	
11:30	0	0	94		111		205		23:30	0	0	28		26		54	
11:45	0	0	121	376	77	362	198	738	23:45	0	0	22	116	32	126	54	242
TOTALS				2019		1707		3726	TOTALS				3627		4087		7714
SPLIT %				54.2%		45.8%		32.6%	SPLIT %				47.0%		53.0%		67.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,646	5,794	11,440

AM Peak Hour				11:45	11:45	11:45			PM Peak Hour				12:15	16:45	12:00		
AM Pk Volume				511	459	970			PM Pk Volume				528	536	1024		
Pk Hr Factor				0.893	0.832	0.866			Pk Hr Factor				0.923	0.924	0.914		
7 - 9 Volume	0	0		625	415	1040			4 - 6 Volume	0	0		759	969	1728		
7 - 9 Peak Hour				07:45	08:00	08:00			4 - 6 Peak Hour				16:45	16:45	16:45		
7 - 9 Pk Volume	0	0		341	229	569			4 - 6 Pk Volume	0	0		401	536	937		
Pk Hr Factor	0.000	0.000		0.879	0.939	0.942			Pk Hr Factor	0.000	0.000		0.835	0.924	0.922		

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	28	6	0	4	0	0	0	0	0	0	0	0	38
00:15	0	30	4	0	1	0	0	0	0	0	0	0	0	35
00:30	0	30	1	0	0	0	0	0	0	0	0	0	0	31
00:45	0	19	3	0	2	0	0	0	0	0	0	0	0	24
01:00	0	14	4	0	0	0	0	0	0	0	0	0	0	18
01:15	0	14	3	0	0	0	0	0	0	0	0	0	0	17
01:30	0	7	0	0	0	0	0	0	0	0	0	0	0	7
01:45	0	18	1	0	1	0	0	0	0	0	0	0	0	20
02:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
02:15	0	7	1	0	1	0	0	0	0	0	0	0	0	9
02:30	0	9	1	0	0	0	0	0	0	0	0	0	0	10
02:45	0	12	2	0	0	0	0	0	1	0	0	0	0	15
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:15	0	10	0	0	0	0	0	0	0	0	0	0	0	10
03:30	0	11	3	0	0	1	0	0	0	0	0	0	0	15
03:45	0	13	3	0	0	0	0	0	0	0	0	0	0	16
04:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
04:15	0	14	3	1	0	0	0	0	0	0	0	0	0	18
04:30	0	24	1	0	3	0	0	0	0	0	0	0	0	28
04:45	0	32	2	2	0	0	0	0	0	0	0	0	0	36
05:00	0	40	6	0	4	0	0	0	0	0	0	0	0	50
05:15	0	55	8	0	2	0	0	0	0	0	0	0	0	65
05:30	1	48	8	0	4	0	0	0	0	0	0	0	0	61
05:45	0	62	10	1	3	0	0	0	0	0	0	0	0	76
06:00	0	50	12	1	5	0	0	0	0	0	0	0	0	68
06:15	0	54	11	0	1	0	0	0	0	0	0	0	0	66
06:30	0	78	11	1	1	1	0	0	0	0	0	0	0	92
06:45	0	81	12	4	6	1	0	0	0	0	0	0	0	104
07:00	0	79	14	0	1	0	0	0	0	0	0	0	0	94
07:15	0	97	14	1	3	0	0	0	0	0	0	0	0	115
07:30	0	95	19	2	6	0	0	0	0	0	0	0	0	122
07:45	0	113	21	1	3	1	0	0	1	0	0	0	0	140
08:00	0	102	17	2	3	0	0	0	0	0	0	0	0	124

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	121	17	1	7	2	0	0	0	0	0	0	0	148
08:30	0	122	22	0	6	1	0	0	0	0	0	0	0	151
08:45	0	119	23	0	4	0	0	0	0	0	0	0	0	146
09:00	1	93	18	3	5	0	0	0	0	0	0	0	0	120
09:15	0	90	19	1	4	0	0	0	1	0	0	0	0	115
09:30	0	92	21	1	2	0	0	0	0	0	0	0	0	116
09:45	0	87	21	1	5	0	0	0	1	0	0	0	0	115
10:00	0	101	17	0	6	1	0	0	0	0	0	0	0	125
10:15	0	109	17	0	3	0	0	1	0	0	0	0	0	130
10:30	0	98	18	1	10	0	0	0	0	0	0	0	0	127
10:45	0	111	28	1	3	0	0	0	0	0	0	0	0	143
11:00	2	115	26	0	11	0	0	0	0	0	0	0	0	154
11:15	0	147	25	0	9	0	0	0	0	0	0	0	0	181
11:30	0	168	33	0	3	0	0	1	0	0	0	0	0	205
11:45	0	158	30	2	8	0	0	0	0	0	0	0	0	198
12:00 PM	0	188	35	1	5	0	0	0	0	0	0	0	0	229
12:15	1	219	47	3	9	0	0	1	0	0	0	0	0	280
12:30	0	215	40	1	7	0	0	0	0	0	0	0	0	263
12:45	1	208	34	0	8	0	0	0	1	0	0	0	0	252
13:00	0	173	32	4	6	0	0	0	0	0	0	0	0	215
13:15	0	186	34	2	9	0	0	0	0	0	0	0	0	231
13:30	1	175	28	1	11	0	0	2	0	0	0	0	0	218
13:45	0	179	33	0	8	1	0	0	0	0	0	0	0	221
14:00	0	167	36	1	8	1	0	0	0	0	0	0	0	213
14:15	0	147	28	0	8	0	0	0	0	0	0	0	0	183
14:30	0	155	25	3	7	1	0	0	0	0	0	0	0	191
14:45	0	138	31	3	6	0	0	0	0	0	0	0	0	178
15:00	0	161	28	1	8	0	0	0	0	0	0	0	0	198
15:15	0	140	29	1	5	0	0	1	0	0	0	0	0	176
15:30	0	148	26	1	4	2	0	0	0	0	0	0	0	181
15:45	0	168	35	0	10	0	0	0	0	0	0	0	0	213
16:00	0	153	31	0	5	0	0	0	0	0	0	0	0	189
16:15	0	162	27	1	6	0	0	0	0	0	0	0	0	196

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave W/O Hamilton Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	164	29	3	10	0	0	0	0	0	0	0	0	**206**
16:45	0	179	36	2	7	0	0	0	0	0	0	0	0	**224**
17:00	0	192	32	1	7	0	0	0	0	0	0	0	0	**232**
17:15	0	206	37	0	11	0	0	0	0	0	0	0	0	**254**
17:30	0	189	31	0	7	0	0	0	0	0	0	0	0	**227**
17:45	1	163	29	2	5	0	0	0	0	0	0	0	0	**200**
18:00	1	149	23	2	10	0	0	0	0	0	0	0	0	**185**
18:15	1	149	22	1	3	0	0	0	0	0	0	0	0	**176**
18:30	0	146	21	4	3	0	0	0	0	0	0	0	0	**174**
18:45	0	132	20	1	3	0	0	0	0	0	0	0	0	**156**
19:00	0	111	20	1	3	0	0	0	0	0	0	0	0	**135**
19:15	0	133	17	0	2	0	0	0	0	0	0	0	0	**152**
19:30	0	91	16	0	3	0	0	0	0	0	0	0	0	**110**
19:45	0	99	16	0	3	0	0	0	0	0	0	0	0	**118**
20:00	0	111	15	0	5	0	0	0	0	0	0	0	0	**131**
20:15	0	86	17	0	3	0	0	0	0	0	0	0	0	**106**
20:30	0	106	27	0	0	0	0	0	0	0	0	0	0	**133**
20:45	0	88	13	0	0	0	0	0	0	0	0	0	0	**101**
21:00	0	87	13	2	4	0	0	0	0	0	0	0	0	**106**
21:15	1	66	14	0	3	0	0	0	0	0	0	0	0	**84**
21:30	0	69	10	0	2	0	0	0	0	0	0	0	0	**81**
21:45	0	52	10	0	4	0	0	0	0	0	0	0	0	**66**
22:00	0	64	11	0	3	0	0	0	0	0	0	0	0	**78**
22:15	0	46	9	0	2	0	0	0	0	0	0	0	0	**57**
22:30	0	73	13	1	1	0	0	0	0	0	0	0	0	**88**
23:00	0	66	9	0	2	0	0	0	0	0	0	0	0	**77**
23:15	0	42	9	0	6	0	0	0	0	0	0	0	0	**57**
23:30	0	47	6	0	1	0	0	0	0	0	0	0	0	**54**
23:45	0	43	9	0	2	0	0	0	0	0	0	0	0	**54**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	11	9283	1662	70	390	13		6	5					11440
% of Totals	0%	81%	15%	1%	3%	0%		0%	0%					100%
AM Volumes	4	3001	540	27	140	8	0	2	4	0	0	0	0	3726
% AM	0%	26%	5%	0%	1%	0%		0%	0%					33%
AM Peak Hour	10:15	11:45	11:45	06:45	10:30	07:45		11:30	09:00					11:45
Volume	2	780	152	7	33	4		2	2					970
PM Volumes	7	6282	1122	43	250	5	0	4	1	0	0	0	0	7714
% PM	0%	55%	10%	0%	2%	0%		0%	0%					67%
PM Peak Hour	17:30	12:00	12:00	17:45	13:15	13:45		12:45	12:00					12:00
Volume	3	830	156	9	36	3		2	1					1024

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	1040	9%	1909	17%	1728	15%	6763	59%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
07:00	0	9	0	1	0	0	0	0	0	0	0	0	0	10
08:00	0	10	0	0	1	0	0	0	0	0	0	0	0	11
09:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10
10:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
11:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
12:00 PM	0	22	6	1	1	0	0	0	0	0	0	0	0	30
13:00	0	21	4	0	0	0	0	0	0	0	0	0	0	25
14:00	0	17	1	0	2	0	0	0	0	0	0	0	0	20
15:00	0	16	2	0	1	0	0	0	0	0	0	0	0	19
16:00	0	14	1	0	0	0	0	0	0	0	0	0	0	15
17:00	0	17	3	0	1	0	0	0	0	0	0	0	0	21
18:00	0	23	2	0	0	0	0	0	0	0	0	0	0	25
19:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
20:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
21:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
22:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Totals		**212**	**31**	**2**	**6**									**251**
% of Totals		84%	12%	1%	2%									100%

AM Volumes	0	51	4	1	1	0	0	0	0	0	0	0	0	57
% AM		20%	2%	0%	0%									23%
AM Peak Hour		10:00	11:00	07:00	08:00									10:00
Volume		12	3	1	1									13
PM Volumes	0	161	27	1	5	0	0	0	0	0	0	0	0	194
% PM		64%	11%	0%	2%									77%
PM Peak Hour		18:00	12:00	12:00	14:00									12:00
Volume		23	6	1	2									30

Directional Peak Periods All Classes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
	Volume	%	Volume	%	Volume	%	Volume	%
	21	8%	55	22%	36	14%	139	55%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Hamilton Ave N/O Virginia Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_002

DAILY TOTALS	NB	SB	EB	WB	Total
	109	142	0	0	251

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0		0	0			12:00	4		3		0	0	7	
00:15	0		1		0	0	1		12:15	6		7		0	0	13	
00:30	0		1		0	0	1		12:30	3		4		0	0	7	
00:45	0		0	2	0	0		2	12:45	2	15	1	15	0	0	3	30
01:00	1		0		0	0	1		13:00	5		4		0	0	9	
01:15	0		0		0	0			13:15	2		1		0	0	3	
01:30	0		0		0	0			13:30	3		1		0	0	4	
01:45	0	1	0		0	0		1	13:45	5	15	4	10	0	0	9	25
02:00	0		0		0	0			14:00	2		4		0	0	6	
02:15	0		0		0	0			14:15	3		4		0	0	7	
02:30	0		0		0	0			14:30	1		2		0	0	3	
02:45	0		0		0	0			14:45	2	8	2	12	0	0	4	20
03:00	0		0		0	0			15:00	1		4		0	0	5	
03:15	0		0		0	0			15:15	1		2		0	0	3	
03:30	0		0		0	0			15:30	3		5		0	0	8	
03:45	0		0		0	0			15:45	0	5	3	14	0	0	3	19
04:00	0		0		0	0			16:00	1		4		0	0	5	
04:15	0		0		0	0			16:15	1		1		0	0	2	
04:30	0		0		0	0			16:30	3		2		0	0	5	
04:45	0		0		0	0			16:45	2	7	1	8	0	0	3	15
05:00	0		0		0	0			17:00	4		5		0	0	9	
05:15	0		0		0	0			17:15	3		1		0	0	4	
05:30	0		0		0	0			17:30	1		2		0	0	3	
05:45	0		0		0	0			17:45	1	9	4	12	0	0	5	21
06:00	1		1		0	0	2		18:00	7		3		0	0	10	
06:15	0		0		0	0			18:15	2		1		0	0	3	
06:30	0		0		0	0			18:30	7		1		0	0	8	
06:45	0	1	0	1	0	0		2	18:45	1	17	3	8	0	0	4	25
07:00	1		0		0	0	1		19:00	0		1		0	0	1	
07:15	0		2		0	0	2		19:15	0		4		0	0	4	
07:30	1		2		0	0	3		19:30	0		2		0	0	2	
07:45	2	4	2	6	0	0	4	10	19:45	2	2	1	8	0	0	3	10
08:00	0		1		0	0	1		20:00	1		2		0	0	3	
08:15	0		5		0	0	5		20:15	2		1		0	0	3	
08:30	1		3		0	0	4		20:30	1		2		0	0	3	
08:45	1	2	0	9	0	0	1	11	20:45	1	5	2	7	0	0	3	12
09:00	1		1		0	0	2		21:00	1		3		0	0	4	
09:15	1		2		0	0	3		21:15	1		1		0	0	2	
09:30	2		0		0	0	2		21:30	0		2		0	0	2	
09:45	1	5	2	5	0	0	3	10	21:45	0	2	0	6	0	0		8
10:00	0		3		0	0	3		22:00	1		0		0	0	1	
10:15	2		3		0	0	5		22:15	1		1		0	0	2	
10:30	0		1		0	0	1		22:30	1		0		0	0	1	
10:45	2	4	2	9	0	0	4	13	22:45	1	4	0	1	0	0	1	5
11:00	2		3		0	0	5		23:00	1		2		0	0	3	
11:15	0		2		0	0	2		23:15	0		0		0	0		
11:30	0		0		0	0			23:30	0		1		0	0	1	
11:45	0	2	1	6	0	0	1	8	23:45	0	1	0	3	0	0		4
TOTALS		19		38				**57**	**TOTALS**		90		104				**194**
SPLIT %		33.3%		66.7%				**22.7%**	**SPLIT %**		46.4%		53.6%				**77.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	109	142	0	0	251

AM Peak Hour	11:45		11:45				**11:45**		**PM Peak Hour**	17:45		12:15				**12:15**	
AM Pk Volume	13		15				**28**		**PM Pk Volume**	17		16				**32**	
Pk Hr Factor	0.542		0.536				**0.538**		**Pk Hr Factor**	0.607		0.571				**0.615**	
7 - 9 Volume	6		15		0	0	**21**		**4 - 6 Volume**	16		20		0	0	**36**	
7 - 9 Peak Hour	07:00		07:45				**07:45**		**4 - 6 Peak Hour**	16:30		17:00				**16:30**	
7 - 9 Pk Volume	4		11		0	0	**14**		**4 - 6 Pk Volume**	12		12		0	0	**21**	
Pk Hr Factor	0.500		0.550		0.000	0.000	**0.700**		**Pk Hr Factor**	0.750		0.600		0.000	0.000	**0.583**	

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:15	0	1	0	1	0	0	0	0	0	0	0	0	0	2
07:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
07:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
08:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
08:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5
08:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
08:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
09:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
09:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
09:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
09:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
10:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
10:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
10:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
11:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
11:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:00 PM	0	5	2	0	0	0	0	0	0	0	0	0	0	7
12:15	0	13	0	0	0	0	0	0	0	0	0	0	0	13
12:30	0	2	3	1	1	0	0	0	0	0	0	0	0	7
12:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
13:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
13:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
13:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
13:45	0	7	2	0	0	0	0	0	0	0	0	0	0	9
14:00	0	3	1	0	2	0	0	0	0	0	0	0	0	6
14:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
14:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
14:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
15:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
15:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
15:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8
15:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
16:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
16:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5
16:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
17:00	0	7	1	0	1	0	0	0	0	0	0	0	0	9
17:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
17:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
17:45	0	3	2	0	0	0	0	0	0	0	0	0	0	5
18:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10
18:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
18:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8
18:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
19:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
19:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
19:45	0	1	2	0	0	0	0	0	0	0	0	0	0	3
20:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
20:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
20:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
21:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
21:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
21:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
		212	31	2	6									251
% of Totals		84%	12%	1%	2%									100%

AM Volumes	0	51	4	1	1	0	0	0	0	0	0	0	0	57
% AM		20%	2%	0%	0%									23%
AM Peak Hour		11:45	11:45	06:30	07:45									11:45
Volume		20	6	1	1									28
PM Volumes	0	161	27	1	5	0	0	0	0	0	0	0	0	194
% PM		64%	11%	0%	2%									77%
PM Peak Hour		12:15	12:00	12:00	13:15									12:15
Volume		25	6	1	2									32

Directional Peak Periods	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Classes	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	21		8%	55		22%	36		14%	139		55%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
07:00	0	13	1	1	0	0	0	0	0	0	0	0	0	15
08:00	0	19	0	0	0	0	0	0	0	0	0	0	0	19
09:00	0	8	1	0	2	0	0	0	0	0	0	0	0	11
10:00	0	10	2	1	1	0	0	0	0	0	0	0	0	14
11:00	1	24	2	0	3	0	0	0	0	0	0	0	0	30
12:00 PM	0	15	1	2	0	0	1	0	0	0	0	0	0	19
13:00	0	12	1	1	0	0	0	0	0	0	0	0	0	14
14:00	0	6	4	0	1	0	0	0	0	0	0	0	0	11
15:00	0	14	1	0	0	0	0	0	0	0	0	0	0	15
16:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
17:00	1	12	2	0	0	0	0	0	0	0	0	0	0	15
18:00	0	9	5	0	0	0	0	0	0	0	0	0	0	14
19:00	0	10	0	0	1	0	0	0	0	0	0	0	0	11
20:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
21:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
22:00	0	1	3	0	0	0	0	0	0	0	0	0	0	4
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Totals	**2**	**190**	**28**	**5**	**8**		**1**							**234**
% of Totals	1%	81%	12%	2%	3%		0%							100%

AM Volumes	1	81	7	2	6	0	0	0	0	0	0	0	0	97
% AM	0%	35%	3%	1%	3%									41%
AM Peak Hour	11:00	11:00	10:00	07:00	11:00									11:00
Volume	1	24	2	1	3									30
PM Volumes	1	109	21	3	2	0	1	0	0	0	0	0	0	137
% PM	0%	47%	9%	1%	1%		0%							59%
PM Peak Hour	17:00	12:00	18:00	12:00	14:00		12:00							12:00
Volume	1	15	5	2	1		1							19

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	34		15%	33		14%	31		13%	136		58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Hamilton Ave N/O Virginia Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_002

DAILY TOTALS	NB	SB	EB	WB	Total
	97	137	0	0	234

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0		0	0			12:00	0		1		0	0	1	
00:15	0		0		0	0			12:15	3		3		0	0	6	
00:30	0		0		0	0			12:30	3		5		0	0	8	
00:45	0		1	1	0	0	1	1	12:45	3	9	1	10	0	0	4	19
01:00	0		0		0	0			13:00	4		0		0	0	4	
01:15	0		0		0	0			13:15	2		1		0	0	3	
01:30	0		0		0	0			13:30	1		3		0	0	4	
01:45	0		0		0	0			13:45	1	8	2	6	0	0	3	14
02:00	0		0		0	0			14:00	2		1		0	0	3	
02:15	0		0		0	0			14:15	1		0		0	0	1	
02:30	0		0		0	0			14:30	3		1		0	0	4	
02:45	0		0		0	0			14:45	1	7	2	4	0	0	3	11
03:00	0		0		0	0			15:00	0		2		0	0	2	
03:15	0		0		0	0			15:15	2		3		0	0	5	
03:30	0		0		0	0			15:30	1		0		0	0	1	
03:45	0		0		0	0			15:45	3	6	4	9	0	0	7	15
04:00	1		0		0	0	1		16:00	1		3		0	0	4	
04:15	0		0		0	0			16:15	1		2		0	0	3	
04:30	0		0		0	0			16:30	1		4		0	0	5	
04:45	0	1	1	1	0	0	1	2	16:45	1	4	3	12	0	0	4	16
05:00	0		0		0	0			17:00	3		3		0	0	6	
05:15	0		0		0	0			17:15	2		3		0	0	5	
05:30	1		0		0	0	1		17:30	1		1		0	0	2	
05:45	0	1	0		0	0		1	17:45	1	7	1	8	0	0	2	15
06:00	0		0		0	0			18:00	0		0		0	0		
06:15	0		0		0	0			18:15	6		1		0	0	7	
06:30	0		0		0	0			18:30	3		1		0	0	4	
06:45	1	1	3	3	0	0	4	4	18:45	1	10	2	4	0	0	3	14
07:00	1		1		0	0	2		19:00	0		1		0	0	1	
07:15	3		2		0	0	5		19:15	1		2		0	0	3	
07:30	0		3		0	0	3		19:30	1		3		0	0	4	
07:45	0	4	5	11	0	0	5	15	19:45	1	3	2	8	0	0	3	11
08:00	1		2		0	0	3		20:00	1		4		0	0	5	
08:15	1		5		0	0	6		20:15	0		3		0	0	3	
08:30	1		3		0	0	4		20:30	1		1		0	0	2	
08:45	1	4	5	15	0	0	6	19	20:45	1	3	0	8	0	0	1	11
09:00	0		2		0	0	2		21:00	0		1		0	0	1	
09:15	2		2		0	0	4		21:15	0		3		0	0	3	
09:30	1		1		0	0	2		21:30	0		1		0	0	1	
09:45	3	6	0	5	0	0	3	11	21:45	1	1	0	5	0	0	1	6
10:00	0		1		0	0	1		22:00	1		2		0	0	3	
10:15	1		7		0	0	8		22:15	1		0		0	0	1	
10:30	1		1		0	0	2		22:30	0		0		0	0		
10:45	0	2	3	12	0	0	3	14	22:45	0	2	0	2	0	0		4
11:00	1		5		0	0	6		23:00	0		0		0	0		
11:15	4		2		0	0	6		23:15	0		0		0	0		
11:30	5		4		0	0	9		23:30	1		0		0	0	1	
11:45	7	17	2	13	0	0	9	30	23:45	0	1	0		0	0		1
TOTALS		36		61				97	TOTALS		61		76				137
SPLIT %		37.1%		62.9%				41.5%	SPLIT %		44.5%		55.5%				58.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	97	137	0	0	234

AM Peak Hour	11:00	10:15			11:00	PM Peak Hour	12:15	15:45			12:15
AM Pk Volume	17	16			30	PM Pk Volume	13	13			22
Pk Hr Factor	0.607	0.571			0.833	Pk Hr Factor	0.813	0.813			0.688
7 - 9 Volume	8	26	0	0	34	4 - 6 Volume	11	20	0	0	31
7 - 9 Peak Hour	07:00	07:30			08:00	4 - 6 Peak Hour	16:30	16:30			16:30
7 - 9 Pk Volume	4	15	0	0	19	4 - 6 Pk Volume	7	13	0	0	20
Pk Hr Factor	0.333	0.750	0.000	0.000	0.792	Pk Hr Factor	0.583	0.813	0.000	0.000	0.833

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
07:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
07:30	0	2	0	1	0	0	0	0	0	0	0	0	0	3
07:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
08:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
08:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
08:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6
09:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
09:15	0	3	0	0	1	0	0	0	0	0	0	0	0	4
09:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
09:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3
10:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:15	0	5	1	1	1	0	0	0	0	0	0	0	0	8
10:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
10:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
11:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
11:15	1	4	0	0	1	0	0	0	0	0	0	0	0	6
11:30	0	8	0	0	1	0	0	0	0	0	0	0	0	9
11:45	0	8	1	0	0	0	0	0	0	0	0	0	0	9
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
12:30	0	7	0	1	0	0	0	0	0	0	0	0	0	8
12:45	0	1	1	1	0	0	1	0	0	0	0	0	0	4
13:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
13:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
13:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
13:45	0	2	0	1	0	0	0	0	0	0	0	0	0	3
14:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
14:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
14:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
14:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
15:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
15:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
15:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
15:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
16:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
16:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3

Prepared by National Data & Surveying Services

CLASSIFICATION

Hamilton Ave N/O Virginia Ave

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
16:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
17:00	1	4	1	0	0	0	0	0	0	0	0	0	0	6
17:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
17:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
17:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	4	3	0	0	0	0	0	0	0	0	0	0	7
18:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
18:45	0	1	2	0	0	0	0	0	0	0	0	0	0	3
19:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
19:30	0	3	0	0	1	0	0	0	0	0	0	0	0	4
19:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
20:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
20:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
20:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
21:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
22:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	2	190	28	5	8		1							234
% of Totals	1%	81%	12%	2%	3%		0%							100%

AM Volumes	1	81	7	2	6	0	0	0	0	0	0	0	0	97
% AM	0%	35%	3%	1%	3%									41%
AM Peak Hour	10:30	11:00	10:15	06:45	10:45									11:00
Volume	1	24	3	1	3									30
PM Volumes	1	109	21	3	2	0	1	0	0	0	0	0	0	137
% PM	0%	47%	9%	1%	1%		0%							59%
PM Peak Hour	16:15	12:15	18:00	12:00	13:15		12:00							12:15
Volume	1	18	5	2	1		1							22

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	34	15%	33	14%	31	13%	136	58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	48	6	0	1	0	0	0	0	0	0	0	0	55
01:00	1	38	4	0	1	0	0	1	0	0	0	0	0	45
02:00	0	37	4	0	0	0	0	0	0	0	0	0	0	41
03:00	0	18	2	0	0	0	0	0	0	0	0	0	0	20
04:00	0	34	4	0	1	1	0	0	0	0	0	0	0	40
05:00	0	71	6	1	1	0	0	0	1	0	0	0	0	80
06:00	0	118	19	1	2	0	0	0	0	0	0	0	0	140
07:00	0	174	26	0	3	0	0	0	0	0	0	0	0	203
08:00	0	253	33	4	2	0	0	0	0	0	0	0	0	292
09:00	0	191	26	5	5	0	0	0	0	0	0	0	0	227
10:00	0	181	41	0	10	0	1	0	0	0	0	0	0	233
11:00	0	317	55	2	10	1	0	3	0	0	0	0	0	388
12:00 PM	2	443	78	2	19	4	1	1	0	0	0	0	0	550
13:00	1	380	58	1	14	1	1	1	0	0	0	0	0	457
14:00	0	294	50	0	1	0	0	0	1	0	0	0	0	346
15:00	2	333	43	4	8	1	0	0	0	0	0	0	0	391
16:00	1	305	44	1	2	0	0	0	0	0	0	0	0	353
17:00	3	342	52	0	3	0	0	0	0	0	0	0	0	400
18:00	1	280	36	2	4	0	0	0	0	0	0	0	0	323
19:00	0	262	25	0	5	0	0	0	0	0	0	0	0	292
20:00	0	197	19	0	2	0	0	0	0	0	0	0	0	218
21:00	0	156	20	1	2	0	0	0	0	0	0	0	0	179
22:00	0	126	9	0	0	0	0	0	1	0	0	0	0	136
23:00	0	87	10	0	4	0	0	0	0	0	0	0	0	101
Totals	11	4685	670	24	100	8	3	6	3					5510
% of Totals	0%	85%	12%	0%	2%	0%	0%	0%	0%					100%

AM Volumes	1	1480	226	13	36	2	1	4	1	0	0	0	0	1764
% AM	0%	27%	4%	0%	1%	0%	0%	0%	0%					32%
AM Peak Hour	01:00	11:00	11:00	09:00	10:00	04:00	10:00	11:00	05:00					11:00
Volume	1	317	55	5	10	1	1	3	1					388
PM Volumes	10	3205	444	11	64	6	2	2	2	0	0	0	0	3746
% PM	0%	58%	8%	0%	1%	0%	0%	0%	0%					68%
PM Peak Hour	17:00	12:00	12:00	15:00	12:00	12:00	12:00	12:00	14:00					12:00
Volume	3	443	78	4	19	4	1	1	1					550

Directional Peak Periods All Classes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
	Volume	%	Volume	%	Volume	%	Volume	%
	495	9%	1007	18%	753	14%	3255	59%

Classification Definitions

1 Motorcycles
2 Passenger Cars
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9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Virginia Ave N/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_003

DAILY TOTALS	NB	SB	EB	WB	Total
	2,694	2,816	0	0	5,510

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	6		4		0	0	10		12:00	67		66		0	0	133	
00:15	6		16		0	0	22		12:15	50		96		0	0	146	
00:30	9		4		0	0	13		12:30	54		57		0	0	111	
00:45	4	25	6	30	0	0	10	55	12:45	66	237	94	313	0	0	160	550
01:00	3		3		0	0	6		13:00	69		67		0	0	136	
01:15	7		8		0	0	15		13:15	56		65		0	0	121	
01:30	5		11		0	0	16		13:30	59		47		0	0	106	
01:45	4	19	4	26	0	0	8	45	13:45	42	226	52	231	0	0	94	457
02:00	5		2		0	0	7		14:00	47		34		0	0	81	
02:15	7		9		0	0	16		14:15	46		51		0	0	97	
02:30	6		5		0	0	11		14:30	47		43		0	0	90	
02:45	5	23	2	18	0	0	7	41	14:45	36	176	42	170	0	0	78	346
03:00	3		3		0	0	6		15:00	51		54		0	0	105	
03:15	2		3		0	0	5		15:15	50		43		0	0	93	
03:30	2		2		0	0	4		15:30	58		43		0	0	101	
03:45	5	12	0	8	0	0	5	20	15:45	43	202	49	189	0	0	92	391
04:00	3		5		0	0	8		16:00	45		38		0	0	83	
04:15	2		3		0	0	5		16:15	52		43		0	0	95	
04:30	5		8		0	0	13		16:30	59		36		0	0	95	
04:45	4	14	10	26	0	0	14	40	16:45	43	199	37	154	0	0	80	353
05:00	6		7		0	0	13		17:00	55		50		0	0	105	
05:15	4		11		0	0	15		17:15	61		49		0	0	110	
05:30	9		13		0	0	22		17:30	53		42		0	0	95	
05:45	12	31	18	49	0	0	30	80	17:45	48	217	42	183	0	0	90	400
06:00	10		17		0	0	27		18:00	42		38		0	0	80	
06:15	12		5		0	0	17		18:15	39		45		0	0	84	
06:30	24		29		0	0	53		18:30	44		38		0	0	82	
06:45	18	64	25	76	0	0	43	140	18:45	33	158	44	165	0	0	77	323
07:00	22		25		0	0	47		19:00	49		47		0	0	96	
07:15	11		26		0	0	37		19:15	55		27		0	0	82	
07:30	17		34		0	0	51		19:30	31		35		0	0	66	
07:45	25	75	43	128	0	0	68	203	19:45	21	156	27	136	0	0	48	292
08:00	37		33		0	0	70		20:00	42		35		0	0	77	
08:15	44		24		0	0	68		20:15	23		17		0	0	40	
08:30	22		46		0	0	68		20:30	27		26		0	0	53	
08:45	26	129	60	163	0	0	86	292	20:45	16	108	32	110	0	0	48	218
09:00	24		38		0	0	62		21:00	25		20		0	0	45	
09:15	29		25		0	0	54		21:15	26		24		0	0	50	
09:30	20		37		0	0	57		21:30	28		22		0	0	50	
09:45	22	95	32	132	0	0	54	227	21:45	22	101	12	78	0	0	34	179
10:00	21		31		0	0	52		22:00	18		21		0	0	39	
10:15	28		20		0	0	48		22:15	14		18		0	0	32	
10:30	21		44		0	0	65		22:30	17		7		0	0	24	
10:45	29	99	39	134	0	0	68	233	22:45	20	69	21	67	0	0	41	136
11:00	40		38		0	0	78		23:00	14		15		0	0	29	
11:15	36		52		0	0	88		23:15	15		13		0	0	28	
11:30	63		54		0	0	117		23:30	16		8		0	0	24	
11:45	61	200	44	188	0	0	105	388	23:45	14	59	6	42	0	0	20	101
TOTALS		786		978				1764	TOTALS		1908		1838				3746
SPLIT %		44.6%		55.4%				32.0%	SPLIT %		50.9%		49.1%				68.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,694	2,816	0	0	5,510

AM Peak Hour	11:30	11:45					11:30		PM Peak Hour	12:45	12:15					12:15		
AM Pk Volume	241	263					501		PM Pk Volume	250	314					553		
Pk Hr Factor	0.899	0.685					0.858		Pk Hr Factor	0.906	0.818					0.864		
7 - 9 Volume	204	291	0	0			495		4 - 6 Volume	416	337	0	0			753		
7 - 9 Peak Hour	08:00	08:00					08:00		4 - 6 Peak Hour	16:30	17:00					17:00		
7 - 9 Pk Volume	129	163	0	0			292		4 - 6 Pk Volume	218	183	0	0			400		
Pk Hr Factor	0.733	0.679	0.000	0.000			0.849		Pk Hr Factor	0.893	0.915	0.000	0.000			0.909		

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	9	1	0	0	0	0	0	0	0	0	0	0	10
00:15	0	19	3	0	0	0	0	0	0	0	0	0	0	22
00:30	0	10	2	0	1	0	0	0	0	0	0	0	0	13
00:45	0	10	0	0	0	0	0	0	0	0	0	0	0	10
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
01:15	1	13	1	0	0	0	0	0	0	0	0	0	0	15
01:30	0	12	2	0	1	0	0	1	0	0	0	0	0	16
01:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
02:15	0	14	2	0	0	0	0	0	0	0	0	0	0	16
02:30	0	11	0	0	0	0	0	0	0	0	0	0	0	11
02:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
03:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
03:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
04:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:30	0	10	2	0	1	0	0	0	0	0	0	0	0	13
04:45	0	12	1	0	0	1	0	0	0	0	0	0	0	14
05:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13
05:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15
05:30	0	19	1	0	1	0	0	0	1	0	0	0	0	22
05:45	0	26	3	1	0	0	0	0	0	0	0	0	0	30
06:00	0	25	2	0	0	0	0	0	0	0	0	0	0	27
06:15	0	14	3	0	0	0	0	0	0	0	0	0	0	17
06:30	0	45	7	0	1	0	0	0	0	0	0	0	0	53
06:45	0	34	7	1	1	0	0	0	0	0	0	0	0	43
07:00	0	42	5	0	0	0	0	0	0	0	0	0	0	47
07:15	0	33	4	0	0	0	0	0	0	0	0	0	0	37
07:30	0	42	8	0	1	0	0	0	0	0	0	0	0	51
07:45	0	57	9	0	2	0	0	0	0	0	0	0	0	68
08:00	0	59	10	0	1	0	0	0	0	0	0	0	0	70

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	59	8	1	0	0	0	0	0	0	0	0	0	68
08:30	0	65	3	0	0	0	0	0	0	0	0	0	0	68
08:45	0	70	12	3	1	0	0	0	0	0	0	0	0	86
09:00	0	52	7	2	1	0	0	0	0	0	0	0	0	62
09:15	0	48	5	1	0	0	0	0	0	0	0	0	0	54
09:30	0	49	6	1	1	0	0	0	0	0	0	0	0	57
09:45	0	42	8	1	3	0	0	0	0	0	0	0	0	54
10:00	0	45	5	0	2	0	0	0	0	0	0	0	0	52
10:15	0	36	11	0	1	0	0	0	0	0	0	0	0	48
10:30	0	53	7	0	4	0	1	0	0	0	0	0	0	65
10:45	0	47	18	0	3	0	0	0	0	0	0	0	0	68
11:00	0	59	14	1	2	0	0	2	0	0	0	0	0	78
11:15	0	74	11	0	2	0	0	1	0	0	0	0	0	88
11:30	0	100	10	1	6	0	0	0	0	0	0	0	0	117
11:45	0	84	20	0	0	1	0	0	0	0	0	0	0	105
12:00 PM	0	110	17	1	5	0	0	0	0	0	0	0	0	133
12:15	0	124	19	0	3	0	0	0	0	0	0	0	0	146
12:30	0	91	13	0	6	1	0	0	0	0	0	0	0	111
12:45	2	118	29	1	5	3	1	1	0	0	0	0	0	160
13:00	0	114	21	0	1	0	0	0	0	0	0	0	0	136
13:15	0	99	13	1	6	0	1	1	0	0	0	0	0	121
13:30	0	87	14	0	4	1	0	0	0	0	0	0	0	106
13:45	1	80	10	0	3	0	0	0	0	0	0	0	0	94
14:00	0	68	13	0	0	0	0	0	0	0	0	0	0	81
14:15	0	79	18	0	0	0	0	0	0	0	0	0	0	97
14:30	0	77	12	0	0	0	0	0	1	0	0	0	0	90
14:45	0	70	7	0	1	0	0	0	0	0	0	0	0	78
15:00	0	90	10	1	3	1	0	0	0	0	0	0	0	105
15:15	1	77	11	2	2	0	0	0	0	0	0	0	0	93
15:30	1	86	12	0	2	0	0	0	0	0	0	0	0	101
15:45	0	80	10	1	1	0	0	0	0	0	0	0	0	92
16:00	0	73	10	0	0	0	0	0	0	0	0	0	0	83
16:15	0	83	12	0	0	0	0	0	0	0	0	0	0	95

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	81	11	1	2	0	0	0	0	0	0	0	0	**95**
16:45	1	68	11	0	0	0	0	0	0	0	0	0	0	**80**
17:00	1	92	12	0	0	0	0	0	0	0	0	0	0	**105**
17:15	1	91	17	0	1	0	0	0	0	0	0	0	0	**110**
17:30	1	84	10	0	0	0	0	0	0	0	0	0	0	**95**
17:45	0	75	13	0	2	0	0	0	0	0	0	0	0	**90**
18:00	0	72	7	1	0	0	0	0	0	0	0	0	0	**80**
18:15	1	71	10	0	2	0	0	0	0	0	0	0	0	**84**
18:30	0	74	7	0	1	0	0	0	0	0	0	0	0	**82**
18:45	0	63	12	1	1	0	0	0	0	0	0	0	0	**77**
19:00	0	87	8	0	1	0	0	0	0	0	0	0	0	**96**
19:15	0	76	5	0	1	0	0	0	0	0	0	0	0	**82**
19:30	0	56	7	0	3	0	0	0	0	0	0	0	0	**66**
19:45	0	43	5	0	0	0	0	0	0	0	0	0	0	**48**
20:00	0	66	9	0	2	0	0	0	0	0	0	0	0	**77**
20:15	0	37	3	0	0	0	0	0	0	0	0	0	0	**40**
20:30	0	48	5	0	0	0	0	0	0	0	0	0	0	**53**
20:45	0	46	2	0	0	0	0	0	0	0	0	0	0	**48**
21:00	0	41	3	0	1	0	0	0	0	0	0	0	0	**45**
21:15	0	46	4	0	0	0	0	0	0	0	0	0	0	**50**
21:30	0	42	7	0	1	0	0	0	0	0	0	0	0	**50**
21:45	0	27	6	1	0	0	0	0	0	0	0	0	0	**34**
22:00	0	35	3	0	0	0	0	0	1	0	0	0	0	**39**
22:15	0	29	3	0	0	0	0	0	0	0	0	0	0	**32**
22:30	0	23	1	0	0	0	0	0	0	0	0	0	0	**24**
23:00	0	23	6	0	0	0	0	0	0	0	0	0	0	**29**
23:15	0	25	2	0	1	0	0	0	0	0	0	0	0	**28**
23:30	0	22	1	0	1	0	0	0	0	0	0	0	0	**24**
23:45	0	17	1	0	2	0	0	0	0	0	0	0	0	**20**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	11	4685	670	24	100	8	3	6	3					5510
% of Totals	0%	85%	12%	0%	2%	0%	0%	0%	0%					100%

AM Volumes	1	1480	226	13	36	2	1	4	1	0	0	0	0	1764
% AM	0%	27%	4%	0%	1%	0%	0%	0%	0%					32%
AM Peak Hour	00:30	11:30	11:45	08:45	11:30	11:45	09:45	10:30	04:45					11:30
Volume	1	418	69	7	14	2	1	3	1					501
PM Volumes	10	3205	444	11	64	6	2	2	2	0	0	0	0	3746
% PM	0%	58%	8%	0%	1%	0%	0%	0%	0%					68%
PM Peak Hour	16:45	12:15	12:15	15:00	12:00	12:00	12:30	12:30	13:45					12:15
Volume	4	447	82	4	19	4	2	2	1					553

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	495	9%	1007	18%	753	14%	3255	59%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	48	4	1	2	0	0	0	0	0	0	0	0	**55**
01:00	0	35	6	0	1	0	0	0	0	0	0	0	0	**42**
02:00	0	25	4	0	3	0	0	0	0	0	0	0	0	**32**
03:00	0	25	4	0	0	1	0	1	0	0	0	0	0	**31**
04:00	0	27	4	0	3	1	0	0	0	0	0	0	0	**35**
05:00	0	73	14	0	4	0	0	1	0	0	0	0	0	**92**
06:00	1	135	15	0	4	0	0	1	0	0	0	0	0	**156**
07:00	0	172	27	3	4	0	0	0	0	0	0	0	0	**206**
08:00	0	243	38	2	5	0	0	1	0	0	0	0	0	**289**
09:00	1	195	30	1	3	1	0	0	2	0	0	0	0	**233**
10:00	0	217	36	0	9	0	0	0	1	0	0	0	0	**263**
11:00	1	297	73	1	15	1	0	1	0	0	0	0	0	**389**
12:00 PM	1	443	102	1	12	3	0	2	0	0	0	0	0	**564**
13:00	0	350	60	0	9	1	0	0	0	0	0	0	0	**420**
14:00	0	319	46	1	12	1	0	0	1	0	0	0	0	**380**
15:00	4	277	49	1	3	0	0	0	0	0	0	0	0	**334**
16:00	1	309	53	5	6	0	0	0	0	0	0	0	0	**374**
17:00	1	362	57	0	8	0	0	0	0	0	0	0	0	**428**
18:00	5	301	43	0	4	0	0	0	0	0	0	0	0	**353**
19:00	0	214	27	0	7	0	0	0	0	0	0	0	0	**248**
20:00	0	223	33	0	4	0	0	0	0	0	0	0	0	**260**
21:00	1	137	12	0	3	0	0	0	0	0	0	0	0	**153**
22:00	0	134	14	0	1	0	0	0	0	0	0	0	0	**149**
23:00	0	115	8	0	2	0	0	0	1	0	0	0	0	**126**
Totals	**16**	**4676**	**759**	**16**	**124**	**9**		**7**	**5**					**5612**
% of Totals	0%	83%	14%	0%	2%	0%		0%	0%					100%

AM Volumes	3	1492	255	8	53	4	0	5	3	0	0	0	0	1823
% AM	0%	27%	5%	0%	1%	0%		0%	0%					32%
AM Peak Hour	06:00	11:00	11:00	07:00	11:00	03:00		03:00	09:00					11:00
Volume	1	297	73	3	15	1		1	2					389
PM Volumes	13	3184	504	8	71	5	0	2	2	0	0	0	0	3789
% PM	0%	57%	9%	0%	1%	0%		0%	0%					68%
PM Peak Hour	18:00	12:00	12:00	16:00	12:00	12:00		12:00	14:00					12:00
Volume	5	443	102	5	12	3		2	1					564

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	495		9%	984		18%	802		14%	3331		59%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Virginia Ave N/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_003

DAILY TOTALS	NB	SB	EB	WB	Total
	2,743	2,869	0	0	5,612

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	9		3		0	0	12		12:00	76		68		0	0	144	
00:15	12		11		0	0	23		12:15	73		71		0	0	144	
00:30	4		7		0	0	11		12:30	61		80		0	0	141	
00:45	4	29	5	26	0	0	9	55	12:45	65	275	70	289	0	0	135	564
01:00	8		6		0	0	14		13:00	57		57		0	0	114	
01:15	4		5		0	0	9		13:15	56		54		0	0	110	
01:30	3		4		0	0	7		13:30	48		54		0	0	102	
01:45	1	16	11	26	0	0	12	42	13:45	40	201	54	219	0	0	94	420
02:00	4		5		0	0	9		14:00	53		50		0	0	103	
02:15	4		1		0	0	5		14:15	49		48		0	0	97	
02:30	5		3		0	0	8		14:30	41		46		0	0	87	
02:45	9	22	1	10	0	0	10	32	14:45	49	192	44	188	0	0	93	380
03:00	3		5		0	0	8		15:00	35		38		0	0	73	
03:15	3		6		0	0	9		15:15	52		42		0	0	94	
03:30	4		4		0	0	8		15:30	39		40		0	0	79	
03:45	1	11	5	20	0	0	6	31	15:45	45	171	43	163	0	0	88	334
04:00	2		4		0	0	6		16:00	42		35		0	0	77	
04:15	3		2		0	0	5		16:15	57		42		0	0	99	
04:30	3		7		0	0	10		16:30	63		37		0	0	100	
04:45	4	12	10	23	0	0	14	35	16:45	48	210	50	164	0	0	98	374
05:00	7		5		0	0	12		17:00	77		45		0	0	122	
05:15	9		11		0	0	20		17:15	63		48		0	0	111	
05:30	8		23		0	0	31		17:30	58		55		0	0	113	
05:45	7	31	22	61	0	0	29	92	17:45	48	246	34	182	0	0	82	428
06:00	18		11		0	0	29		18:00	60		54		0	0	114	
06:15	15		18		0	0	33		18:15	40		44		0	0	84	
06:30	21		24		0	0	45		18:30	42		43		0	0	85	
06:45	28	82	21	74	0	0	49	156	18:45	43	185	27	168	0	0	70	353
07:00	17		20		0	0	37		19:00	32		38		0	0	70	
07:15	20		29		0	0	49		19:15	28		32		0	0	60	
07:30	13		40		0	0	53		19:30	35		32		0	0	67	
07:45	28	78	39	128	0	0	67	206	19:45	22	117	29	131	0	0	51	248
08:00	27		47		0	0	74		20:00	33		42		0	0	75	
08:15	36		29		0	0	65		20:15	40		27		0	0	67	
08:30	22		46		0	0	68		20:30	33		27		0	0	60	
08:45	25	110	57	179	0	0	82	289	20:45	26	132	32	128	0	0	58	260
09:00	21		36		0	0	57		21:00	24		22		0	0	46	
09:15	24		27		0	0	51		21:15	16		17		0	0	33	
09:30	21		38		0	0	59		21:30	18		18		0	0	36	
09:45	21	87	45	146	0	0	66	233	21:45	16	74	22	79	0	0	38	153
10:00	32		29		0	0	61		22:00	22		14		0	0	36	
10:15	26		32		0	0	58		22:15	22		17		0	0	39	
10:30	34		41		0	0	75		22:30	16		22		0	0	38	
10:45	27	119	42	144	0	0	69	263	22:45	21	81	15	68	0	0	36	149
11:00	38		47		0	0	85		23:00	29		10		0	0	39	
11:15	32		45		0	0	77		23:15	18		11		0	0	29	
11:30	52		65		0	0	117		23:30	19		12		0	0	31	
11:45	59	181	51	208	0	0	110	389	23:45	15	81	12	45	0	0	27	126
TOTALS		778		1045				1823	TOTALS		1965		1824				3789
SPLIT %		42.7%		57.3%				32.5%	SPLIT %		51.9%		48.1%				67.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,743	2,869	0	0	5,612

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	12:00	12:00			12:00
AM Pk Volume	269	270			539	PM Pk Volume	275	289			564
Pk Hr Factor	0.885	0.844			0.936	Pk Hr Factor	0.905	0.903			0.979
7 - 9 Volume	188	307	0	0	495	4 - 6 Volume	456	346	0	0	802
7 - 9 Peak Hour	07:45	08:00			08:00	4 - 6 Peak Hour	16:30	16:45			16:45
7 - 9 Pk Volume	113	179	0	0	289	4 - 6 Pk Volume	251	198	0	0	444
Pk Hr Factor	0.785	0.785	0.000	0.000	0.881	Pk Hr Factor	0.815	0.900	0.000	0.000	0.910

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	9	3	0	0	0	0	0	0	0	0	0	0	12
00:15	0	22	0	0	1	0	0	0	0	0	0	0	0	23
00:30	0	9	1	0	1	0	0	0	0	0	0	0	0	11
00:45	0	8	0	1	0	0	0	0	0	0	0	0	0	9
01:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
01:15	0	7	2	0	0	0	0	0	0	0	0	0	0	9
01:30	0	6	0	0	1	0	0	0	0	0	0	0	0	7
01:45	0	9	3	0	0	0	0	0	0	0	0	0	0	12
02:00	0	5	2	0	2	0	0	0	0	0	0	0	0	9
02:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5
02:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
03:15	0	7	1	0	0	0	0	1	0	0	0	0	0	9
03:30	0	7	0	0	0	1	0	0	0	0	0	0	0	8
03:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6
04:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
04:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5
04:30	0	6	1	0	2	1	0	0	0	0	0	0	0	10
04:45	0	12	2	0	0	0	0	0	0	0	0	0	0	14
05:00	0	8	3	0	0	0	0	1	0	0	0	0	0	12
05:15	0	15	3	0	2	0	0	0	0	0	0	0	0	20
05:30	0	26	4	0	1	0	0	0	0	0	0	0	0	31
05:45	0	24	4	0	1	0	0	0	0	0	0	0	0	29
06:00	0	25	2	0	1	0	0	1	0	0	0	0	0	29
06:15	0	30	3	0	0	0	0	0	0	0	0	0	0	33
06:30	1	38	5	0	1	0	0	0	0	0	0	0	0	45
06:45	0	42	5	0	2	0	0	0	0	0	0	0	0	49
07:00	0	30	5	0	2	0	0	0	0	0	0	0	0	37
07:15	0	44	5	0	0	0	0	0	0	0	0	0	0	49
07:30	0	46	7	0	0	0	0	0	0	0	0	0	0	53
07:45	0	52	10	3	2	0	0	0	0	0	0	0	0	67
08:00	0	63	11	0	0	0	0	0	0	0	0	0	0	74

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	57	7	0	1	0	0	0	0	0	0	0	0	65
08:30	0	56	9	2	1	0	0	0	0	0	0	0	0	68
08:45	0	67	11	0	3	0	0	1	0	0	0	0	0	82
09:00	1	45	9	0	1	1	0	0	0	0	0	0	0	57
09:15	0	41	7	1	0	0	0	0	2	0	0	0	0	51
09:30	0	52	6	0	1	0	0	0	0	0	0	0	0	59
09:45	0	57	8	0	1	0	0	0	0	0	0	0	0	66
10:00	0	52	7	0	1	0	0	0	1	0	0	0	0	61
10:15	0	50	6	0	2	0	0	0	0	0	0	0	0	58
10:30	0	63	9	0	3	0	0	0	0	0	0	0	0	75
10:45	0	52	14	0	3	0	0	0	0	0	0	0	0	69
11:00	0	64	13	0	7	1	0	0	0	0	0	0	0	85
11:15	0	62	15	0	0	0	0	0	0	0	0	0	0	77
11:30	1	90	20	0	6	0	0	0	0	0	0	0	0	117
11:45	0	81	25	1	2	0	0	1	0	0	0	0	0	110
12:00 PM	0	110	24	0	8	1	0	1	0	0	0	0	0	144
12:15	1	109	30	0	2	1	0	1	0	0	0	0	0	144
12:30	0	113	27	0	1	0	0	0	0	0	0	0	0	141
12:45	0	111	21	1	1	1	0	0	0	0	0	0	0	135
13:00	0	89	22	0	3	0	0	0	0	0	0	0	0	114
13:15	0	92	15	0	3	0	0	0	0	0	0	0	0	110
13:30	0	95	6	0	1	0	0	0	0	0	0	0	0	102
13:45	0	74	17	0	2	1	0	0	0	0	0	0	0	94
14:00	0	86	13	0	4	0	0	0	0	0	0	0	0	103
14:15	0	80	13	0	3	1	0	0	0	0	0	0	0	97
14:30	0	72	13	0	1	0	0	0	1	0	0	0	0	87
14:45	0	81	7	1	4	0	0	0	0	0	0	0	0	93
15:00	1	59	12	0	1	0	0	0	0	0	0	0	0	73
15:15	2	76	15	0	1	0	0	0	0	0	0	0	0	94
15:30	0	70	8	0	1	0	0	0	0	0	0	0	0	79
15:45	1	72	14	1	0	0	0	0	0	0	0	0	0	88
16:00	0	65	10	0	2	0	0	0	0	0	0	0	0	77
16:15	0	80	16	1	2	0	0	0	0	0	0	0	0	99

Prepared by National Data & Surveying Services

CLASSIFICATION

Virginia Ave N/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	82	15	3	0	0	0	0	0	0	0	0	0	**100**
16:45	1	82	12	1	2	0	0	0	0	0	0	0	0	**98**
17:00	0	103	16	0	3	0	0	0	0	0	0	0	0	**122**
17:15	0	92	16	0	3	0	0	0	0	0	0	0	0	**111**
17:30	1	97	14	0	1	0	0	0	0	0	0	0	0	**113**
17:45	0	70	11	0	1	0	0	0	0	0	0	0	0	**82**
18:00	2	91	19	0	2	0	0	0	0	0	0	0	0	**114**
18:15	1	73	10	0	0	0	0	0	0	0	0	0	0	**84**
18:30	0	76	8	0	1	0	0	0	0	0	0	0	0	**85**
18:45	2	61	6	0	1	0	0	0	0	0	0	0	0	**70**
19:00	0	55	11	0	4	0	0	0	0	0	0	0	0	**70**
19:15	0	55	4	0	1	0	0	0	0	0	0	0	0	**60**
19:30	0	60	7	0	0	0	0	0	0	0	0	0	0	**67**
19:45	0	44	5	0	2	0	0	0	0	0	0	0	0	**51**
20:00	0	63	12	0	0	0	0	0	0	0	0	0	0	**75**
20:15	0	59	8	0	0	0	0	0	0	0	0	0	0	**67**
20:30	0	51	8	0	1	0	0	0	0	0	0	0	0	**60**
20:45	0	50	5	0	3	0	0	0	0	0	0	0	0	**58**
21:00	0	40	4	0	2	0	0	0	0	0	0	0	0	**46**
21:15	0	32	1	0	0	0	0	0	0	0	0	0	0	**33**
21:30	1	30	5	0	0	0	0	0	0	0	0	0	0	**36**
21:45	0	35	2	0	1	0	0	0	0	0	0	0	0	**38**
22:00	0	32	4	0	0	0	0	0	0	0	0	0	0	**36**
22:15	0	36	3	0	0	0	0	0	0	0	0	0	0	**39**
22:30	0	34	3	0	1	0	0	0	0	0	0	0	0	**38**
23:00	0	33	5	0	1	0	0	0	0	0	0	0	0	**39**
23:15	0	29	0	0	0	0	0	0	0	0	0	0	0	**29**
23:30	0	28	2	0	1	0	0	0	0	0	0	0	0	**31**
23:45	0	25	1	0	0	0	0	0	1	0	0	0	0	**27**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	16	4676	759	16	124	9		7	5					5612
% of Totals	0%	83%	14%	0%	2%	0%		0%	0%					100%

AM Volumes	3	1492	255	8	53	4	0	5	3	0	0	0	0	1823
% AM	0%	27%	5%	0%	1%	0%		0%	0%					32%
AM Peak Hour	11:30	11:45	11:45	07:45	11:30	11:30		11:30	09:15					11:45
Volume	2	413	106	5	18	2		3	3					539
PM Volumes	13	3184	504	8	71	5	0	2	2	0	0	0	0	3789
% PM	0%	57%	9%	0%	1%	0%		0%	0%					68%
PM Peak Hour	18:00	12:00	12:00	15:45	12:00	12:00		12:00	13:45					12:00
Volume	5	443	102	5	12	3		2	1					564

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	495	9%	984	18%	802	14%	3331	59%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	85	12	1	1	0	0	0	0	0	0	0	0	**99**
01:00	0	47	8	0	0	0	0	0	0	0	0	0	0	**55**
02:00	0	35	3	1	0	0	0	0	0	0	0	0	0	**39**
03:00	0	31	3	0	0	0	0	0	0	0	0	0	0	**34**
04:00	0	77	13	1	0	0	0	0	0	0	0	0	0	**91**
05:00	0	194	30	0	5	0	0	0	0	0	0	0	0	**229**
06:00	1	255	38	3	10	0	0	0	0	0	0	0	0	**307**
07:00	1	370	50	4	9	0	0	0	0	0	0	0	0	**434**
08:00	0	354	62	1	13	0	1	0	0	0	0	0	0	**431**
09:00	0	303	50	1	17	0	0	0	0	0	0	0	0	**371**
10:00	0	274	38	3	11	0	0	0	0	0	0	0	0	**326**
11:00	1	471	81	4	18	1	0	1	0	0	0	0	0	**577**
12:00 PM	0	606	87	5	15	0	0	0	0	0	0	0	0	**713**
13:00	0	528	83	4	17	2	0	0	0	0	0	0	0	**634**
14:00	0	450	57	7	13	2	0	0	0	0	0	0	0	**529**
15:00	0	446	66	8	12	0	0	0	0	0	0	0	0	**532**
16:00	0	535	68	4	8	1	0	0	0	0	0	0	0	**616**
17:00	0	610	64	4	14	0	0	0	0	0	0	0	0	**692**
18:00	0	381	51	5	14	0	0	0	0	0	0	0	0	**451**
19:00	0	312	37	4	6	0	0	0	0	0	0	0	0	**359**
20:00	1	241	29	0	5	0	0	0	0	0	0	0	0	**276**
21:00	0	194	27	2	3	0	0	0	0	0	0	0	0	**226**
22:00	0	171	22	2	1	0	0	0	0	0	0	0	0	**196**
23:00	0	171	20	1	2	0	0	0	0	0	0	0	0	**194**
Totals	**4**	**7141**	**999**	**65**	**194**	**6**	**1**	**1**						**8411**
% of Totals	0%	85%	12%	1%	2%	0%	0%	0%						100%

AM Volumes	3	2496	388	19	84	1	1	1	0	0	0	0	0	2993
% AM	0%	30%	5%	0%	1%	0%	0%	0%						36%
AM Peak Hour	06:00	11:00	11:00	07:00	11:00	11:00	08:00	11:00						11:00
Volume	1	471	81	4	18	1	1	1						577
PM Volumes	1	4645	611	46	110	5	0	0	0	0	0	0	0	5418
% PM	0%	55%	7%	1%	1%	0%								64%
PM Peak Hour	20:00	17:00	12:00	15:00	13:00	13:00								12:00
Volume	1	610	87	8	17	2								713

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	865		10%	1347		16%	1308		16%	4891		58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,202	4,209	8,411

AM Period	NB		SB		EB		WB		TOTAL	
00:00	0		0		6		22		28	
00:15	0		0		14		14		28	
00:30	0		0		11		16		27	
00:45	0		0		9	40	7	59	16	99
01:00	0		0		5		9		14	
01:15	0		0		4		2		6	
01:30	0		0		9		8		17	
01:45	0		0		8	26	10	29	18	55
02:00	0		0		7		8		15	
02:15	0		0		10		6		16	
02:30	0		0		2		3		5	
02:45	0		0		2	21	1	18	3	39
03:00	0		0		3		6		9	
03:15	0		0		0		8		8	
03:30	0		0		3		3		6	
03:45	0		0		4	10	7	24	11	34
04:00	0		0		7		2		9	
04:15	0		0		13		12		25	
04:30	0		0		13		8		21	
04:45	0		0		19	52	17	39	36	91
05:00	0		0		24		12		36	
05:15	0		0		36		27		63	
05:30	0		0		42		24		66	
05:45	0		0		36	138	28	91	64	229
06:00	0		0		32		35		67	
06:15	0		0		32		44		76	
06:30	0		0		46		32		78	
06:45	0		0		49	159	37	148	86	307
07:00	0		0		59		41		100	
07:15	0		0		71		26		97	
07:30	0		0		71		38		109	
07:45	0		0		75	276	53	158	128	434
08:00	0		0		58		29		87	
08:15	0		0		65		43		108	
08:30	0		0		81		42		123	
08:45	0		0		78	282	35	149	113	431
09:00	0		0		64		36		100	
09:15	0		0		46		43		89	
09:30	0		0		64		28		92	
09:45	0		0		54	228	36	143	90	371
10:00	0		0		48		32		80	
10:15	0		0		46		32		78	
10:30	0		0		44		22		66	
10:45	0		0		66	204	36	122	102	326
11:00	0		0		46		74		120	
11:15	0		0		77		59		136	
11:30	0		0		75		72		147	
11:45	0		0		86	284	88	293	174	577
TOTALS						1720		1273		**2993**
SPLIT %						57.5%		42.5%		**35.6%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00	0		0		81		92		173	
12:15	0		0		101		72		173	
12:30	0		0		78		87		165	
12:45	0		0		120	380	82	333	202	713
13:00	0		0		108		83		191	
13:15	0		0		97		83		180	
13:30	0		0		82		56		138	
13:45	0		0		71	358	54	276	125	634
14:00	0		0		64		68		132	
14:15	0		0		66		61		127	
14:30	0		0		69		66		135	
14:45	0		0		62	261	73	268	135	529
15:00	0		0		57		73		130	
15:15	0		0		70		62		132	
15:30	0		0		50		91		141	
15:45	0		0		53	230	76	302	129	532
16:00	0		0		64		88		152	
16:15	0		0		53		99		152	
16:30	0		0		75		92		167	
16:45	0		0		50	242	95	374	145	616
17:00	0		0		74		132		206	
17:15	0		0		68		124		192	
17:30	0		0		57		111		168	
17:45	0		0		55	254	71	438	126	692
18:00	0		0		50		61		111	
18:15	0		0		53		77		130	
18:30	0		0		50		57		107	
18:45	0		0		38	191	65	260	103	451
19:00	0		0		47		71		118	
19:15	0		0		42		61		103	
19:30	0		0		30		48		78	
19:45	0		0		23	142	37	217	60	359
20:00	0		0		44		44		88	
20:15	0		0		20		26		46	
20:30	0		0		38		39		77	
20:45	0		0		39	141	26	135	65	276
21:00	0		0		35		25		60	
21:15	0		0		22		35		57	
21:30	0		0		23		35		58	
21:45	0		0		33	113	18	113	51	226
22:00	0		0		25		25		50	
22:15	0		0		17		24		41	
22:30	0		0		17		29		46	
22:45	0		0		31	90	28	106	59	196
23:00	0		0		20		38		58	
23:15	0		0		28		35		63	
23:30	0		0		17		25		42	
23:45	0		0		15	80	16	114	31	194
TOTALS						2482		2936		**5418**
SPLIT %						45.8%		54.2%		**64.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,202	4,209	8,411

AM Peak Hour		11:45	11:45	**11:45**
AM Pk Volume		346	339	**685**
Pk Hr Factor		0.856	0.921	**0.984**
7 - 9 Volume	0 0	558	307	**865**
7 - 9 Peak Hour		08:00	07:45	**07:45**
7 - 9 Pk Volume	0 0	282	167	**446**
Pk Hr Factor	0.000 0.000	0.870	0.788	**0.871**

PM Peak Hour		12:15	16:45	**12:30**
PM Pk Volume		407	462	**738**
Pk Hr Factor		0.848	0.875	**0.913**
4 - 6 Volume	0 0	496	812	**1308**
4 - 6 Peak Hour		16:30	16:45	**16:45**
4 - 6 Pk Volume	0 0	267	462	**711**
Pk Hr Factor	0.000 0.000	0.890	0.875	**0.863**

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	22	5	0	1	0	0	0	0	0	0	0	0	28
00:15	0	23	4	1	0	0	0	0	0	0	0	0	0	28
00:30	0	25	2	0	0	0	0	0	0	0	0	0	0	27
00:45	0	15	1	0	0	0	0	0	0	0	0	0	0	16
01:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
01:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
01:30	0	14	3	0	0	0	0	0	0	0	0	0	0	17
01:45	0	15	3	0	0	0	0	0	0	0	0	0	0	18
02:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15
02:15	0	14	1	1	0	0	0	0	0	0	0	0	0	16
02:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8
03:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:45	0	10	1	0	0	0	0	0	0	0	0	0	0	11
04:00	0	6	2	1	0	0	0	0	0	0	0	0	0	9
04:15	0	22	3	0	0	0	0	0	0	0	0	0	0	25
04:30	0	18	3	0	0	0	0	0	0	0	0	0	0	21
04:45	0	31	5	0	0	0	0	0	0	0	0	0	0	36
05:00	0	32	4	0	0	0	0	0	0	0	0	0	0	36
05:15	0	53	7	0	3	0	0	0	0	0	0	0	0	63
05:30	0	53	12	0	1	0	0	0	0	0	0	0	0	66
05:45	0	56	7	0	1	0	0	0	0	0	0	0	0	64
06:00	0	55	10	1	1	0	0	0	0	0	0	0	0	67
06:15	1	66	8	0	1	0	0	0	0	0	0	0	0	76
06:30	0	64	9	1	4	0	0	0	0	0	0	0	0	78
06:45	0	70	11	1	4	0	0	0	0	0	0	0	0	86
07:00	0	88	11	0	1	0	0	0	0	0	0	0	0	100
07:15	1	82	10	2	2	0	0	0	0	0	0	0	0	97
07:30	0	89	14	2	4	0	0	0	0	0	0	0	0	109
07:45	0	111	15	0	2	0	0	0	0	0	0	0	0	128
08:00	0	73	12	0	1	0	1	0	0	0	0	0	0	87

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	87	15	1	5	0	0	0	0	0	0	0	0	108
08:30	0	101	19	0	3	0	0	0	0	0	0	0	0	123
08:45	0	93	16	0	4	0	0	0	0	0	0	0	0	113
09:00	0	78	15	1	6	0	0	0	0	0	0	0	0	100
09:15	0	75	12	0	2	0	0	0	0	0	0	0	0	89
09:30	0	78	12	0	2	0	0	0	0	0	0	0	0	92
09:45	0	72	11	0	7	0	0	0	0	0	0	0	0	90
10:00	0	70	8	1	1	0	0	0	0	0	0	0	0	80
10:15	0	68	7	1	2	0	0	0	0	0	0	0	0	78
10:30	0	51	10	1	4	0	0	0	0	0	0	0	0	66
10:45	0	85	13	0	4	0	0	0	0	0	0	0	0	102
11:00	1	93	19	1	5	0	0	1	0	0	0	0	0	120
11:15	0	111	20	0	4	1	0	0	0	0	0	0	0	136
11:30	0	117	22	2	6	0	0	0	0	0	0	0	0	147
11:45	0	150	20	1	3	0	0	0	0	0	0	0	0	174
12:00 PM	0	147	20	2	4	0	0	0	0	0	0	0	0	173
12:15	0	146	24	1	2	0	0	0	0	0	0	0	0	173
12:30	0	143	18	1	3	0	0	0	0	0	0	0	0	165
12:45	0	170	25	1	6	0	0	0	0	0	0	0	0	202
13:00	0	158	26	2	4	1	0	0	0	0	0	0	0	191
13:15	0	149	24	1	6	0	0	0	0	0	0	0	0	180
13:30	0	113	19	1	4	1	0	0	0	0	0	0	0	138
13:45	0	108	14	0	3	0	0	0	0	0	0	0	0	125
14:00	0	115	13	1	3	0	0	0	0	0	0	0	0	132
14:15	0	108	14	0	4	1	0	0	0	0	0	0	0	127
14:30	0	113	16	3	2	1	0	0	0	0	0	0	0	135
14:45	0	114	14	3	4	0	0	0	0	0	0	0	0	135
15:00	0	109	16	3	2	0	0	0	0	0	0	0	0	130
15:15	0	109	18	2	3	0	0	0	0	0	0	0	0	132
15:30	0	121	17	0	3	0	0	0	0	0	0	0	0	141
15:45	0	107	15	3	4	0	0	0	0	0	0	0	0	129
16:00	0	130	18	1	3	0	0	0	0	0	0	0	0	152
16:15	0	133	15	1	3	0	0	0	0	0	0	0	0	152

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	143	21	1	1	1	0	0	0	0	0	0	0	**167**
16:45	0	129	14	1	1	0	0	0	0	0	0	0	0	**145**
17:00	0	183	18	2	3	0	0	0	0	0	0	0	0	**206**
17:15	0	168	19	2	3	0	0	0	0	0	0	0	0	**192**
17:30	0	147	15	0	6	0	0	0	0	0	0	0	0	**168**
17:45	0	112	12	0	2	0	0	0	0	0	0	0	0	**126**
18:00	0	94	13	2	2	0	0	0	0	0	0	0	0	**111**
18:15	0	111	15	1	3	0	0	0	0	0	0	0	0	**130**
18:30	0	91	13	0	3	0	0	0	0	0	0	0	0	**107**
18:45	0	85	10	2	6	0	0	0	0	0	0	0	0	**103**
19:00	0	101	12	2	3	0	0	0	0	0	0	0	0	**118**
19:15	0	91	10	0	2	0	0	0	0	0	0	0	0	**103**
19:30	0	67	9	2	0	0	0	0	0	0	0	0	0	**78**
19:45	0	53	6	0	1	0	0	0	0	0	0	0	0	**60**
20:00	0	77	9	0	2	0	0	0	0	0	0	0	0	**88**
20:15	0	39	6	0	1	0	0	0	0	0	0	0	0	**46**
20:30	0	66	9	0	2	0	0	0	0	0	0	0	0	**77**
20:45	1	59	5	0	0	0	0	0	0	0	0	0	0	**65**
21:00	0	49	9	1	1	0	0	0	0	0	0	0	0	**60**
21:15	0	51	5	1	0	0	0	0	0	0	0	0	0	**57**
21:30	0	51	6	0	1	0	0	0	0	0	0	0	0	**58**
21:45	0	43	7	0	1	0	0	0	0	0	0	0	0	**51**
22:00	0	42	8	0	0	0	0	0	0	0	0	0	0	**50**
22:15	0	38	3	0	0	0	0	0	0	0	0	0	0	**41**
22:30	0	40	4	2	0	0	0	0	0	0	0	0	0	**46**
23:00	0	49	7	1	1	0	0	0	0	0	0	0	0	**58**
23:15	0	56	6	0	1	0	0	0	0	0	0	0	0	**63**
23:30	0	38	4	0	0	0	0	0	0	0	0	0	0	**42**
23:45	0	28	3	0	0	0	0	0	0	0	0	0	0	**31**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	4	7141	999	65	194	6	1	1						8411
% of Totals	0%	85%	12%	1%	2%	0%	0%	0%						100%

AM Volumes	3	2496	388	19	84	1	1	1	0	0	0	0	0	2993
% AM	0%	30%	5%	0%	1%	0%	0%	0%						36%
AM Peak Hour	05:30	11:45	11:30	11:30	10:45	10:30	07:15	10:15						11:45
Volume	1	586	86	6	19	1	1	1						685
PM Volumes	1	4645	611	46	110	5	0	0	0	0	0	0	0	5418
% PM	0%	55%	7%	1%	1%	0%								64%
PM Peak Hour	20:00	16:45	12:45	14:30	12:45	12:45								12:30
Volume	1	627	94	11	20	2								738

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	865	10%	1347	16%	1308	16%	4891	58%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	1	87	16	2	2	0	0	0	0	0	0	0	0	**108**
01:00	0	43	3	0	0	0	0	0	0	0	0	0	0	**46**
02:00	0	29	2	0	0	0	0	0	0	0	0	0	0	**31**
03:00	0	21	2	1	1	0	0	0	0	0	0	0	0	**25**
04:00	0	68	11	0	1	0	0	0	0	0	0	0	0	**80**
05:00	0	189	31	2	7	0	0	0	0	0	0	0	0	**229**
06:00	2	270	36	4	8	1	0	0	0	0	0	0	0	**321**
07:00	1	355	48	8	12	0	0	0	0	0	0	0	0	**424**
08:00	0	392	65	3	13	0	0	0	0	0	0	0	0	**473**
09:00	0	320	49	4	9	0	0	0	0	0	0	0	0	**382**
10:00	0	312	49	4	12	0	0	0	0	0	0	0	0	**377**
11:00	1	481	85	0	14	1	0	0	0	0	0	0	0	**582**
12:00 PM	0	609	116	8	16	1	0	0	0	0	0	0	0	**750**
13:00	0	548	80	4	13	0	0	0	0	0	0	0	0	**645**
14:00	0	470	63	4	15	1	0	0	0	0	0	0	0	**553**
15:00	1	460	66	7	15	0	0	0	0	0	0	0	0	**549**
16:00	1	468	61	3	13	0	0	0	0	0	0	0	0	**546**
17:00	0	606	82	3	16	0	0	0	0	0	0	0	0	**707**
18:00	1	414	57	4	10	0	0	0	0	0	0	0	0	**486**
19:00	0	293	44	1	9	0	0	0	0	0	0	0	0	**347**
20:00	0	227	33	0	9	0	0	0	0	0	0	0	0	**269**
21:00	0	168	21	0	6	0	0	0	0	0	0	0	0	**195**
22:00	0	160	21	0	3	0	0	0	0	0	0	0	0	**184**
23:00	0	131	14	0	2	0	0	0	0	0	0	0	0	**147**
Totals	**8**	**7121**	**1055**	**62**	**206**	**4**								**8456**
% of Totals	0%	84%	12%	1%	2%	0%								100%

AM Volumes	5	2567	397	28	79	2	0	0	0	0	0	0	0	3078
% AM	0%	30%	5%	0%	1%	0%								36%
AM Peak Hour	06:00	11:00	11:00	07:00	11:00	06:00								11:00
Volume	2	481	85	8	14	1								582
PM Volumes	3	4554	658	34	127	2	0	0	0	0	0	0	0	5378
% PM	0%	54%	8%	0%	2%	0%								64%
PM Peak Hour	15:00	12:00	12:00	12:00	12:00	12:00								12:00
Volume	1	609	116	8	16	1								750

Directional Peak Periods	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	897	11%	1395	16%	1253	15%	4911	58%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,263	4,193	8,456

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	0		0		12		20		32		12:00	0		0		83		113		196	
00:15	0		0		10		23		33		12:15	0		0		103		97		200	
00:30	0		0		12		9		21		12:30	0		0		115		60		175	
00:45	0		0		13	47	9	61	22	108	12:45	0		0		95	396	84	354	179	750
01:00	0		0		6		6		12		13:00	0		0		84		71		155	
01:15	0		0		4		5		9		13:15	0		0		89		71		160	
01:30	0		0		3		6		9		13:30	0		0		89		85		174	
01:45	0		0		7	20	9	26	16	46	13:45	0		0		90	352	66	293	156	645
02:00	0		0		3		5		8		14:00	0		0		73		81		154	
02:15	0		0		2		3		5		14:15	0		0		57		75		132	
02:30	0		0		5		5		10		14:30	0		0		71		66		137	
02:45	0		0		2	12	6	19	8	31	14:45	0		0		56	257	74	296	130	553
03:00	0		0		2		4		6		15:00	0		0		60		77		137	
03:15	0		0		1		3		4		15:15	0		0		61		77		138	
03:30	0		0		3		3		6		15:30	0		0		60		74		134	
03:45	0		0		5	11	4	14	9	25	15:45	0		0		71	252	69	297	140	549
04:00	0		0		7		2		9		16:00	0		0		52		72		124	
04:15	0		0		6		9		15		16:15	0		0		41		91		132	
04:30	0		0		16		8		24		16:30	0		0		51		98		149	
04:45	0		0		23	52	9	28	32	80	16:45	0		0		63	207	78	339	141	546
05:00	0		0		23		13		36		17:00	0		0		78		134		212	
05:15	0		0		37		33		70		17:15	0		0		78		108		186	
05:30	0		0		30		21		51		17:30	0		0		58		127		185	
05:45	0		0		42	132	30	97	72	229	17:45	0		0		54	268	70	439	124	707
06:00	0		0		22		43		65		18:00	0		0		53		78		131	
06:15	0		0		30		33		63		18:15	0		0		56		72		128	
06:30	0		0		60		33		93		18:30	0		0		47		69		116	
06:45	0		0		62	174	38	147	100	321	18:45	0		0		44	200	67	286	111	486
07:00	0		0		52		40		92		19:00	0		0		36		58		94	
07:15	0		0		75		26		101		19:15	0		0		45		57		102	
07:30	0		0		79		27		106		19:30	0		0		33		41		74	
07:45	0		0		86	292	39	132	125	424	19:45	0		0		41	155	36	192	77	347
08:00	0		0		62		37		99		20:00	0		0		32		32		64	
08:15	0		0		70		38		108		20:15	0		0		33		42		75	
08:30	0		0		89		46		135		20:30	0		0		42		30		72	
08:45	0		0		97	318	34	155	131	473	20:45	0		0		28	135	30	134	58	269
09:00	0		0		70		36		106		21:00	0		0		26		30		56	
09:15	0		0		55		34		89		21:15	0		0		23		26		49	
09:30	0		0		62		33		95		21:30	0		0		17		32		49	
09:45	0		0		63	250	29	132	92	382	21:45	0		0		17	83	24	112	41	195
10:00	0		0		64		37		101		22:00	0		0		19		14		33	
10:15	0		0		44		40		84		22:15	0		0		20		15		35	
10:30	0		0		37		43		80		22:30	0		0		23		40		63	
10:45	0		0		61	206	51	171	112	377	22:45	0		0		26	88	27	96	53	184
11:00	0		0		65		67		132		23:00	0		0		14		27		41	
11:15	0		0		69		78		147		23:15	0		0		17		26		43	
11:30	0		0		74		76		150		23:30	0		0		9		17		26	
11:45	0		0		96	304	57	278	153	582	23:45	0		0		12	52	25	95	37	147
TOTALS						1818		1260		3078	TOTALS						2445		2933		5378
SPLIT %						59.1%		40.9%		36.4%	SPLIT %						45.5%		54.5%		63.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,263	4,193	8,456

AM Peak Hour			11:45	11:30	11:45	PM Peak Hour			12:15	16:45	12:00
AM Pk Volume			397	343	724	PM Pk Volume			397	447	750
Pk Hr Factor			0.863	0.759	0.905	Pk Hr Factor			0.863	0.834	0.938
7 - 9 Volume	0	0	610	287	897	4 - 6 Volume	0	0	475	778	1253
7 - 9 Peak Hour			08:00	07:45	08:00	4 - 6 Peak Hour			16:45	16:45	16:45
7 - 9 Pk Volume	0	0	318	160	473	4 - 6 Pk Volume	0	0	277	447	724
Pk Hr Factor	0.000	0.000	0.820	0.870	0.876	Pk Hr Factor	0.000	0.000	0.888	0.834	0.854

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	26	5	1	0	0	0	0	0	0	0	0	0	32
00:15	1	27	4	1	0	0	0	0	0	0	0	0	0	33
00:30	0	17	4	0	0	0	0	0	0	0	0	0	0	21
00:45	0	17	3	0	2	0	0	0	0	0	0	0	0	22
01:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
01:15	0	9	0	0	0	0	0	0	0	0	0	0	0	9
01:30	0	9	0	0	0	0	0	0	0	0	0	0	0	9
01:45	0	14	2	0	0	0	0	0	0	0	0	0	0	16
02:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
02:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:30	0	9	1	0	0	0	0	0	0	0	0	0	0	10
02:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8
03:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
03:45	0	6	1	1	1	0	0	0	0	0	0	0	0	9
04:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
04:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15
04:30	0	21	3	0	0	0	0	0	0	0	0	0	0	24
04:45	0	26	5	0	1	0	0	0	0	0	0	0	0	32
05:00	0	28	7	0	1	0	0	0	0	0	0	0	0	36
05:15	0	58	9	0	3	0	0	0	0	0	0	0	0	70
05:30	0	42	7	1	1	0	0	0	0	0	0	0	0	51
05:45	0	61	8	1	2	0	0	0	0	0	0	0	0	72
06:00	0	55	7	1	2	0	0	0	0	0	0	0	0	65
06:15	0	56	6	0	1	0	0	0	0	0	0	0	0	63
06:30	2	78	10	0	2	1	0	0	0	0	0	0	0	93
06:45	0	81	13	3	3	0	0	0	0	0	0	0	0	100
07:00	1	77	10	1	3	0	0	0	0	0	0	0	0	92
07:15	0	85	10	4	2	0	0	0	0	0	0	0	0	101
07:30	0	86	14	3	3	0	0	0	0	0	0	0	0	106
07:45	0	107	14	0	4	0	0	0	0	0	0	0	0	125
08:00	0	82	15	0	2	0	0	0	0	0	0	0	0	99

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	87	15	3	3	0	0	0	0	0	0	0	0	108
08:30	0	112	18	0	5	0	0	0	0	0	0	0	0	135
08:45	0	111	17	0	3	0	0	0	0	0	0	0	0	131
09:00	0	88	16	0	2	0	0	0	0	0	0	0	0	106
09:15	0	76	9	2	2	0	0	0	0	0	0	0	0	89
09:30	0	77	15	1	2	0	0	0	0	0	0	0	0	95
09:45	0	79	9	1	3	0	0	0	0	0	0	0	0	92
10:00	0	85	12	1	3	0	0	0	0	0	0	0	0	101
10:15	0	71	11	1	1	0	0	0	0	0	0	0	0	84
10:30	0	65	10	1	4	0	0	0	0	0	0	0	0	80
10:45	0	91	16	1	4	0	0	0	0	0	0	0	0	112
11:00	0	107	20	0	5	0	0	0	0	0	0	0	0	132
11:15	0	122	23	0	2	0	0	0	0	0	0	0	0	147
11:30	0	124	23	0	2	1	0	0	0	0	0	0	0	150
11:45	1	128	19	0	5	0	0	0	0	0	0	0	0	153
12:00 PM	0	162	28	1	4	1	0	0	0	0	0	0	0	196
12:15	0	158	33	4	5	0	0	0	0	0	0	0	0	200
12:30	0	144	27	1	3	0	0	0	0	0	0	0	0	175
12:45	0	145	28	2	4	0	0	0	0	0	0	0	0	179
13:00	0	134	19	1	1	0	0	0	0	0	0	0	0	155
13:15	0	133	21	1	5	0	0	0	0	0	0	0	0	160
13:30	0	149	22	0	3	0	0	0	0	0	0	0	0	174
13:45	0	132	18	2	4	0	0	0	0	0	0	0	0	156
14:00	0	134	15	1	4	0	0	0	0	0	0	0	0	154
14:15	0	110	16	2	4	0	0	0	0	0	0	0	0	132
14:30	0	111	20	1	5	0	0	0	0	0	0	0	0	137
14:45	0	115	12	0	2	1	0	0	0	0	0	0	0	130
15:00	0	113	18	3	3	0	0	0	0	0	0	0	0	137
15:15	1	112	17	2	6	0	0	0	0	0	0	0	0	138
15:30	0	115	14	1	4	0	0	0	0	0	0	0	0	134
15:45	0	120	17	1	2	0	0	0	0	0	0	0	0	140
16:00	0	105	15	1	3	0	0	0	0	0	0	0	0	124
16:15	0	116	13	0	3	0	0	0	0	0	0	0	0	132

Prepared by National Data & Surveying Services

CLASSIFICATION

Doug Davis Dr E/O Virginia Ave /Clay Pl

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	1	124	18	2	4	0	0	0	0	0	0	0	0	**149**
16:45	0	123	15	0	3	0	0	0	0	0	0	0	0	**141**
17:00	0	185	23	0	4	0	0	0	0	0	0	0	0	**212**
17:15	0	159	19	2	6	0	0	0	0	0	0	0	0	**186**
17:30	0	158	24	0	3	0	0	0	0	0	0	0	0	**185**
17:45	0	104	16	1	3	0	0	0	0	0	0	0	0	**124**
18:00	0	111	15	2	3	0	0	0	0	0	0	0	0	**131**
18:15	0	110	16	0	2	0	0	0	0	0	0	0	0	**128**
18:30	0	101	12	1	2	0	0	0	0	0	0	0	0	**116**
18:45	1	92	14	1	3	0	0	0	0	0	0	0	0	**111**
19:00	0	80	12	1	1	0	0	0	0	0	0	0	0	**94**
19:15	0	87	12	0	3	0	0	0	0	0	0	0	0	**102**
19:30	0	61	9	0	4	0	0	0	0	0	0	0	0	**74**
19:45	0	65	11	0	1	0	0	0	0	0	0	0	0	**77**
20:00	0	56	7	0	1	0	0	0	0	0	0	0	0	**64**
20:15	0	61	11	0	3	0	0	0	0	0	0	0	0	**75**
20:30	0	59	9	0	4	0	0	0	0	0	0	0	0	**72**
20:45	0	51	6	0	1	0	0	0	0	0	0	0	0	**58**
21:00	0	47	6	0	3	0	0	0	0	0	0	0	0	**56**
21:15	0	44	5	0	0	0	0	0	0	0	0	0	0	**49**
21:30	0	42	5	0	2	0	0	0	0	0	0	0	0	**49**
21:45	0	35	5	0	1	0	0	0	0	0	0	0	0	**41**
22:00	0	30	3	0	0	0	0	0	0	0	0	0	0	**33**
22:15	0	31	4	0	0	0	0	0	0	0	0	0	0	**35**
22:30	0	53	7	0	3	0	0	0	0	0	0	0	0	**63**
23:00	0	35	5	0	1	0	0	0	0	0	0	0	0	**41**
23:15	0	39	4	0	0	0	0	0	0	0	0	0	0	**43**
23:30	0	24	1	0	1	0	0	0	0	0	0	0	0	**26**
23:45	0	33	4	0	0	0	0	0	0	0	0	0	0	**37**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	8	7121	1055	62	206	4								8456
% of Totals	0%	84%	12%	1%	2%	0%								100%

AM Volumes	5	2567	397	28	79	2	0	0	0	0	0	0	0	3078
% AM	0%	30%	5%	0%	1%	0%								36%
AM Peak Hour	06:15	11:45	11:45	06:45	11:45	11:15								11:45
Volume	3	592	107	11	17	2								724
PM Volumes	3	4554	658	34	127	2	0	0	0	0	0	0	0	5378
% PM	0%	54%	8%	0%	2%	0%								64%
PM Peak Hour	14:30	16:45	12:00	12:00	13:45	12:00								12:00
Volume	1	625	116	8	17	1								750

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	897	11%	1395	16%	1253	15%	4911	58%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
05:00	0	0	0	0	0	0	0	0	2	0	0	0	0	**2**
06:00	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
07:00	0	9	3	0	0	0	0	0	0	0	0	0	0	**12**
08:00	0	29	9	0	2	0	0	0	0	0	0	0	0	**40**
09:00	1	18	2	0	1	1	0	0	0	0	0	0	0	**23**
10:00	1	16	5	0	0	0	0	0	0	0	0	0	0	**22**
11:00	0	50	15	0	1	2	0	0	0	0	0	0	0	**68**
12:00 PM	1	70	11	0	5	0	0	0	0	0	0	0	0	**87**
13:00	3	74	27	0	5	0	0	0	0	0	0	0	0	**109**
14:00	0	22	4	1	0	0	0	0	0	0	0	0	0	**27**
15:00	0	21	5	1	2	0	0	0	0	0	0	0	0	**29**
16:00	0	87	11	0	4	0	0	0	0	0	0	0	0	**102**
17:00	0	97	10	0	0	1	0	0	0	0	0	0	0	**108**
18:00	0	63	7	0	1	0	0	0	0	0	0	0	0	**71**
19:00	0	53	6	0	1	0	0	0	1	0	0	0	0	**61**
20:00	0	39	7	0	3	0	0	0	1	0	0	0	0	**50**
21:00	0	29	8	0	1	0	0	0	0	0	0	0	0	**38**
22:00	0	9	1	1	0	0	0	0	0	0	0	0	0	**11**
23:00	0	3	2	0	0	1	0	0	0	0	0	0	0	**6**
Totals	**6**	**693**	**135**	**3**	**26**	**5**			**4**					**872**
% of Totals	1%	79%	15%	0%	3%	1%			0%					100%

AM Volumes	2	126	36	0	4	3	0	0	2	0	0	0	0	173
% AM	0%	14%	4%		0%	0%			0%					20%
AM Peak Hour	09:00	11:00	11:00		08:00	11:00			05:00					11:00
Volume	1	50	15		2	2			2					68
PM Volumes	4	567	99	3	22	2	0	0	2	0	0	0	0	699
% PM	0%	65%	11%	0%	3%	0%			0%					80%
PM Peak Hour	13:00	17:00	13:00	14:00	12:00	17:00			19:00					13:00
Volume	3	97	27	1	5	1			1					109

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	52		6%	196		22%	210		24%	414		47%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Clay Pl S/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_005

DAILY TOTALS	NB	SB	EB	WB	Total
	500	372	0	0	872

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0		0	0			12:00	8		9		0	0	17	
00:15	0		0		0	0			12:15	20		9		0	0	29	
00:30	0		0		0	0			12:30	9		8		0	0	17	
00:45	0		0		0	0			12:45	16	53	8	34	0	0	24	87
01:00	0		0		0	0			13:00	15		16		0	0	31	
01:15	0		0		0	0			13:15	18		16		0	0	34	
01:30	0		0		0	0			13:30	12		5		0	0	17	
01:45	0		0		0	0			13:45	13	58	14	51	0	0	27	109
02:00	0		0		0	0			14:00	9		7		0	0	16	
02:15	0		0		0	0			14:15	9		2		0	0	11	
02:30	0		0		0	0			14:30	0		0		0	0		
02:45	2	2	0		0	0	2	2	14:45	0	18	0	9	0	0		27
03:00	0		1		0	0	1		15:00	0		0		0	0		
03:15	0		0		0	0			15:15	8		5		0	0	13	
03:30	0		0		0	0			15:30	9		1		0	0	10	
03:45	0		0	1	0	0		1	15:45	2	19	4	10	0	0	6	29
04:00	0		1		0	0	1		16:00	16		9		0	0	25	
04:15	0		0		0	0			16:15	14		11		0	0	25	
04:30	0		0		0	0			16:30	19		16		0	0	35	
04:45	0		0	1	0	0		1	16:45	14	63	3	39	0	0	17	102
05:00	0		0		0	0			17:00	19		11		0	0	30	
05:15	0		1		0	0	1		17:15	22		17		0	0	39	
05:30	1		0		0	0	1		17:30	10		6		0	0	16	
05:45	0	1	0	1	0	0		2	17:45	17	68	6	40	0	0	23	108
06:00	1		0		0	0	1		18:00	9		4		0	0	13	
06:15	0		0		0	0			18:15	15		11		0	0	26	
06:30	0		1		0	0	1		18:30	14		12		0	0	26	
06:45	0	1	0	1	0	0		2	18:45	4	42	2	29	0	0	6	71
07:00	1		2		0	0	3		19:00	8		6		0	0	14	
07:15	0		2		0	0	2		19:15	14		7		0	0	21	
07:30	0		2		0	0	2		19:30	5		6		0	0	11	
07:45	0	1	5	11	0	0	5	12	19:45	4	31	11	30	0	0	15	61
08:00	2		5		0	0	7		20:00	15		4		0	0	19	
08:15	2		10		0	0	12		20:15	11		3		0	0	14	
08:30	2		10		0	0	12		20:30	6		3		0	0	9	
08:45	2	8	7	32	0	0	9	40	20:45	4	36	4	14	0	0	8	50
09:00	3		6		0	0	9		21:00	8		4		0	0	12	
09:15	3		1		0	0	4		21:15	5		1		0	0	6	
09:30	6		2		0	0	8		21:30	4		3		0	0	7	
09:45	0	12	2	11	0	0	2	23	21:45	13	30	0	8	0	0	13	38
10:00	2		0		0	0	2		22:00	2		0		0	0	2	
10:15	1		2		0	0	3		22:15	1		2		0	0	3	
10:30	3		2		0	0	5		22:30	4		0		0	0	4	
10:45	6	12	6	10	0	0	12	22	22:45	2	9	0	2	0	0	2	11
11:00	5		13		0	0	18		23:00	2		1		0	0	3	
11:15	8		3		0	0	11		23:15	1		0		0	0	1	
11:30	7		9		0	0	16		23:30	2		0		0	0	2	
11:45	11	31	12	37	0	0	23	68	23:45	0	5	0	1	0	0		6
TOTALS		68		105				173	TOTALS		432		267				699
SPLIT %		39.3%		60.7%				19.8%	SPLIT %		61.8%		38.2%				80.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	500	372	0	0	872

AM Peak Hour	11:45	11:30			11:45	PM Peak Hour	16:30	13:00			16:30
AM Pk Volume	48	39			86	PM Pk Volume	74	51			121
Pk Hr Factor	0.600	0.813			0.741	Pk Hr Factor	0.841	0.797			0.776
7 - 9 Volume	9	43	0	0	52	4 - 6 Volume	131	79	0	0	210
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:30	16:30			16:30
7 - 9 Pk Volume	8	32	0	0	40	4 - 6 Pk Volume	74	47	0	0	121
Pk Hr Factor	1.000	0.800	0.000	0.000	0.833	Pk Hr Factor	0.841	0.691	0.000	0.000	0.776

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
07:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
07:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
08:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	10	2	0	0	0	0	0	0	0	0	0	0	12
08:30	0	7	4	0	1	0	0	0	0	0	0	0	0	12
08:45	0	7	2	0	0	0	0	0	0	0	0	0	0	9
09:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
09:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
09:30	1	5	1	0	0	1	0	0	0	0	0	0	0	8
09:45	0	1	0	0	1	0	0	0	0	0	0	0	0	2
10:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
10:30	1	3	1	0	0	0	0	0	0	0	0	0	0	5
10:45	0	9	3	0	0	0	0	0	0	0	0	0	0	12
11:00	0	15	1	0	1	1	0	0	0	0	0	0	0	18
11:15	0	8	3	0	0	0	0	0	0	0	0	0	0	11
11:30	0	11	4	0	0	1	0	0	0	0	0	0	0	16
11:45	0	16	7	0	0	0	0	0	0	0	0	0	0	23
12:00 PM	0	15	2	0	0	0	0	0	0	0	0	0	0	17
12:15	0	26	1	0	2	0	0	0	0	0	0	0	0	29
12:30	1	13	2	0	1	0	0	0	0	0	0	0	0	17
12:45	0	16	6	0	2	0	0	0	0	0	0	0	0	24
13:00	1	20	7	0	3	0	0	0	0	0	0	0	0	31
13:15	1	24	8	0	1	0	0	0	0	0	0	0	0	34
13:30	0	13	4	0	0	0	0	0	0	0	0	0	0	17
13:45	1	17	8	0	1	0	0	0	0	0	0	0	0	27
14:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
14:15	0	9	1	1	0	0	0	0	0	0	0	0	0	11
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	8	3	0	2	0	0	0	0	0	0	0	0	13
15:30	0	9	0	1	0	0	0	0	0	0	0	0	0	10
15:45	0	4	2	0	0	0	0	0	0	0	0	0	0	6
16:00	0	22	2	0	1	0	0	0	0	0	0	0	0	25
16:15	0	24	1	0	0	0	0	0	0	0	0	0	0	25

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Tuesday
Date: 5/14/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	27	5	0	3	0	0	0	0	0	0	0	0	**35**
16:45	0	14	3	0	0	0	0	0	0	0	0	0	0	**17**
17:00	0	28	2	0	0	0	0	0	0	0	0	0	0	**30**
17:15	0	35	4	0	0	0	0	0	0	0	0	0	0	**39**
17:30	0	14	2	0	0	0	0	0	0	0	0	0	0	**16**
17:45	0	20	2	0	0	1	0	0	0	0	0	0	0	**23**
18:00	0	11	2	0	0	0	0	0	0	0	0	0	0	**13**
18:15	0	22	3	0	1	0	0	0	0	0	0	0	0	**26**
18:30	0	25	1	0	0	0	0	0	0	0	0	0	0	**26**
18:45	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
19:00	0	12	2	0	0	0	0	0	0	0	0	0	0	**14**
19:15	0	19	1	0	0	0	0	0	1	0	0	0	0	**21**
19:30	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
19:45	0	12	2	0	1	0	0	0	0	0	0	0	0	**15**
20:00	0	15	2	0	1	0	0	0	1	0	0	0	0	**19**
20:15	0	11	3	0	0	0	0	0	0	0	0	0	0	**14**
20:30	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
20:45	0	6	0	0	2	0	0	0	0	0	0	0	0	**8**
21:00	0	8	3	0	1	0	0	0	0	0	0	0	0	**12**
21:15	0	4	2	0	0	0	0	0	0	0	0	0	0	**6**
21:30	0	5	2	0	0	0	0	0	0	0	0	0	0	**7**
21:45	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
22:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
22:15	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
22:30	0	3	0	1	0	0	0	0	0	0	0	0	0	**4**
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
23:15	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
23:30	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	6	693	135	3	26	5			4					872
% of Totals	1%	79%	15%	0%	3%	1%			0%					100%

AM Volumes	2	126	36	0	4	3	0	0	2	0	0	0	0	173
% AM	0%	14%	4%		0%	0%			0%					20%
AM Peak Hour	08:45	11:45	11:15		11:45	10:45			04:45					11:45
Volume	1	70	16		3	2			2					86
PM Volumes	4	567	99	3	22	2	0	0	2	0	0	0	0	699
% PM	0%	65%	11%	0%	3%	0%			0%					80%
PM Peak Hour	12:30	16:30	13:00	13:30	12:15	17:00			19:15					16:30
Volume	3	104	27	1	8	1			2					121

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	52	6%	196	22%	210	24%	414	47%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	1	0	0	2	0	0	0	0	0	0	0	0	3
07:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
08:00	0	32	9	1	1	0	0	0	0	0	0	0	0	43
09:00	0	8	3	2	1	0	0	0	0	0	0	0	0	14
10:00	0	39	9	0	1	0	0	0	0	0	0	0	0	49
11:00	0	66	26	0	5	0	0	0	0	0	0	0	0	97
12:00 PM	3	79	28	1	0	1	0	0	0	0	0	0	0	112
13:00	0	78	17	1	3	0	0	0	0	0	0	0	0	99
14:00	1	60	9	0	3	1	0	0	0	0	0	0	0	74
15:00	0	41	5	0	0	4	0	0	0	0	0	0	0	50
16:00	0	90	7	0	3	0	0	0	0	0	0	0	0	100
17:00	0	78	12	0	3	0	0	0	0	0	0	0	0	93
18:00	1	62	17	0	2	0	0	0	0	0	0	0	0	82
19:00	0	39	7	0	2	0	0	0	0	0	0	0	0	48
20:00	0	48	12	0	2	0	0	0	0	0	0	0	0	62
21:00	0	30	9	0	1	0	0	0	0	0	0	0	0	40
22:00	0	13	5	0	0	1	0	0	0	0	0	0	0	19
23:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
Totals	**5**	**771**	**179**	**5**	**31**	**7**								**998**
% of Totals	1%	77%	18%	1%	3%	1%								100%

AM Volumes	0	151	49	3	11	0	0	0	0	0	0	0	0	214
% AM		15%	5%	0%	1%									21%
AM Peak Hour		11:00	11:00	09:00	11:00									11:00
Volume		66	26	2	5									97
PM Volumes	5	620	130	2	20	7	0	0	0	0	0	0	0	784
% PM	1%	62%	13%	0%	2%	1%								79%
PM Peak Hour	12:00	16:00	12:00	12:00	13:00	15:00								12:00
Volume	3	90	28	1	3	4								112

Directional Peak Periods All Classes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
	Volume	%	Volume	%	Volume	%	Volume	%
	50 ⟷	5%	211 ⟷	21%	193 ⟷	19%	544 ⟷	55%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Clay Pl S/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_005

DAILY TOTALS	NB	SB	EB	WB	Total
	539	459	0	0	998

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0		0	0			12:00	25		11		0	0	36	
00:15	0		0		0	0			12:15	16		8		0	0	24	
00:30	0		0		0	0			12:30	12		8		0	0	20	
00:45	0		0		0	0			12:45	17	70	15	42	0	0	32	112
01:00	0		0		0	0			13:00	14		12		0	0	26	
01:15	0		0		0	0			13:15	13		13		0	0	26	
01:30	0		0		0	0			13:30	11		9		0	0	20	
01:45	0		0		0	0			13:45	15	53	12	46	0	0	27	99
02:00	0		0		0	0			14:00	10		10		0	0	20	
02:15	0		0		0	0			14:15	12		9		0	0	21	
02:30	0		0		0	0			14:30	6		9		0	0	15	
02:45	0		0		0	0			14:45	10	38	8	36	0	0	18	74
03:00	0		0		0	0			15:00	6		3		0	0	9	
03:15	0		0		0	0			15:15	4		10		0	0	14	
03:30	0		0		0	0			15:30	7		7		0	0	14	
03:45	0		0		0	0			15:45	11	28	2	22	0	0	13	50
04:00	0		1		0	0	1		16:00	18		9		0	0	27	
04:15	0		0		0	0			16:15	15		8		0	0	23	
04:30	0		0		0	0			16:30	13		12		0	0	25	
04:45	0		0	1	0	0		1	16:45	15	61	10	39	0	0	25	100
05:00	0		0		0	0			17:00	19		6		0	0	25	
05:15	0		0		0	0			17:15	17		12		0	0	29	
05:30	0		0		0	0			17:30	9		12		0	0	21	
05:45	0		0		0	0			17:45	12	57	6	36	0	0	18	93
06:00	1		1		0	0	2		18:00	12		4		0	0	16	
06:15	0		0		0	0			18:15	7		10		0	0	17	
06:30	0		0		0	0			18:30	18		13		0	0	31	
06:45	0	1	1	2	0	0	1	3	18:45	10	47	8	35	0	0	18	82
07:00	0		1		0	0	1		19:00	2		6		0	0	8	
07:15	0		0		0	0			19:15	8		7		0	0	15	
07:30	0		2		0	0	2		19:30	6		6		0	0	12	
07:45	0		4	7	0	0	4	7	19:45	6	22	7	26	0	0	13	48
08:00	2		8		0	0	10		20:00	14		6		0	0	20	
08:15	0		11		0	0	11		20:15	6		4		0	0	10	
08:30	1		13		0	0	14		20:30	15		5		0	0	20	
08:45	4	7	4	36	0	0	8	43	20:45	8	43	4	19	0	0	12	62
09:00	2		3		0	0	5		21:00	8		7		0	0	15	
09:15	1		2		0	0	3		21:15	13		3		0	0	16	
09:30	0		3		0	0	3		21:30	1		1		0	0	2	
09:45	1	4	2	10	0	0	3	14	21:45	5	27	2	13	0	0	7	40
10:00	2		1		0	0	3		22:00	6		2		0	0	8	
10:15	5		8		0	0	13		22:15	1		1		0	0	2	
10:30	1		8		0	0	9		22:30	2		4		0	0	6	
10:45	7	15	17	34	0	0	24	49	22:45	3	12	0	7	0	0	3	19
11:00	12		11		0	0	23		23:00	2		0		0	0	2	
11:15	9		7		0	0	16		23:15	1		0		0	0	1	
11:30	13		15		0	0	28		23:30	0		0		0	0		
11:45	16	50	14	47	0	0	30	97	23:45	1	4	1	1	0	0	2	5
TOTALS		77		137				214	TOTALS		462		322				784
SPLIT %		36.0%		64.0%				21.4%	SPLIT %		58.9%		41.1%				78.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	539	459	0	0	998

AM Peak Hour	11:30	10:45			11:30	PM Peak Hour	12:00	12:45			12:00
AM Pk Volume	70	50			118	PM Pk Volume	70	49			112
Pk Hr Factor	0.700	0.735			0.819	Pk Hr Factor	0.700	0.817			0.778
7 - 9 Volume	7	43	0	0	50	4 - 6 Volume	118	75	0	0	193
7 - 9 Peak Hour	08:00	07:45			08:00	4 - 6 Peak Hour	16:30	16:30			16:30
7 - 9 Pk Volume	7	36	0	0	43	4 - 6 Pk Volume	64	40	0	0	104
Pk Hr Factor	0.438	0.692	0.000	0.000	0.768	Pk Hr Factor	0.842	0.833	0.000	0.000	0.897

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
08:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
08:15	0	9	2	0	0	0	0	0	0	0	0	0	0	11
08:30	0	10	4	0	0	0	0	0	0	0	0	0	0	14
08:45	0	5	2	1	0	0	0	0	0	0	0	0	0	8
09:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
09:15	0	1	0	2	0	0	0	0	0	0	0	0	0	3
09:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3
09:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
10:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
10:15	0	11	2	0	0	0	0	0	0	0	0	0	0	13
10:30	0	7	1	0	1	0	0	0	0	0	0	0	0	9
10:45	0	19	5	0	0	0	0	0	0	0	0	0	0	24
11:00	0	18	3	0	2	0	0	0	0	0	0	0	0	23
11:15	0	14	2	0	0	0	0	0	0	0	0	0	0	16
11:30	0	16	11	0	1	0	0	0	0	0	0	0	0	28
11:45	0	18	10	0	2	0	0	0	0	0	0	0	0	30
12:00 PM	2	26	8	0	0	0	0	0	0	0	0	0	0	36
12:15	0	17	7	0	0	0	0	0	0	0	0	0	0	24
12:30	0	13	7	0	0	0	0	0	0	0	0	0	0	20
12:45	1	23	6	1	0	1	0	0	0	0	0	0	0	32
13:00	0	21	4	0	1	0	0	0	0	0	0	0	0	26
13:15	0	20	5	1	0	0	0	0	0	0	0	0	0	26
13:30	0	15	5	0	0	0	0	0	0	0	0	0	0	20
13:45	0	22	3	0	2	0	0	0	0	0	0	0	0	27
14:00	0	16	3	0	0	1	0	0	0	0	0	0	0	20
14:15	1	17	2	0	1	0	0	0	0	0	0	0	0	21
14:30	0	12	2	0	1	0	0	0	0	0	0	0	0	15
14:45	0	15	2	0	1	0	0	0	0	0	0	0	0	18
15:00	0	6	2	0	0	1	0	0	0	0	0	0	0	9
15:15	0	12	2	0	0	0	0	0	0	0	0	0	0	14
15:30	0	13	0	0	0	1	0	0	0	0	0	0	0	14
15:45	0	10	1	0	0	2	0	0	0	0	0	0	0	13
16:00	0	25	2	0	0	0	0	0	0	0	0	0	0	27
16:15	0	22	1	0	0	0	0	0	0	0	0	0	0	23

Prepared by National Data & Surveying Services

CLASSIFICATION

Clay Pl S/O Doug Davis Dr

Day: Wednesday
Date: 5/15/2019

City: Hapeville
Project #: GA19_9371_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
16:30	0	20	4	0	1	0	0	0	0	0	0	0	0	**25**
16:45	0	23	0	0	2	0	0	0	0	0	0	0	0	**25**
17:00	0	24	1	0	0	0	0	0	0	0	0	0	0	**25**
17:15	0	23	5	0	1	0	0	0	0	0	0	0	0	**29**
17:30	0	16	3	0	2	0	0	0	0	0	0	0	0	**21**
17:45	0	15	3	0	0	0	0	0	0	0	0	0	0	**18**
18:00	0	13	3	0	0	0	0	0	0	0	0	0	0	**16**
18:15	0	13	4	0	0	0	0	0	0	0	0	0	0	**17**
18:30	1	22	7	0	1	0	0	0	0	0	0	0	0	**31**
18:45	0	14	3	0	1	0	0	0	0	0	0	0	0	**18**
19:00	0	5	2	0	1	0	0	0	0	0	0	0	0	**8**
19:15	0	11	3	0	1	0	0	0	0	0	0	0	0	**15**
19:30	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
19:45	0	11	2	0	0	0	0	0	0	0	0	0	0	**13**
20:00	0	17	2	0	1	0	0	0	0	0	0	0	0	**20**
20:15	0	8	1	0	1	0	0	0	0	0	0	0	0	**10**
20:30	0	16	4	0	0	0	0	0	0	0	0	0	0	**20**
20:45	0	7	5	0	0	0	0	0	0	0	0	0	0	**12**
21:00	0	12	3	0	0	0	0	0	0	0	0	0	0	**15**
21:15	0	12	4	0	0	0	0	0	0	0	0	0	0	**16**
21:30	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
21:45	0	5	1	0	1	0	0	0	0	0	0	0	0	**7**
22:00	0	6	2	0	0	0	0	0	0	0	0	0	0	**8**
22:15	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
22:30	0	4	1	0	0	1	0	0	0	0	0	0	0	**6**
23:00	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
23:15	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
23:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**

Totals	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
	5	771	179	5	31	7								998
% of Totals	1%	77%	18%	1%	3%	1%								100%

AM Volumes	0	151	49	3	11	0	0	0	0	0	0	0	0	214
% AM		15%	5%	0%	1%									21%
AM Peak Hour	11:15	11:30	11:30	08:30	11:00									11:30
Volume	2	77	36	3	5									118
PM Volumes	5	620	130	2	20	7	0	0	0	0	0	0	0	784
% PM	1%	62%	13%	0%	2%	1%								79%
PM Peak Hour	12:00	16:00	12:00	12:30	16:45	15:00								12:00
Volume	3	90	28	2	5	4								112

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	50	5%	211	21%	193	19%	544	55%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

APPENDIX B – PEAK HOUR DETERMINATION & COMPUTATION

Table 8-10. Total traffic diurnal distribution factors by functional class: urban area, large: >1,000,000 population.

Hour Begins	Hour Ends	Weekday				Saturday				Sunday				Average Day			
		Interstate	Arterial CBD	Other	Collector	Interstate	Arterial CBD	Other	Collector	Interstate	Arterial CBD	Other	Collector	Interstate	Arterial CBD	Other	Collector
12:00 AM	12:59 AM	0.96	1.22	0.78	0.59	1.95	2.55	1.70	1.54	2.32	3.27	2.24	1.95	1.22	1.61	1.07	0.84
1:00 AM	1:59 AM	0.61	0.75	0.48	0.38	1.26	1.75	1.10	0.96	1.50	2.32	1.48	1.28	0.78	1.05	0.67	0.53
2:00 AM	2:59 AM	0.51	0.58	0.37	0.30	1.00	1.38	0.83	0.71	1.20	1.81	1.11	0.95	0.64	0.81	0.52	0.41
3:00 AM	3:59 AM	0.53	0.57	0.37	0.33	0.79	1.23	0.62	0.46	0.85	1.61	0.79	0.57	0.59	0.76	0.45	0.37
4:00 AM	4:59 AM	0.85	0.79	0.61	0.59	0.83	1.10	0.59	0.50	0.73	1.29	0.64	0.47	0.83	0.89	0.61	0.56
5:00 AM	5:59 AM	2.13	1.74	1.70	1.16	1.29	1.36	0.92	0.84	0.97	1.35	0.76	0.73	1.90	1.67	1.49	1.07
6:00 AM	6:59 AM	5.11	4.23	4.17	2.72	2.30	2.16	1.72	1.65	1.63	1.92	1.25	1.34	4.40	3.75	3.53	2.44
7:00 AM	7:59 AM	7.27	6.31	6.58	5.92	3.32	3.02	2.74	3.02	2.14	2.40	1.91	2.13	6.25	5.52	5.57	5.16
8:00 AM	8:59 AM	6.61	6.24	6.08	6.05	4.33	3.90	3.95	4.39	2.93	2.94	2.99	3.23	5.95	5.61	5.46	5.58
9:00 AM	9:59 AM	5.27	5.43	5.04	5.82	5.07	4.79	5.05	5.81	4.18	4.09	4.35	4.94	5.14	5.20	4.97	5.74
10:00 AM	10:59 AM	4.86	5.18	4.96	5.78	5.76	5.42	6.03	6.62	5.44	5.28	5.67	6.15	5.03	5.20	5.18	5.93
11:00 AM	11:59 AM	5.01	5.40	5.39	6.55	6.39	5.98	6.80	7.23	6.35	5.64	6.46	6.95	5.32	5.49	5.69	6.68
12:00 PM	12:59 PM	5.20	5.72	5.81	7.08	6.73	6.35	7.20	7.40	7.16	6.33	7.87	8.39	5.59	5.85	6.22	7.26
1:00 PM	1:59 PM	5.39	5.77	5.93	6.95	6.69	6.42	7.18	7.27	7.39	6.81	8.00	8.02	5.76	5.95	6.32	7.11
2:00 PM	2:59 PM	6.02	6.07	6.31	7.20	6.75	6.43	7.11	7.07	7.47	6.91	7.87	7.80	6.26	6.19	6.58	7.25
3:00 PM	3:59 PM	7.05	6.66	7.05	7.97	6.80	6.40	7.05	7.19	7.50	6.64	7.67	7.78	7.07	6.63	7.12	7.86
4:00 PM	4:59 PM	7.78	7.07	7.85	7.94	6.70	6.22	6.89	6.92	7.52	6.42	7.56	7.61	7.63	6.91	7.69	7.79
5:00 PM	5:59 PM	7.98	7.45	8.33	7.60	6.52	6.12	6.68	6.54	7.17	6.34	7.18	7.28	7.72	7.18	7.99	7.44
6:00 PM	6:59 PM	6.11	6.12	6.52	5.66	6.04	5.92	6.16	5.96	6.52	6.28	6.40	6.25	6.14	6.10	6.46	5.77
7:00 PM	7:59 PM	4.27	4.72	4.80	4.20	4.97	5.31	5.24	4.89	5.54	5.56	5.49	5.16	4.49	4.87	4.93	4.38
8:00 PM	8:59 PM	3.37	3.77	3.88	3.29	4.14	4.55	4.45	3.97	4.69	4.76	4.56	4.12	3.60	3.96	4.02	3.45
9:00 PM	9:59 PM	2.97	3.30	3.17	2.66	3.88	4.17	3.99	3.48	3.77	3.98	3.54	3.18	3.16	3.47	3.32	2.81
10:00 PM	10:59 PM	2.41	2.77	2.28	1.97	3.61	3.94	3.37	3.12	2.96	3.44	2.54	2.30	2.61	2.97	2.45	2.14
11:00 PM	11:59 PM	1.73	2.14	1.53	1.28	2.88	3.51	2.61	2.43	2.07	2.60	1.67	1.44	1.91	2.35	1.69	1.43

Hour Begins	Virginia Ave, W of Hamilton Ave			Hamilton Ave, N of Virginia Ave			Virginia Ave, N of Doug Davis Dr			Doug Davis Dr, E of Virginia Ave/Clay Pl			Clay Pl, South of Doug Davis Dr		
	Day 1 Dist	**Day 2 Dist**	**Average Dist**	**Day 1 Dist**	**Day 2 Dist**	**Average Dist**	**Day 1 Dist**	**Day 2 Dist**	**Average Dist**	**Day 1 Dist**	**Day 2 Dist**	**Average Dist**	**Day 1 Dist**	**Day 2 Dist**	**Average Dist**
0:00:00	1.18%	1.12%	*1.16%*	0.80%	0.43%	*1.13%*	1.00%	0.98%	*1.00%*	1.18%	1.28%	*1.23%*	0.00%	0.00%	*0.00%*
1:00:00	0.75%	0.54%	*0.65%*	0.40%	0.00%	*0.38%*	0.82%	0.75%	*0.79%*	0.65%	0.54%	*0.60%*	0.00%	0.00%	*0.00%*
2:00:00	0.58%	0.40%	*0.50%*	0.00%	0.00%	*0.00%*	0.74%	0.57%	*0.68%*	0.46%	0.37%	*0.44%*	0.23%	0.00%	*0.10%*
3:00:00	0.41%	0.40%	*0.42%*	0.00%	0.00%	*0.00%*	0.36%	0.55%	*0.47%*	0.40%	0.30%	*0.35%*	0.11%	0.00%	*0.10%*
4:00:00	1.06%	0.81%	*0.94%*	0.00%	0.85%	*0.75%*	0.73%	0.62%	*0.68%*	1.08%	0.95%	*1.02%*	0.11%	0.10%	*0.10%*
5:00:00	2.33%	2.20%	*2.27%*	0.00%	0.43%	*0.38%*	1.45%	1.64%	*1.58%*	2.72%	2.71%	*2.72%*	0.23%	0.00%	*0.21%*
6:00:00	2.99%	2.88%	*2.94%*	0.80%	1.71%	*1.13%*	2.54%	2.78%	*2.65%*	3.65%	3.80%	*3.73%*	0.23%	0.30%	*0.42%*
7:00:00	4.30%	4.12%	*4.20%*	3.98%	6.41%	*5.28%*	3.68%	3.67%	*3.67%*	5.16%	5.01%	*5.09%*	1.38%	0.70%	*1.05%*
8:00:00	5.06%	4.97%	*5.02%*	4.38%	8.12%	*6.04%*	5.30%	5.15%	*5.21%*	5.12%	5.59%	*5.35%*	4.59%	4.31%	*4.50%*
9:00:00	3.86%	4.07%	*3.97%*	3.98%	4.70%	*4.15%*	4.12%	4.15%	*4.14%*	4.41%	4.52%	*4.46%*	2.64%	1.40%	*2.09%*
10:00:00	3.69%	4.59%	*4.14%*	5.18%	5.98%	*5.66%*	4.23%	4.69%	*4.46%*	3.88%	4.46%	*4.16%*	2.52%	4.91%	*3.77%*
11:00:00	6.89%	6.45%	*6.66%*	3.19%	12.82%	*7.55%*	7.04%	6.93%	*6.99%*	6.86%	6.88%	*6.87%*	7.80%	9.72%	*8.80%*
12:00:00	8.84%	8.95%	*8.88%*	11.95%	8.12%	*9.81%*	9.98%	10.05%	*9.99%*	8.48%	8.87%	*8.67%*	9.98%	11.22%	*10.58%*
13:00:00	7.67%	7.74%	*7.69%*	9.96%	5.98%	*7.55%*	8.29%	7.48%	*7.86%*	7.54%	7.63%	*7.57%*	12.50%	9.92%	*10.99%*
14:00:00	6.53%	6.69%	*6.60%*	7.97%	4.70%	*6.42%*	6.28%	6.77%	*6.52%*	6.29%	6.54%	*6.41%*	3.10%	7.41%	*5.34%*
15:00:00	6.68%	6.71%	*6.69%*	7.57%	6.41%	*6.79%*	7.10%	5.95%	*6.50%*	6.33%	6.49%	*6.41%*	3.33%	5.01%	*4.29%*
16:00:00	7.05%	7.12%	*7.08%*	5.98%	6.84%	*6.42%*	6.41%	6.66%	*6.52%*	7.32%	6.46%	*6.87%*	11.70%	10.02%	*10.58%*
17:00:00	7.90%	7.98%	*7.93%*	8.37%	6.41%	*7.55%*	7.26%	7.63%	*7.43%*	8.23%	8.36%	*8.28%*	12.39%	9.32%	*10.68%*
18:00:00	5.79%	6.04%	*5.92%*	9.96%	5.98%	*7.55%*	5.86%	6.29%	*6.07%*	5.36%	5.75%	*5.55%*	8.14%	8.22%	*8.17%*
19:00:00	4.97%	4.50%	*4.73%*	3.98%	4.70%	*4.15%*	5.30%	4.42%	*4.85%*	4.27%	4.10%	*4.19%*	7.00%	4.81%	*5.76%*
20:00:00	3.81%	4.12%	*3.97%*	4.78%	4.70%	*4.53%*	3.96%	4.63%	*4.30%*	3.28%	3.18%	*3.24%*	5.73%	6.21%	*5.97%*
21:00:00	3.04%	2.95%	*2.99%*	3.19%	2.56%	*3.40%*	3.25%	2.73%	*2.99%*	2.69%	2.31%	*2.50%*	4.36%	4.01%	*4.19%*
22:00:00	2.39%	2.52%	*2.46%*	1.99%	1.71%	*2.26%*	2.47%	2.66%	*2.58%*	2.33%	2.18%	*2.26%*	1.26%	1.90%	*1.68%*
23:00:00	2.22%	2.12%	*2.18%*	1.59%	0.43%	*1.13%*	1.83%	2.25%	*2.06%*	2.31%	1.74%	*2.02%*	0.69%	0.50%	*0.63%*

Intersection 1: Virginia Ave & Hamilton Ave																
					2019 Existing Peak Hr TMC (RAW DATA)											
	Driveway				Hamilton Ave				Virginia Ave				Virginia Ave			
BY MOVEMENT	NB LT	NB THRU	NB RT	NB U-TURN	SB LT	SB THRU	SB RT	SB U-TURN	EB LT	EB THRU	EB RT	EB U-TURN	WB LT	WB THRU	WB RT	WB U-TURN
12:00 PM					3	0	9	0	3	480	36	0	4	479	4	0
Percentage	77.8%	0.0%	22.2%	0.0%	27.3%	0.0%	72.7%	0.0%	0.6%	92.6%	6.9%	0.0%	0.7%	98.5%	0.7%	0.0%
4:45 PM	7	0	2	0	3	0	8	0	2	323	24	0	4	537	4	0
Percentage	77.8%	0.0%	22.2%	0.0%	27.3%	0.0%	72.7%	0.0%	0.6%	92.6%	6.9%	0.0%	0.7%	98.5%	0.7%	0.0%
BY APPROACH	IN			OUT	IN			OUT	IN			OUT	IN			OUT
AM:	0			39	13			7	519			488	487			483
PM:	9			28	11			6	349			552	545			328
3-HOUR TOTAL	29	1	8	0	10	0	17	0	12	955	62	0	12	1323	16	0
Percentage	76.3%	2.6%	21.1%	0.0%	37.0%	0.0%	63.0%	0.0%	1.2%	92.8%	6.0%	0.0%	0.9%	97.9%	1.2%	0.0%

*Note: Driveway noon peak hour volumes could not be computed because no ADT data was collected from this location

Intersection 2: Virginia Ave/Clay Pl & Doug Davis Dr/Virginia Ave																
					2019 Existing Peak Hr TMC (RAW DATA)											
	Clay Pl				Virginia Ave				Virginia Ave				Doug Davis Dr			
BY MOVEMENT	NB LT	NB THRU	NB RT	NB U-TURN	SB LT	SB THRU	SB RT	SB U-TURN	EB LT	EB THRU	EB RT	EB U-TURN	WB LT	WB THRU	WB RT	WB U-TURN
12:00 PM	23	9	30	0	49	6	246	0	195	295	26	3	13	267	63	0
Percentage	36.7%	15.2%	48.1%	0.0%	16.3%	2.1%	81.6%	0.0%	37.6%	56.8%	5.0%	0.6%	3.9%	77.7%	18.5%	0.0%
4:45 PM	29	12	38	0	31	4	155	0	121	183	16	2	18	362	86	0
Percentage	36.7%	15.2%	48.1%	0.0%	16.3%	2.1%	81.6%	0.0%	37.6%	56.8%	5.0%	0.6%	3.9%	77.7%	18.5%	0.0%
BY APPROACH	IN			OUT	IN			OUT	IN			OUT	IN			OUT
AM:	61.5			45	301			268	519			538	344			373
PM:	79			38	190			219	322			548	466			252
3-HOUR TOTAL	65	37	76	0	74	23	419	0	355	562	56	2	40	867	205	0
Percentage	36.5%	20.8%	42.7%	0.0%	14.3%	4.5%	81.2%	0.0%	36.4%	57.6%	5.7%	0.2%	3.6%	78.0%	18.4%	0.0%

APPENDIX C – K FACTOR AND D FACTOR CALCULATIONS

K AND D FACTOR CALCULATIONS

(PI# 171007021 - Fulton County)

Location	Functional Class (Factor Group)	Count # (Class in yellow)	Enter	Traffic Volumes																										Truck Percentages						
				Raw Data																										24 Hour T%				Peak Hour			
				Day 1			Day 2			Average of Day 1 & 2			K & D Factors		GDOT Traffic Factors				Calc. AADT	Balanced & Rounded Volumes								Margin of Error													
				NE - VOL	SW - VOL	Total	NE - VOL	SW - VOL	Total	NE - VOL	SW - VOL	Total	K	D	SF (Monthly)	DF1 (Daily1)	DF2 (Daily2)	AXF (Axle)		AADT	NE - VOL	SW - VOL	Hourly Total	T NE - VOL	T SW - VOL	K	D					S.U.	COMB	TOTAL	PEAK HOUR	S.U.	COMB	TOTAL
Virginia Ave W of Hamilton Ave	Urban Major Collector (4)	1	12:00 PM	519	467	986	518	506	1,024	519	487	1,005	8.9%	0.52	0.96	0.93	0.92	0.96	9,630	9,850	15	10	25	4,925	4,925	0.3%	0.60	2%		8.6%	-8.0%		4.0%	0.0%	4.0%	AM	3.5%	0.0%	3.5%
			4:45 PM	350	546	896	401	536	937	376	541	917	8.1%	0.59							10	10	20			0.2%	0.50			7.9%	9.0%					PM	3.0%	0.0%	3.0%
			Daily	5,550	5,604	11,154	5,646	5,794	11,440	5,598	5,699	11,297																	0.0%	0.0%							
Hamilton Ave N of Virginia Ave	Urban Local Road (4)	2	12:00 PM	15	15	30	9	10	19	12	13	25	10.1%	0.51	0.96	0.93	0.92	0.96	207	200	15	40	55	100	100	27.5%	0.73	3%		-17.4%	-22.0%		4.5%	0.0%	4.5%	AM	10.0%	0.0%	10.0%
			4:45 PM	10	9	19	7	10	17	9	10	18	7.4%	0.53							15	40	55			27.5%	0.73			-20.1%	-20.0%					PM	3.0%	0.0%	3.0%
			Daily	109	142	251	97	137	234	103	140	243																	0.0%	0.0%							
Virginia Ave N of Doug Davis Dr	Urban Major Collector (4)	3	12:00 PM	237	313	550	275	289	564	256	301	557	10.0%	0.54	0.96	0.93	0.92	0.96	4,740	4,800	500	450	950	2,400	2,400	19.8%	0.53	1%		-9.8%	1.0%		2.5%	0.0%	2.5%	AM	4.0%	0.5%	4.5%
			4:45 PM	212	178	390	246	198	444	229	188	417	7.5%	0.55							360	435	795			16.6%	0.55			-9.1%	0.0%					PM	1.5%	0.0%	1.5%
			Daily	2,694	2,816	5,510	2,743	2,869	5,612	2,719	2,843	5,561																	0.0%	0.0%							
Doug Davis Dr E of Virginia Ave/Clay Pl	Urban Local Road (4)	4	12:00 PM	380	333	713	396	354	750	388	344	732	8.7%	0.53	0.96	0.93	0.92	0.96	7,189	6,800	60	40	100	3,400	3,400	1.5%	0.60	5%		7.2%	-7.0%		3.0%	0.0%	3.0%	AM	3.0%	0.0%	3.0%
			4:45 PM	249	462	711	277	447	724	263	455	718	8.5%	0.63							60	40	100			1.5%	0.60			7.0%	3.0%					PM	2.5%	0.0%	2.5%
			Daily	4,202	4,209	8,411	4,263	4,193	8,456	4,233	4,201	8,434																	0.0%	0.0%							
Clay Pl S of Doug Davis Dr	Urban Local Road (4)	5	12:00 PM	53	34	87	70	42	112	62	38	100	10.6%	0.62	0.96	0.93	0.92	0.96	797	900	60	35	95	450	450	10.6%	0.63	13%		0.1%	-1.0%		0.0%	0.0%	0.0%	AM	2.5%	0.0%	2.5%
			4:45 PM	65	37	102	60	40	100	63	39	101	10.8%	0.62							60	35	95			10.6%	0.63			0.2%	-1.0%					PM	0.0%	0.0%	0.0%
			Daily	500	372	872	539	459	998	520	416	935																	0.0%	0.0%							

APPENDIX D – TRUCK PERCENTAGE CALCULATIONS

Truck Percentages

PI #0015005 - Fulton County, GA
Virginia Avenue Roundabout Feasibility Study
from Virginia Avenue to Doug Davis Dr

Count Number	Count Location	24 Hour T%			Peak Hour T%			
		S.U.	Comb.	Total	Period	S.U.	Comb.	Total
1	Virginia Ave W of Hamilton Ave	4.0%	0.0%	4.0%	**AM**	3.5%	0.0%	3.5%
					PM	3.0%	0.0%	3.0%
2	Hamilton Ave N of Virginia Ave	4.5%	0.0%	4.5%	**AM**	10.0%	0.0%	10.0%
					PM	3.0%	0.0%	3.0%
3	Virginia Ave N of Doug Davis Dr	2.5%	0.0%	2.5%	**AM**	4.0%	0.5%	4.5%
					PM	1.5%	0.0%	1.5%
4	Doug Davis Dr E of Virginia Ave/Clay Pl	3.0%	0.0%	3.0%	**AM**	3.0%	0.0%	3.0%
					PM	2.5%	0.0%	2.5%
5	Clay Pl S of Doug Davis Dr	4.0%	0.0%	4.0%	**AM**	3.5%	0.0%	3.5%
					PM	2.5%	0.0%	2.5%

Truck Percentage Calculations

PI # 171007021 - Fulton County, GA

Virginia Ave/Doug Davis Ave @ Clay Pl/Virginia Ave Roundabout Feasibility Study

#1 Virginia Ave W of Hamilton Ave

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
12:00 PM Day 1	EB	**519**	2	427	70	1	18	0	0	1	0	0	0	0	0	3.9%	0.1%
	WB	**467**	1	389	58	1	18	0	0	0	0	0	0	0	0		
Day 2	EB	**518**	1	425	73	3	15	0	0	0	1	0	0	0	0	3.4%	0.2%
	WB	**42**	1	29	11	0	0	1	0	0	0	0	0	0	0		
														AM DHV T%		3.7%	0.1%
																3.5%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
4:45 PM Day 1	EB	**350**	0	296	47	1	6	0	0	0	0	0	0	0	0	2.1%	0.0%
	WB	**546**	0	472	62	5	7	0	0	0	0	0	0	0	0		
Day 2	EB	**401**	0	331	55	2	13	0	0	0	0	0	0	0	0	3.7%	0.0%
	WB	**536**	0	435	81	1	19	0	0	0	0	0	0	0	0		
														PM DHV T%		2.9%	0.0%
																3.0%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
24-hr T Day 1	EB	**5,550**	7	4,614	723	35	158	6	0	4	3	0	0	0	0	3.6%	0.1%
	WB	**5,604**	2	4,741	657	25	169	5	0	2	3	0	0	0	0		
Day 2	EB	**5,646**	6	4,612	782	33	198	8	0	4	3	0	0	0	0	4.1%	0.1%
	WB	**5,794**	5	4,671	880	37	192	5	0	2	2	0	0	0	0		
														Daily T%		3.9%	0.1%
																4.0%	**0.0%**

#2 Hamilton Ave N of Virginia Ave

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
12:00 PM Day 1	NB	**15**	0	10	5	0	0	0	0	0	0	0	0	0	0	6.7%	0.0%
	SB	**15**	0	12	1	1	1	0	0	0	0	0	0	0	0		
Day 2	NB	**9**	0	7	1	0	0	0	1	0	0	0	0	0	0	15.8%	0.0%
	SB	**10**	0	8	0	2	0	0	0	0	0	0	0	0	0		
														AM DHV T%		10.2%	0.0%
																10.0%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
4:45 PM Day 1	NB	**10**	0	9	1	0	0	0	0	0	0	0	0	0	0	5.3%	0.0%
	SB	**9**	0	8	0	0	1	0	0	0	0	0	0	0	0		
Day 2	NB	**7**	1	5	1	0	0	0	0	0	0	0	0	0	0	0.0%	0.0%
	SB	**10**	0	8	2	0	0	0	0	0	0	0	0	0	0		
														PM DHV T%		2.8%	0.0%
																3.0%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
24-hr T Day 1	NB	**109**	0	93	15	0	1	0	0	0	0	0	0	0	0	3.2%	0.0%
	SB	**142**	0	119	16	2	5	0	0	0	0	0	0	0	0		
Day 2	NB	**97**	2	76	14	0	4	0	1	0	0	0	0	0	0	6.0%	0.0%
	SB	**137**	0	114	14	5	4	0	0	0	0	0	0	0	0		
														Daily T%		4.5%	0.0%
																4.5%	**0.0%**

Truck Percentage Calculations
PI # 171007021 - Fulton County, GA
Virginia Ave/Doug Davis Ave @ Clay PI/Virginia Ave Roundabout Feasibility Study

#3 Virginia Ave N of Doug Davis Dr

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
12:00 PM Day 1	NB	**237**	0	193	34	1	8	1	0	0	0	0	0	0	0	4.7%	0.2%
	SB	**313**	2	250	44	1	11	3	1	1	0	0	0	0	0		
Day 2	NB	**275**	1	211	52	1	8	1	0	1	0	0	0	0	0	2.8%	0.4%
	SB	**289**	0	232	50	0	4	2	0	1	0	0	0	0	0		
														AM DHV T%		3.8%	0.3%
																4.0%	**0.5%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
4:45 PM Day 1	NB	**212**	1	189	21	0	1	0	0	0	0	0	0	0	0	0.3%	0.0%
	SB	**178**	3	146	29	0	0	0	0	0	0	0	0	0	0		
Day 2	NB	**246**	0	210	29	0	7	0	0	0	0	0	0	0	0	2.3%	0.0%
	SB	**198**	2	164	29	1	2	0	0	0	0	0	0	0	0		
														PM DHV T%		1.3%	0.0%
																1.5%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
24-hr T Day 1	NB	**2,694**	3	2,301	317	12	51	3	1	3	3	0	0	0	0	2.5%	0.2%
	SB	**2,816**	8	2,384	353	12	49	5	2	3	0	0	0	0	0		
Day 2	NB	**2,743**	7	2,300	363	7	59	3	0	4	0	0	0	0	0	2.7%	0.2%
	SB	**2,869**	9	2,376	396	9	65	6	0	3	5	0	0	0	0		
														Daily T%		2.6%	0.2%
																2.5%	**0.0%**

#4 Doug Davis Dr E of Virginia Ave/Clay PI

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
12:00 PM Day 1	EB	**380**	0	318	53	2	7	0	0	0	0	0	0	0	0	2.8%	0.0%
	WB	**333**	0	288	34	3	8	0	0	0	0	0	0	0	0		
Day 2	EB	**396**	0	314	70	5	7	0	0	0	0	0	0	0	0	3.3%	0.0%
	WB	**354**	0	295	46	3	9	1	0	0	0	0	0	0	0		
														AM DHV T%		3.1%	0.0%
																3.0%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
4:45 PM Day 1	EB	**249**	0	213	30	2	4	0	0	0	0	0	0	0	0	2.5%	0.0%
	WB	**462**	0	414	36	3	9	0	0	0	0	0	0	0	0		
Day 2	EB	**277**	0	235	35	1	6	0	0	0	0	0	0	0	0	2.5%	0.0%
	WB	**447**	0	390	46	1	10	0	0	0	0	0	0	0	0		
														PM DHV T%		2.5%	0.0%
																2.5%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
24-hr T Day 1	EB	**4,202**	4	3,446	616	36	94	6	0	0	0	0	0	0	0	3.2%	0.0%
	WB	**4,209**	0	3,695	383	29	100	0	1	1	0	0	0	0	0		
Day 2	EB	**4,263**	6	3,522	593	36	103	3	0	0	0	0	0	0	0	3.2%	0.0%
	WB	**4,193**	2	3,599	462	26	103	1	0	0	0	0	0	0	0		
														Daily T%		3.2%	0.0%
																3.0%	**0.0%**

#5 Clay PI S of Doug Davis Dr

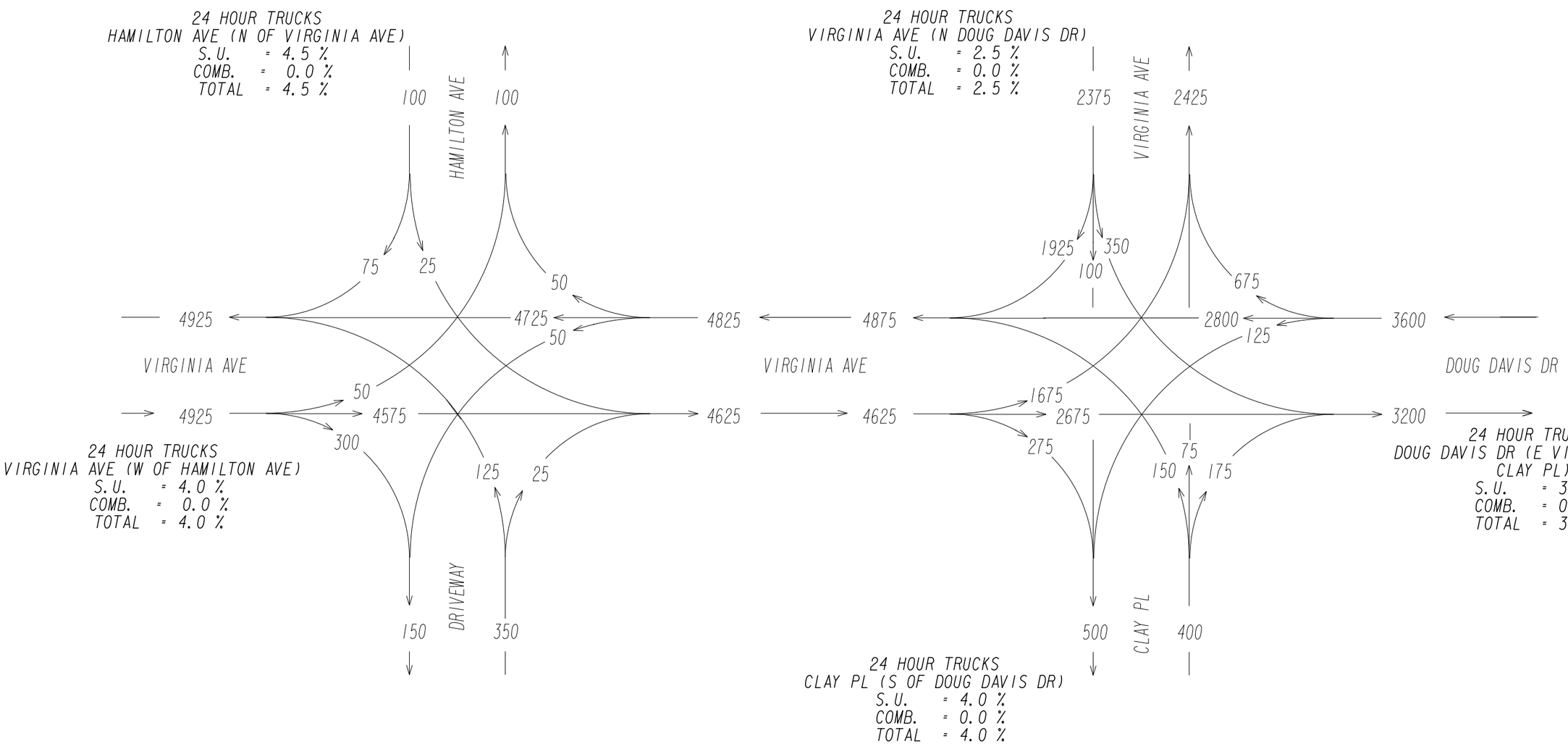
	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
12:00 PM Day 1	NB	**53**	0	44	7	0	2	0	0	0	0	0	0	0	0	5.7%	0.0%
	SB	**34**	1	26	4	0	3	0	0	0	0	0	0	0	0		
Day 2	NB	**70**	2	50	17	1	0	0	0	0	0	0	0	0	0	1.8%	0.0%
	SB	**42**	1	29	11	0	0	1	0	0	0	0	0	0	0		
														AM DHV T%		3.5%	0.0%
																3.5%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
4:45 PM Day 1	NB	**65**	0	58	7	0	0	0	0	0	0	0	0	0	0	0.0%	0.0%
	SB	**37**	0	33	4	0	0	0	0	0	0	0	0	0	0		
Day 2	NB	**60**	0	54	4	0	2	0	0	0	0	0	0	0	0	5.0%	0.0%
	SB	**40**	0	32	5	0	3	0	0	0	0	0	0	0	0		
														PM DHV T%		2.5%	0.0%
																2.5%	**0.0%**

	Direction	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	S.U. T%	Comb. T%
24-hr T Day 1	NB	**500**	4	407	70	2	12	3	0	0	2	0	0	0	0	3.9%	0.5%
	SB	**372**	2	286	65	1	14	2	0	0	2	0	0	0	0		
Day 2	NB	**539**	4	430	89	4	8	4	0	0	0	0	0	0	0	4.3%	0.0%
	SB	**459**	1	341	90	1	23	3	0	0	0	0	0	0	0		
														Daily T%		4.1%	0.2%
																4.0%	**0.0%**

APPENDIX E – TRAFFIC MOVEMENT FIGURES

FULTON COUNTY



2019 EXISTING AADT

AC
08/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

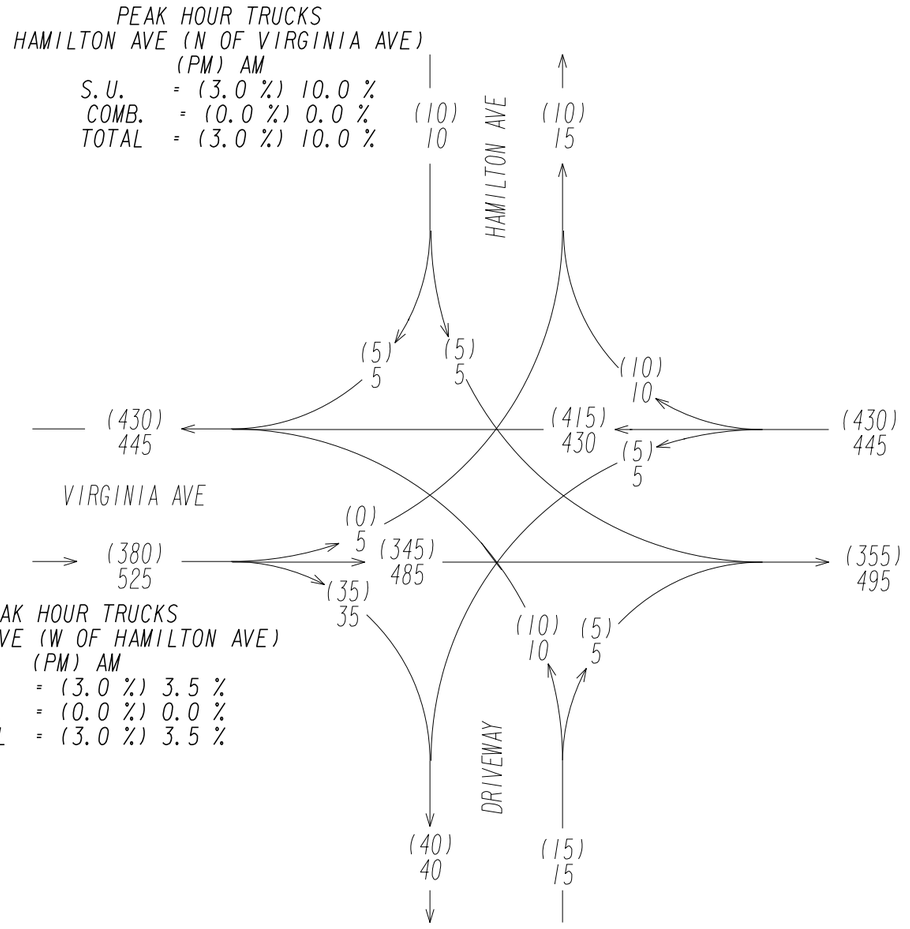
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0002

FULTON COUNTY

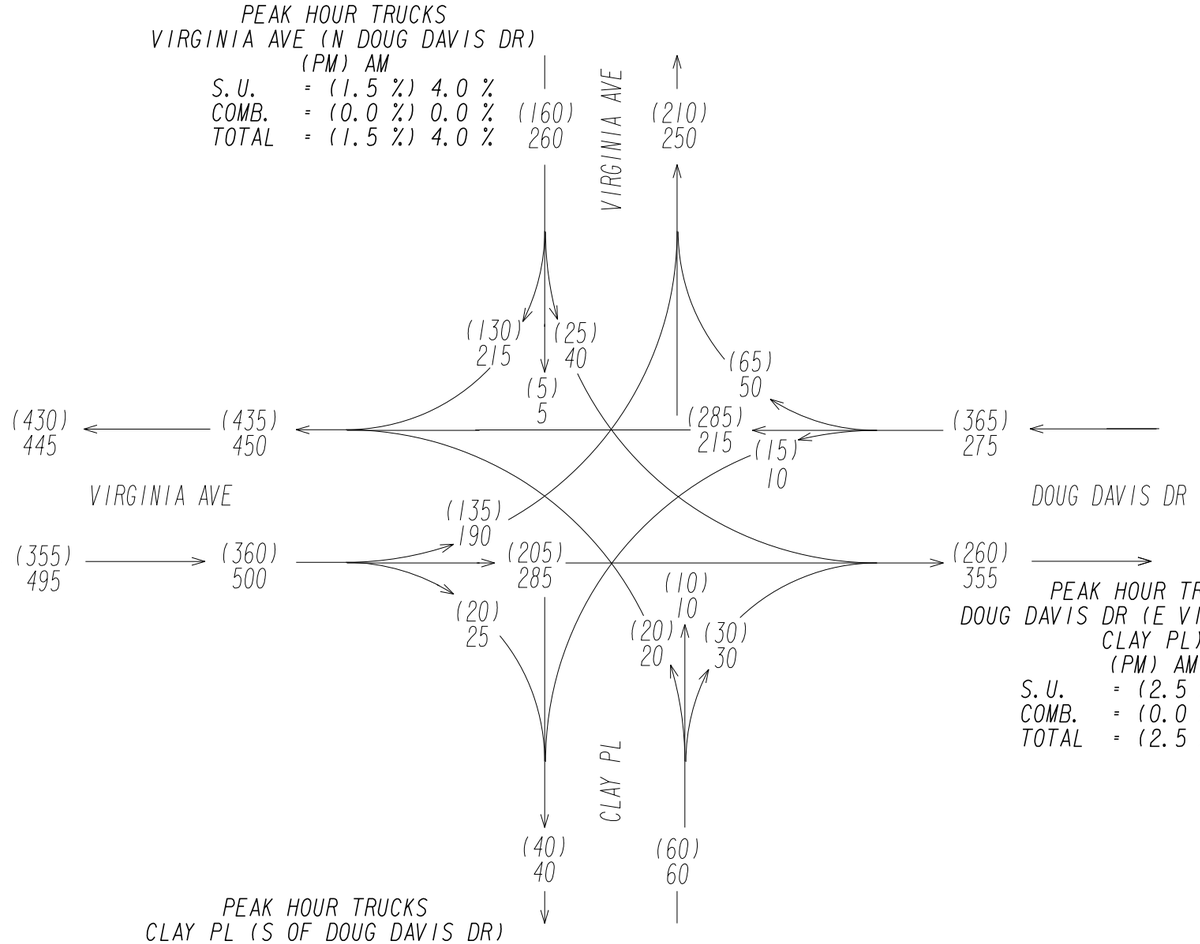


PEAK HOUR TRUCKS
HAMILTON AVE (N OF VIRGINIA AVE)
(PM) AM

S.U.	= (3.0 %)	10.0 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (3.0 %)	10.0 %

PEAK HOUR TRUCKS
VIRGINIA AVE (W OF HAMILTON AVE)
(PM) AM

S.U.	= (3.0 %)	3.5 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (3.0 %)	3.5 %



PEAK HOUR TRUCKS
VIRGINIA AVE (N DOUG DAVIS DR)
(PM) AM

S.U.	= (1.5 %)	4.0 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (1.5 %)	4.0 %

PEAK HOUR TRUCKS
DOUG DAVIS DR (E VIRGINIA AVE/ CLAY PL)
(PM) AM

S.U.	= (2.5 %)	3.0 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (2.5 %)	3.0 %

PEAK HOUR TRUCKS
CLAY PL (S OF DOUG DAVIS DR)
(PM) AM

S.U.	= (2.5 %)	3.5 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (2.5 %)	3.5 %

2019 EXISTING DHV
(PM) NOON

AC
08/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

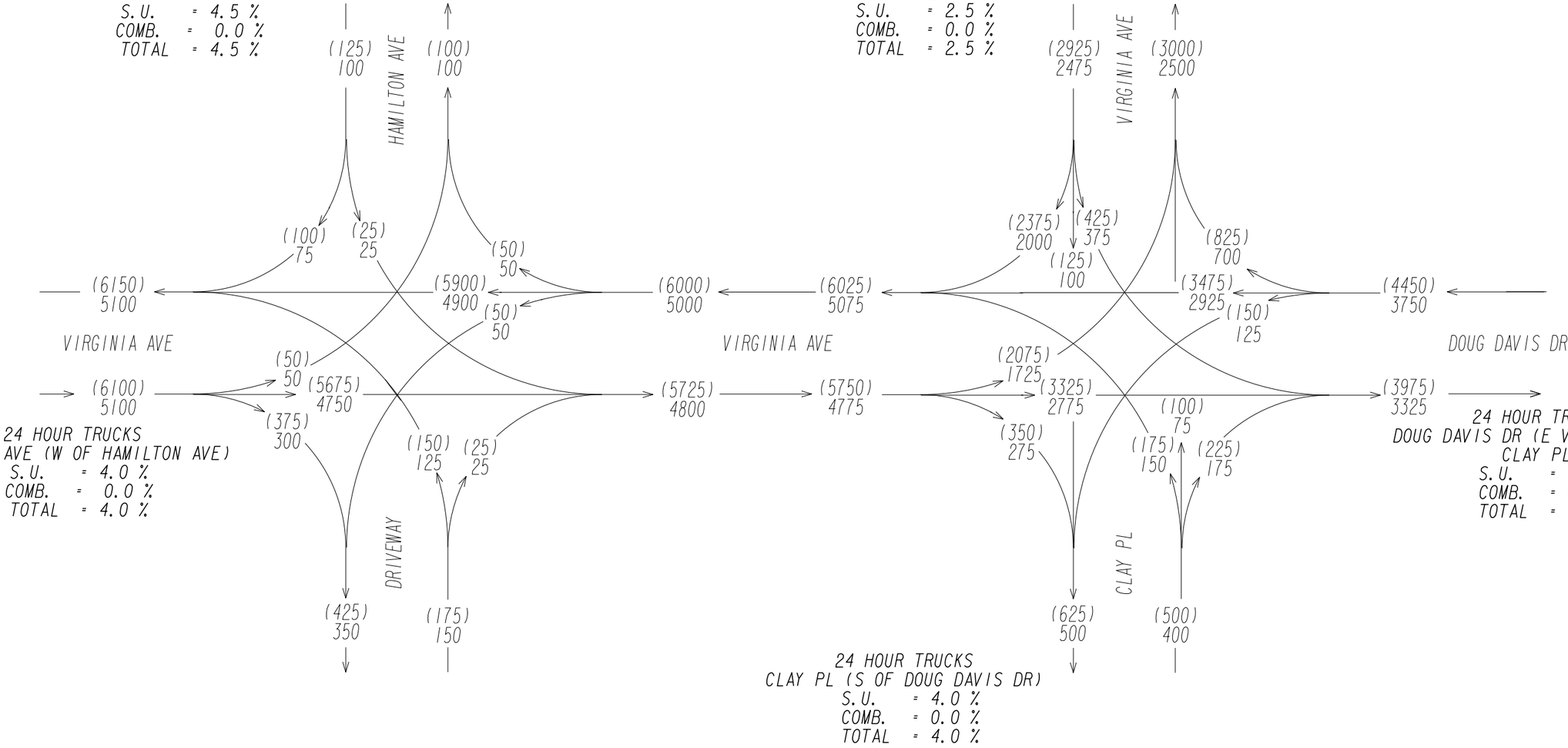
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0003

FULTON COUNTY



(2043) 2023 AADT

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

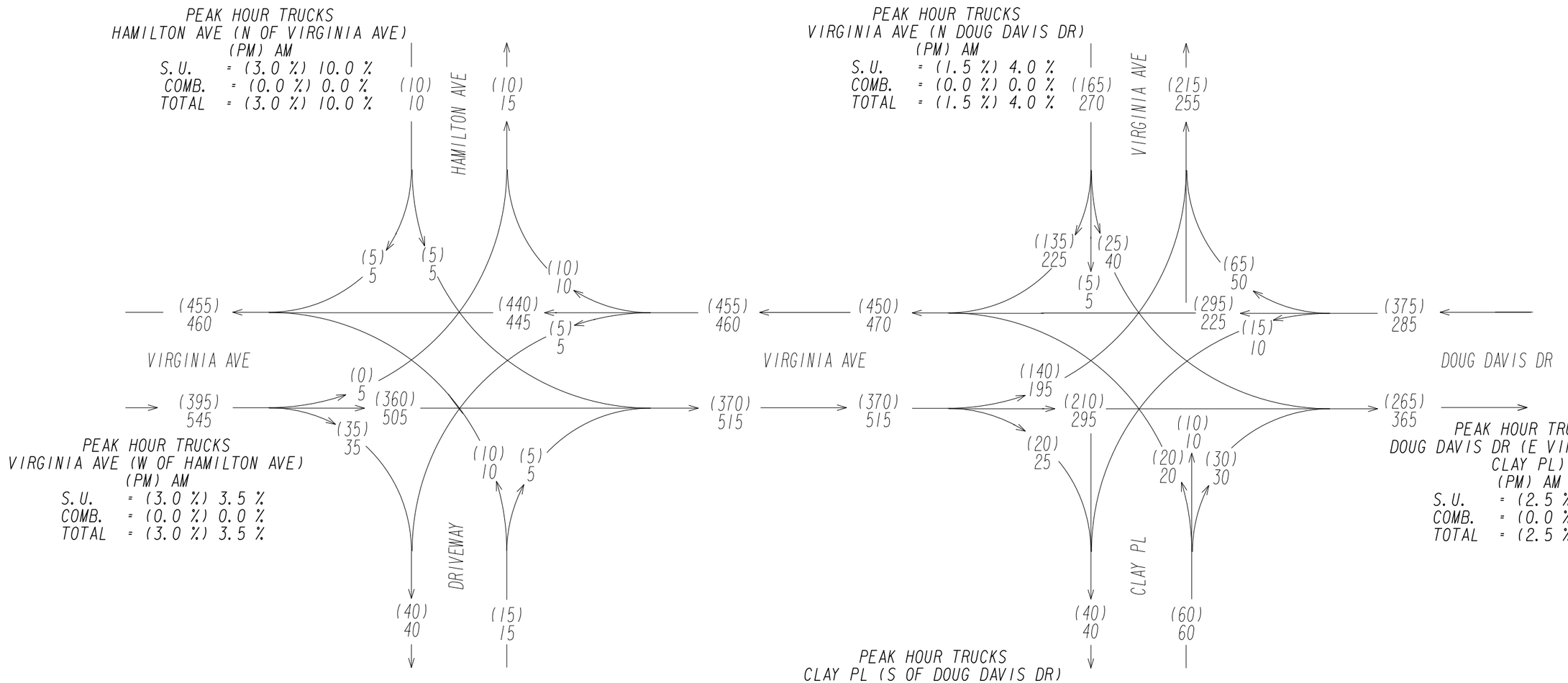
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0004

FULTON COUNTY



2023 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

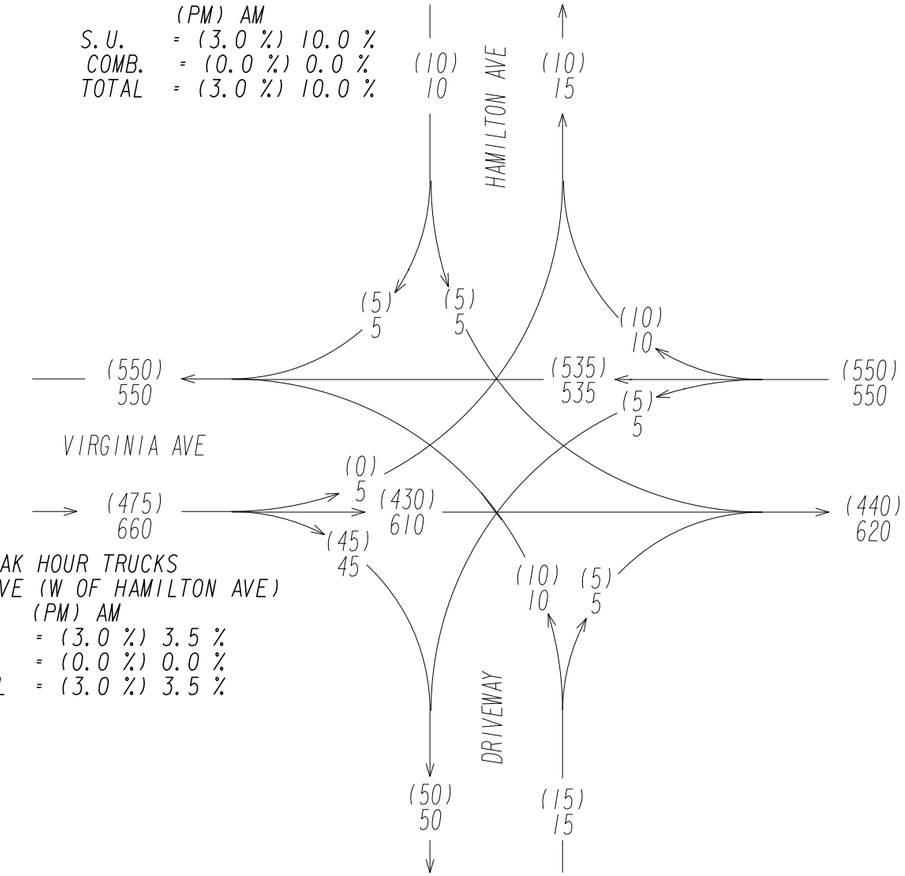
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0005

FULTON COUNTY

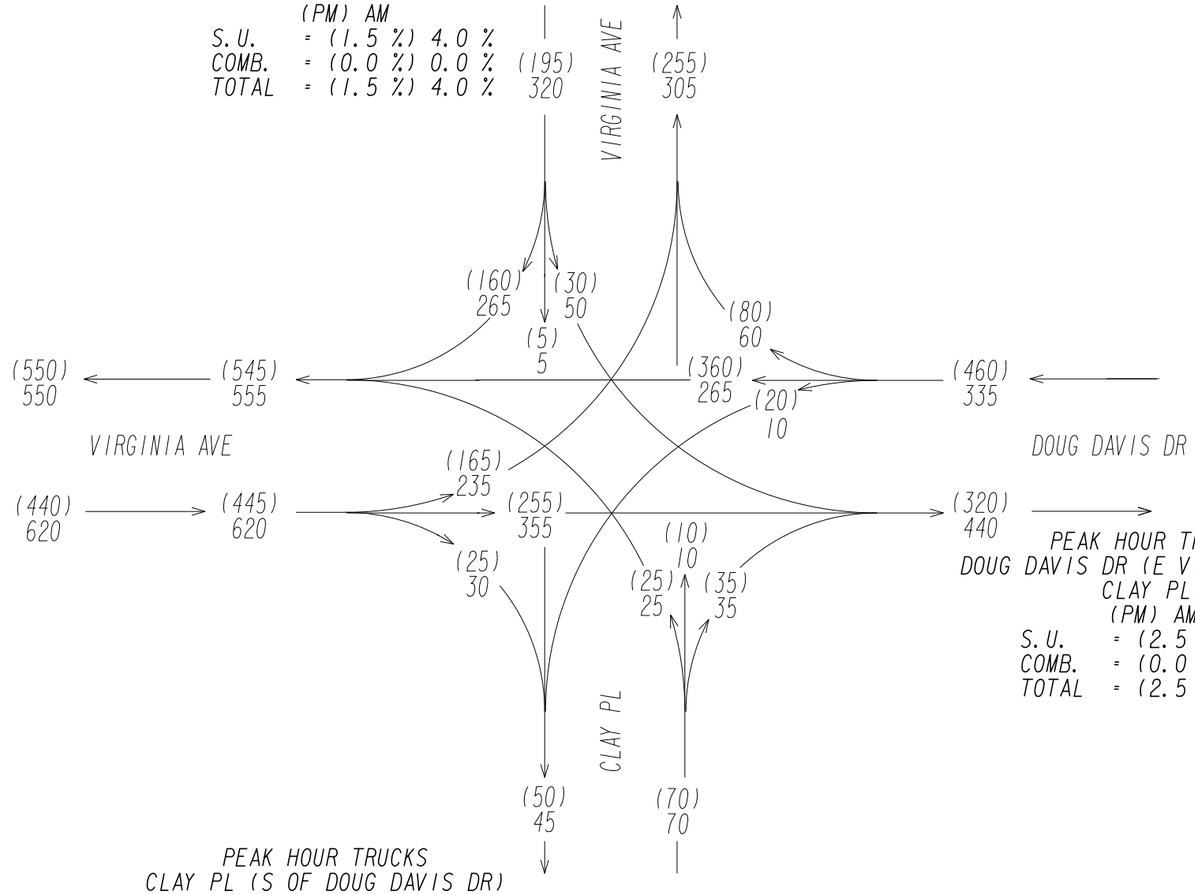


PEAK HOUR TRUCKS
HAMILTON AVE (N OF VIRGINIA AVE)
(PM) AM

S.U.	= (3.0 %)	10.0 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (3.0 %)	10.0 %

PEAK HOUR TRUCKS
VIRGINIA AVE (W OF HAMILTON AVE)
(PM) AM

S.U.	= (3.0 %)	3.5 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (3.0 %)	3.5 %



PEAK HOUR TRUCKS
VIRGINIA AVE (N DOUG DAVIS DR)
(PM) AM

S.U.	= (1.5 %)	4.0 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (1.5 %)	4.0 %

PEAK HOUR TRUCKS
DOUG DAVIS DR (E VIRGINIA AVE/ CLAY PL)
(PM) AM

S.U.	= (2.5 %)	3.0 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (2.5 %)	3.0 %

PEAK HOUR TRUCKS
CLAY PL (S OF DOUG DAVIS DR)
(PM) AM

S.U.	= (2.5 %)	3.5 %
COMB.	= (0.0 %)	0.0 %
TOTAL	= (2.5 %)	3.5 %

2043 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

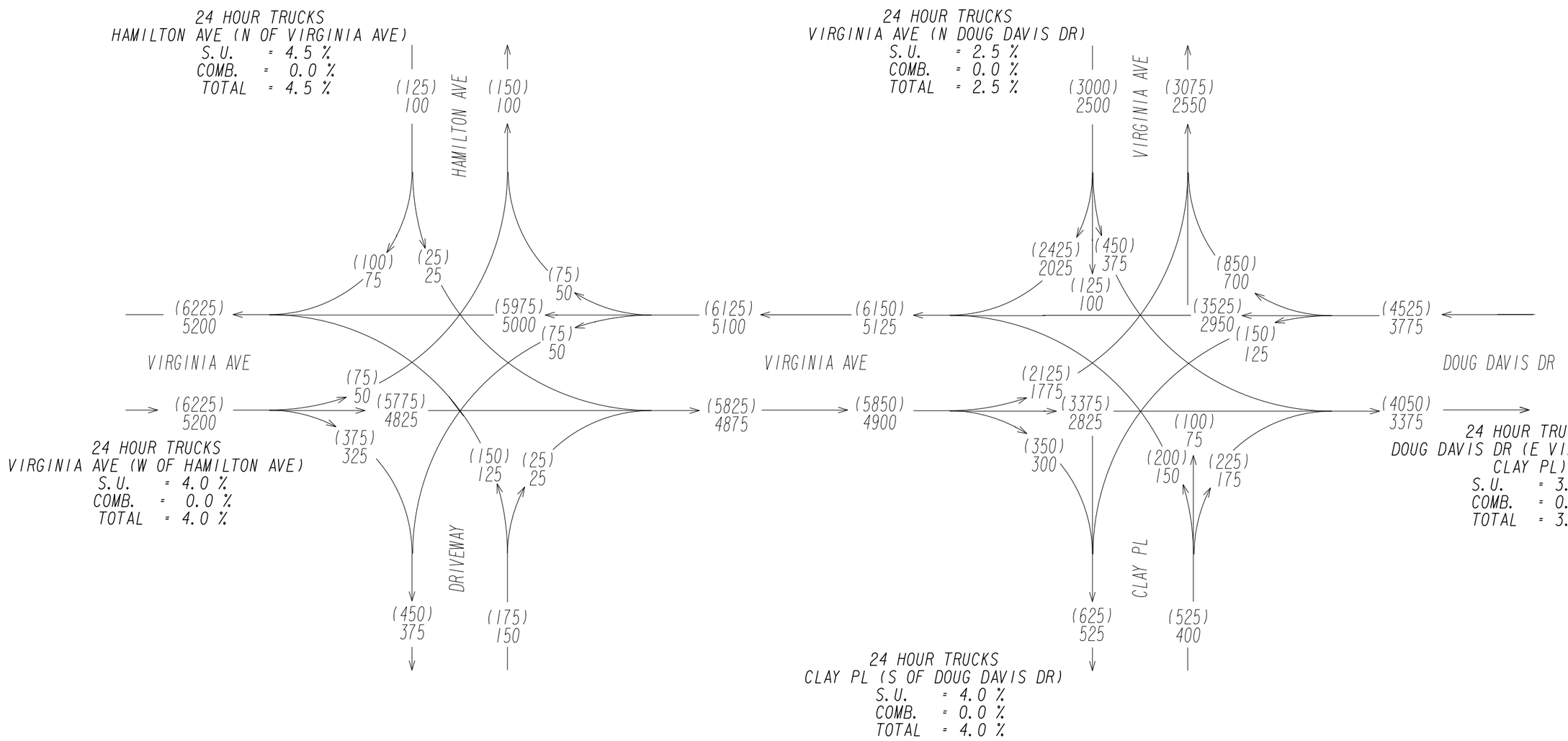
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0006

FULTON COUNTY



(2045) 2025 AADT

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

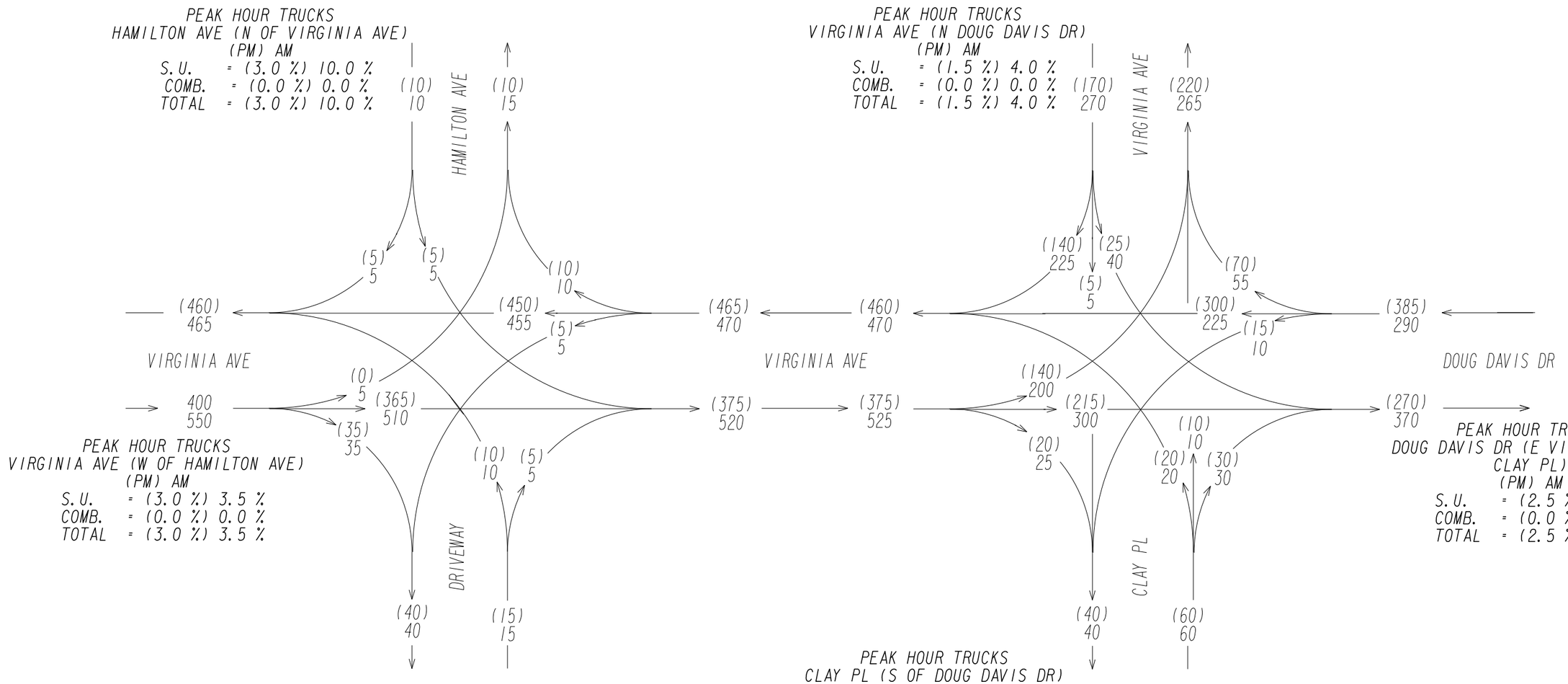
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0007

FULTON COUNTY



2025 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

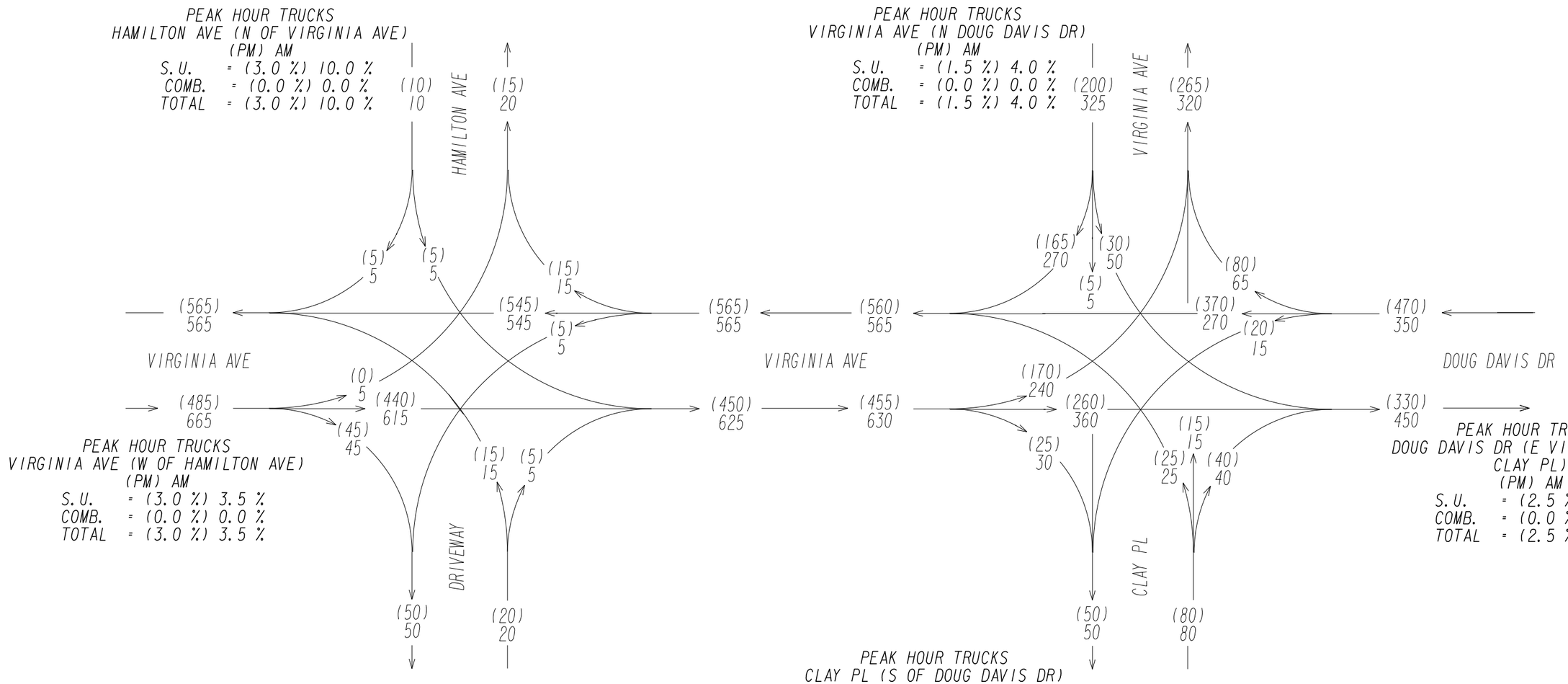
REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0008

FULTON COUNTY

N



2045 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0009

APPENDIX F.1 – GROWTH RATE CALCULATIONS (GDOT HISTORICAL DATA)

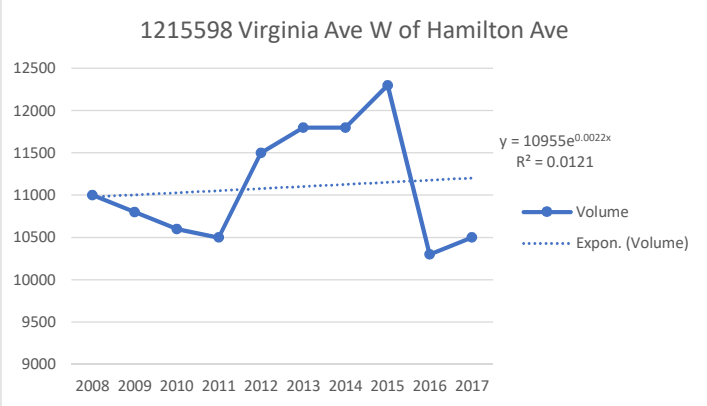
Historical Growth Calculations for Lenox Rd
(PI# 0015005 - Fulton County)
- Based on local GDOT Count Stations

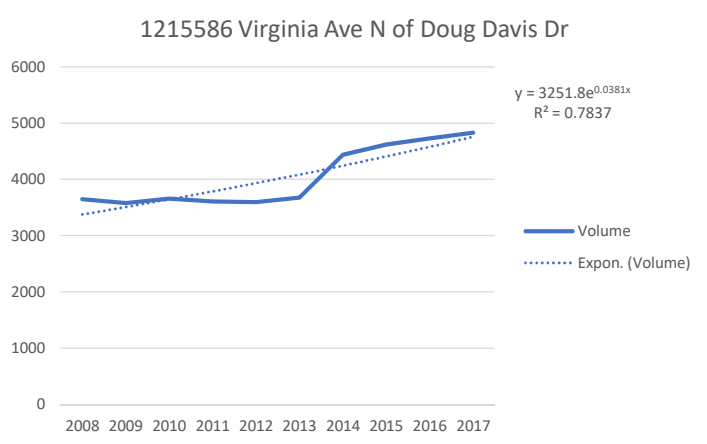
Study Corridor

Growth Rate based on data from 2008-2017

1215598 Virginia Ave W of Hamilton Ave		
Year	**Volume**	**Actuals?**
2017	10,500	Estimated
2016	10,300	Actual
2015	12,300	Estimated
2014	11,800	-
2013	11,800	-
Growth		**-2.9%**
2012	11500	-
2011	10500	-
2010	10600	-
2009	10800	-
2008	11000	-
Trend Growth Rate		**0.2%**

1215586 Virginia Avenue N of Doug Davis Drive		
Year	**Volume**	**Actuals?**
2017	4,830	Estimtaed
2016	4,730	Estimtaed
2015	4,620	Estimtaed
2014	4,440	-
2013	3,680	-
Growth Rate		**7.0%**
2012	3600	-
2011	3610	-
2010	3660	-
2009	3580	-
2008	3650	-
Trend Growth Rate		**3.8%**





Single Station Annualized Statistics - 121-5586

Data Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Data Item
Statistics type	-	-	-	-	-	-	-	Estimated	Estimated	**Estimated**	Statistics type
AADT	3650	3580	3660	3610	3600	3680	4440	4620	4730	**4830**	AADT
Single-Unit Truck AADT	-	-	-	-	-	-	-	-	-	**-**	Single-Unit Truck AADT
Combo-Unit Truck AADT	-	-	-	-	-	-	-	-	-	**-**	Combo-Unit Truck AADT
% Peak SU Trucks	-	-	-	-	-	-	-	-	-	**-**	% Peak SU Trucks
% Peak CU Trucks	-	-	-	-	-	-	-	-	-	**-**	% Peak CU Trucks
K-Factor	-	-	-	-	-	-	0.123	0.123	0.123	**-**	K-Factor
D-Factor	-	-	-	-	-	-	0.500	0.500	0.500	**-**	D-Factor
Future AADT	-	-	-	-	-	-	-	-	6250	**7840**	Future AADT

Single Station Annualized Statistics - 121-5593

Data Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Data Item
Statistics type	-	-	-	-	-	-	-	Estimated	Actual	**Estimated**	Statistics type
AADT	11000	10800	10600	10500	11500	11800	11800	12300	10300	**10500**	AADT
Single-Unit Truck AADT	-	-	-	-	-	-	-	-	392	**-**	Single-Unit Truck AADT
Combo-Unit Truck AADT	-	-	-	-	-	-	-	-	22	**-**	Combo-Unit Truck AADT
% Peak SU Trucks	-	-	-	-	-	-	-	-	0.252	**-**	% Peak SU Trucks
% Peak CU Trucks	-	-	-	-	-	-	-	-	0.039	**-**	% Peak CU Trucks
K-Factor	-	-	-	-	-	-	-	-	0.114	**-**	K-Factor
D-Factor	-	-	-	-	-	-	-	-	0.600	**-**	D-Factor
Future AADT	-	-	-	-	-	-	-	-	13200	**11800**	Future AADT

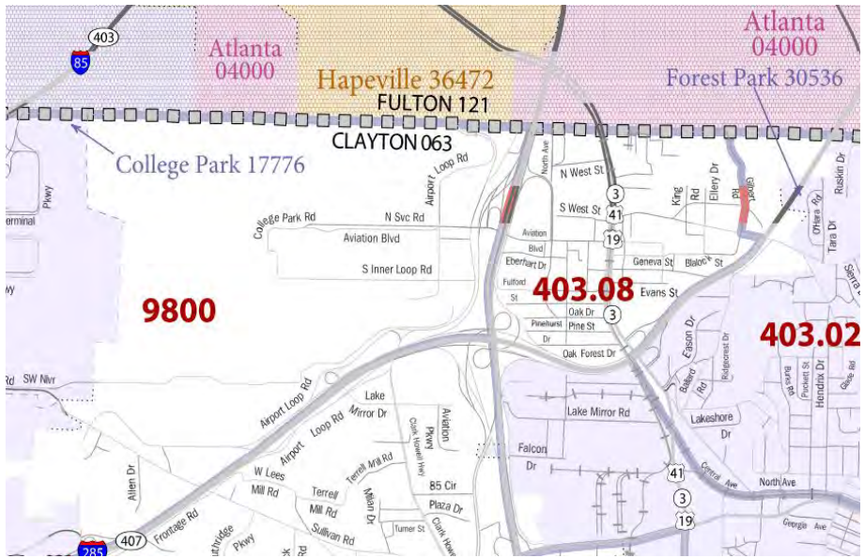
APPENDIX F.2 – GROWTH RATE CALCULATIONS (US CENSUS DATA)

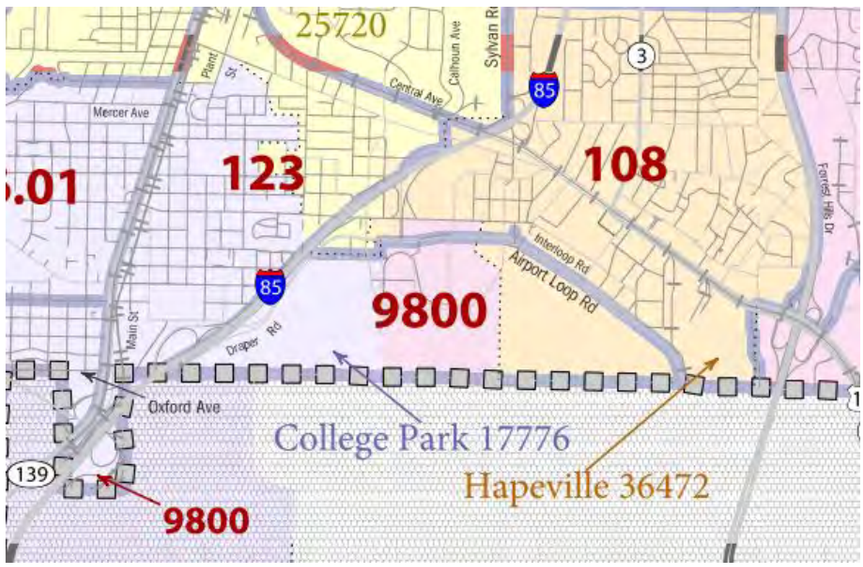
Historical Growth Calculations
for P.I. #0015005 (Fulton) - Lenox Road

- Based on local US Census Data

Census Tract 108 (Project Location)	
Year	**Volume**
2018	-
2017	6,622
2016	6,658
2015	6,649
2014	6,611
2013	6,535
2012	6,437
2011	6,342
2010	6,240
Growth Rate	**0.9%**
Avg Volumes	**6,510**
Trendline Growth	**0.9%**

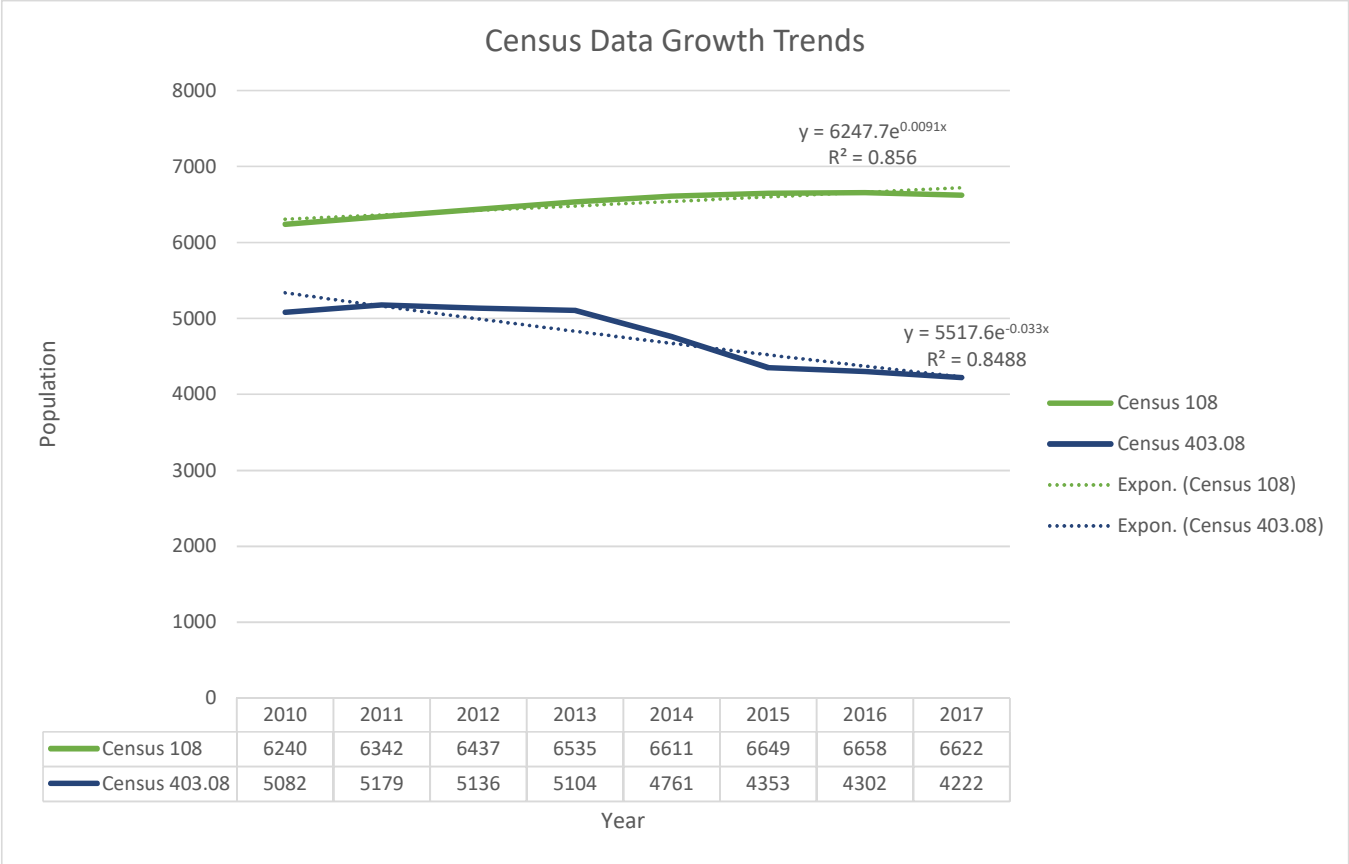
Census Tract 403.08 (Directly Adjascent to Project Location)	
Year	**Volume**
2018	-
2017	4,222
2016	4,302
2015	4,353
2014	4,761
2013	5,104
2012	5,136
2011	5,179
2010	5,082
Growth Rate	**-2.6%**
Avg Volumes	**4,770**
Trendline Growth	**-0.3%**





* Tract 9800 does not have any recorded data on American Fact Finder

Historical Growth Calculations
for P.I. #0015005 (Fulton) - Lenox Road
- Based on local US Census Data



	2010	2011	2012	2013	2014	2015	2016	2017
Census 108	6240	6342	6437	6535	6611	6649	6658	6622
Census 403.08	5082	5179	5136	5104	4761	4353	4302	4222

B01003

TOTAL POPULATION

Universe: Total population
2006-2010 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2010, the 2010 Census provides the official counts of the population and housing units for the nation, states, counties, cities and towns. For 2006 to 2009, the Population Estimates Program provides intercensal estimates of the population for the nation, states, and counties.

	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,240	+/-21

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2006-2010 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2006-2010 American Community Survey

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
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6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

B01003

TOTAL POPULATION

Universe: Total population
2007-2011 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,342	+/-18

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2007-2011 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2007-2011 American Community Survey

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2008-2012 American Community Survey 5-Year Estimates

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	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,437	+/-20

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2008-2012 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2008-2012 American Community Survey

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2009-2013 American Community Survey 5-Year Estimates

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	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,535	+/-30

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2009-2013 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2010-2014 American Community Survey 5-Year Estimates

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	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,611	+/-24

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2010-2014 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2011-2015 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

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Tell us what you think. Provide feedback to help make American Community Survey data more useful for you.

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	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,649	+/-28

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2011-2015 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

Explanation of Symbols:

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8. An '(X)' means that the estimate is not applicable or not available.

B01003

TOTAL POPULATION

Universe: Total population
2012-2016 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

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	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,658	+/-18

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2012-2016 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2013-2017 American Community Survey 5-Year Estimates

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Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Census Tract 108, Fulton County, Georgia	
	Estimate	Margin of Error
Total	6,622	+/-19

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2006-2010 American Community Survey 5-Year Estimates

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	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	5,082	+/-619

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

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Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2006-2010 American Community Survey

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B01003

TOTAL POPULATION

Universe: Total population
2007-2011 American Community Survey 5-Year Estimates

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	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	5,179	+/-663

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

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Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2007-2011 American Community Survey

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B01003

TOTAL POPULATION

Universe: Total population
2008-2012 American Community Survey 5-Year Estimates

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	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	5,136	+/-630

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2008-2012 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2008-2012 American Community Survey

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
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6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

B01003

TOTAL POPULATION

Universe: Total population
2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	5,104	+/-630

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

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Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2010-2014 American Community Survey 5-Year Estimates

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	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	4,761	+/-527

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

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Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2011-2015 American Community Survey 5-Year Estimates

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Tell us what you think. Provide feedback to help make American Community Survey data more useful for you.

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	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	4,353	+/-487

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2011-2015 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2012-2016 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

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	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	4,302	+/-454

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2012-2016 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Explanation of Symbols:

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B01003

TOTAL POPULATION

Universe: Total population
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Census Tract 403.08, Clayton County, Georgia	
	Estimate	Margin of Error
Total	4,222	+/-463

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

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APPENDIX G – SYNCHRO ANALYSIS RESULTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	485	35	5	430	10	10	0	5	5	0	5
Future Vol, veh/h	5	485	35	5	430	10	10	0	5	5	0	5
Conflicting Peds, #/hr	20	0	28	28	0	20	6	0	2	2	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	84	84	84	51	51	51	52	52	52
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	10	10	10
Mvmt Flow	5	533	38	6	512	12	20	0	10	10	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	544	0	0	599	0	0	864	1146	316	829	1159	288
Stage 1	-	-	-	-	-	-	590	590	-	550	550	-
Stage 2	-	-	-	-	-	-	274	556	-	279	609	-
Critical Hdwy	4.18	-	-	4.16	-	-	7.5	6.5	6.9	7.7	6.7	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Follow-up Hdwy	2.24	-	-	2.23	-	-	3.5	4	3.3	3.6	4.1	3.4
Pot Cap-1 Maneuver	1007	-	-	967	-	-	251	201	686	250	183	685
Stage 1	-	-	-	-	-	-	466	498	-	467	495	-
Stage 2	-	-	-	-	-	-	714	516	-	682	464	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	991	-	-	939	-	-	236	189	665	240	172	671
Mov Cap-2 Maneuver	-	-	-	-	-	-	236	189	-	240	172	-
Stage 1	-	-	-	-	-	-	450	481	-	457	483	-
Stage 2	-	-	-	-	-	-	694	503	-	667	448	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	18.3	15.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	991	-	-	939	-	-	354
HCM Lane V/C Ratio	0.098	0.006	-	-	0.006	-	-	0.054
HCM Control Delay (s)	18.3	8.7	-	-	8.9	0	-	15.8
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

2019 Noon Peak Intersection 2: Virginia Ave and Clay Place

09/11/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	285	25	10	215	50	20	10	0	40	5	215
Future Volume (veh/h)	190	285	25	10	215	50	20	10	0	40	5	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	0.98		1.00	0.97		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1841	1841	0	1767	1841	1841
Adj Flow Rate, veh/h	209	313	27	12	256	60	29	15	0	47	6	250
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68	0.86	0.86	0.86
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	0	4	4	4
Cap, veh/h	661	2150	184	607	994	829	141	246	0	288	8	344
Arrive On Green	0.07	0.66	0.66	0.54	0.54	0.54	0.13	0.13	0.00	0.04	0.23	0.23
Sat Flow, veh/h	1753	3256	279	1022	1856	1548	1083	1841	0	1683	36	1496
Grp Volume(v), veh/h	209	167	173	12	256	60	29	15	0	47	0	256
Grp Sat Flow(s),veh/h/ln	1753	1749	1786	1022	1856	1548	1083	1841	0	1683	0	1531
Q Serve(g_s), s	6.2	4.3	4.4	0.7	8.9	2.2	3.1	0.9	0.0	2.8	0.0	18.6
Cycle Q Clear(g_c), s	6.2	4.3	4.4	0.7	8.9	2.2	10.1	0.9	0.0	2.8	0.0	18.6
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.00	1.00		0.98
Lane Grp Cap(c), veh/h	661	1155	1179	607	994	829	141	246	0	288	0	352
V/C Ratio(X)	0.32	0.14	0.15	0.02	0.26	0.07	0.21	0.06	0.00	0.16	0.00	0.73
Avail Cap(c_a), veh/h	661	1155	1179	607	994	829	251	433	0	337	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.4	7.7	7.7	13.1	15.0	13.5	52.7	45.4	0.0	40.6	0.0	42.7
Incr Delay (d2), s/veh	0.3	0.3	0.3	0.1	0.6	0.2	0.7	0.1	0.0	0.3	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.6	1.7	0.2	3.8	0.8	0.9	0.4	0.0	1.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	7.9	7.9	13.2	15.6	13.6	53.4	45.5	0.0	40.8	0.0	45.6
LnGrp LOS	B	A	A	B	B	B	D	D	A	D	A	D
Approach Vol, veh/h		549			328			44			303	
Approach Delay, s/veh		9.0			15.2			50.7			44.9	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	15.0	70.7	11.5	22.8		85.6		34.4				
Change Period (Y+Rc), s	* 6.8	6.4	* 6.8	* 6.8		6.4		* 6.8				
Max Green Setting (Gmax), s	* 8.2	48.6	* 8.2	* 28		63.6		* 43				
Max Q Clear Time (g_c+I1), s	8.2	10.9	4.8	12.1		6.4		20.6				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.1		5.4		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

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



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	355	0	0	275	0	30
Future Volume (Veh/h)	355	0	0	275	0	30
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.84	0.84	0.68	0.68
Hourly flow rate (vph)	390	0	0	327	0	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	104					
pX, platoon unblocked			0.97		0.97	0.97
vC, conflicting volume			390		499	195
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			314		426	113
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	95
cM capacity (veh/h)			1201		536	886

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	195	195	109	109	109	44
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	44
cSH	1700	1700	1700	1700	1700	886
Volume to Capacity	0.11	0.11	0.06	0.06	0.06	0.05
Queue Length 95th (ft)	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS						A
Approach Delay (s)	0.0		0.0			9.3
Approach LOS						A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	19.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	345	35	5	415	10	10	0	5	5	0	5
Future Vol, veh/h	0	345	35	5	415	10	10	0	5	5	0	5
Conflicting Peds, #/hr	20	0	28	28	0	20	6	0	2	2	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	84	84	84	51	51	51	52	52	52
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	10	10	10
Mvmt Flow	0	379	38	6	494	12	20	0	10	10	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	526	0	0	445	0	0	691	964	239	724	977	279
Stage 1	-	-	-	-	-	-	426	426	-	532	532	-
Stage 2	-	-	-	-	-	-	265	538	-	192	445	-
Critical Hdwy	4.18	-	-	4.16	-	-	7.5	6.5	6.9	7.7	6.7	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Follow-up Hdwy	2.24	-	-	2.23	-	-	3.5	4	3.3	3.6	4.1	3.4
Pot Cap-1 Maneuver	1023	-	-	1104	-	-	335	257	768	299	236	695
Stage 1	-	-	-	-	-	-	582	589	-	479	504	-
Stage 2	-	-	-	-	-	-	723	526	-	769	553	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1007	-	-	1072	-	-	317	244	745	288	224	680
Mov Cap-2 Maneuver	-	-	-	-	-	-	317	244	-	288	224	-
Stage 1	-	-	-	-	-	-	565	572	-	471	492	-
Stage 2	-	-	-	-	-	-	703	513	-	758	537	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.9	14.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	392	1007	-	-	1072	-	-	405
HCM Lane V/C Ratio	0.075	-	-	-	0.006	-	-	0.047
HCM Control Delay (s)	14.9	0	-	-	8.4	0	-	14.3
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

2019 PM Peak Intersection 2: Virginia Ave and Clay Place

09/11/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	205	20	15	285	65	20	10	0	25	5	130
Future Volume (veh/h)	135	205	20	15	285	65	20	10	0	25	5	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	0.96		1.00	0.96		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1841	1841	0	1767	1841	1841
Adj Flow Rate, veh/h	148	225	22	18	339	77	29	15	0	29	6	151
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68	0.86	0.86	0.86
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	0	4	4	4
Cap, veh/h	635	2278	221	733	1130	944	169	199	0	234	11	280
Arrive On Green	0.05	0.71	0.71	0.61	0.61	0.61	0.11	0.11	0.00	0.03	0.19	0.19
Sat Flow, veh/h	1753	3217	311	1113	1856	1551	1166	1841	0	1683	58	1470
Grp Volume(v), veh/h	148	121	126	18	339	77	29	15	0	29	0	157
Grp Sat Flow(s),veh/h/ln	1753	1749	1780	1113	1856	1551	1166	1841	0	1683	0	1528
Q Serve(g_s), s	3.9	2.8	2.9	0.8	11.4	2.7	3.0	1.0	0.0	1.9	0.0	12.1
Cycle Q Clear(g_c), s	3.9	2.8	2.9	0.8	11.4	2.7	4.3	1.0	0.0	1.9	0.0	12.1
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.00	1.00		0.96
Lane Grp Cap(c), veh/h	635	1238	1261	733	1130	944	169	199	0	234	0	291
V/C Ratio(X)	0.23	0.10	0.10	0.02	0.30	0.08	0.17	0.08	0.00	0.12	0.00	0.54
Avail Cap(c_a), veh/h	731	1238	1261	733	1130	944	341	470	0	290	0	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.5	5.9	6.0	10.1	12.2	10.5	54.3	52.1	0.0	47.4	0.0	47.5
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.1	0.7	0.2	0.5	0.2	0.0	0.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.0	1.1	0.2	4.8	0.9	0.9	0.4	0.0	0.8	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.7	6.1	6.1	10.2	12.8	10.6	54.8	52.3	0.0	47.7	0.0	49.0
LnGrp LOS	A	A	A	B	B	B	D	D	A	D	A	D
Approach Vol, veh/h		395			434			44			186	
Approach Delay, s/veh		7.1			12.3			53.9			48.8	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	12.9	85.6	10.7	20.8		98.5		31.5				
Change Period (Y+Rc), s	* 6.8	6.4	* 6.8	* 6.8		6.4		* 6.8				
Max Green Setting (Gmax), s	* 13	48.6	* 8.2	* 33		68.6		* 48				
Max Q Clear Time (g_c+I1), s	5.9	13.4	3.9	6.3		4.9		14.1				
Green Ext Time (p_c), s	0.2	6.8	0.0	0.1		3.8		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			18.5									
HCM 6th LOS			B									

Notes

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



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	260	0	0	365	0	30
Future Volume (Veh/h)	260	0	0	365	0	30
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.84	0.84	0.68	0.68
Hourly flow rate (vph)	286	0	0	435	0	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	104					
pX, platoon unblocked			0.98		0.98	0.98
vC, conflicting volume			286		431	143
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			241		388	95
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	95
cM capacity (veh/h)			1294		573	921

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	143	143	145	145	145	44
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	44
cSH	1700	1700	1700	1700	1700	921
Volume to Capacity	0.08	0.08	0.09	0.09	0.09	0.05
Queue Length 95th (ft)	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.1
Lane LOS						A
Approach Delay (s)	0.0		0.0			9.1
Approach LOS						A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	610	45	5	535	10	10	0	5	5	0	5
Future Vol, veh/h	5	610	45	5	535	10	10	0	5	5	0	5
Conflicting Peds, #/hr	24	0	35	35	0	24	8	0	2	2	0	8
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	84	84	84	51	51	51	52	52	52
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	10	10	10
Mvmt Flow	5	670	49	6	637	12	20	0	10	10	0	10

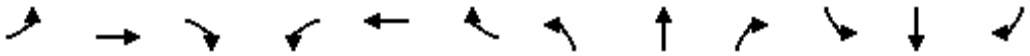
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	673	0	0	754	0	0	1079	1425	397	1026	1443	357
Stage 1	-	-	-	-	-	-	740	740	-	679	679	-
Stage 2	-	-	-	-	-	-	339	685	-	347	764	-
Critical Hdwy	4.18	-	-	4.16	-	-	7.5	6.5	6.9	7.7	6.7	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Follow-up Hdwy	2.24	-	-	2.23	-	-	3.5	4	3.3	3.6	4.1	3.4
Pot Cap-1 Maneuver	900	-	-	845	-	-	175	137	608	178	122	617
Stage 1	-	-	-	-	-	-	379	426	-	389	430	-
Stage 2	-	-	-	-	-	-	655	451	-	620	392	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	883	-	-	814	-	-	163	127	585	169	113	601
Mov Cap-2 Maneuver	-	-	-	-	-	-	163	127	-	169	113	-
Stage 1	-	-	-	-	-	-	363	408	-	379	417	-
Stage 2	-	-	-	-	-	-	632	437	-	605	376	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	24.4	19.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	883	-	-	814	-	-	264
HCM Lane V/C Ratio	0.137	0.006	-	-	0.007	-	-	0.073
HCM Control Delay (s)	24.4	9.1	-	-	9.5	0.1	-	19.7
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.2

2043 Noon Peak Intersection 2: Virginia Ave and Clay Place

09/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	355	30	10	265	60	25	10	0	50	5	265
Future Volume (veh/h)	235	355	30	10	265	60	25	10	0	50	5	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	0.98		1.00	0.97		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1841	1841	0	1767	1841	1841
Adj Flow Rate, veh/h	258	390	33	12	315	71	37	15	0	58	6	308
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68	0.86	0.86	0.86
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	0	4	4	4
Cap, veh/h	535	1900	160	533	905	751	175	282	0	367	8	428
Arrive On Green	0.05	0.58	0.58	0.49	0.49	0.49	0.15	0.15	0.00	0.06	0.29	0.29
Sat Flow, veh/h	1753	3260	274	945	1856	1539	1026	1841	0	1683	29	1501
Grp Volume(v), veh/h	258	208	215	12	315	71	37	15	0	58	0	314
Grp Sat Flow(s),veh/h/ln	1753	1749	1785	945	1856	1539	1026	1841	0	1683	0	1530
Q Serve(g_s), s	5.0	5.6	5.7	0.7	10.5	2.5	3.4	0.7	0.0	2.7	0.0	18.5
Cycle Q Clear(g_c), s	5.0	5.6	5.7	0.7	10.5	2.5	8.6	0.7	0.0	2.7	0.0	18.5
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.00	1.00		0.98
Lane Grp Cap(c), veh/h	535	1019	1041	533	905	751	175	282	0	367	0	436
V/C Ratio(X)	0.48	0.20	0.21	0.02	0.35	0.09	0.21	0.05	0.00	0.16	0.00	0.72
Avail Cap(c_a), veh/h	535	1019	1041	533	905	751	246	409	0	414	0	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	9.9	9.9	13.3	15.8	13.8	42.0	36.2	0.0	30.2	0.0	32.1
Incr Delay (d2), s/veh	0.7	0.5	0.4	0.1	1.1	0.3	0.6	0.1	0.0	0.2	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.1	2.2	0.1	4.5	0.9	0.9	0.3	0.0	1.1	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	10.3	10.3	13.4	16.9	14.0	42.5	36.2	0.0	30.4	0.0	35.0
LnGrp LOS	B	B	B	B	B	B	D	D	A	C	A	C
Approach Vol, veh/h		681			398			52			372	
Approach Delay, s/veh		12.5			16.2			40.7			34.3	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	9.5	55.2	13.2	22.1		64.7		35.3				
Change Period (Y+Rc), s	4.5	6.4	* 6.8	* 6.8		6.4		* 6.8				
Max Green Setting (Gmax), s	5.0	32.6	* 9.2	* 22		48.6		* 38				
Max Q Clear Time (g_c+I1), s	7.0	12.5	4.7	10.6		7.7		20.5				
Green Ext Time (p_c), s	0.0	4.9	0.0	0.1		6.6		1.0				

Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									

Notes

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

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	440	0	0	335	0	35
Future Volume (Veh/h)	440	0	0	335	0	35
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.84	0.84	0.68	0.68
Hourly flow rate (vph)	484	0	0	399	0	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	104					
pX, platoon unblocked			0.95		0.95	0.95
vC, conflicting volume			484		617	242
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			357		496	102
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	94
cM capacity (veh/h)			1134		474	882

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	242	242	133	133	133	51
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	51
cSH	1700	1700	1700	1700	1700	882
Volume to Capacity	0.14	0.14	0.08	0.08	0.08	0.06
Queue Length 95th (ft)	0	0	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS						A
Approach Delay (s)	0.0		0.0			9.3
Approach LOS						A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	430	45	5	535	10	10	0	5	5	0	5
Future Vol, veh/h	0	430	45	5	535	10	10	0	5	5	0	5
Conflicting Peds, #/hr	24	0	35	35	0	24	8	0	2	2	0	8
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	84	84	84	51	51	51	52	52	52
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	10	10	10
Mvmt Flow	0	473	49	6	637	12	20	0	10	10	0	10

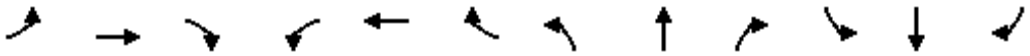
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	673	0	0	557	0	0	872	1218	298	918	1236	357
Stage 1	-	-	-	-	-	-	533	533	-	679	679	-
Stage 2	-	-	-	-	-	-	339	685	-	239	557	-
Critical Hdwy	4.18	-	-	4.16	-	-	7.5	6.5	6.9	7.7	6.7	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.7	-
Follow-up Hdwy	2.24	-	-	2.23	-	-	3.5	4	3.3	3.6	4.1	3.4
Pot Cap-1 Maneuver	900	-	-	1003	-	-	248	182	704	215	164	617
Stage 1	-	-	-	-	-	-	503	528	-	389	430	-
Stage 2	-	-	-	-	-	-	655	451	-	721	491	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	883	-	-	967	-	-	232	170	677	206	154	601
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	170	-	206	154	-
Stage 1	-	-	-	-	-	-	485	509	-	382	418	-
Stage 2	-	-	-	-	-	-	634	438	-	709	473	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	18.4	17.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	297	883	-	-	967	-	-	307
HCM Lane V/C Ratio	0.099	-	-	-	0.006	-	-	0.063
HCM Control Delay (s)	18.4	0	-	-	8.7	0	-	17.5
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

2043 PM Peak Intersection 2: Virginia Ave and Clay Place

09/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	255	25	20	360	80	25	10	0	30	5	160
Future Volume (veh/h)	165	255	25	20	360	80	25	10	0	30	5	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	0.97		1.00	0.96		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1841	1841	0	1767	1841	1841
Adj Flow Rate, veh/h	181	280	27	24	429	95	37	15	0	35	6	186
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68	0.86	0.86	0.86
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	0	4	4	4
Cap, veh/h	477	2011	192	591	917	761	225	254	0	302	12	360
Arrive On Green	0.06	0.62	0.62	0.49	0.49	0.49	0.14	0.14	0.00	0.04	0.24	0.24
Sat Flow, veh/h	1753	3220	308	1049	1856	1539	1132	1841	0	1683	48	1480
Grp Volume(v), veh/h	181	151	156	24	429	95	37	15	0	35	0	192
Grp Sat Flow(s),veh/h/ln	1753	1749	1779	1049	1856	1539	1132	1841	0	1683	0	1528
Q Serve(g_s), s	4.9	3.5	3.6	1.2	15.2	3.3	2.9	0.7	0.0	1.7	0.0	10.9
Cycle Q Clear(g_c), s	4.9	3.5	3.6	1.2	15.2	3.3	3.3	0.7	0.0	1.7	0.0	10.9
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.00	1.00		0.97
Lane Grp Cap(c), veh/h	477	1092	1111	591	917	761	225	254	0	302	0	372
V/C Ratio(X)	0.38	0.14	0.14	0.04	0.47	0.12	0.16	0.06	0.00	0.12	0.00	0.52
Avail Cap(c_a), veh/h	477	1092	1111	591	917	761	308	390	0	377	0	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.9	7.7	7.7	13.1	16.6	13.6	38.7	37.4	0.0	33.1	0.0	32.7
Incr Delay (d2), s/veh	0.5	0.3	0.3	0.1	1.7	0.3	0.3	0.1	0.0	0.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.3	1.3	0.3	6.5	1.2	0.8	0.3	0.0	0.7	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	8.0	8.0	13.2	18.3	14.0	39.0	37.5	0.0	33.3	0.0	33.8
LnGrp LOS	B	A	A	B	B	B	D	D	A	C	A	C
Approach Vol, veh/h		488			548			52			227	
Approach Delay, s/veh		9.6			17.3			38.6			33.7	
Approach LOS		A			B			D			C	

Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	13.0	55.8	10.5	20.6		68.8		31.2				
Change Period (Y+Rc), s	* 6.8	6.4	* 6.8	* 6.8		6.4		* 6.8				
Max Green Setting (Gmax), s	* 6.2	37.6	* 8.2	* 21		50.6		* 36				
Max Q Clear Time (g_c+I1), s	6.9	17.2	3.7	5.3		5.6		12.9				
Green Ext Time (p_c), s	0.0	7.1	0.0	0.1		4.7		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

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



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	320	0	0	460	0	35
Future Volume (Veh/h)	320	0	0	460	0	35
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.84	0.84	0.68	0.68
Hourly flow rate (vph)	352	0	0	548	0	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	104					
pX, platoon unblocked			0.97		0.97	0.97
vC, conflicting volume			352		535	176
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			272		460	91
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	94
cM capacity (veh/h)			1243		509	915

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	176	176	183	183	183	51
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	51
cSH	1700	1700	1700	1700	1700	915
Volume to Capacity	0.10	0.10	0.11	0.11	0.11	0.06
Queue Length 95th (ft)	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.2
Lane LOS						A
Approach Delay (s)	0.0		0.0			9.2
Approach LOS						A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	18.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	610	45	5	535	10	10	0	5	5	0	5
Future Vol, veh/h	5	610	45	5	535	10	10	0	5	5	0	5
Conflicting Peds, #/hr	24	0	35	35	0	24	8	0	2	2	0	8
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	84	84	84	51	51	51	52	52	52
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	10	10	10
Mvmt Flow	5	670	49	6	637	12	20	0	10	10	0	10

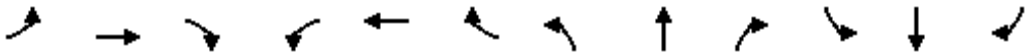
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	673	0	0	754	0	0	1408	1425	732	1391	1443	675
Stage 1	-	-	-	-	-	-	740	740	-	679	679	-
Stage 2	-	-	-	-	-	-	668	685	-	712	764	-
Critical Hdwy	4.14	-	-	4.13	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	908	-	-	852	-	-	118	137	424	115	127	440
Stage 1	-	-	-	-	-	-	412	426	-	429	439	-
Stage 2	-	-	-	-	-	-	451	451	-	411	401	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	891	-	-	821	-	-	109	127	408	109	118	429
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	127	-	109	118	-
Stage 1	-	-	-	-	-	-	395	408	-	418	426	-
Stage 2	-	-	-	-	-	-	433	437	-	398	384	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	36.3	28.2
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	144	891	-	-	821	-	-	174
HCM Lane V/C Ratio	0.204	0.006	-	-	0.007	-	-	0.111
HCM Control Delay (s)	36.3	9.1	-	-	9.4	0	-	28.2
HCM Lane LOS	E	A	-	-	A	A	-	D
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0.4

2043 Road Diet Noon Peak Intersection 2: Virginia Ave and Clay Place

09/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	355	30	10	265	60	25	10	35	50	5	265
Future Volume (veh/h)	235	355	30	10	265	60	25	10	35	50	5	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	0.96		0.93	0.95		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1841	1841	1841	1767	1841	1841
Adj Flow Rate, veh/h	258	390	33	12	315	71	37	15	51	58	6	308
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68	0.86	0.86	0.86
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	489	970	82	468	613	138	174	54	184	321	8	426
Arrive On Green	0.09	0.58	0.58	0.42	0.42	0.42	0.16	0.16	0.16	0.06	0.29	0.29
Sat Flow, veh/h	1753	1671	141	943	1458	329	1011	347	1180	1683	29	1479
Grp Volume(v), veh/h	258	0	423	12	0	386	37	0	66	58	0	314
Grp Sat Flow(s),veh/h/ln	1753	0	1812	943	0	1786	1011	0	1528	1683	0	1508
Q Serve(g_s), s	8.1	0.0	12.8	0.7	0.0	16.0	3.4	0.0	3.8	2.7	0.0	18.7
Cycle Q Clear(g_c), s	8.1	0.0	12.8	0.7	0.0	16.0	8.9	0.0	3.8	2.7	0.0	18.7
Prop In Lane	1.00		0.08	1.00		0.18	1.00		0.77	1.00		0.98
Lane Grp Cap(c), veh/h	489	0	1052	468	0	751	174	0	238	321	0	434
V/C Ratio(X)	0.53	0.00	0.40	0.03	0.00	0.51	0.21	0.00	0.28	0.18	0.00	0.72
Avail Cap(c_a), veh/h	489	0	1052	468	0	751	241	0	339	368	0	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	11.5	17.0	0.0	21.4	42.0	0.0	37.3	30.1	0.0	32.0
Incr Delay (d2), s/veh	1.1	0.0	1.1	0.1	0.0	2.5	0.6	0.0	0.6	0.3	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	5.0	0.2	0.0	6.9	0.9	0.0	1.4	1.1	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	12.6	17.1	0.0	23.9	42.6	0.0	37.9	30.4	0.0	35.1
LnGrp LOS	B	A	B	B	A	C	D	A	D	C	A	D
Approach Vol, veh/h		681			398			103			372	
Approach Delay, s/veh		13.9			23.7			39.6			34.3	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	16.0	48.4	13.2	22.4		64.4		35.6				
Change Period (Y+Rc), s	* 6.8	6.4	* 6.8	* 6.8		6.4		* 6.8				
Max Green Setting (Gmax), s	* 9.2	32.6	* 9.2	* 22		48.6		* 38				
Max Q Clear Time (g_c+I1), s	10.1	18.0	4.7	10.9		14.8		20.7				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.2		6.8		1.0				

Intersection Summary												
HCM 6th Ctrl Delay			23.0									
HCM 6th LOS			C									

Notes

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

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	430	45	5	535	10	10	0	5	5	0	5
Future Vol, veh/h	0	430	45	5	535	10	10	0	5	5	0	5
Conflicting Peds, #/hr	24	0	35	35	0	24	8	0	2	2	0	8
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	84	84	84	51	51	51	52	52	52
Heavy Vehicles, %	4	4	4	3	3	3	0	0	0	10	10	10
Mvmt Flow	0	473	49	6	637	12	20	0	10	10	0	10

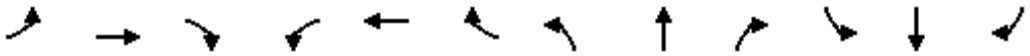
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	673	0	0	557	0	0	1201	1218	535	1184	1236	675
Stage 1	-	-	-	-	-	-	533	533	-	679	679	-
Stage 2	-	-	-	-	-	-	668	685	-	505	557	-
Critical Hdwy	4.14	-	-	4.13	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.236	-	-	2.227	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	908	-	-	1009	-	-	163	182	549	160	170	440
Stage 1	-	-	-	-	-	-	534	528	-	429	439	-
Stage 2	-	-	-	-	-	-	451	451	-	535	499	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	891	-	-	973	-	-	151	170	528	153	159	429
Mov Cap-2 Maneuver	-	-	-	-	-	-	151	170	-	153	159	-
Stage 1	-	-	-	-	-	-	515	509	-	421	426	-
Stage 2	-	-	-	-	-	-	433	438	-	524	481	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	26.3	22.4
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	198	891	-	-	973	-	-	226
HCM Lane V/C Ratio	0.149	-	-	-	0.006	-	-	0.085
HCM Control Delay (s)	26.3	0	-	-	8.7	0	-	22.4
HCM Lane LOS	D	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.3

2043 Road Diet PM Peak Intersection 2: Virginia Ave and Clay Place

09/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	255	25	20	360	80	25	10	35	30	5	160
Future Volume (veh/h)	165	255	25	20	360	80	25	10	35	30	5	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	0.94		0.92	0.95		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1841	1841	1841	1767	1841	1841
Adj Flow Rate, veh/h	181	280	27	24	429	95	37	15	51	35	6	186
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68	0.86	0.86	0.86
Percent Heavy Veh, %	4	4	4	3	3	3	4	4	4	4	4	4
Cap, veh/h	426	1030	99	593	727	161	219	48	162	254	11	354
Arrive On Green	0.06	0.62	0.62	0.50	0.50	0.50	0.14	0.14	0.14	0.04	0.24	0.24
Sat Flow, veh/h	1753	1650	159	1049	1465	324	1105	345	1172	1683	47	1455
Grp Volume(v), veh/h	181	0	307	24	0	524	37	0	66	35	0	192
Grp Sat Flow(s),veh/h/ln	1753	0	1809	1049	0	1789	1105	0	1516	1683	0	1502
Q Serve(g_s), s	4.9	0.0	7.7	1.2	0.0	20.9	3.0	0.0	3.9	1.7	0.0	11.1
Cycle Q Clear(g_c), s	4.9	0.0	7.7	1.2	0.0	20.9	3.6	0.0	3.9	1.7	0.0	11.1
Prop In Lane	1.00		0.09	1.00		0.18	1.00		0.77	1.00		0.97
Lane Grp Cap(c), veh/h	426	0	1129	593	0	888	219	0	210	254	0	366
V/C Ratio(X)	0.42	0.00	0.27	0.04	0.00	0.59	0.17	0.00	0.31	0.14	0.00	0.52
Avail Cap(c_a), veh/h	426	0	1129	593	0	888	300	0	321	329	0	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	8.5	13.0	0.0	17.9	38.9	0.0	38.8	33.2	0.0	32.8
Incr Delay (d2), s/veh	0.7	0.0	0.6	0.1	0.0	2.9	0.4	0.0	0.8	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.9	0.3	0.0	8.8	0.8	0.0	1.5	0.7	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	0.0	9.1	13.1	0.0	20.8	39.3	0.0	39.7	33.5	0.0	34.0
LnGrp LOS	B	A	A	B	A	C	D	A	D	C	A	C
Approach Vol, veh/h		488			548			103			227	
Approach Delay, s/veh		10.9			20.5			39.5			33.9	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2	3	4		6		8				
Phs Duration (G+Y+Rc), s	12.8	56.0	10.5	20.6		68.8		31.2				
Change Period (Y+Rc), s	* 6.8	6.4	* 6.8	* 6.8		6.4		* 6.8				
Max Green Setting (Gmax), s	* 6	37.8	* 8.2	* 21		50.6		* 36				
Max Q Clear Time (g_c+I1), s	6.9	22.9	3.7	5.9		9.7		13.1				
Green Ext Time (p_c), s	0.0	6.2	0.0	0.2		4.8		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		20.7	
HCM 6th LOS		C	

Notes

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

APPENDIX H – ROUNDABOUT ANALYSIS RESULTS

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

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Analyst:	Joshua Ekstedt
Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2019, 12:00 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

Roundabouts may not operate well if there is too much traffic entering the intersection or if the percentage of traffic on the major road is too high. Candidate intersections shall be analyzed to determine whether a roundabout will perform acceptably. Shown below are planning level thresholds. A capacity analysis should be performed to determine lane configuration based on traffic volumes.

# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
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Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	8,225	75%
Minor Street	2,775	25%
Total volumes	11,000	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

***Directions for this Section only*:** *(see **Instructions Tab** for other sections)*

1. Select the type of roundabout you are analyzing.
2. Key in the number of approaches and the street names at the proposed intersections.
3. Complete the Approach Characteristics Chart:
   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

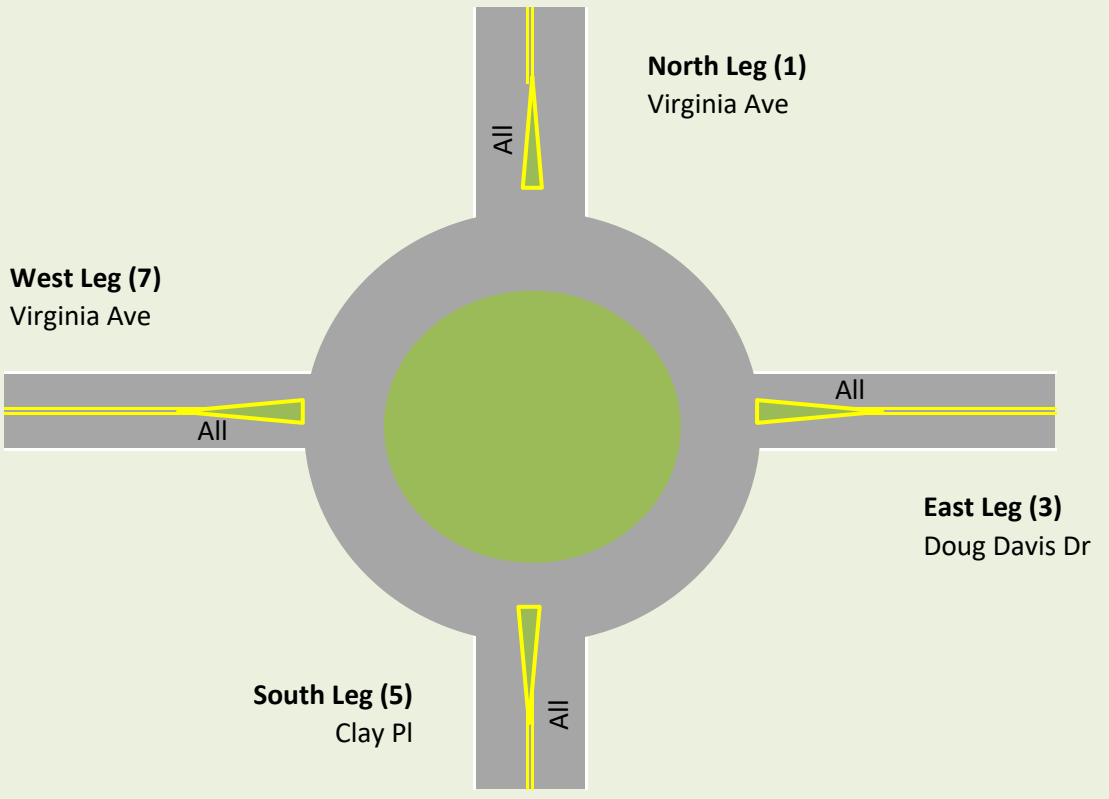
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

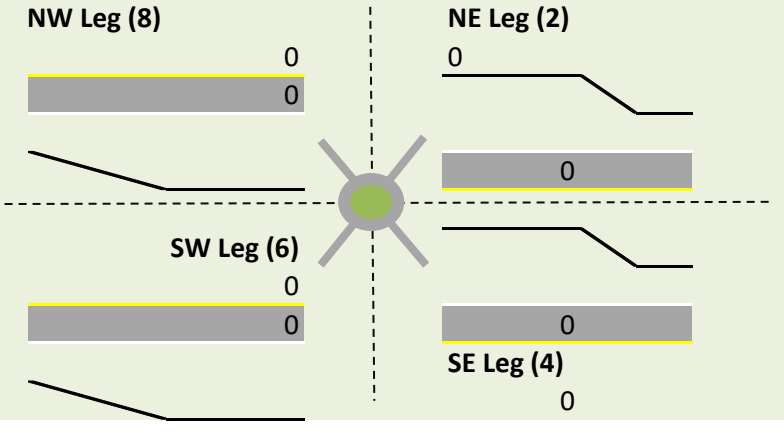
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



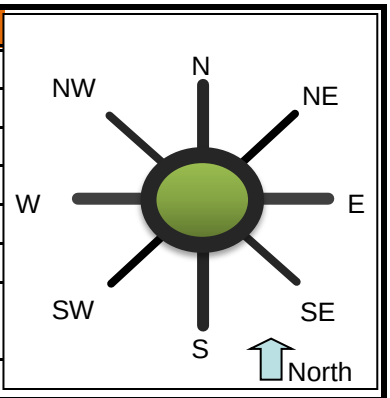
***Note**

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

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v 4.1

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Year, Peak Hour:	2019, 12:00 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**50**	0	**10**	0	**185**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**40**	0	0	0	**30**	0	**285**	0
(TO)	SE (4), vph	0	0	0	0	0	0	0	0
	S (5), vph	**5**	0	**15**	0	0	0	**25**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**210**	0	**205**	0	**20**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	255	0	270	0	60	0	495	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**5**	0	**7**	0	**17**	0	**17**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.998	1.000	0.998	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	58	0	17	0	219	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	57	0	0	0	51	0	337	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	17	0	0	0	30	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	300	0	239	0	34	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	365	0	314	0	103	0	586	0
Conflicting flow, pcu/h	290	0	270	0	614	0	82	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	1010	1380	1021	1380	718	1380	1230	1380
Entry Flow Rates, vph	359	0	307	0	100	0	569	0
V/C ratio	**0.36**	**0.00**	**0.30**	**0.00**	**0.14**	**0.00**	**0.46**	**0.00**
Control Delay, sec/pcu	**7**	**3**	**7**	**3**	**7**	**3**	**8**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**41**	**0**	**33**	**0**	**12**	**0**	**65**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

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Agency/Company:	Stantec
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Year, Peak Period:	2023, 12:00 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

Roundabouts may not operate well if there is too much traffic entering the intersection or if the percentage of traffic on the major road is too high. Candidate intersections shall be analyzed to determine whether a roundabout will perform acceptably. Shown below are planning level thresholds. A capacity analysis should be performed to determine lane configuration based on traffic volumes.

# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
Single Lane	less than 25,000	Yes	less than 90%	Yes
Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	8,525	75%
Minor Street	2,875	25%
Total volumes	11,400	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

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2. Key in the number of approaches and the street names at the proposed intersections.
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      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

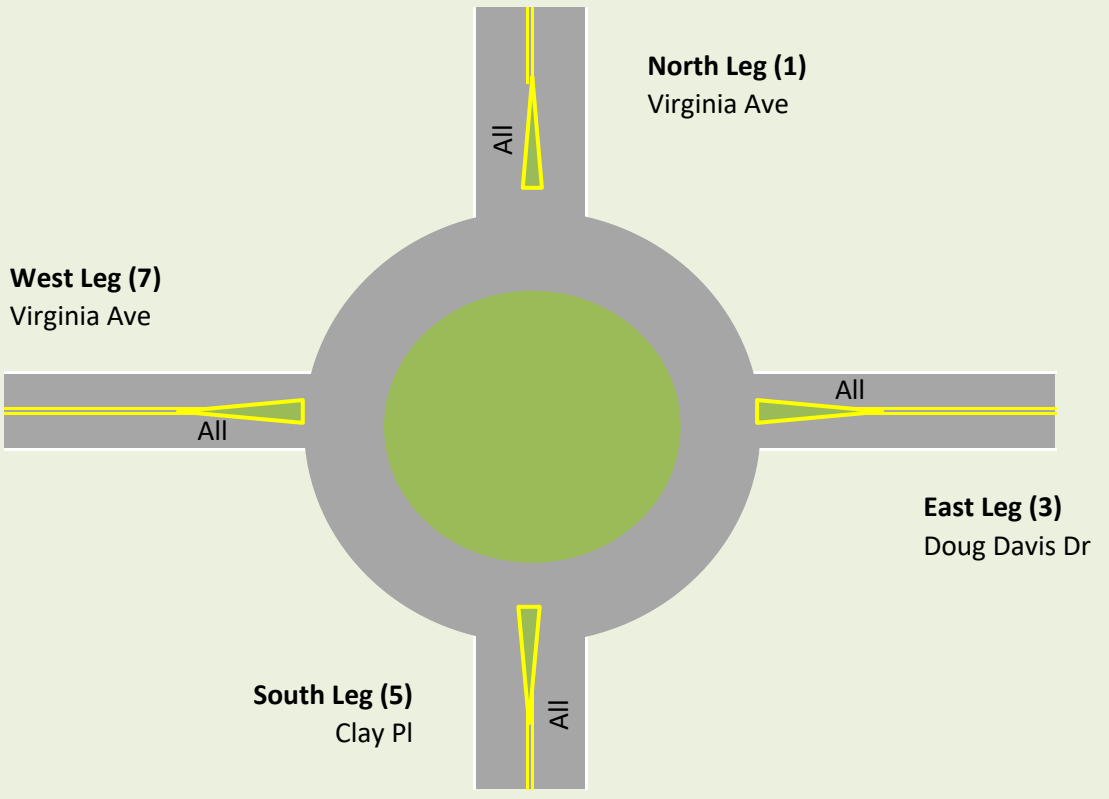
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

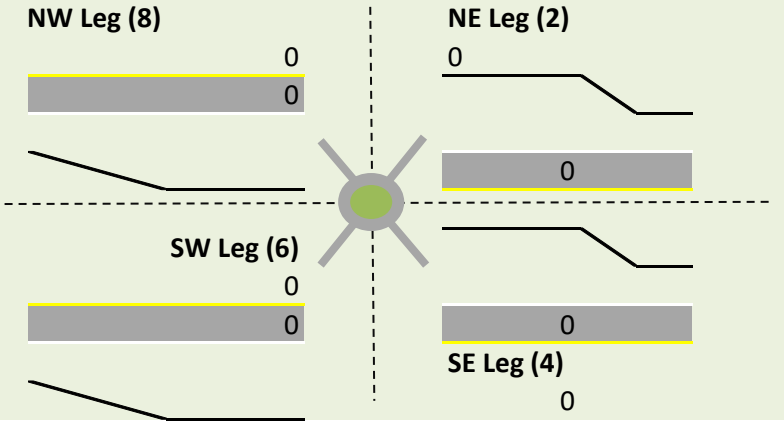
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No	No	No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



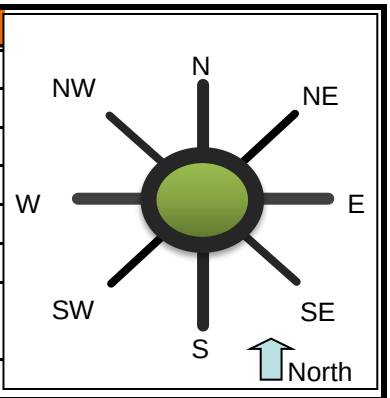
***Note**

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Year, Peak Hour:	2023, 12:00 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**50**	0	**10**	0	**190**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**40**	0	0	0	**30**	0	**295**	0
(TO)	SE (4), vph	0	0	0	0	0	0	0	0
	S (5), vph	**5**	0	**20**	0	0	0	**25**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**220**	0	**210**	0	**20**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	265	0	280	0	60	0	510	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**5**	0	**7**	0	**17**	0	**17**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.998	1.000	0.998	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	58	0	17	0	225	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	57	0	0	0	51	0	349	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	23	0	0	0	30	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	315	0	245	0	34	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	379	0	326	0	103	0	604	0
Conflicting flow, pcu/h	302	0	276	0	631	0	88	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	998	1380	1015	1380	705	1380	1222	1380
Entry Flow Rates, vph	373	0	318	0	100	0	586	0
V/C ratio	**0.37**	**0.00**	**0.31**	**0.00**	**0.14**	**0.00**	**0.48**	**0.00**
Control Delay, sec/pcu	**8**	**3**	**7**	**3**	**7**	**3**	**8**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**44**	**0**	**35**	**0**	**13**	**0**	**69**	**0**

Notes: v 4.0

Unit Legend:
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PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
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Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

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Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

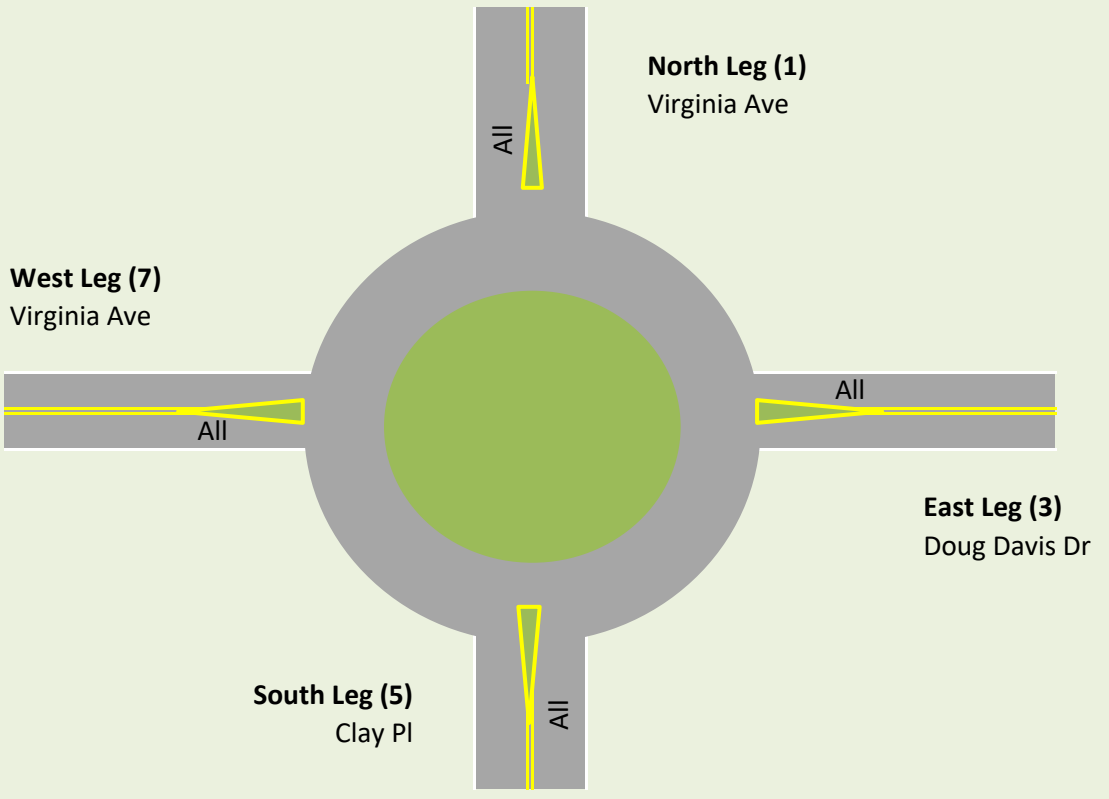
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

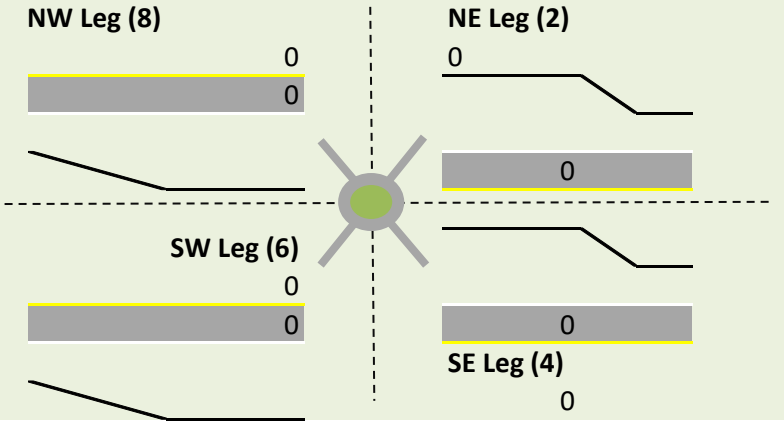
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



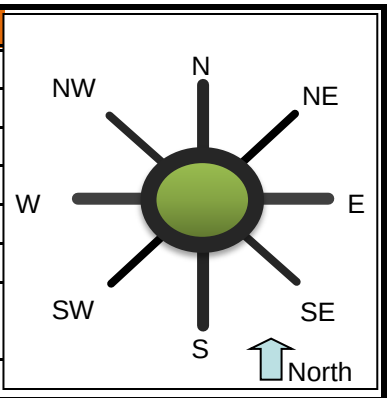
***Note**

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

General & Site Information

v 4.1

Analyst:	Joshua Ekstedt
Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Hour:	2025, 12:00 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph	0	0	**55**	0	**10**	0	**195**	0
	NE (2), vph	0	0	0	0	0	0	0	0
	E (3), vph	**40**	0	0	0	**30**	0	**300**	0
	SE (4), vph	0	0	0	0	0	0	0	
	S (5), vph	**5**	0	**20**	0	0	0	**25**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**220**	0	**210**	0	**20**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	265	0	285	0	60	0	520	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**5**	0	**18**	0	**7**	0	**17**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.998	1.000	0.999	1.000	0.998	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	64	0	17	0	231	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	57	0	0	0	51	0	355	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	23	0	0	0	30	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	315	0	245	0	34	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	379	0	332	0	103	0	616	0
Conflicting flow, pcu/h	302	0	282	0	643	0	88	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	998	1380	1007	1380	698	1380	1222	1380
Entry Flow Rates, vph	373	0	324	0	100	0	598	0
V/C ratio	**0.37**	**0.00**	**0.32**	**0.00**	**0.14**	**0.00**	**0.49**	**0.00**
Control Delay, sec/pcu	**8**	**3**	**7**	**3**	**7**	**3**	**8**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**44**	**0**	**36**	**0**	**13**	**0**	**71**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

Welcome to GDOT's Roundabout Analysis Tool. This tool is designed for the user to determine the functionality of a proposed roundabout. The analysis is based on the Highway Capacity Manual 2010 Edition and 6th Edition Methodologies, NCHRP Report 672, and FHWA's Roundabout Informational Guide. Please read the notes in the Instructions tab before using the spreadsheet.

Analyst:	Joshua Ekstedt
Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2043, 12:00 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

Roundabouts may not operate well if there is too much traffic entering the intersection or if the percentage of traffic on the major road is too high. Candidate intersections shall be analyzed to determine whether a roundabout will perform acceptably. Shown below are planning level thresholds. A capacity analysis should be performed to determine lane configuration based on traffic volumes.

# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
Single Lane	less than 25,000	Yes	less than 90%	Yes
Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	10,200	75%
Minor Street	3,425	25%
Total volumes	13,625	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

***Directions for this Section only*:** *(see **Instructions Tab** for other sections)*

1. Select the type of roundabout you are analyzing.
2. Key in the number of approaches and the street names at the proposed intersections.
3. Complete the Approach Characteristics Chart:
   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

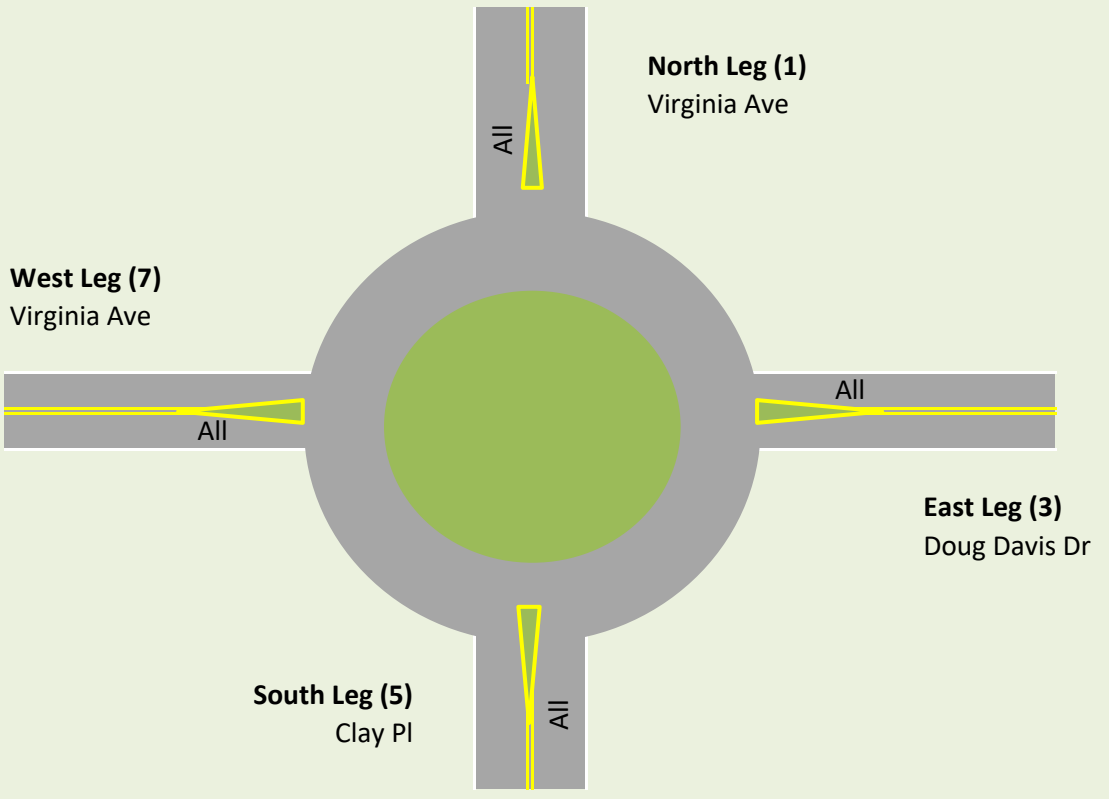
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

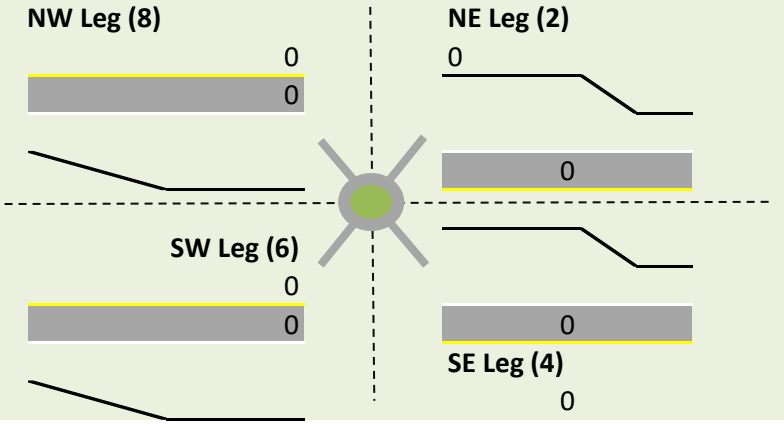
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



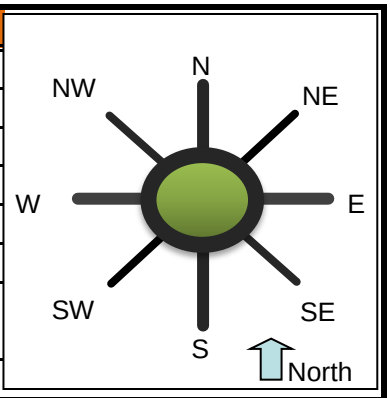
***Note**

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

General & Site Information

v 4.1

Analyst:	Joshua Ekstedt
Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Hour:	2043, 12:00 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**60**	0	**10**	0	**230**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**50**	0	0	0	**35**	0	**355**	0
(TO)	SE (4), vph	0	0	0		0	0	0	0
	S (5), vph	**5**	0	**25**	0	0	0	**30**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**260**	0	**255**	0	**25**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	315	0	340	0	70	0	615	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**6**	0	**8**	0	**21**	0	**21**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.997	1.000	0.997	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	70	0	17	0	272	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	71	0	0	0	60	0	420	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	29	0	0	0	36	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	372	0	297	0	43	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	450	0	396	0	120	0	728	0
Conflicting flow, pcu/h	369	0	332	0	764	0	108	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	933	1380	958	1380	616	1380	1197	1380
Entry Flow Rates, vph	444	0	386	0	117	0	707	0
V/C ratio	**0.48**	**0.00**	**0.40**	**0.00**	**0.19**	**0.00**	**0.59**	**0.00**
Control Delay, sec/pcu	**10**	**3**	**8**	**3**	**8**	**3**	**10**	**3**
LOS	A	A	A	A	A	A	B	A
95th % Queue (ft)	**66**	**0**	**51**	**0**	**18**	**0**	**105**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

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Analyst:	Joshua Ekstedt
Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2045, 12:00 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

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# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
Single Lane	less than 25,000	Yes	less than 90%	Yes
Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	10,375	75%
Minor Street	3,525	25%
Total volumes	13,900	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

***Directions for this Section only*:** *(see **Instructions Tab** for other sections)*

1. Select the type of roundabout you are analyzing.
2. Key in the number of approaches and the street names at the proposed intersections.
3. Complete the Approach Characteristics Chart:
   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

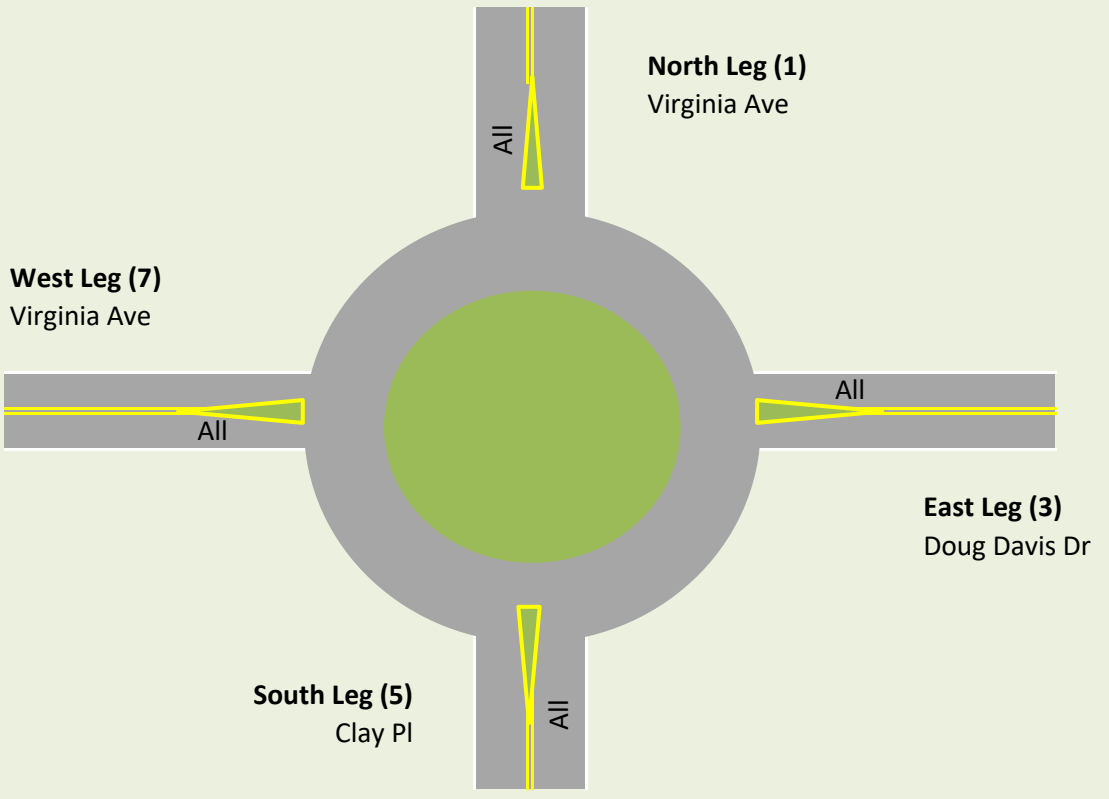
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

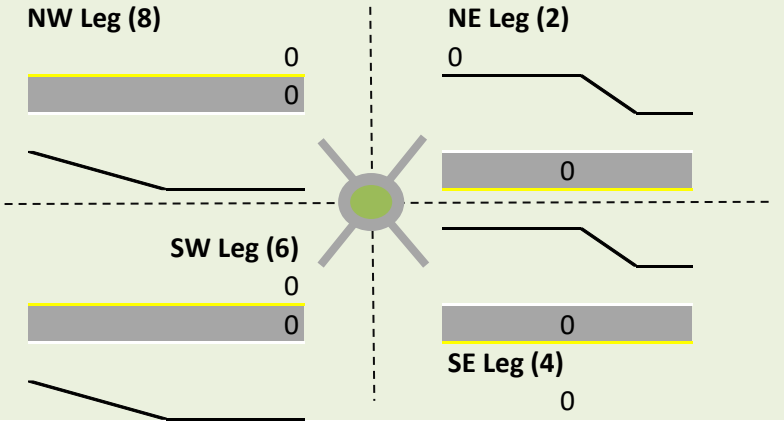
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



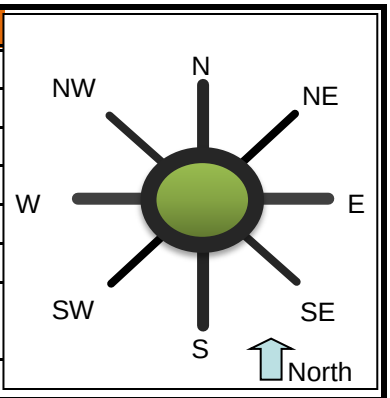
***Note**

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General & Site Information

v 4.1

Analyst:	Joshua Ekstedt
Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Hour:	2045, 12:00 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**65**	0	**15**	0	**235**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**50**	0	0	0	**40**	0	**360**	0
(TO)	SE (4), vph	0	0	0	0	0	0	0	0
	S (5), vph	**5**	0	**25**	0	0	0	**30**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**265**	0	**260**	0	**25**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	320	0	350	0	80	0	625	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**7**	0	**9**	0	**21**	0	**21**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.997	1.000	0.997	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	76	0	26	0	278	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	71	0	0	0	68	0	426	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	29	0	0	0	36	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	379	0	303	0	43	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	457	0	408	0	137	0	740	0
Conflicting flow, pcu/h	375	0	347	0	776	0	108	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	927	1380	944	1380	608	1380	1197	1380
Entry Flow Rates, vph	451	0	398	0	133	0	718	0
V/C ratio	**0.49**	**0.00**	**0.42**	**0.00**	**0.22**	**0.00**	**0.60**	**0.00**
Control Delay, sec/pcu	**10**	**3**	**9**	**3**	**9**	**3**	**10**	**3**
LOS	A	A	A	A	A	A	B	A
95th % Queue (ft)	**69**	**0**	**54**	**0**	**21**	**0**	**108**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

Welcome to GDOT's Roundabout Analysis Tool. This tool is designed for the user to determine the functionality of a proposed roundabout. The analysis is based on the Highway Capacity Manual 2010 Edition and 6th Edition Methodologies, NCHRP Report 672, and FHWA's Roundabout Informational Guide. Please read the notes in the Instructions tab before using the spreadsheet.

Analyst:	Joshua Ekstedt
Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2019, 4:45 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

Roundabouts may not operate well if there is too much traffic entering the intersection or if the percentage of traffic on the major road is too high. Candidate intersections shall be analyzed to determine whether a roundabout will perform acceptably. Shown below are planning level thresholds. A capacity analysis should be performed to determine lane configuration based on traffic volumes.

# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
Single Lane	less than 25,000	Yes	less than 90%	Yes
Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	8,225	75%
Minor Street	2,775	25%
Total volumes	11,000	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

***Directions for this Section only*:** *(see **Instructions Tab** for other sections)*

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   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

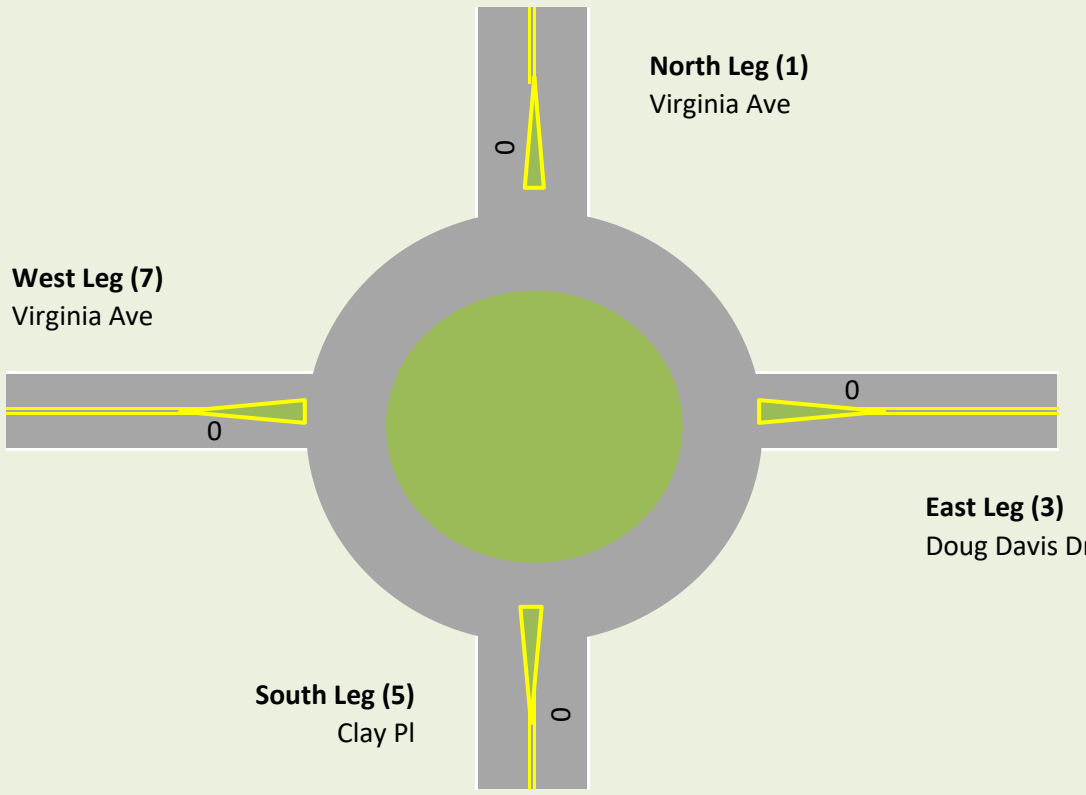
Chart Key:

Mini/Single Lane	Street Name	
	All Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

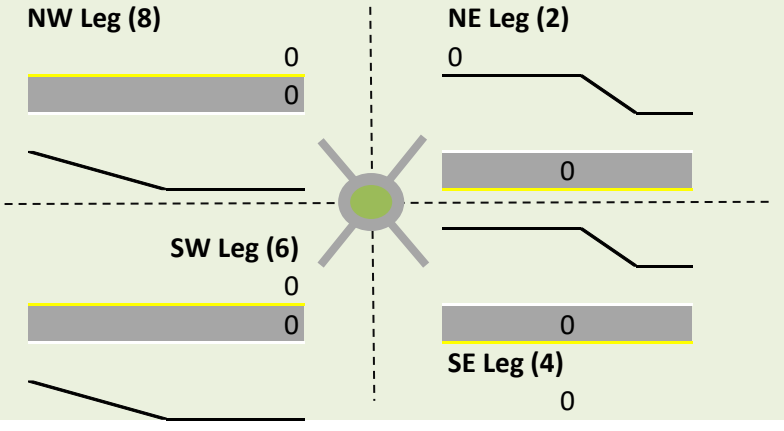
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config				
Bypass to Adj Leg?				
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config				
Bypass to Adj Leg?				

Preliminary Roundabout Rendering**



Additional Legs



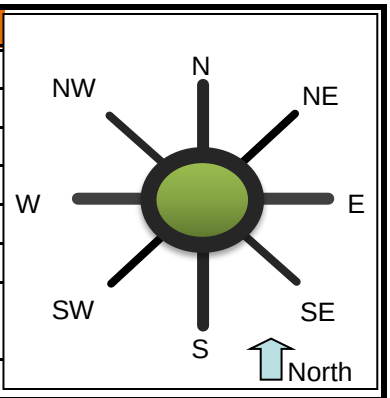
*****Note***

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

General & Site Information

v 4.1

Analyst:	Joshua Ekstedt
Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Hour:	2019, 4:45 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**65**	0	**10**	0	**135**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**25**	0	0	0	**30**	0	**205**	0
(TO)	SE (4), vph	0	0	0	0	0	0	0	0
	S (5), vph	**5**	0	**15**	0	0	0	**20**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**130**	0	**285**	0	**20**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	160	0	365	0	60	0	360	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**5**	0	**7**	0	**17**	0	**17**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.998	1.000	0.998	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	76	0	17	0	160	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	36	0	0	0	51	0	243	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	17	0	0	0	24	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	186	0	332	0	34	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	229	0	425	0	103	0	426	0
Conflicting flow, pcu/h	384	0	211	0	438	0	60	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	919	1380	1085	1380	859	1380	1257	1380
Entry Flow Rates, vph	225	0	415	0	100	0	414	0
V/C ratio	**0.25**	**0.00**	**0.38**	**0.00**	**0.12**	**0.00**	**0.33**	**0.00**
Control Delay, sec/pcu	**6**	**3**	**7**	**3**	**5**	**3**	**6**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**24**	**0**	**47**	**0**	**10**	**0**	**37**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

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Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2023, 4:45 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

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Roundabout Considerations Worksheet

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Mini	less than 15,000	Yes	less than 90%	Yes
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Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	8,525	75%
Minor Street	2,875	25%
Total volumes	11,400	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

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   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

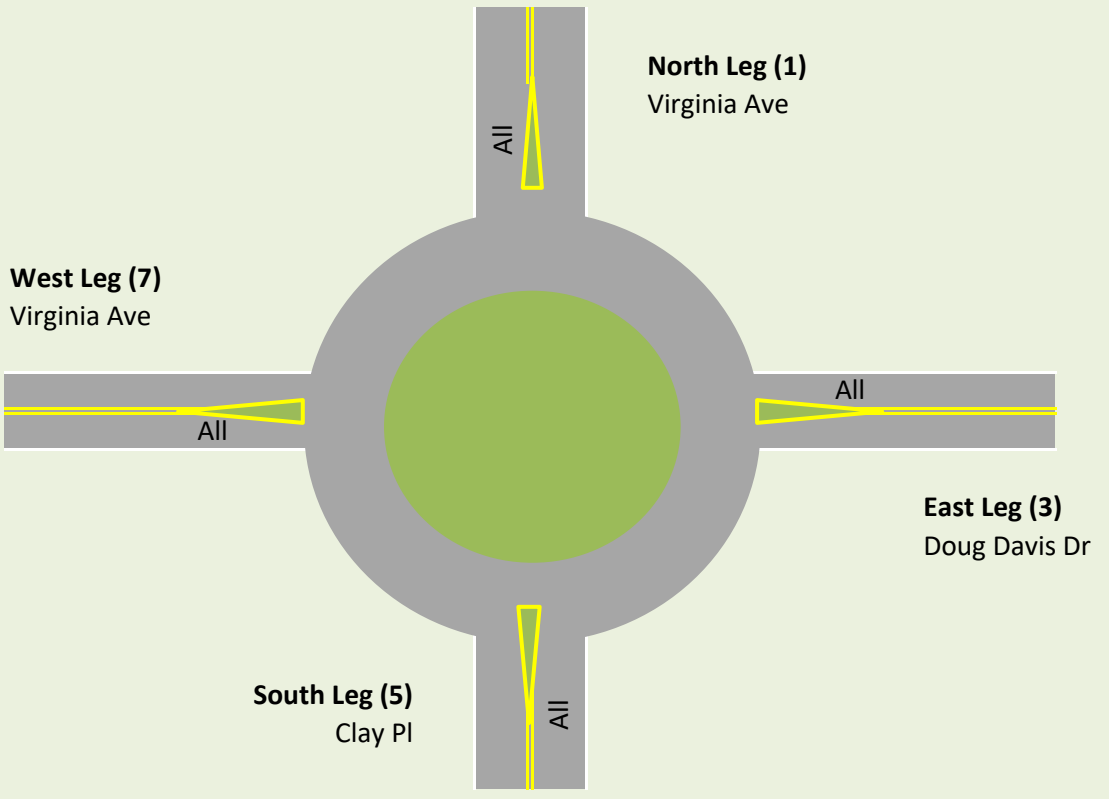
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

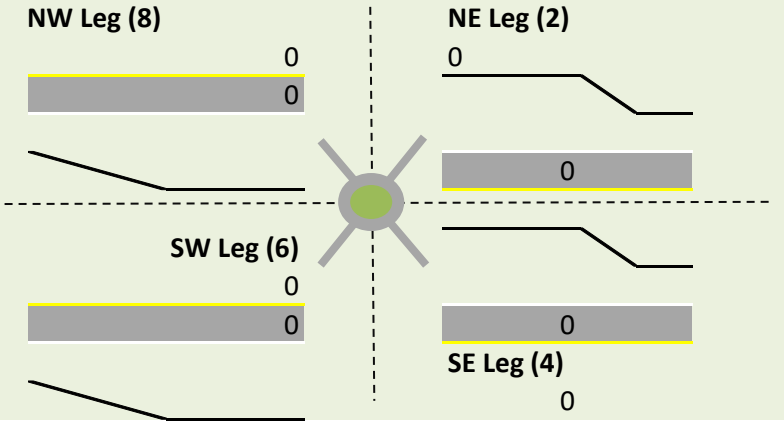
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No	No	No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



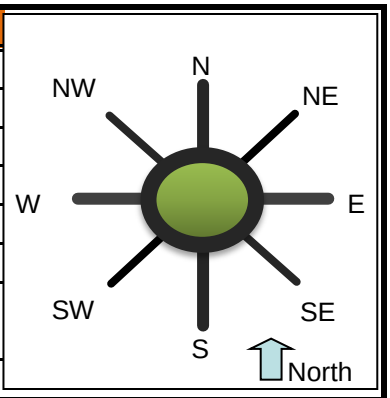
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General & Site Information

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Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
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County/District:	Fulton County
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Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph	0	0	**65**	0	**10**	0	**140**	0
	NE (2), vph	0	0	0	0	0	0	0	0
	E (3), vph	**25**	0	0	0	**30**	0	**210**	0
	SE (4), vph	0	0	0	0	0	0	0	0
	S (5), vph	**5**	0	**15**	0	0	0	**20**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**135**	0	**295**	0	**20**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	165	0	375	0	60	0	370	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**5**	0	**7**	0	**17**	0	**17**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.998	1.000	0.998	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	76	0	17	0	166	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	36	0	0	0	51	0	249	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	17	0	0	0	24	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	193	0	344	0	34	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	236	0	437	0	103	0	438	0
Conflicting flow, pcu/h	395	0	217	0	450	0	60	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	908	1380	1078	1380	849	1380	1257	1380
Entry Flow Rates, vph	232	0	426	0	100	0	425	0
V/C ratio	**0.26**	**0.00**	**0.40**	**0.00**	**0.12**	**0.00**	**0.34**	**0.00**
Control Delay, sec/pcu	**7**	**3**	**7**	**3**	**5**	**3**	**6**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**26**	**0**	**49**	**0**	**10**	**0**	**39**	**0**

Notes: v 4.0

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Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
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Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
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Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

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1 Enter the Major/Minor Street ADT Volumes in the Chart below:

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Minor Street	2,900	25%
Total volumes	11,575	

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Georgia Department of Transportation

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Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

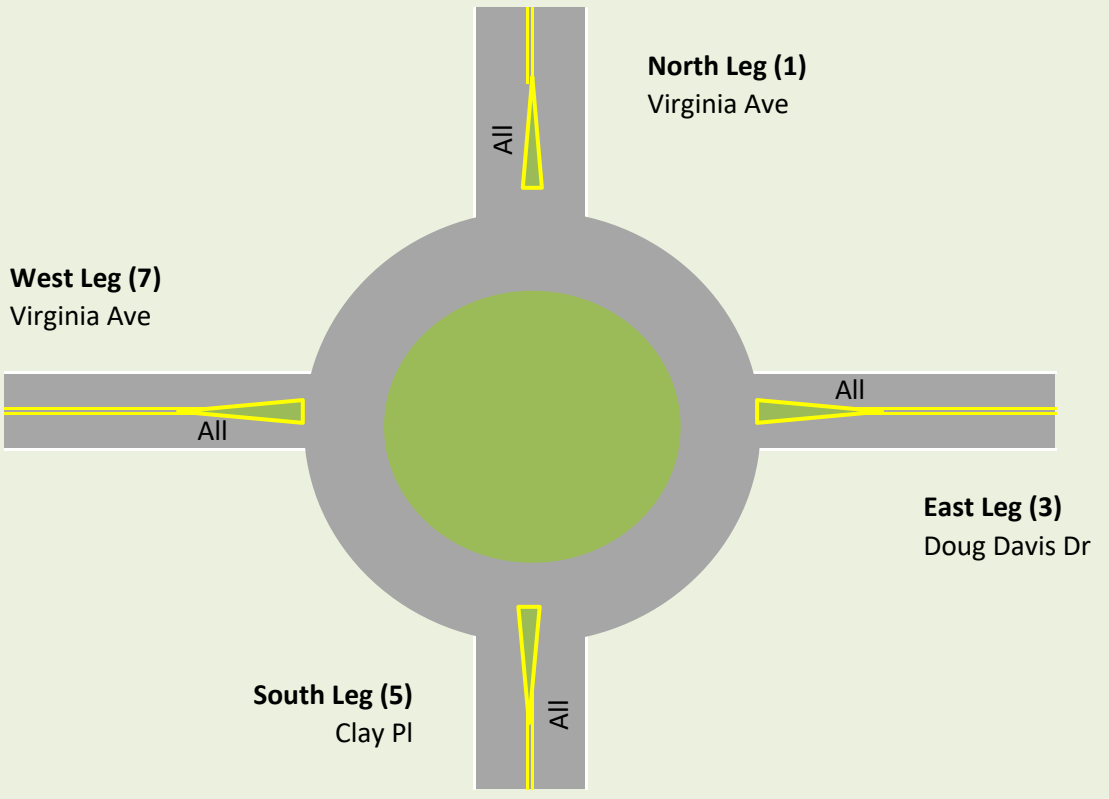
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

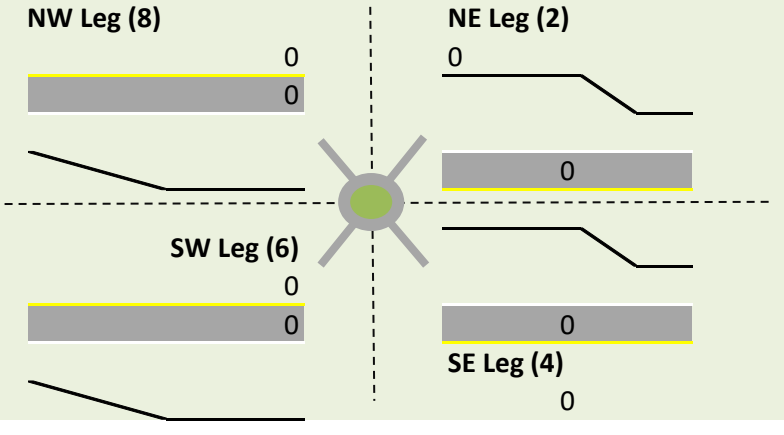
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



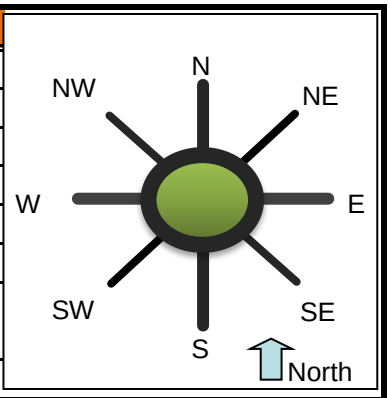
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Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**70**	0	**10**	0	**140**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**25**	0	0	0	**30**	0	**215**	0
(TO)	SE (4), vph	0	0	0	0	0	0	0	
	S (5), vph	**5**	0	**15**	0	0	0	**20**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**135**	0	**300**	0	**20**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	165	0	385	0	60	0	375	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**5**	0	**18**	0	**7**	0	**17**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.998	1.000	0.999	1.000	0.998	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	82	0	17	0	166	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	36	0	0	0	51	0	255	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	17	0	0	0	24	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	193	0	349	0	34	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	236	0	448	0	103	0	444	0
Conflicting flow, pcu/h	401	0	217	0	456	0	60	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	903	1380	1076	1380	845	1380	1257	1380
Entry Flow Rates, vph	232	0	438	0	100	0	431	0
V/C ratio	**0.26**	**0.00**	**0.41**	**0.00**	**0.12**	**0.00**	**0.34**	**0.00**
Control Delay, sec/pcu	**7**	**3**	**8**	**3**	**5**	**3**	**6**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**26**	**0**	**51**	**0**	**10**	**0**	**40**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

Welcome to GDOT's Roundabout Analysis Tool. This tool is designed for the user to determine the functionality of a proposed roundabout. The analysis is based on the Highway Capacity Manual 2010 Edition and 6th Edition Methodologies, NCHRP Report 672, and FHWA's Roundabout Informational Guide. Please read the notes in the Instructions tab before using the spreadsheet.

Analyst:	Joshua Ekstedt
Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2043, 4:45 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

Roundabouts may not operate well if there is too much traffic entering the intersection or if the percentage of traffic on the major road is too high. Candidate intersections shall be analyzed to determine whether a roundabout will perform acceptably. Shown below are planning level thresholds. A capacity analysis should be performed to determine lane configuration based on traffic volumes.

# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
Single Lane	less than 25,000	Yes	less than 90%	Yes
Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	10,200	75%
Minor Street	3,425	25%
Total volumes	13,625	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

***Directions for this Section only*:** *(see **Instructions Tab** for other sections)*

1. Select the type of roundabout you are analyzing.
2. Key in the number of approaches and the street names at the proposed intersections.
3. Complete the Approach Characteristics Chart:
   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

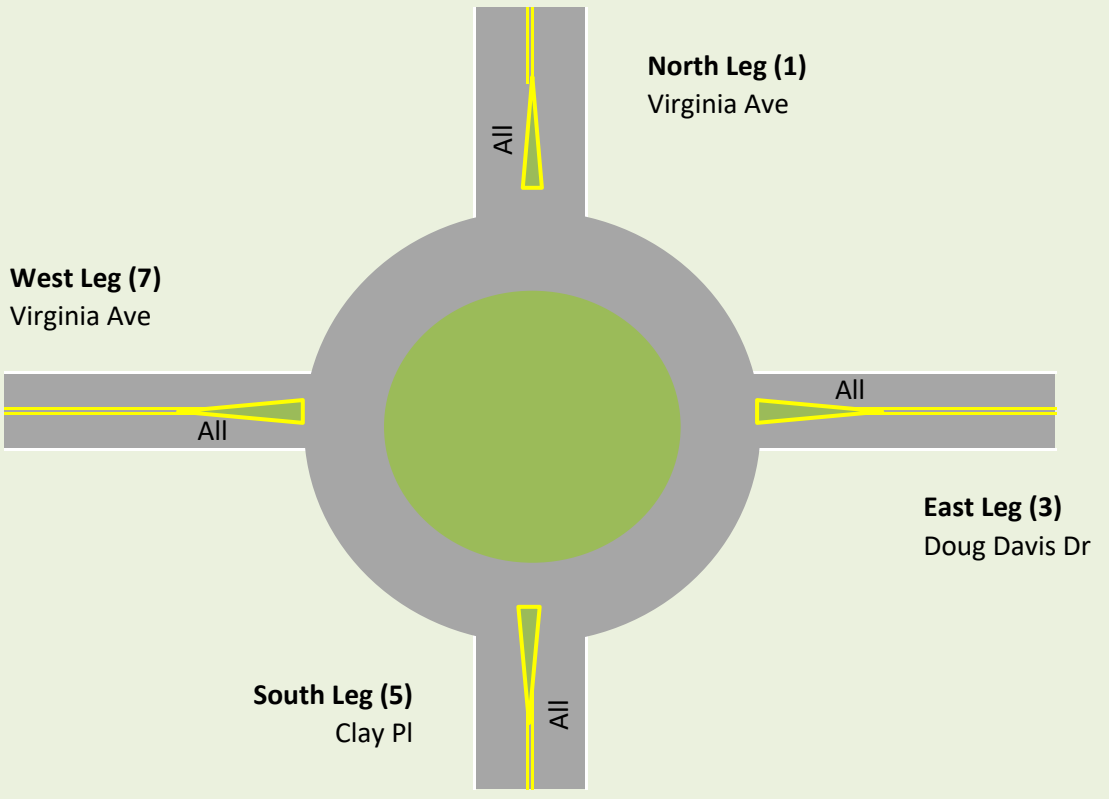
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

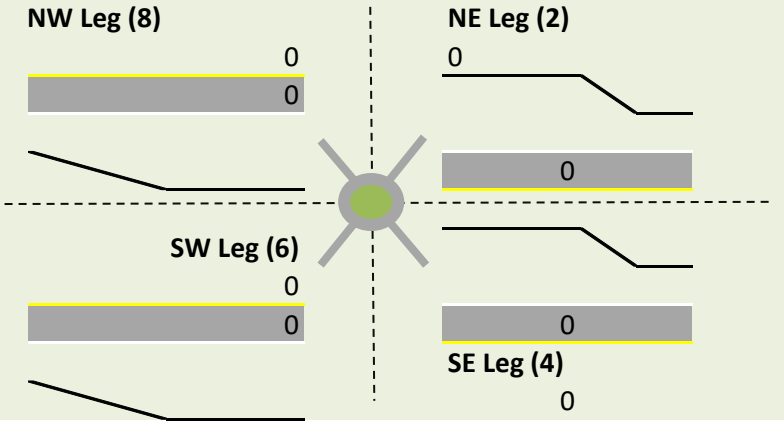
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



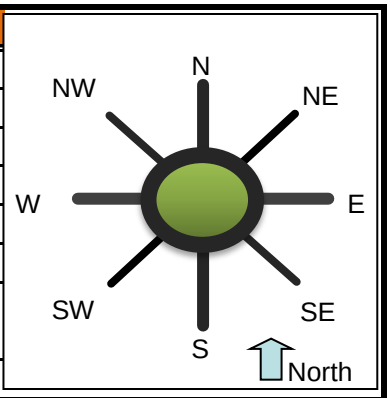
***Note**

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

General & Site Information

v 4.1

Analyst:	Joshua Ekstedt
Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Hour:	2043, 4:45 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**80**	0	**10**	0	**165**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**30**	0	0	0	**35**	0	**255**	0
(TO)	SE (4), vph	0	0	0		0	0	0	0
	S (5), vph	**5**	0	**20**	0	0	0	**25**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**160**	0	**355**	0	**25**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	195	0	455	0	70	0	445	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**6**	0	**8**	0	**21**	0	**21**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.997	1.000	0.997	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	93	0	17	0	195	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	43	0	0	0	60	0	302	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	23	0	0	0	30	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	229	0	413	0	43	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	279	0	530	0	120	0	527	0
Conflicting flow, pcu/h	479	0	255	0	540	0	73	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	833	1380	1037	1380	774	1380	1240	1380
Entry Flow Rates, vph	275	0	517	0	117	0	511	0
V/C ratio	**0.33**	**0.00**	**0.50**	**0.00**	**0.15**	**0.00**	**0.41**	**0.00**
Control Delay, sec/pcu	**8**	**3**	**9**	**3**	**6**	**3**	**7**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**37**	**0**	**73**	**0**	**14**	**0**	**53**	**0**

Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Georgia Department of Transportation

Roundabout Analysis Tool

v 4.1
5/19/17

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Analyst:	Joshua Ekstedt
Agency/Company:	Stantec
Date:	5/30/2019
Project Name or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Period:	2045, 4:45 PM
County/District:	Fulton County
Intersection:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave

Insert Project Information Here in the BLUE SPACE. This information is linked to the Mini, Single Lane and Multi Lane Worksheets.

Roundabout Considerations Worksheet

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# of circulatory lanes	ADTs (current/ build year)	Condition met?	% traffic on Major Road	Condition met?
Mini	less than 15,000	Yes	less than 90%	Yes
Single Lane	less than 25,000	Yes	less than 90%	Yes
Multi-Lane	less than 45,000	Yes	less than 90%	Yes

Other things to consider when evaluating roundabouts as an alternative are Right of Way, sight distance, environmental impacts, and access to adjacent properties.

Volume Information (for Analysis Time Period)

1 Enter the Major/Minor Street ADT Volumes in the Chart below:

	Volumes	Split
Major Street	10,375	75%
Minor Street	3,525	25%
Total volumes	13,900	

Proximity to Other Intersections

2 How close is the nearest signal (miles or feet)? 0 mi 682 '

3 Is the proposed intersection located within a coordinated signal network? Yes

Go up to next section...

Georgia Department of Transportation

Proposed Design Configuration Chart

***Directions for this Section only*:** *(see **Instructions Tab** for other sections)*

1. Select the type of roundabout you are analyzing.
2. Key in the number of approaches and the street names at the proposed intersections.
3. Complete the Approach Characteristics Chart:
   a. Select the Street Name from the pulldown menu for each approach leg
   b. Select the Lane Type for each entry apporach lane
      **The first box is the inner lane, the second box is the outer lane*
   c. Select Yes or No if a right turn bypass will be added to each approach leg

Roundabout Characteristics

Roundabout Type:	Single Lane
# of Approaches:	4
Name of Streets:	Virginia Ave
	Clay Pl
	Doug Davis Dr

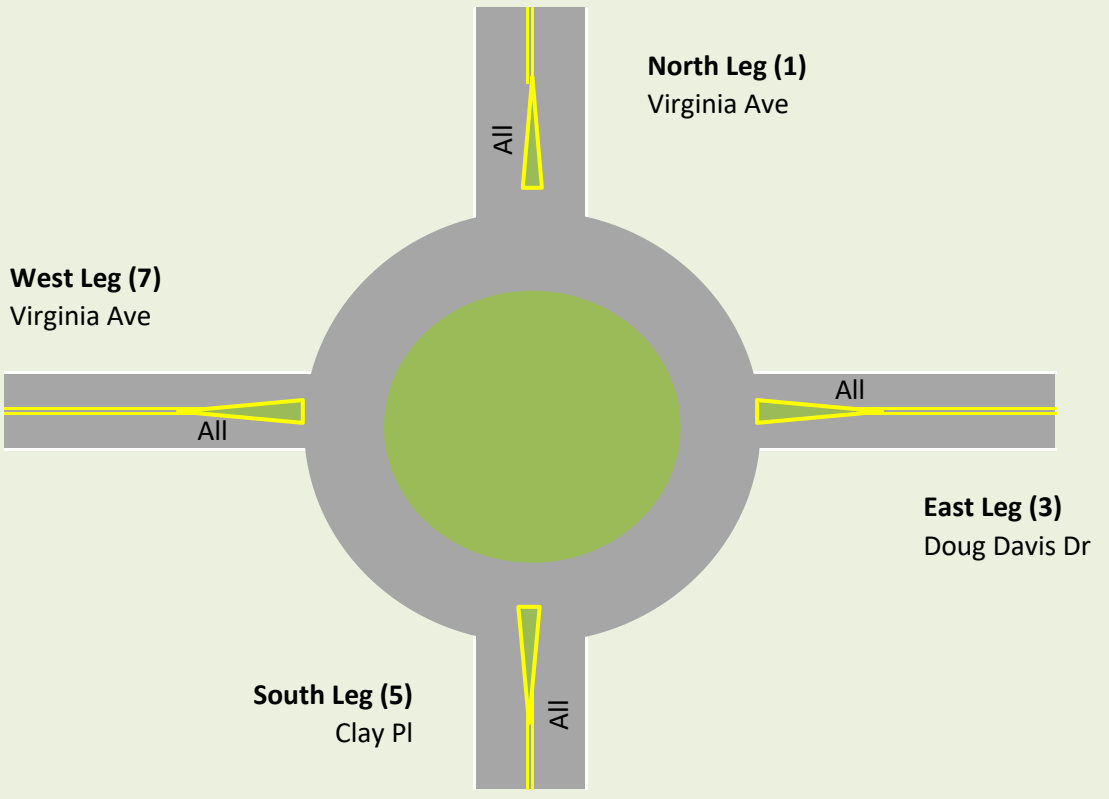
Chart Key:

Mini/Single Lane	Street Name	
	All	
	Bypass?	
Multi-lane	Street Name	
	Inner Ln	Outer Ln
	Bypass?	

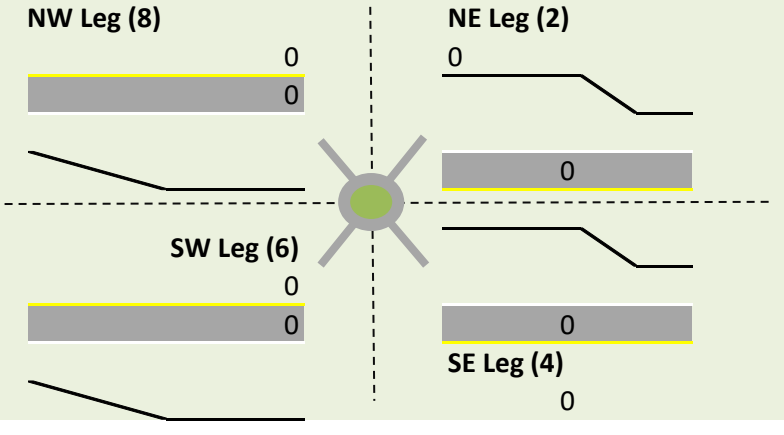
Approach Leg Characteristics:

	North Leg (1)	NE Leg (2)	East Leg (3)	SE Leg (4)
Street Name:	Virginia Ave		Doug Davis Dr	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	
	South Leg (5)	**SW Leg (6)**	**West Leg (7)**	**NW Leg (8)**
Street Name:	Clay Pl		Virginia Ave	
Entry Lane Config	All		All	
Bypass to Adj Leg?	No		No	

Preliminary Roundabout Rendering**



Additional Legs



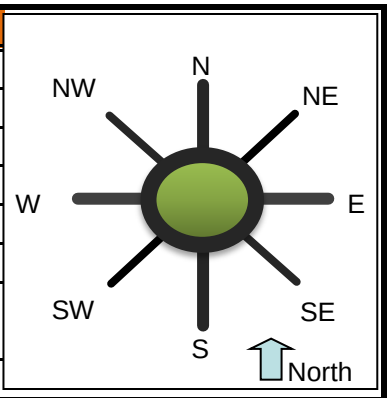
***Note**

This roundabout sketch does not include the secondary cardinal direction legs due to restrictions in the Excel software. For complex roundabouts, a separate sketch is recommended by the designer.

General & Site Information

v 4.1

Analyst:	Joshua Ekstedt
Agency/Co:	Stantec
Date:	5/30/2019
Project or PI#:	Virginia Ave Roundabout Feasibility Study
Year, Peak Hour:	2045, 4:45 PM
County/District:	Fulton County
Intersection Name:	Virginia Ave/Doug Davis Dr @ Clay Pl/Virginia Ave



Volumes

		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph	0	0	**80**	0	**15**	0	**170**	0
Exit	NE (2), vph	0	0	0	0	0	0	0	0
Legs	E (3), vph	**30**	0	0	0	**40**	0	**260**	0
(TO)	SE (4), vph	0	0	0	0	0	0	0	0
	S (5), vph	**5**	0	**20**	0	0	0	**25**	0
	SW (6), vph	0	0	0	0	0	0	0	0
	W (7), vph	**165**	0	**360**	0	**25**	0	0	0
	NW (8), vph	0	0	0	0	0	0	0	0
Output	Total Vehicles	200	0	460	0	80	0	455	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.5%	100.0%	97.5%	100.0%	97.5%	100.0%	97.0%	100.0%
% Heavy Vehicles	1.5%	0.0%	2.5%	0.0%	2.5%	0.0%	3.0%	0.0%
% Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
# of Pedestrians **(ped/hr)**	**7**	0	**9**	0	**21**	0	**21**	0
PHF	*0.71*	*0.95*	*0.88*	*0.95*	*0.60*	*0.95*	*0.87*	*0.95*
F_{HV}	0.985	1.000	0.976	1.000	0.976	1.000	0.971	1.000
F_{ped}	0.999	1.000	0.999	1.000	0.997	1.000	0.997	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	93	0	26	0	201	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	43	0	0	0	68	0	308	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	7	0	23	0	0	0	30	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	236	0	419	0	43	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	286	0	536	0	137	0	539	0
Conflicting flow, pcu/h	485	0	270	0	552	0	73	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	828	1380	1021	1380	765	1380	1240	1380
Entry Flow Rates, vph	282	0	523	0	133	0	523	0
V/C ratio	**0.34**	**0.00**	**0.51**	**0.00**	**0.17**	**0.00**	**0.42**	**0.00**
Control Delay, sec/pcu	**8**	**3**	**10**	**3**	**7**	**3**	**7**	**3**
LOS	A	A	A	A	A	A	A	A
95th % Queue (ft)	**38**	**0**	**77**	**0**	**16**	**0**	**55**	**0**

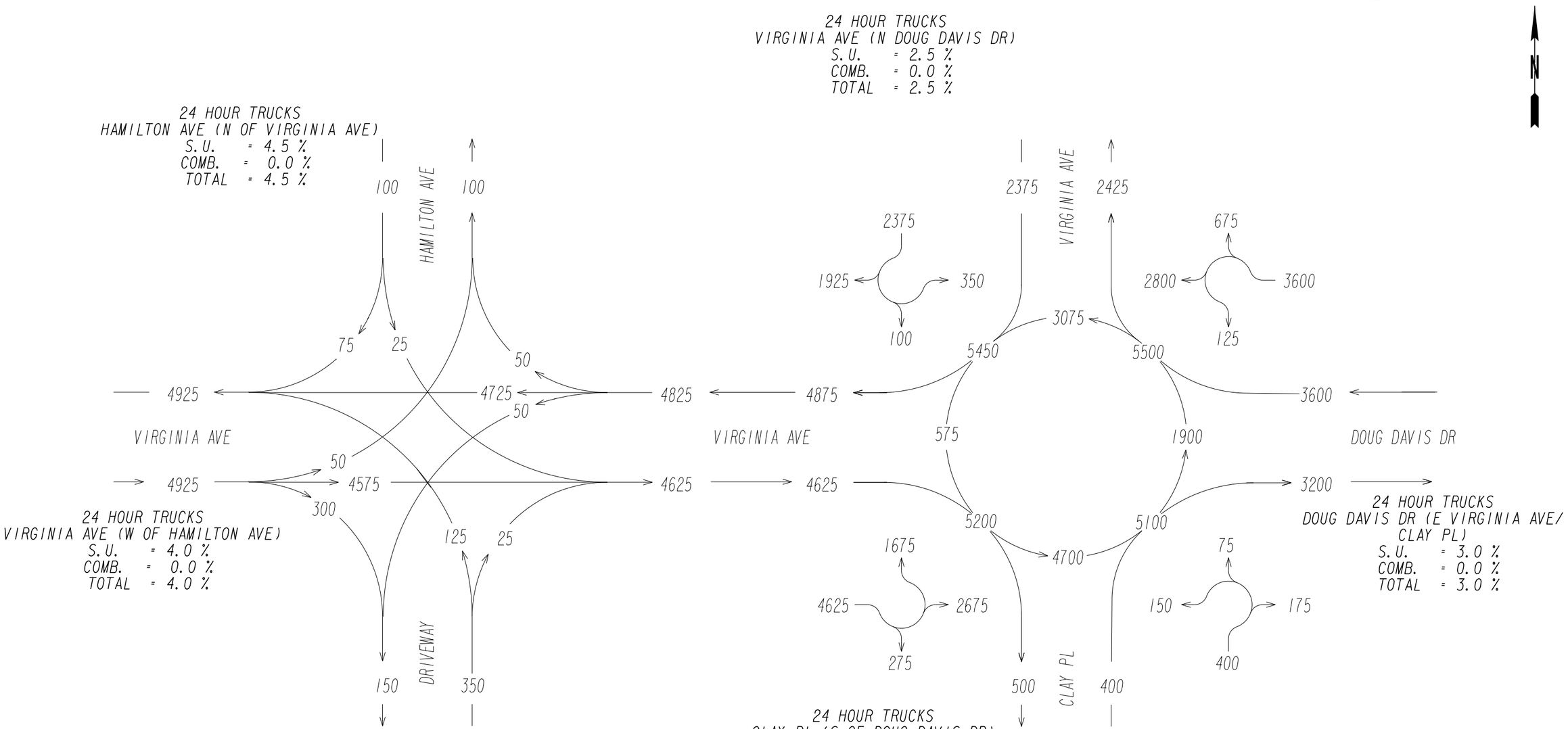
Notes: v 4.0

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

FULTON COUNTY



2019 EXISTING AADT

AC
08/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

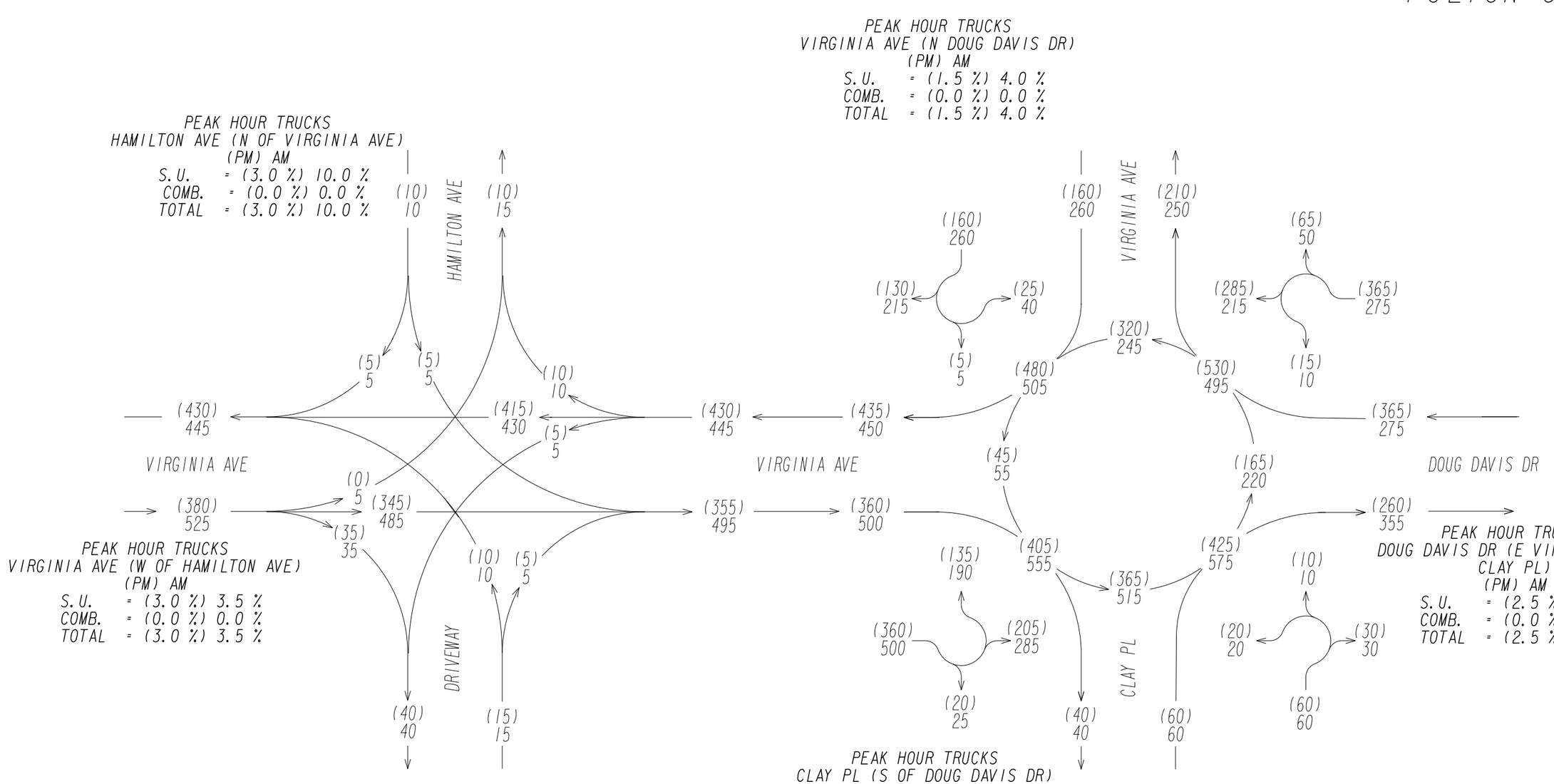
REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0010

9/11/2019 8:02:15 AM jekstedt	GPLOT-V8 gplotborder-V81-P0.tbl	171007021_tmc.dgn	STATE GA	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS

FULTON COUNTY



2019 EXISTING DHV
(PM) NOON

AC
08/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

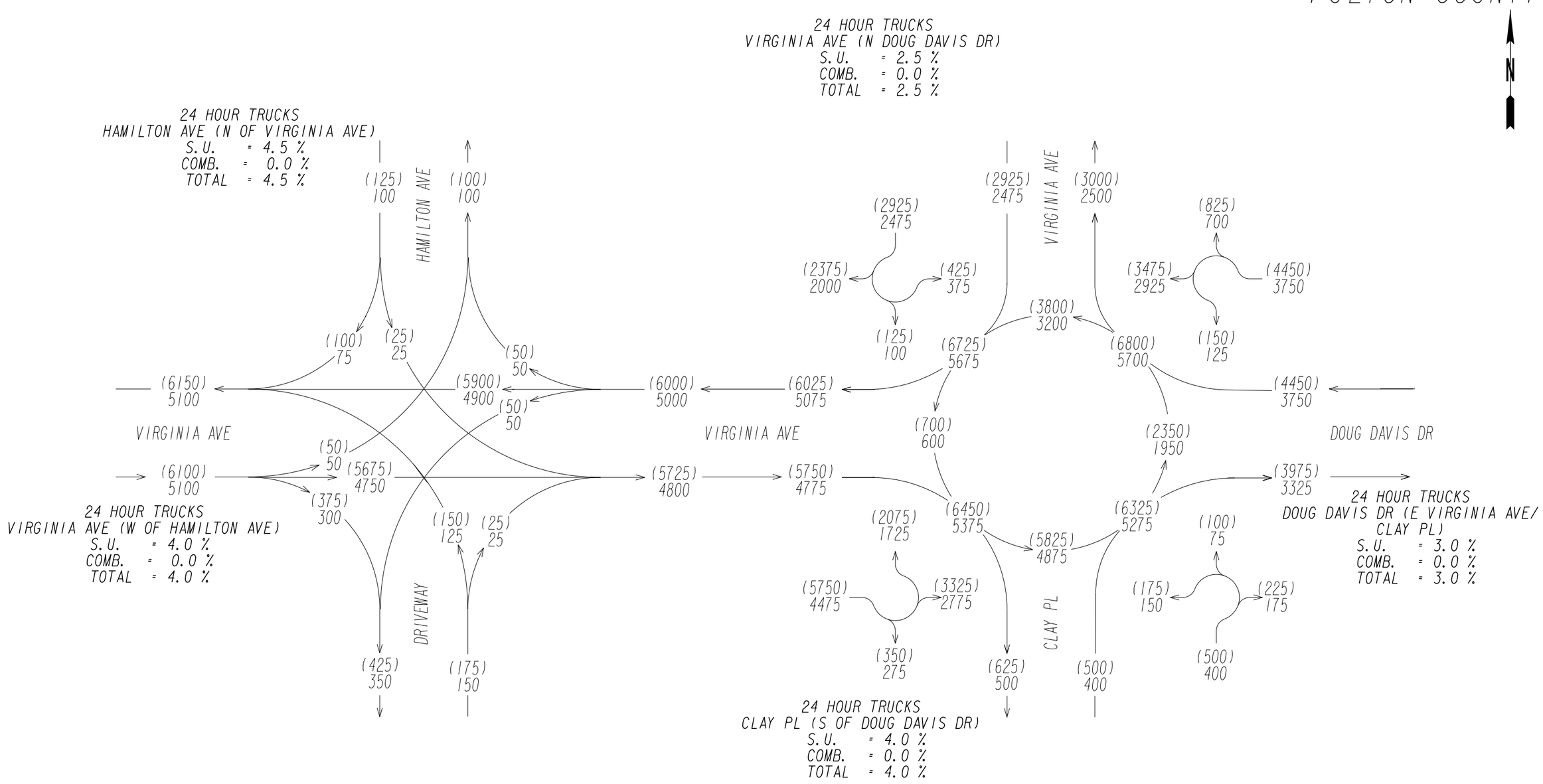
Stantec

REVISION DATES		

TRAFFIC DIAGRAM

DRAWING No.
01-0011

FULTON COUNTY



(2043) 2023 AADT

JE
09/2019

PROJECT NUMBER: I71007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

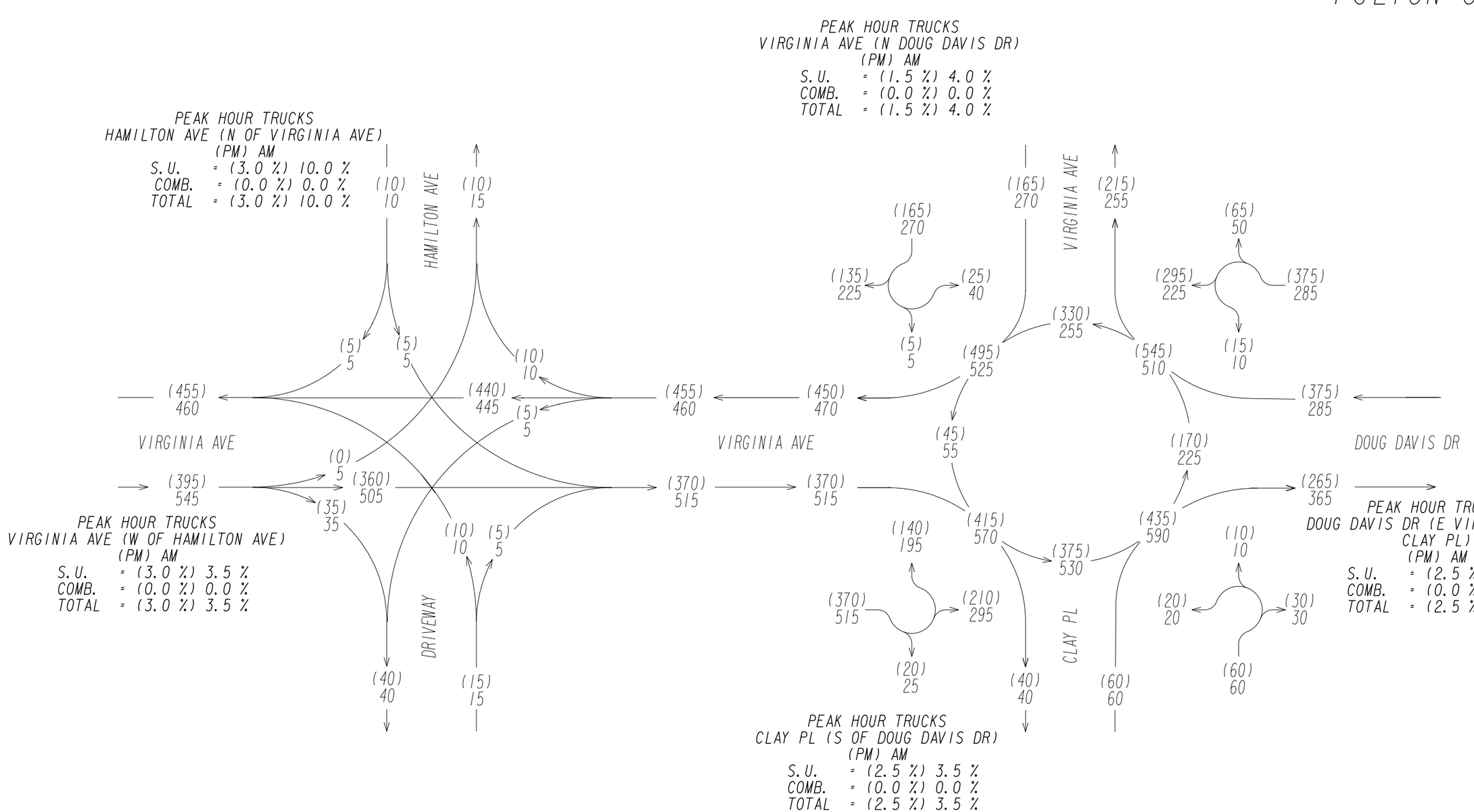
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0012

FULTON COUNTY



2023 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

REVISION DATES

TRAFFIC DIAGRAM

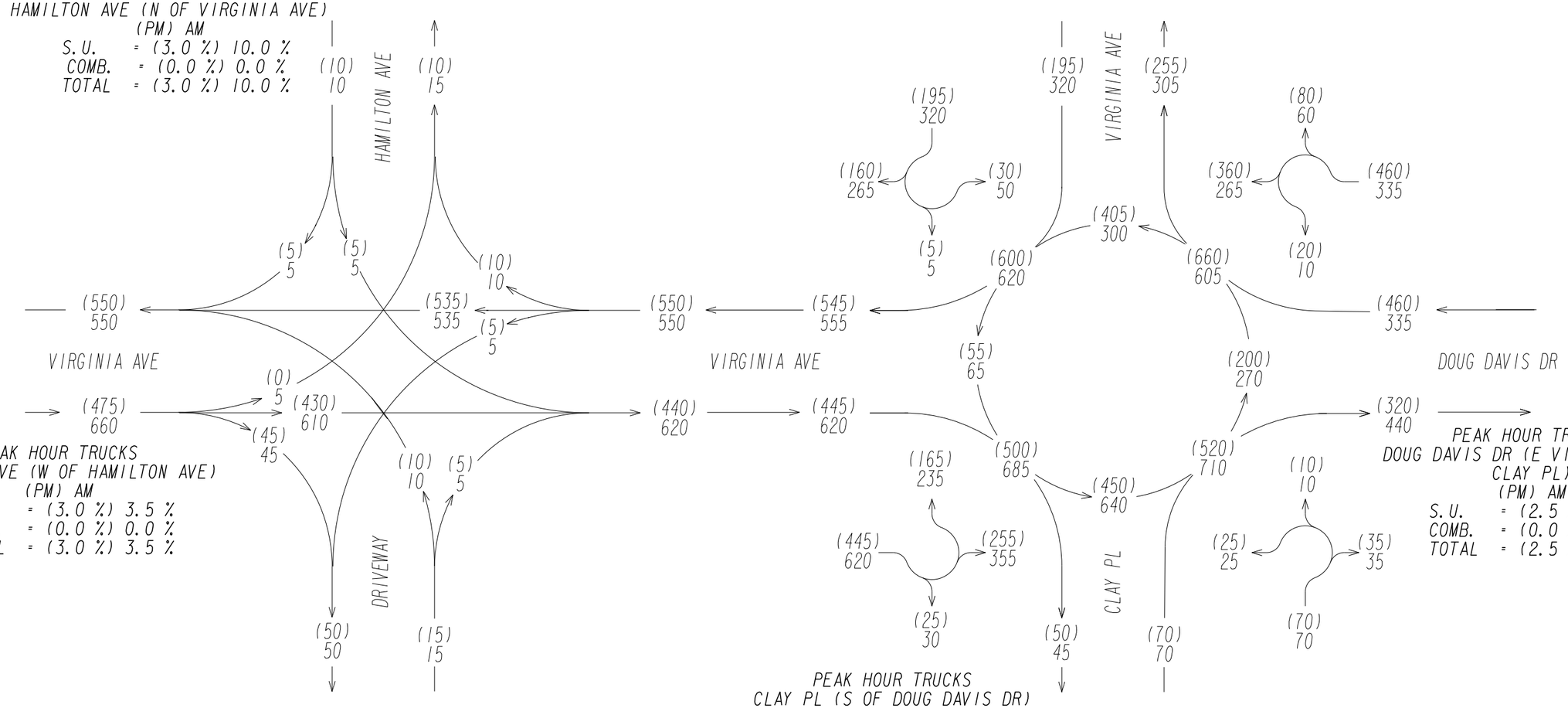
DRAWING No.
01-0013

FULTON COUNTY

N

PEAK HOUR TRUCKS
HAMILTON AVE (N OF VIRGINIA AVE)
(PM) AM
S.U. = (3.0 %) 10.0 %
COMB. = (0.0 %) 0.0 %
TOTAL = (3.0 %) 10.0 %

PEAK HOUR TRUCKS
VIRGINIA AVE (N DOUG DAVIS DR)
(PM) AM
S.U. = (1.5 %) 4.0 %
COMB. = (0.0 %) 0.0 %
TOTAL = (1.5 %) 4.0 %



PEAK HOUR TRUCKS
VIRGINIA AVE (W OF HAMILTON AVE)
(PM) AM
S.U. = (3.0 %) 3.5 %
COMB. = (0.0 %) 0.0 %
TOTAL = (3.0 %) 3.5 %

PEAK HOUR TRUCKS
CLAY PL (S OF DOUG DAVIS DR)
(PM) AM
S.U. = (2.5 %) 3.5 %
COMB. = (0.0 %) 0.0 %
TOTAL = (2.5 %) 3.5 %

PEAK HOUR TRUCKS
DOUG DAVIS DR (E VIRGINIA AVE/ CLAY PL)
(PM) AM
S.U. = (2.5 %) 3.0 %
COMB. = (0.0 %) 0.0 %
TOTAL = (2.5 %) 3.0 %

2043 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

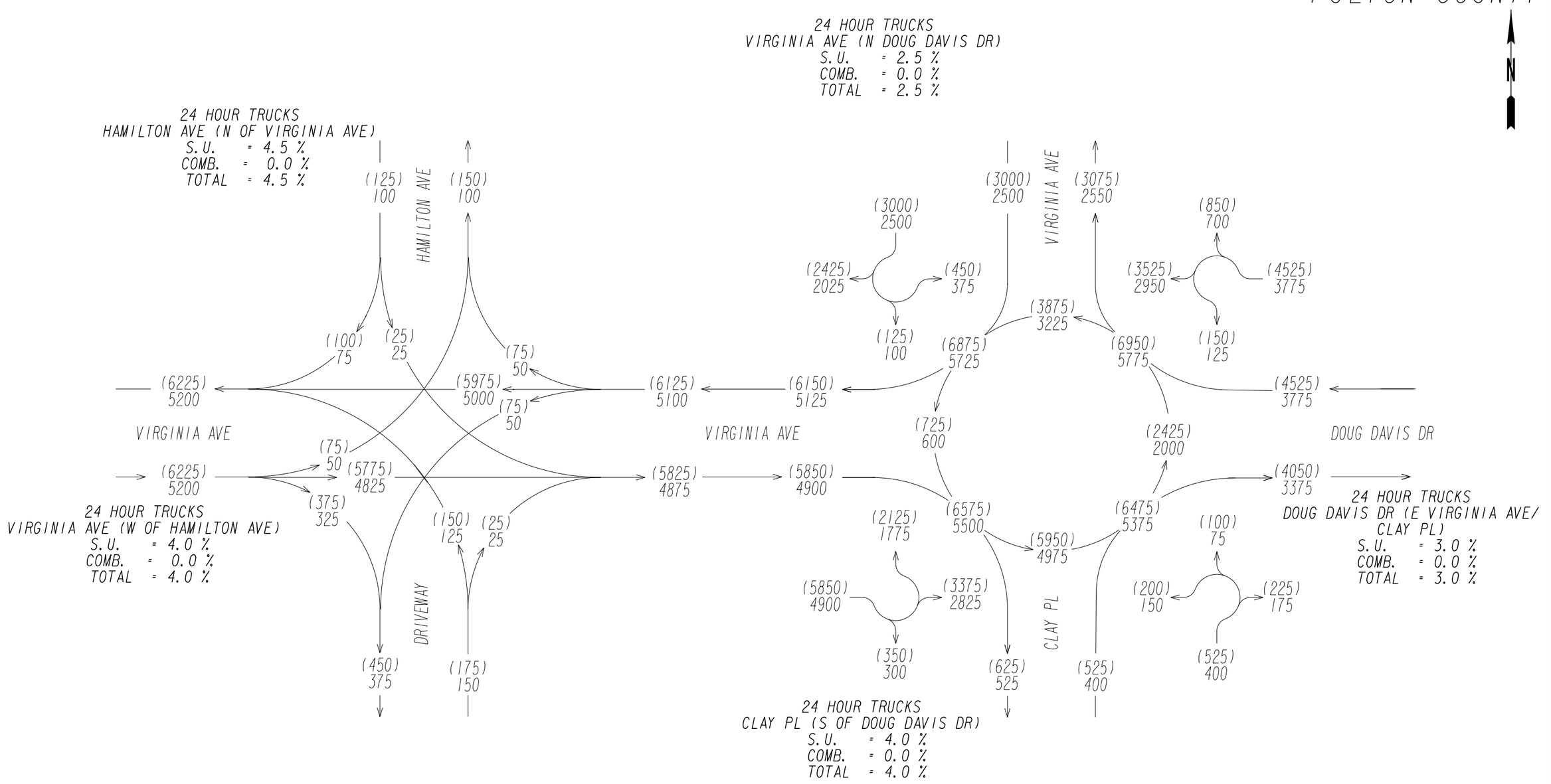
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0014

FULTON COUNTY



(2045) 2025 AADT

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

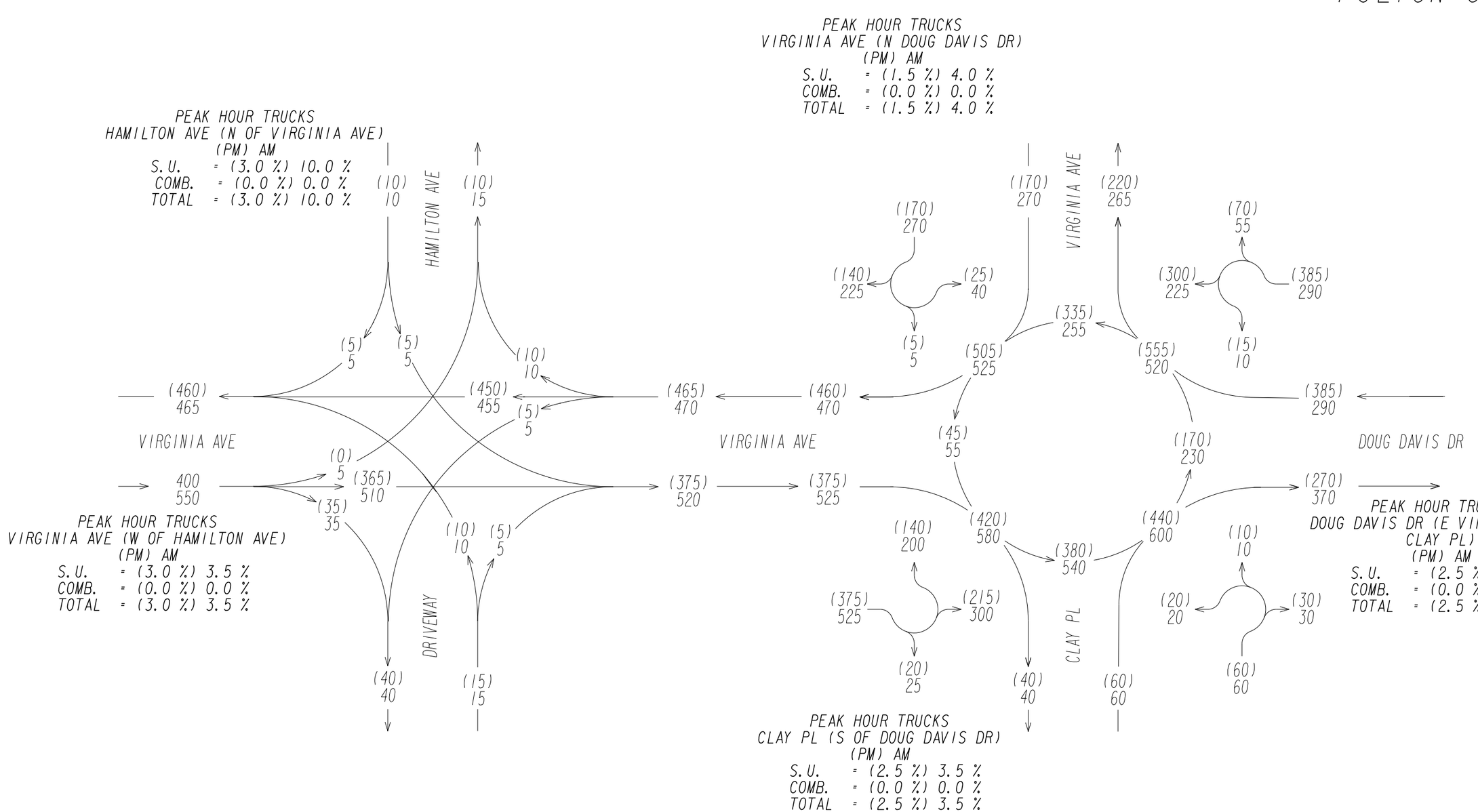
REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0015

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Jekstedt	gplotborder-V8i-P0.tbl		GA			

FULTON COUNTY



2025 DHV
(PM) NOON

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09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

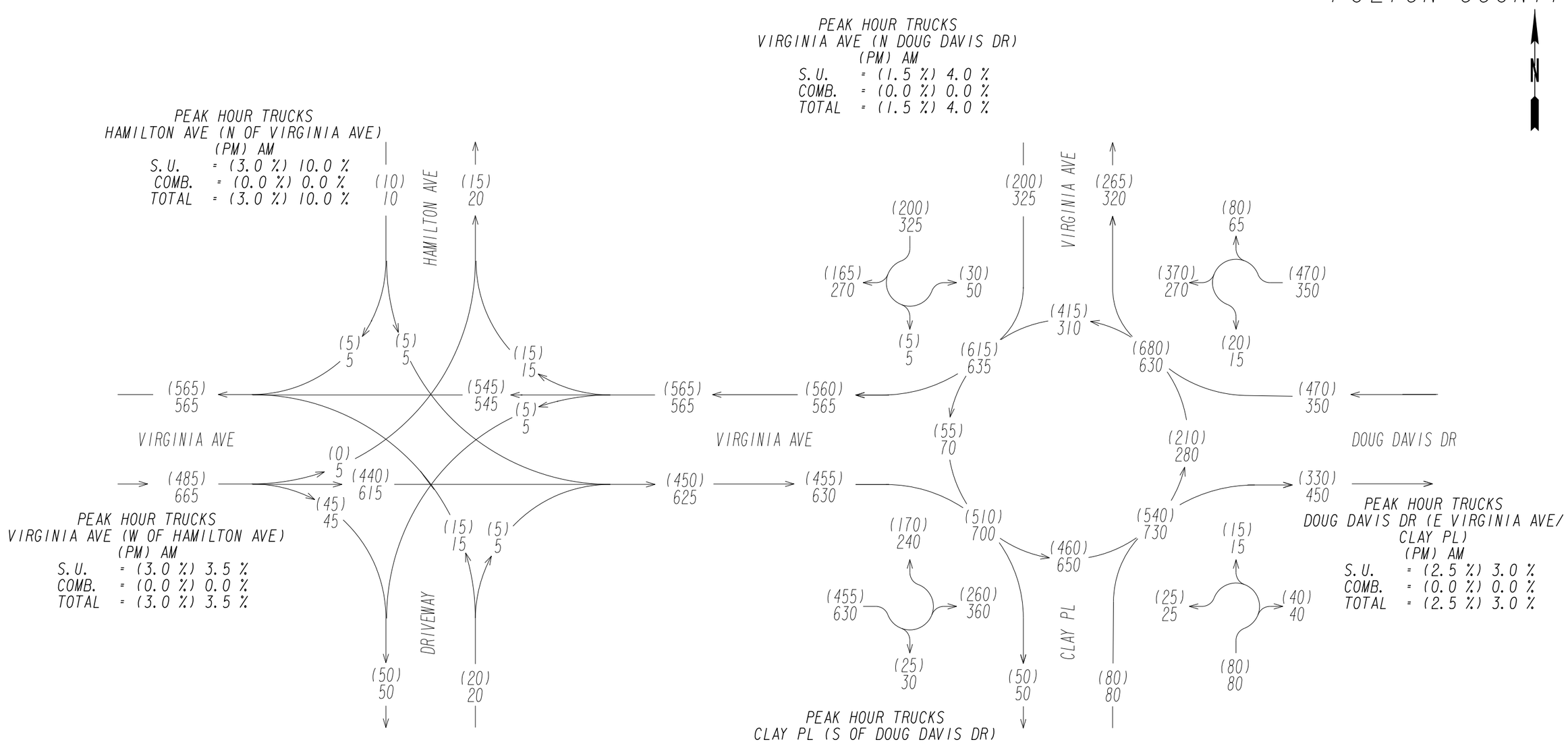
Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0016

FULTON COUNTY



2045 DHV
(PM) NOON

JE
09/2019

PROJECT NUMBER: 171007021
FULTON COUNTY

VIRGINIA AVENUE
ROUNDABOUT FEASABILITY
STUDY

Stantec

REVISION DATES

TRAFFIC DIAGRAM

DRAWING No.
01-0017

A.4 PUBLIC INVOLVEMENT PLAN & PUBLIC COMMENTS

HAPEVILLE ROUNDABOUT
PUBLIC INVOLVEMNT PLAN

OVERVIEW

Given the focused nature of this study, a focused and meaningful community engagement process is proposed. As part of the process, we will work closely with a wide range of stakeholders who are key to implementation, while engaging the community to achieve a supported and implementable study.

To achieve this, stakeholders will be engaged at three levels throughout the process:

1. Project Management Team
2. Advisory Group
3. General Public

Project Management Team (PMT)

The Project Management Team will include the consultant team, the ARC and the City of Hapeville The purpose of this team is to discuss the progress of the plan, brainstorm solutions and strategies to address challenges and needs, and to plan community engagement opportunities at a very high level. This team will meet (in-person or via phone) bi-weekly: Tuesdays, 9:30am, starting June 11

Members of the PMT include:

Adrienne Senter, City of Hapeville
Lynn Patterson, City of Hapeville (B+C Studios)
Rachelle Eyma, City of Hapeville
Mitchell Greenway, Stantec
Stephen Hopper, Stantec
Mike Holt, Stantec
Deanna Murphy, Sizemore Group
Jonathan Tuley, Atlanta Regional Commission

Advisory Group

The Advisory Group will consist of business and property owners, community leaders, ARC, GDOT, MARTA, Aerotropolis Atlanta CIDs, and others who bring knowledge and expertise to the process. The Advisory Group will be engaged in three meetings.

Members of the Advisory Group include: (City has already worked with Mayor and Council on appointees and will send list to team shortly).

**Consider representation from the Hapeville Arts Alliance, Hispanic Community, property and business owners near the roundabout.*

General Public

The General Public will be engaged at key stages throughout the planning process. Methods for reaching out to the larger community include:

Flyer to be created by Sizemore Group and distributed by the City via

- Newsletter
- Facebook
- Email database
- Police Facebook and Twitter
- Direct mailers to business community
- A-Frame signs
- Rec Center
- City Hall and other City buildings
- City website

Critical Public Outreach Dates

June 1: Advisory Group Meeting Invites to be distributed by the City. Sizemore Group can assist with text.

June 20: **Advisory Group Meeting 1: Vision Session**
Location: City Hall
Time: 6pm

June 21: Advisory Group Meeting reminder by the City.

June 26: **Advisory Group Meeting 2: Draft Concepts**
Location: City Hall
Time: 6pm

June 15-20: Community Meeting invites to be distributed (Sizemore Group to develop flyers). City to send via:

- Newsletter
- Facebook
- Email database
- Police Facebook and Twitter
- Direct mailers to business community
- A-Frame signs

- Rec Center
- City Hall and other City buildings
- City website

July 18: Demonstration Project
Location: Roundabout site

July 19: Advisory Group Meeting reminder by the City.

August 1: Advisory Group Meeting 3: Concept Updates and Demonstration Recap
Location: City Hall
Time: 6pm

July 15: Community Meeting 2 invitation distribution (Sizemore Group to develop flyers)

August 6: City Council Presentation: Final Draft Concepts (10 minutes presentation)

August 13: Planning Commission Presentation: Final Draft Concepts

August 15: Community Meeting 2: Final Draft Plan Concepts Presented
Location: Near Roundabout site

August 20: City Council Adoption of Plan (anticipated)

City of Hapeville

Community Meeting
Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place
Roundabout Feasibility Study
August 15, 2019

Please print responses.

Name GLAntz

Address 3041 Gordon Circle
Hapeville, GA 30354

Do you support the project? ☐ *Yes* ☒ *No* ☐ *Conditional* ☐ *Uncommitted*

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

Comments (feel free to use the back of this sheet for additional space)

I do not support this & DO NOT WAnt to pAy for this.

I do not want to damage the existing businesses. This is not right to hurt them, they have been good to the city!

How Are you going to substanite this need For A 'round-A-bout. Why? We can't grow Any more And should try to keep what we AlREADY HAVE!!!

How did you hear about this meeting?

☐ Radio/Television ☐ Newspaper
☐ Signs ☐ Word of Mouth
☒ Email Blast ☐ City Website

Please share your suggestions on improving the way Hapeville conducts public meetings:

continue doing them

Your comments can be submitted by any of the following ways:

1 – Complete this form and place in the drop box.
2 – Complete this form and mail to:
Mr. Mitchell Greenway
Stantec Consulting Services Inc.
229 Peachtree Street NE Suite 1900
Atlanta, GA 30303-1629
3 – Email your comments to mitchell.greenway@stantec.com

City of Hapeville

Community Meeting
Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place
Roundabout Feasibility Study
August 15, 2019

Please print responses.

Name Thomas Moore Johnny's Pizza

Address 834 Virginia Ave

Do you support the project? ☐ *Yes* ☒ *No* ☐ *Conditional* ☐ *Uncommitted*

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

Comments (feel free to use the back of this sheet for additional space)

I am not in favor of this project based on Negative Impact on my business. The potential loss of business during Construction and after Completion of the project could be exponential

How did you hear about this meeting?

☐ Radio/Television ☐ Newspaper
☐ Signs ☐ Word of Mouth
☒ Email Blast ☐ City Website

Please share your suggestions on improving the way Hapeville conducts public meetings:

Your comments can be submitted by any of the following ways:

1 – Complete this form and place in the drop box.
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229 Peachtree Street NE Suite 1900
Atlanta, GA 30303-1629
3 – Email your comments to mitchell.greenway@stantec.com

City of Hapeville

Community Meeting
Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place
Roundabout Feasibility Study
August 15, 2019

Please print responses.

Name Scott Acceon / Johnny's Pizza / Property owner

Address 834 Virginia Ave
Hapeville, GA 30354

Do you support the project? ☐ *Yes* ☒ *No* ☐ *Conditional* ☐ *Uncommitted*

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

Comments (feel free to use the back of this sheet for additional space)

Too much impact on my Property & Business

How did you hear about this meeting?

☐ Radio/Television	☐ Newspaper
☐ Signs	☑ Word of Mouth
☐ Email Blast	☐ City Website

Please share your suggestions on improving the way Hapeville conducts public meetings:

Better information distribution

Your comments can be submitted by any of the following ways:

1 – Complete this form and place in the drop box.
2 – Complete this form and mail to:
Mr. Mitchell Greenway
Stantec Consulting Services Inc.
229 Peachtree Street NE Suite 1900
Atlanta, GA 30303-1629
3 – Email your comments to mitchell.greenway@stantec.com

City of Hapeville

Community Meeting
Virginia Avenue/Little Virginia Avenue/Doug Davis Drive/Clay Place
Roundabout Feasibility Study
August 15, 2019

Please print responses.

Name Cheryl Kelley

Address 3435 HARDING Ave
Hapeville, GA 30354

Do you support the project? ☐ *Yes* ☒ *No* ☐ *Conditional* ☐ *Uncommitted*

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

Comments (feel free to use the back of this sheet for additional space)

I do not see a need for this Roundabout. It will impede the exits onto VA Avenue from my street & Elkins. The Businesses that will be affected that have been loyal businesses, are not worth aggravating or losing. They are obviously opposed to this as ALL PARTICIPANTS at this Meeting.

STOP Lights help the traffic flow in this area. Taking them out makes a constant flow that is not beneficial or needed in this area.

How did you hear about this meeting?

☐ Radio/Television ☐ Newspaper
☐ Signs ☐ Word of Mouth
☒ Email Blast ☐ City Website

Please share your suggestions on improving the way Hapeville conducts public meetings:

BETTER COMMUNICATION OF THE MEETINGS
I got an email 2 days ago from my neighborhood association.

Your comments can be submitted by any of the following ways:

1 – Complete this form and place in the drop box.
2 – Complete this form and mail to:
Mr. Mitchell Greenway
Stantec Consulting Services Inc.
229 Peachtree Street NE Suite 1900
Atlanta, GA 30303-1629
3 – Email your comments to mitchell.greenway@stantec.com

Hapeville
georgia

SUMMARY REPORT ON WAYFINDING SIGNAGE CONCEPTS FOR

CITY OF HAPEVILLE

SEPTEMBER 26, 2019

Stantec

BACKGROUND

The City of Hapeville has been engaged in a process of rebranding concurrent with Stantec's efforts involving the study of pedestrian and vehicular circulation along main corridors of the Hapeville urban core.

As these two processes progressed, the City of Hapeville engaged Stantec to help create a wayfinding concept for each of the four logo iterations that were under review. Part of the wayfinding visioning should include monument signage as well as street identification signage and directional wayfiding.

To this end, Stantec began working through wayfinding design concepts for each of the four logo variations that reflected in color, form, texture and material the unique properties of each of the individual logos.

The logo variation sheet prepared by ETHIC shown on the opposite page reflects the branding chosen by the City of Hapeville. Stantec endeavoured to respond with contextual forms and materials that reinforced the simultaneously classic and contemporary feel of the logo design created by ETHIC.


imagine
Hapeville


Hapeville
georgia


Hapeville
georgia


imagine
Hapeville



MONUMENT SIGNAGE

STREET ID SIGNAGE

VEHICULAR DIRECTIONAL SIGNAGE

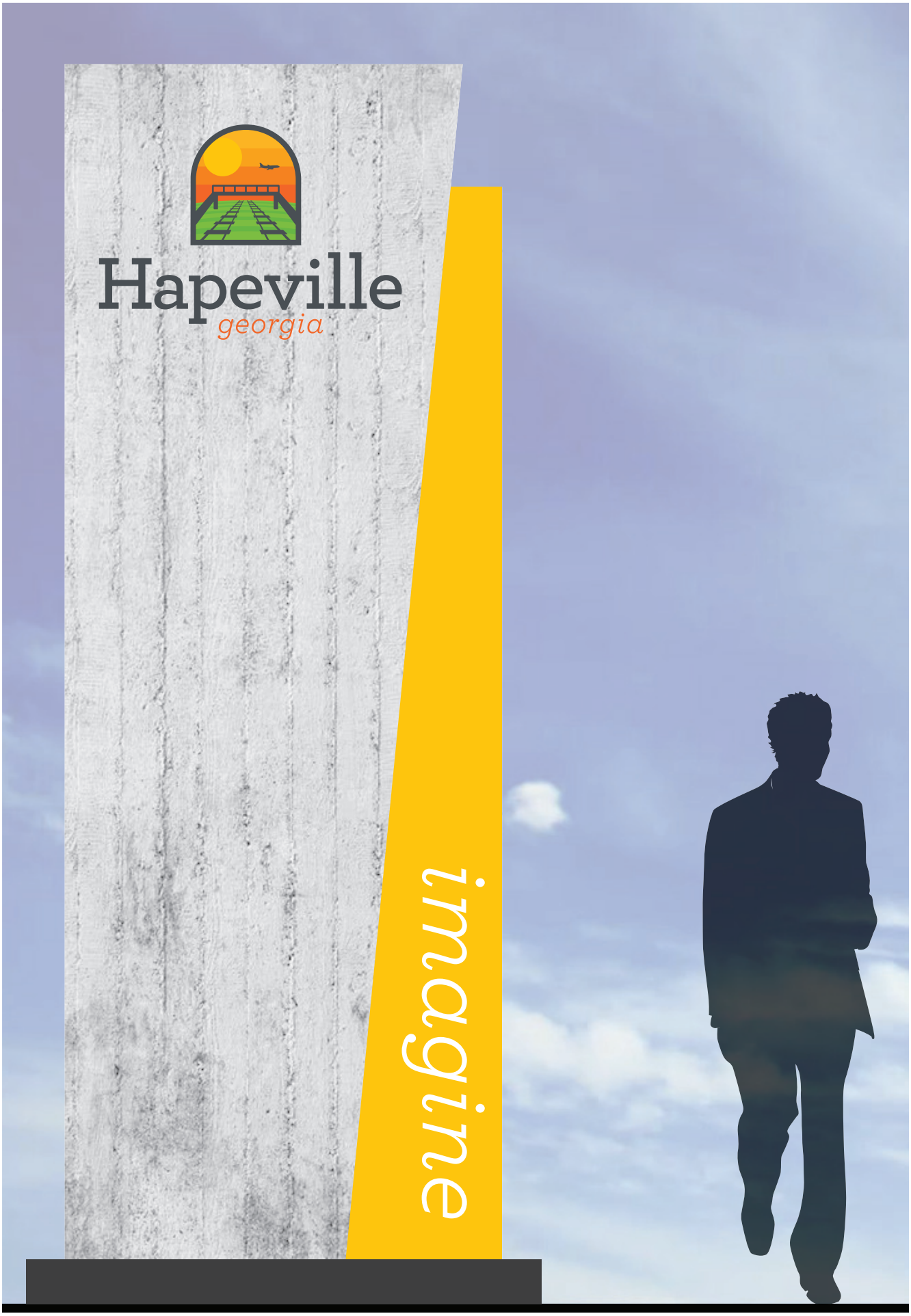
THE MONUMENT SIGN

While specific materials styles and products were not necessarily considered as part of this process, general ideas about texture and color combinations as well as forms and shapes that complemented the logo style were envisioned.

The monument sign has to be grand and give the literal and figurative sense of strength and timelessness.

A textured raw concrete sculptural form contrasted with a solid yellow color field reinforces the classic and contemporary feel of the logo design. It is important in designing the monument signage to provide a conceptual design that engages the strong and active arts community that is prevalent in Hapeville.

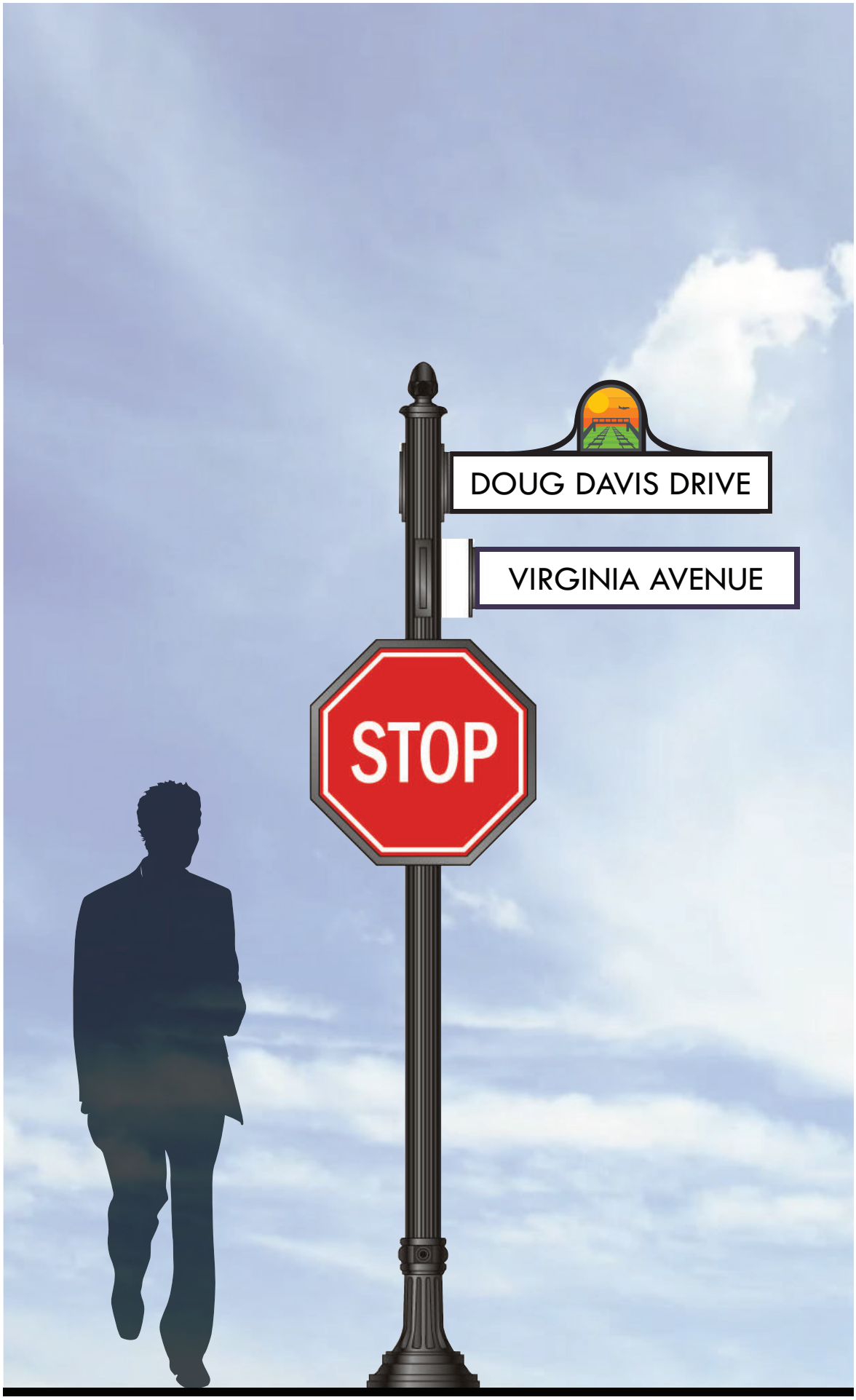
As with many monument signs, this design could be used multifunctionally with kiosk type applications or wayfinding.


Hapeville
georgia
imagine

THE STREET IDENTIFICATION SIGN

The street identification sign design took a slightly more traditional approach in both the sign post material and street signage itself, opting more for clarity and visibility than splashy design. With street identification sign design, it is imperative to satisfy the Manual on Uniform Traffic Control Devices (MUTCD) for color and functionality.

The use of the arch in the logo, however, provided an opportunity to create an architectural element on the street sign while reinforcing the new Hapeville brand.

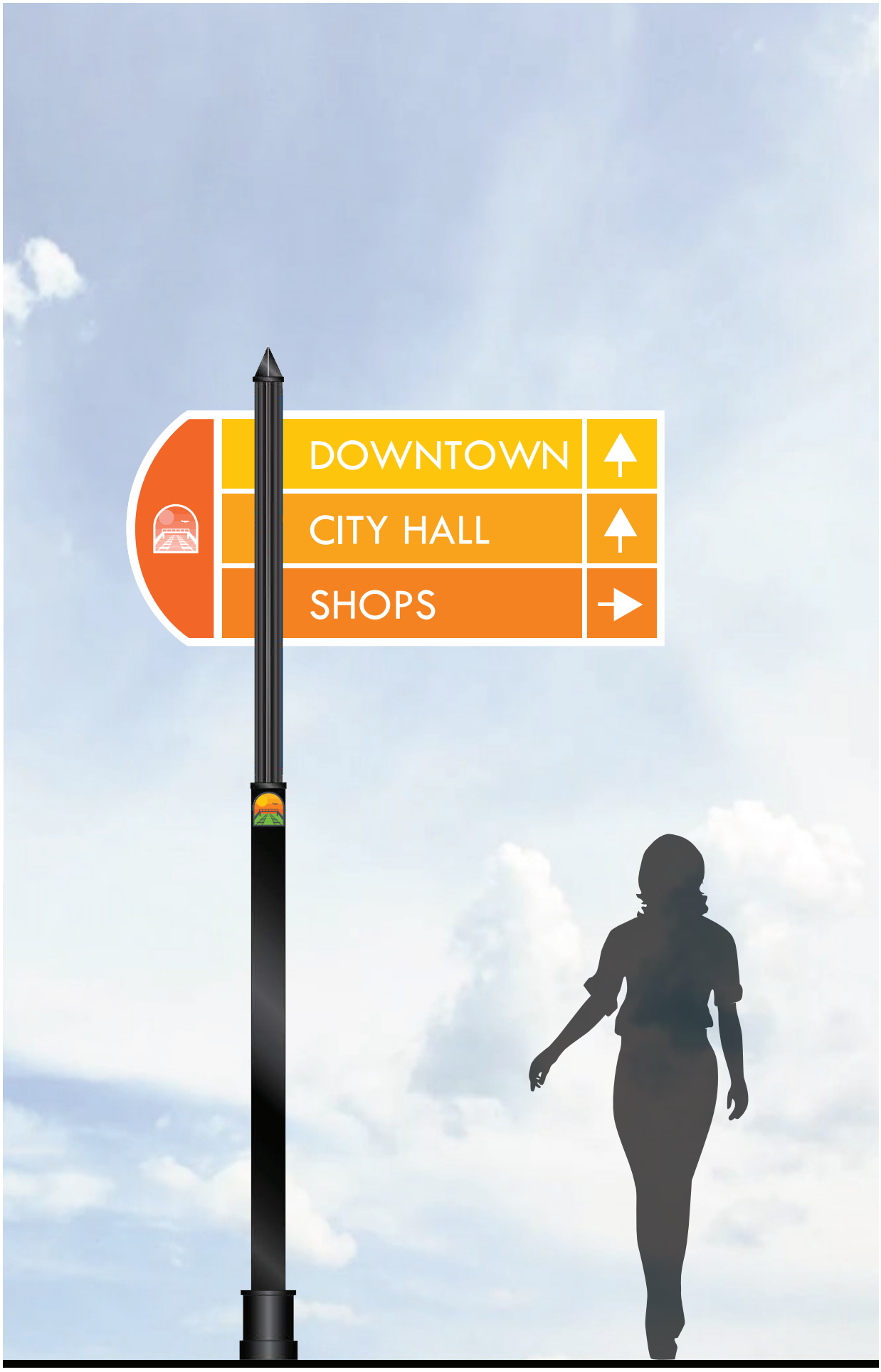

DOUG DAVIS DRIVE
VIRGINIA AVENUE
STOP

DIRECTIONAL WAYFINDING SIGN

The approach for the directional wayfinding sign took a slightly more playful direction. Taking a cue from the graphic sunset in the logo design, Hapeville destinations are separated by the descending colors that make up the logo's background.

The darkest orange anchors the left side of the sign, providing an ample space to apply the brand.

Hoping to achieve both strong legibility as well as create a striking image in the urban landscape the "sunset" color fields satisfy both. Between the bold, strking nature of the monument sign, the restrained classical approach of the street identification signage and the playfulness of the wayfinding signage, we feel the many facets and personalities of Hapeville expressed by the logo design are represented in the wayfining concepts as well.


DOWNTOWN
CITY HALL
SHOPS

PREPARED FOR

Hapeville
georgia

Stantec

STATE OF GEORGIA
CITY OF HAPEVILLE

ORDINANCE NO._____

AN AMENDMENT TO ORDINANCE NO. 2019-01 THAT PRESCRIBED THE SCHEDULING OF REGULAR MEETINGS OF THE MAYOR AND COUNCIL; TO PROVIDE FOR SEVERABILITY; TO REPEAL CONFLICTING ORDINANCES; TO PROVIDE AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

WHEREAS, the mayor and council shall have full power and authority to provide for the execution of all powers, functions, rights, privileges, duties and immunities of the city, its officers, agencies, or employees granted by the City of Hapeville's Charter or by state law; and,

WHEREAS, the municipal government of the City of Hapeville (hereinafter "City") and all powers of the City shall be vested in the mayor and council. The mayor and council shall be the legislative body of the City; and,

WHEREAS, existing ordinances, resolutions, rules and regulations of the City and its agencies now lawfully in effect not inconsistent with the provisions of the City's charter shall remain effective until they have been repealed, modified or amended; and,

WHEREAS, every official act of the mayor and council which is to become law shall be by ordinance; and,

WHEREAS, the Mayor and Council shall fix the date and time of regular meetings of the Mayor and Council by ordinance pursuant to Code of Ordinance Section 2-403; and

NOW, THEREFORE, BE IT, AND IT IS HEREBY ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HAPEVILLE:

SECTION 1. Scheduling of Regular Meetings. At the January 8, 2019 Mayor and Council Meeting, Ordinance No. 2019-01 was adopted scheduling the regular meetings of Mayor and Council. Mayor and Council wish to update and amend the Regular Meeting Dates as follows:

Pursuant to Section 2-403 of the Code of Ordinances, the Mayor and Council hereby announce that they shall meet on a regular basis on the first and third Tuesday of every month at 6:00 p.m. Eastern Time (ET), and continue in session from day to day in their discretion. However, Regular Meetings falling on or after a government holiday, will be cancelled or rescheduled. These Regular Meetings not following on the first or third Tuesday are indicated by an asterisks. The

holiday schedule is attached hereto and incorporated herein as Exhibit "A". The Mayor and Council reserve the right to assemble and conduct official business on that date in the manner prescribed by law.

Regular Meeting Dates

January 8, 2019 *	July 2, 2019
January 22, 2019 *	July 16, 2019
February 5, 2019	July 18-19, 2019 **
February 7, 2019	August 6, 2019
February 19, 2019	August 20, 2019
March 5, 2019	September 17, 2019
March 19, 2019	October 1, 2019
April 2, 2019	October 15, 2019
April 16, 2019	November 5, 2019
May 7, 2019	November 19, 2019
May 21, 2019	December 3, 2019
June 4, 2019	December 17, 2019
June 18, 2019	

The meetings shall take place at 700 Doug Davis Drive, Hapeville, GA 30254. They shall begin at 6:00 p.m. and may be continued or adjourned as necessary. Notwithstanding any designation to the contrary, the Mayor and Council reserve the right to transact business without limitation at such meetings to the extent permitted by applicable law.

**The City Council Retreat will be held on July 18-19, 2019 from 7:00 a.m. to 4:00 p.m. at the Georgia Tech Hotel and Conference Center located at 800 Spring St NW, Atlanta, Georgia 30308.

Section Two. Codification. This Ordinance shall be codified in a manner consistent with the laws of the State of Georgia and the City.

Section Three. Severability.

(a) It is hereby declared to be the intention of the Mayor and Council that all sections, paragraphs, sentences, clauses and phrases of this Ordinance are or were, upon their enactment, believed by the Mayor and Council to be fully valid, enforceable and constitutional.

(b) It is hereby declared to be the intention of the Mayor and Council that, to the greatest extent allowed by law, each and every section, paragraph, sentence, clause or phrase of this Ordinance is severable from every other section, paragraph, sentence, clause or phrase of this Ordinance. It is hereby further declared to be the intention of the Mayor and Council that, to the greatest extent allowed by law, no section, paragraph, sentence, clause or phrase of this Ordinance

is mutually dependent upon any other section, paragraph, sentence, clause or phrase of this Ordinance.

(c) In the event that any phrase, clause, sentence, paragraph or section of this Ordinance shall, for any reason whatsoever, be declared invalid, unconstitutional or otherwise unenforceable by the valid judgment or decree of any court of competent jurisdiction, it is the express intent of the Mayor and Council that such invalidity, unconstitutionality or unenforceability shall, to the greatest extent allowed by law, not render invalid, unconstitutional or otherwise unenforceable any of the remaining phrases, clauses, sentences, paragraphs or sections of the Ordinance and that, to the greatest extent allowed by law, all remaining phrases, clauses, sentences, paragraphs and sections of the Ordinance shall remain valid, constitutional, enforceable, and of full force and effect.

Section Four. Repeal of Conflicting Ordinances. All ordinances and parts of ordinances in conflict herewith are hereby expressly repealed.

Section Five. Effective Date. The effective date of this Ordinance shall be the date of adoption unless otherwise stated herein.

ORDAINED this _____ day of _____, 2019.

CITY OF HAPEVILLE, GEORGIA

_____
Alan Hallman, Mayor

ATTEST:

_____
City Clerk

APPROVED BY:

_____
City Attorney